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: Vale Residence						**2. Regulated Entity No.:**			
3. Customer Name: Adrian Alonso						**4. Customer No.:**			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**		0.93	
9. Application Fee:	$650		**10. Permanent BMP(s):**			Stormceptor & VFS			
11. SCS (Linear Ft.):	0		**12. AST/UST (No. Tanks):**			0			
13. County:	Travis		**14. Watershed:**			Eanes Creek			

Application Distribution

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

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

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

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	__	X	__
Region (1 req.)	__	X	__
County(ies)	__	X	__
Groundwater Conservation District(s)	__Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer __Hays Trinity __Plum Creek	X Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	__Austin __Buda __Dripping Springs __Kyle __Mountain City __San Marcos __Wimberley __Woodcreek	__Austin __Bee Cave __Pflugerville X 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. Jerrett Daw
Print Name of Customer/Authorized Agent Jerrett Daw 07/30/2024
Signature of Customer/Authorized Agent Date

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

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

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

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

Signature

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

Print Name of Customer/Agent: Jerrett Daw

Date: 07/27/2024

Signature of Customer/Agent:

Project Information

1. Regulated Entity Name: Vale Residence
2. County: Travis
3. Stream Basin: Eanes Creek
4. Groundwater Conservation District (If applicable): Barton Springs/Edwards Aquifer
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: Adrian Alonso
   Entity: 500 Vale Street Trust
   Mailing Address: 500 Vale Street
   City, State: Austin, TX Zip: 78746
   Telephone: 512-464-1199 FAX: _____
   Email Address: adrianralonso@gmail.com

8. Agent/Representative (If any):

   Contact Person: Jerrett Daw
   Entity: Parnell Engineering, Inc.
   Mailing Address: 500 E. Whitestone Blvd., #1419
   City, State: Cedar Park, TX Zip: 78613
   Telephone: 541-556-1945 FAX: _____
   Email Address: jerrett.daw@parnellengineeringinc.com

9. Project Location:

   ☒ The project site is located inside the city limits of Austin.
   ☐ 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.

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

    500 Vale Street, Austin, TX 78746

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

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

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

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

    ☒ Survey staking will be completed by this date: 9/1/2024

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

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

15. Existing project site conditions are noted below:

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

Prohibited Activities

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

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

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

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

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

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

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

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

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

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

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

Administrative Information

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

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

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

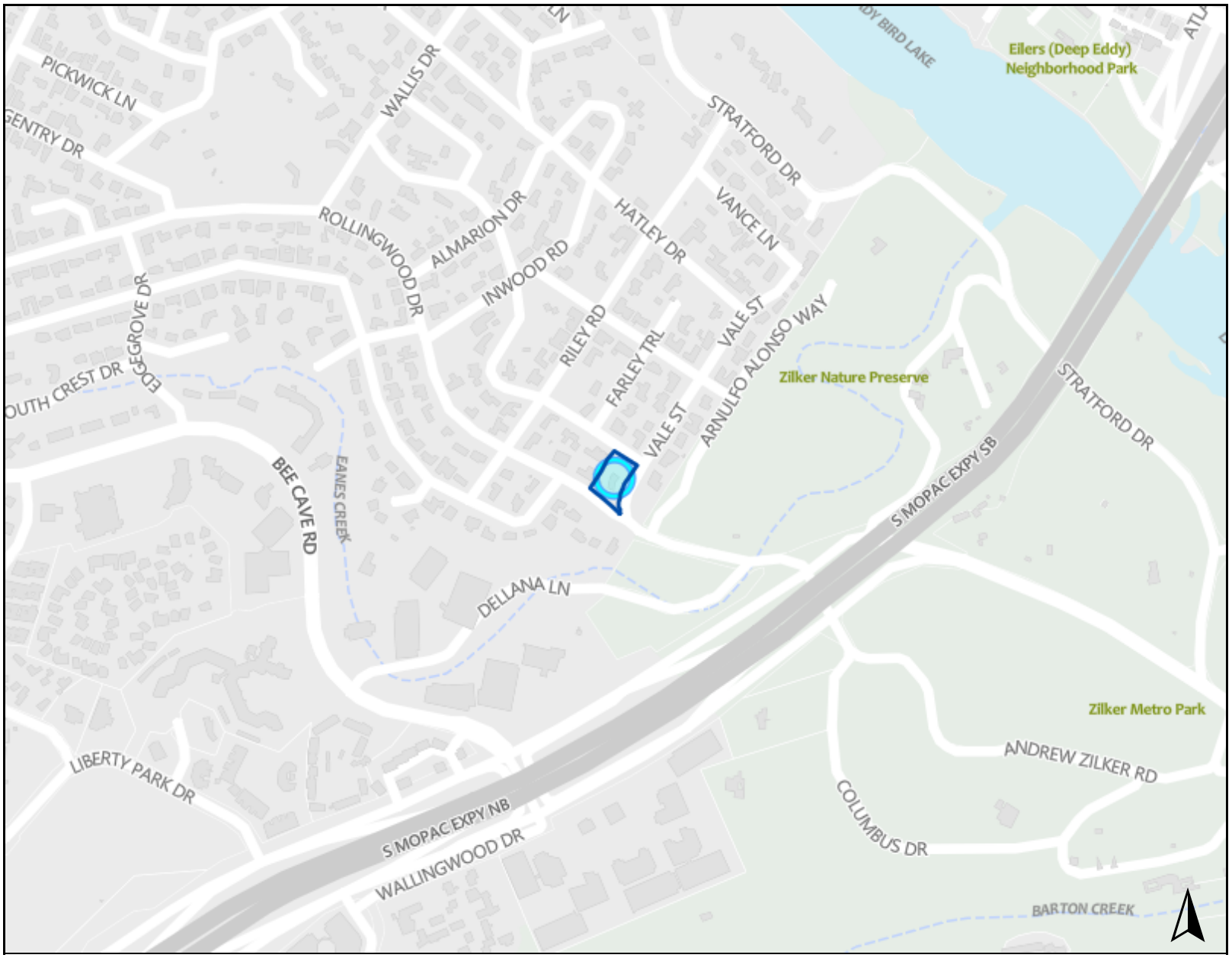
- ☐ TCEQ cashier
- ☒ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
- ☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

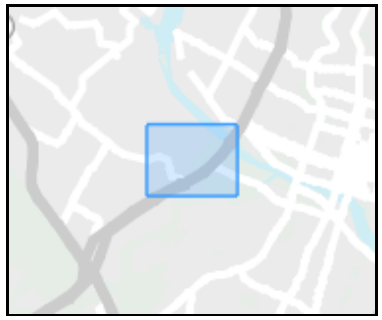
20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies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

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

Property Profile

Attachment A - Road Map





Legend

Notes

0 1000 2000 ft

7/27/2024

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

AUSTIN WEST QUADRANGLE
TEXAS—TRAVIS CO
7.5 MINUTE SERIES (TOPOGRAPHIC)
8854 LAKE TRAVIS 15' QUADRANGLE

Edwards Aquifer Contributing Zone

Edwards Aquifer Recharge Zone

Edwards Aquifer Transition Zone

Subject Site

Mapped, edited, and published by the Geological Survey
in cooperation with City of Austin
Control by USGS and NOS/NOAA
Topography by photogrammetric methods from aerial photographs
taken 1952. Field checked 1954. Revised from aerial photographs
taken 1985. Field checked 1986. Map edited 1988

Projection and 10,000-foot grid ticks: Texas
coordinate system, central zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid, zone 14
1927 North American Datum
To place on the predicted North American Datum 1983
move the projection lines 18 meter south and
28 meters east as shown by dashed corner ticks

Red tint indicates areas in which only landmark buildings are shown

Fine red dashed lines indicate selected fence lines

There may be private inholdings within the boundaries
of the National or State reservations shown on this map

SCALE 1:24000

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

3097–231

ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route U. S. Route State Route

AUSTIN WEST, TEX.
8854 LAKE, TRAVIS 15' QUADRANGLE
30097 C7-TF-024
1988
DMA 8444 IV SE—SERIES V882

Texas Commission on Environmental Quality
Edwards Aquifer Protection Program

Regulatory Zones

30 TAC Chapter 213- Edwards Aquifer
Effective June 1999

DIGITAL DRAFT COPY/ TCEQ 2013

This map was produced by the Groundwater Planning and Assessment Team of the Texas Commission on Environmental Quality to detail the boundaries of the regulatory zones of the Edwards Aquifer Protection Program, as described in Texas Administrative Code Title 30, Part 1, §213.3. No other claims are made to the accuracy or completeness of the data or to its suitability for a particular use. For more information about the Edwards Aquifer Protection Program, please contact the TCEQ Regional Offices in San Antonio or Austin. Printed June 2006.

Attachment C – Project Description

Area of the Site

The proposed development is located at 500 Vale Street, Rollingwood (Austin), Travis County, Texas 78746 and is a 0.93-acre property with Tax Parcel ID R105545.

Offsite Areas

No work is proposed offsite, nor are there any offsite contributing drainage areas.

Area of the Site

The proposed development is located at 500 Vale Street, Rollingwood (Austin), Travis County, Texas 78746 and is a 0.93-acre property with Tax Parcel ID R105545.

Impervious Cover

The site currently exists as a single family residence, with ~7,422 SF of impervious coverage. The proposed development will have ~16,345 SF of impervious coverage.

Permanent BMPS

The permanent BMPS proposed are vegetative filter strips and a Contech Stormceptor stormwater filtration system.

Proposed Site Use

The proposed development will be used as a single family residence.

Site History

The site has existed as a single family residence without change, the existing home will be demolished for the proposed residence.

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), Effective June 1, 1999

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

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

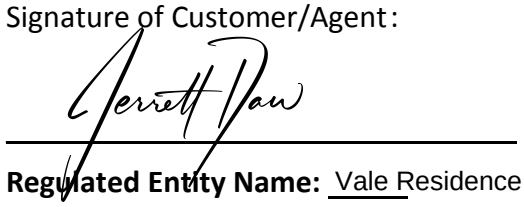
Signature

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

Print Name of Customer/Agent: Jerrett Daw

Date: 07/27/2024

Signature of Customer/Agent:



Regulated Entity Name: Vale Residence

Regulated Entity Information

1. The type of project is:

   - [X] Residential: Number of Lots: 1
   - [ ] Residential: Number of Living Unit Equivalents: _____
   - [ ] Commercial
   - [ ] Industrial
   - [ ] Other: _____

2. Total site acreage (size of property): 0.93

3. Estimated projected population: 3

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

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	10,873	÷ 43,560 =	0.25
Parking	1,825	÷ 43,560 =	0.04
Other paved surfaces	1,249	÷ 43,560 =	0.03
Total Impervious Cover	13,947	÷ 43,560 =	0.32

Total Impervious Cover 0.32 **÷ Total Acreage** 0.93 **X 100 =** 34.4 **% Impervious Cover**

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

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

For Road Projects Only

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

7. Type of project:

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

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

   [ ] Concrete
   [ ] Asphaltic concrete pavement
   [ ] Other: _____

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

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

10. Length of pavement area: _____ feet.

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

11. [ ] A rest stop will be included in this project.

    [ ] A rest stop will not be included in this project.

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

100 % Domestic	250 Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day _____	

15. Wastewater will be disposed of by:

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

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

☐ Sewage Collection System (Sewer Lines):

- ☐ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.
- ☐ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

- ☐ The SCS was previously submitted on_____.
- ☐ The SCS was submitted with this application.
- ☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

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

☐ Existing.
☒ Proposed.

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

Site Plan Requirements

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

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

Site Plan Scale: 1" = _____'.

18. 100-year floodplain boundaries:

☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☒ No part of the project site is located within the 100-year floodplain.
The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA Flood Map 48453C0445K 1/22/202

19. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, open space, etc. are shown on the plan.

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

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

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

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

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

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

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

22. [X] The drainage patterns and approximate slopes anticipated after major grading activities.

23. [X] Areas of soil disturbance and areas which will not be disturbed.

24. [X] Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.

25. [X] Locations where soil stabilization practices are expected to occur.

26. [ ] Surface waters (including wetlands).

    [X] N/A

27. [ ] Locations where stormwater discharges to surface water or sensitive features are to occur.

    [X] There will be no discharges to surface water or sensitive features.

28. [X] Legal boundaries of the site are shown.

Administrative Information

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

30. [X] Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Attachment A – Factors Affecting Surface Water Quality

Water quality is affected by activities during and after construction. During construction, temporary controls will be in place to minimize the effects of construction. After construction, permanent controls will function to reduce the impact of the proposed development.

Construction activities that could potentially affect water quality include construction vehicle traffic, handling of construction equipment and materials, fuel, etc. Loose soil carries the risk of sediment pollution to natural water and the Aquifer. Temporary sediment barriers (silt fence), sediment traps, and a stabilized construction entrance will be used during construction to prevent sediment pollution. Other activities include the handling and disposal of waste materials, hazardous waste, and sanitary waste which pose a risk of contamination. Guidelines for these activities are specified in accordance to the TCEQ Construction General Permit (TXR150000) Stormwater Pollution Prevention Plan.

Permanent factors that will impact water quality include landscape practices, runoff from on-site impervious cover, etc. An onsite system of vault water quality filtration device and vegetative filter strips will capture and remove 80% of the total suspended solids loaded anticipated by increases in impervious cover, per the Edwards Aquifer Rules as presented in the design calculations.

Attachment B – Volume and Character of Stormwater

The project site is fully located within the Edwards Aquifer Recharge Zone. Approximately 0.90 acres will drain from the limits of construction from onsite drainage areas into a proposed stormwater system of a water quality filtration fault and vegetative filter strips. The character of the onsite runoff is considered typical for construction of a single-family residence with the majority of the site being pervious. Conventional treatment techniques are expected to provide adequate water quality controls. Permanent factors that impact water quality include landscape practices and runoff from onsite impervious cover.

The water quality goal is to remove 80% of the increased total suspended solids from the proposed project. This will be accomplished using an onsite, proprietary treatment device (Contech Stormceptor) as well as vegetated filter strips. The increased loading will generate approximately 235 lbs of required TSS removal. The 2400 model Stormceptor can remove up to 243 lbs of TSS removal. The proposed systems are sufficient for the removal of TSS on this project, and will be located towards the southern end of the subject site.

STORM SEWER NOTES:

1. 12" TRENCH DRAIN. NDS PRO CHANNEL DRAIN OR APPROVED EQUAL WITH CAST IRON GRATE
2. 6" HDPE STORM DRAIN PIPE @ 1.00% MIN.
3. 8" HDPE STORM DRAIN PIPE @ 1.00% MIN.
4. 12" HDPE STORM DRAIN PIPE @ 1.00% MIN.
5. 12" HDPE EXTERIOR CONNECTION
   IE = 552.40
   UNDER-SLAB LOCATION OF CONNECTION POINTS FROM INTERIOR WALL DRAIN PIPES FOR ROOF DRAINAGE. CONTRACTOR TO COORDINATE LOCATION AND CONFIRM ELEVATION WITH ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
6. CONTECH STORMCEPTER VAULT PER DETAIL SHEET CG-300.
   12" IE IN = 547.00
   12" IE OUT = 547.00
7. 12" STORM LINE TO DISCHARGE THROUGH EXISTING RETAINING WALL
   6" IE OUT = 544.00
   6" DEEP, RIP-RAP LINED LEVEL FLOW SPREADER AT UPSTREAM EDGE
   REFERENCE STANDARD DETAIL SHEET CG-300
8. 8" HDPE EXTERIOR CONNECTION
   IE = 546.00
   UNDER-SLAB LOCATION OF CONNECTION POINTS FROM INTERIOR WALL DRAIN PIPES FOR ROOF DRAINAGE. CONTRACTOR TO COORDINATE LOCATION AND CONFIRM ELEVATION WITH ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
9. VEGETATIVE FILTER STRIP 'A'
   8" IE OUT = 545.00
   6" DEEP, RIP-RAP LINED LEVEL FLOW SPREADER AT UPSTREAM EDGE
   REFERENCE STANDARD DETAIL SHEET CG-300
10. VEGETATIVE FILTER STRIP 'B'
    6" IE OUT = 547.20
    6" DEEP, RIP-RAP LINED LEVEL FLOW SPREADER AT UPSTREAM EDGE
    REFERENCE STANDARD DETAIL SHEET CG-300

0 10' 20' 40'
SCALE: 1" = 20'

LEGEND

EXISTING

- 735 — MAJOR CONTOUR
- 734 — MINOR CONTOUR
- PROPERTY BOUNDARY
- PROPERTY LINE
- EASEMENT LINE
- ASPHALT LINE
- CONCRETE CURB LINE
- #WW — WASTEWATER LINE
- #W — WATER LINE
- OE — OVERHEAD POWER LINE
- OT — OVERHEAD COMMUNICATION LINE
- XXXX — TREE TO REMAIN AND TREE ID NO.
- XXXX — TREE TO BE REMOVED AND TREE ID NO.

PROPOSED

- 735 — MAJOR CONTOUR
- 734 — MINOR CONTOUR
- CONCRETE CURB
- BUILDING
- CONCRETE
- ASPHALT
- 734.17 — GRADE ELEVATION

NOTES:

1. ALL ITEMS ARE TO BE FURNISHED & INSTALLED BY CONTRACTOR. REFERENCE CONSTRUCTION DETAILS SHEETS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL FORM SIDEWALKS AND VERIFY SLOPE PRIOR TO POURING CONCRETE. CONTRACTOR SHALL ENSURE THAT CROSS SLOPES ARE NO GREATER THAN 2% ALONG THE ACCESSIBLE ROUTE AND RUNNING SLOPE NO GREATER THAN 5%, UNLESS THE RUNNING SLOPE MATCHES THE EXISTING STREET SLOPE. IF ANY DISCREPANCY ARISES. CONTRACTOR SHALL CONTACT ENGINEER FOR SOLUTION.
3. LIMITS OF CONSTRUCTION ARE SHOWN ON THE EROSION & SEDIMENTATION CONTROL PLAN(S).
4. WATER-STOPS SHALL BE PROVIDED DURING CONSTRUCTION OF EXPANSION JOINTS IN RETAINING WALLS PER STANDARD SPECIFICATION 414S, CONCRETE RETAINING WALLS.
5. ALL STRUCTURAL RETAINING WALLS SHALL HAVE A SEPARATE PERMIT.

