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 MODIFICATION

TCEQ 10257

Brushy Creek Retail Center

2501 Brushy Creek Road
Cedar Park, TX 78613

Modification of a Previously Approved Contributing Zone Plan Checklist

- **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- **Modification of a Previously Approved Contributing Zone Plan Form (TCEQ-10259)**

  Attachment A - Original Approval Letter and Approved Modification Letters
  Attachment B - Narrative of Proposed Modification
  Attachment C - Current site plan of the approved project

- **Contributing Zone Plan Application (TCEQ-10257)**
- **Storm Water Pollution Prevention Plan (SWPPP)**

  -OR-

- **Temporary Stormwater Section (TCEQ-0602)**
- **Copy of Notice of Intent (NOI)**
- **Agent Authorization Form (TCEQ-0599), if application submitted by agent**
- **Application Fee Form (TCEQ-0574)**
- **Check Payable to the "Texas Commission on Environmental Quality"**
- **Core Data Form (TCEQ-10400)**

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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: The Reserve at Brushy Creek Section 1						**2. Regulated Entity No.: RN106242464**			
3. Customer Name: Al-Sayyed, Inc						**4. Customer No.: CN604082206**			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**			1.64 ACRES
9. Application Fee:	$4500		**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:**			South 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)	__Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer __Hays Trinity __Plum Creek	__Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	__Austin __Buda __Dripping Springs __Kyle __Mountain City __San Marcos __Wimberley __Woodcreek	__Austin __Bee Cave __Pflugerville __Rollingwood __Round Rock __Sunset Valley __West Lake Hills	__Austin __Cedar Park __Florence __Georgetown __Jerrell __Leander __Liberty Hill __Pflugerville __Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	__	__	__	__	__
Region (1 req.)	__	__	__	__	__
County(ies)	__	__	__	__	__
Groundwater Conservation District(s)	__ Edwards Aquifer Authority __Trinity-Glen Rose	__Edwards Aquifer Authority	__Kinney	__EAA __Medina	__EAA __Uvalde
City(ies) Jurisdiction	__Castle Hills __Fair Oaks Ranch __Helotes __Hill Country Village __Hollywood Park __San Antonio (SAWS) __Shavano Park	__Bulverde __Fair Oaks Ranch __Garden Ridge __New Braunfels __Schertz	NA	__San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Mirza Tahir Baig
Print Name of Customer/Authorized Agent
Signature of Customer/Authorized Agent Date **07-05-2024**

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):	

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Modification of a Previously Approved Contributing Zone Plan

(TCEQ 10259)

Modification of a Previously Approved Contributing Zone Plan

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Mirza Tahir Baig

Date: 07-05-2024

Signature of Customer/Agent:

Project Information

1. Current Regulated Entity Name: BRUSHY CREEK RETAIL CENTER
   Original Regulated Entity Name: The Reserve at Brushy Creek Section 1
   Assigned Regulated Entity Number(s) (RN): 106242464
   Edwards Aquifer Protection Program ID Number(s): 11-11100302
   ☐ The applicant has not changed and the Customer Number (CN) is: _____
   ☒ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **Attachment A: Original Approval Letter and Approved Modification Letters**. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):

☒ Any physical or operational modification of any best management practices or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
☐ Any change in the nature or character of the regulated activity from that which was originally approved;
☐ A change that would significantly impact the ability to prevent pollution of the Edwards Aquifer and hydrologically connected surface water; or
☒ Any development of land previously identified in a contributing zone plan as undeveloped.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

CZP Modification Summary	***Approved Project***	***Proposed Modification***
Acres	22.80	1.64
Type of Development	Single Family Homes	General Retail
Number of Residential Lots	42	
Impervious Cover (acres)	41.1	0.92
Impervious Cover (%)		55.91%
Permanent BMPs	Wet Basin	Wet Basin
Other		

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs		
Other		

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs		
Other		

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

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

6. ☒ **Attachment C: Current Site Plan of the Approved Projec**t. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   - ☐ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.
   - ☒ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.
   - ☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.
   - ☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ☒ Acreage has not been added to or removed from the approved plan.
   ☐ Acreage has been added to or removed from the approved plan and is discussed in *Attachment B: Narrative of Proposed Modification*.

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

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ATTACHMENT A

Original Approved Letter and Approved Modification Letters

AFF 2011082013
5 PGS

Deed Recordation Affidavit
Contributing Zone Plan

THE STATE OF TEXAS §

County of ~~Travis~~ Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Will Wilson who, being duly sworn by me, deposes and says: President, Wilson Land Partners Co. the

(1) That my name is W.R. Wilson and that I own the real property described below.

(2) That said real property is subject to an CONTRIBUTING ZONE PLAN which was required under the 30 Texas Administrative Code (TAC) Chapter 213.

(3) That the CONTRIBUTING ZONE PLAN for said real property was approved by the Texas Commission on Environmental Quality (TCEQ) on November 18, 2011.

A copy of the letter of approval from the TCEQ is attached to this affidavit as Exhibit A and is incorporated herein by reference.

(4) The said real property is located in Williamson County, Texas, and the legal description of the property is as follows:

The Reserve at Brushy Creek, Section 1

W. R. Wilson
LANDOWNER-AFFIANT pres. Wilson Land Partners Co.

SWORN AND SUBSCRIBED TO before me, on this 2nd day of December, 2011.

NOTARY PUBLIC

THE STATE OF TEXAS §

County of Travis §

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

GIVEN under my hand and seal of office on this 2 day of December, 2011..

Laurie Stephenson
NOTARY PUBLIC

LAURIE STEPHENSON
Notary Public, State of Texas
My Commission Expires
September 23, 2015

Laurie Stephenson
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: September 23, 2015

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 18, 2011

Mr. Will Wilson, Jr.
Wilson Land & Cattle
9015 Mountain ridge, Suite 140
Austin, Texas 78759

Re: Edwards Aquifer, Williamson County
NAME OF PROJECT: The Reserve at Brushy Creek Section 1, Brushy Creek Road at Breakaway Road, Cedar Park ETJ, Texas
TYPE OF PLAN: Request for Approval for a Contributing Zone Plan (CZP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer
Edwards Aquifer Protection Program File No. 11-11100302

Dear Mr. Wilson:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the CZP application for the above-referenced project submitted to the Austin Regional Office by Hanrahan Pritchard Engineering, Inc. on behalf of Wilson Land & Cattle on October 3, 2011. Final review of the CZP was completed after additional materials were received on October 25, 2011. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) and construction plans were prepared by a Texas licensed professional engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas licensed professional engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed mixed-use site is located on the Edwards Aquifer Contributing Zone. The Section 1 project will include construction of 42 single family homes including associated parking, drives, and utilities. A turn lane will be added on Brushy Creek Road. The proposed project is on a property of 25.2 acres and will disturb an area of approximately 24.9 acres and runoff will be directed to the newly constructed WB. Upon treatment, outflow is into the Brushy Creek watershed. According to the applicant, the site will convey wastewater to the Brushy Creek WWTP.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices, one wet basin will be constructed to treat stormwater runoff. The permanent area is being designed for ultimate impervious cover draining to it onsite 41.1 acres with up to 22.8 acres impervious cover and is designed to serve this and future development on the site.

This project also adds a small entry road treated by vegetated filter strips (VFS). The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project. Engineering calculations and plans sealed by Stephen Jamison, P.E., on October 25, 2011 demonstrate the wet basin is sized appropriately and can accommodate the created load.

SPECIAL CONDITIONS

I. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the Austin Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested format (Deed Recordation Affidavit, TCEQ-0625A) that you may use to deed record the approved CZP is enclosed.

II. All permanent pollution abatement measures shall be operational prior to occupancy of the facility.

III. All sediment and/or media removed from the wet basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

IV. Additional Section(s) would need separate Executive Director approvals before commencing construction.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.

2. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

3. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved CZP and this notice of approval shall be maintained at the project location until all regulated activities are completed.

4. Any modification to the activities described in the referenced CZP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

5. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the Austin Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the name of the approved plan and file number for the regulated activity, the date on which the regulated activity will commence, and the name of the prime contractor with the name and telephone number of the contact person.

6. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved Storm Water Pollution Prevention Plan (SWPPP) must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.

<u>During Construction</u>:

7. During the course of regulated activities related to this project, the applicant or his agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.

8. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been significantly reduced. 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).

9. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.

10. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

11. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

12. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment.

After Completion of Construction:

13. Owners of permanent BMPs and measures must insure that the 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 Austin Regional Office within 30 days of site completion.

14. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved CZP. If the new owner intends to commence any new regulated activity on the site, a new CZP that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

15. A CZP approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new CZP must be submitted to the Austin Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

16. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

If you have any questions or require additional information, please contact Kevin Lee Smith, P.E. of the Edwards Aquifer Protection Program of the Austin Regional Office at 512-339-2929.

Sincerely,

Mark R. Vickery, P.G.
Executive Director
Texas Commission on Environmental Quality

MRV/kls

cc: The Honorable Dan A. Gattis, County Judge, Williamson County
Mr. Sam Roberts, P.E., Assistant City Manager, City of Cedar Park
Mr. Stephen Jamison, P.E., Hanrahan Pritchard Engineering, Inc., Austin
TCEQ Central Records, Building F, MC 212

(1) Hanrahan Pritchard Engineering Inc
8333 Cross Park Dr
Austin. Tx 78754

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ATTACHMENT B

Narrative of Proposed Modification

PROFESSIONAL STRUCIVIL ENGINEERS, INC.
STRUCTURAL CIVIL ENVIRONMENTAL
12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
512.238.6422 FAX 512.258.8095 PSCE@PSCEINC.COM

Attachment B – Narrative of Proposed Modification

Area of the site: The Brushy Creek Retail Center is located at the 2501 Brushy Creek Road, Cedar Park, Texas 78613. There is existing driveway access located along Brushy Creek Road. The site will be constructed on a 1.64 acre lot. The area included within the limits of construction for this project will be 1.76 acres. The proposed development will consist of a general retail/grocery store with its associated parking lot and driving aisle. Impervious Cover: The site has an existing impervious cover of 1,491.18 sf (0.03 acres) of the oin access driveway. The proposed and existing development will be of 39,948.65 sf (0.92 acres) impervious cover with a 9,295.87 sf General Retail Building. The total impervious cover is 55.91% for this development. Background The Reserve at Brushy Creek Subdivision is a 41.1 Acres mixed use development approved by TCEQQ on November 18, 2011 with a planned 22.80 Acres of impervious cover, including the future Brushy Creek Retail Center. As per subdivision construction plan sheet 14, drainage basin B-15, the allowable impervious cover is 71.2% and the proposed impervious cover for this development is 55.91%.

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ATTACHMENT C

Current site plan of the approved project

ALTA / NSPS SURVEY

RESTRICTIONS

SUBJECT TO RESTRICTIONS RECORDED IN DOC. NO. 2017045982, 2017091962; AND AS STATED ON THE PLATS RECORDED IN DOC. NO. 2012028430, 2017020301.

