TRI-TECH
ENGINEERING ▲ SURVEYING ▲ PLANNING

EDWARDS AQUIFER CONTRIBUTING ZONE PLAN
SKYLIGHT HILLS SUBDIVISION

13001 & 13111 High Sierra
Dripping Springs ETJ
Hays County, Texas

Prepared February 2, 2023

ON BEHALF OF
Frame Middleton, LLC

Prepared by:

4/24/2023

Revised: April 24, 2023

TRI-TECH ENGINEERING, LP
155 RIVERWALK DRIVE
SAN MARCOS, TX 78666
TBPE FIRM REG. F-18693

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: Frame Middleton LLC						**2. Regulated Entity No.:**			
3. Customer Name: Logan Middleton						**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):**			20.0
9. Application Fee:	$4,000		**10. Permanent BMP(s):**			N/A			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Hays		**14. Watershed:**			Colorado River			

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.)	1	___	___
Region (1 req.)	1	___	___
County(ies)	1	___	___
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer _1_ Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda _1_Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge ___New Braunfels ___Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review.
Al Carroll P.E.
.Print Name of Customer/Authorized Agent
Signature of Customer/Authorized Agent Date 2/2/2023

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):	

Contributing Zone Plan Application

Texas Commission on Environmental Quality

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

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

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

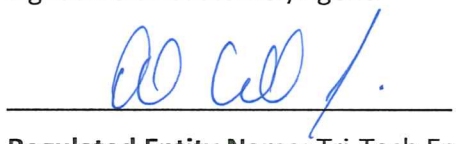
Signature

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

Print Name of Customer/Agent: Al Carroll, P.E.

Date: 2/2/2023

Signature of Customer/Agent:



Regulated Entity Name: Tri-Tech Engineering, LP

Project Information

1. County: Hays
2. Stream Basin: Colorado River Basin
3. Groundwater Conservation District (if applicable): Hays Trinity GCD
4. Customer (Applicant):

   Contact Person: Logan Middleton
   Entity: Frame Middleton LLC
   Mailing Address: 11203 Brushy Glen Dr
   City, State: Austin, Texas Zip: 78754
   Telephone: (737)529-6791 Fax: _____
   Email Address: logan@framemiddleton.com

5. Agent/Representative (If any):

Contact Person: Al Carroll, P.E.
Entity: Tri-Tech Engineering, LP
Mailing Address: 155 Riverwalk Dr
City, State: San Marcos, Texas Zip: 78666
Telephone: (512)440-0222 Fax: _____
Email Address: acarroll@tritechtx.com

6. Project Location:

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

7. ☐ The location of the project site is described below. Sufficient detail and clarity has been provided so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

_____

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

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

☒ Project site boundaries.
☒ USGS Quadrangle Name(s).

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

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

11. Existing project site conditions are noted below:

☐ Existing commercial site
☐ Existing industrial site
☒ Existing residential site

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

12. The type of project is:

☒ Residential: # of Lots: 11
☐ Residential: # of Living Unit Equivalents: _____
☐ Commercial
☐ Industrial
☐ Other: _____

13. Total project area (size of site): 20.0 Acres

Total disturbed area: 2.82 Acres

14. Estimated projected population: _____

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

Table 1 - Impervious Cover

Impervious Cover of Proposed Project	***Sq. Ft.***	***Sq. Ft./Acre***	***Acres***
Structures/Rooftops	30,550	÷ 43,560 =	.70
Parking	55,000	÷ 43,560 =	1.26
Other paved surfaces	37,500	÷ 43,560 =	.86
Total Impervious Cover	123,050	÷ 43,560 =	2.82

Total Impervious Cover 2.82 **÷ Total Acreage** 20.0 **X 100 =** 14.1**% Impervious Cover**

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

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

For Road Projects Only

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

☐ N/A

18. Type of project:

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

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

- ☐ Concrete
- ☒ Asphaltic concrete pavement
- ☐ Other: _____

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

Length of R.O.W.: 665 feet.
Width of R.O.W.: 60 feet.
L x W = 39,900Ft² ÷ 43,560 Ft²/Acre = .92 acres.

21. Pavement Area:

Length of pavement area: 665 feet.
Width of pavement area: 20 feet.
L x W = 13,300Ft² ÷ 43,560 Ft²/Acre = .31 acres.
Pavement area .31 acres ÷ R.O.W. area .92 acres x 100 = 33% impervious cover.

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

☐ N/A

26. Wastewater will be disposed of by:

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

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

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

☐ Sewage Collection System (Sewer Lines):

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

☐ Existing.
☐ Proposed.

☐ N/A

Permanent Aboveground Storage Tanks(ASTs) ≥ 500 Gallons

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

☒N/A

27. Tanks and substance stored:

Table 2 - Tanks and Substance Storage

AST Number	*Size (Gallons)*	*Substance to be Stored*	*Tank Material*
1			
2			
3			
4			
5			

Total x 1.5 = _____ Gallons

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

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

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

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

Table 3 - Secondary Containment

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

Total: _____ Gallons

30. Piping:

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

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

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

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

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

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

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

Site Plan Requirements

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

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

    Site Plan Scale: 1" = 50'.

35. 100-year floodplain boundaries:

    ☐ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.

    ☒ No part of the project site is located within the 100-year floodplain.

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

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

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

37. ☒ A drainage plan showing all paths of drainage from the site to surface streams.

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

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

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

41. ☐ Locations where soil stabilization practices are expected to occur.

42. ☐ Surface waters (including wetlands).

    ☒ N/A

43. ☐ Locations where stormwater discharges to surface water.

    ☒ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

    ☒ Temporary aboveground storage tank facilities will not be located on this site.

45. ☐ Permanent aboveground storage tank facilities.

☒ Permanent aboveground storage tank facilities will not be located on this site.

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

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

☒ N/A

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

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

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

☒ N/A

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

☒ N/A

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

☒ The site will be used for low density single-family residential development and has 20% or less impervious cover.

☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.

☐ The site will not be used for low density single-family residential development.

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

☒ **Attachment I - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.

☐ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

☐ The site will not be used for multi-family residential developments, schools, or small business sites.

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

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

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

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

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

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

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

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

☒ N/A

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

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

☐ N/A

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

☐ Prepared and certified by the engineer designing the permanent BMPs and measures
☐ Signed by the owner or responsible party
☐ Outlines specific procedures for documenting inspections, maintenance, repairs, and, if necessary, retrofit.
☐ Contains a discussion of record keeping procedures

☒ N/A

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

☒ N/A

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

☒ N/A

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

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

60. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development,

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

Administrative Information

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

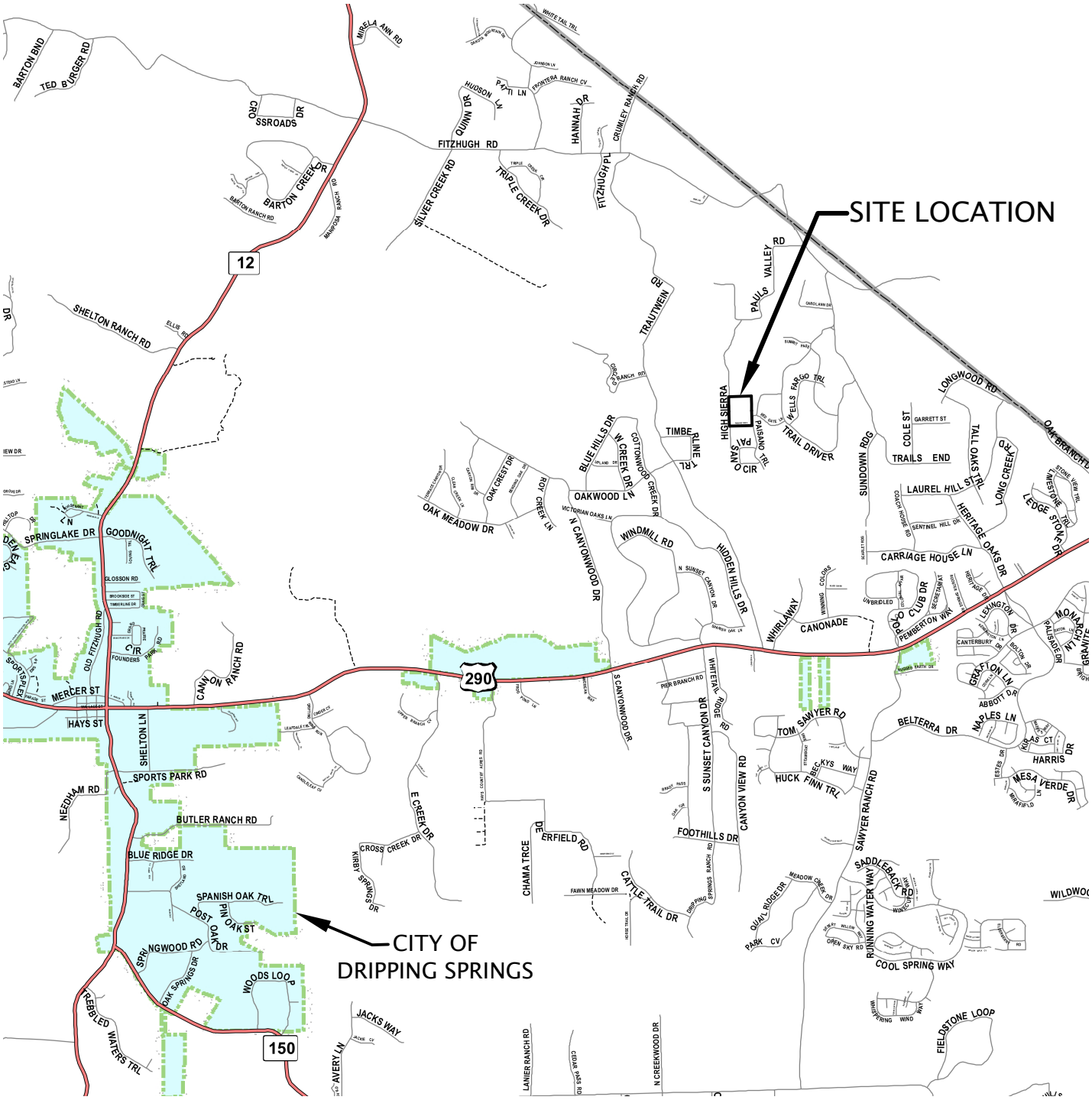
62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

63. ☐ The site description, controls, maintenance, and inspection requirements for the storm water pollution prevention plan (SWPPP) developed under the EPA NPDES general permits for stormwater discharges have been submitted to fulfill paragraphs 30 TAC §213.24(1-5) of the technical report. All requirements of 30 TAC §213.24(1-5) have been met by the SWPPP document.

☒ The Temporary Stormwater Section (TCEQ-0602) is included with the application.

Contributing Zone Plan
Application Attachments

ATTACHMENT "A"
Road Map



N

SCALE 1"=1 MILE

TCEQ – General Information Form
ATTACHMENT A

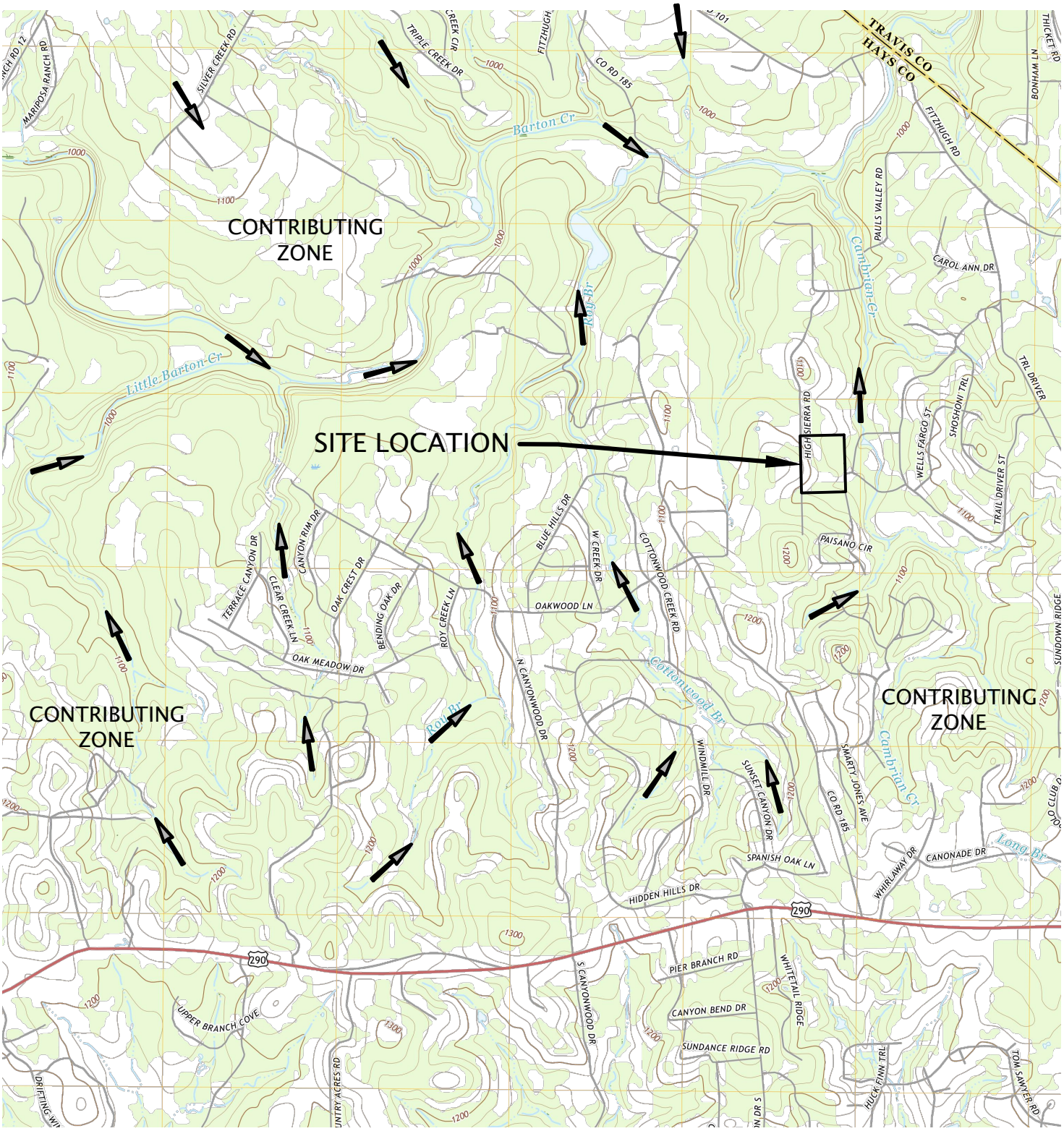
HAYS COUNTY ROAD MAP
ACTIVE DEPLOYMENT SYSTEMS
HAYS COUNTY, TEXAS

Hays County Road Map
Hays County Development Services

TRI-TECH
ENGINEERING, L.P.
155 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512-440-0222

TBPE REGIS. #: F-18693
www.tritechtx.com

ATTACHMENT "B"
USGS Quadrangle Map



SCALE 1"=1000'

TCEQ – General Information Form
ATTACHMENT B

USGS TOPOGRAPHIC MAP
ACTIVE DEPLOYMENT SYSTEMS
HAYS COUNTY, TEXAS

2019 USGS, Dripping Springs, Texas
7.5 Quadrangle, 20 Foot Contours

TRI-TECH
ENGINEERING, L.P.
155 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512-440-0222
TBPE REGIS. #: F-18693
www.tritechtx.com

ATTACHMENT "C"
Project Narrative

The following is a description of the proposed project to be constructed at 13001 Paisano Pass, Austin, Texas 1/2 mile West of the intersection of Trail Driver Street & Paisano Trail.

The "project site" (Site) is defined as 9.989 acre tract of land out of the S.F.I.W CO. Survey No. 3, Abstract No. 437, in Hays County Texas and 10.003 acre tract of land out of the S.F.I.W CO. Survey No. 3, Abstract No. 437, in Hays County Texas totaling to approximately 20 acres for the proposed development. There is currently one existing single-family home with a well and septic system on the 9.989 acre tract.

The project consists of two 10-acre tracts (one vacant & one with a single family home) being divided into a single-family residential subdivision consisting of 11 lots, (10 approximately 1.5 acres; 1 approximately 3.0 acres). The subdivision will obtain access from a newly proposed cul-de-sac that will tie into Paisano Pass. Total impervious cover in proposed improvements (homes & roads) is 2.51 Acres. The proposed improvements consist of 665 LF asphalt road and 1,900 LF waterline extension.

All groundcover disturbed by construction activities will be re-vegetated. Due to low impervious cover there will be no substantial increase in flows or velocities and there will be a minimal impact on water quality.

Planned construction activities include:

1. Installation of Temporary BMP's (Silt Fence, Rock Berm, and Stabilized Construction Entrance)
2. Clearing and Grubbing: Removal of existing vegetation, top soil and other debris within the proposed construction site. Approximate total disturbed area = 2.82 acres
3. Rough Grading: Cutting of proposed entrance drive, parking areas, building pads, access drive, and drainage swales. Approximate total disturbed area = 2.82 acres
4. Utility Installation: Trenching and installation of water and wastewater utilities. Approximate total disturbed are = 0.3 acre.
5. Site Grading: Grading of entrance drive, parking areas, and building pads to prepare the subgrade for pavement and foundation. Approximate total disturbed are = 0.91 acre.
6. Pavement & Foundation: Installation of concrete foundations, parking, access drive, and entrance drive. Approximate total disturbed area = 1.27 acres.
7. Finished Grading: Final grading of drainage swale, slope grading, and landscaping and installation of Permanent BMP's. Approximate total disturbed area = 3.9 acres
8. Completion of Construction: Installation of all landscaping and replacement of destroyed vegetation. Once permanent growth of vegetation has occurred remove temporary BMP's (Silt Fence & Rock Berm).

ATTACHMENT "D"
Factors Affecting Surface Water Quality

The only potential factors affecting water quality are from construction equipment leaks, refueling spills, as well as potential leaks from port-o-lets, and the total suspended solids (TSS) due to the construction activities on-site.

ATTACHMENT "E"
Volume and Character of Stormwater

The project is located within the Headwaters Barton Creek Sub Watershed of the Colorado River. The 52.79 acre watershed is delineated into three distinct drainage areas (see Runoff Calculations table below).

RUNOFF CALCULATIONS

Existing Conditions

Drainage Area	Drainage Area Size	Area with 0-2% slope		Area with 2-7% slope		Area with > 7% slope		Composite C-Values	
		Total Acres	0.11	Total Acres	0.81	Total Acres	0.81		
		Developed	Undeveloped	Developed	Undeveloped	Developed	Undeveloped		
Drainage Area 1	1.73	0.00	0.11	0.00	0.81	0.00	0.81	2- Year	0.37
								10 - Year	0.42
								25 - Year	0.46
								100 - Year	0.52
Drainage Area 2	25.52	0.00	0.37	0.14	11.98	0.47	12.56	2- Year	0.38
								10 - Year	0.43
								25 - Year	0.47
								100 - Year	0.54
Drainage Area 3	25.54	0.03	0.51	0.57	5.71	2.41	16.31	2- Year	0.42
								10 - Year	0.48
								25 - Year	0.52
								100 - Year	0.58

Proposed Conditions

Drainage Area	Drainage Area Size	Area with 0-2% slope		Area with 2-7% slope		Area with > 7% slope		Composite C-Values	
		Total Acres	0.02	Total Acres	0.46	Total Acres	0.59		
		Developed	Undeveloped	Developed	Undeveloped	Developed	Undeveloped		
Drainage Area 1	1.06	0.00	0.02	0.00	0.46	0.00	0.59	2- Year	0.37
								10 - Year	0.43
								25 - Year	0.46
								100 - Year	0.53
Drainage Area 2	26.18	0.00	0.46	0.99	11.49	1.07	12.18	2- Year	0.40
								10 - Year	0.46
								25 - Year	0.49
								100 - Year	0.56
Drainage Area 3	25.54	0.03	0.51	1.11	5.18	2.65	16.07	2- Year	0.43
								10 - Year	0.49
								25 - Year	0.53
								100 - Year	0.60

The Rational Method was utilized to quantify the runoff values. There are minimal increases in runoff due to the low amount of increase in impervious cover relative to the scope of the project. Due to the

low impervious cover and low density of the development, the character of the runoff will be similar to the predevelopment conditions.