STATE OF TEXAS
JERRETT J. DAW
118772
LICENSED
PROFESSIONAL ENGINEER
8/07/24

parnell engineering
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500 E. WHITESTONE BLVD (#1419)
CEDAR PARK, TX 78613
512-431-8411
TEXAS REGISTRATION FIRM NO. F-19566

MARK	DATE	DESCRIPTION	BY

ADRIAN ALONSO

500 VALE STREET, ROLLINGWOOD, TEXAS 78746

WPAP SITE PLAN

Project No:	
Designed By:	JD
Drawn By:	KH
Checked By:	JD

CS-100
SHEET 1 OF 1

File No: SP-2020-XXXX

Know what's below. Call before you dig.

Bar Measures 1 inch, otherwise drawing not to scale

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Attachment D: Exception to the Required Geologic Assessment

Although the proposed project is located within the Edwards Aquifer Recharge Zone, a geological assessment exception is requested. The existing residence has been in place for 70 years, and there are no observed rock outcroppings or geological features. Furthermore, the location of the site inherently presents that there would be no geological features present, as the site is located on a 'hill-top' of it's associated drainage basin, and does not receive flows from any direction of offsite contributing area. The limits of construction are fully within the already disturbed areas and no undisturbed areas will be disturbed by the project.

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: Jerrett Daw

Date: 7/27/2024

Signature of Customer/Agent:

Jerrett Daw

Regulated Entity Name: Vale Residence

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. N/A 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: Lady Bird Lake

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:

[X] 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.

[X] 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.

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

[X] 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. [X] 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.

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

9. [X] **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. [X] **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

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

    N/A [ ] 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.

    N/A [ ] 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.

    N/A [ ] 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.

[X] 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.

    [X] N/A

12. [X] **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. [X] 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. [X] 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. [X] 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. [X] 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. [X] **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. [X] 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. [X] Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Administrative Information

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

21. [X] 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. [X] 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.

Attachment A – Spill Response Actions

The construction contractor will be capable of responding at any time to a spill. The contractor will have the tools available to dike, boom, or block off inlets to contain and prevent a spill that may occur on the site. The contractor will have the contact information for additional contracts to support larger spills.

“Reportable spills” will be reported to the TCEQ at the Austin Region Call Number 512-339-2929 or Spill Reporting (24 Hour) at 800-832-8224 within 24 hours of the spill event. A reportable spill is one that meets any of the following criteria:

- 25 gallons of oil, fuel, and other hydrocarbon onto the ground
- Any amount of hydrocarbon and/or crude oil that causes a visible sheen on waters of the United States including, but not limited to, stormwater runoff.

Attachment B – Potential Sources of Contamination

The anticipated primary pollutant is sediment. Other potential pollutants are vehicle fluids, trash, and bacteria.

Potential sources of sediment to stormwater runoff:

- Soil disturbing activities including clearing, grading, and excavation for inlets, storm sewers, vegetated filter strips, utilities and other construction requirements.

Potential pollutant and sources, other than sediment to stormwater runoff:

Material	Storm Water Pollutants	Location
Lubricant	Hydrocarbons	Equipment parking area
Fuel	Hydrocarbons	Equipment parking area
Coolant	Organic compounds	Equipment parking area
Trash	Floatables	Project
Portable toilet fluids	Bacteria	Break Station
Cleaning supplies/solvents	Detergents, organic compounds	Equipment washing areas
Fertilizers	Nutrients	Storage areas/seeding locations
Wood	Floatables	Fence lines

Any unanticipated hazardous materials and/or petroleum contamination encountered during construction within the subject property will be handled according to applicable rules and regulations.

Attachment C – Sequence of Major Activities

1. The environmental project manager or site supervisor must contact the development services department, environmental inspection, at 512-974-2278, 72 hours prior to the scheduled date of the required onsite pre-construction meeting (no site acreage disturbed).
2. Send Notice of Intent to the Texas Commission on Environmental Quality (TCEQ) at least 48 hours prior to commencement of construction (no site acreage disturbed).
3. The contractor shall post site notice at the project site and install erosion/sedimentation controls, tree/natural area protective fencing, and conduct "pre construction" tree fertilization prior to any site preparation work (no site acreage disturbed).
4. The erosion sedimentation control plan (ESC) and stormwater pollution prevention plan (SWPPP) will be followed by the environmental project manager, site supervisor, the designated responsible party, and the general contractor. The temporary erosion and sedimentation controls will be revised (if needed) to comply with the city inspectors' directives, and revised construction schedule relative to the water quality plan requirements and the erosion plan (no site acreage disturbed).
5. Begin site clearing/construction activities (no more than 0.93 acres will be disturbed at any time).
6. Complete construction, begin revegetating the site, and start the installation of landscaping (no additional acreage disturbed).
7. Upon completion of the site construction and revegetation, the design engineer will submit an engineer's letter of concurrence bearing their engineer's seal, their signature, and date to the development services department indicating that construction and revegetation is complete and in substantial compliance with the approved plans. A final inspection will be scheduled by the appropriate city inspector (no additional acreage disturbed).
8. After the final inspections have been conducted and approved by the appropriate city inspector, the temporary erosion and sedimentation controls will be removed. Any necessary revegetation resulting from the removal of the control will be completed. Maintenance and rehabilitation of the water quality facilities is to be performed (no additional acreage disturbed).

Attachment D – Temporary Best Management Practices and Measures

The following temporary BMPs and measures will prevent pollution of surface water or groundwater that originates onsite or flows offsite, including pollution caused by contaminated stormwater runoff from the site:

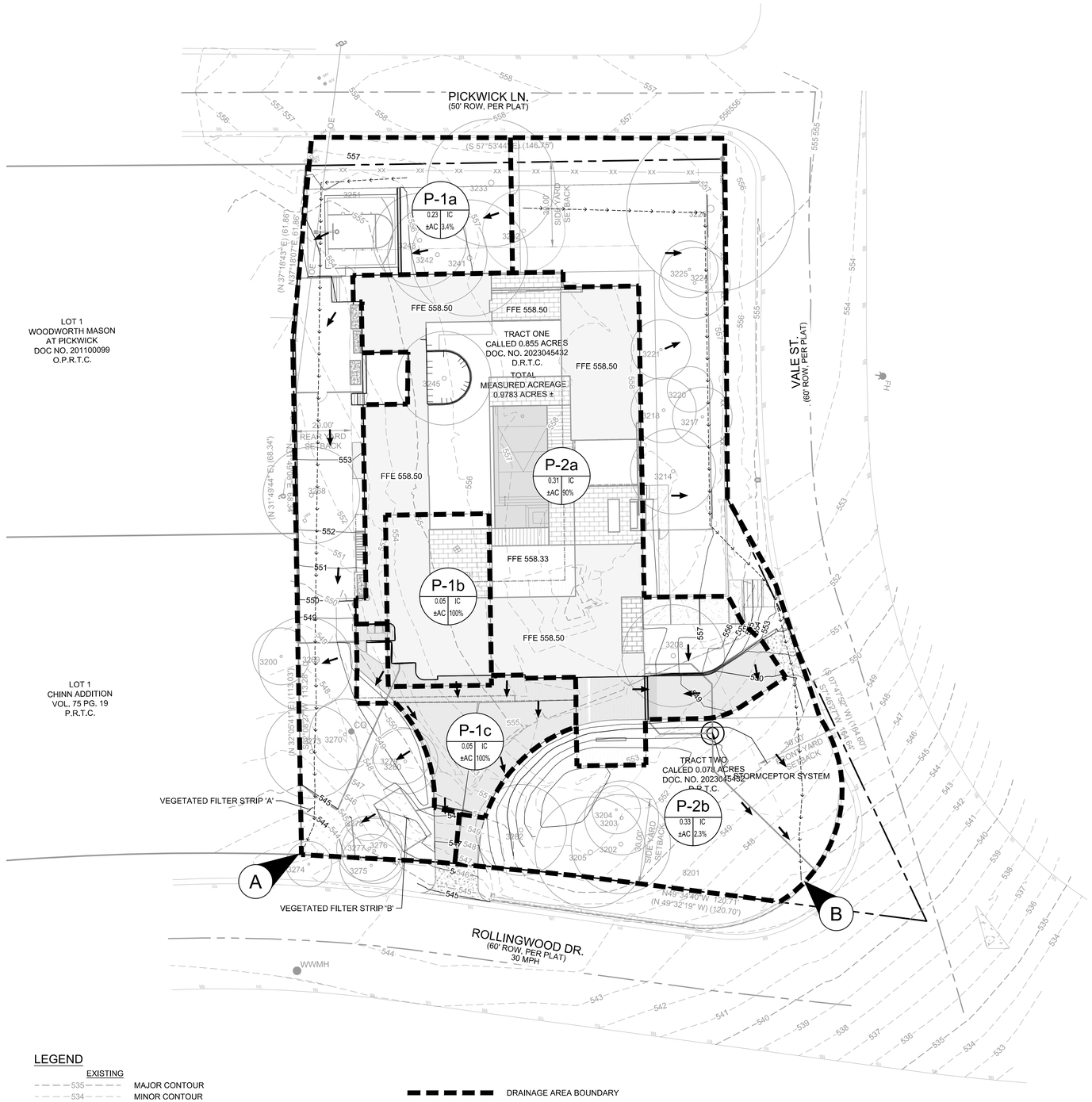
- Temporary silt fences
- Tree protection fences
- Stabilized construction entrance and exit
- Temporary storm inlet sediment traps
- Construction sequencing to reduce disturbance
- Temporary dewatering filter bags
- Temporary vegetative stabilization

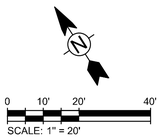
Details pertaining to quantities, placement, maintenance, and inspection of the temporary BMPs and practices are outlined in the Construction Plan Set

The temporary BMPs described above will prevent pollutants from entering surface streams or the aquifer

Attachment F – Structural Practices

Silt fences will be used around staging areas, concrete washouts, and around the project boundary to remove sediment from overland flows prior to exiting the site and entering the stormwater conveyance system. If necessary, a dewatering will occur utilizing a sediment trap and a dewatering filter bag. There will not be any areas greater than 1acre disturbed at one time within a common drainage area.





PROPOSED CONDITIONS IC TABLE									
Drainage Area	Area (sf)	Area (ac)	Area (sq mi)	Impervious Cover					
				Roof (sf)	Paved, Road & Compact Surfaces (sf)	Sidewalks (sf)	Total IC (sf)	Total IC %	Point of Analysis
P-1	31,747.12	0.73	0.0011	10,745	1,548	948	13241.51	41.71%	A
P-2	10,985.54	0.25	0.0004	128	277	301	705.05	6.42%	B
Total	42,732.66	0.98					13946.56	32.64%	

PROPOSED IMPERVIOUS COVER TABLE /TCEQ			
TYPE	TOTAL (SQ FT)	TOTAL (%) OF LOT	NET INCREASE (SQ FT)
BUILDING	7,115	16.70%	4,011
DRIVEWAY	3,763	8.83%	1,641
PATIOS	3,298	7.74%	3,298
SIDEWALK	955	2.24%	-300
AC PAD	102	0.24%	90
SITE WALLS	170	0.40%	-747
TOTAL	15,403	36.15%	7,993

Basin	Area	Impervious	Pervious	Time of Co	2-year			10-year			25-year			100-year		
	acre	%	%	min	C	I	Q	C	I	Q	C	I	Q	C	I	Q
P-1	0.30	16.51%	83.49%	5	0.37	6.31	0.69	0.43	9.61	1.23	0.47	11.79	1.65	0.54	15.42	2.52
P-2	0.68	44.82%	55.18%	5	0.29	6.31	1.24	0.35	9.61	2.28	0.39	11.79	3.08	0.46	15.42	4.81

POA-A	2-Yr		10-Yr		25-Yr		100-Yr	
	cfs	fps	cfs	fps	cfs	fps	cfs	fps
Existing Cond.	1.00	1.04	1.84	1.27	2.48	1.40	3.88	1.63
Proposed Cond.	0.69	0.81	1.23	0.95	1.65	1.06	2.52	1.18
Δ	-0.31	-0.23	-0.61	-0.32	-0.83	-0.35	-1.36	-0.45

POA-B	2-Yr		10-Yr		25-Yr		100-Yr	
	cfs	fps	cfs	fps	cfs	fps	cfs	fps
Existing Cond.	0.94	1.02	1.67	1.23	2.25	1.36	3.43	1.53
Proposed Cond.	1.24	1.18	2.28	1.39	3.08	1.53	4.81	1.73
Δ	0.30	0.16	0.61	0.16	0.83	0.17	1.38	0.20

NOTES:
1. HYDROLOGIC ANALYSIS WAS PERFORMED USING THE CRITERIA SET FORTH IN THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL, AS PRESCRIBED BY THE CITY OF ROLLINGWOOD STORMWATER MANAGEMENT MANUAL.
2. DRAINAGE AREA P-1A IS ALMOST ENTIRELY NATURAL AREA, AND WILL NOT BE CAPTURED, TREATED, OR DETAINED.
3. DRAINAGE AREA P-1B IS AN UPPER ROOF TERRACE THAT IS UNABLE TO BE ROUTED TO THE PROPOSED STORMCEPTOR SYSTEM. THEREFORE, THE DRAINAGE AREA WILL BE ROUTED VIA INTERIOR WALL DRAINAGE PIPES TO THE PROPOSED VEGETATIVE FILTER STRIP 'A'. REFER TO THE GRADING PLAN FOR MORE INFORMATION.
4. DRAINAGE AREA P-1C WILL BE ROUTED TO THE PROPOSED VEGETATIVE FILTER STRIP 'B' LOCATED TO THE WEST OF THE DRIVE AISLE. REFER TO THE GRADING PLAN FOR MORE INFORMATION.
5. DRAINAGE AREA P-2A REPRESENTS THE MAJORITY OF THE ROOF AND IMPERVIOUS SURFACES FROM THE PROPOSED SINGLE FAMILY RESIDENCE AND WILL BE ROUTED THROUGH INTERIOR DRAINAGE PIPING TO THE PROPOSED STORMCEPTOR SYSTEM.
6. DRAINAGE AREA P-2B IS ALMOST ENTIRELY NATURAL AREA AND WILL NOT BE CAPTURED, TREATED OR DETAINED.

LEGEND

EXISTING

- MAJOR CONTOUR
- MINOR CONTOUR
- CWQZ LIMITS
- PROPERTY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF DIRT ROAD
- SANITARY SEWER / WASTEWATER MAIN
- WATER MAIN
- FENCE LINE
- OVERHEAD POWER LINE
- POWER POLE
- TREE & TREE IDENTIFICATION NUMBER

- DRAINAGE AREA BOUNDARY
- FLOW DIRECTION ARROW
- T.C FLOW PATH

DENOTES BASIN NUMBER
DENOTES BASIN ACREAGE
DENOTES BASIN IMPERVIOUS COVER
DENOTES POINT OF ANALYSIS

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TEXAS REGISTRATION FIRM NO. F-19566

MARK	DATE	DESCRIPTION

BY

ADRIAN ALONSO

500 VALE STREET, ROLLINGWOOD, TEXAS 78746

PROPOSED DRAINAGE AREA MAP

Project No:	
Designed By:	KH
Drawn By:	KH
Checked By:	RH

CG-201

Sheet 9 of 9

File No: SP-2020-XXXX

811 Know what's below. Call before you dig.

Bar Measures 1 inch, otherwise drawing not to scale

8/7/2024 10:47:17 AM - J:\2418_ADRIAN ALONSO\VALE RESIDENCE\CAD\SHEETFILES\CG-201 PROPOSED DRAINAGE AREA MAP.DWG - PC

Attachment I – Inspection and Maintenance for BMPs

Inspection requirements are outlined in the Stormwater Pollution Prevention Plan. For areas of the construction site that have not been fully stabilized, areas used for storage of materials, structural control measures, and locations where vehicles enter or exit the site, personnel provided b the permittee and familiar with the SWPPP will inspect disturbed areas at least once every 14 calendar days and within 24 hours of the end of a storm of 0.5 inch or greater. As an alternative to the above-described inspection schedule, these inspections will occur at least once every 7 calendar days.

Each contractor will designate a qualified person or persons to perform the following inspections:

- Locations where vehicles enter or exit the site will be inspected to prevent tracking or following of sediment onto public roadways.
- Disturbed areas and areas used for storage of materials that are exposed to precipitation will be inspected for evidence of, or the potential for, pollutants entering the drainage system.
- Erosion and sediment control measures identified in the plan will be observed to ensure that they are operating correctly.
- Where discharge locations or points are accessible, they will be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.
- The vehicle/equipment wash area will be inspected for loss of aggregate, proper drainage, and proper maintenance of equipment.
- Silt fences should be inspected prior to forecast rain, daily during extended rain events, after rain events, or weekly. If a silt fence is damaged or inoperable, it shall be removed and replaced with a new silt fence. If sediment accumulation reaches approximately 6 inches, it shall be removed.

Attachment J – Schedule of Interim and Permanent Soil Stabilization Practices

This schedule shall be followed:

1. Install erosion sediment controls, tree/natural area protective fencing, and conduct "pre-construction" tree fertilization prior to any site preparation work.
2. Stabilized construction exits will be provided using coarse aggregate or approved substitute.
3. The on-site staging and parking area will be stabilized using coarse aggregate or approved substitute.
4. All disturbed areas to be revegetated are required to place a minimum of 6-inches of topsoil. Topsoil is not to be added within the critical root zone of existing trees.
5. The establishment of temporary and permanent stabilization will be applied to disturbed areas.
6. All disturbed land within the ROW will be stabilized to minimize erosion and sedimentation as soon as possible.
7. Remove temporary erosion controls when the site is stabilized.

Permanent Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

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

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

Signature

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

Print Name of Customer/Agent: Jerrett Daw

Date: 7/29/2024

Signature of Customer/Agent

Jerrett Daw

Regulated Entity Name: Vale Residence

Permanent Best Management Practices (BMPs)

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

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

   [ ] N/A

2. [X] 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.