SUBJECT TO EASEMENTS AND BUILDING SETBACK LINES AS STATED ON THE PLATS RECORDED IN DOC. NO. 2012028430 & 2017020301. (ITEM 10-G THRU 10-J) (SHOWN)

SUBJECT TO JOINT ACCESS EASEMENT AS STATED ON THE PLAT RECORDED IN DOC. NO. 2017020301. (ITEM 10-K) (SHOWN)

EASEMENTS RECORDED IN VOL. 235, PG. 84. (ITEM 10-L) (BLANKET-TYPE) (DOES NOT AFFECT)

SUBJECT TO EASEMENTS RECORDED IN VOL. 427, PG. 225. (ITEM 10-M) (UNABLE TO LOCATE)

SUBJECT TO EASEMENT AGREEMENT RECORDED IN VOL. 2073, PG. 641. (ITEM 10-N) (UNABLE TO LOCATE)

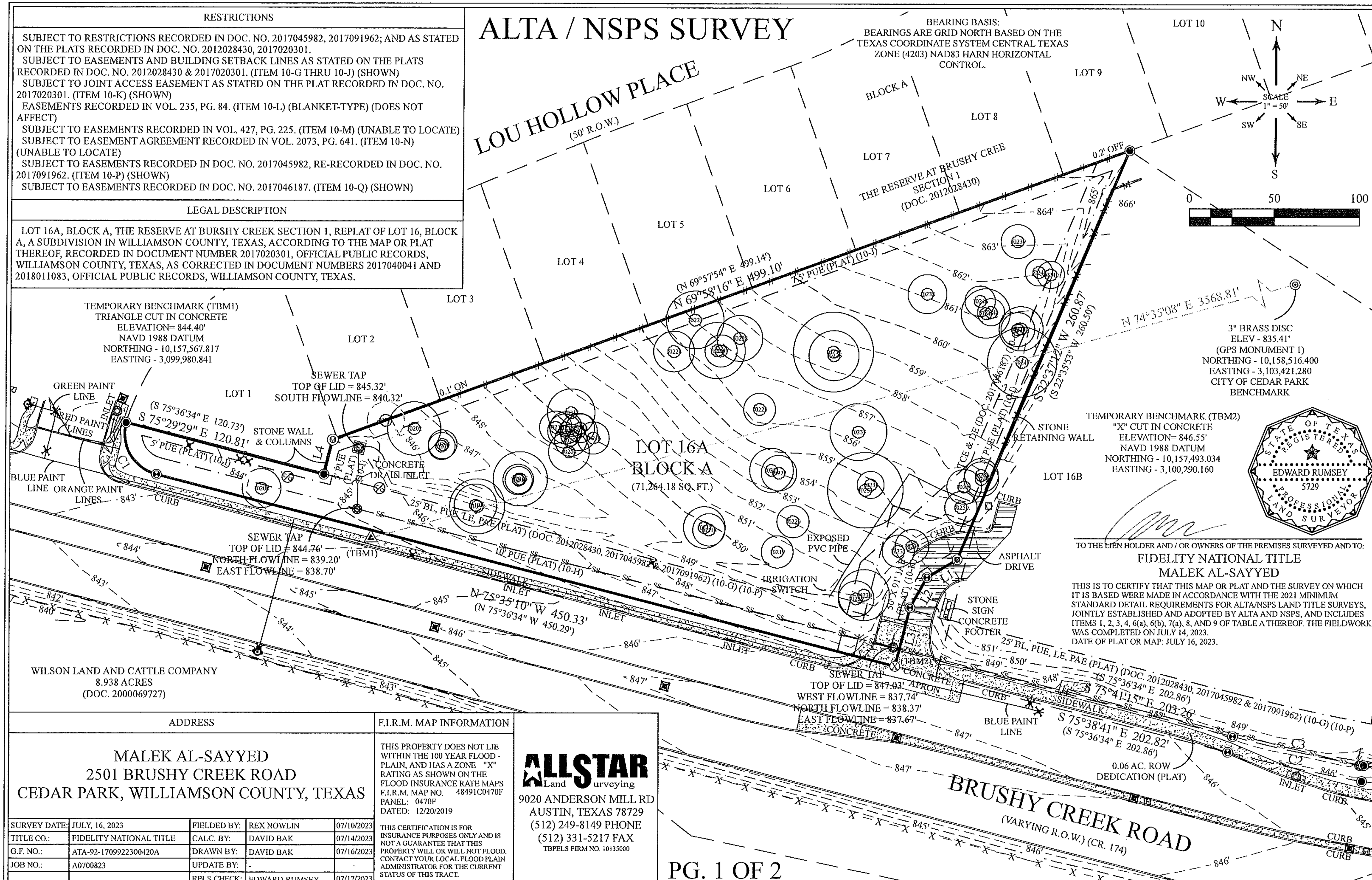
SUBJECT TO EASEMENTS RECORDED IN DOC. NO. 2017045982, RE-RECORDED IN DOC. NO. 2017091962. (ITEM 10-P) (SHOWN)

SUBJECT TO EASEMENTS RECORDED IN DOC. NO. 2017046187. (ITEM 10-Q) (SHOWN)

LEGAL DESCRIPTION

LOT 16A, BLOCK A, THE RESERVE AT BURSHY CREEK SECTION 1, REPLAT OF LOT 16, BLOCK A, A SUBDIVISION IN WILLIAMSON COUNTY, TEXAS, ACCORDING TO THE MAP OR PLAT THEREOF, RECORDED IN DOCUMENT NUMBER 2017020301, OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS, AS CORRECTED IN DOCUMENT NUMBERS 2017040041 AND 2018011083, OFFICIAL PUBLIC RECORDS, WILLIAMSON COUNTY, TEXAS.

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



TO THE LIEN HOLDER AND / OR OWNERS OF THE PREMISES SURVEYED AND TO:

FIDELITY NATIONAL TITLE
MALEK AL-SAYYED

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 6(a), 6(b), 7(a), 8, AND 9 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON JULY 14, 2023.
DATE OF PLAT OR MAP: JULY 16, 2023.

STATE OF TEXAS
REGISTERED
EDWARD RUMSEY
5729
PROFESSIONAL LAND SURVEYOR

[illegible]

ADDRESS

MALEK AL-SAYYED
2501 BRUSHY CREEK ROAD
CEDAR PARK, WILLIAMSON COUNTY, TEXAS

SURVEY DATE:	JULY, 16, 2023	FIELDED BY:	REX NOWLIN	07/10/2023
TITLE CO.:	FIDELITY NATIONAL TITLE	CALC. BY:	DAVID BAK	07/14/2023
G.F. NO.:	ATA-92-1709922300420A	DRAWN BY:	DAVID BAK	07/16/2023
JOB NO.:	A0700823	UPDATE BY:	-	-
		RPLS CHECK:	EDWARD RUMSEY	07/17/2023

F.I.R.M. MAP INFORMATION

THIS PROPERTY DOES NOT LIE WITHIN THE 100 YEAR FLOOD - PLAIN, AND HAS A ZONE "X" RATING AS SHOWN ON THE FLOOD INSURANCE RATE MAPS
F.I.R.M. MAP NO. 48491C0470F
PANEL: 0470F
DATED: 12/20/2019

THIS CERTIFICATION IS FOR INSURANCE PURPOSES ONLY AND IS NOT A GUARANTEE THAT THIS PROPERTY WILL OR WILL NOT FLOOD. CONTACT YOUR LOCAL FLOOD PLAIN ADMINISTRATOR FOR THE CURRENT STATUS OF THIS TRACT.

ALLSTAR Land Surveying
9020 ANDERSON MILL RD
AUSTIN, TEXAS 78729
(512) 249-8149 PHONE
(512) 331-5217 FAX
TBPELS FIRM NO. 10135000

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: 07/05/2024

Signature of Customer/Agent:

Regulated Entity Name: THE RESERVE AT BRUSHY CREEK SECTION 1

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: Malek Al Sayeed
   Entity: Al Sayeed INC
   Mailing Address: 2402 Lake Austin BLVD,
   City, State: Texas Zip: 78703
   Telephone: 512 694 2223 Fax:
   Email Address: malek694@gmail.com

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.

_____

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): 1.64 Acres

Total disturbed area: 1.64 Acres

14. Estimated projected population: 20

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

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	*Sq. Ft.*	*Sq. Ft./Acre*	*Acres*
Structures/Rooftops	9,295.87	÷ 43,560 =	0.21
Parking	27,884.19	÷ 43,560 =	0.64
Other paved surfaces	2,768.59	÷ 43,560 =	0.063
Total Impervious Cover	39,948.65	÷ 43,560 =	0.92

Total Impervious Cover 0.92 **÷ Total Acreage** 1.64 **X 100 =** 55.91 **% 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 x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

21. Pavement Area:

Length of pavement area: _____ feet.
Width of pavement area: _____ feet.
L x W = _____Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

☒ N/A

26. Wastewater will be disposed of by:

☐ On-Site Sewage Facility (OSSF/Septic 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 Cedar Park WW (name) Treatment Plant. The treatment facility is:

☒ Existing.
☐ Proposed.

☐ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

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

☒N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

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

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

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" = 30' '.

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

Road Map

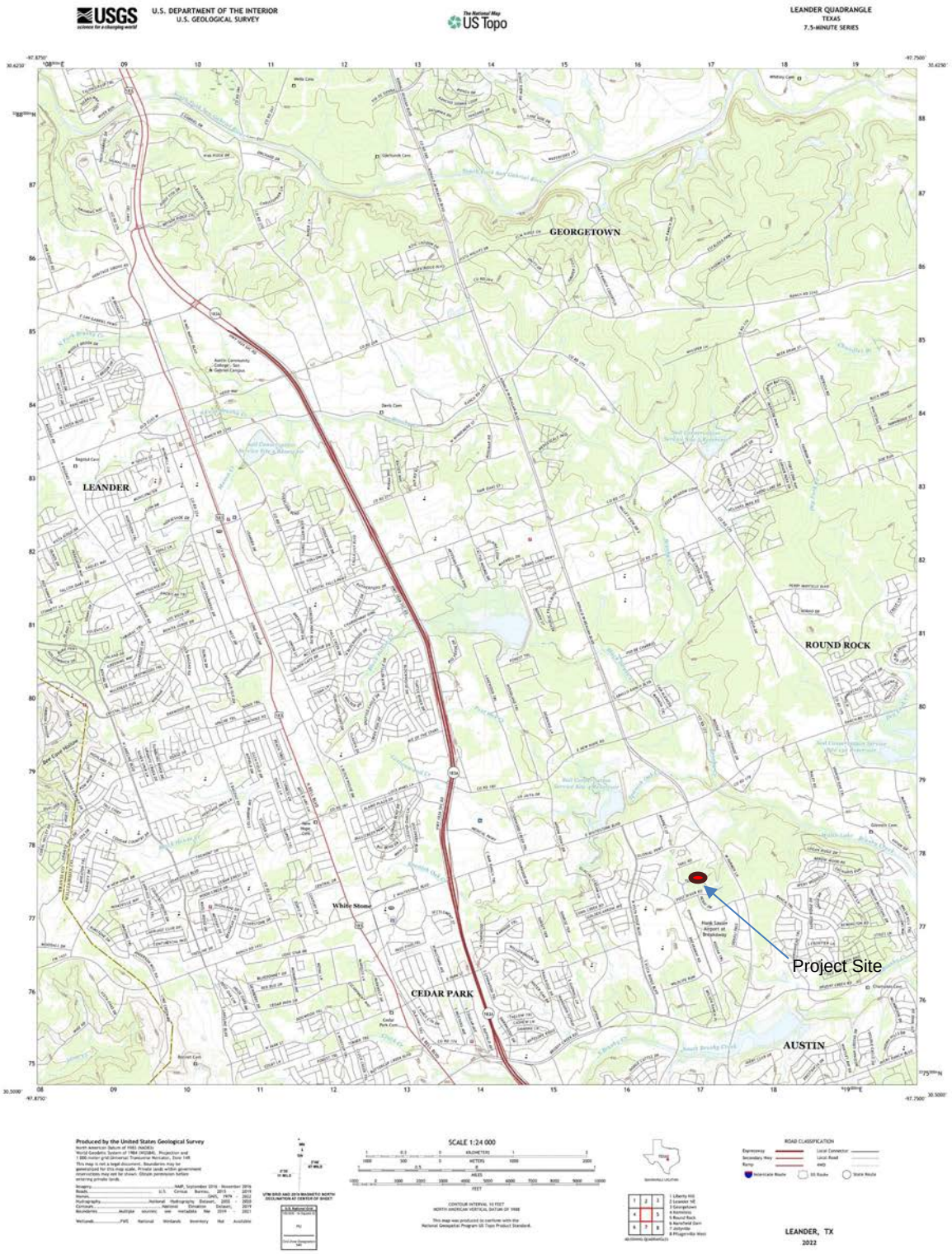
PROFESSIONAL STRUCIVIL ENGINEERS, INC.