ATTACHMENT "F"

Suitability Letter from Authorized Agent (if OSSF is Proposed)

Hays County Development Services

2171 Yarrington Road, Suite 100, Kyle TX 78640
512-393-2150 main / 512-493-1915 fax

March 9, 2023

To Whom It May Concern:

Re: On Site Sewage Facility Suitability (OSSF) for the Skylight Hills Subdivision Park located at approximately 13001 High Sierra, Austin, Texas 78737, parcel ID's: R21226 & R21227.

I have completed my preliminary review of the Facility Planning Report submitted in support of the above referenced development in Hays County. I concur with Andy Grubbs, R.S., findings that this 11-lot subdivision can be adequately served by individual on-site sewage facilities. These lots will be served by a public surface water supply served by West Travis County Public Utility Agency.

This review does not authorize the start of any construction and all Hays County development authorizations and subdivision requirements must be obtained before the start of any development.

Please contact me if you have any questions concerning this matter.

Sincerely,

Eric Van Gaasbeek, R.S., C.F.M.
Chief Environmental Health Specialist
Floodplain Administrator
OS# 0028967

ATTACHMENT "G"
Alternative Secondary Containment Methods (if AST with an alternative method of secondary containment is proposed).

N/A

ATTACHMENT "H"
AST Containment Structure Drawings (if AST is Proposed)

N/A

ATTACHMENT "I"
20% or less Impervious Cover Declaration (if project is multi-family residential, a school, or a small business and 20% or less impervious cover is proposed for the site).

This site will be a single-family residential development with 14.1% impervious cover so there is no requirement to treat storm water runoff according to 30 TAC Chapter 213.

ATTACHMENT "J" – BMPs for On-site Stormwater

N/A

ATTACHMENT "K" – BMPs for Surface Streams

N/A

ATTACHMENT "L" – Request to Seal Features

N/A

ATTACHMENT M – Construction Plans

ATTACHMENT "N"

N/A

PAVING, DRAINAGE, AND WATER IMPROVEMENTS PLAN

SKYLIGHT HILLS SUBDIVISION

CITY OF DRIPPING SPRINGS ETJ

Hays County Texas

Texas Commission on Environmental Quality
Contributing Zone Plan
General Construction Notes

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

The followinglisted "construction notes" are intended to be advisory in nature only and do not constitute an approval or conditional approval by the Executive Director (ED), nor do they constitute a comprehensive listing of rules or conditions to be followed during construction. Further actions may be required to achieve compliance with TCEQ regulations found in Title 30, Texas Administrative Code (TAC), Chapters 213 and 217, as well as local ordinances and regulations providing for the protection of water quality. Additionally, nothing contained in the following/listed "construction notes" restricts the powers of the ED, the commission or any other governmental entity to prevent, correct, or curtail activities that result or may result in pollution of the Edwards Aquifer or hydrologically connected surface waters. The holder of any Edwards Aquifer Protection Plan containing "construction notes" is still responsible for compliance with Title 30, TAC, Chapters 213 or any other applicable TCEQ regulation, as well as all conditions of an Edwards Aquifer Protection Plan through all phases of plan implementation. Failure to comply with any condition of the ED's approval, whether or not in contradiction of any "construction notes," is a violation of TCEQ regulations and any violation is subject to administrative rules, orders, and penalties as provided under Title 30, TAC § 213.10 (relating to Enforcement). Such violations may also be subject to civil penalties and injunction. The following/listed "construction notes" in no way represent an approved exception by the ED to any part of Title 30 TAC, Chapters 213 and 217, or any other TCEQ applicable regulation

1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any ground disturbance or construction activities. This notice must include:
   - the name of the approved project;
   - the activity start date; and
   - the contact information of the prime contractor.
2. All contractors conducting regulated activities associated with this project should be provided with complete copies of the approved Contributing Zone Plan (CZP) and the TCEQ letter indicating the specific conditions of its approval. During the course of these regulated activities, the contractor(s) should keep copies of the approved plan and approval letter on site.
3. No hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.
4. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.
5. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.
6. Sediment must be removed from the sediment traps or sedimentation basins when it occupies 50% of the basin's design capacity.
7. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.
8. All excavated material that will be stored on-site must have proper E&S controls.
9. If portions of the site will have a cease in construction activity lasting longer than 14 days, soil TCEQ-0592A (Rev. July 15, 2015) Page 2 of 2 stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.
10. The following records should be maintained and made available to the TCEQ upon request:
- the dates when major grading activities occur;
- the dates when construction activities temporarily or permanently cease on a portion of the site; and
- the dates when stabilization measures are initiated.
11. The holder of any approved CZP must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:
    A. any physical or operational modification of any best management practices (BMPs) or structure(s), including but not limited to temporary or permanent ponds, dams, berms, silt fences, and diversionary structures;
    B. any change in the nature or character of the regulated activity from that which was originally approved;
    C. any change that would significantly impact the ability to prevent pollution of the Edwards Aquifer; or
    D. any development of land previously identified as undeveloped in the approved contributing zone plan.

Austin Regional Office	San Antonio Regional Office
12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795	14250 Judson Road San Antonio, Texas 78233-4480 Phone (210) 490-3096 Fax (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

CONTACTS

ENGINEER:

TRI-TECH ENGINEERING, LP
155 RIVERWALK DRIVE
SAN MARCOS, TX 78666
PH: (512) 440-0222
CONTACT: AL CARROLL, PE

OWNER/DEVELOPER:

FRAME MIDDLETON, LLC
13001 HIGH SIERRA
AUSTIN, TEXAS 78737
PH: (737) 529-6791
CONTACT: LOGAN MIDDLETON, OWNER

UTILITIES:

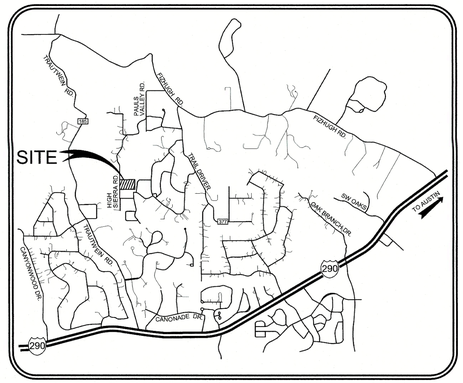
WATER
WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY
(512) 263-0100

ELECTRIC
PEDERNALES ELECTRIC COOP
(888) 554-4732

SEWER
ONSITE SEWAGE FACILITY

EDWARDS AQUIFER

THIS SUBDIVISION LIES WITHIN THE BOUNDARIES OF THE EDWARDS AQUIFER CONTRIBUTING ZONE.



VICINITY MAP
ZIP CODE: 78737

LEGAL DESCRIPTION:

BEING 9.89 ACRES & 10.00 ACRES OUT OF THE S.F.I.W. SURVEY ABSTRACT NOS. 437 & 438, CITY OF DRIPPING SPRINGS ETJ, HAYS COUNTY, TEXAS

FLOODPLAIN INFORMATION

F.I.R.M. NO. 48209C PANEL: 0107F
DATED: Sept. 2, 2005 ZONE: X

COMMUNITY PANEL
COMMUNITY NO.: 480321 PANEL: 0107F

FLOOD INFORMATION PROVIDED HEREON IS BASED ON SCALING THE LOCATION OF THE SUBJECT TRACT ON THE FLOOD INSURANCE RATE MAPS. THE INFORMATION SHOULD BE USED TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOODING CONDITIONS. WE ARE NOT RESPONSIBLE FOR THE F.I.R.M.'S ACCURACY.

NO PORTION OF THIS SUBDIVISION LIES WITHIN THE BOUNDARIES OF THE 100-YEAR FLOODPLAIN AS DELINEATED ON HAYS COUNTY F.I.R.M. PANEL #48209C0107F, DATED SEPTEMBER 2, 2005.

SHEET INDEX

*** CAUTION: NOTICE TO CONTRACTOR ***

STOP!! CALL BEFORE YOU DIG

AS REQUIRED BY "TEXAS ADMINISTRATIVE CODE TITLE 16, PART 1, CH. 18," TEXAS ONE CALL SYSTEM MUST BE CONTACTED (811) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATIONS BEING PERFORMED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT TEXAS ONE CALL SYSTEM.

THE CONTRACTOR SHALL NOTE ON SITE PLAN THE LOCATION OF ALL MATERIAL STORAGE AREAS, EQUIPMENT STORAGE AREAS, PETROLEUM TANKS, SOLID WASTE RECEPTACLES, SANITARY FACILITIES, ANY ON-SITE OR OFF-SITE BORROW OR STOCKPILE AREA, ANY ON-SITE OR OFF-SITE SUPPORT ACTIVITIES (SUCH AS ASPHALT OR CONCRETE PLANTS). CONTRACTOR SHALL ALSO PREPARE, KEEP ON SITE, AND MAINTAIN CURRENT A LIST OF MATERIALS WITH APPROXIMATE QUANTITIES, WHICH ARE STORED ON SITE.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM . IN APPROVING THESE PLANS. THE CITY MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

CITY OF DRIPPING SPRINGS DEVELOPMENT PERMIT #: _____

NO	REVISION	DATE
1		

IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)
13001 HIGH SIERRA
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

STATE OF TEXAS
ALVORIS CARROLL JR.
119251
LICENSED
PROFESSIONAL ENGINEER
2/3/2023

TRI-TECH ENGINEERING, L.P.
155 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512.440.0222
www.tritechtx.com TBPE REGIS. #: F-18693

PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	N/A
SHEET:	1.0

COVER SHEET

SKYLIGHT HILLS

BEING 9.989 & 10.00 ACRES OUT OF THE S.F.I.W. SURVEY ABST. 437 & 438 CITY OF DRIPPING SPRINGS ETJ HAYS COUNTY, TEXAS

STATE OF TEXAS*
COUNTY OF HAYS*

KNOW ALL MEN BY THESE PRESENTS

That we, Frame Middleton, LLC., by and through Logan Middleton, representative, owners of that certain tract of land shown hereon being a called 10.00 acre tract of land and described in a deed recorded in Instrument No. 22024798, Official Public Records of Hays County, Texas, and that certain tract of land shown hereon being a called 9.989 acre tract of land and described in a deed recorded in Instrument No. 22032612, Official Public Records of Hays County, Texas as shown hereon, do hereby subdivide said tract and do hereby consent to all plat note requirements shown hereon, and do hereby dedicate to the public the use of utility easements shown hereon. This subdivision is to be known as SKYLIGHT HILLS, BEING 9.89 ACRES & 10.00 ACRES OUT OF THE S.F.I.W. SURVEY ABST. 437 & 438, CITY OF DRIPPING SPRINGS ETJ, HAYS COUNTY, TEXAS.

TO CERTIFY WHICH, WITNESS by my hand this _____ day of _____ A.D. 20___.

By: _____
Logan Middleton, Representative
11203 Brushy Glen Drive
Austin, Texas 78754

STATE OF TEXAS*
COUNTY OF HAYS*

KNOW ALL MEN BY THESE PRESENTS

Before me, the undersigned authority, on this day personally appeared Frame Middleton, LLC., by and through Logan Middleton, known to me to be the persons whose name is subscribed to the foregoing instrument and acknowledged to me that they have executed the same for the purposes and consideration therein expressed, in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL of office this _____ day of _____ A.D. 20___.

_____
NOTARY PUBLIC in and for Hays County, Texas

STATE OF TEXAS*
COUNTY OF HAYS*

KNOW ALL MEN BY THESE PRESENTS

I, Elaine H. Cardenas, County Clerk of Hays County, Texas, do hereby certify that on the ___ day of _____ A.D. 20_____ the Commissioners Court of Hays County, Texas, passed an order authorizing the filing for record of this plat, and said order has been entered into the minutes of said court in Instrument Number _____.

WITNESS my hand and seal of office this the _____ day of _____ A.D. 20____.

_____ _____
Ruben Becerra
County Judge
Hays County, Texas

_____
Elaine H. Cardenas
County Clerk
Hays County, Texas

No structure in this subdivision shall be occupied until connected to an individual water supply or a state-approved community water system. Due to declining water supplies and diminishing water quality, prospective property owners are cautioned by Hays County to question the seller concerning ground water availability. Rainwater collection is encouraged and in some areas may offer the best renewable water resource.

No structure in this subdivision shall be occupied until connected to a public sewer system or to an on-site wastewater system which has been approved and permitted by Hays County Development Services.

No construction or other development within this subdivision may begin until all Hays County Development Permit requirements have been met.

_____
Eric Van Goosbeek, R.S., C.F.M. Date
Hays County Floodplain Administrator

_____
Marcus Pacheco, Director Date
Hays County Development Services

I, the undersigned, director of Hays County Development Services Department, hereby certify that this subdivision plat conforms to all Hays County Requirements as stated in the Interlocal Cooperation Agreement between Hays County and the City of Dripping Springs for subdivision regulation within the extraterritorial jurisdiction of the City of Dripping Springs.

_____ _____
Marcus Pacheco, Director Date
Hays County Development Services

PLAN 577X
SM-22-1118000

STATE OF TEXAS*
COUNTY OF HAYS*

KNOW ALL MEN BY THESE PRESENTS

I, Aaron Micah Reynolds, Registered Professional Land Surveyor in the State of Texas, do hereby certify that this plat is true and correctly made from an actual survey made on the ground of the property legally described hereon, and that there are no apparent discrepancies, conflicts, overlapping of improvements, or roads in place, except as shown on the accompanying plat, and that the corner monuments shown thereon were properly found or placed under my supervision in accordance with the Development Regulations of Hays County, Texas.

TO CERTIFY WHICH, WITNESS by my hand and seal this _____ day of _____ A.D. 20____.
RELEASED FOR REVIEW 12/06/22
Preliminary, this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document.

_____ _____
Aaron Micah Reynolds Date
R.P.L.S. # 6644, State of Texas

STATE OF TEXAS*
COUNTY OF HAYS*

KNOW ALL MEN BY THESE PRESENTS

I, Al Carroll, Registered Professional Engineer in the State of Texas, do hereby certify that this subdivision is not in the Edwards Aquifer Recharge Zone, nor is it in the Barton Springs Segment of the Edwards Aquifer Recharge Zone, it is however in the Contributing Zone of the Edwards Aquifer and is located within Zone X and Zone A flood areas, as denoted hereon, and as defined by Federal Emergency Management Administration Flood Hazard Boundary Map, Community Panel Number, 48209C 0355 F effective date September 2, 2005, and that each lot conforms to the Hays County Development Regulations.

TO CERTIFY WHICH, WITNESS by my hand and seal at this _____ day of _____ A.D. 20____.
RELEASED FOR REVIEW 12/06/22
Preliminary, this document shall not be recorded for any purpose and shall not be used or viewed or relied upon as a final survey document.

_____ _____
Al Carroll Date
Registered Professional Engineer, No. 119251
State of Texas

STATE OF TEXAS*
COUNTY OF HAYS*

KNOW ALL MEN BY THESE PRESENTS

I, Elaine H. Cardenas, County Clerk of Hays County, Texas, do hereby certify that the foregoing instrument of writing with its certificate of authentication was filed for record in my office on the _____ day of _____, A.D. 20____ at _____ o'clock _____m., in the plat records of Hays County, Texas, in Instrument Number _____.

WITNESS my hand and seal of office this the _____ day of _____, A.D. 20____.

_____
Elaine H. Cardenas
County Clerk
Hays County, Texas

STATE OF TEXAS*
COUNTY OF HAYS*
CITY OF DRIPPING SPRINGS

This replat has been submitted to and considered by the city council of the City of Dripping Springs, Texas, and approved this the _____ day of _____, 20____ A.D. by the city council.

_____ _____
Bill Foulds Jr., Mayor
City of Dripping Springs

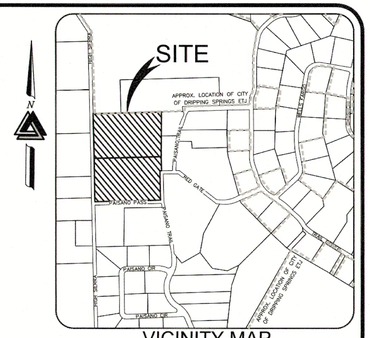
_____
Andrea Cunningham, City Secretary
City of Dripping Springs

PEDERNALES ELECTRIC COOPERATIVE NOTES

1. Pedernales Electric Cooperative (PEC) is hereby dedicated a twenty (20) foot wide utility easement along all lot lines adjoining the main public right-of-way, a ten (10) food wide utility easement along all lot lines adjoining a secondary public right-of-way and a five (5) foot wide utility easement along all other side or rear lot lines. Property within a public roadway easement shall be designated as a utility easement.
2. All existing overhead and underground lines shall possess a twenty (20) foot wide utility easement centered 10' each side of the line.
3. Each lot is subject to a floating ten (10) foot wide by thirty (30) foot long guy wire easement as required by PEC.
4. All utility easements are for the purpose of construction, reconstruction, maintenance (including but not limited to removal of trees and other obstructions), inspecting, removal, reading of meters, and repair of all overhead and underground lines.
5. No buildings or any other obstructions shall be placed within utility easements. Where access is obstructed within easement PEC shall have the right to ingress and egress over grantors adjacent land to and from said utility easement.

WEST TRAVIS COUNTY PUBLIC UTILITY AGENCY NOTES

1. The lots in this subdivision receive potable water service, either directly or via wholesale contract, from the West Travis County Public Utility Agency. As such, the property is subject to compliance with the terms set forth in the May 24, 2000 United States Fish and Wildlife Service Memorandum of Understanding with the Lower Colorado River Authority.
2. No lots contain USFWS stream buffer zones and/or sensitive feature buffer zones as indicated hereon that must remain free of construction development, or other alterations.
3. Impervious cover shall comply with the water quality plan approved for this subdivision and shall not be altered.
4. Declarant agrees that the lots in this plat document are subject to the Texas Commission on Environmental Quality Optional Enhanced Measures.