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

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

☐ N/A

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

   ☐ N/A

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

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

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

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

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

☐ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.

☒ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

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

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

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

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

☒ N/A

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

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

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

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

☒ Design calculations (TSS removal calculations)

☒ TCEQ construction notes

☐ All geologic features

☒ All proposed structural BMP(s) plans and specifications

☐ N/A

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

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

    [ ] N/A

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

    [X] N/A

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

    [X] N/A

Responsibility for Maintenance of Permanent BMP(s)

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

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

    [ ] N/A

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

    [X] N/A

Attachment B – BMPS for Upgradient Stormwater

There is no offsite drainage that passes through the subject property. The subject site is bounded to the North by Pickwick lane, which has a high point near the NW corner o the subject site o 558 elevation, diverting all drainage around the subject site to the NW and NE. To the east o the site, is Vale street, which is a lower elevation than the subject site, conveying offsite drainage around the East and to the South o the site. Rollingwood Drive is located south o the subject site, lower in elevation than the subject site. Two, single- amily residences exist to the West o the subject site, which are lower in elevation than the subject site. There ore, there is no offsite drainage or upgradient stormwater passing through the subject site.

Attachment C – BMPs for On-site Stormwater

The water quality goal is to remove 80% of the increased total suspended solids (TSS) from the proposed project. This will be accomplished using a Contech Stormceptor system, along with three vegetated filter strips. TSS removal calculations for the Stormceptor system have been included in the following pages.

Per the calculation spreadsheet for RG-348 requirements, vegetated filter strips are not required to be sized for TSS load removal, and are only required to meet certain dimensional constraints. The engineering VFS proposed for this project have been sized appropriately to handle the incredibly small runoff areas directed to them. Please see the construction plans for more details.

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Vale Street Residence
Date Prepared: 7/8/2024

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 =	Travis	
Total project area included in plan * =	0.30	acres
Predevelopment impervious area within the limits of the plan * =	0.00	acres
Total post-development impervious area within the limits of the plan* =	0.27	acres
Total post-development impervious cover fraction * =	0.90	
P =	32	inches
$L_{M\ TOTAL\ PROJECT}$ =	235	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = 2

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	0.30	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.27	acres
Post-development impervious fraction within drainage basin/outfall area =	0.90	
$L_{M\ THIS\ BASIN}$ =	235	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Stormceptor
Removal efficiency = 81 percent

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

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

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

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

A_C =	0.30	acres
A_I =	0.27	acres
A_P =	0.03	acres
L_R =	243	lbs

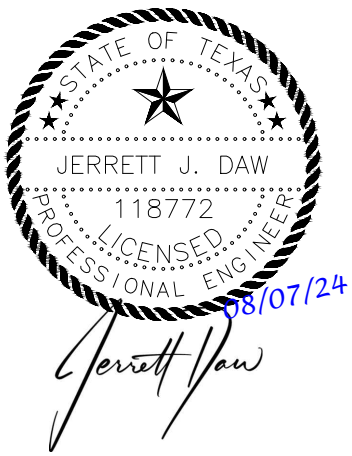
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

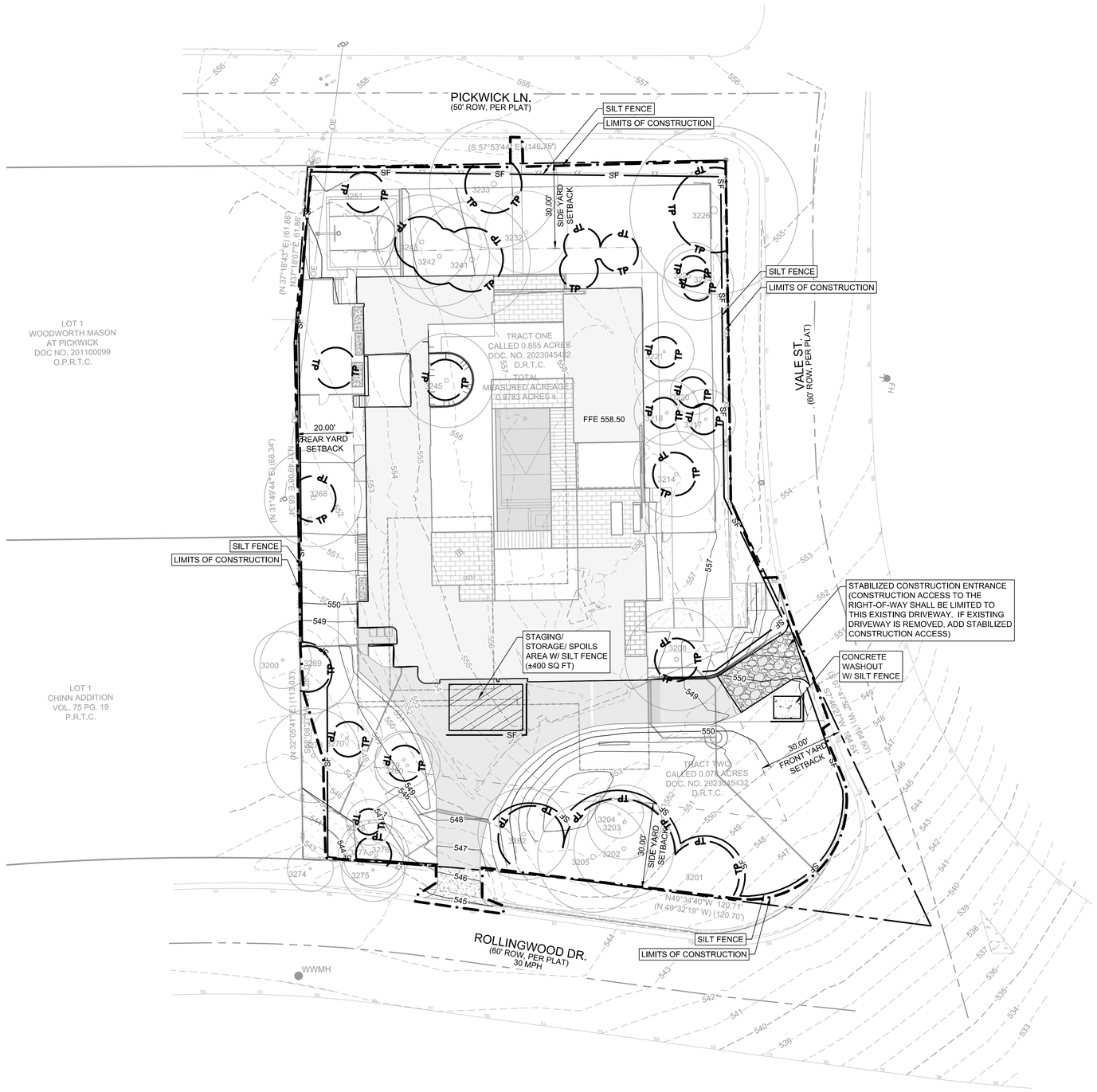
Desired $L_{M\ THIS\ BASIN}$ = 235 lbs.

F = 0.97

20. Stormceptor

Required TSS Removal in BMP Drainage Area=	235.01	lbs
Impervious Cover Overtreatment=	0.0000	ac
TSS Removal for Uncaptured Area =	0.00	lbs
BMP Sizing		
Effective Area =	0.24	EA
Calculated Model Size(s) =	2400, 3600	
Actual Model Size (if multiple values provided in Calculated Model Size or if you are choosing a larger model size) =	2400	Model Size
Surface Area =	50.27	ft^2
Overflow Rate =	0.005337	V_{or}
Rounded Overflow Rate =	0.005360	V_{or}
BMP Efficiency % =	81.00	%
L_R Value =	242.56	lbs
TSS Load Credit =	7.56	lbs
Is Sufficient Treatment Available? (TSS Credit > TSS Uncapt.)	Yes	
TSS Treatment by BMP (LM + TSS Uncapt.) =	235.01	





TREE TABLE

No.	DESC.	SIZE
3200	CEDAR ELM	10 "
3201	WHITE OAK	17.5 "
3202	LIVE OAK	13.5 " , 8 " (M)
3203	LIVE OAK	13 "
3204	CEDAR ELM	8.5 "
3205	LIVE OAK	19.5 "(P)
3206	CEDAR ELM	13 "
3207	CEDAR ELM	9 "
3208	CEDAR ELM	13 " , 10 " (M)
3209	CEDAR ELM	11.5 "
3210	CEDAR ELM	11.5 "
3211	LIVE OAK	11 " , 8 " (M)
3212	LIVE OAK	11 "
3213	LIVE OAK	11 " , 9 " (M)
3214	LIVE OAK	15 "
3215	CEDAR ELM	8 "
3216	CEDAR ELM	9 "
3217	CEDAR ELM	10.5 "
3218	CEDAR ELM	11.5 "
3219	CEDAR ELM	9.5 "
3220	CEDAR ELM	8 "
3221	CEDAR ELM	10.5 "
3222	CEDAR ELM	10 " , 9 " , 8 " (M)
3223	CEDAR ELM	9.5 "
3224	CEDAR ELM	12.5 "
3225	LIVE OAK	8 " , 5 " (M)
3226	LIVE OAK	19.5 , 19.5 "(P)
3227	CEDAR ELM	10.5 "
3228	CEDAR ELM	9.5 "
3229	CEDAR ELM	8.5 "
3230	CEDAR ELM	9.5 "
3231	CEDAR ELM	8 "
3232	CEDAR ELM	8 " , 8 " , 6 " (M)
3233	LIVE OAK	16.5 " , 11.5 " (P)
3234	LIVE OAK	9.5 "
3235	LIVE OAK	10.5 "
3236	CEDAR ELM	8 "
3237	LIVE OAK	8.5 "
3238	LIVE OAK	10 "
3239	LIVE OAK	12 "
3240	CEDAR ELM	11 "
3241	LIVE OAK	14.5" , 12 " (M)
3242	LIVE OAK	17.5 "
3243	CEDAR ELM	13 " , 7 " (M)
3244	CEDAR ELM	8 "
3245	LIVE OAK	16 " , 6 " (M)
3246	LIVE OAK	12 " , 10 " (M)
3247	CEDAR ELM	12 "
3248	CEDAR ELM	11 "
3249	LIGUSTRUM	8 " , 6 " , 5 " (M)
3250	CEDAR ELM	12 "
3251	CEDAR ELM	14 "
3252	LIVE OAK	9 "
3253	CEDAR ELM	11 "
3254	LIVE OAK	8.5 "
3255	LIVE OAK	8 "
3256	CEDAR ELM	11.5 "
3257	LIVE OAK	12 "
3258	LIVE OAK	11 " , 7 " (M)
3259	CEDAR ELM	9.5 "
3260	CEDAR ELM	12 "
3261	LIVE OAK	21 " (P)
3262	CEDAR ELM	15.5 "
3263	LIVE OAK	13 "
3264	ELM	15 " , 6 " (M)
3265	ELM	15 "
3266	LIGUSTRUM	5 " , 5 " , 5 " , 5 " (M)
3267	CEDAR ELM	9 "
3268	CEDAR ELM	12 " , 10 " (M)
3269	LIGUSTRUM	7 " , 6 " , 4 " (M)
3270	CHINABERRY	12.5 "
3271	CEDAR ELM	6 " , 5 " (M)
3272	LIGUSTRUM	6 " , 5 " , 5 " (M)
3273	LIGUSTRUM	7 " , 7 " , 4 " (M)
3274	CHINABERRY	8 "
3275	CHINABERRY	6 " , 8 " (M)
3276	CEDAR ELM	8 " , 7 " (M)
3277	CEDAR ELM	8 " , 7 " (M)
3278	CEDAR ELM	8 "
3279	LIGUSTRUM	6 " , 4 " , 4 " (M)
3280	LIGUSTRUM	5 " , 5 " , 4 " (M)
3281	LIGUSTRUM	8 " , 6 " , 5 " , 5 " (M)
3282	LIGUSTRUM	5 " , 5 " , 5 " , 4 " (M)

0 10' 20' 40'
SCALE: 1" = 20'

LEGEND

EXISTING

- 735 — MAJOR CONTOUR
- 734 — MINOR CONTOUR
- PROPERTY BOUNDARY
- PROPERTY LINE
- EASEMENT LINE
- ASPHALT LINE
- CONCRETE CURB LINE
- #WW — WASTEWATER LINE
- #W — WATER LINE
- OE — OVERHEAD POWER LINE
- OT — OVERHEAD COMMUNICATION LINE
- XXXX — TREE TO REMAIN AND TREE ID NO.
- XXXX — TREE TO BE REMOVED AND TREE ID NO.

PROPOSED

- 735 — MAJOR CONTOUR
- 734 — MINOR CONTOUR
- CONCRETE CURB
- LIMITS OF CONSTRUCTION
- SF — SILT FENCE
- TP — TREE PROTECTION
- INLET PROTECTION
- CONCRETE WASHOUT AREA
- STAGING/STORAGE/SPOILS AREA
- STABILIZED CONSTRUCTION ENTRANCE

STABILIZED CONSTRUCTION ENTRANCE:	1 EACH
LIMITS OF CONSTRUCTION:	± 0.94 AC.
INLET PROTECTION	0 EACH
TOTAL LENGTH OF SILT FENCE:	± 911 LF
TOTAL LENGTH OF TREE PROTECTION:	± 1100 LF

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND INSPECTING, ON A REGULAR BASIS, ALL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES INCLUDING THE SILT FENCES, CONSTRUCTION ENTRANCES, ROCK FILTER DAMS, ETC. DURING CONSTRUCTION/DEMOLITION AND INCLUDING THE REMOVAL AND PROPER DISPOSAL OF ANY ACCUMULATED SILT AND DEBRIS.

2. THE CONTRACTOR SHALL NOT BEGIN ANY WORK UNTIL TREE PROTECTION AND THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SUCH AS SILT FENCE, CONSTRUCTION ENTRANCES, ROCK FILTER DAMS, ETC. HAVE BEEN INSTALLED.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE STREETS FREE OF MUD, DIRT, DEBRIS AND MATERIAL AT ALL TIMES AND SHALL CLEAN/SWEEP THE STREETS ON A REGULAR BASIS.

4. INCREASED STORMWATER PEAK FLOWS DURING CONSTRUCTION MUST BE MITIGATED WITH TEMPORARY BEST MANAGEMENT PRACTICES TO PREVENT HARM TO NEIGHBORING PROPERTIES.

GENERAL SEQUENCE OF CONSTRUCTION:

1. CITY TO ISSUE APPROVED PERMIT FOR SEDIMENT AND SOIL EROSION CONTROL PLAN.
2. CONTRACTOR SHALL INSTALL ALL SEDIMENTATION AND EROSION CONTROLS PER LAYOUT.
3. CONTRACTOR SHALL INSTALL ALL TREE PROTECTION MEASURES PER PLANS.
4. SITE CLEARING/ROUGH GRADING.
5. INSTALL UTILITIES.
6. CONSTRUCT SITE RETAINING WALLS, FOUNDATIONS, AND CONCRETE STRUCTURES.
7. CONSTRUCT RESIDENCE.
8. CONSTRUCT FLATWORK, POOL, & OTHER SITE IMPROVEMENTS.
9. FINAL LANDSCAPING AND RE-VEGETATION.
10. REMOVE EROSION CONTROLS.

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MARK	DATE	DESCRIPTION	BY

ADRIAN ALONSO

500 VALE STREET, ROLLINGWOOD, TEXAS 78746

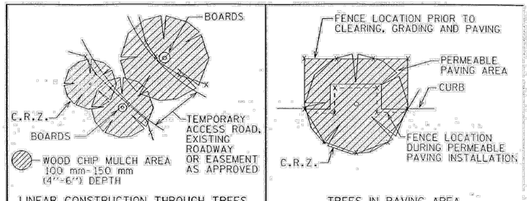
EROSION AND SEDIMENTATION CONTROL PLAN

Project No:	
Designed By:	KH
Drawn By:	KH
Checked By:	RH

C-200
Sheet 1 of 6
File No:

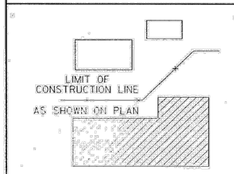
Bar Measures 1 inch, otherwise drawing not to scale

8/7/2024 10:47:01 AM - J:\2418_ADRIAN ALONSO\VALE RESIDENCE\CAD\SHEETFILES\C-200 ENS.DWG - PC

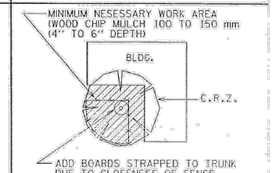


LINEAR CONSTRUCTION THROUGH TREES

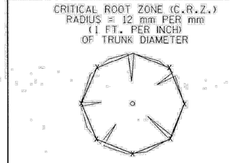
TREES IN PAVING AREA



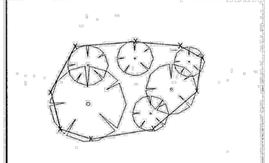
NATURAL AREAS



TREES NEAR CONSTRUCTION ACTIVITY

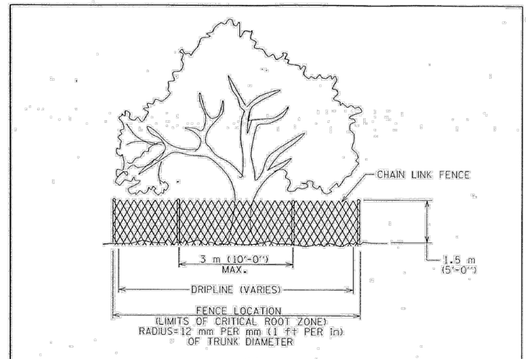


INDIVIDUAL TREE

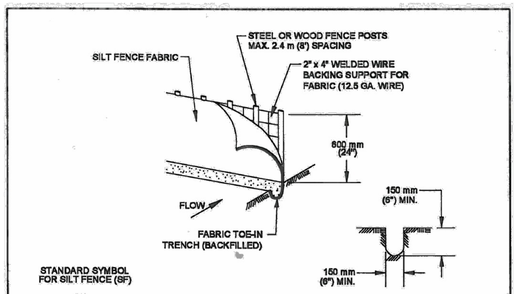


GROUP OF TREES

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROTECTION FENCE LOCATIONS	
11/15/22 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-1