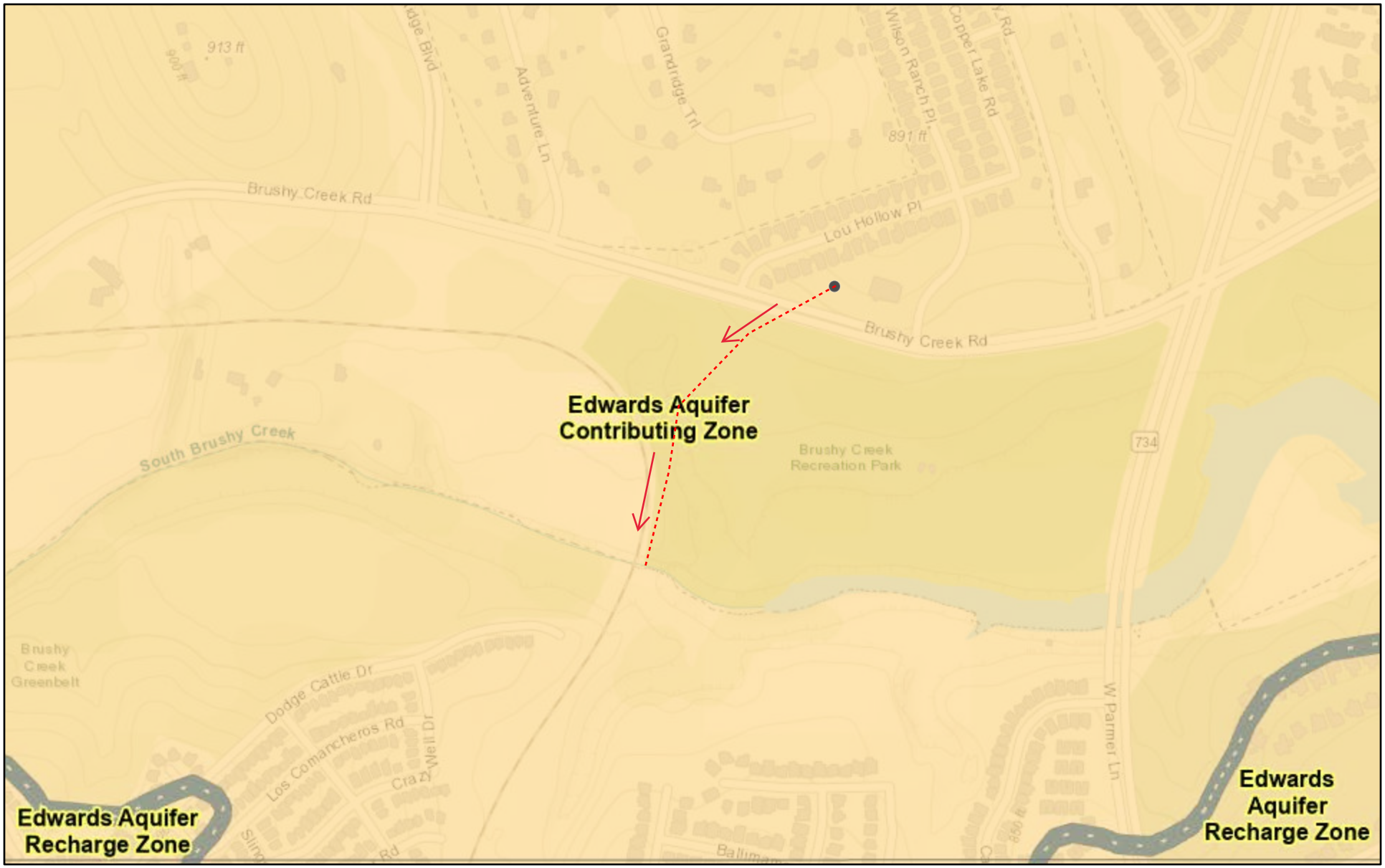
STRUCTURAL CIVIL TRANSPORTATION

2205 WEST PARMER LANE, SUITE #201, AUSTIN, TEXAS 78727

512.238.6422 PSCE@PSCEINC.COM REGISTERED FIRM F-4951

USGS Quadrangle Map





7/2/2024, 10:54:24 AM

1:9,028

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Edwards Aquifer Label

Edwards Aquifer Boundary

Edwards Aquifer Boundary central line

City/Place

TX Counties

7.5 Minute Quad Grid

TCEQ_EDWARDS_OFFICIAL_MAPS

Austin Community College, City of Austin, County of Williamson, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/

Web AppBuilder for ArcGIS

PROFESSIONAL STRUCIVIL ENGINEERS, INC.
STRUCTURAL CIVIL ENVIRONMENTAL
12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
512.238.6422 FAX 512.258.8095 PSCE@PSCEINC.COM

Attachment C – Project Narrative

The proposed development known as Brushy Creek Retail Center, located at 2501 Brushy Creek Rd., Cedar Park, Texas 78613 will be constructed on a 1.64-acre lot. The area included within the limits of construction for this project will be 1.76 acres. The proposed development will consist of a General Retail Building/ Grocery Store (9,295.87sf) with parking lot improvements.

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 outside the Edwards Aquifer Recharge Zone. Impervious Cover on this property shall not exceed the limits outlined in Unified Development Code.

ACCESS:

Access to the subject property will be provided along Brushy Creek Road.

WATER QUALITY:

No Water Quality Pond is required for the proposed development.

WATER AND WASTEWATER:

The City of Cedar Park 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 Cedar Park 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. This project lies outside the Edwards Aquifer Recharge Zone.

DRAINAGE/DETENTION:

On-Site Detention Pond for the proposed impervious cover had been previously provided by subdivision plans (The Reserve at Brushy Creek Section 1).

PROFESSIONAL STRUCIVIL ENGINEERS, INC.
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12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
512.238.6422 FAX 512.258.8095 PSCE@PSCEINC.COM

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 Brushy Creek 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

Attachment N - Inspection, Maintenance Repair, and Retrofit Plan

Inspection Log					
Date of Inspection	**Inspector**	**Deficiency Discovered?**	**Repair (R) , Maintenance (M), Retrofit (RF) required?**	**Correction Action Taken**	**Date of Resolution of Deficiency**

Signature of owner/responsible party:

Signature: _____ Date: _____

Print: _____

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

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: 07/05/2024

Signature of Customer/Agent:

Regulated Entity Name: THE RESERVE AT BRUSHY CREEK SECTION 1

Project Information

Potential Sources of Contamination

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

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

   ☐ 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: Brushy Creek/Turkey Creek

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

    ☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

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

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

PROFESSIONAL STRUCIVIL ENGINEERS, INC.
STRUCTURAL CIVIL ENVIRONMENTAL
12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
512.238.6422 FAX 512.258.8095 PSCE@PSCEINC.COM

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. It 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.

PROFESSIONAL STRUCIVIL ENGINEERS, INC.
STRUCTURAL CIVIL ENVIRONMENTAL
12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
512.238.6422 FAX 512.258.8095 PSCE@PSCEINC.COM

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.

PROFESSIONAL STRUCIVIL ENGINEERS, INC.
STRUCTURAL CIVIL ENVIRONMENTAL
12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
512.238.6422 FAX 512.258.8095 PSCE@PSCEINC.COM

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

PROFESSIONAL STRUCIVIL ENGINEERS, INC.
STRUCTURAL CIVIL ENVIRONMENTAL
12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
512.238.6422 FAX 512.258.8095 PSCE@PSCEINC.COM

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.

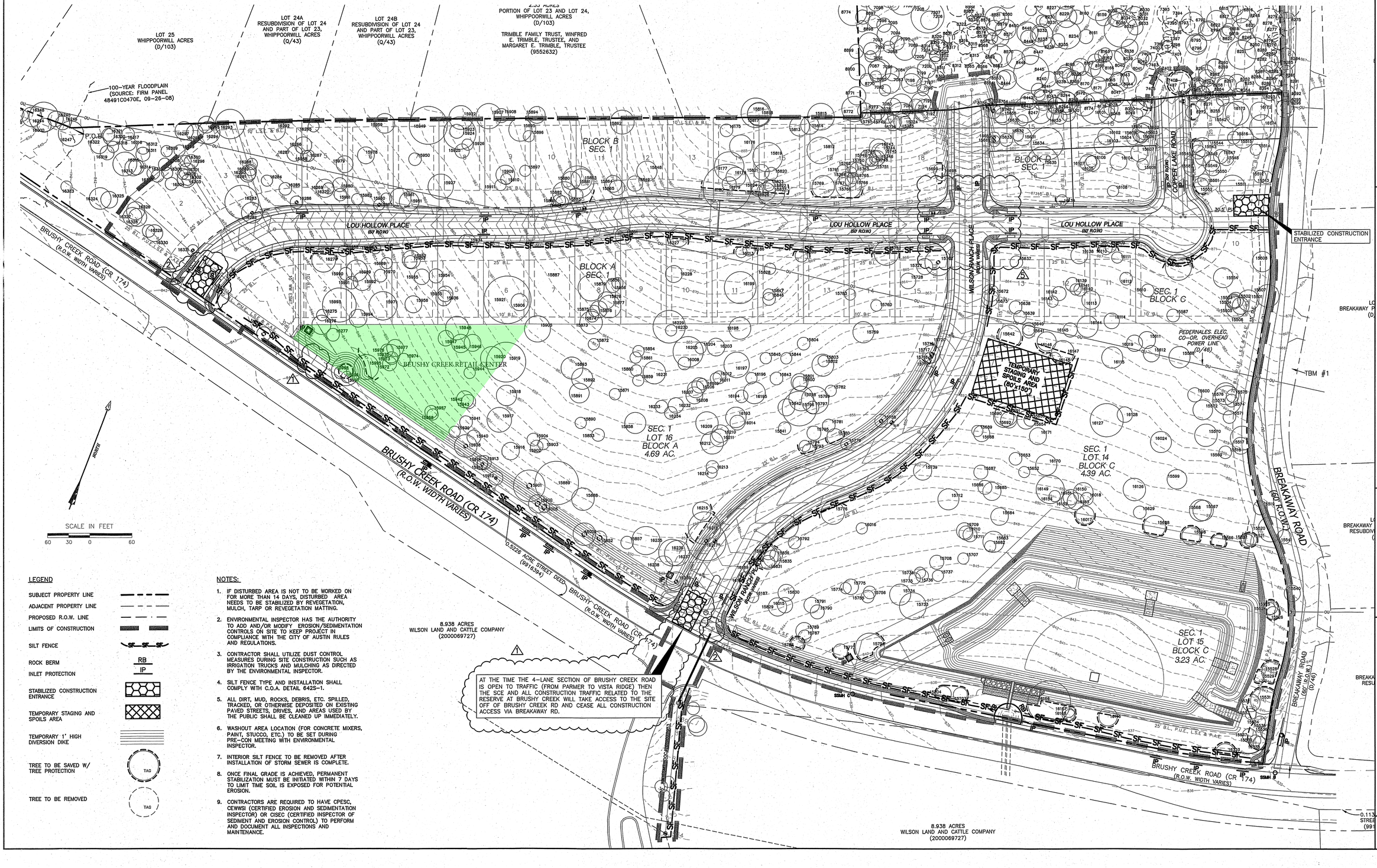
Attachment F - Structural Practices

- 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.

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

ATTACHMENT G

Drainage Area Map



LEGEND

- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- PROPOSED R.O.W. LINE
- LIMITS OF CONSTRUCTION
- SILT FENCE (SF)
- ROCK BERM (RB)
- INLET PROTECTION (IP)
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY STAGING AND SPOILS AREA
- TEMPORARY 1' HIGH DIVERSION DIKE
- TREE TO BE SAVED W/ TREE PROTECTION (TAG)
- TREE TO BE REMOVED (TAG)

NOTES:

1. 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.
2. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS.
3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
4. SILT FENCE TYPE AND INSTALLATION SHALL COMPLY WITH C.O.A. DETAIL 6425-1.
5. ALL DIRT, MUD, ROCKS, DEBRIS, ETC. SPILLED, TRACKED, OR OTHERWISE DEPOSITED ON EXISTING PAVED STREETS, DRIVES, AND AREAS USED BY THE PUBLIC SHALL BE CLEANED UP IMMEDIATELY.
6. WASHOUT AREA LOCATION (FOR CONCRETE MIXERS, PAINT, STUCCO, ETC.) TO BE SET DURING PRE-CON MEETING WITH ENVIRONMENTAL INSPECTOR.
7. INTERIOR SILT FENCE TO BE REMOVED AFTER INSTALLATION OF STORM SEWER IS COMPLETE.
8. ONCE FINAL GRADE IS ACHIEVED, PERMANENT STABILIZATION MUST BE INITIATED WITHIN 7 DAYS TO LIMIT TIME SOIL IS EXPOSED FOR POTENTIAL EROSION.
9. CONTRACTORS ARE REQUIRED TO HAVE CPESC, CEWWSI (CERTIFIED EROSION AND SEDIMENTATION INSPECTOR) OR CISEC (CERTIFIED INSPECTOR OF SEDIMENT AND EROSION CONTROL) TO PERFORM AND DOCUMENT ALL INSPECTIONS AND MAINTENANCE.

HANRAHAN • PRITCHARD ENGINEERING, INC.
CONSULTING ENGINEERS
(TX. PE FIRM REG. #416)
8333 Cross Park Drive
AUSTIN, TEXAS 78754
OFFICE: 512.459.4734 FAX: 512.459.4752
hpi@hp-eng.com

THE RESERVE AT BRUSHY CREEK SECTION 1
SUBDIVISION IMPROVEMENTS
EROSION/SEDIMENTATION CONTROL AND TREE PROTECTION PLAN
CEDAR PARK, TEXAS 78613

The seal appearing on this document was authorized by Stephen Ray Jamison on 7/9/2012

STATE OF TEXAS
STEPHEN RAY JAMISON
86951
LICENSED PROFESSIONAL ENGINEER

File: Projects/ BRUSHY CREEK/EROSION
Job No. 211-05
Scale (Hor.): 1"=60'
Date: 10/24/11
Snapshot: EROSION
Scale (Vert.): N/A
Checked By: SRJ
Drawn By: MM

Revision 1: RELOCATED SCE TO BRUSHY CREEK; REVISED SIDEWALK/RAMPS; REVISED WTR & WW LAYOUT
Revision 2: ADDED SCE TO BRUSHY CREEK; REVISED WTR & WW LAYOUT
Revision 3: 5: REVISED SIDEWALK/RAMPS
Revision #: 6:

SHEET
07 of 46

*SEE SHEET 15 AND THE ENGINEER'S REPORT FOR ALL DRAINAGE CALCULATIONS.