VICINITY MAP
ZIP CODE: 78620

PLAT NOTES

1. This subdivision lies within the Edwards Aquifer Contributing Zone.
2. No portion of this subdivision lies within the boundaries of the Edwards Aquifer Recharge Zone.
3. No portion of this subdivision lies within the boundaries of the 100 year flood plain as delineated on Hays County F.I.R.M. Panel #48209C0107F, dated September 2, 2005.
4. This subdivision lies within the City of Dripping Springs Extra Territorial Jurisdiction and is subject to it's ordinances.
5. This subdivision contains 11 lots for a total of 19.989 acres.
   Lots less than 2.00 acres: 10
   Lots 2.00 to 5.00 acres: 1
   Lots 5.00 to 10.00 acres: 0
6. This subdivision lies within the following jurisdictions:
   Emergency Services District #6 & #1
   Dripping Springs Independent School District
   Hays Trinity Groundwater Conservation District #3
7. Water supply for this subdivision will be provided by West Travis County Public Utility Agency.
8. Wastewater treatment for this subdivision will be provided by individual on-site sewage facilities.
9. Rainwater collection is encouraged and in some areas may offer the best renewable water resource.
10. Electricity for this subdivision is provided by Pedernales Electric Cooperative, Inc.
11. Telephone service for this subdivision is provided by Frontier.
12. Driveways shall comply with Chapter 721 of the Hays County Development Regulations, and be permitted through the Transportation Department of Hays County under Chapter 751.
13. All culverts, when required shall comply with the current Hays County standard.
14. In order to promote safe use of roadways and preserve the conditions of public roadways, no driveway constructed on any lot within this subdivision shall be permitted access onto a publicly dedicated county roadway unless a Driveway Permit has been issued by the appropriate County Road and Bridge Department.
15. No lots are to be occupied until OSSF Permitted or public sewer, water and electricity and roads have been provided and construction is completed and approved.
16. Post-development conditions runoff rate shall be no greater than the pre-developed condition for 2, 5, 10, 25, and 100 year storm events, per Hays County Development regulations, chapter 725, subchapter 3.02. Pre and post development runoff calculations shall be included with the construction drawings for this subdivision.
17. Post-Construction Stormwater control measures shall have a maintenance plan. The maintenance plan must be filed in the real property records of Hays County. The owner operator of any new development or redevelopment site shall develop and implement a maintenance plan addressing maintenance requirements for any structural control measures installed on site. Operation and maintenance performed shall be documented and retained and made available for review upon request.
18. All roadways shall be designed and constructed in accordance with applicable Hays County standards, per Hays County Development regulations, chapter 721, subchapter 5.
19. No object, including buildings, fencing or landscaping which would interfere with conveyance of stormwater, shall be placed or erected within a Drainage Easement. The owner(s) of any lot(s) upon which drainage facilities are located, including detention, shall be responsible for maintenance and upkeep of such facilities.
20. No structure in this subdivision shall be occupied until connected to a public sewer system or to an on-site wastewater system which has been approved and permitted by Hays County.
21. Mailboxes placed within the ROW, shall be of an approved TxDOT or FHWA design.
22. Improvements exist on these lots which are not shown by this plat.
23. There is hereby dedicated a twenty (20) foot wide Public Utility, Drainage, and Embankment/Backslope Easement adjacent to all street right-of-way lines.
24. All bearings and distances shown hereon are based upon the Texas Coordinate System, South Central Zone (4204), North American Datum 1983, Grid.

FEBRUARY 3, 2023

ENGINEER:
TRI-TECH
ENGINEERING & SURVEYING PLANNING
135 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512-440-0222
www.tritechtx.com
TBPLS REGISTRATION #:10193729
TBPE REGISTRATION #: F-18693

SURVEYOR:
AMERISURVEYORS
EXCELLENCE IN LAND SURVEYING
P.O. BOX 160369
SAN ANTONIO, TEXAS 78280
PHONE: (210) 572 - 1895
WEB: www.AMERISURVEYORS.COM

SHEET 1 of 2

NO	REVISION	DATE
△		

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IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)
13001 HIGH SIERRA
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

STATE OF TEXAS
ALVORIS CARROLL JR
119251
LICENSED
PROFESSIONAL ENGINEER
2/3/2023

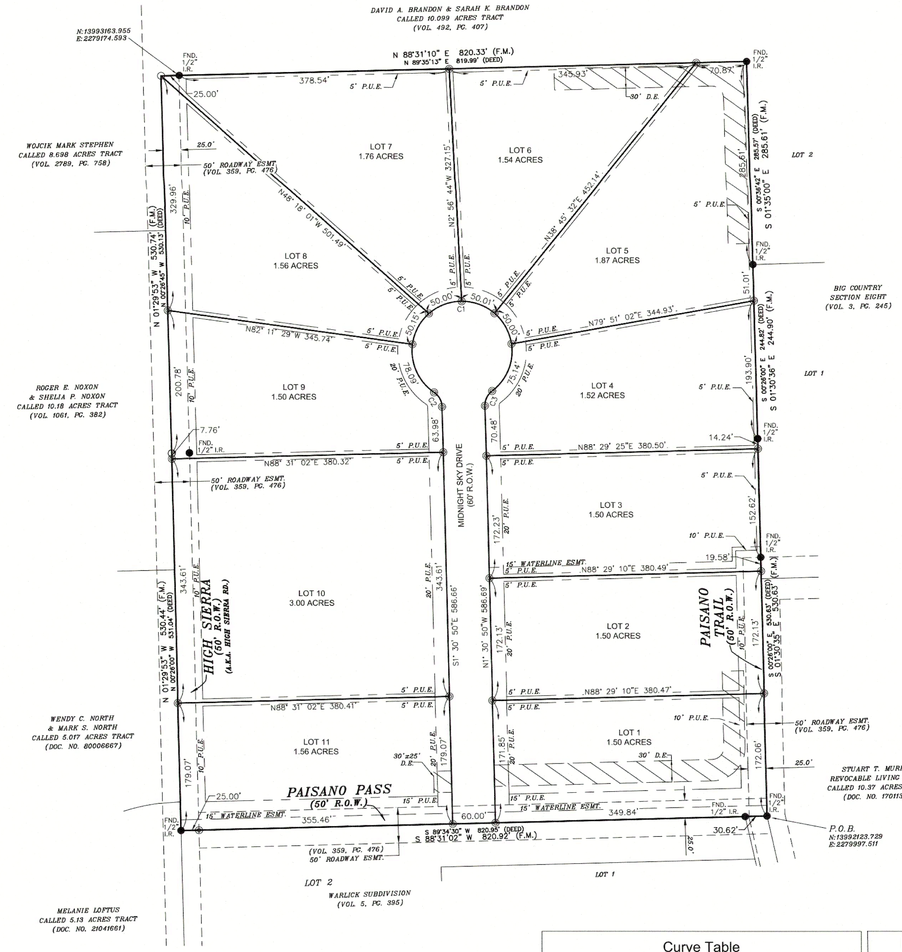
TRI-TECH ENGINEERING, L.P.
135 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512-440-0222
www.tritechtx.com TBPE REGIS. #: F-18693

PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	N/A
SHEET:	2.0

PLAT SHEET -1

SKYLIGHT HILLS

BEING 9.989 & 10.00 ACRES OUT OF THE S.F.I.W. SURVEY ABST. 437 & 438 CITY OF DRIPPING SPRINGS ETJ HAYS COUNTY, TEXAS



SCALE: 1"=100'

0 100 200

PLAN 577X
SM-22-1118000

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	353.38	70.00	289.25	S88° 29' 10"W	81.05
C2	23.83	25.00	54.62	N28° 49' 32"W	22.94
C3	23.83	25.00	54.62	S25° 47' 53"W	22.94

LEGEND

- SET IRON ROD W/ CAP STAMPED "AMERISURVEYORS"
- CALCULATED POINT
- FOUND IRON ROD
- (DEED) RECORDED ON DEED
- (F.M.) FIELD MEASURED
- BOUNDARY LINE
- EASEMENT LINE

FEBRUARY 3, 2023

ENGINEER:
TRI-TECH
ENGINEERING ▲ SURVEYING ▲ PLANNING
155 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512-440-0222
TBPLS REGISTRATION #:10193729
www.tritechtx.com TBPE REGISTRATION #: F-18693

SURVEYOR:
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SAN ANTONIO, TEXAS 78280
PHONE: (210) 572 - 1995
WEB: WWW.AMERISURVEYORS.COM

SHEET 2 of 2

NO	REVISION	DATE
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Skylight Hills Subdivision (9.989 & 10.00 Ac.)

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TRAVIS COUNTY, TEXAS

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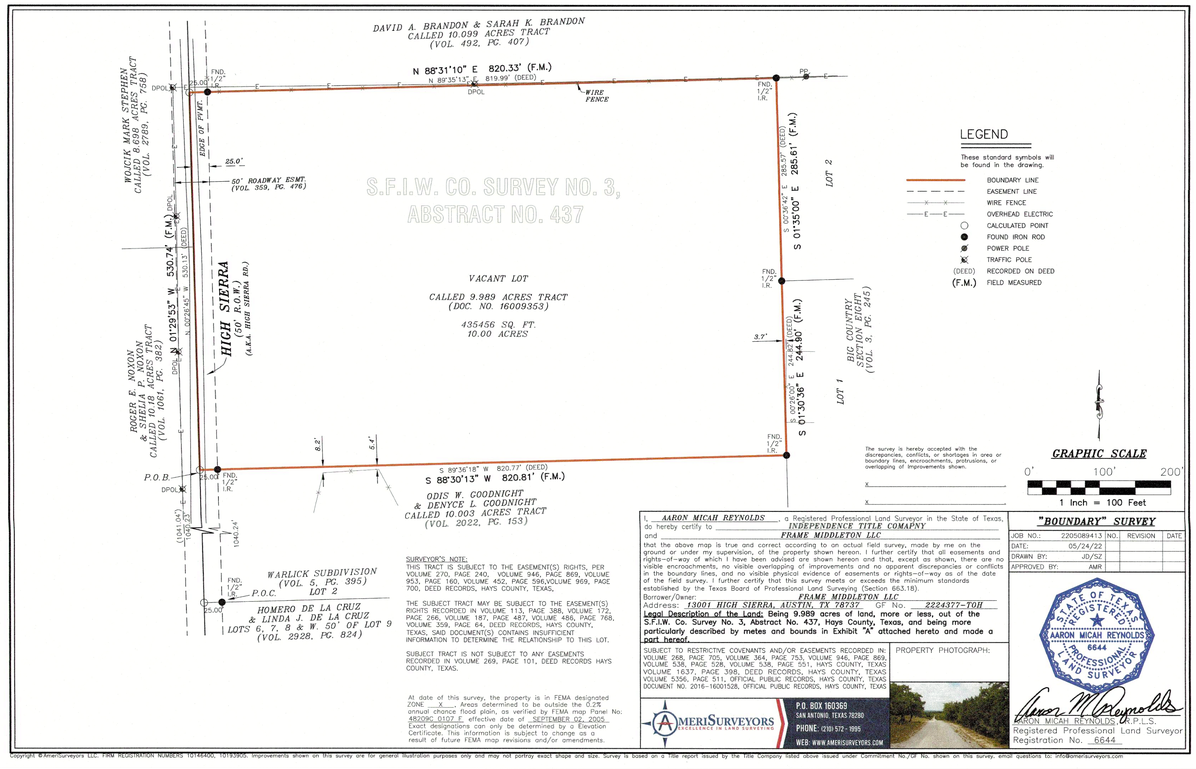
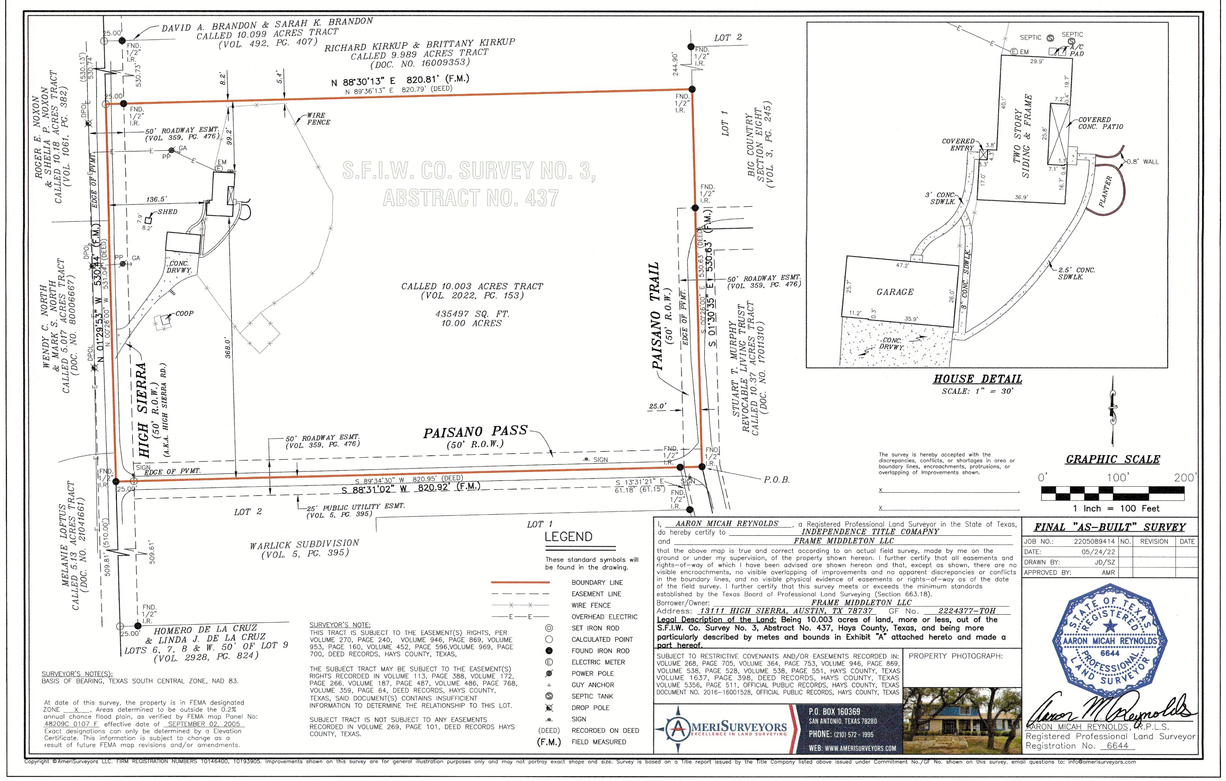
PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	N/A
SHEET:	2.1

PLAT SHEET -2





NO	REVISION	DATE
△		

IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)
13001 HIGH SIERRA
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

STATE OF TEXAS ALVORIS CARROLL JR. 119251 LICENSED PROFESSIONAL ENGINEER
2/3/2023

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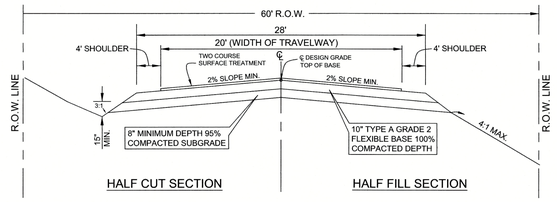
135 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512-440-0222
www.tritechtx.com TBPE REGIS. # F-13693

PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	N/A
SHEET:	3.0

SURVEY

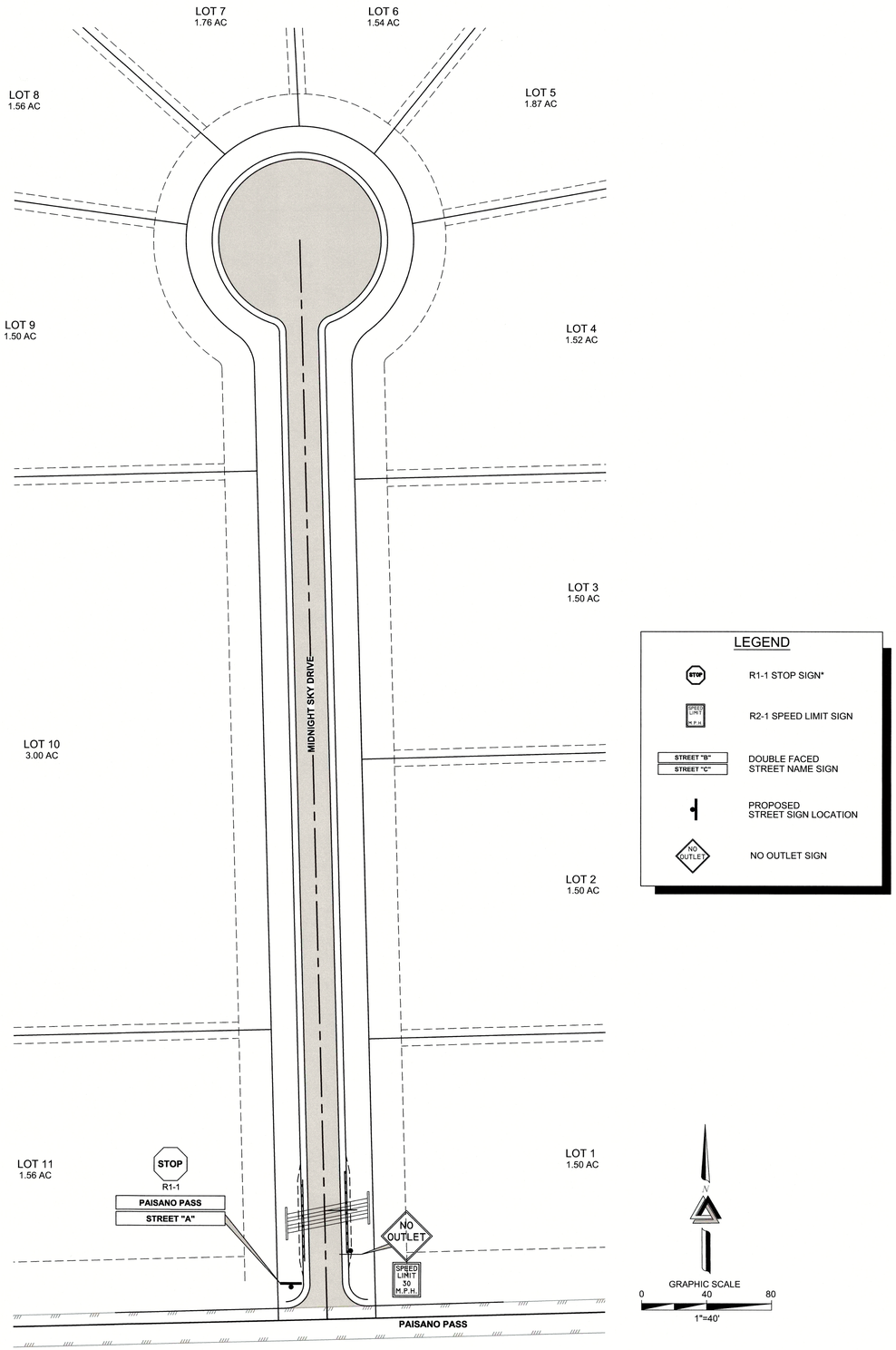


HAYS COUNTY LOCAL ROADWAY
TYPICAL PAVEMENT CROSS-SECTION

Pavement Design Notes:

Street Classification	Subgrade Material	Hot Mix Asphaltic Concrete, in	Crushed Limeston Base, in	Two Subgrade Improvements
Local Streets	More than 2 feet of expansive subgrade PI>35	2	8	X*
	Less than 2 feet of expansive subgrade PI>35	2	8	-

1. *Where more than 2 feet of expansive subgrade exists after rough cut of the streets, two of the following options must be employed. This is a requirement of the Hays County Standard Specifications.
Option 1: Place a minimum of 18 inches of low PI (PI < 20) material below the crushed limestone base.
Option 2: A single layer of Tensar TX130S geogrid, or equivalent approved by the Geotechnical Engineer, should be placed below the crushed limestone base layer.
Option 3: A moisture barrier should extend vertically from the back of the curb a minimum of 24 inches in accordance with the Hays County detail.
Option 4: Lime stabilize a minimum of 8 inches of the subgrade below the crushed limestone base. The surface clay must first be tested for sulfate reaction and a mix design should be completed to determine the proper lime content, lime type, mixing procedure and curing conditions required.
2. Delineation between these different pavement thickness sections should be completed in the field by observation of open utilities trenches and the pavement subgrade by the Geotechnical Engineer of his designate. Given the known variability of surface soils at this site, the geotechnical engineer must verify the subgrade before installation of the pavement system can proceed. Multiple site visits may be required depending upon the construction schedule. Finalized distinction between pavement thickness section options shall be provided as addendums to this report as these observations are completed. Please contact the geotechnical engineer when the utility trenches are open.
3. Any expansive fill (PI > 35) placed in the subgrade shall be considered expansive subgrade.
4. The subgrade improvements (low plasticity sub-base, lime, and geogrid) should be extended 3 feet beyond the back of the curb line for expansive subgrades (PI > 35).
5. These pavement thickness designs are intended to transfer the load from the anticipated traffic conditions.
6. The responsibility of assigning street classification to the streets in this project is left to the civil engineer.
7. If pavement designs other than those listed above are desired, please contact MLA Geotechnical.