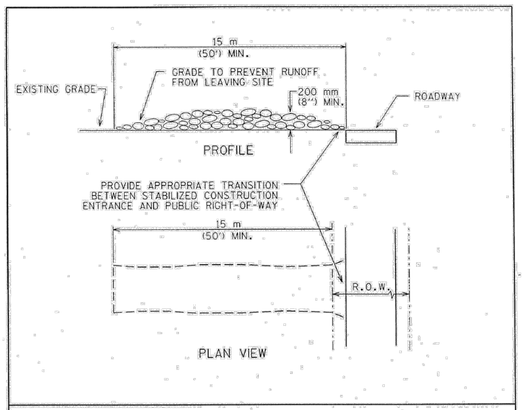
CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	TREE PROPTECTION FENCE TYPE A - CHAIN LINK	
11/15/22 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 610S-2



TRENCH CROSS SECTION

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

CITY OF AUSTIN WATERSHED PROTEDTION DEPARTMENT	SILT FENCE	
9/1/2011 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 642S-1



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

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	STABILIZED CONSTRUCTION ENTRANCE	
5/23/06 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.	STANDARD NO. 641S-1

Table 1.4.5.G.1: Maximum spacing between silt fences on slopes		
Slope	Spacing Interval (ft)	Max. Drainage Area (sf)
100:1 to 50:1 (1-2%)	500	25,000
50:1 to 30:1 (2-3.3%)	250	15,000
30:1 to 25:1 (3.3-4%)	150	12,000
25:1 to 20:1 (4-5%)	120	10,000
20:1 to 10:1 (5-10%)	100	5,000
10:1 to 5:1 (10-20%)	50	2,500
5:1 to 2:1 (20-50%)	10	1,000

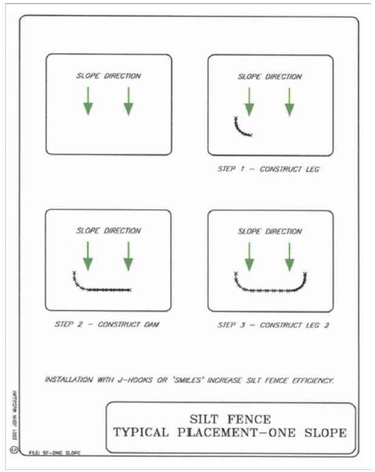
SILT FENCE SPACING TABLE

TABLE 1. Silt Fence Fabric Requirements

Physical Properties	Method	Requirements
Fabric Weight in ounces per square yard (grams/square meter)	TEX-616-J[1]	5.0 minimum (150 minimum)
Equivalent Sieve Opening Size: US Standard (SI Standard sieve size)	CW-02215[2]	40 to 100 (425 to 150 µm)
Mullen Burst Strength: lbs. per sq. inch (psi) megaPascal (mPa)	ASTM D-3786[3]	280 minimum (1.9 minimum)
Ultraviolet Resistance; % Strength Retention	ASTM D-1682[4]	70 minimum

[1] TxDoT Test Method Tex-616-J, "Testing of Construction Fabrics".
[2] US Army Corps of Engineers Civil Works Construction Guide Specification CW-02215, "Plastic Filter Fabric".
[3] ASTM D-3786, " Test Method for Hydraulic Bursting Strength of Knitting Goods and Nonwoven Fabrics: Diaphragm Bursting Strength Tester Method".
[4] ASTM D-1682, "Test Methods for Breaking Load and Elongation of Textile Fabrics ".

SILT FENCE FABRIC REQUIREMENTS



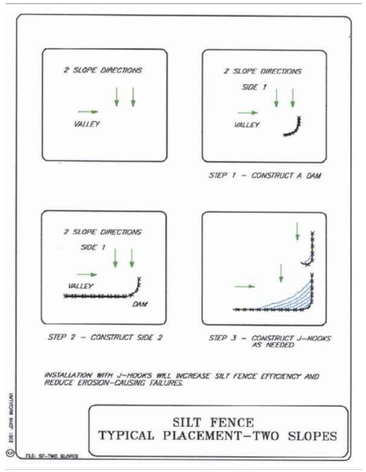
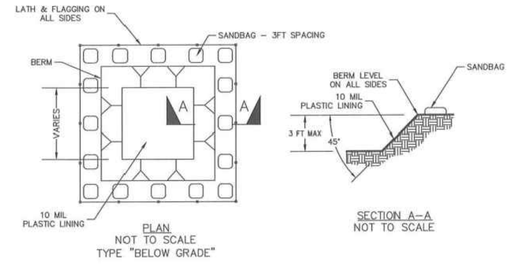
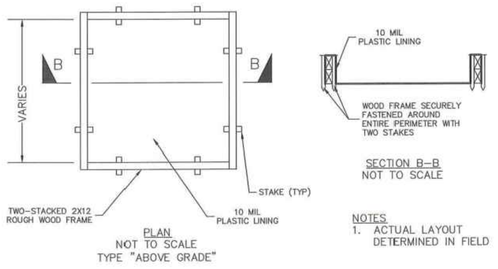


FIGURE 1.4.5.G.3 SILT FENCE PLACEMENT FOR PERIMETER CONTROL





NOTES
1. ACTUAL LAYOUT DETERMINED IN FIELD

CONCRETE WASHOUT

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512-431-8411
TEXAS REGISTRATION FIRM NO. F-19566

STATE OF TEXAS
JERRETT J. DAW
118772
LICENSED PROFESSIONAL ENGINEER
08/07/24

MARK	DATE	DESCRIPTION

ADRIAN ALONSO
500 VALE STREET, ROLLINGWOOD, TEXAS 78746
EROSION AND SEDIMENT CONTROL DETAILS

Project No:	
Designed By:	KH
Drawn By:	KH
Checked By:	RH

C-201
Sheet 2 of 6
File No:

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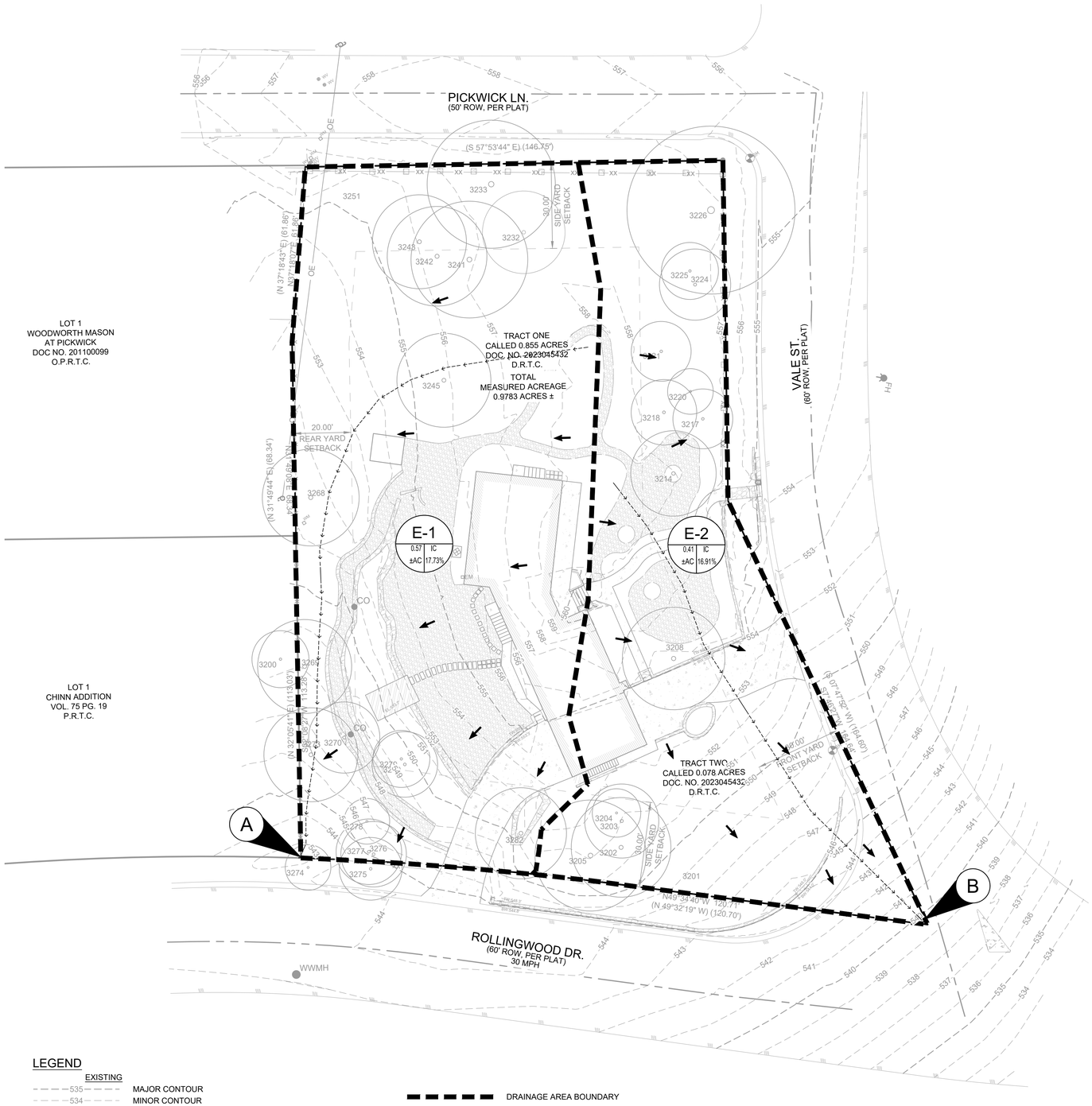

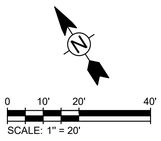

EXISTING CONDITIONS IC TABLE							
Drainage Area	Area (sf)	Area (ac)	Area (sq mi)	Impervious Cover				Point of Analysis
				Roof (sf)	Paved, Road & Compact Surfaces (sf)	Total IC (sf)	Total IC %	
E1	24,876.97	0.57	0.00089	2,311	2,100	4411.22	17.73%	A
E2	17,737.03	0.41	0.00064	793	2,206	2998.78	16.91%	B
Total	42,614.00	0.98				7410.00	17.39%	

EXISTING CONDITIONS - TIME OF CONCENTRATION CALCULATIONS																				
Basin	Area			Sheet Flow				Shallow Concentrated Flow				Channel Flow						Increm	Imp Cover
				L	n	S	Tc	L	n	S	Tc	L	n	S	R	V	Tc	Tc	
	sf	ac	sq mi	ft		%	min	ft		%	min	ft		%		fps	min	min	%
E1	24,877	0.57	0.0009	100	0.150	7.00%	5.2	142	Unpaved	5.63%	0.6	-	-	-	-	-	-	5.82	17.73%
E2	17,737	0.41	0.0006	100	0.150	12.00%	4.2	92	Unpaved	5.43%	0.4	-	-	-	-	-	-	4.60	16.91%

EXISTING IMPERVIOUS COVER TABLE		
TYPE	TOTAL (SQ FT)	TOTAL (%) OF LOT
BUILDING	3,104	7.28%
DRIVEWAY	2,122	4.98%
SIDEWALK	1,255	2.95%
AC PAD	12	0.03%
SITE WALLS	917	2.15%
TOTAL	7,410	17.39%

Basin	Area	Impervious	Pervious	Time of Co	2-year			10-year			25-year			100-year		
	acre	%	%	min	C	I	Q	C	I	Q	C	I	Q	C	I	Q
E-1	0.57	17.73%	82.27%	5.82	0.29	6.05	1.00	0.35	9.21	1.84	0.39	11.30	2.48	0.46	14.76	3.88
E-2	0.41	16.91%	83.09%	5	0.37	6.31	0.94	0.43	9.61	1.67	0.47	11.79	2.25	0.55	15.42	3.43

LEGEND

EXISTING

- MAJOR CONTOUR (535)
- MINOR CONTOUR (534)
- CWQZ LIMITS
- PROPERTY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF DIRT ROAD
- SS — SANITARY SEWER / WASTEWATER MAIN
- W — WATER MAIN
- xx — xx — FENCE LINE
- OE — OVERHEAD POWER LINE
- POWER POLE (XXXX)
- TREE & TREE IDENTIFICATION NUMBER

- DRAINAGE AREA BOUNDARY
- FLOW DIRECTION ARROW
- T.C FLOW PATH

DENOTES BASIN NUMBER — E-1 — DENOTES BASIN ACREAGE (XX | IC / ±AC | X.XX%) — DENOTES BASIN IMPERVIOUS COVER

A — DENOTES POINT OF ANALYSIS

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TEXAS REGISTRATION FIRM NO. F-19566

MARK	DATE	DESCRIPTION	BY

ADRIAN ALONSO

500 VALE STREET, ROLLINGWOOD, TEXAS 78746

EXISTING DRAINAGE AREA MAP

Project No:	
Designed By:	KH
Drawn By:	KH
Checked By:	RH

CG-100

Sheet 8 of 9

File No: SP-2020-XXXX

Bar Measures 1 inch, otherwise drawing not to scale

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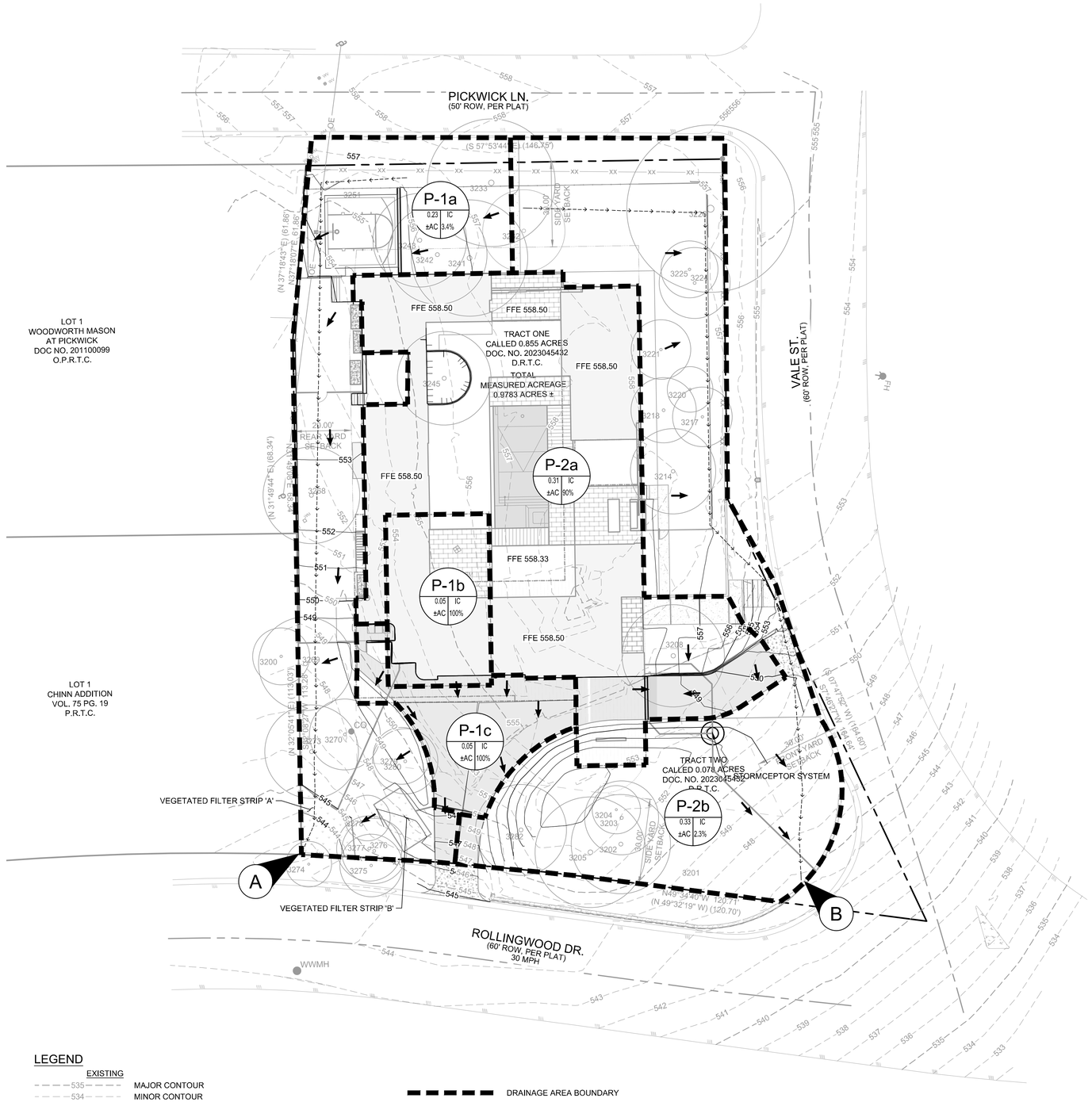

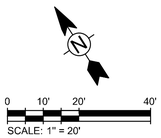

PROPOSED CONDITIONS IC TABLE									
Drainage Area	Area (sf)	Area (ac)	Area (sq mi)	Impervious Cover					
				Roof (sf)	Paved, Road & Compact Surfaces (sf)	Sidewalks (sf)	Total IC (sf)	Total IC %	Point of Analysis
P-1	31,747.12	0.73	0.0011	10,745	1,548	948	13241.51	41.71%	A
P-2	10,985.54	0.25	0.0004	128	277	301	705.05	6.42%	B
Total	42,732.66	0.98					13946.56	32.64%	

PROPOSED IMPERVIOUS COVER TABLE /TCEQ			
TYPE	TOTAL (SQ FT)	TOTAL (%) OF LOT	NET INCREASE (SQ FT)
BUILDING	7,115	16.70%	4,011
DRIVEWAY	3,763	8.83%	1,641
PATIOS	3,298	7.74%	3,298
SIDEWALK	955	2.24%	-300
AC PAD	102	0.24%	90
SITE WALLS	170	0.40%	-747
TOTAL	15,403	36.15%	7,993