HANRAHAN • PRITCHARD ENGINEERING, INC.
CONSULTING ENGINEERS
(TX. FE FIRM REG. #418)
8333 Cross Park Drive
AUSTIN, TEXAS 78754
OFFICE 512.459.4734 FAX: 512.459.4752
info@hp-eng.com
HPE

THE RESERVE AT BRUSHY CREEK SECTION 1
SUBDIVISION IMPROVEMENTS
EXISTING DRAINAGE CONDITIONS
CEDAR PARK, TEXAS 78613

The seal appearing on this document was authorized by Stephen Ray Jamison on 11/4, 2011

STATE OF TEXAS
STEPHEN RAY JAMISON
86951
LICENSED PROFESSIONAL ENGINEER

File: Projects/ BRUSHY CREEK/DRAINAGE	
Job No. 211-05	Snapshot: DRAIN
Scale (Hor.): 1"=100'	Scale (Vert.): N/A
Date: 10/18/11	Checked By: SRJ Drawn By: SB
Revision 1:	
Revision 2:	
Revision 3:	
Revision 4:	

BASIN A-1									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.59	0.66	0.70	0.78	0.24	10,563.00	38.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.38	16,622.00	61.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.1	3.5	4.4	6.1	0.62	27,185.00	100.0%					

BASIN A-2									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.65	0.72	0.77	0.85	0.03	1,518.00	24.5%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.11	4,687.00	75.5%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.5	0.9	1.1	1.5	0.14	6,205.00	100.0%					

BASIN A-3									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.64	0.69	0.77	0.32	13,919.00	41.2%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.46	19,838.00	58.8%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.6	4.2	5.4	7.4	0.77	33,757.00	100.0%					

BASIN A-4									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.60	0.66	0.71	0.79	0.04	1,551.00	36.7%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.06	2,673.00	63.3%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.3	0.6	0.7	1.0	0.10	4,224.00	100.0%					

BASIN A-5									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.65	0.70	0.78	0.03	1,495.00	39.4%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.05	2,296.00	60.6%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.3	0.5	0.6	0.9	0.09	3,791.00	100.0%					

BASIN A-6									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.56	0.63	0.67	0.75	0.84	36,579.00	45.0%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	1.03	44,707.00	55.0%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	6.0	10.1	12.7	17.6	1.87	81,286.00	100.0%					

BASIN A-7a									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.57	0.64	0.68	0.76	0.34	14,962.00	42.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.46	19,918.00	57.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.6	4.4	5.5	7.6	0.80	34,880.00	100.0%					

BASIN A-7b									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.57	0.64	0.68	0.76	0.34	14,869.00	43.0%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.45	19,742.00	57.0%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.6	4.3	5.4	7.5	0.79	34,611.00	100.0%					

BASIN A-8a									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.65	0.72	0.77	0.86	0.02	815.00	23.8%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.06	2,610.00	76.2%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.3	0.5	0.6	0.9	0.08	3,425.00	100.0%					

BASIN A-8b									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.65	0.72	0.77	0.86	0.03	1,342.00	23.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.10	4,269.00	76.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.5	0.8	1.0	1.4	0.13	5,611.00	100.0%					

BASIN A-9									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.57	0.64	0.68	0.76	0.34	14,857.00	43.0%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.45	19,655.00	57.0%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.6	4.3	5.4	7.5	0.79	34,512.00	100.0%					

BASIN A-10									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.57	0.64	0.68	0.76	0.17	7,492.00	42.8%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.23	9,998.00	57.2%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.3	2.2	2.7	3.8	0.40	17,490.00	100.0%					

BASIN A-11a									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.45	0.51	0.55	0.62	0.57	24,904.00	72.0%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.22	9,661.00	28.0%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.0	3.5	4.4	6.1	0.79	34,565.00	100.0%					

BASIN A-11b									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.57	0.64	0.68	0.76	0.32	13,877.00	43.2%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.42	18,273.00	56.8%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.4	4.1	5.1	7.1	0.74	32,150.00	100.0%					

BASIN A-12a									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.65	0.72	0.77	0.85	0.03	1,222.00	24.6%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.09	3,745.00	75.4%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.4	0.7	0.9	1.2	0.11	4,967.00	100.0%					

BASIN A-12b									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.66	0.73	0.78	0.86	0.08	3,361.00	21.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.27	11,964.00	78.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.3	2.2	2.8	3.8	0.35	15,325.00	100.0%					

BASIN A-13									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.59	0.66	0.70	0.78	0.25	10,920.00	38.6%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.40	17,365.00	61.4%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.2	3.7	4.6	6.4	0.65	28,285.00	100.0%					

BASIN A-14a									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.65	0.72	0.77	0.86	0.09	3,800.00	23.7%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.28	12,246.00	76.3%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.4	2.3	2.9	4.0	0.37	16,046.00	100.0%					

BASIN A-14b									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.66	0.73	0.78	0.86	0.02	791.00	22.2%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.06	2,780.00	77.8%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.3	0.5	0.6	0.9	0.08	3,571.00	100.0%					

BASIN A-15a									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.65	0.72	0.77	0.86	0.04	1,933.00	23.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.14	6,155.00	76.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.7	1.2	1.5	2.0	0.19	8,088.00	100.0%					

BASIN A-15b									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.67	0.74	0.79	0.87	0.03	1,513.00	19.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.14	6,088.00	80.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.7	1.1	1.4	1.9	0.17	7,601.00	100.0%					

BASIN B-1									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.64	0.69	0.77	0.29	12,446.00	41.5%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.40	17,531.00	58.5%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.3	3.8	4.8	6.7	0.69	29,977.00	100.0%					

BASIN B-2									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.62	0.69	0.74	0.83	0.54	23,566.00	30.0%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	1.26	54,987.00	70.0%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	6.4	10.6	13.5	18.7	1.80	78,553.00	100.0%					

BASIN B-3									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.65	0.70	0.78	0.31	13,642.00	39.3%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.48	21,040.00	60.7%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.7	4.5	5.7	7.8	0.80	34,682.00	100.0%					

BASIN B-4									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.65	0.70	0.78	0.34	14,627.00	39.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.51	22,070.00	60.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.8	4.7	5.9	8.2	0.84	36,697.00	100.0%					

BASIN B-5									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.60	0.67	0.71	0.80	0.14	5,882.00	35.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.24	10,511.00	64.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.3	2.2	2.7	3.8	0.38	16,393.00	100.0%					

BASIN B-6									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.66	0.73	0.78	0.87	0.05	2,302.00	21.1%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.20	8,595.00	78.9%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.0	1.6	2.0	2.7	0.25	10,897.00	100.0%					

BASIN B-7									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.57	0.64	0.68	0.76	0.35	15,434.00	43.1%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.47	20,416.00	56.9%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.7	4.5	5.6	7.8	0.82	35,850.00	100.0%					

BASIN B-8									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.57	0.64	0.68	0.76	0.38	16,705.00	42.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.51	22,270.00	57.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.9	4.9	6.1	8.5	0.89	38,975.00	100.0%					

BASIN B-9									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.65	0.72	0.77	0.85	0.04	1,807.00	24.3%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.13	5,614.00	75.7%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.6	1.0	1.3	1.8	0.17	7,421.00	100.0%					

BASIN B-10									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.64	0.71	0.76	0.84	0.09	4,072.00	26.5%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.26	11,274.00	73.5%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.3	2.1	2.7	3.7	0.35	15,346.00	100.0%					

BASIN B-11									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.66	0.74	0.79	0.87	0.05	2,244.00	20.3%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.20	8,836.00	79.7%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.0	1.6	2.0	2.7	0.25	11,080.00	100.0%					

BASIN B-12									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.59	0.66	0.71	0.79	0.16	7,073.00	37.6%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.27	11,732.00	62.4%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.5	2.4	3.1	4.3	0.43	18,805.00	100.0%					

BASIN B-13									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.67	0.74	0.79	0.87	0.07	2,878.00	19.9%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.27	11,616.00	80.1%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.3	2.1	2.6	3.6	0.33	14,494.00	100.0%					

BASIN B-14									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.63	0.70	0.75	0.83	1.16	50,399.00	29.1%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	2.82	122,629.00	70.9%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	14.4	23.8	30.1	41.3	3.97	173,028.00	100.0%					

BASIN B-15									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.63	0.70	0.75	0.83	0.70	30,688.00	28.8%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	1.74	75,745.00	71.2%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	8.9	14.6	18.5	25.4	2.44	106,433.00	100.0%					

BASIN B-16									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.66	0.74	0.79	0.87	0.05	2,366.00	20.6%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.21	9,111.00	79.4%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.0	1.6	2.1	2.8	0.26	11,477.00	100.0%					

BASIN B-17									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.65	0.69	0.77	0.27	11,803.00	40.8%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.39	17,131.00	59.2%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.2	3.7	4.6	6.4	0.66	28,934.00	100.0%					

BASIN B-18									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.65	0.69	0.77	0.37	15,976.00	40.7%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.53	23,302.00	59.3%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	3.0	5.0	6.3	8.7	0.90	39,278.00	100.0%					

BASIN B-19									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.65	0.72	0.77	0.85	0.05	2,026.00	24.2%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.15	6,352.00	75.8%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	0.7	1.2	1.5	2.0	0.19	8,378.00	100.0%					

BASIN B-20									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.64	0.69	0.77	0.19	8,158.00	41.4%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.26	11,529.00	58.6%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	1.5	2.5	3.1	4.3	0.45	19,687.00	100.0%					

BASIN B-21									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.59	0.66	0.70	0.79	1.54	67,159.00	38.1%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	2.50	109,055.00	61.9%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	13.8	22.9	28.7	40.1	4.05	176,214.00	100.0%					

POND									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.33	0.38	0.42	0.49	2.62	113,912.00	100.0%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.00	-	0.0%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	5.0	8.5	11.1	16.1	2.62	113,912.00	100.0%					

BYPASS A									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.56	0.63	0.67	0.75	1.26	55,045.00	45.0%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	1.54	67,278.00	55.0%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	9.1	15.2	19.0	26.4	2.81	122,323.00	100.0%					

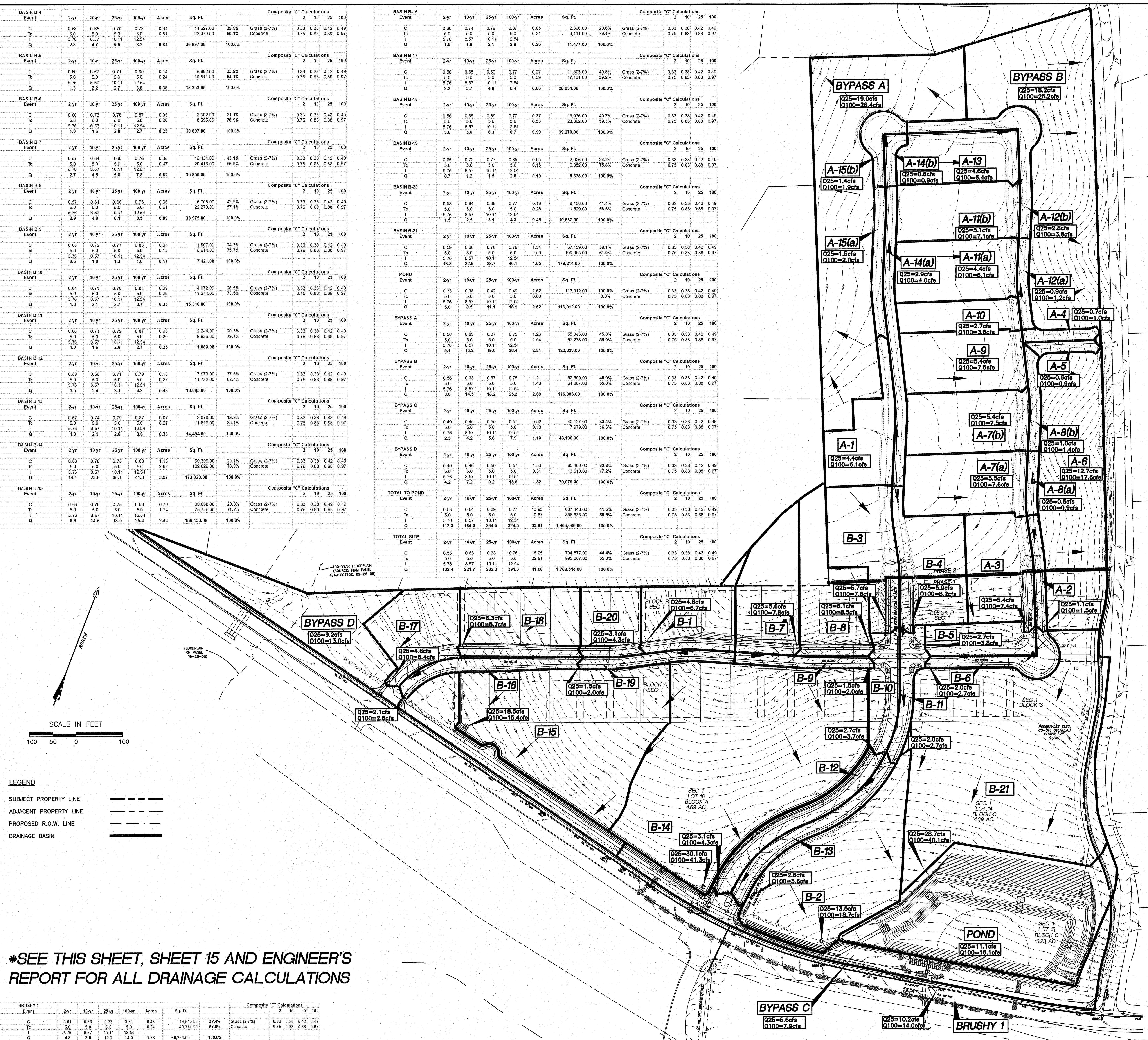
BYPASS B									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.56	0.63	0.67	0.75	1.21	52,599.00	45.0%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	1.48	64,287.00	55.0%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	8.6	14.5	18.2	25.2	2.68	116,886.00	100.0%					