OVERALL PAVING AND DRAINAGE LAYOUT
& SIGNAGE PLAN

NO	REVISION	DATE
△		

IMPROVEMENT PLANS
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CITY OF AUSTIN
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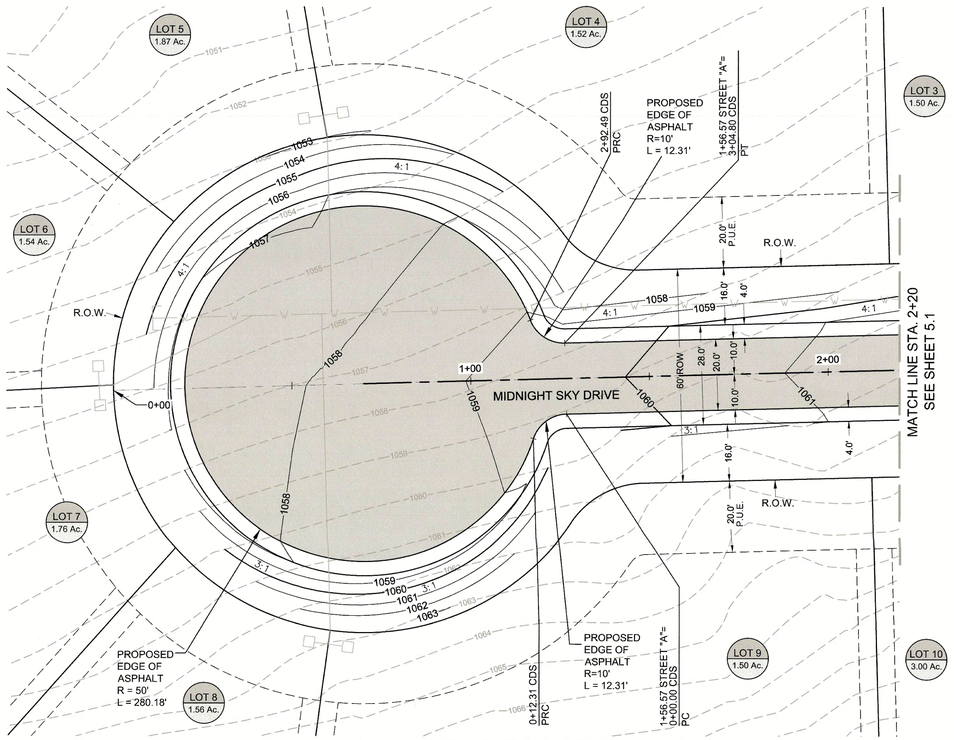
TRI-TECH ENGINEERING, L.P.
155 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512-440-0222
TBPE REGIS. #: F-18093
www.tritechtx.com

PROJ. NO: SM-22-1118	OVERALL PAVING & SIGNAGE LAYOUT
DRAWN BY: ACJ	
CHECKED BY: ACJ	
DESIGN BY: ACJ	
DATE: 02/03/2023	
SCALE: 1"=40'	
SHEET: 4.0	



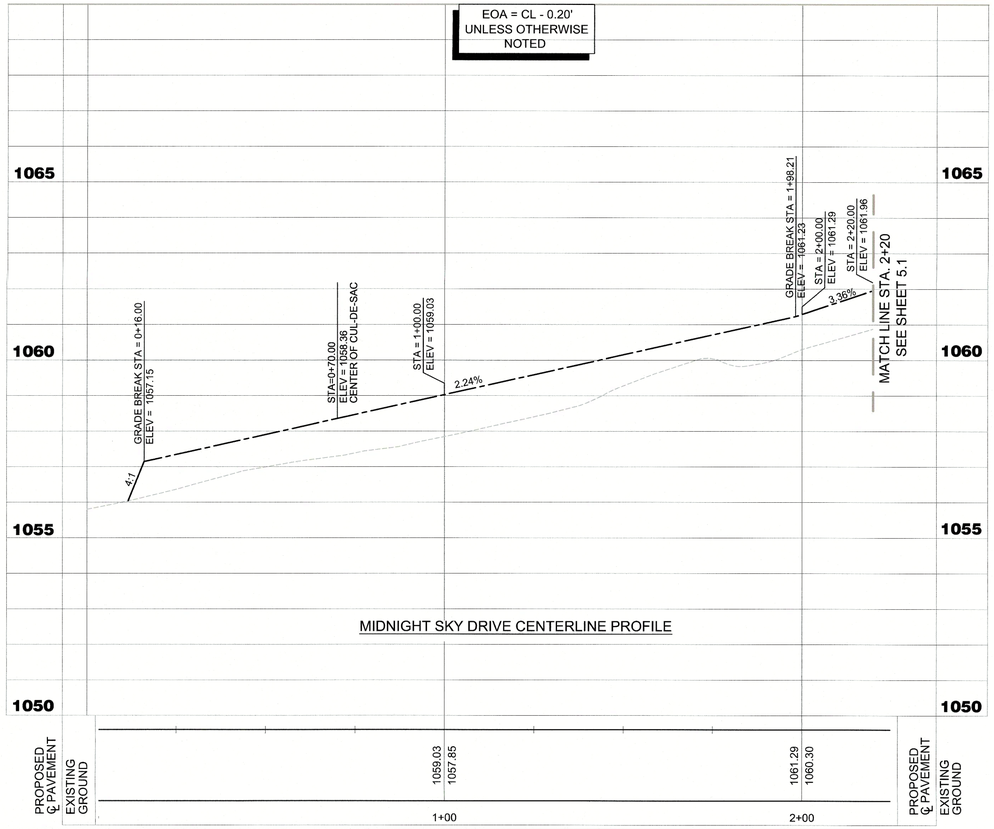
MIDNIGHT SKY DRIVE (60' R.O.W.)

GRAPHIC SCALE
0 20 40
1"=20'

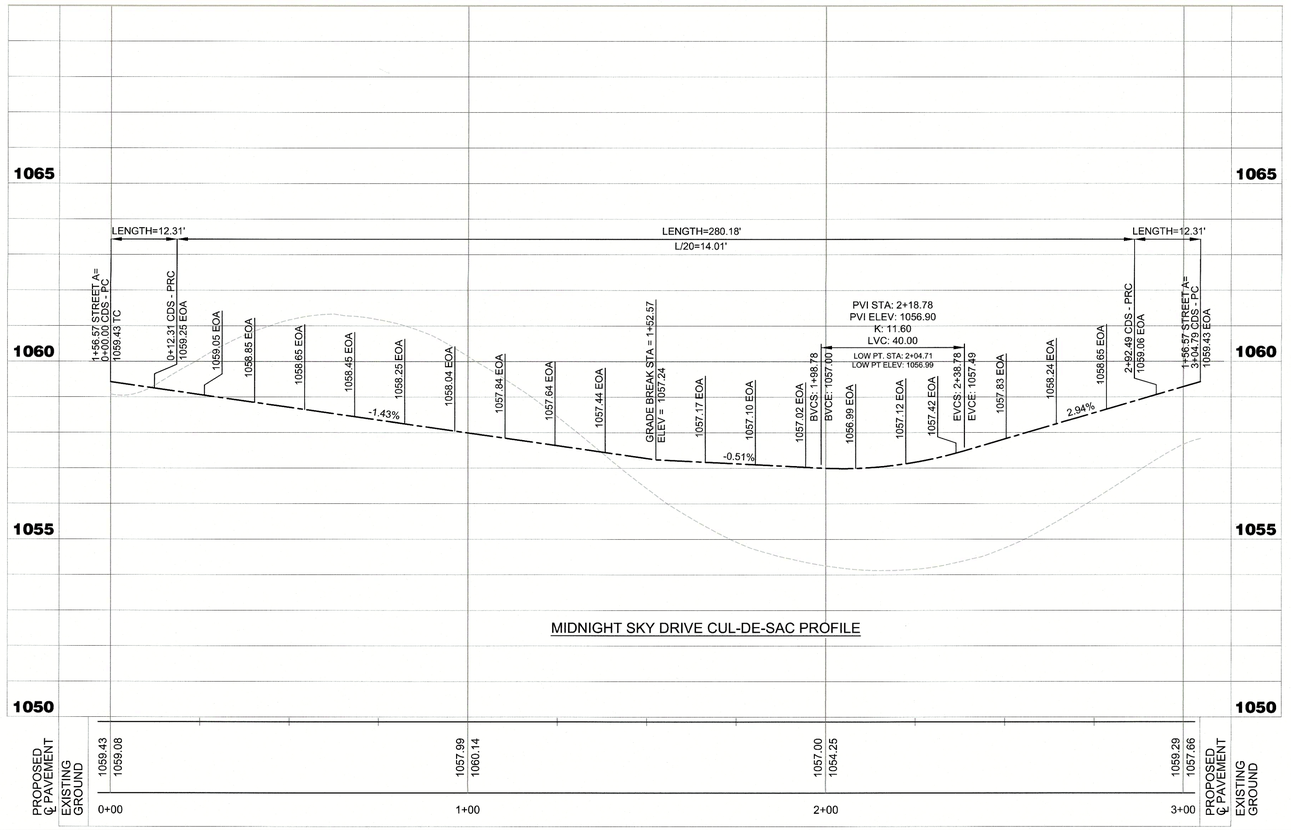
PLAN LEGEND	
	- DRAINAGE EASEMENT
R.O.W.	- RIGHT OF WAY
EOA	- EDGE OF ASPHALT
FL	- FLOWLINE

PROFILE LEGEND	
	- PROPOSED PAVEMENT CENTERLINE
	- EXISTING NATURAL GROUND AT CENTERLINE
EOA	- EDGE OF ASPHALT ELEVATION
CL	- CENTERLINE ELEVATION

EOA = CL - 0.20' UNLESS OTHERWISE NOTED



MIDNIGHT SKY DRIVE CENTERLINE PROFILE



MIDNIGHT SKY DRIVE CUL-DE-SAC PROFILE

NO	REVISION	DATE
△		

IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)

13001 HIGH SIERRA

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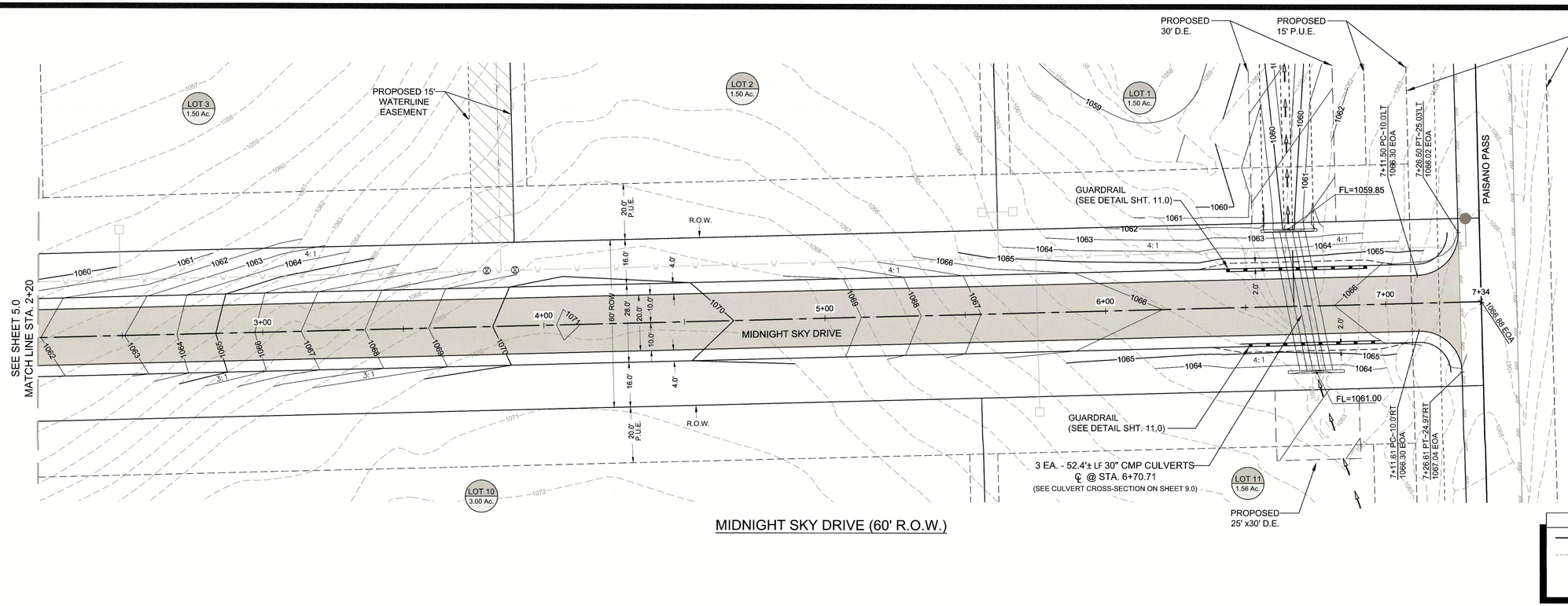
155 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512-440-0222
www.tritechtx.com
TBPE REGIS. #: F-18693

PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	1"=20' HORIZ. 1"=2' VERT.
SHEET:	5.0

STREET PLAN & PROFILE
MIDNIGHT SKY DRIVE
STA. 0+16 TO 2+20

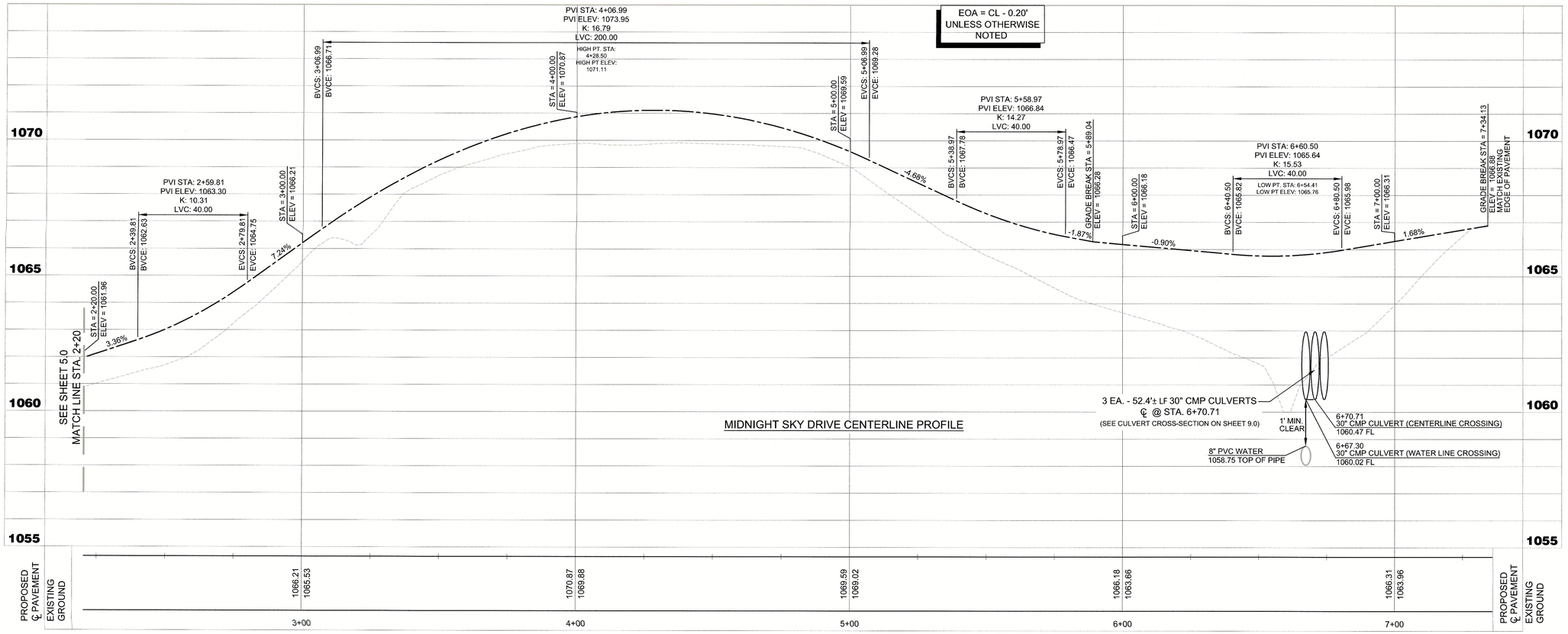


MIDNIGHT SKY DRIVE (60' R.O.W.)

PLAN LEGEND	
DE	- DRAINAGE EASEMENT
	- WATER EASEMENT
R.O.W.	- RIGHT OF WAY
EOA	- EDGE OF ASPHALT
FL	- FLOWLINE

GRAPHIC SCALE
0 20 40
1"=20'

PROFILE LEGEND	
	- PROPOSED PAVEMENT CENTERLINE
	- EXISTING NATURAL GROUND AT CENTERLINE
EOA	- EDGE OF ASPHALT ELEVATION
CL	- CENTERLINE ELEVATION



MIDNIGHT SKY DRIVE CENTERLINE PROFILE

NO	REVISION	DATE
△		

IMPROVEMENT PLANS
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SAN MARCOS, TEXAS 78666
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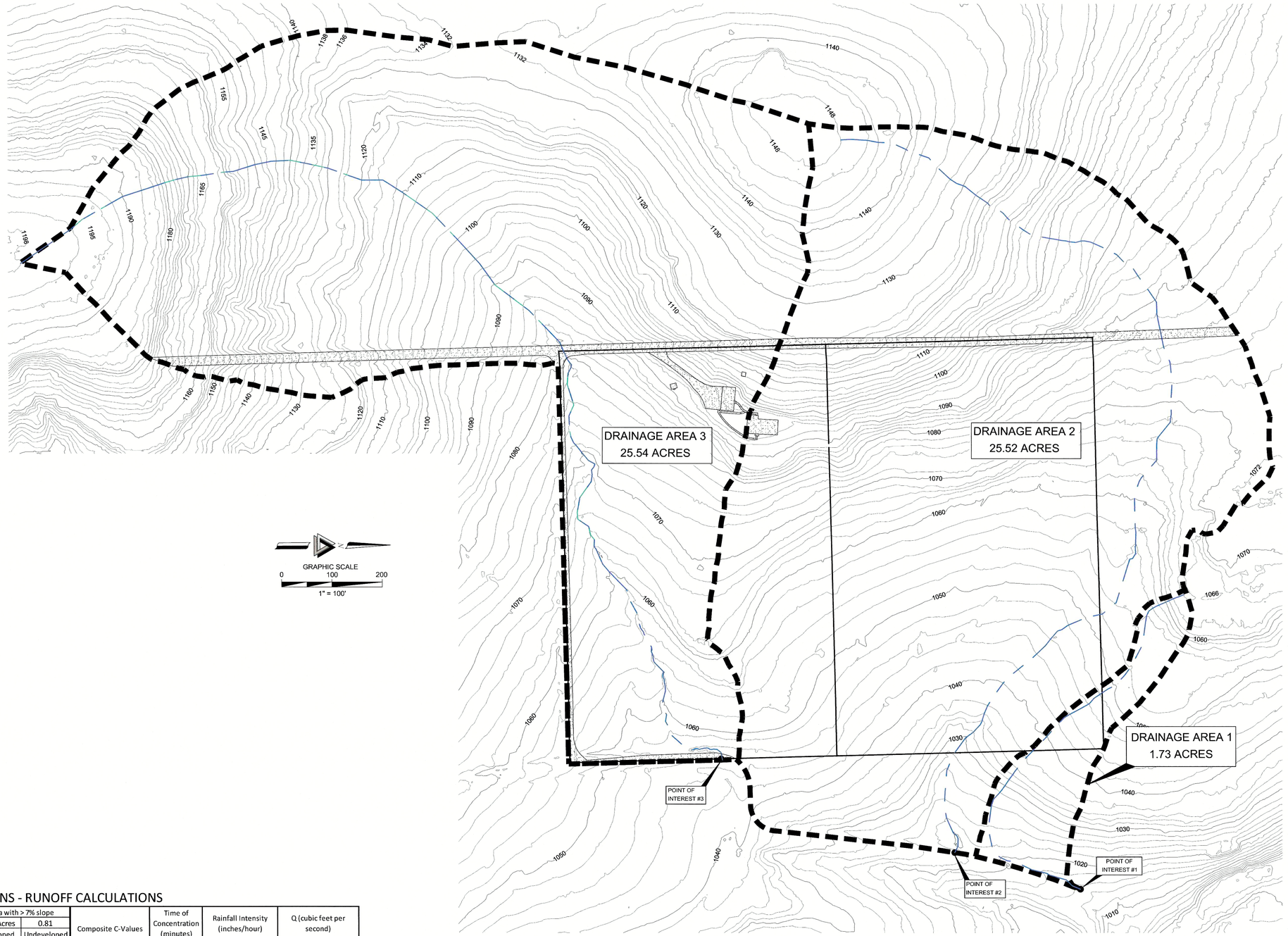
PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	1"=20' HORIZ. 1"=2' VERT.
SHEET:	5.1