Basin	Area	Impervious	Pervious	Time of Co	2-year			10-year			25-year			100-year		
	acre	%	%	min	C	I	Q	C	I	Q	C	I	Q	C	I	Q
P-1	0.30	16.51%	83.49%	5	0.37	6.31	0.69	0.43	9.61	1.23	0.47	11.79	1.65	0.54	15.42	2.52
P-2	0.68	44.82%	55.18%	5	0.29	6.31	1.24	0.35	9.61	2.28	0.39	11.79	3.08	0.46	15.42	4.81

POA-A	2-Yr		10-Yr		25-Yr		100-Yr	
	cfs	fps	cfs	fps	cfs	fps	cfs	fps
Existing Cond.	1.00	1.04	1.84	1.27	2.48	1.40	3.88	1.63
Proposed Cond.	0.69	0.81	1.23	0.95	1.65	1.06	2.52	1.18
Δ	-0.31	-0.23	-0.61	-0.32	-0.83	-0.35	-1.36	-0.45

POA-B	2-Yr		10-Yr		25-Yr		100-Yr	
	cfs	fps	cfs	fps	cfs	fps	cfs	fps
Existing Cond.	0.94	1.02	1.67	1.23	2.25	1.36	3.43	1.53
Proposed Cond.	1.24	1.18	2.28	1.39	3.08	1.53	4.81	1.73
Δ	0.30	0.16	0.61	0.16	0.83	0.17	1.38	0.20

NOTES:
1. HYDROLOGIC ANALYSIS WAS PERFORMED USING THE CRITERIA SET FORTH IN THE CITY OF AUSTIN DRAINAGE CRITERIA MANUAL, AS PRESCRIBED BY THE CITY OF ROLLINGWOOD STORMWATER MANAGEMENT MANUAL.
2. DRAINAGE AREA P-1A IS ALMOST ENTIRELY NATURAL AREA, AND WILL NOT BE CAPTURED, TREATED, OR DETAINED.
3. DRAINAGE AREA P-1B IS AN UPPER ROOF TERRACE THAT IS UNABLE TO BE ROUTED TO THE PROPOSED STORMCEPTOR SYSTEM. THEREFORE, THE DRAINAGE AREA WILL BE ROUTED VIA INTERIOR WALL DRAINAGE PIPES TO THE PROPOSED VEGETATIVE FILTER STRIP 'A'. REFER TO THE GRADING PLAN FOR MORE INFORMATION.
4. DRAINAGE AREA P-1C WILL BE ROUTED TO THE PROPOSED VEGETATIVE FILTER STRIP 'B' LOCATED TO THE WEST OF THE DRIVE AISLE. REFER TO THE GRADING PLAN FOR MORE INFORMATION.
5. DRAINAGE AREA P-2A REPRESENTS THE MAJORITY OF THE ROOF AND IMPERVIOUS SURFACES FROM THE PROPOSED SINGLE FAMILY RESIDENCE AND WILL BE ROUTED THROUGH INTERIOR DRAINAGE PIPING TO THE PROPOSED STORMCEPTOR SYSTEM.
6. DRAINAGE AREA P-2B IS ALMOST ENTIRELY NATURAL AREA AND WILL NOT BE CAPTURED, TREATED OR DETAINED.

LEGEND

EXISTING

- MAJOR CONTOUR
- MINOR CONTOUR
- CWQZ LIMITS
- PROPERTY LINE
- RIGHT OF WAY LINE
- EASEMENT LINE
- EDGE OF DIRT ROAD
- SANITARY SEWER / WASTEWATER MAIN
- WATER MAIN
- FENCE LINE
- OVERHEAD POWER LINE
- POWER POLE
- TREE & TREE IDENTIFICATION NUMBER

- DRAINAGE AREA BOUNDARY
- FLOW DIRECTION ARROW
- T.C FLOW PATH

DENOTES BASIN NUMBER
DENOTES BASIN ACREAGE
DENOTES BASIN IMPERVIOUS COVER
DENOTES POINT OF ANALYSIS

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TEXAS REGISTRATION FIRM NO. F-19566

MARK	DATE	DESCRIPTION

BY

ADRIAN ALONSO

500 VALE STREET, ROLLINGWOOD, TEXAS 78746

PROPOSED DRAINAGE AREA MAP

Project No:	
Designed By:	KH
Drawn By:	KH
Checked By:	RH

CG-201

Sheet 9 of 9

File No: SP-2020-XXXX

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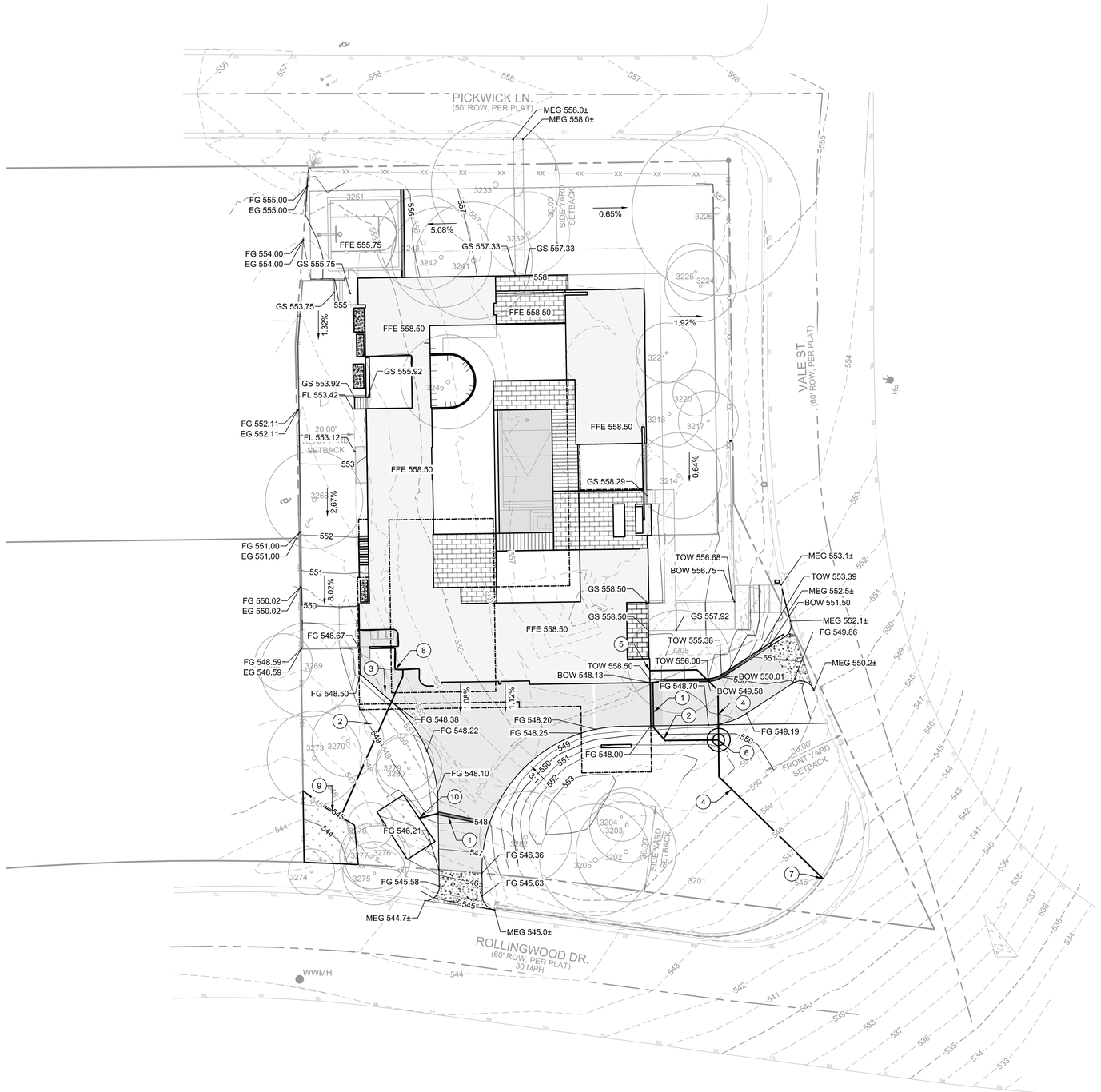

STORM SEWER NOTES:

1. 12" TRENCH DRAIN. NDS PRO CHANNEL DRAIN OR APPROVED EQUAL WITH CAST IRON GRATE
2. 6" HDPE STORM DRAIN PIPE @ 1.00% MIN.
3. 8" HDPE STORM DRAIN PIPE @ 1.00% MIN.
4. 12" HDPE STORM DRAIN PIPE @ 1.00% MIN.
5. 12" HDPE EXTERIOR CONNECTION
   IE = 552.40
   UNDER-SLAB LOCATION OF CONNECTION POINTS FROM INTERIOR WALL DRAIN PIPES FOR ROOF DRAINAGE. CONTRACTOR TO COORDINATE LOCATION AND CONFIRM ELEVATION WITH ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
6. CONTECH STORMCEPTER VAULT PER DETAIL SHEET CG-300.
   12" IE IN = 547.00
   12" IE OUT = 547.00
7. 12" STORM LINE TO DISCHARGE THROUGH EXISTING RETAINING WALL
   6" IE OUT = 544.00
   6" DEEP, RIP-RAP LINED LEVEL FLOW SPREADER AT UPSTREAM EDGE REFERENCE STANDARD DETAIL SHEET CG-300
8. 8" HDPE EXTERIOR CONNECTION
   IE = 546.00
   UNDER-SLAB LOCATION OF CONNECTION POINTS FROM INTERIOR WALL DRAIN PIPES FOR ROOF DRAINAGE. CONTRACTOR TO COORDINATE LOCATION AND CONFIRM ELEVATION WITH ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
9. VEGETATIVE FILTER STRIP 'A'
   8" IE OUT = 545.00
   6" DEEP, RIP-RAP LINED LEVEL FLOW SPREADER AT UPSTREAM EDGE REFERENCE STANDARD DETAIL SHEET CG-300
10. VEGETATIVE FILTER STRIP 'B'
    6" IE OUT = 547.20
    6" DEEP, RIP-RAP LINED LEVEL FLOW SPREADER AT UPSTREAM EDGE REFERENCE STANDARD DETAIL SHEET CG-300

0 10' 20' 40'
SCALE: 1" = 20'

LEGEND

EXISTING

- 735 — MAJOR CONTOUR
- 734 — MINOR CONTOUR
- PROPERTY BOUNDARY
- PROPERTY LINE
- EASEMENT LINE
- ASPHALT LINE
- CONCRETE CURB LINE
- #WW — WASTEWATER LINE
- #W — WATER LINE
- OE — OVERHEAD POWER LINE
- OT — OVERHEAD COMMUNICATION LINE
- XXXX — TREE TO REMAIN AND TREE ID NO.
- XXXX — TREE TO BE REMOVED AND TREE ID NO.

PROPOSED

- 735 — MAJOR CONTOUR
- 734 — MINOR CONTOUR
- CONCRETE CURB
- BUILDING
- CONCRETE
- ASPHALT
- 734.17 — GRADE ELEVATION

NOTES:

1. ALL ITEMS ARE TO BE FURNISHED & INSTALLED BY CONTRACTOR. REFERENCE CONSTRUCTION DETAILS SHEETS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR SHALL FORM SIDEWALKS AND VERIFY SLOPE PRIOR TO POURING CONCRETE. CONTRACTOR SHALL ENSURE THAT CROSS SLOPES ARE NO GREATER THAN 2% ALONG THE ACCESSIBLE ROUTE AND RUNNING SLOPE NO GREATER THAN 5%, UNLESS THE RUNNING SLOPE MATCHES THE EXISTING STREET SLOPE. IF ANY DISCREPANCY ARISES. CONTRACTOR SHALL CONTACT ENGINEER FOR SOLUTION.
3. LIMITS OF CONSTRUCTION ARE SHOWN ON THE EROSION & SEDIMENTATION CONTROL PLAN(S).
4. WATER-STOPS SHALL BE PROVIDED DURING CONSTRUCTION OF EXPANSION JOINTS IN RETAINING WALLS PER STANDARD SPECIFICATION 414S, CONCRETE RETAINING WALLS.
5. ALL STRUCTURAL RETAINING WALLS SHALL HAVE A SEPARATE PERMIT.

STATE OF TEXAS
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TEXAS REGISTRATION FIRM NO. F-19566

MARK	DATE	DESCRIPTION	BY

ADRIAN ALONSO

500 VALE STREET, ROLLINGWOOD, TEXAS 78746

PROPOSED GRADING PLAN

Project No:	
Designed By:	KH
Drawn By:	KH
Checked By:	RH

CG-200
Sheet 10 of 9
File No: SP-2020-XXXX

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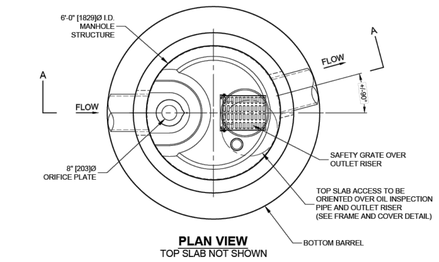
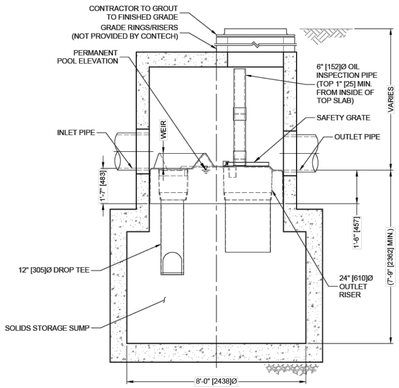


PLAN VIEW
TOP SLAB NOT SHOWN



SECTION A-A

Stormceptor®
FOR PATENT INFORMATION, GO TO www.contechES.com/IP

STORMCEPTOR DESIGN NOTES

THE STANDARD STC2400 CONFIGURATION IS SHOWN.

CONTECH
www.contechES.com

FRAME AND COVER
(MAY VARY)
NOT TO SCALE

SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
NOTES / SPECIAL REQUIREMENTS:			

GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. STORMCEPTOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. STORMCEPTOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMCEPTOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

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ENGINEERED SOLUTIONS LLC
www.contechES.com
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800-338-1122 513-645-7000 513-645-7993 FAX

STC2400
STORMCEPTOR
STANDARD DETAIL

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: Vale Street Residence
Date Prepared: 7/8/2024

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 =	Travis	
Total project area included in plan * =	0.30	acres	
Predevelopment impervious area within the limits of the plan* =	0.00	acres	
Total post-development impervious area within the limits of the plan* =	0.27	acres	
Total post-development impervious cover fraction * =	0.90		
P =	32	inches	
$L_{M\,TOTAL\,PROJECT}$ =	253	lbs.	

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

Number of drainage basins / outfalls areas leaving the plan area = 2

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

Drainage Basin/Outfall Area No. = 1

Total drainage basin/outfall area =	0.30	acres
Predevelopment impervious area within drainage basin/outfall area =	0.00	acres
Post-development impervious area within drainage basin/outfall area =	0.27	acres
Post-development impervious fraction within drainage basin/outfall area =	0.90	
$L_{M\,TOTAL\,BASIN}$ =	253	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Stormceptor
Removal efficiency = 81 percent

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

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

RG-348 Page 3-33 Equation 3.7: L_R = (BMP efficiency) x P x (A_V x 34.8 + 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 =	0.30	acres
A_I =	0.27	acres
A_P =	0.03	acres
L_R =	243	lbs

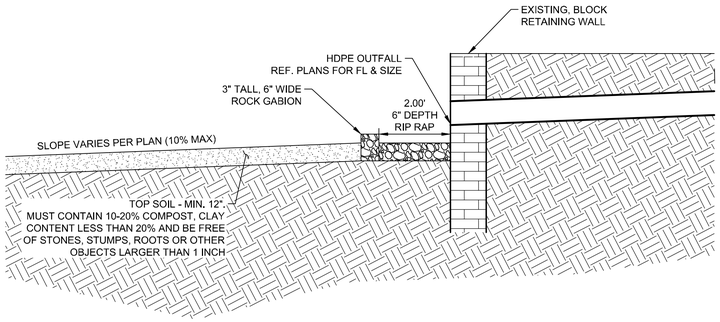
5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired $L_{M\,TOTAL\,BASIN}$ = 253 lbs.

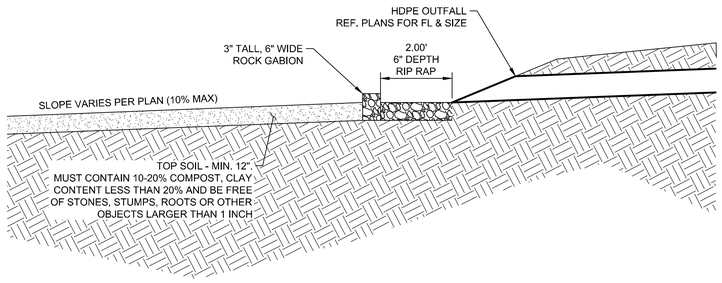
P = 0.97

20. Stormceptor

Required TSS Removal in BMP Drainage Area=	233.93	lbs
Impervious Cover Contributing=	0.0535	ac
TSS Removal for Uncaptured Area =	0.80	lbs
BMP Sizing		
Effective Area =	0.24	EA
Calculated Model Size(s) =	2400, 3600	
Actual Model Size (if multiple values provided, the smallest Model Size or if you are choosing a larger model size) =	2400	Model Size
Surface Area =	50.27	ft^2
Overflow Rate =	0.005337	V_M
Rounded Overflow Rate =	0.0053365	V_M
BMP Efficiency % =	81.00	%
L_R Value =	242.98	lbs
TSS Load Credit =	7.56	lbs
Is Sufficient Treatment Available? (TSS Credit > TSS Uncapt.)	Yes	
TSS Treatment by BMP (LM + TSS Uncapt.) =	236.01	



ENGINEERED VEGETATIVE FILTER STRIP
SCALE: 1" = 5'



ENGINEERED VEGETATIVE FILTER STRIP
SCALE: 1" = 5'

STATE OF TEXAS
JERRETT J. DAW
118772
LICENSED
PROFESSIONAL ENGINEER
8/07/24

parnell engineering
www.parnellengineeringinc.com
500 E. WHITESTONE BLVD (#1419)
CEDAR PARK, TX 78613
512-431-8411
TEXAS REGISTRATION FIRM NO. F-19566

MARK	DATE	DESCRIPTION	BY

ADRIAN ALONSO
500 VALE STREET, ROLLINGWOOD, TEXAS 78746

WATER QUALITY PLAN AND DETAIL

Project No:	
Designed By:	KH
Drawn By:	KH
Checked By:	RH

CG-300
Sheet 11 of 9
File No: SP-2020-XXXX

Know what's below. Call before you dig.