BYPASS C									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.40	0.45	0.50	0.57	0.92	40,127.00	83.4%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.18	7,979.00	16.6%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	2.5	4.2	5.6	7.9	1.10	48,106.00	100.0%					

BYPASS D									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.40	0.46	0.50	0.57	1.50	65,469.00	82.8%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.31	13,610.00	17.2%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	4.2	7.2	9.2	13.0	1.82	79,079.00	100.0%					

TOTAL TO POND									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.58	0.64	0.69	0.77	13.95	607,448.00	41.5%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	19.67	856,638.00	58.5%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	112.3	184.3	234.5	324.5	33.61	1,464,086.00	100.0%					

TOTAL SITE									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.56	0.63	0.68	0.76	18.25	794,877.00	44.4%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	22.81	993,667.00	55.6%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	132.4	221.7	282.3	391.3	41.06	1,788,544.00	100.0%					



LEGEND

- SUBJECT PROPERTY LINE
- ADJACENT PROPERTY LINE
- PROPOSED R.O.W. LINE
- DRAINAGE BASIN

SEE THIS SHEET, SHEET 15 AND ENGINEER'S REPORT FOR ALL DRAINAGE CALCULATIONS

BRUSHY 1									Composite "C" Calculations			
Event	2-yr	10-yr	25-yr	100-yr	Acres	Sq. Ft.			2	10	25	100
C	0.61	0.68	0.73	0.81	0.45	19,510.00	32.4%	Grass (2-7%)	0.33	0.38	0.42	0.49
Tc	5.0	5.0	5.0	5.0	0.94	40,774.00	67.6%	Concrete	0.75	0.83	0.88	0.97
I	5.76	8.57	10.11	12.54								
Q	4.8	8.0	10.2	14.0	1.38	60,284.00	100.0%					

HANRAHAN • PRITCHARD ENGINEERING, INC.
CONSULTING ENGINEERS
(TX. PE FIRM REG. #416)
8333 Cross Park Drive
AUSTIN, TEXAS 78754
OFFICE: 512.459.4734 FAX: 512.459.4752
info•hp-eng.com

HPE

THE RESERVE AT BRUSHY CREEK SECTION 1
SUBDIVISION IMPROVEMENTS
INLET DRAINAGE BASIN MAP
CEDAR PARK, TEXAS 78613

The seal appearing on this document was authorized by Stephen Ray Jamison on 11/21, 2011

STATE OF TEXAS
STEPHEN RAY JAMISON
86951
LICENSED PROFESSIONAL ENGINEER

File: Projects/ BRUSHY CREEK/DRAINAGE
Job No. 211-05 | Snapshot: DRAIN
Scale (Hor.): 1"=100' | Scale (Vert.): N/A
Date: 10/18/11 | Checked By: SRJ | Drawn By: SB
Revision 1:
Revision 2:
Revision 3:
Revision 4:

INLET FLOW CALCULATION TABLE
25 Year Frequency

PARABOLIC CROWN

Inlet #	Drainage Area #	Q cfs	Qpass cfs	Qtot Qa cfs	Street Width (W) ft	K0	K1	K2	Slope ft/ft	a ft	LogYo	Yo ft	Ponded Width ft	CLOG R.F. %	Qa/La	La ft	Length L ft	L/La	a/Yo	Q/Qa	Q cfs	Qpass cfs	Remark
A-1	A-1	4.4	0.0	4.4	30	2.85	0.5	3.03	0.0050	0.42	-0.3485	0.448	10.2	0%	0.92	4.8	10	2.09	0.94	1	4.4	0	
A-2	A-2	1.1	0.0	1.1	30	2.85	0.5	3.03	0.0570	0.42	-0.7216	0.190	3.2	0%	0.65	1.7	10	5.90	2.21	1	1.1	0	
A-3	A-3	5.4	0.0	5.4	30	2.85	0.5	3.03	0.0570	0.42	-0.4936	0.321	6.0	0%	0.78	6.9	10	1.45	1.31	1	5.4	0	
A-4	A-4	0.7	0.0	0.7	30	2.85	0.5	3.03	0.0440	0.42	-0.7679	0.171	2.8	0%	0.63	1.1	10	9.01	2.46	1	0.7	0	
A-5	A-5	0.6	0.0	0.6	30	2.85	0.5	3.03	0.0440	0.42	-0.7900	0.162	2.7	0%	0.62	1.0	10	10.38	2.59	1	0.6	0	
A-7a	A-7a	5.5	0.0	5.5	30	2.85	0.5	3.03	0.0050	0.42	-0.3165	0.482	N/A	10%	0.96	6.4	10	1.57	0.87	1	5.5	0	SUMP
A-7b	A-7b	5.4	0.0	5.4	30	2.85	0.5	3.03	0.0050	0.42	-0.3192	0.480	N/A	10%	0.95	6.3	10	1.59	0.88	1	5.4	0	SUMP
A-8a	A-8a	0.6	0.0	0.6	30	2.85	0.5	3.03	0.0050	0.42	-0.6341	0.232	4.0	10%	0.69	1.0	10	10.36	1.81	1	0.6	0	SUMP
A-8b	A-8b	1.0	0.0	1.0	30	2.85	0.5	3.03	0.0050	0.42	-0.5609	0.275	4.9	10%	0.73	1.5	10	6.60	1.53	1	1.0	0	SUMP
A-9	A-9	5.4	0.0	5.4	30	2.85	0.5	3.03	0.0340	0.42	-0.4565	0.350	6.8	0%	0.81	6.7	10	1.50	1.20	1	5.4	0	
A-10	A-10	2.7	0.0	2.7	30	2.85	0.5	3.03	0.0050	0.42	-0.4185	0.381	7.7	0%	0.85	3.2	10	3.13	1.10	1	2.7	0	
A-11a	A-11a	4.4	0.0	4.4	30	2.85	0.5	3.03	0.0050	0.42	-0.3485	0.448	10.2	10%	0.92	5.3	10	1.88	0.94	1	4.4	0	SUMP
A-11b	A-11b	5.1	0.0	5.1	30	2.85	0.5	3.03	0.0050	0.42	-0.3274	0.471	N/A	10%	0.94	6.0	10	1.66	0.89	1	5.1	0	SUMP
A-12a	A-12a	0.9	0.0	0.9	30	2.85	0.5	3.03	0.0050	0.42	-0.5760	0.265	4.7	10%	0.72	1.4	10	7.24	1.58	1	0.9	0	SUMP
A-12b	A-12b	2.8	0.0	2.8	30	2.85	0.5	3.03	0.0050	0.42	-0.4133	0.386	7.8	10%	0.85	3.7	10	2.73	1.09	1	2.8	0	SUMP
A-13	A-13	4.6	0.0	4.6	30	2.85	0.5	3.03	0.0050	0.42	-0.3422	0.455	N/A	0%	0.93	5.0	10	2.01	0.92	1	4.6	0	
A-14a	A-14a	2.9	0.0	2.9	30	2.85	0.5	3.03	0.0050	0.42	-0.4083	0.391	8.0	10%	0.86	3.8	10	2.65	1.08	1	2.9	0	SUMP
A-14b	A-14b	0.6	0.0	0.6	30	2.85	0.5	3.03	0.0050	0.42	-0.6341	0.232	4.0	10%	0.69	1.0	10	10.36	1.81	1	0.6	0	SUMP
A-15a	A-15a	1.5	0.0	1.5	30	2.85	0.5	3.03	0.0050	0.42	-0.5028	0.314	5.9	10%	0.77	2.2	10	4.65	1.34	1	1.5	0	SUMP
A-15b	A-15b	1.4	0.0	1.4	30	2.85	0.5	3.03	0.0050	0.42	-0.5127	0.307	5.7	10%	0.77	2.0	10	4.93	1.37	1	1.4	0	SUMP
B-1	B-1	4.8	0.0	4.8	30	2.85	0.5	3.03	0.0580	0.42	-0.5117	0.308	5.7	0%	0.77	6.3	10	1.60	1.36	1	4.8	0	
B-3	B-3	5.7	0.0	5.7	40	2.85	0.5	2.89	0.0940	0.42	-0.5470	0.284	5.7	0%	0.74	7.7	15	1.96	1.48	1	5.7	0	
B-4	B-4	5.9	0.0	5.9	40	2.85	0.5	2.89	0.0940	0.42	-0.5418	0.287	5.8	0%	0.75	7.9	15	1.90	1.46	1	5.9	0	
B-5	B-5	2.7	0.0	2.7	30	2.85	0.5	3.03	0.0080	0.42	-0.4522	0.353	6.9	0%	0.82	3.3	10	3.02	1.19	1	2.7	0	
B-6	B-6	2.0	0.0	2.0	30	2.85	0.5	3.03	0.0080	0.42	-0.4952	0.320	6.0	0%	0.78	2.6	10	3.90	1.31	1	2.0	0	
B-7	B-7	5.6	0.0	5.6	30	2.85	0.5	3.03	0.0300	0.42	-0.4424	0.361	7.1	0%	0.82	6.8	10	1.47	1.16	1	5.6	0	
B-8	B-8	6.1	0.0	6.1	30	2.85	0.5	3.03	0.0230	0.42	-0.4111	0.388	7.9	0%	0.85	7.2	15	2.10	1.08	1	6.1	0	
B-9	B-9	1.3	0.0	1.3	30	2.85	0.5	3.03	0.0230	0.42	-0.6326	0.233	4.0	0%	0.69	1.9	10	5.32	1.80	1	1.3	0	
B-10	B-10	2.7	0.0	2.7	40	2.85	0.5	2.89	0.0270	0.42	-0.5655	0.272	5.4	0%	0.73	3.7	10	2.71	1.54	1	2.7	0	
B-11	B-11	2.0	0.0	2.0	40	2.85	0.5	2.89	0.0270	0.42	-0.6106	0.245	4.8	0%	0.70	2.8	10	3.52	1.71	1	2.0	0	
B-12	B-12	3.1	0.0	3.1	40	2.85	0.5	2.89	0.0300	0.42	-0.5527	0.280	5.6	0%	0.74	4.2	10	2.38	1.50	1	3.1	0	
B-13	B-13	2.6	0.0	2.6	40	2.85	0.5	2.89	0.0300	0.42	-0.5791	0.264	5.2	0%	0.72	3.6	10	2.78	1.59	1	2.6	0	
B-16	B-16	2.1	0.0	2.1	40	2.85	0.5	2.89	0.0200	0.42	-0.5807	0.263	5.2	0%	0.72	2.9	10	3.44	1.60	1	2.1	0	
B-17	B-17	4.6	0.0	4.6	40	2.85	0.5	2.89	0.0200	0.42	-0.4629	0.344	7.2	0%	0.81	5.7	10	1.75	1.22	1	4.6	0	
B-18	B-18	6.3	0.0	6.3	40	2.85	0.5	2.89	0.0540	0.42	-0.4903	0.323	6.6	0%	0.78	8.0	15	1.87	1.30	1	6.3	0	
B-19	B-19	1.5	0.0	1.5	30	2.85	0.5	3.03	0.0480	0.42	-0.6649	0.216	3.7	0%	0.68	2.2	10	4.50	1.94	1	1.5	0	
B-20	B-20	3.1	0.0	3.1	30	2.85	0.5	3.03	0.0480	0.42	-0.5608	0.275	4.9	0%	0.73	4.2	10	2.37	1.53	1	3.1	0	