STREET PLAN & PROFILE
MIDNIGHT SKY DRIVE
STA. 2+20.00 TO 7+34.13



EXISTING CONDITIONS

GRAPHIC SCALE
0 100 200
1" = 100'

EXISTING CONDITIONS - RUNOFF CALCULATIONS

Drainage Area	Drainage Area Size	Area with 0-2% slope		Area with 2-7% slope		Area with > 7% slope		Composite C-Values		Time of Concentration (minutes)	Rainfall Intensity (inches/hour)	Q (cubic feet per second)
		Total Acres	0.11	Total Acres	0.81	Total Acres	0.81					
		Developed	Undeveloped	Developed	Undeveloped	Developed	Undeveloped					
Drainage Area 1	1.73	0.00	0.11	0.00	0.81	0.00	0.81	2- Year	0.37	16.99	4.02	3
								10 - Year	0.42		6.08	4
								25 - Year	0.46		7.47	6
								100 - Year	0.52		9.77	9
Drainage Area 2	25.52	0.00	0.37	0.14	11.98	0.47	12.56	2- Year	0.38	23.26	3.43	33
								10 - Year	0.43		5.19	57
								25 - Year	0.47		6.39	77
								100 - Year	0.54		8.39	115
Drainage Area 3	25.54	0.03	0.51	0.57	5.71	2.41	16.31	2- Year	0.42	39.59	2.54	27
								10 - Year	0.48		3.85	47
								25 - Year	0.52		4.77	63
								100 - Year	0.58		6.32	94

- C-Values from the Rational Method Runoff Coefficients for Composite Analysis from the City of Austin Drainage Criteria Manual
- Rainfall Intensity derived for Austin Intensity-Duration-Frequency Coefficients from the City of Austin Drainage Criteria Manual

NO	REVISION	DATE
△		

IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)
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TRAVIS COUNTY, TEXAS

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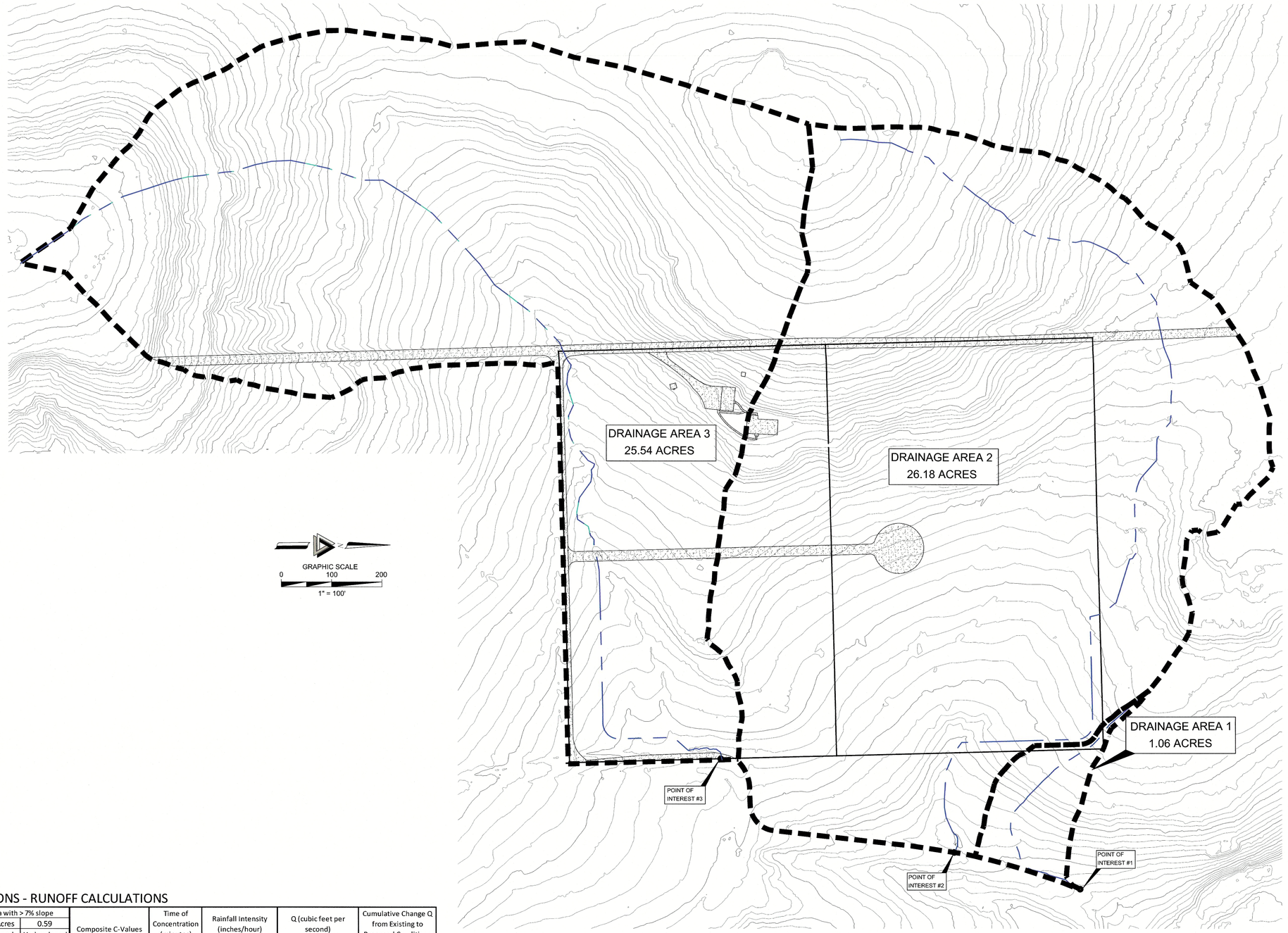
119251
LICENSED
PROFESSIONAL ENGINEER
2/3/2023

TRI-TECH ENGINEERING, L.P.
155 RIVERWALK DRIVE
SAN ANTONIO, TEXAS 78216
PH: 512-440-0222
www.tritechtx.com TBPE REGIS. #: F-18693

PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	1"=100'
SHEET:	6.0

DRAINAGE AREA MAP - EXISTING



GRAPHIC SCALE
0 100 200
1" = 100'

PROPOSED CONDITIONS

PROPOSED CONDITIONS - RUNOFF CALCULATIONS

Drainage Area	Drainage Area Size	Area with 0-2% slope		Area with 2-7% slope		Area with > 7% slope		Composite C-Values		Time of Concentration (minutes)	Rainfall Intensity (inches/hour)	Q (cubic feet per second)	Cumulative Change Q from Existing to Proposed Conditions
		Total Acres	0.02	Total Acres	0.46	Total Acres	0.59						
		Developed	Undeveloped	Developed	Undeveloped	Developed	Undeveloped						
Drainage Area 1	1.06	0.00	0.02	0.00	0.46	0.00	0.59	2- Year	0.37	16.25	4.11	2	-1
								10 - Year	0.43		6.21	3	-2
								25 - Year	0.46		7.63	4	-2
								100 - Year	0.53		9.97	6	-3
Drainage Area 2	26.18	0.00	0.46	0.99	11.49	1.07	12.18	2- Year	0.40	27.94	3.11	33	0
								10 - Year	0.46		4.70	56	-1
								25 - Year	0.49		5.80	75	-2
								100 - Year	0.56		7.63	112	-3
Drainage Area 3	25.54	0.03	0.51	1.11	5.18	2.65	16.07	2- Year	0.43	40.81	2.50	27	0
								10 - Year	0.49		3.79	47	0
								25 - Year	0.53		4.69	63	0
								100 - Year	0.60		6.22	94	0

- C-Values from the Rational Method Runoff Coefficients for Composite Analysis from the City of Austin Drainage Criteria Manual
- Rainfall Intensity derived for Austin Intensity-Duration-Frequency Coefficients from the City of Austin Drainage Criteria Manual

NO	REVISION	DATE
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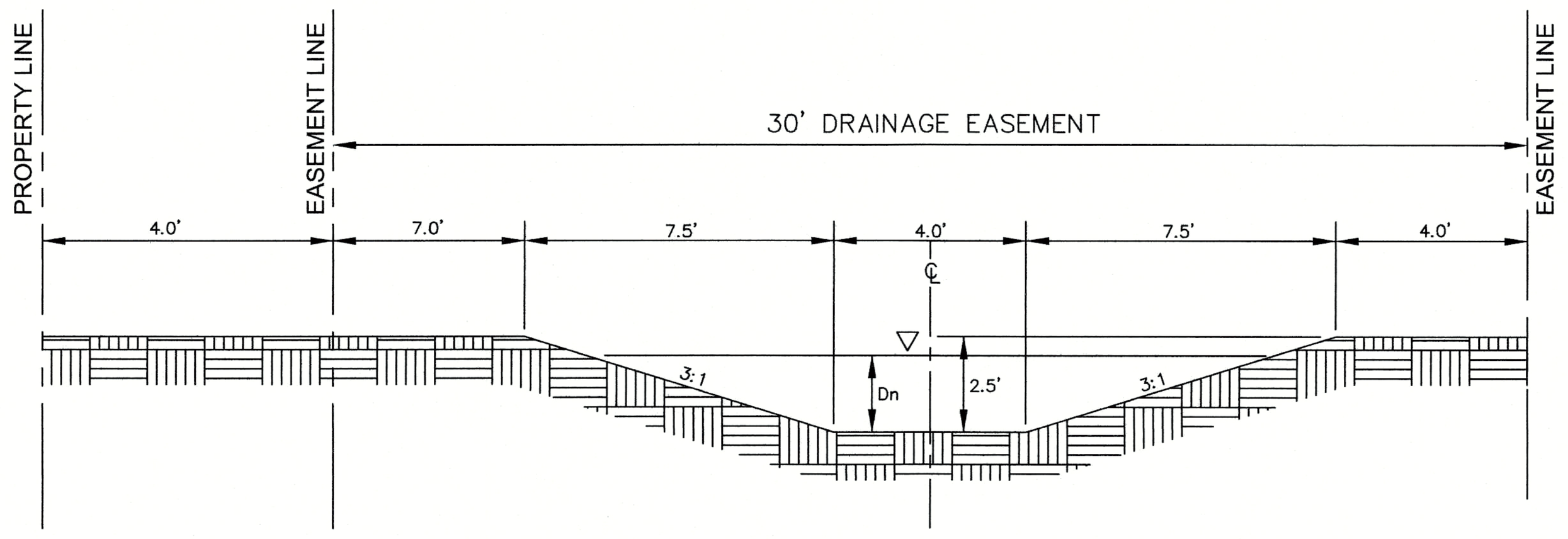
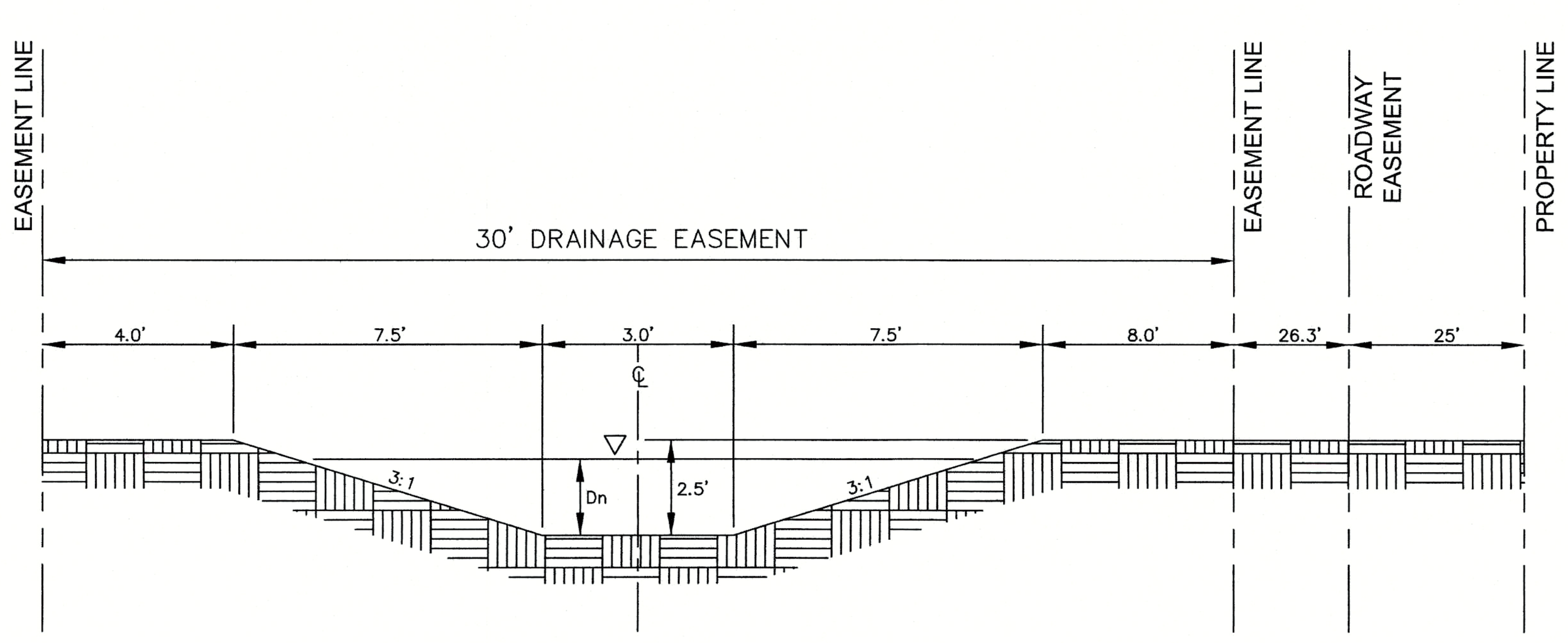
PROJ. NO: SM-22-1118	
DRAWN BY: ACJ	
CHECKED BY: ACJ	
DESIGN BY: ACJ	
DATE: 02/03/2023	
SCALE: 1"=100'	
SHEET: 6.1	DRAINAGE AREA MAP - PROPOSED



SECTION "B-B"

EARTHEN CHANNEL HYDRAULIC CALCULATION
Q(25) = 75.00 CFS
Bw = 4.0 FT.
n = 0.06
Pw = 14.63 FT
A = 15.19 S.F.
S = 3.80%
Dn = 1.68 FT.
V = 4.94 fps
Tw = 14.08 FT

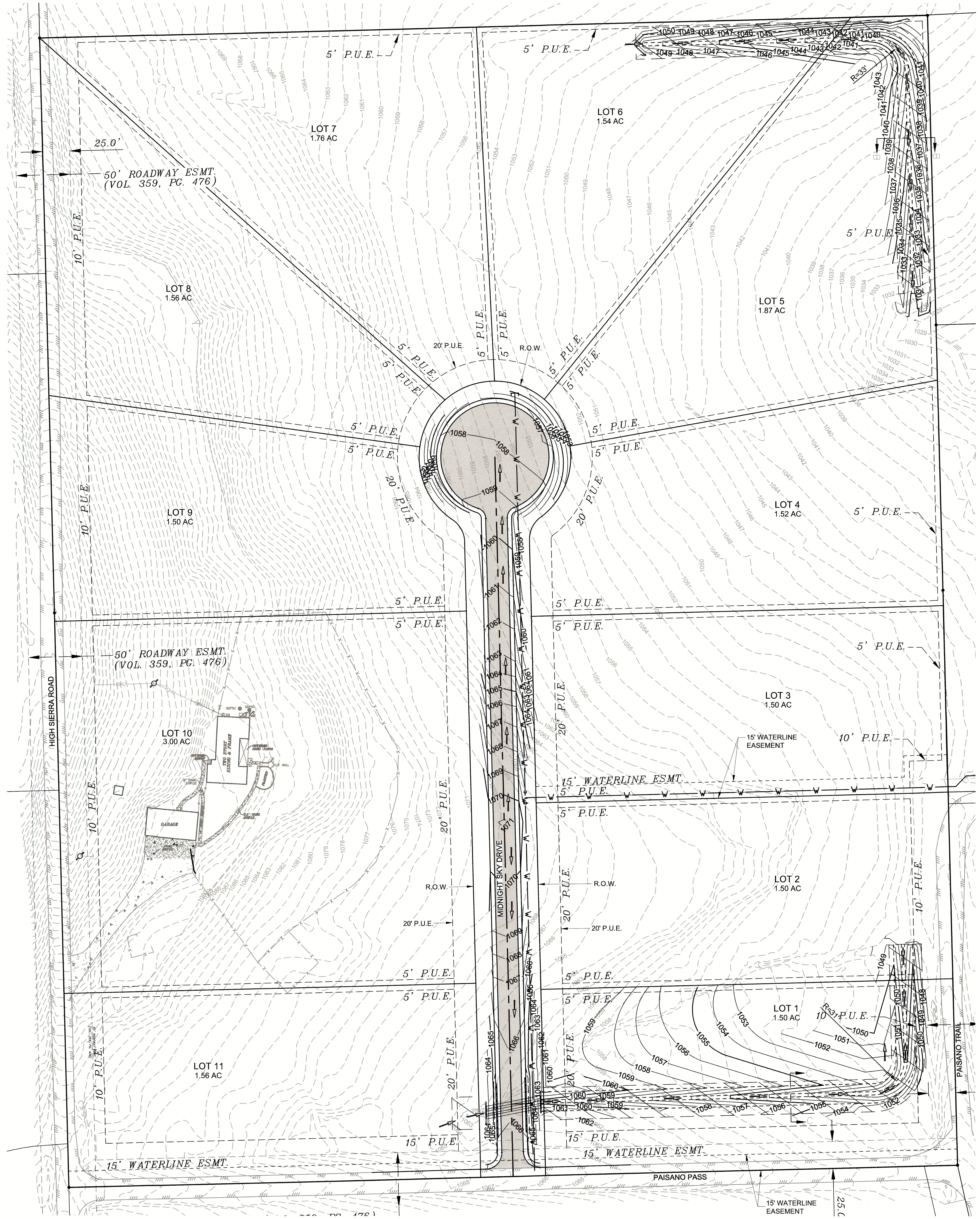
EARTHEN CHANNEL HYDRAULIC CALCULATION
Q(100) = 112.00 CFS
Bw = 4.0 FT.
n = 0.06
Pw = 16.84 FT
A = 20.48 S.F.
S = 3.80%
Dn = 2.03 FT.
V = 5.47 fps
Tw = 16.18 FT



SECTION "C-C"

EARTHEN CHANNEL HYDRAULIC CALCULATION
Q(25) = 63.00 CFS
Bw = 3.0 FT.
n = 0.06
Pw = 14.32 FT
A = 14.98 S.F.
S = 2.78%
Dn = 1.79 FT.
V = 4.20 fps
Tw = 13.74 FT

EARTHEN CHANNEL HYDRAULIC CALCULATION
Q(100) = 94.00 CFS
Bw = 3.0 FT.
n = 0.06
Pw = 16.47 FT
A = 20.00 S.F.
S = 2.78%
Dn = 2.13 FT.
V = 4.70 fps
Tw = 15.78 FT



GRAPHIC SCALE

0 50 100

1"=50'

NO	REVISION	DATE
△		

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PROJ. NO: SM-22-1118
DRAWN BY: ACJ
CHECKED BY: ACJ
DESIGN BY: ACJ
DATE: 02/03/2023
SCALE: 1"=50'
SHEET:
7.0

GRADING PLAN

0+00.00 WATER LINE
TIE IN TO EXISTING 6" WATER LINE
1 EA.- 6" GATE VALVE
1 EA. - 6" X 8" REDUCER
N=13993249.29
E=2280266.91

EXISTING 6" WATER LINE

EXISTING 2" WATER LINE (TO BE ABANDONED)

789.55 L.F. PROPOSED 8" PVC WATER LINE

PAISANO TRAIL

7+89.55 WATER LINE PROPOSED
1 EA- 8"X8" TEE
2 EA- 8" GATE VALVES
1 EA- 8" PLUG
ELEV.=1035.90 FL
N=13992485.41
E=2280103.70

98.84 L.F. 8" PVC WATER LINE

8+88.39
45° HORIZ. BEND
1039.00 FL

13.55 L.F. 8" PVC WATER LINE

9+37.46
45° HORIZ. BEND
1040.47 FL

PROPOSED 15' WATERLINE EASEMENT

397.74 L.F. 8" PVC WATER LINE

50' ROADWAY ESMT. (VOL.359. PG. 476)

PROPOSED 15' P.U.E.