Bar Measures 1 inch, otherwise drawing not to scale

Attachment G – Inspection, Maintenance, Repair, and Retrofit Plan

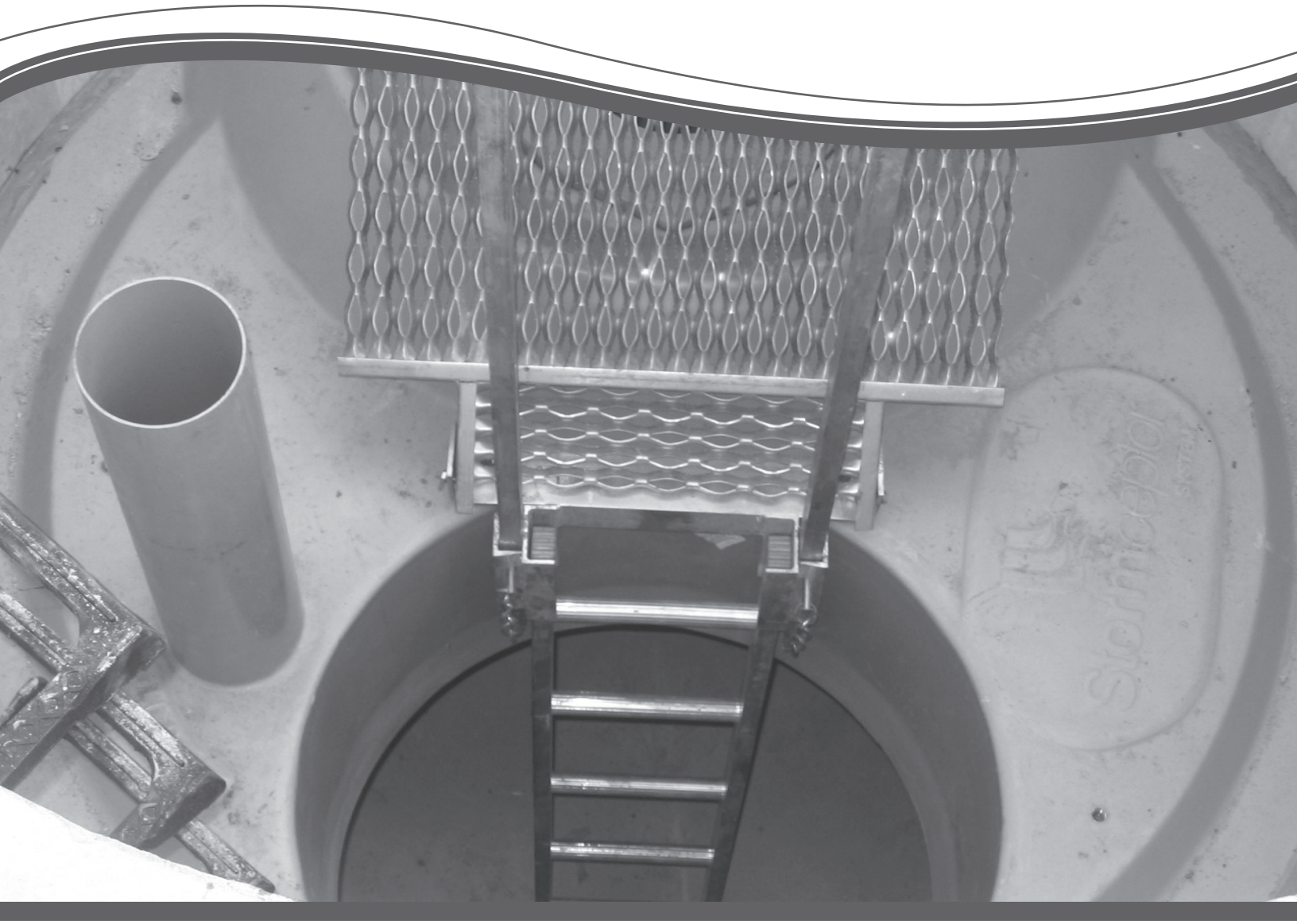
The property owner will perform the required maintenance activities as listed:

- During the first growing season, inspections will occur biweekly until 95% vegetative cover is established
- During the first year, monthly inspections will include the removal of accumulated sediments.
- Quarterly inspections will include the removal of debris and accumulated sediments. Soil media will be replaced in voided areas caused by settlement. Eroded areas will be repaired and voided areas will be re-mulched by hand.
- Semi-annual inspections will include the removal and replacement of any dead/diseased vegetation and removal of debris and accumulated sediments. If the drawdown time exceeds 96 hours, the top layer of sediment will be removed, mulch will be added, and vegetation will be replaced. Alternatively, the soil may be re-compacted through scarification and mulch and disturbed vegetation replaced. Sediment removal will be performed at least once every two years.
- In late winter, bunch grasses will be trimmed to no lower than 18-inches from the ground. Turf grass will be moved to no lower than 4-inches from the ground. All clippings/trimmings will be removed from the site. Mulching may be used to control weeds by blocking light and air space. Gravel or crushed recycled glass equivalent in size to gravel may be used to cover the soil surface. Weed fabric should not be utilized.
- In spring, the previous mulch layer will be removed and a new mulch layer will be applied by hand (option) once every two to three years.
- The Stormceptor system will be maintained per the attached maintenance documents from the proprietor.

Responsible Party for Maintenance:	Adrian Alonso
Title:	Property Owner
Mailing Address:	500 Vale Street
City, State, Zip Code:	Austin, Texas, 78746
Telephone:	(512) 464-1199
Signature:	

CONTECH®
ENGINEERED SOLUTIONS

Stormceptor® STC
Operation and Maintenance Guide



Stormceptor® STC

Stormceptor Design Notes

- Only the STC 450i is adaptable to function with a catch basin inlet and/or inline pipes.
- Only the Stormceptor models STC 450i to STC 7200 may accommodate multiple inlet pipes.

Inlet and outlet invert elevation differences are as follows:

Inlet and Outlet Pipe Invert Elevations Differences			
Inlet Pipe Configuration	STC 450i	STC 900 to STC 7200	STC 11000 to STC 16000
Single inlet pipe	3 in. (75 mm)	1 in. (25 mm)	3 in. (75 mm)
Multiple inlet pipes	3 in. (75 mm)	3 in. (75 mm)	Only one inlet pipe.

Maximum inlet and outlet pipe diameters:

Inlet/Outlet Configuration	Inlet Unit STC 450i	In-Line Unit STC 900 to STC 7200	Series* STC 11000 to STC 16000
Straight Through	24 inch (600 mm)	42 inch (1050 mm)	60 inch (1500 mm)
Bend (90 degrees)	18 inch (450 mm)	33 inch (825 mm)	33 inch (825 mm)

- The inlet and in-line Stormceptor units can accommodate turns to a maximum of 90 degrees.
- Minimum distance from top of grade to crown is 2 feet (0.6 m)
- Submerged conditions. A unit is submerged when the standing water elevation at the proposed location of the Stormceptor unit is greater than the outlet invert elevation during zero flow conditions. In these cases, please contact your local Stormceptor representative and provide the following information:
- Top of grade elevation
- Stormceptor inlet and outlet pipe diameters and invert elevations
- Standing water elevation
- Stormceptor head loss, K = 1.3 (for submerged condition, K = 4)

Stormceptor® STC

OPERATION AND MAINTENANCE GUIDE
Table of Content

1. About Stormceptor

The Stormceptor® STC (Standard Treatment Cell) was developed by Imbrium™ Systems to address the growing need to remove and isolate pollution from the storm drain system before it enters the environment. The Stormceptor STC targets hydrocarbons and total suspended solids (TSS) in stormwater runoff. It improves water quality by removing contaminants through the gravitational settling of fine sediments and floatation of hydrocarbons while preventing the re-suspension or scour of previously captured pollutants.

The development of the Stormceptor STC revolutionized stormwater treatment, and created an entirely new category of environmental technology. Protecting thousands of waterways around the world, the Stormceptor System has set the standard for effective stormwater treatment.

1.1. Patent Information

The Stormceptor technology is protected by the following patents:

- Australia Patent No. 693,164 • 693,164 • 707,133 • 729,096 • 779401
- Austrian Patent No. 289647
- Canadian Patent No 2,009,208 •2,137,942 • 2,175,277 • 2,180,305 • 2,180,383 • 2,206,338 • 2,327,768 (Pending)
- China Patent No 1168439
- Denmark DK 711879
- German DE 69534021
- Indonesian Patent No 16688
- Japan Patent No 9-11476 (Pending)
- Korea 10-2000-0026101 (Pending)
- Malaysia Patent No PI9701737 (Pending)
- New Zealand Patent No 314646
- United States Patent No 4,985,148 • 5,498,331 • 5,725,760 • 5,753,115 • 5,849,181 • 6,068,765 • 6,371,690
- Stormceptor OSR Patent Pending • Stormceptor LCS Patent Pending

2. Stormceptor Design Overview

2.1. Design Philosophy

The patented Stormceptor System has been designed to focus on the environmental objective of providing long-term pollution control. The unique and innovative Stormceptor design allows for continuous positive treatment of runoff during all rainfall events, while ensuring that all captured pollutants are retained within the system, even during intense storm events.

An integral part of the Stormceptor design is PCSWMM for Stormceptor - sizing software developed in conjunction with Computational Hydraulics Inc. (CHI) and internationally acclaimed expert, Dr. Bill James. Using local historical rainfall data and continuous simulation modeling, this software allows a Stormceptor unit to be designed for each individual site and the corresponding water quality objectives.

By using PCSWMM for Stormceptor, the Stormceptor System can be designed to remove a wide range of particles (typically from 20 to 2,000 microns), and can also be customized to remove a specific particle size distribution (PSD). The specified PSD should accurately reflect what is in the stormwater runoff to ensure the device is achieving the desired water quality objective. Since stormwater runoff contains small particles (less than 75 microns), it is important to design a treatment system to remove smaller particles in addition to coarse particles.

2.2. Benefits

The Stormceptor System removes free oil and suspended solids from stormwater, preventing spills and non-point source pollution from entering downstream lakes and rivers. The key benefits, capabilities and applications of the Stormceptor System are as follows:

- Provides continuous positive treatment during all rainfall events
- Can be designed to remove over 80% of the annual sediment load
- Removes a wide range of particles
- Can be designed to remove a specific particle size distribution (PSD)
- Captures free oil from stormwater
- Prevents scouring or re-suspension of trapped pollutants
- Pre-treatment to reduce maintenance costs for downstream treatment measures (ponds, swales, detention basins, filters)
- Groundwater recharge protection
- Spills capture and mitigation
- Simple to design and specify
- Designed to your local watershed conditions
- Small footprint to allow for easy retrofit installations
- Easy to maintain (vacuum truck)
- Multiple inlets can connect to a single unit
- Suitable as a bend structure
- Pre-engineered for traffic loading (minimum AASHTO HS-20)
- Minimal elevation drop between inlet and outlet pipes
- Small head loss
- Additional protection provided by an 18" (457 mm) fiberglass skirt below the top of the insert, for the containment of hydrocarbons in the event of a spill.

2.3. Environmental Benefit

Freshwater resources are vital to the health and welfare of their surrounding communities. There is increasing public awareness, government regulations and corporate commitment to reducing the pollution entering our waterways. A major source of this pollution originates from stormwater runoff from urban areas. Rainfall runoff carries oils, sediment and other contaminants from roads and parking lots discharging directly into our streams, lakes and coastal waterways.

The Stormceptor System is designed to isolate contaminants from getting into the natural environment. The Stormceptor technology provides protection for the environment from spills that occur at service stations and vehicle accident sites, while also removing contaminated sediment in runoff that washes from roads and parking lots.

3. Key Operation Features

3.1. Scour Prevention

A key feature of the Stormceptor System is its patented scour prevention technology. This innovation ensures pollutants are captured and retained during all rainfall events, even extreme storms. The Stormceptor System provides continuous positive treatment for all rainfall events, including intense storms. Stormceptor slows incoming runoff, controlling and reducing velocities in the lower chamber to create a non-turbulent environment that promotes free oils and floatable debris to rise and sediment to settle.

The patented scour prevention technology, the fiberglass insert, regulates flows into the lower chamber through a combination of a weir and orifice while diverting high energy flows away through the upper chamber to prevent scouring. Laboratory testing demonstrated no scouring when tested up to 125% of the unit's operating rate, with the unit loaded to 100% sediment capacity (NJDEP, 2005). Second, the depth of the lower chamber ensures the sediment storage zone is adequately separated from the path of flow in the lower chamber to prevent scouring.

3.2. Operational Hydraulic Loading Rate

Designers and regulators need to evaluate the treatment capacity and performance of manufactured stormwater treatment systems. A commonly used parameter is the "operational hydraulic loading rate" which originated as a design methodology for wastewater treatment devices.

Operational hydraulic loading rate may be calculated by dividing the flow rate into a device by its settling area. This represents the critical settling velocity that is the prime determinant to quantify the influent particle size and density captured by the device. PCSWMM for Stormceptor uses a similar parameter that is calculated by dividing the hydraulic detention time in the device by the fall distance of the sediment.

$$v_{SC} = \frac{H}{6_H} = \frac{Q}{A_S}$$

Where:

v_{SC} = critical settling velocity, ft/s (m/s)

H = tank depth, ft (m)

$Ø_H$ = hydraulic detention time, ft/s (m/s)

Q = volumetric flow rate, ft3/s (m3/s)

A_S = surface area, ft^2 (m^2)

(Tchobanoglous, G. and Schroeder, E.D. 1987. Water Quality. Addison Wesley.)

Unlike designing typical wastewater devices, stormwater systems are designed for highly variable flow rates including intense peak flows. PCSWMM for Stormceptor incorporates all of the flows into its calculations, ensuring that the operational hydraulic loading rate is considered not only for one flow rate, but for all flows including extreme events.

3.3. Double Wall Containment

The Stormceptor System was conceived as a pollution identifier to assist with identifying illicit discharges. The fiberglass insert has a continuous skirt that lines the concrete barrel wall for a depth of 18 inches (457 mm) that provides double wall containment for hydrocarbons storage. This protective barrier ensures that toxic floatables do not migrate through the concrete wall into the surrounding soils.

4. Stormceptor Product Line

4.1. Stormceptor Models

A summary of Stormceptor models and capacities are listed in Table 1.

Table 1. Stormceptor Models

Stormceptor Model	Total Storage Volume U.S. Gal (L)	Hydrocarbon Storage Capacity U.S. Gal (L)	Maximum Sediment Capacity ft^3 (L)
STC 450i	470 (1,780)	86 (330)	46 (1,302)
STC 900	952 (3,600)	251 (950)	89 (2,520)
STC 1200	1,234 (4,670)	251 (950)	127 (3,596)
STC 1800	1,833 (6,940)	251 (950)	207 (5,861)
STC 2400	2,462 (9,320)	840 (3,180)	205 (5,805)
STC 3600	3,715 (1,406)	840 (3,180)	373 (10,562)
STC 4800	5,059 (1,950)	909 (3,440)	543 (15,376)
STC 6000	6,136 (23,230)	909 (3,440)	687 (19,453)
STC 7200	7,420 (28,090)	1,059 (4,010)	839 (23,757)
STC 11000	11,194 (42,370)	2,797 (10, 590)	1,086 (30,752)
STC 13000	13,348 (50,530)	2,797 (10, 590)	1,374 (38,907)
STC 16000	15,918 (60,260)	3,055 (11, 560)	1,677 (47,487)

NOTE: Storage volumes may vary slightly from region to region. For detailed information, contact your local Stormceptor representative.

4.2. Inline Stormceptor

The Inline Stormceptor, Figure 1, is the standard design for most stormwater treatment applications. The patented Stormceptor design allows the Inline unit to maintain continuous positive treatment of total suspended solids (TSS) year-round, regardless of flow rate. The Inline Stormceptor is composed of a precast concrete tank with a fiberglass insert situated at the invert of the storm sewer pipe, creating an upper chamber above the insert and a lower chamber below the insert.