STRAIGHT GRADE

INLET #	DRAINAGE AREA #	Q	Q_{by}	Q_{total}	GUTTER SLOPE	STREET WIDTH	STREET TYPE	CROSS SLOPE	GUTTER CAPACITY	a	Yo	PONDED WIDTH (FT)	
BRUSH 1	BRUSH 1	10.20	0.00	10.20	0.50	40	STRAIGHT	2.00	23.99	0.42	0.392	19.61	REQUIRED = 12 FT EACH WAY (FOR 4 LANE DIVIDED)

SUMP CALCULATIONS		Q cfs	CLOG R.F. %	Lrequired	Lprovided	Q-capacity
A-7	A-7a & A-7b	10.9	10%	4.7	10.0	25.7
A-8	A-8a & A-8b	1.6	10%	1.0	10.0	17.4
A-11	A-11a & A-11b	9.5	10%	4.2	10.0	25.2
A-12	A-12a & A-12b	3.7	10%	1.9	10.0	21.7
A-14	A-14a & A-14b	3.5	10%	1.8	10.0	21.9
A-15	A-15a & A-15b	2.9	10%	1.7	10.0	18.9
BRUSHY 1	BRUSHY 1	14.0	10%	8.4	15.0	27.9

AREA INLET CALCULATIONS		Q-in	4'x4' Inlet Opening Area	H	Q-capacity	CLOG R.F. %
A-6	A-6	12.7	7.2	0.75	30.0	10%
B-2	B-2	13.5	7.2	0.75	30.0	10%
B-14	B-14	30.1	7.2	1.75	45.9	10%
B-15	B-15	18.5	7.2	1.75	45.9	10%

Area = 4 x 4' x 0.5' X 0.9 (CLOGGING)= 7.2

INLET FLOW CALCULATION TABLE
100 Year Frequency

PARABOLIC CROWN

Inlet #	Drainage Area #	Q cfs	Qpass cfs	Qtot Qa cfs	Street Width (W) ft	K0	K1	K2	Slope ft/ft	a ft	LogYo	Yo ft	Ponded Width ft	CLOG R.F. %	Qa/La	La ft	Length L ft	L/La	a/Yo	Q/Qa	Q cfs	Qpass cfs	Remark
A-1	A-1	6.1	0.0	6.1	30	2.85	0.5	3.03	0.0050	0.42	-0.3017	0.499	14.4	0%	0.98	6.3	10	1.60	0.84	1	6.1	0	
A-2	A-2	1.5	0.0	1.5	30	2.85	0.5	3.03	0.0570	0.42	-0.6772	0.210	3.6	0%	0.67	2.2	10	4.46	2.00	1	1.5	0	
A-3	A-3	7.4	0.0	7.4	30	2.85	0.5	3.03	0.0570	0.42	-0.4484	0.356	7.0	0%	0.82	9.0	10	1.11	1.18	1	7.4	0	
A-4	A-4	1.0	0.0	1.0	30	2.85	0.5	3.03	0.0440	0.42	-0.7167	0.192	3.2	0%	0.65	1.5	10	6.51	2.19	1	1.0	0	
A-5	A-5	0.9	0.0	0.9	30	2.85	0.5	3.03	0.0440	0.42	-0.7318	0.185	3.1	0%	0.65	1.4	10	7.17	2.27	1	0.9	0	
A-7a	A-7a	7.6	0.0	7.6	30	2.85	0.5	3.03	0.0050	0.42	-0.2702	0.537	N/A	10%	1.02	8.3	10	1.21	0.78	1	7.6	0	SUMP
A-7b	A-7b	7.5	0.0	7.5	30	2.85	0.5	3.03	0.0050	0.42	-0.2721	0.534	N/A	10%	1.02	8.2	10	1.22	0.79	1	7.5	0	SUMP
A-8a	A-8a	0.9	0.0	0.9	30	2.85	0.5	3.03	0.0050	0.42	-0.5760	0.265	4.7	10%	0.72	1.4	10	7.24	1.58	1	0.9	0	SUMP
A-8b	A-8b	1.4	0.0	1.4	30	2.85	0.5	3.03	0.0050	0.42	-0.5127	0.307	5.7	10%	0.77	2.0	10	4.93	1.37	1	1.4	0	SUMP
A-9	A-9	7.5	0.0	7.5	30	2.85	0.5	3.03	0.0340	0.42	-0.4095	0.390	7.9	0%	0.85	8.8	10	1.14	1.08	1	7.5	0	
A-10	A-10	3.8	0.0	3.8	30	2.85	0.5	3.03	0.0050	0.42	-0.3695	0.427	9.3	0%	0.90	4.2	10	2.36	0.98	1	3.8	0	
A-11a	A-11a	6.1	0.0	6.1	30	2.85	0.5	3.03	0.0050	0.42	-0.3017	0.499	14.4	10%	0.98	6.9	10	1.44	0.84	1	6.1	0	SUMP
A-11b	A-11b	7.1	0.0	7.1	30	2.85	0.5	3.03	0.0050	0.42	-0.2799	0.525	N/A	10%	1.00	7.9	10	1.27	0.80	1	7.1	0	SUMP
A-12a	A-12a	1.2	0.0	1.2	30	2.85	0.5	3.03	0.0050	0.42	-0.5348	0.292	5.3	10%	0.75	1.8	10	5.63	1.44	1	1.2	0	SUMP
A-12b	A-12b	3.8	0.0	3.8	30	2.85	0.5	3.03	0.0050	0.42	-0.3695	0.427	9.3	10%	0.90	4.7	10	2.12	0.98	1	3.8	0	SUMP
A-13	A-13	6.4	0.0	6.4	30	2.85	0.5	3.03	0.0050	0.42	-0.2948	0.507	N/A	0%	0.98	6.5	10	1.54	0.83	1	6.4	0	
A-14a	A-14a	4.0	0.0	4.0	30	2.85	0.5	3.03	0.0050	0.42	-0.3622	0.434	9.6	10%	0.90	4.9	10	2.03	0.97	1	4.0	0	SUMP
A-14b	A-14b	0.9	0.0	0.9	30	2.85	0.5	3.03	0.0050	0.42	-0.5760	0.265	4.7	10%	0.72	1.4	10	7.24	1.58	1	0.9	0	SUMP
A-15a	A-15a	2.0	0.0	2.0	30	2.85	0.5	3.03	0.0050	0.42	-0.4615	0.346	6.7	10%	0.81	2.8	10	3.63	1.22	1	2.0	0	SUMP
A-15b	A-15b	1.9	0.0	1.9	30	2.85	0.5	3.03	0.0050	0.42	-0.4689	0.340	6.5	10%	0.80	2.6	10	3.79	1.24	1	1.9	0	SUMP
B-1	B-1	6.7	0.0	6.7	30	2.85	0.5	3.03	0.0580	0.42	-0.4639	0.344	6.6	0%	0.81	8.3	10	1.20	1.22	1	6.7	0	
B-3	B-3	7.8	0.0	7.8	40	2.85	0.5	2.89	0.0940	0.42	-0.4998	0.316	6.5	0%	0.78	10.0	15	1.49	1.33	1	7.8	0	
B-4	B-4	8.2	0.0	8.2	40	2.85	0.5	2.89	0.0940	0.42	-0.4923	0.322	6.6	0%	0.78	10.5	15	1.43	1.30	1	8.2	0	
B-5	B-5	3.8	0.0	3.8	30	2.85	0.5	3.03	0.0080	0.42	-0.4032	0.395	8.1	0%	0.86	4.4	10	2.26	1.06	1	3.8	0	
B-6	B-6	2.7	0.0	2.7	30	2.85	0.5	3.03	0.0080	0.42	-0.4522	0.353	6.9	0%	0.82	3.3	10	3.02	1.19	1	2.7	0	
B-7	B-7	7.8	0.0	7.8	30	2.85	0.5	3.03	0.0300	0.42	-0.3949	0.403	8.4	0%	0.87	9.0	10	1.11	1.04	1	7.8	0	
B-8	B-8	8.5	0.0	8.5	30	2.85	0.5	3.03	0.0230	0.42	-0.3635	0.433	9.5	0%	0.90	9.4	15	1.59	0.97	1	8.5	0	
B-9	B-9	1.8	0.0	1.8	30	2.85	0.5	3.03	0.0230	0.42	-0.5860	0.259	4.6	0%	0.72	2.5	10	3.99	1.62	1	1.8	0	
B-10	B-10	3.7	0.0	3.7	40	2.85	0.5	2.89	0.0270	0.42	-0.5182	0.303	6.1	0%	0.76	4.8	10	2.06	1.38	1	3.7	0	
B-11	B-11	2.7	0.0	2.7	40	2.85	0.5	2.89	0.0270	0.42	-0.5655	0.272	5.4	0%	0.73	3.7	10	2.71	1.54	1	2.7	0	
B-12	B-12	4.3	0.0	4.3	40	2.85	0.5	2.89	0.0300	0.42	-0.5035	0.314	6.4	0%	0.77	5.6	10	1.80	1.34	1	4.3	0	
B-13	B-13	3.6	0.0	3.6	40	2.85	0.5	2.89	0.0300	0.42	-0.5302	0.295	5.9	0%	0.75	4.8	10	2.10	1.42	1	3.6	0	
B-16	B-16	2.8	0.0	2.8	40	2.85	0.5	2.89	0.0200	0.42	-0.5375	0.290	5.8	0%	0.75	3.7	10	2.68	1.45	1	2.8	0	
B-17	B-17	6.4	0.0	6.4	40	2.85	0.5	2.89	0.0200	0.42	-0.4133	0.386	8.4	0%	0.85	7.5	10	1.33	1.09	1	6.4	0	
B-18	B-18	8.7	0.0	8.7	40	2.85	0.5	2.89	0.0540	0.42	-0.4418	0.362	7.7	0%	0.82	10.6	15	1.42	1.16	1	8.7	0	
B-19	B-19	2.0	0.0	2.0	30	2.85	0.5	3.03	0.0480	0.42	-0.6236	0.238	4.1	0%	0.70	2.9	10	3.48	1.77	1	2.0	0	
B-20	B-20	4.3	0.0	4.3	30	2.85	0.5	3.03	0.0480	0.42	-0.5139	0.306	5.7	0%	0.77	5.6	10	1.78	1.37	1	4.3	0	

STRAIGHT GRADE

INLET #	DRAINAGE AREA #	Q	Q_{by}	Q_{total}	GUTTER SLOPE	STREET WIDTH	STREET TYPE	CROSS SLOPE	GUTTER CAPACITY	a	Yo	PONDED WIDTH (FT)	
BRUSH 1	BRUSH 1	14.00	0.00	14.00	0.50	40	STRAIGHT	2.00	23.99	0.42	0.442	22.08	REQUIRED = 12 FT EACH WAY (FOR 4 LANE DIVIDED)

SUMP CALCULATIONS		Q cfs	CLOG R.F. %	Lrequired	Lprovided	Q-capacity
A-7	A-7a & A-7b	15.1	10%	6.0	10.0	28.1
A-8	A-8a & A-8b	2.3	10%	1.4	10.0	18.6
A-11	A-11a & A-11b	13.2	10%	5.3	10.0	27.6
A-12	A-12a & A-12b	5.0	10%	2.4	10.0	23.4
A-14	A-14a & A-14b	4.9	10%	2.3	10.0	23.7
A-15	A-15a & A-15b	3.9	10%	2.2	10.0	20.1
BRUSHY 1	BRUSHY 1	14.0	10%	7.8	15.0	29.8

AREA INLET CALCULATIONS		Q-in	4'x4' Inlet Opening Area	H	Q-capacity	CLOG R.F. %
A-6	A-6	17.6	7.2	0.75	30.0	10%
B-2	B-2	18.7	7.2	0.75	30.0	10%
B-14	B-14	41.3	7.2	1.75	45.9	10%
B-15	B-15	25.4	7.2	1.75	45.9	10%

Area = 4 x 4' x 0.5' X 0.9 (CLOGGING)= 7.2

*SEE THIS SHEET, SHEET 14 AND ENGINEER'S REPORT FOR ALL DRAINAGE CALCULATIONS

Appendix R-4: Wet Pond Calculations
For Development Permits

DRAINAGE AREA DATA:

Drainage Area to Control (DA)		33.61	ac.
Drainage Area Impervious Cover		19.67	ac.
Impervious Cover %		58.5%	
Recharge Zone (enter 1) Non-recharge Zone (enter 0)		1	
Annual Runoff Coefficient (Rf) Table 1-9		0.410	
Liner Type (Clay or Geomembrane)		CLAY	LINER
Depth of Liner	Required:	12	in. (min.)
	Provided:	12	in.