PROPOSED 15' WATERLINE EASEMENT

PAISANO PASS

LOT 5
1.87 ACRES

LOT 4
1.52 ACRES

LOT 3
1.50 ACRES

LOT 2
1.50 ACRES

LOT 1
1.50 ACRES

LOT 6
LOT 1.54

LOT 7
1.76 ACRES

LOT 8
1.56 ACRES

LOT 9
1.50 ACRES

LOT 10
3.00 ACRES

LOT 11
1.56 ACRES

0+11.49 MIDNIGHT SKY DRIVE
PROPOSED
END CAP ASSY
ELEV.=1051.00 FL
N=13992836.03
E=2279588.09

12+99.68 MIDNIGHT SKY DRIVE
= 4+20.11 A STREET
PROPOSED
1-8"X8"X8" TEE
2-8" GATE VALVE W/BOX
ELEV.=1055.79 FL
N=13992462.47
E=2279597.97

6+67.30 MIDNIGHT SKY DRIVE
WATER STORM CROSSING
30" CMP STORM
ELEV.=1060.02 FL
8" PVC WATER
ELEV.=1058.75 TOP OF PIPE
1' MIN CLEAR
N=13992180.44
E=2279605.42

717.66 L.F. 8" PVC WATER LINE

7+29.14 MIDNIGHT SKY DRIVE
PROPOSED
FLUSH VALVE
ELEV.=1059.40 FL
N=13992118.62
E=2279607.05

MIDNIGHT SKY DRIVE

20' P.U.E.

R.O.W.

LEGEND

- WATERLINE
- DUAL WATER SERVICES
- SINGLE WATER SERVICE
- FIRE HYDRANT
- FLUSH VALVE
- GATE VALVE

GRAPHIC SCALE
0 40 80
1"=40'

NO	REVISION	DATE

IMPROVEMENT PLANS

Skylight Hills Subdivision (9.989 & 10.00 Ac.)

13001 HIGH SIERRA

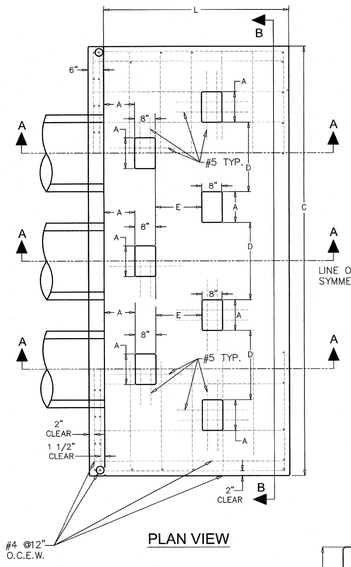
CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

STATE OF TEXAS
ALVORIS CARROLL JR.
119257
LICENSED
PROFESSIONAL ENGINEER
2/3/2023

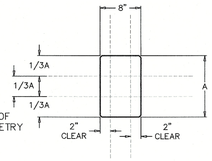
TRI-TECH ENGINEERING, L.P.
155 RIVERWALK DRIVE
SAN MARCOS, TEXAS 78666
PH: 512.440.0222
www.tritechtx.com TBPE REGIS. #: F-18693

PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	1"=40' HORIZ.
SHEET:	8.0

WATER DISTRIBUTION SYSTEM PLAN



PLAN VIEW

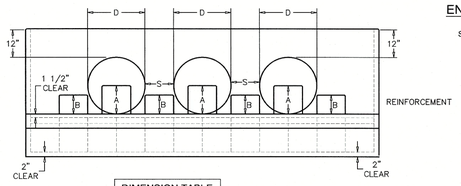


ENERGY DISSIPATOR
PLAN VIEW

REINFORCEMENT

NOTE

FOR DIMENSIONS NOT GIVEN SEE DIMENSION TABLE ON SHT 2 OF 2

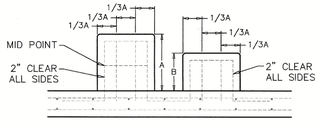


PROFILE
SECTION B-B

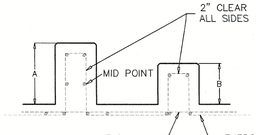
DIMENSION TABLE	
D	30"
A	15"
B	10"
L	90"
E	20"
S	13"
C	172"

NOTE:

1. ALL CONCRETE SHALL BE TYPE "C."
2. CHAMFER ALL EXTERNAL VISIBLE CORNERS.
3. DISSIPATOR BLOCKS REQUIRED ON DISCHARGE HEADWALLS ONLY.
4. DISCHARGE VELOCITIES GREATER THAN 6 FEET/SECOND AFTER DISSIPATOR ALSO REQUIRE ROCK OUTLET PROTECTION.
5. ALL SHAPING AND BEDDING SHALL BE IN ACCORDANCE WITH TXDOT ITEM 400, EXCAVATION AND BACKFILL FOR STRUCTURES.

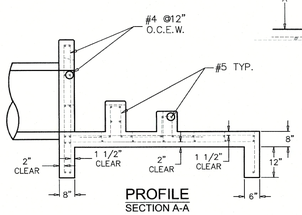


ENERGY DISSIPATOR
PROFILE
SECTION B-B VIEW OF REBAR



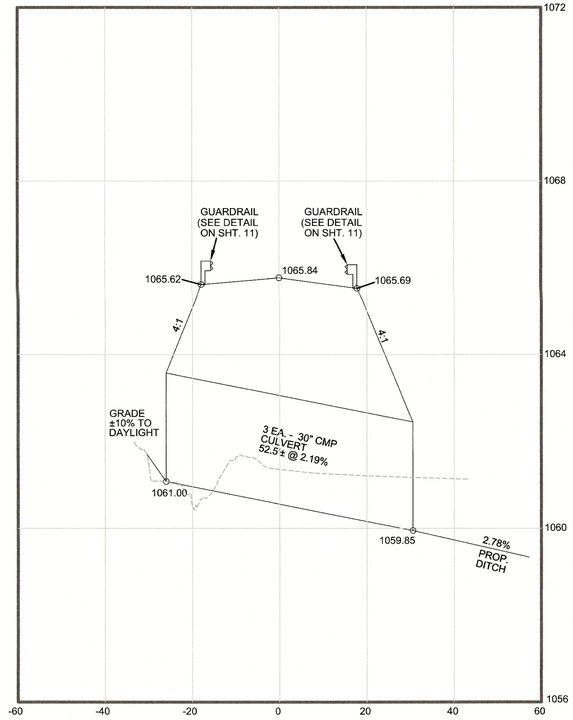
ENERGY DISSIPATOR
PROFILE
SECTION A-A VIEW OF REBAR

REINFORCEMENT



PROFILE
SECTION A-A

CROSS-SECTION - CORRUGATED METAL PIPE CULVERT @ STA. 6+70.71



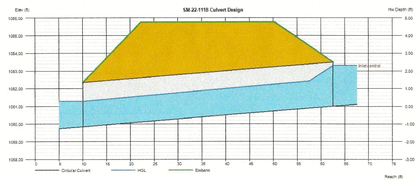
- 3 Barrel - 30" CMP Culvert
- For Safety End Treatments - See Typical Concrete Rip-Rap detail on this sheet

Culvert Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Monday, Jan 30 2023

SM-22-1118 Culvert Design

Invert Elev Dn (ft)	= 1059.85	**Calculations**	
Pipe Length (ft)	= 52.50	Qmin (cfs)	= 62.00
Slope (%)	= 2.19	Qmax (cfs)	= 92.00
Invert Elev Up (ft)	= 1061.00	Tailwater Elev (ft)	= Normal
Rise (in)	= 30.0		
Shape	= Circular	**Highlighted**	
Span (in)	= 30.0	Qtotal (cfs)	= 62.00
No. Barrels	= 3	Qpipe (cfs)	= 62.00
n-Value	= 0.024	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 7.08
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 6.50
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 1061.29
		HGL Up (ft)	= 1062.54
Embankment		Hw Elev (ft)	= 1063.31
Top Elevation (ft)	= 1065.76	Hw/D (ft)	= 0.92
Top Width (ft)	= 28.00	Flow Regime	= Inlet Control
Crest Width (ft)	= 28.00		



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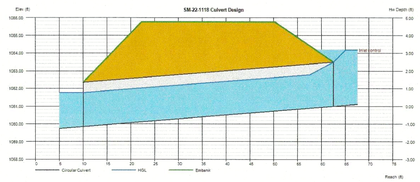
Rise (in)	= 30.0		
Shape	= Circular	**Highlighted**	
Span (in)	= 30.0	Qtotal (cfs)	= 92.00
No. Barrels	= 3	Qpipe (cfs)	= 92.00
n-Value	= 0.024	Qovertop (cfs)	= 0.00
Culvert Type	= Circular Corrugate Metal Pipe	Veloc Dn (ft/s)	= 7.61
Culvert Entrance	= Headwall	Veloc Up (ft/s)	= 7.70
Coeff. K,M,c,Y,k	= 0.0078, 2, 0.0379, 0.69, 0.5	HGL Dn (ft)	= 1061.76
		HGL Up (ft)	= 1062.89
Embankment		Hw Elev (ft)	= 1064.18
Top Elevation (ft)	= 1065.76	Hw/D (ft)	= 1.27
Top Width (ft)	= 28.00	Flow Regime	= Inlet Control
Crest Width (ft)	= 28.00		



NO	REVISION	DATE
△		

IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)

13001 HIGH SIERRA

CITY OF AUSTIN
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PROJ. NO: SM-22-1118	
DRAWN BY: ACJ	
CHECKED BY: ACJ	
DESIGN BY: ACJ	
DATE: 02/03/2023	
SCALE: N.T.S.	
SHEET: 9.0	CULVERT DESIGN

WTCPUA WATER & WASTEWATER GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE STATE STATUTES AND U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS (0.S.H.A.). COPIES OF O.S.H.A. STANDARDS MAY BE PURCHASED FROM THE U.S. GOVERNMENT PRINTING OFFICE. INFORMATION AND RELATED REFERENCE MATERIALS MAY BE OBTAINED FROM O.S.H.A. AUSTIN AREA OFFICE - LA COSTA GREEN BLDG 1033, LA POSADA DR, SUITE 375, AUSTIN, TEXAS 78752-3832, 512- 374-0271.

2. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND TO THE STATE LAW, (VERNON'S ANNOTATED TEXAS STATUTES, ARTICLE 1436 ©) AND THE NEED FOR EFFECTIVE PRECAUTIONARY MEASURES WHEN OPERATING IN THE VICINITY OF ELECTRICAL LINES. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY REQUIREMENTS, AND FOR COORDINATION OF ALL WORK WITH THE APPROPRIATE ELECTRIC UTILITY COMPANY.

3. THE CONTRACTOR SHALL CONTACT THE ONE-CALL BOARD OF TEXAS AT 811 OR 1-800-545-6005 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. THE LOCATION AND TYPE OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE NOT GUARANTEED TO BE ACCURATE OR ALL%%2INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL DEPTHS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. IN ADDITIONAL TO NORMAL PRECAUTIONS WHEN EXCAVATING, USE EXTRA CAUTION WHEN EXCAVATING WITHIN 25 FEET OF ANY UTILITIES SHOWN ON THE PLANS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COORDINATION BETWEEN HIMSELF AND OTHER CONTRACTORS AND UTILITIES IN THE VICINITY OF THE PROJECT. THIS INCLUDES ALL WATER, WASTEWATER, GAS, ELECTRICAL, TELEPHONE, CABLE TELEVISION, AND STREET AND DRAINAGE WORK. ONCE THE CONTRACTOR BECOMES AWARE OF A POSSIBLE CONFLICT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER AND WTCPUA INSPECTOR WITHIN TWENTY-FOUR (24) HOURS.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSING OF ALL SPOIL MATERIAL FROM THE CONSTRUCTION ALL SPOILS MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED SPOIL SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND SECURING A PERMIT FOR THE SITE. THE CONTRACTOR SHALL NOTIFY THE WTCPUA INSPECTOR AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO DISPOSAL OF THE MATERIAL. NO SPOILS ARE TO REMAIN OVERNIGHT IN THE FLOODPLAIN.

6. NO BLASTING OR BURNING WILL BE ALLOWED.

7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR, AT HIS EXPENSE, ALL UTILITIES, PAVEMENT, CURB, FENCES OR ANY OTHER ITEMS DAMAGED DURING CONSTRUCTION REGARDLESS OF WHETHER THESE ITEMS ARE SHOWN ON THE CONSTRUCTION PLANS.

8. WHENEVER EXISTING UTILITIES, INDICATED OR NOT ON PLANS, PRESENT OBSTRUCTIONS TO GRADE AND/OR ALIGNMENT OF PROPOSED PIPE, CONTRACTOR IS TO IMMEDIATELY NOTIFY THE ENGINEER WHO WILL DETERMINE IF EXISTING IMPROVEMENTS ARE TO BE RELOCATED OR IF THE GRADE AND/OR ALIGNMENT OF PROPOSED PIPE IS TO BE CHANGED.

9. DUST PREVENTION SHALL BE PROVIDED BY THE CONTRACTOR AT HIS OWN EXPENSE. DUST CONTROL SHALL INCLUDE SPRAYING OF WATER ON ALL DISTURBED AREAS, SPOIL PILES, OR HAUL MATERIALS ASSOCIATED WITH THE PROJECT OR OTHER METHODS APPROVED BY THE WTCPUA.

10. CLEANUP - UPON COMPLETION AND BEFORE MAKING APPLICATION FOR ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL CLEAN ALL STREETS AND ALL GROUND OCCUPIED BY HIM IN CONNECTION WITH THE WORK OF ALL RUBBISH,EXCESS MATERIALS,EXCESS EXCAVATED MATERIALS, TEMPORARY STRUCTURES AND EQUIPMENT. ALL PARTS OF THE WORK SHALL BE LEFT IN A NEAT AND PRESENTABLE CONDITION SATISFACTORY TO THE WTCPUA AND OTHER GOVERNMENTAL BODIES HAVING JURISDICTION PRIOR TO SUBMITTAL OF THE FINAL PAYMENT.

11. THE CONTRACTOR SHALL MAINTAIN ACCESS TO BUSINESSES AND RESIDENCES AT ALL TIMES. THE CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNERS TO MINIMIZE DISRUPTION OF DELIVERIES, PARKING, AND OTHER ACTIVITIES.

12. DEWATERING, IF NECESSARY, SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL NOT CONSTITUTE A BASIS FOR ADDITIONAL PAYMENT.

13. THE MINIMUM DEPTH OF COVER FROM TOP OF PIPE TO FINISHED GRADE FOR ALL WATER LINES SHALL BE FOUR INSTALL LINES TO AVOID HIGH POINTS.

14. CONCRETE SHALL BE CLASS 'A' WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI, UNLESS OTHERWISE NOTED.

15. REINFORCING STEEL SHALL BE ASTM A 615M, GRADE 60 UNLESS OTHERWISE NOTED.

16. ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED IN REVIEWING THESE PLANS, THE WTCPUA MUST RELY ON THE ADEQUACY OF THE DESIGN ENGINEER. APPROVAL OF THESE PLANS BY THE WTCPUA DOES NOT RELEASE THE DESIGN ENGINEER OF THESE RESPONSIBILITIES.

WEST TRAVIS COUNTY PUA WATER AND WASTEWATER UTILITY NOTES

1. WEST TRAVIS COUNTY PUA IS THE WATER AND / OR WASTEWATER SERVICE PROVIDER FOR THIS PROJECT. A PRE-CONSTRUCTION MEETING WITH THE WTCPUA SHALL BE HELD PRIOR TO COMMENCEMENT OF CONSTRUCTION TO SCHEDULE INSPECTION OF INSTALLATION OF WATER/WASTEWATER FACILITIES. WATER FACILITIES WILL BE INSPECTED UP TO, AND INCLUDING, THE WATER METER AND/OR FIRE HYDRANTS. THE CONTACT NUMBER FOR WTCPUA IS (512) 263- 0100.

2. THE CITY OF AUSTIN STANDARD SPECIFICATIONS AND STANDARD DETAILS CURRENT AT THE TIME OF CONSTRUCTION SHALL GOVERN MATERIALS AND METHODS USED TO PERFORM THIS WORK. CITY OF AUSTIN SPECIFICATIONS AND STANDARD DETAILS ARE AVAILABLE AT HTTPS://LIBRARY.MUNICODE.COM/TX/AUSTIN/CODES/

3. CONTRACTOR SHALL OBTAIN ALL APPROVALS AND PERMITS, INCLUDING BUT NOT LIMITED TO STREET/DRIVEWAY CUT AND UTILITY CUT PERMITS FROM THE APPROPRIATE GOVERNMENTAL AGENCY BEFORE BEGINNING CONSTRUCTION WITHIN THE RIGHT-OF-WAY OF A PUBLIC STREET OR ALLEY.

4. THE WTCPUA SHALL BE CONTACTED AT (512) 263-0100 AT LEAST 48 HOURS BEFORE CONNECTING TO THEIR EXISTING WATER AND/OR WASTEWATER FACILITIES.

5. THE CONTRACTOR SHALL CONTACT THE AUSTIN AREA "ONE CALL" SYSTEM AT 811 OR 1-800-545-6005 FOR EXISTING UTILITY LOCATIONS PRIOR TO ANY EXCAVATION. IN ADVANCE OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES TO BE EXTENDED, TIED TO, OR ALTERED, OR SUBJECT TO DAMAGE/INCONVENIENCE BY THE CONSTRUCTION OPERATIONS.

6. NO OTHER UTILITY SERVICE/APPURTENANCES SHALL BE PLACED NEAR THE PROPERTY LINE, OR OTHER ASSIGNED LOCATION DESIGNATED FOR WATER AND WASTEWATER UTILITY SERVICE THAT WOULD INTERFERE WITHTHEWATERAND/ORWASTEWATERSERVICES.