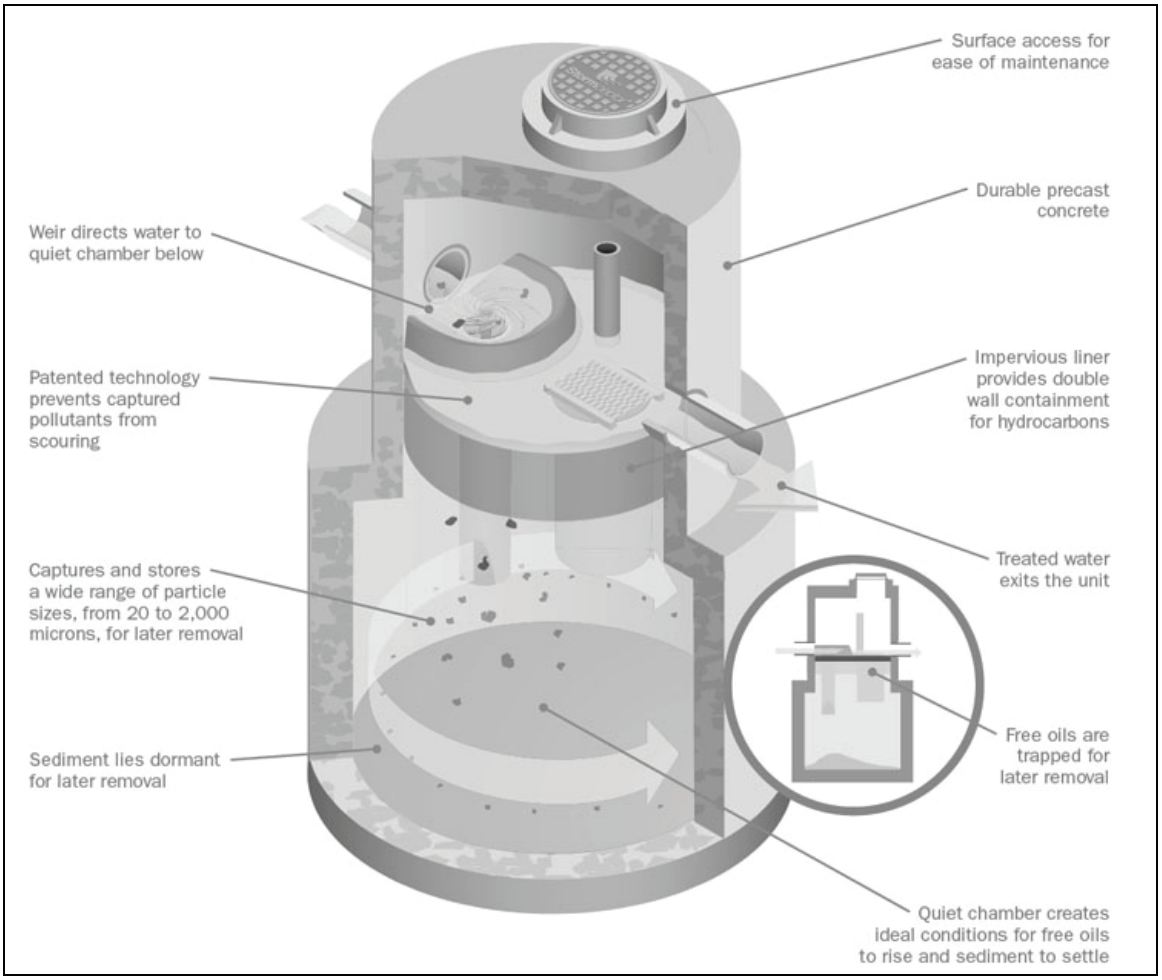


Figure 1. Inline Stormceptor

Operation

As water flows into the Stormceptor unit, it is slowed and directed to the lower chamber by a weir and drop tee. The stormwater enters the lower chamber, a non-turbulent environment, allowing free oils to rise and sediment to settle. The oil is captured underneath the fiberglass insert and shielded from exposure to the concrete walls by a fiberglass skirt. After the pollutants separate, treated water continues up a riser pipe, and exits the lower chamber on the downstream side of the weir before leaving the unit. During high flow events, the Stormceptor System's patented scour prevention technology ensures continuous pollutant removal and prevents re-suspension of previously captured pollutants.

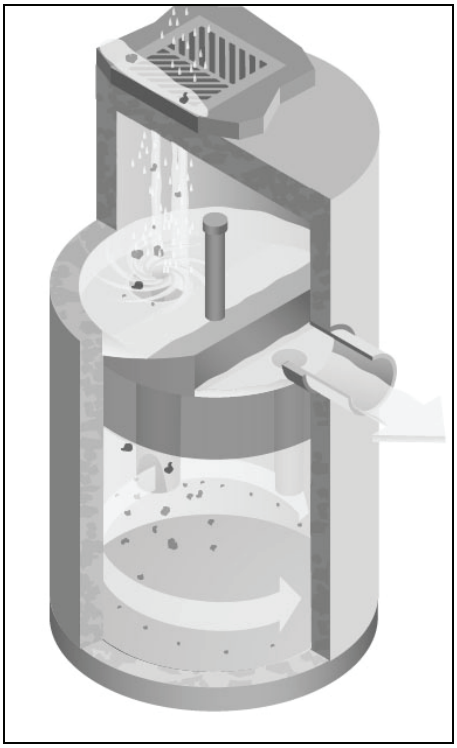


Figure 2. Inlet Stormceptor

4.3. Inlet Stormceptor

The Inlet Stormceptor System, Figure 2, was designed to provide protection for parking lots, loading bays, gas stations and other spill-prone areas. The Inlet Stormceptor is designed to remove sediment from stormwater introduced through a grated inlet, a storm sewer pipe, or both.

The Inlet Stormceptor design operates in the same manner as the Inline unit, providing continuous positive treatment, and ensuring that captured material is not re-suspended.

4.4. Series Stormceptor

Designed to treat larger drainage areas, the Series Stormceptor System, Figure 3, consists of two adjacent Stormceptor models that function in parallel. This design eliminates the need for additional structures and piping to reduce installation costs.

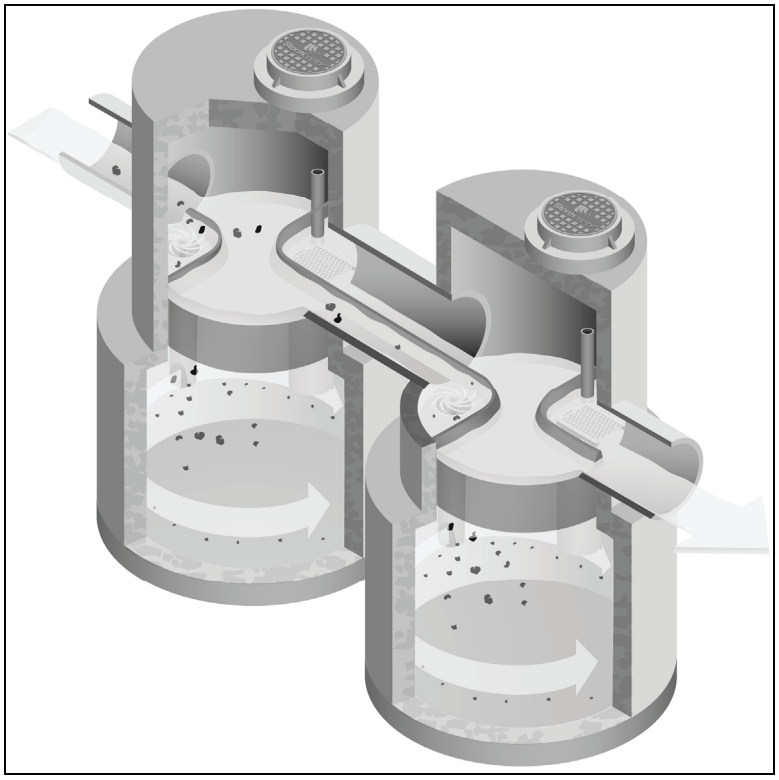


Figure 3. Series System

The Series Stormceptor design operates in the same manner as the Inline unit, providing continuous positive treatment, and ensuring that captured material is not re-suspended.

5. Sizing the Stormceptor System

The Stormceptor System is a versatile product that can be used for many different aspects of water quality improvement. While addressing these needs, there are conditions that the designer needs to be aware of in order to size the Stormceptor model to meet the demands of each individual site in an efficient and cost-effective manner.

PCSWMM for Stormceptor is the support tool used for identifying the appropriate Stormceptor model. In order to size a unit, it is recommended the user follow the seven design steps in the program. The steps are as follows:

STEP 1 – Project Details

The first step prior to sizing the Stormceptor System is to clearly identify the water quality objective for the development. It is recommended that a level of annual sediment (TSS) removal be identified and defined by a particle size distribution.

STEP 2 – Site Details

Identify the site development by the drainage area and the level of imperviousness. It is recommended that imperviousness be calculated based on the actual area of imperviousness based on paved surfaces, sidewalks and rooftops.

STEP 3 – Upstream Attenuation

The Stormceptor System is designed as a water quality device and is sometimes used in conjunction with onsite water quantity control devices such as ponds or underground detention systems. When possible, a greater benefit is typically achieved when installing a Stormceptor unit upstream of a detention facility. By placing the Stormceptor unit upstream of a detention structure, a benefit of less maintenance of the detention facility is realized.

STEP 4 – Particle Size Distribution

It is critical that the PSD be defined as part of the water quality objective. PSD is critical for the design of treatment system for a unit process of gravity settling and governs the size of a treatment system. A range of particle sizes has been provided and it is recommended that clays and silt-sized particles be considered in addition to sand and gravel-sized particles. Options and sample PSDs are provided in PCSWMM for Stormceptor. The default particle size distribution is the Fine Distribution, Table 2, option.

Table 2. Fine Distribution

Particle Size	Distribution	Specific Gravity
20	20%	1.3
60	20%	1.8
150	20%	2.2
400	20%	2.65
2000	20%	2.65

If the objective is the long-term removal of 80% of the total suspended solids on a given site, the PSD should be representative of the expected sediment on the site. For example, a system designed to remove 80% of coarse particles (greater than 75 microns) would provide relatively poor removal efficiency of finer particles that may be naturally prevalent in runoff from the site.

Since the small particle fraction contributes a disproportionately large amount of the total available particle surface area for pollutant adsorption, a system designed primarily for coarse particle capture will compromise water quality objectives.

STEP 5 – Rainfall Records

Local historical rainfall has been acquired from the U.S. National Oceanic and Atmospheric Administration, Environment Canada and regulatory agencies across North America. The rainfall data provided with PCSMM for Stormceptor provides an accurate estimation of small storm hydrology by modeling actual historical storm events including duration, intensities and peaks.

STEP 6 – Summary

At this point, the program may be executed to predict the level of TSS removal from the site. Once the simulation has completed, a table shall be generated identifying the TSS removal of each Stormceptor unit.

STEP 7 – Sizing Summary

Performance estimates of all Stormceptor units for the given site parameters will be displayed in a tabular format. The unit that meets the water quality objective, identified in Step 1, will be highlighted.

5.1. PCSWMM for Stormceptor

The Stormceptor System has been developed in conjunction with PCSWMM for Stormceptor as a technological solution to achieve water quality goals. Together, these two innovations model, simulate, predict and calculate the water quality objectives desired by a design engineer for TSS removal.

PCSWMM for Stormceptor is a proprietary sizing program which uses site specific inputs to a computer model to simulate sediment accumulation, hydrology and long-term total suspended solids removal. The model has been calibrated to field monitoring results from Stormceptor units that have been monitored in North America. The sizing methodology can be described by three processes:

1. Determination of real time hydrology
2. Buildup and wash off of TSS from impervious land areas
3. TSS transport through the Stormceptor (settling and discharge). The use of a calibrated model is the preferred method for sizing stormwater quality structures for the following reasons:
    - » The hydrology of the local area is properly and accurately incorporated in the sizing (distribution of flows, flow rate ranges and peaks, back-to-back storms, inter-event times)
    - » The distribution of TSS with the hydrology is properly and accurately considered in the sizing
    - » Particle size distribution is properly considered in the sizing
    - » The sizing can be optimized for TSS removal
    - » The cost benefit of alternate TSS removal criteria can be easily assessed
    - » The program assesses the performance of all Stormceptor models. Sizing may be selected based on a specific water quality outcome or based on the Maximum Extent Practicable

For more information regarding PCSWMM for Stormceptor, contact your local Stormceptor representative, or visit www.imbriumsystems.com to download a free copy of the program.

5.2. Sediment Loading Characteristics

The way in which sediment is transferred to stormwater can have a considerable effect on which type of system is implemented. On typical impervious surfaces (e.g. parking lots) sediment will build over time and wash off with the next rainfall. When rainfall patterns are examined, a short intense storm will have a higher concentration of sediment than a long slow drizzle. Together with rainfall data representing the site's typical rainfall patterns, sediment loading characteristics play a part in the correct sizing of a stormwater quality device.

Typical Sites

For standard site design of the Stormceptor System, PCSWMM for Stormceptor is utilized to accurately assess the unit's performance. As an integral part of the product's design, the program can be used to meet local requirements for total suspended solid removal. Typical installations of manufactured stormwater treatment devices would occur on areas such as paved parking lots or paved roads. These are considered "stable" surfaces which have non – erodible surfaces.

Unstable Sites

While standard sites consist of stable concrete or asphalt surfaces, sites such as gravel parking lots, or maintenance yards with stockpiles of sediment would be classified as "unstable". These types of sites do not exhibit first flush characteristics, are highly erodible and exhibit atypical sediment loading characteristics and must therefore be sized more carefully. Contact your local Stormceptor representative for assistance in selecting a proper unit sized for such unstable sites.

6. Spill Controls

When considering the removal of total petroleum hydrocarbons (TPH) from a storm sewer system there are two functions of the system: oil removal, and spill capture.

'Oil Removal' describes the capture of the minute volumes of free oil mobilized from impervious surfaces. In this instance relatively low concentrations, volumes and flow rates are considered. While the Stormceptor unit will still provide an appreciable oil removal function during higher flow events and/or with higher TPH concentrations, desired effluent limits may be exceeded under these conditions.

'Spill Capture' describes a manner of TPH removal more appropriate to recovery of a relatively high volume of a single phase deleterious liquid that is introduced to the storm sewer system over a relatively short duration. The two design criteria involved when considering this manner of introduction are overall volume and the specific gravity of the material. A standard Stormceptor unit will be able to capture and retain a maximum spill volume and a minimum specific gravity.

For spill characteristics that fall outside these limits, unit modifications are required. Contact your local Stormceptor Representative for more information.

One of the key features of the Stormceptor technology is its ability to capture and retain spills. While the standard Stormceptor System provides excellent protection for spill control, there are additional options to enhance spill protection if desired.

6.1. Oil Level Alarm

The oil level alarm is an electronic monitoring system designed to trigger a visual and audible alarm when a pre-set level of oil is reached within the lower chamber. As a standard, the oil

level alarm is designed to trigger at approximately 85% of the unit's available depth level for oil capture. The feature acts as a safeguard against spills caused by exceeding the oil storage capacity of the separator and eliminates the need for manual oil level inspection.

The oil level alarm installed on the Stormceptor insert is illustrated in Figure 4.

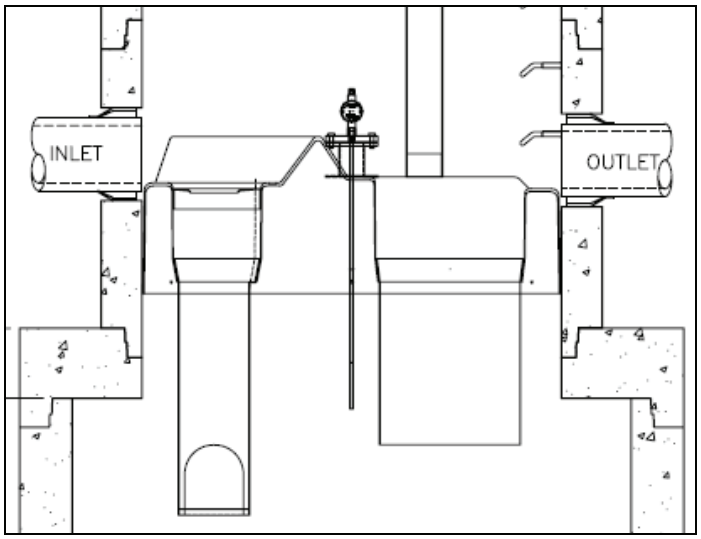


Figure 4. Oil level alarm

6.2. Increased Volume Storage Capacity

The Stormceptor unit may be modified to store a greater spill volume than is typically available. Under such a scenario, instead of installing a larger than required unit, modifications can be made to the recommended Stormceptor model to accommodate larger volumes. Contact your local Stormceptor representative for additional information and assistance for modifications.

7. Stormceptor Options

The Stormceptor System allows flexibility to incorporate to existing and new storm drainage infrastructure. The following section identifies considerations that should be reviewed when installing the system into a drainage network. For conditions that fall outside of the recommendations in this section, please contact your local Stormceptor representative for further guidance.

7.1. Installation Depth Minimum Cover

The minimum distance from the top of grade to the crown of the inlet pipe is 24 inches (600 mm). For situations that have a lower minimum distance, contact your local Stormceptor representative.

7.2. Maximum Inlet and Outlet Pipe Diameters

Maximum inlet and outlet pipe diameters are illustrated in Figure 5. Contact your local Stormceptor representative for larger pipe diameters

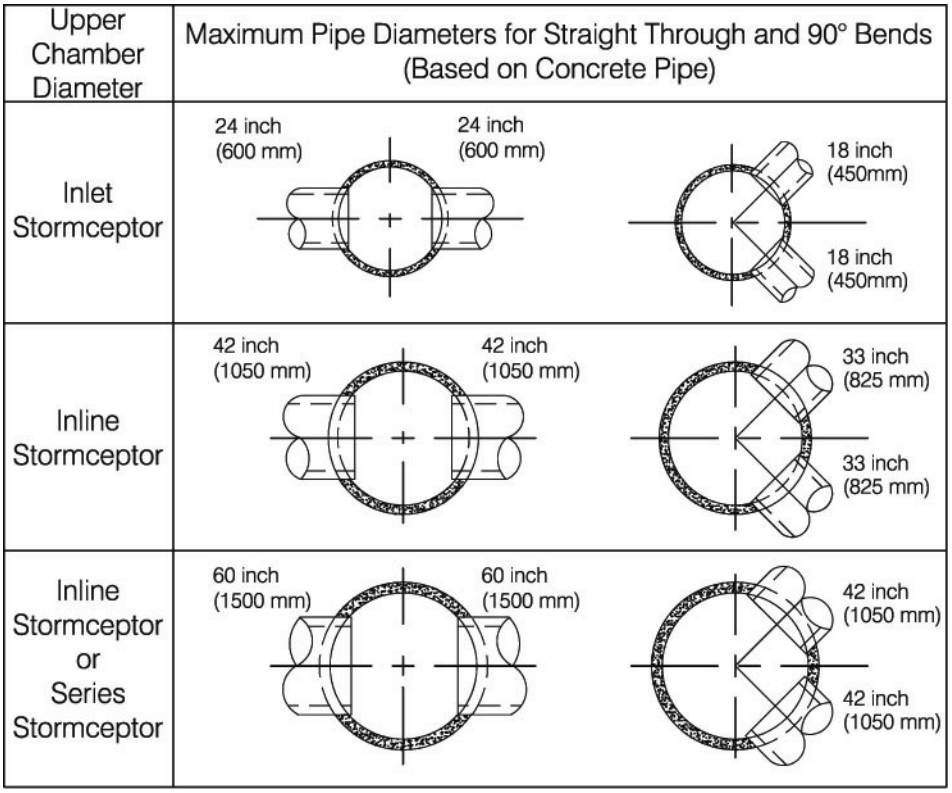


Figure 5. Maximum pipe diameters for straight through and bend applications

*The bend should only be incorporated into the second structure (downstream structure) of the Series Stormceptor System

7.3. Bends

The Stormceptor System can be used to change horizontal alignment in the storm drain network up to a maximum of 90 degrees. Figure 6 illustrates the typical bend situations of the Stormceptor System. Bends should only be applied to the second structure (downstream structure) of the Series Stormceptor System.