WATER QUALITY CONTROL CALCULATIONS:

			Required		Provided	
The Water Quality Control is to be a **WET POND**						
Permanent Pool Volume (per TCEQ)			330,048	cf		
Permanent Pool Volume (PPV = 0.162 * Rf* DA)	2.23	ac-ft	156,488	cf	335,962	cf
Permanent Pool Area (PPA)					71,688	sf
Permanent Pool Elevation (PPE)					832.50	ft. msl
Forebay Volume (15% to 25% of PPV)	50,394	15%	83,991	25%	83,885	cf
Elevation of Forebay Separation Wall or Berm (PPE - 1.0 ft.)					831.50	ft. msl
Main Pool Volume					252,077	cf

BIOLOGICAL ELEMENTS CALCULATIONS:

Area of Vegetative Bench (5% to 15% of PPA)	3,584	5%	10,753	15%	6,683	sf
Wetland Planting Quantitiy (PPA * 0.02)			1,434	plants	1,440	plants
Gambusia Affinis (200*(PPA / 43560))			329	individuals	330	individuals

EXTENDED DETENTION CALCULATIONS:

Extended Detention Peak Flow 1-year, 3-hour Storm			88	cfs		
Extended Detention Volume	3.0886	ac-ft	134,539	cf	153,582	cf
Elevation of Soffit of PVC Pipe (2/3 PPE depth from bottom of Main Pool)					830.00	ft. msl
Diameter of PVC Pipe		min.	6	in	6	in
Diameter of Orifice					4.35	in
Extended Detention Draw down Time		min.	72	hrs	63.58	hrs

Forebay Pond:

Elevation * Ft. msl	Depth Ft.	Area S. F.	Avg. Area S. F.	Inc. Vol. C. F.	Total Vol. C. F.	Total Vol. Ac. Ft.
827.00	0.00	-		-	-	0.00
828.00	1.00	9,996.00	4,998.00	3,332.07	3,332.07	0.08
829.00	1.00	13,557.00	11,776.50	11,731.61	15,063.68	0.35
830.00	1.00	17,048.00	15,302.50	15,269.51	30,333.19	0.70
831.00	1.00	20,564.00	18,806.00	18,778.93	49,112.11	1.13
832.00	1.00	24,066.00	22,315.00	22,292.51	71,404.63	1.64
832.50	0.50	25,867.00	24,966.50	12,480.79	83,885.42	1.93

Main Pool Pond:

Elevation * Ft. msl	Depth Ft.	Area S. F.	Avg. Area S. F.	Inc. Vol. C. F.	Total Vol. C. F.	Total Vol. Ac. Ft.
825.00	0.00	-		-	-	0.00
826.00	1.00	16,304.00	8,152.00	5,434.78	5,434.78	0.12
827.00	1.00	33,469.00	24,886.50	24,378.08	29,812.85	0.68
828.00	1.00	36,070.00	34,769.50	34,762.09	64,574.94	1.48
829.00	1.00	38,728.00	37,399.00	37,391.87	101,966.81	2.34
830.00	1.00	41,442.00	40,085.00	40,078.14	142,044.95	3.26
831.00	1.00	43,961.00	42,701.50	42,696.16	184,741.11	4.24
832.00	1.00	45,200.00	44,580.50	44,579.96	229,321.07	5.26
832.50	0.50	45,821.00	45,510.50	22,755.53	252,076.60	5.79

Extended Detention Pond:

Elevation * Ft. msl	Depth Ft.	Area S. F.	Avg. Area S. F.	Inc. Vol. C. F.	Total Vol. C. F.	Total Vol. Ac. Ft.	
832.50	0.00	71,688.00		-	-	-	1.65
833.00	0.50	75,763.00	73,725.50	36,858.79	36,858.79	0.85	1.74
834.00	1.00	78,627.00	77,195.00	77,192.12	114,050.91	2.62	1.81
834.50	0.50	79,494.00	79,060.50	39,530.84	153,581.75	3.53	1.82

Texas Commission on Environmental Quality

TSS Removal Calculations 02-20-2008

Project Name: The Reserve at Brushy Creek Section 1
Date Prepared: 10/25/2011

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
Characters shown in red are data entry fields.
Characters shown in black (Bold) are calculated fields. Changes to these fields will remove the equations used in the spreadsheet.

1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

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

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

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

County =	**williamson**	
Total project area included in plan * =	**41.06**	acres
Predevelopment impervious area within the limits of the plan * =	**0.00**	acres
Total post-development impervious area within the limits of the plan* =	**22.81**	acres
Total post-development impervious cover fraction * =	**0.56**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**19854**	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 =	**33.61**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**19.67**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.59**	
$L_{M\ THIS\ BASIN}$ =	**17121**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **WB** abbreviation
Removal efficiency = **93** percent

BMP Code:	BMP Type:
AQ	Aqualogic™ Cartridge Filter
BR	Bioretention
CS	Contech StormFilter
CW	Constructed Wetland
ED	Extended Detention
GS	Grassy Swale
RI	Retention / Irrigation
SF	Sand Filter
VF	Vegetative Filter Strip
WB	Wet Basin
WV	Wet Vault

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

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

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

A_C =	**33.61**	acres
A_I =	**19.67**	acres
A_P =	**13.94**	acres
L_R =	**20478**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **19860** lbs.

F = **0.97**

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 =	**3.00**	inches
Post Development Runoff Coefficient =	**0.41**	
On-site Water Quality Volume =	**150022**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**30004**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**180026**	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 C53 will show NA.

11. Wet Basins Designed as Required in RG-348 Pages 3-66 to 3-71

Required capacity of Permanent Pool =	**180026**	cubic feet	Permanent Pool Capacity is 1.20 times the WQV
Required capacity at WQV Elevation =	**330048**	cubic feet	Total Capacity should be the Permanent Pool Capacity plus a second WQV.

Extended Detention Drawdown Time

Volume (cf)	72 hr. Release Rate (cfs)	W.S.E.L.	Flow Out Elev.
153581.75	0.59	834.50	832.50

Diameter of Opening (in)	Diameter of Opening (ft)	Calulated Head (ft)	Area of Opening (ft^2)	Q Released (cfs)	Drawdown Time (hrs.)
4.35	0.363	1.819	0.103	0.67	63.58

DETENTION POND WEIR CALCULATION

Width of Opening =	80	ft
Height of Opening =	1.37	ft
Q =	338.7	cfs
Q (100) =	324.5	cfs

HMS * Summary of Results

Project : BRUSHY CREEK ENCLAVE Run Name : 100 YEAR

Start of Run : 01Jan11 0000 Basin Model : DETENTION
End of Run : 02Jan11 0000 Met. Model : 100-YEAR
Execution Time : 08Sep11 2227 Control Specs : FREQUENCY

Hydrologic Element	Discharge Peak (cfs)	Time of Peak	Volume (ac ft)	Drainage Area (sq mi)
DEVELOPED BASIN C	262.57	01 Jan 11 1205	25.466	0.053
DETENTION POND	89.924	01 Jan 11 1230	20.944	0.053
BYPASS C	8.0424	01 Jan 11 1205	0.74608	0.002
Junction-1	93.140	01 Jan 11 1225	21.691	0.054
EXISTING BASIN C	96.671	01 Jan 11 1220	12.692	0.030
DEVELOPED BASIN A	21.797	01 Jan 11 1205	2.0996	0.004
EXISTING BASIN A	27.441	01 Jan 11 1215	3.3222	0.008
DEVELOPED BASIN B	20.804	01 Jan 11 1205	2.0039	0.004
EXISTING BASIN B	49.378	01 Jan 11 1220	6.6923	0.016
DEVELOPED BASIN D	13.631	01 Jan 11 1205	1.2824	0.003
EXISTING BASIN D	44.621	01 Jan 11 1215	5.2215	0.012

DETENTION POND VOLUMES

Elevation * Ft. msl	Depth Ft.	Area S.F.	Area Ac.	Avg. Area S.F.	Inc. Vol. C.F.	Total Vol. C.F.
832.50	-	71,688.00	1.646		-	-
833.00	0.50	75,763.00	1.739	73,726	36,859	36,859
834.00	1.00	78,627.00	1.805	77,195	77,192	114,051
834.50	0.50	79,494.00	1.825	79,061	39,531	153,582
835.00	0.50	80,269.00	1.843	79,882	39,941	193,523
836.00	1.00	81,815.00	1.878	81,042	81,042	274,566
837.00	1.00	83,355.00	1.914	82,585	82,585	357,151
838.00	1.00	84,889.00	1.949	84,122	84,123	441,274
839.00	1.00	86,418.00	1.984	85,654	85,654	526,928
840.00	1.00	87,940.00	2.019	87,179	87,180	614,107
841.00	1.00	89,457.00	2.054	88,699	88,699	702,806
842.00	1.00	90,967.00	2.088	90,212	90,213	793,019
843.00	1.00	92,472.00	2.123	91,720	91,720	884,739

DETENTION POND ORIFICE AND WEIR CALCULATIONS

	ORIFICE #1	ORIFICE #1	ORIFICE #2	ORIFICE #2	WEIR #1	WEIR #1	WEIR #2	WEIR #2	WEIR #3	WEIR #3	TOTAL
Elevation * Ft. msl	h ft.	Q cfs	h ft.	Q cfs	h ft.	Q cfs	h ft.	Q cfs	h ft.	Q cfs	Q cfs
832.50	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	-
833.00	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	-
834.00	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	-
834.50	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	-
835.00	0.00	-	0.00	-	0.50	3.18	0.00	-	0.00	-	3.18
836.00	0.00	-	0.00	-	1.50	16.53	0.00	-	0.00	-	16.53
837.00	0.00	-	0.00	-	2.50	35.58	0.00	-	0.00	-	35.58
838.00	0.00	-	0.00	-	3.50	58.93	0.00	-	0.00	-	58.93
839.00	0.00	-	0.00	-	4.50	85.91	0.00	-	0.00	-	85.91
840.00	0.00	-	0.00	-	5.50	116.09	0.00	-	0.00	-	116.09
841.00	0.00	-	0.00	-	6.50	149.15	0.00	-	0.00	-	149.15
842.00	0.00	-	0.00	-	7.50	184.86	0.00	-	0.00	-	184.86
843.00	0.00	-	0.00	-	8.50	223.03	0.00	-	0.00	-	223.03

	WIDTH	ELEV.
WEIR #1	3.00	834.50

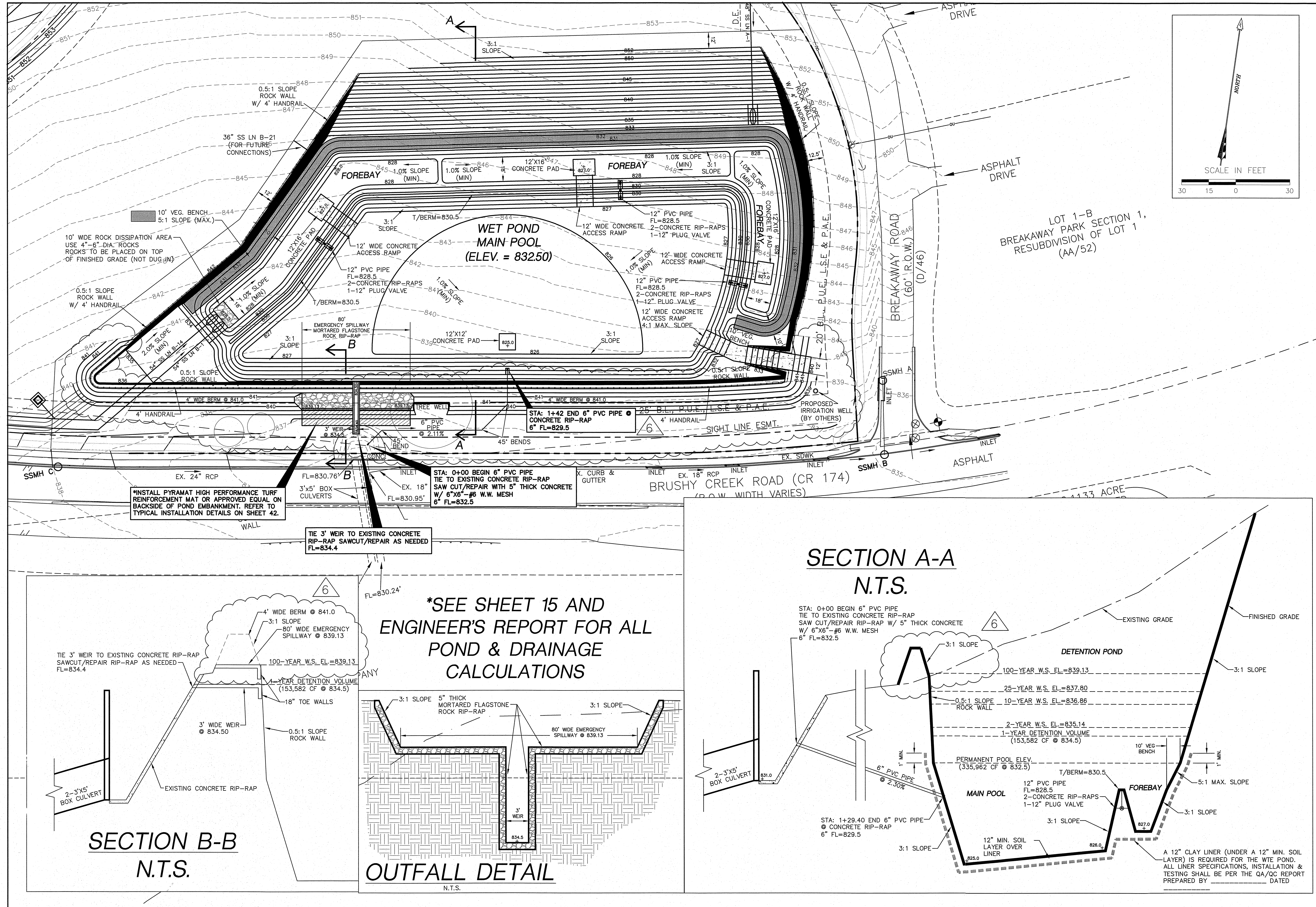
HANRAHAN ● PRITCHARD ENGINEERING, INC.
HPE
CONSULTING ENGINEERS
(TX. PE FIRM REG. #416)
8333 Cross Park Drive
AUSTIN, TEXAS 78754
OFFICE: 512.459.4734 FAX: 512.459.4752
info@hp-eng.com