7. WHERE WATER LINES AND SEWER LINE ARE INSTALLED WITH A SEPARATION DISTANCE CLOSER THAN NINE FEET WATER LINES CROSSING WASTEWATER LINES, WATER LINES PARALLELING WASTEWATER LINES, OR WATER LINES NEXT TO MANHOLES) THE INSTALLATION MUST MEETTHE REQUIREMENTS OF 30 TAC §217.53(D) (PIPE DESIGN) AND 30 TAC §290.44(E) (WATER DISTRIBUTION). ANY DEVIATION THESE STANDARDS SHALL REQUIRE A VARIANCE APPROVED BY TCEQ BEFORE SUBMITTING PIPING ASSIGNMENTS TO THE WTCPUA.

8. THE CITY OF AUSTIN SPECIFICATION ITEM 509S WILL BE REQUIRED AS A MINIMUM TRENCH SAFETY MEASURE. CONTRACT DOCUMENTS, WHICH INCLUDE A TRENCH SAFETY PLAN SIGNED AND SEALED BY A TEXAS PROFESSIONAL ENGINEER AND A PAY ITEM FOR TRENCH SAFETY MEASURES, IN COMPLIANCE WITH OSHA, STATE, COUNTY, AND CITY REQUIREMENTS BEFORE BEGINNING WORK ON THE PROJECT.

9. ALL MATERIAL TESTS, INCLUDING SOIL DENSITY TESTS AND RELATED SOIL ANALYSIS, SHALL BE ACCOMPLISHED BY AN INDEPENDENT LABORATORY FUNDED BY THE OWNER IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 1804S.4.

10. CONNECTIONS TO EXISTING WTCPUA WATER LINES SHALL BE MADE BY CUT-IN TEES IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(24). ISOLATION VALVES SHALL BE INSTALLED ON THE ENDS OF THE CUT-IN TEE, AS NECESSARY. A SHUT-OUT VALVE PLAN SHALL BE PROVIDED SHOWING THE LOCATION OF EXISTING GATE VALVES IN THE VICINITY OF THE CONNECTION. THE SHUT-OUT PLAN SHALL IDENTIFY ALL AFFECTED PROPERTY CONTRACTOR SHALL PERFORM ALL WORK AND SHALL FURNISH ALL MATERIALS, INCLUDING DRAINING AND CUTTING INTO EXISTING PIPING AND CONNECTING A NEW PIPELINE OR OTHER EXTENSION INTO THE EXISTING PRESSURE PIPING, FORMING AN ADDITION TO THE POTABLE WATER TRANSMISSION AND DISTRIBUTION NETWORK AND PERFORMING NECESSARY SHUTOFFS. CONTRACTOR SHALL SCHEDULE ALL SUCH CONNECTIONS IN ADVANCE AND SUCH SCHEDULE SHALL BE APPROVED BY THE WTCPUA BEFORE BEGINNING THE WORK. AT LEAST 48 HOURS NOTICE SHALL BE GIVEN TO THE WTCPUA PRIOR TO MAKING THE CONNECTION, AND A REPRESENTATIVE FROM THE WTCPUA SHALL BE PRESENT WHEN THE CONNECTION IS MADE. PRESSURE TAPS MAY BE APPROVED ON A CASE-BY-CASE BASIS. "SIZE ON SIZE" TAPS WILL NOT BE PERMITTED. WHEN APPROVED, ANY TAPS SHALL BE MADE BY USE OF AND APPROVED FULL CIRCLE, GASKETED CAST IRON OR DUCTILE IRON TAPPING SLEEVE. CONCRETE BLOCKING SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES PRIOR TO MAKING THE PRESSURE TAP AND THE USE OF PRECAST BLOCKS MAY BE USED TO HOLD THE TAP IN ITS CORRECTION POSITION PRIOR TO BLOCKING. THE BLOCKING BEHIND AND UNDER THE TAP SHALL HAVE A MINIMUM OF 24 HOURS CURING TIME BEFORE THE VALVE CAN BE REOPENED FOR SERVICE FROM THAT TAP. THE CONTRACTOR SHALL NOTIFY THE WTCPUA INSPECTOR A MINIMUM OF SEVENTY-TWO (72) HOURS IN ADVANCE FOR THE WTCPUA TO NOTIFY THE AFFECTED CUSTOMERS. THE WTCPUA SHALL BE PRESENT WHILE ALL WORK IS PERFORMED TO MAKE THE CONNECTION.

11. THRUST RESTRAINT SHALL BE BY METAL THRUST RESTRAINTS IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(22).

12. FIRE HYDRANTS SHALL BE SET IN ACCORDANCE WITH CITY OF STANDARD SPECIFICATION ITEM 51LS.3 E AND SHALL BE APPROVED FIRE DEPARTMENT OR OTHER APPROPRIATE PARTY PRIOR TO INSTALLATION. FIRE HYDRANTS ON MAINS UNDER CONSTRUCTION SHALL BE SECURELY WRAPPED WITH A POLY WRAP BAG AND TAPED INTO PLACE. THE POLY WRAP WILL BE REMOVED WHEN THE MAINS ARE ACCEPTED AND PLACED IN SERVICE. FIRE HYDRANTS THAT ARE TO BE USED AS DRAIN HYDRANTS SHALL BE PAINTED SILVER W/ BLUE CAPS PRIOR TO ACCEPTANCE. WHERE STORZ ADAPTORS ARE REQUIRED (HAYS COUNTY), FIRE HYDRANTS SHALL BE MANUFACTURED WITH INTEGRAL STORZ ADAPTORS.

13. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(29) AND/OR TCEQ RULES.

CONTINUED WEST TRAVIS COUNTY PUA WATER AND WASTEWATER UTILITY NOTES

14. TEST PRESSURE FOR 2-HOUR TEST SHALL BE AT 175 PSI AT THE LOWEST POINT IN THE LINE.

    NOTE: PRIOR TO PRESSURE TESTING, CONTRACTOR SHALL VERIFY THAT THRUST BLOCKING AND/OR THRUST RESTRAINT BACK TO AND INCLUDING THE VALVE AGAINST WHICH THE PRESSURE TEST SHALL BE PERFORMED, HAS BEEN INSTALLED TO AT LEAST THE SPECIFICATIONS OF THIS PROJECT. FAILURE TO VERIFY THAT THRUST BLOCKING AND/OR THRUST RESTRAINT IN THE EXISTING LINE MEETS OR EXCEEDS THE SPECIFICATIONS OF THIS PROJECT MAY RESULT IN SERIOUS DAMAGE TO THE EXISTING WATERLINE.

15. WATER LINES SHALL BE FILLED WITH WATER AND ALL AIR EXPELLED AT LEAST 24 HOURS BEFORE TESTING. ALL SERVICE LATERALS AND DRAIN VALVE LEADS, WITH THE HYDRANT VALVES CLOSED AND NOZZLE CAPS OPEN SHALL BE INCLUDED IN THE TESTS.

16. CONTRACTOR SHALL SUBMIT A DISINFECTION AND FLUSHING PLAN IN ACCORDANCE WITH AWWA STANDARDS TO THE WTCPUA FOR APPROVAL. REQUIRED FLUSHING VOLUMES, FLUSHING SCHEDULE, AND METHOD OF DISPOSAL OF FLUSH WATER SHALL BE IN ACCORDANCE WITH THE APPROVED PLAN.

17. GATE VALVES SHALL BE RESILIENT SEATED GATE VALVES CONFORMINGTO AWWAC509, WITH A MINIMUM RATED WORKING PRESSURE OF 250 PSIG.

18. FORCE MAIN TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATION ITEM 510.3(27) AND/OR TCEQ RULES.

19. GRAVITY SANITARY SEWER MAIN TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD SPECIFICATION ITEMS 510.3(26) AND/OR TCEQ RULES. IN ADDITION, ALL GRAVITY SANITARY SEWER MAINS SHALL BE TELEVISED PRIOR TO ACCEPTANCE BY WTCPUA. DIGITAL FILES (VIA CD-ROM) CLEARLY SHOWING TELEVISED RECORDING SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOLLOWING INSPECTION.

20. LOCATOR 'FINDER' WIRE - ALL NON -METALLIC WATER LINES SHALL HAVE A FINDER WIRE LOCATED ABOVE THE PIPE. THE WIRE SHALL BE POLY-INSULATED NO. 10 SOLID COPPER AND WILL TERMINATE AT EACH ISOLATION VALVE SUCH THATITIS ACCESSIBLE FROM THE VALVE BOX.

21. LOCATOR 'FINDER' WIRE - ALL NON-METALLIC WASTEWATER LINES SHALL HAVE A FINDER WIRE LOCATED ABOVE THE PIPE. THE WIRE SHALL BE POLY-INSULATED NO. 10 SOLID COPPER AND WILL TERMINATE AT READILY ACCESSIBLE LOCATIONS THROUGHOUT THE COLLECTION SYSTEM.

22. ALL VALVE RISERS SHALL HAVE A 1'-6" SQUARE CONCRETE BOX POURED AROUND THEM AT FINISHED GRADE.

23. ALL MANHOLES SHALL BE LINED WITH A CORROSION RESISTANT LINING APPROVED BY THE WTCPUA.

24. BOLTED AND GASKETED COVERS SHALL BE USED FOR ALL MANHOLES LOCATED IN THE 100-YEAR FLOODPLAIN. WHERE THERE ARE MORE THAN THREE GASKETED MANHOLES IN A ROW, VENTS SHALL BE PROVIDED ON EVERY THIRDMANHOLE.

25. THE DOWNSTREAM END OF ANY FORCE MAIN SHALL BE TERMINATED IN A SANITARY SEWER MANHOLE IN A MANNER TO MINIMIZETURBULENCE.

26. CONTRACTOR SHALL HAVE NECESSARY EROSION AND SEDIMENTATION CONTROLS IN PLACE PRIOR TO COMMENCING WATER/WASTEWATERFACILITY CONSTRUCTION.

27. RECORD DRAWINGS, AS STIPULATED BY THE WTCPUA, SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR VERIFICATION AND FURNISHED TO THE WTCPUA UPON COMPLETION OF THE PROJECT.

28. THE WTCPUA WILL OWN AND OPERATE ALL WATER LINES AND APPURTENANCES UP TO AND INCLUDING THE WATER METER. THESE IMPROVEMENTS WILL BE DEFINED BY A RECORDED EASEMENT ORIN PUBLIC RIGHT-OF-WAY.

29. ANY PORTIONS OF WASTEWATER LINES INCLUDING SERVICES THAT ARE LOCATED OUTSIDE OF A RECORDED EASEMENT OR PUBLIC RIGHT-OF-WAY WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER, OR HIS/HER ASSIGNS.

30. WHERE EXISTING WATER AND/OR WASTEWATER INFRASTRUCTURE IS TO BE ABANDONED, THE ENGINEER SHALL SUBMIT AN ABANDONMENT PLAN FOR APPROVAL BY THE WTCPUA.

31. WATER SERVICES SHALL BE INSTALLED USING HDPE PIPE. COPPER IS NOT ALLOWED.

32. FOR ANY STORM SEWER LINE CROSSING A WATER OR WASTEWATER LINE CLOSER THAN 18", THE STORM SEWER PIPE SHALL BE LAID SUCH THAT NO STORM SEWER JOINTS WILL BE OVER THE WATER PIPE CROSSING.OTHER NOTES – ENGINEER IS RESPONSIBLE FOR INCLUDING ALL APPLICABLE NOTES, INCLUDING BUT NOT LIMITED TO COUNTY, CITY, TXDOT, STATE, FIRE DEPARTMENT, TCEQ (CZP, WPAP, ORGANIZED SEIWAGE COLLECTION SYSTEM NOTES, GENERAL CONSTRUCTION NOTES). ENGINEER IS RESPONSIBLE FOR ENSURING THE CURRENT ADOPTED VERSION OF ALL NOTES IS INCLUDED IN THE CONSTRUCTION PLANS.

NO	REVISION	DATE
1		

IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)

13001 HIGH SIERRA

CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

STATE OF TEXAS
ALVORIS CARROLL JR.
119257
LICENSED
PROFESSIONAL ENGINEER
2/3/2023

TRI-TECH ENGINEERING, L.P.
13785 RIVERWALK DRIVE
SAN ANTONIO, TEXAS 78233-5666
PH: 512.440.0222
www.tritechtx.com TBPE REGIS. #: F-18603

PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	N/A
SHEET:	10.0

NOTES

DISCLAIMER:
THE USE OF THIS STANDARD IS GOVERNED BY THE "TEXAS ENGINEERING PRACTICE ACT". NO WARRANTY OF ANY KIND IS MADE BY TXDOT FOR ANY PURPOSE WHATSOEVER. TXDOT ASSUMES NO RESPONSIBILITY FOR THE CONVERSION OF THIS STANDARD TO OTHER FORMATS OR FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DATE:
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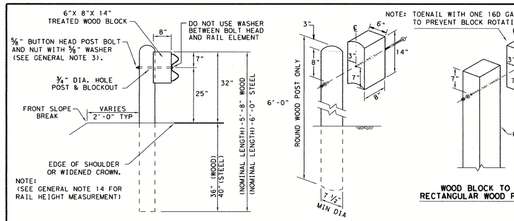
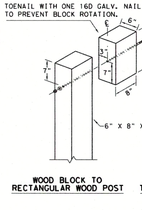


TYPICAL POST PLACEMENT

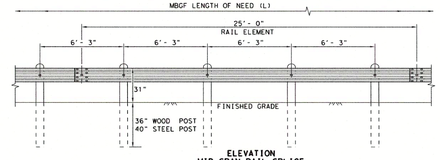
NOTE: ** "WOOD" INDICATES DIMENSIONS FOR BOTH ROUND AND RECTANGULAR WOOD POST SYSTEMS.

WOOD BLOCK TO ROUND WOOD POST



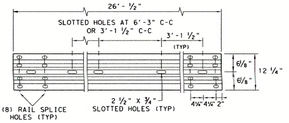
WOOD BLOCK TO RECTANGULAR WOOD POST

ROUTED WOOD BLOCK TO I-BEAM STEEL POST



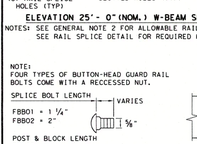
ELEVATION
MID-SPAN RAIL SPLICE

SHOWING A 25'- 0" SECTION OF W-BEAM RAIL. (SEE GENERAL NOTE 2)



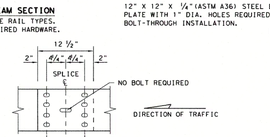
ELEVATION 25'- 0" (NOM.) W-BEAM SECTION

NOTES: SEE GENERAL NOTE 2 FOR ALLOWABLE RAIL TYPES. SEE RAIL SPLICE DETAIL FOR REQUIRED HARDWARE.



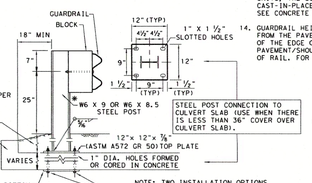
BUTTON HEAD BOLT

NOTE: SEE GENERAL NOTE 3 FOR SPLICE & POST BOLT DETAILS.



MID-SPAN RAIL SPLICE DETAIL

NOTE: GF(31), MID-SPAN RAIL SPLICES ARE REQUIRED WITH 6'-3" POST SPACINGS.



*POST(S) MAY REQUIRE FIELD MODIFICATION TO ENSURE PROPER GUARDRAIL HEIGHT.

12" X 12" X ¼" (ASTM A36) STEEL BOTTOM PLATE WITH 1" DIA. HOLES REQUIRED WITH BOLT-THROUGH INSTALLATION.

LOW FILL CULVERT POST

NOTE: TWO INSTALLATION OPTIONS.

1. BOLT-THROUGH OPTION: REQUIRES A 6" MIN. SLAB THICKNESS. ⅝" DIA (ASTM A449) HEAVY HEX BOLTS WITH TWO HARDENED WASHER EACH AND HEAVY HEX NUTS.
NOTE: BOLT LENGTH = SLAB PLUS 2 ¼" MIN.

2. EPOXY ANCHOR OPTION: THIS OPTION MAY ONLY BE USED IF THE CULVERT SLAB IS 9" MIN. THICK. THREADED ANCHOR RODS MUST BE ⅝" DIA. ASTM A449 OR A193 GRADE B7 WITH HEAVY HEX NUT, AND ONE HARDENED WASHER EACH. EMBED ANCHOR RODS 6" WITH HILTI HIT RE 500 EPOXY ADHESIVE. OTHER TYPE III CLASS C EPOXY ADHESIVES MEETING THE REQUIREMENTS OF DMS-6100, "EPOXIES AND ADHESIVES", MAY BE USED IF IT CAN BE DEMONSTRATED THAT THEY MEET OR EXCEED THE STRENGTH OF HILTI HIT RE 500 WITH THE SAME EMBEDMENT DEPTH AND THREADED ROD DIA. FOLLOW THE MANUFACTURER'S REQUIREMENTS FOR INSTALLING EPOXIED THREADED RODS. EXTEND RODS ½" MIN. BEYOND NUT.

NOTE: CULVERTS OF 25 FT. OR LESS, SEE GF(31)LS STANDARD FOR "LONG SPAN" OPTION.