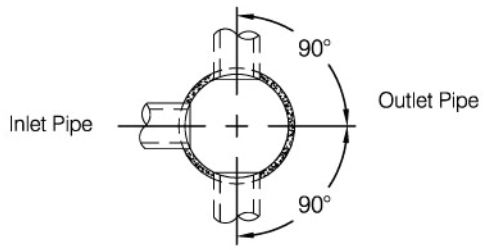
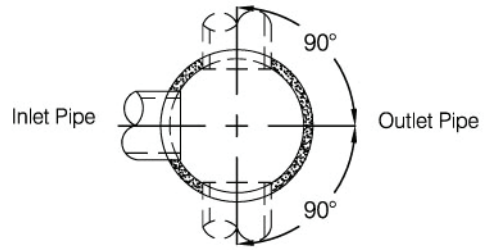
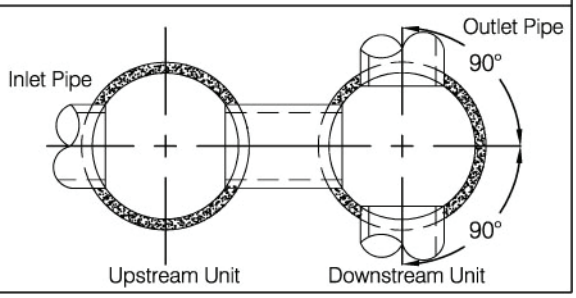
Stormceptor System	Maximum Bend Configurations
Inlet Stormceptor	
Inline Stormceptor	
Series Stormceptor	

Figure 6. Maximum bend angles

7.4. Multiple Inlet Pipes

The Inlet and Inline Stormceptor System can accommodate two or more inlet pipes. The maximum number of inlet pipes that can be accommodated into a Stormceptor unit is a function of the number, alignment and diameter of the pipes and its effects on the structural integrity of the precast concrete. When multiple inlet pipes are used for new developments, each inlet pipe shall have an invert elevation 3 inches (75 mm) higher than the outlet pipe invert elevation.

7.5. Inlet/Outlet Pipe Invert Elevations

Recommended inlet and outlet pipe invert differences are listed in Table 3.

Table 3. Recommended Drops Between Inlet and Outlet Pipe Inverts

Number of Inlet Pipes	Inlet System	In-Line System	Series System
1	3 inches (75 mm)	1 inch (25 mm)	3 inches (75 mm)
>1	3 inches (75 mm)	3 inches (75 mm)	Not Applicable

7.6. Shallow Stormceptor

In cases where there may be restrictions to the depth of burial of storm sewer systems. In this situation, for selected Stormceptor models, the lower chamber components may be increased in diameter to reduce the overall depth of excavation required.

7.7. Customized Live Load

The Stormceptor system is typically designed for local highway truck loading (AASHTO HS- 20). When the project requires live loads greater than HS-20, the Stormceptor System may be customized structurally for a pre-specified live load. Contact your local Stormceptor representative for customized loading conditions.

7.8. Pre-treatment

The Stormceptor System may be sized to remove sediment and for spills control in conjunction with other stormwater BMPs to meet the water quality objective. For pretreatment applications, the Stormceptor System should be the first unit in a treatment train. The benefits of pre-treatment include the extension of the operational life (extension of maintenance frequency) of large stormwater management facilities, prevention of spills and lower total life- cycle maintenance cost.

7.9. Head loss

The head loss through the Stormceptor System is similar to a 60 degree bend at a manhole. The K value for calculating minor losses is approximately 1.3 (minor loss = k*1.3v2/2g).

However, when a Submerged modification is applied to a Stormceptor unit, the corresponding K value is 4.

7.10. Submerged

The Submerged modification, Figure 7, allows the Stormceptor System to operate in submerged or partially submerged storm sewers. This configuration can be installed on all models of the Stormceptor System by modifying the fiberglass insert. A customized weir height and a secondary drop tee are added.

Submerged instances are defined as standing water in the storm drain system during zero flow conditions. In these instances, the following information is necessary for the proper design and application of submerged modifications:

- Stormceptor top of grade elevation
- Stormceptor outlet pipe invert elevation
- Standing water elevation

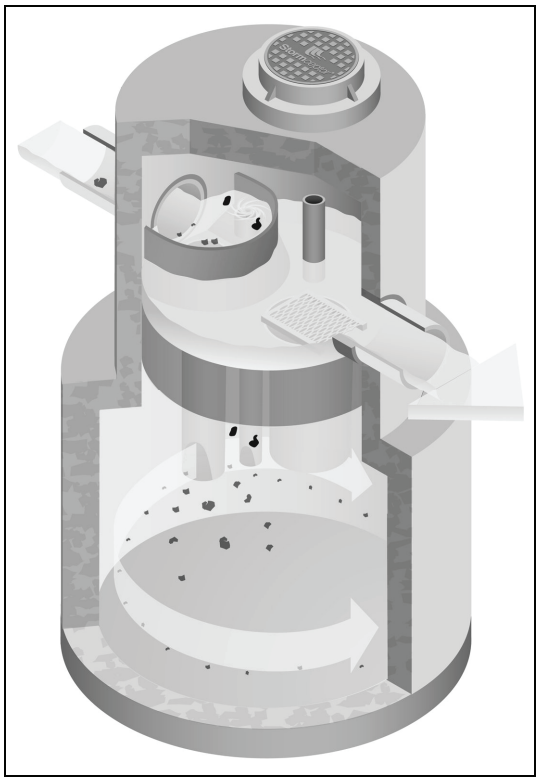


Figure 7. Submerged Stormceptor

8. Comparing Technologies

Designers have many choices available to achieve water quality goals in the treatment of stormwater runoff. Since many alternatives are available for use in stormwater quality treatment it is important to consider how to make an appropriate comparison between "approved alternatives". The following is a guide to assist with the accurate comparison of differing technologies and performance claims.

8.1. Particle Size Distribution (PSD)

The most sensitive parameter to the design of a stormwater quality device is the selection of the design particle size. While it is recommended that the actual particle size distribution (PSD) for sites be measured prior to sizing, alternative values for particle size should be selected to represent what is likely to occur naturally on the site. A reasonable estimate of a particle size distribution likely to be found on parking lots or other impervious surfaces should consist of a wide range of particles such as 20 microns to 2,000 microns (Ontario MOE, 1994).

There is no absolute right particle size distribution or specific gravity and the user is cautioned to review the site location, characteristics, material handling practices and regulatory requirements when selecting a particle size distribution. When comparing technologies, designs using different PSDs will result in incomparable TSS removal efficiencies. The PSD of the TSS removed needs to be standard between two products to allow for an accurate comparison.

8.2. Scour Prevention

In order to accurately predict the performance of a manufactured treatment device, there must be confidence that it will perform under all conditions. Since rainfall patterns cannot be predicted, stormwater quality devices placed in storm sewer systems must be able to withstand extreme events, and ensure that all pollutants previously captured are retained in the system.

In order to have confidence in a system's performance under extreme conditions, independent validation of scour prevention is essential when examining different technologies. Lack of independent verification of scour prevention should make a designer wary of accepting any product's performance claims.

8.3. Hydraulics

Full scale laboratory testing has been used to confirm the hydraulics of the Stormceptor System. Results of lab testing have been used to physically design the Stormceptor System and the sewer pipes entering and leaving the unit. Key benefits of Stormceptor are:

- Low head loss (typical k value of 1.3)
- Minimal inlet/outlet invert elevation drop across the structure
- Use as a bend structure
- Accommodates multiple inlets

The adaptability of the treatment device to the storm sewer design infrastructure can affect the overall performance and cost of the site.

8.4. Hydrology

Stormwater quality treatment technologies need to perform under varying climatic conditions. These can vary from long low intensity rainfall to short duration, high intensity storms. Since a treatment device is expected to perform under all these conditions, it makes sense that any system's design should accommodate those conditions as well.

Long-term continuous simulation evaluates the performance of a technology under the varying conditions expected in the climate of the subject site. Single, peak event design does not provide this information and is not equivalent to long-term simulation. Designers should request long-term simulation performance to ensure the technology can meet the long-term water quality objective.

9. Testing

The Stormceptor System has been the most widely monitored stormwater treatment technology in the world. Performance verification and monitoring programs are completed to the strictest standards and integrity. Since its introduction in 1990, numerous independent field tests and studies detailing the effectiveness of the Stormceptor System have been completed.

- Coventry University, UK – 97% removal of oil, 83% removal of sand and 73% removal of peat
- National Water Research Institute, Canada, - scaled testing for the development of the Stormceptor System identifying both TSS removal and scour prevention.
- New Jersey TARP Program – full scale testing of an STC 900 demonstrating 75% TSS removal of particles from 1 to 1000 microns. Scour testing completed demonstrated that the system does not scour. The New Jersey Department of Environmental Protection was followed.
- City of Indianapolis – full scale testing of an STC 900 demonstrating over 80% TSS removal of particles from 50 microns to 300 microns at 130% of the unit's operating rate. Scour testing completed demonstrated that the system does not scour.
- Westwood Massachusetts (1997), demonstrated >80% TSS removal
- Como Park (1997), demonstrated 76% TSS removal
- Ontario MOE SWAMP Program – 57% removal of 1 to 25 micron particles
- Laval Quebec – 50% removal of 1 to 25 micron particles

10. Installation

The installation of the concrete Stormceptor should conform in general to state highway, or local specifications for the installation of manholes. Selected sections of a general specification that are applicable are summarized in the following sections.

10.1. Excavation

Excavation for the installation of the Stormceptor should conform to state highway, or local specifications. Topsoil removed during the excavation for the Stormceptor should be stockpiled in designated areas and should not be mixed with subsoil or other materials.

Topsoil stockpiles and the general site preparation for the installation of the Stormceptor should conform to state highway or local specifications.

The Stormceptor should not be installed on frozen ground. Excavation should extend a minimum of 12 inches (300 mm) from the precast concrete surfaces plus an allowance for shoring and bracing where required. If the bottom of the excavation provides an unsuitable foundation additional excavation may be required.

In areas with a high water table, continuous dewatering may be required to ensure that the excavation is stable and free of water.

10.2. Backfilling

Backfill material should conform to state highway or local specifications. Backfill material should be placed in uniform layers not exceeding 12 inches (300mm) in depth and compacted to state highway or local specifications.

11. Stormceptor Construction Sequence

The concrete Stormceptor is installed in sections in the following sequence:

1. Aggregate base
2. Base slab
3. Lower chamber sections
4. Upper chamber section with fiberglass insert
5. Connect inlet and outlet pipes
6. Assembly of fiberglass insert components (drop tee, riser pipe, oil cleanout port and orifice plate
7. Remainder of upper chamber
8. Frame and access cover

The precast base should be placed level at the specified grade. The entire base should be in contact with the underlying compacted granular material. Subsequent sections, complete with joint seals, should be installed in accordance with the precast concrete manufacturer's recommendations.

Adjustment of the Stormceptor can be performed by lifting the upper sections free of the excavated area, re-leveling the base and re-installing the sections. Damaged sections and gaskets should be repaired or replaced as necessary. Once the Stormceptor has been constructed, any lift holes must be plugged with mortar.

12. Maintenance

12.1. Health and Safety

The Stormceptor System has been designed considering safety first. It is recommended that confined space entry protocols be followed if entry to the unit is required. In addition, the fiberglass insert has the following health and safety features:

- Designed to withstand the weight of personnel
- A safety grate is located over the 24 inch (600 mm) riser pipe opening
- Ladder rungs can be provided for entry into the unit, if required

12.2. Maintenance Procedures

Maintenance of the Stormceptor system is performed using vacuum trucks. No entry into the unit is required for maintenance (in most cases). The vacuum service industry is a well- established sector of the service industry that cleans underground tanks, sewers and catch basins. Costs to clean a Stormceptor will vary based on the size of unit and transportation distances.

The need for maintenance can be determined easily by inspecting the unit from the surface. The depth of oil in the unit can be determined by inserting a dipstick in the oil inspection/cleanout port.

Similarly, the depth of sediment can be measured from the surface without entry into the Stormceptor via a dipstick tube equipped with a ball valve. This tube would be inserted through the riser pipe. Maintenance should be performed once the sediment depth exceeds the guideline values provided in the Table 4.

Table 4. Sediment Depths Indicating Required Servicing*

Particle Size	Specific Gravity
Model	Sediment Depth inches (mm)
450i	8 (200)
900	8 (200)
1200	10 (250)
1800	15 (381)
2400	12 (300)
3600	17 (430)
4800	15 (380)
6000	18 (460)
7200	15 (381)
11000	17 (380)
13000	20 (500)
16000	17 (380)
* based on 15% of the Stormceptor unit's total storage	

Although annual servicing is recommended, the frequency of maintenance may need to be increased or reduced based on local conditions (i.e. if the unit is filling up with sediment more quickly than projected, maintenance may be required semi-annually; conversely once the site has stabilized maintenance may only be required every two or three years).

Oil is removed through the oil inspection/cleanout port and sediment is removed through the riser pipe. Alternatively oil could be removed from the 24 inches (600 mm) opening if water is removed from the lower chamber to lower the oil level below the drop pipes.

The following procedures should be taken when cleaning out Stormceptor:

1. Check for oil through the oil cleanout port
2. Remove any oil separately using a small portable pump
3. Decant the water from the unit to the sanitary sewer, if permitted by the local regulating authority, or into a separate containment tank
4. Remove the sludge from the bottom of the unit using the vacuum truck
5. Re-fill Stormceptor with water where required by the local jurisdiction

12.3. Submerged Stormceptor

Careful attention should be paid to maintenance of the Submerged Stormceptor System. In cases where the storm drain system is submerged, there is a requirement to plug both the inlet and outlet pipes to economically clean out the unit.

12.4. Hydrocarbon Spills

The Stormceptor is often installed in areas where the potential for spills is great. The Stormceptor System should be cleaned immediately after a spill occurs by a licensed liquid waste hauler.

12.5. Disposal

Requirements for the disposal of material from the Stormceptor System are similar to that of any other stormwater Best Management Practice (BMP) where permitted. Disposal options for the sediment may range from disposal in a sanitary trunk sewer upstream of a sewage treatment plant, to disposal in a sanitary landfill site. Petroleum waste products collected in the Stormceptor (free oil/chemical/fuel spills) should be removed by a licensed waste management company.

12.6. Oil Sheens

With a steady influx of water with high concentrations of oil, a sheen may be noticeable at the Stormceptor outlet. This may occur because a rainbow or sheen can be seen at very small oil concentrations (<10 mg/L). Stormceptor will remove over 98% of all free oil spills from storm sewer systems for dry weather or frequently occurring runoff events.

The appearance of a sheen at the outlet with high influent oil concentrations does not mean the unit is not working to this level of removal. In addition, if the influent oil is emulsified the Stormceptor will not be able to remove it. The Stormceptor is designed for free oil removal and not emulsified conditions.

SUPPORT

Drawings and specifications are available at www.ContechES.com.

Site-specific design support is available from our engineers.

Contech Engineered Solutions LLC provides site solutions for the civil engineering industry. Contech's portfolio includes bridges, drainage, sanitary sewer, stormwater, and earth stabilization products. For information, visit www.ContechES.com or call 800.338.1122

CONTECH ENGINEERED SOLUTIONS
800-925-5240
www.ContechES.com

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

I Adrian Alonso,
Print Name

Trustee,
Title - Owner/President/Other

of 500 Vale Street Trust,
Corporation/Partnership/Entity Name

have authorized Jerrett Daw, P.E.
Print Name of Agent/Engineer

of Parnell Engineering 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:

Applicant's Signature

07/30/2024
Date

THE STATE OF Texas §

County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Adrian Alonso 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 30 day of July, 2024.

NOTARY PUBLIC

Kristen Frizzelle
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 1/10/2026

Kristen Frizzelle
My Commission Expires
1/10/2026
Notary ID
130828363

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Vale Residence
Regulated Entity Location: 500 Vale Street, Austin, TX 78746
Name of Customer: Adrian Alonso
Contact Person: Jerrett Daw Phone: 541-556-1945
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	0.93 Acres	$ 650
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: Jerrett Daw Date: 07/29/2024

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

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)	07/30/2024

☒ 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:*

500 Vale Street Trust

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

11. Type of Customer: ☐ Corporation ☒ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees

☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?

☒ Yes ☐ No

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

☒ Owner ☐ Operator ☐ Owner & Operator ☐ Other:

☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:	3002 Oak Park Drive						
	City	Austin	**State**	TX	**ZIP**	78704	**ZIP + 4**

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
	ADRIANRALONSO@GMAIL.COM

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

(213)268 0182		( ) -

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.)*

Vale Residence

23. Street Address of the Regulated Entity: *(No PO Boxes)*	500 Vale Street						
	City	Austin	**State**	TX	**ZIP**	78746	**ZIP + 4**
24. County	Travis						

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:			**28. Longitude (W) In Decimal:**		
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)
6500		523991	

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

Property holding trust

34. Mailing Address:	3002 Oak Park Drive						
	City	Austin	**State**	TX	**ZIP**	78704	**ZIP + 4**
35. E-Mail Address:	Adrianalonso@gmail.com						

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
( ) 213 268 0182		( ) -

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

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

SECTION IV: Preparer Information

40. Name:	Jerrett Daw, PE	41. Title:	Vice President

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(541)-556-1945		( ) -	jerrett.daw@parnellengineeringinc.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:	Parnell Engineering, Inc.	Job Title:	Vice President
Name *(In Print)*:	Jerrett Daw	Phone:	(541)-556-1945
Signature:	Jerrett Daw	Date:	07/30/2024