THE RESERVE AT BRUSHY CREEK SECTION 1
SUBDIVISION IMPROVEMENTS
INLET DRAINAGE CALCULATIONS
CEDAR PARK, TEXAS 78613

The seal appearing on this document was authorized by Stephen Ray Jamison on 10/25, 2011

STATE OF TEXAS
STEPHEN RAY JAMISON
86951
LICENSED
PROFESSIONAL ENGINEER

File: Projects/ BRUSHY CREEK/DRAINAGE
Job No. 211-05 | Snapshot: DRAIN
Scale (Hor.): N/A | Scale (Vert.): N/A
Date: 10/25/11 | Checked By: SRJ | Drawn By: SB
Revision 1:
Revision 2:
Revision 3:
Revision 4:



WET POND
MAIN POOL
(ELEV. = 832.50)
FOREBAY
FOREBAY
FOREBAY
3:1 SLOPE
0.5:1 SLOPE ROCK WALL W/ 4' HANDRAIL
36" SS LN B-21 (FOR FUTURE CONNECTIONS)
10' VEG. BENCH 5:1 SLOPE (MAX.)
10' WIDE ROCK DISSIPATION AREA USE 4"-6" DIA. ROCKS ROCKS TO BE PLACED ON TOP OF FINISHED GRADE (NOT DUG IN)
12'X16' CONCRETE PAD
12' WIDE CONCRETE ACCESS RAMP
12" PVC PIPE FL=828.5 2-CONCRETE RIP-RAPS 1-12" PLUG VALVE
T/BERM=830.5
1.0% SLOPE (MIN)
2.0% SLOPE (MIN)
54" SS LN B-14
54" SS LN B-1
80' EMERGENCY SPILLWAY MORTARED FLAGSTONE ROCK RIP-RAP
12'X12' CONCRETE PAD
12' WIDE CONCRETE ACCESS RAMP 4:1 MAX. SLOPE
10' VEG. BENCH
4' WIDE BERM @ 841.0
4' HANDRAIL
TREE WELL
3' WEIR @ 834.5
6" PVC PIPE @ 2.11%
45° BEND
45° BENDS
STA: 1+42 END 6" PVC PIPE @ CONCRETE RIP-RAP 6" FL=829.5
STA: 0+00 BEGIN 6" PVC PIPE TIE TO EXISTING CONCRETE RIP-RAP SAW CUT/REPAIR WITH 5" THICK CONCRETE W/ 6"X6"-#6 W.W. MESH 6" FL=832.5
*INSTALL PYRAMAT HIGH PERFORMANCE TURF REINFORCEMENT MAT OR APPROVED EQUAL ON BACKSIDE OF POND EMBANKMENT. REFER TO TYPICAL INSTALLATION DETAILS ON SHEET 42.
TIE 3' WEIR TO EXISTING CONCRETE RIP-RAP SAWCUT/REPAIR AS NEEDED FL=834.4
3'x5' BOX CULVERTS
FL=830.76'
FL=830.95'
FL=830.24'
EX. 24" RCP
EX. 18" RCP
EX. CURB & GUTTER
EX. SDWK
INLET
SSMH A
SSMH B
SSMH C
D.E.
48" SS LN A-1
PROPOSED IRRIGATION WELL (BY OTHERS)
25' B.L., P.U.E., L.S.E. & P.A.E.
20' B.L., P.U.E., L.S.E. & P.A.E.
SIGHT LINE ESMT.
BRUSHY CREEK ROAD (CR 174)
(R.O.W. WIDTH VARIES)
BREAKAWAY ROAD (60' R.O.W.) (D/46)
ASPHALT DRIVE
ASPHALT
LOT 1-B BREAKAWAY PARK SECTION 1, RESUBDIVISION OF LOT 1 (AA/52)
NORTH
SCALE IN FEET
30 15 0 30
*SEE SHEET 15 AND ENGINEER'S REPORT FOR ALL POND & DRAINAGE CALCULATIONS
SECTION B-B
N.T.S.
4' WIDE BERM @ 841.0
3:1 SLOPE
80' WIDE EMERGENCY SPILLWAY @ 839.13
TIE 3' WEIR TO EXISTING CONCRETE RIP-RAP SAWCUT/REPAIR RIP-RAP AS NEEDED FL=834.4
100-YEAR W.S. EL.=839.13
1-YEAR DETENTION VOLUME (153,582 CF @ 834.5)
18" TOE WALLS
3' WIDE WEIR @ 834.50
0.5:1 SLOPE ROCK WALL
2-3'X5' BOX CULVERT
EXISTING CONCRETE RIP-RAP
OUTFALL DETAIL
N.T.S.
5" THICK MORTARED FLAGSTONE ROCK RIP-RAP
80' WIDE EMERGENCY SPILLWAY @ 839.13
3' WEIR
834.5
SECTION A-A
N.T.S.
STA: 0+00 BEGIN 6" PVC PIPE TIE TO EXISTING CONCRETE RIP-RAP SAW CUT/REPAIR RIP-RAP W/ 5" THICK CONCRETE W/ 6"X6"-#6 W.W. MESH 6" FL=832.5
EXISTING GRADE
FINISHED GRADE
DETENTION POND
100-YEAR W.S. EL.=839.13
25-YEAR W.S. EL.=837.80
10-YEAR W.S. EL.=836.86
2-YEAR W.S. EL.=835.14
1-YEAR DETENTION VOLUME (153,582 CF @ 834.5)
PERMANENT POOL ELEV. (335,962 CF @ 832.5)
10' VEG BENCH
1' MIN.
5:1 MAX. SLOPE
T/BERM=830.5
12" PVC PIPE FL=828.5 2-CONCRETE RIP-RAPS 1-12" PLUG VALVE
MAIN POOL
6" PVC PIPE @ 2.30%
STA: 1+29.40 END 6" PVC PIPE @ CONCRETE RIP-RAP 6" FL=829.5
12" MIN. SOIL LAYER OVER LINER
A 12" CLAY LINER (UNDER A 12" MIN. SOIL LAYER) IS REQUIRED FOR THE WTE POND. ALL LINER SPECIFICATIONS, INSTALLATION & TESTING SHALL BE PER THE QA/QC REPORT PREPARED BY ____________ DATED ____________

HANRAHAN ● PRITCHARD ENGINEERING, INC.
CONSULTING ENGINEERS
(TX. PE FIRM REG. #416)
8333 Cross Park Drive
AUSTIN, TEXAS 78754
OFFICE: 512.459.4734 FAX: 512.459.4752
info@hp-eng.com

HPE

THE RESERVE AT BRUSHY CREEK SECTION 1
SUBDIVISION IMPROVEMENTS
W.Q. & DETENTION POND PLAN
CEDAR PARK, TEXAS 78613

The seal appearing on this document was authorized by Stephen Ray Jamison on 8/7, 2012

[illegible]

STATE OF TEXAS
STEPHEN RAY JAMISON
86951
LICENSED PROFESSIONAL ENGINEER

File: Projects/ BRUSHYCREEKENCLAVE/POND
Job No. 211-05 | Snapshot: POND
Scale (Hor.): 1"=30' | Scale (Vert.): N/A
Date: 10/18/11 | Checked By: | Drawn By: SRJ
Revision 6. ADJUSTED BERM AND OUTFALL PIPE
Revision
Revision
Revision

SHEET
16 of 46

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

ATTACHMENT I

Inspection and Maintenance for BMP's

ATTACHMENT J

Schedule of Interim and Permanent Soil Stabilization Practices

PROFESSIONAL STRUCIVIL ENGINEERS, INC.
STRUCTURAL CIVIL ENVIRONMENTAL
12710 RESEARCH BLVD., SUITE #390, AUSTIN, TEXAS 78759
512.238.6422 FAX 512.258.8095 PSCE@PSCEINC.COM

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.

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 a 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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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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Notice of Intent (NOI)

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

RESET FORM

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?
Brushy Creek Retail Center
(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): Mr
First/Last Name: Mirza Tahir Baig Suffix:
Title: Credential:
Phone Number: (512) 238-6422 Ext: Fax Number:
E-mail: psce@psceinc.com
Mailing Address: 2205 W Parmer Lane, Suite 201
Internal Routing (Mail Code, Etc.):
City: Austin State: Texas ZIP Code: 78727
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): Mr
First/Last Name: Mirza Tahir Baig Suffix:
Title: Engineer Credential:
Organization Name: Professional StruCIVIL Engineers INC
Phone Number: (512) 238-6422 Ext: Fax Number:
E-mail: psce@psceinc.com
Mailing Address: 2205 W Parmer Lane
Internal Routing (Mail Code, Etc.):
City: AUSTIN State: TEXAS ZIP Code: 78726
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 111110030

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: Texas 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: Texas 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?

South Brushy Creek

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,_____ _____
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:_____
(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/sqmaview.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

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 Malek AL-Sayyed,
Print Name

Member,
Title - Owner/President/Other

of Al- Sayeed Inc.,
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:

Al-Sayeed Malek
Applicant's Signature

06-26-2024
Date

THE STATE OF Texas §

County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Malek Al-Sayeed 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 26TH day of JUNE, 2024.

NOTARY PUBLIC

GHUFRANA MAHRUKH
Notary Public, State of Texas
Comm. Expires 03-28-2027
Notary ID 134274961

GHUFRANA MAHRUKH
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 03/28/2027

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

I, Malek Al Sayeed, Member, Al Sayeed INC, have read the best management practices (BMPs) for permanent stormwater 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 onsite BMPs. Appropriate project staff will be assigned to weekly monitor the BMPs for this project and repair or replace as necessary.

Malek Al Sayeed
Al Sayeed INC

June 26th 2024
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.E.
Professional StruCIVIL Engineers, Inc.

June 26th, 2024
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: Brushy Creek Retail Center

Regulated Entity Location: 2501 BRUSHY CREEK RD, CEDAR PARK, TX 78613

Name of Customer: Al- Sayeed Inc. Malek AL-Sayyed.

Contact Person: PSCE,Inc Phone: 512 698 9811

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

☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office

☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	1.64 Acres	$ 4000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$ 500
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$ 150

Signature:  Date: 07/05/2024

Application Fee Schedule

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

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 Use Only

TCEQ Core Data Form

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

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☒ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN		**RN**

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* — *If new Customer, enter previous Customer below:*

AL-Sayeed INC

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
		74-2939863	

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☒ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:	2501 Brushy Creek RD, Cedar Park,						
	City	Cedar Park	**State**	TX	**ZIP**	78613	**ZIP + 4**

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	malek694@gmail.com

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** *(if applicable)*

(512) 694-2223		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

THE RESERVE AT BRUSHY CREEK SECTION 1

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	2501 Brushy Creek RD, Cedar Park , TX, 78613							
	City	Cedar Park	**State**	TX	**ZIP**	78613	**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**

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.502680		**28. Longitude (W) In Decimal:**	-97.804800	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

C STORE WITH GASOLINE AND RETAIL SALES

34. Mailing Address:	**2402 Lake Austin Blvd**							
	City	**Austin**	**State**	**TX**	**ZIP**	**78703**	**ZIP + 4**	
35. E-Mail Address:	**malek694@mail.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 694-2223		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
		11-11100302		
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

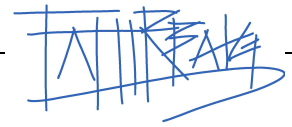
SECTION IV: Preparer Information

40. Name:	Mirza 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 certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Professional StruCIVIL Engineers, Inc - Mirza Tahir Baig	**Job Title:**	Civil Engineer - Agent
Name *(In Print):*	Mirza Tahir Baig	**Phone:**	**(** 512 **)** 238- **6422**
Signature:		**Date:**	07/05/2024