GENERAL NOTES

1. THE TYPE OF POST (ROUND WOOD POST, RECTANGULAR WOOD POST, OR STEEL POST) WILL BE AS SHOWN IN THE PLANS. THE EXACT POSITION OF MBGF SHALL BE SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER. STEEL POSTS TO BE GALVANIZED IN ACCORDANCE WITH ITEM 445, "GALVANIZING."
2. RAIL ELEMENTS SHALL MEET THE REQUIREMENTS OF ITEM 540,"METAL BEAM GUARD FENCE" EXCEPT AS MODIFIED IN THE PLANS. THE CONTRACTOR MAY FURNISH RAIL ELEMENTS OF 25'- 0", OR 12'- 6" (NOM.) LENGTHS. RAIL ELEMENTS MAY HAVE SLOTTED HOLES AT 3'-1 ½" C-C OR 6'-3" C-C. A SPECIAL LENGTH OF RAIL MAY BE MANUFACTURED TO ACCOMMODATE THE DOWNSTREAM ANCHOR TERMINAL (DAT) AND THE TRANSITION SECTIONS OF GUARDRAIL.
3. BUTTON HEAD "POST BOLTS & NUTS" SHALL MEET THE REQUIREMENTS OF (ASTM A307), AND SHALL BE OF SUFFICIENT LENGTH TO EXTEND THROUGH THE FULL THICKNESS OF THE NUT AND ⅜" WASHER (FWC16G) AND NOT MORE THAN 1" BEYOND IT. TRIM REMAINING BOLT LENGTH TO MEET REQUIRED LENGTH.
4. FITTINGS (BOLTS, NUTS, AND WASHERS) SHALL BE GALVANIZED IN ACCORDANCE WITH ITEM 445,"GALVANIZING." FITTINGS SHALL BE SUBSIDIARY TO THE BID ITEM.
5. CROWN SHALL BE WIDENED TO ACCOMMODATE THE METAL BEAM GUARD FENCE.
6. THE LATERAL APPROACH TO THE GUARD FENCE, SHALL HAVE A MAXIMUM SLOPE OF 1V:10H.
7. IF SHOWN ELSEWHERE IN THE PLANS OR AS DIRECTED BY THE ENGINEER, THE GUARD FENCE MAY BE FLARED AT A RATE OF 25:1 OR FLATTER.
8. UNLESS OTHERWISE SHOWN IN THE PLANS, GUARD FENCE PLACED IN THE VICINITY OF CURBS SHALL BE POSITIONED SO THAT THE FACE OF CURB IS LOCATED DIRECTLY BELOW OR BEHIND THE FACE OF THE RAIL. RAIL PLACED OVER CURBS SHALL BE INSTALLED SO THAT THE POST BOLT IS LOCATED APPROXIMATELY 25 INCHES ABOVE THE GUTTER PAN OR EDGE OF SHOULDER.
9. APPLICATIONS IN SOLID ROCK ARE ONLY ALLOWED WITH STEEL POSTS. IF SOLID ROCK IS ENCOUNTERED WITHIN 0 TO 18" OF THE FINISHED GRADE, DRILL A 24" DIA. HOLE, 24" INTO THE ROCK. IF SOLID ROCK IS ENCOUNTERED BELOW 18", DRILL A 12" DIA. HOLE, 12" INTO THE ROCK OR TO THE STANDARD EMBEDMENT DEPTH, WHICHEVER MAYBE LESS. ANY EXCESS POST LENGTH, AFTER MEETING THESE DEPTHS, MAY BE FIELD CUT TO ENSURE PROPER GUARDRAIL MOUNTING HEIGHT. BACKFILL WITH COARSE AGGREGATE MATERIAL.
10. POSTS SHALL NOT BE SET IN CONCRETE, OF ANY DEPTH.
11. SPECIAL FABRICATION WILL BE REQUIRED AT INSTALLATION LOCATIONS HAVING A CURVATURE OF LESS THAN 150 FT. RADIUS.
12. UNLESS OTHERWISE SHOWN IN THE PLANS, A COMPOSITE MATERIAL BLOCK THAT MEETS THE REQUIREMENTS OF DMS-7210, "COMPOSITE MATERIAL POSTS AND BLOCKS FOR METAL BEAM GUARD FENCE" MAY BE SUBSTITUTED FOR BLOCKS OF SIMILAR DIMENSIONS. THE CONSTRUCTION DIVISION, TXDOT MAINTAINS A MATERIAL PRODUCER LIST (MPL) FOR PRODUCERS OF MATERIALS CONFORMING TO DMS-7210 ONLY PRODUCERS ON THE MPL MAY FURNISH COMPOSITE MATERIAL BLOCKS.
13. FOR THE LOW FILL CULVERT OPTION, POSTS LOCATED PARTIALLY OR WHOLLY BETWEEN PRECAST BOX CULVERT UNITS, THE USE OF A CAST-IN-PLACE CONCRETE CLOSURE BETWEEN BOXES IS REQUIRED. THE LENGTH OF THE CAST-IN-PLACE CONCRETE CLOSURE SHALL ACCOMMODATE THE PLACEMENT OF THE LOW FILL CULVERT OPTION. SEE CONCRETE CLOSURE DETAILS ON BRIDGE STANDARD SCP-MD.
14. GUARDRAIL HEIGHT MEASUREMENT: WHEN THE GUARDRAIL IS LOCATED ABOVE PAVEMENT, MEASURE THE HEIGHT FROM THE PAVEMENT TO THE TOP OF THE W-BEAM RAIL. WHEN THE GUARDRAIL IS LOCATED UP TO 2 FT. OFF OF THE EDGE OF PAVEMENT OR FOR A PAVEMENT OVERLAY, USE A 10-FOOT STRAIGHTEDGE TO EXTEND THE PAVEMENT/SHOULDER SLOPE TO THE BACK OF RAIL, MEASURE FROM THE BOTTOM OF STRAIGHTEDGE TO THE TOP OF RAIL. FOR GUARDRAIL LOCATED DOWN A 10:1 SLOPE, MEASURE FROM THE NOMINAL TERRAIN.

NOTE: TRANSITIONS TO BRIDGE RAILS OR TRAFFIC BARRIERS.
SEE GF(31)TL3 TR STANDARD FOR HIGH-SPEED TL-3 TRANSITIONS.
SEE GF(31)TL2 TR STANDARD FOR LOW-SPEED TL-2 TRANSITIONS.

Texas Department of Transportation — Design Division Standard

METAL BEAM GUARD FENCE TL-3 MASH COMPLIANT

GF(31)-19

FILE: gf3119.dgn	DN:TxDOT	CK: KM	DW: VP	CK: CGL/AG
©TxDOT: NOVEMBER 2019	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.

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DATE:
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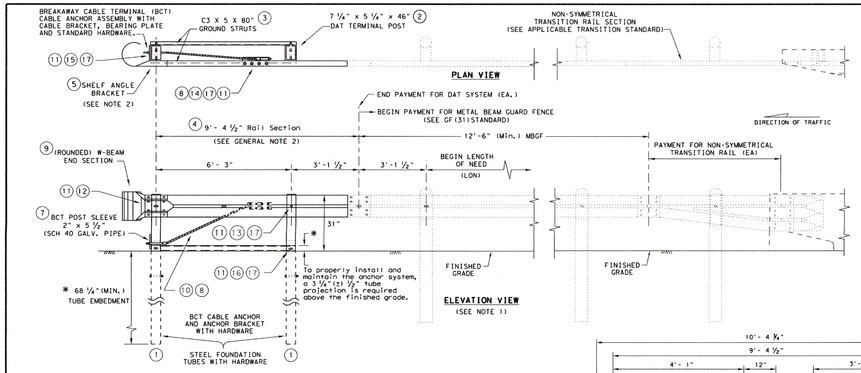


DOWNSTREAM ANCHOR TERMINAL (DAT)

NOTE: ONLY FOR DOWNSTREAM USE. WHEN LOCATED OUTSIDE THE HORIZONTAL CLEARANCE AREA OF OPPOSING TRAFFIC.

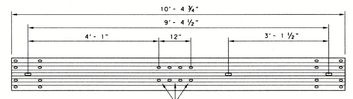
GENERAL NOTES

1. THE DETAIL SHOWN IS THE MINIMUM LENGTH OF NEED (LON) FOR A DOWNSTREAM ANCHOR TERMINAL (DAT) CONNECTED TO A CONCRETE RAIL.
2. THE RAIL SECTION AT THE END POST IS SUPPORTED BY THE SHELF ANGLE BRACKET. THE RAIL ELEMENT IS NOT ATTACHED TO THE END POST.
3. THE FOUNDATION TUBES SHALL NOT PROJECT MORE THAN 3 ¾" ABOVE THE FINISHED GRADE.
4. ALL HARDWARE FOR DAT SHALL BE ASTM A307 UNLESS OTHERWISE SHOWN.
5. REFER TO GF(31) SHEET FOR TERMINAL CONNECTION DETAILS.

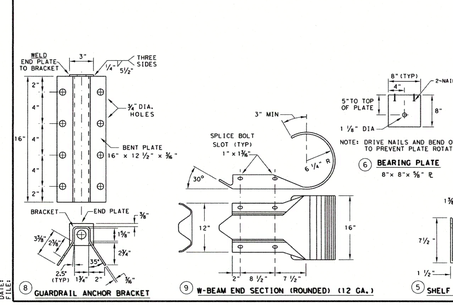
MOW STRIP INSTALLATION

IF A MOW STRIP IS REQUIRED WITH THE DAT INSTALLATION THE LEAVE-OUT AREA AROUND THE STEEL FOUNDATION TUBES AND THE TWO CHANNEL STRUTS MAY BE OMITTED. THIS WILL REQUIRE A FULL POUR AT THE FOUNDATION TUBES.

#	(DAT) PARTS LIST	QTY
(1)	STEEL FOUNDATION TUBE	2
(2)	DAT TERMINAL POST	2
(3)	CHANNEL STRUT	2
(4)	TERMINAL RAIL ELEMENT	1
(5)	SHELF ANGLE BRACKET	1
(6)	BCT BEARING PLATE	1
(7)	BCT POST SLEEVE	1
(8)	GUARDRAIL ANCHOR BRACKET	1
(9)	(ROUNDED)W-BEAM END SECTION	1
(10)	BCT CABLE ANCHOR	1
(11)	RECESSED NUT, GUARDRAIL	20
(12)	1 ¼" BUTTON HEAD BOLT	4
(13)	10" BUTTON HEAD BOLT	2
(14)	⅜" X 2" HEX HEAD BOLT	8
(15)	⅜" X 8" HEX HEAD BOLT	4
(16)	⅜" X 10" HEX HEAD BOLT	2
(17)	⅜" FLAT WASHER	18



(4) TERMINAL RAIL ELEMENT FOR DAT



Texas Department of Transportation — Design Division Standard

METAL BEAM GUARD FENCE (DOWNSTREAM ANCHOR TERMINAL) TL-3 MASH COMPLIANT

GF(31)DAT-19

FILE: gf31dat19.dgn	DN:TxDOT	CK: KM	DW: VP	CK: CGL/AG
©TxDOT: NOVEMBER 2019	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.

NO	REVISION	DATE
△		

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IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)

13001 HIGH SIERRA

CITY OF AUSTIN
TRAVIS COUNTY, TEXAS

STATE OF TEXAS
ALVORIS CARROLL JR.
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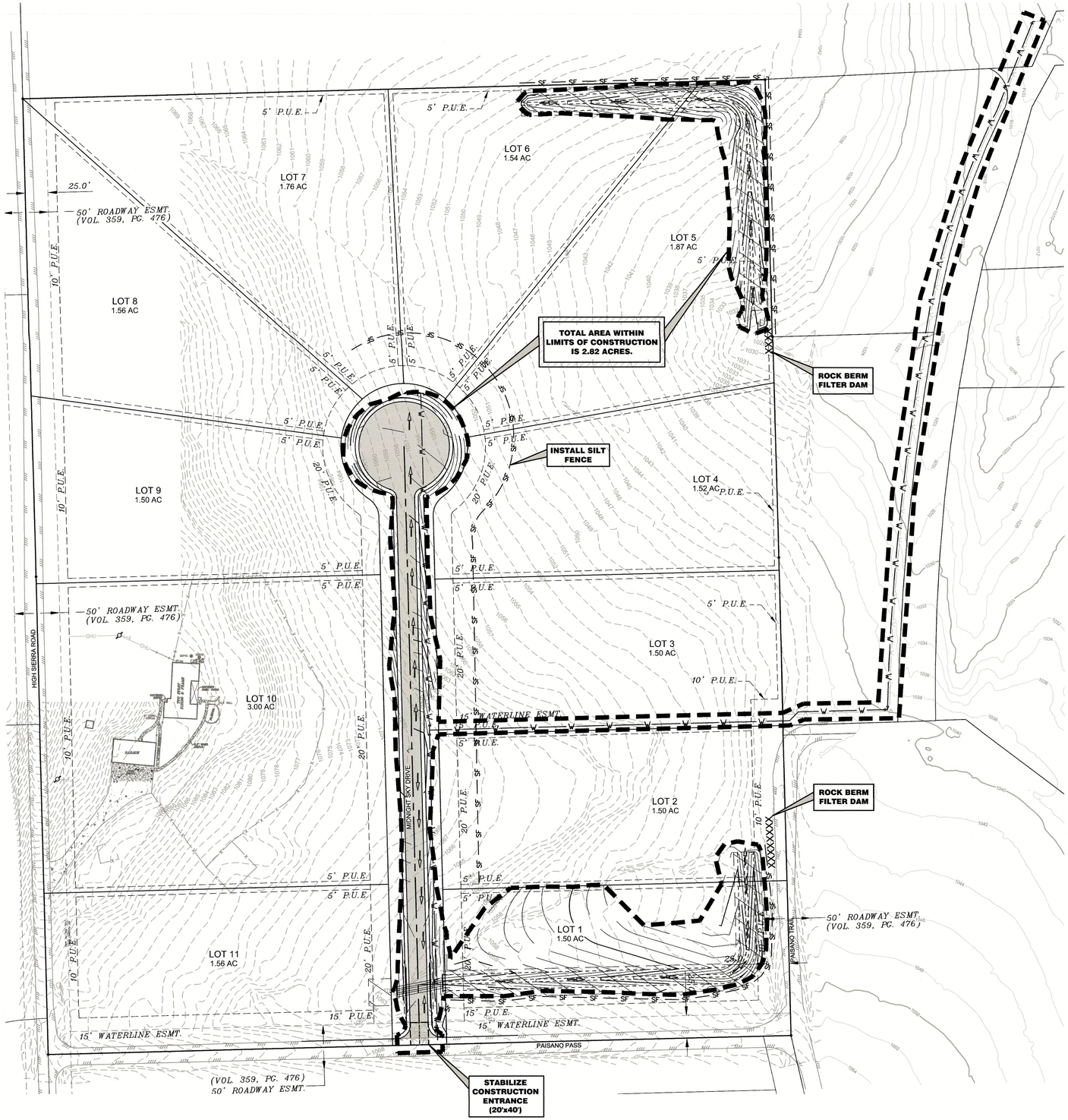
PROJ. NO: SM-22-1116
DRAWN BY: ACJ
CHECKED BY: ACJ
DESIGN BY: ACJ
DATE: 02/03/2023
SCALE: N/A
SHEET: 11.0

DETAILS

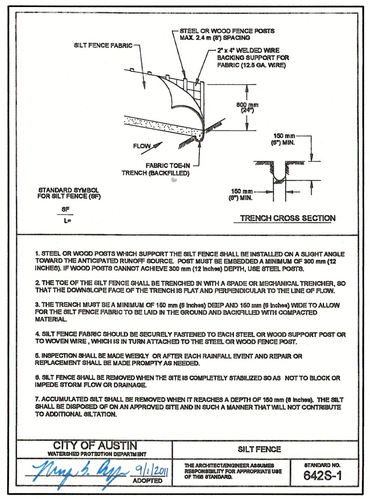


LEGEND

- CONSTRUCTION ENTRANCE
- LIMITS OF CONSTRUCTION
- EXISTING DRAINAGE FLOW DIRECTION
- SF — SILT FENCE
- XXXX — ROCK BERM (FILTER ROCK DAM)

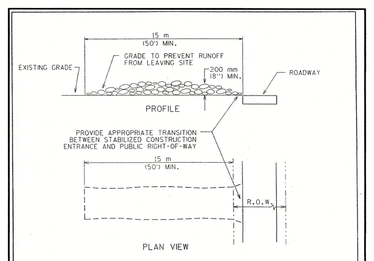
N

GRAPHIC SCALE
0 60 120
1"=60'



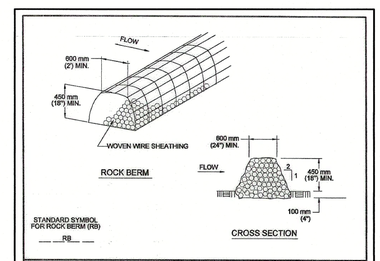
1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 Inches) DEPTH, USE STEEL POSTS.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED 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 PROMPTY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 Inches). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	SILT FENCE
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



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

CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT	ROCK BERM
8/24/2010 ADOPTED	THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. STANDARD NO. 639S-1

NO	REVISION	DATE
△		

IMPROVEMENT PLANS
Skylight Hills Subdivision (9.989 & 10.00 Ac.)

13001 HIGH SIERRA

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TRAVIS COUNTY, TEXAS

STATE OF TEXAS
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PROJ. NO:	SM-22-1118
DRAWN BY:	ACJ
CHECKED BY:	ACJ
DESIGN BY:	ACJ
DATE:	02/03/2023
SCALE:	1"=60' HORIZ.
SHEET:	12.0

EROSION AND SEDIMENTATION CONTROL PLAN

ATTACHMENT "N"

N/A

ATTACHMENT "O"

N/A

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: Al Carroll, P.E.

Date: 2/2/2023

Signature of Customer/Agent:

Regulated Entity Name: Tri-Tech Engineering, LP

Project Information

Potential Sources of Contamination

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

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

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

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

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

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

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

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

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

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

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

Sequence of Construction

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

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

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

6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: N/A

Temporary Best Management Practices (TBMPs)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

☒ N/A

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

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

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

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

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

Soil Stabilization Practices

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

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

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

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

Administrative Information

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

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

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

ATTACHMENT "A"
Spill Response Actions

There will be no above ground storage tanks allowed on this project. Equipment will be fueled using mobile fuel trucks as needed. There is a small chance of a fuel spill occurring due to leaking construction equipment or refueling operations. The spill prevention and control measures described below, and included in Section 1.4.16 of RG-348 complying with the Edwards Aquifer Rules Technical Guidance Manual on Best Management Practices (July 2005), will be followed.

Spill Prevention and Control

The objective of this section is to describe measures to prevent or reduce the discharge of pollutants to drainage systems or watercourses from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

The following steps will help reduce the stormwater impacts of leaks and spills:

Education

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

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

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

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

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

General Measures

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

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

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

(4) Train employees in spill prevention and cleanup.

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

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

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

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

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

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

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

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

Cleanup

(1) Clean up leaks and spills immediately.

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

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

Minor Spills

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

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

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

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

(5) Contain the spread of the spill.

(6) Recover spilled materials.

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

Semi-Significant Spills

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

Spills should be cleaned up immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

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

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

(5)1f the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

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

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

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

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

More information on spill rules and appropriate responses is available on the TCEQ website at: https://www.tceq.texas.gov/response/spills/spill_rq.html

Vehicle and Equipment Maintenance

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

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

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

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

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

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

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

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

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

Vehicle and Equipment Fueling

(1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the runoff of stormwater and the runoff of spills.

(2) Discourage "topping off' of fuel tanks.

(3) Always use secondary containment, such as a drain pan, when fueling to catch spills,' leaks.

ATTACHMENT "B"
Potential Sources of Contamination

The only potential sources of contamination are construction equipment leaks, refueling spills, potential leaks from port-o-lets, and the total suspended solids (TSS) due to the construction activities on-site. There are no other anticipated potential sources of contamination.

ATTACHMENT "C"
Sequence of Major Activities

Stages of Construction:

1. Installation of Temporary BMP's (Silt Fence, Rock Berm, and Stabilized Construction Entrance)
2. Clearing and Grubbing: Removal of existing vegetation, top soil and other debris within the proposed construction site. Approximate total disturbed area = 2.82 acres
3. Rough Grading: Cutting of proposed entrance drive, parking areas, building pads, access drive, and drainage swales. Approximate total disturbed area = 2.82 acres
4. Utility Installation: Trenching and installation of water and wastewater utilities. Approximate total disturbed are = 0.3 acres.
5. Site Grading: Grading of entrance drive, parking areas, and building pads to prepare the subgrade for pavement and foundation. Approximate total disturbed are = 0.91 acres.
6. Pavement & Foundation: Installation of concrete foundations, parking, access drive, and entrance drive. Approximate total disturbed area = 1.27 acres.
7. Finished Grading: Final grading of drainage swale, slope grading, and landscaping and installation of permanent BMP's. Approximate total disturbed area = 3.9 acres
8. Completion of Construction: Installation of all landscaping and replacement of destroyed vegetation. Once permanent growth of vegetation has occurred remove temporary BMP's (Silt Fence & Rock Berm).

The project site is located in the Colorado River drainage basin. Drainage from the site will travel approximately 500 feet to Cambrian Creek then approximately 3 miles down Barton Creek then approximately 32 miles to its confluence with the Colorado River.

ATTACHMENT "D"
Temporary BMP's and Measures

The following sequence will be followed for installing temporary BMP's:

1. Building pad, parking, drainage swale, entrance drive, utilities (water & wastewater), and access drive location will be located/surveyed. (No soil disturbance.)
2. Silt fence and rock berms will be constructed on the downgradient side of proposed construction site prior to beginning clearing and construction operations.
3. Stabilized construction entrance will be established at proposed entrance drive.

A. Any upgradient surface water entering this site will be handled by Temporary BMP's (Silt Fence & Rock Berm).

B. Silt fence will be placed on the downgradient side of proposed improvements to contain pollutants generated from onsite runoff. Material form excavation will be placed upstream of the silt fence to reduce the potential of sediment reports.

Rock berms will be place on the down gradient end of channelized drainage locations to contain pollutants generated from onsite runoff.

Soil disturbance will be limited to a minimal distance outside the proposed pavement and landscaping footprint. Disturbed areas will be seeded to replace destroyed vegetation. The existing vegetation located downgradient of each proposed improvement will help to prevent pollution of water originating onsite and/or flowing offsite.

There were sensitive geological features discovered on the project during the field investigation. They are identified as C1 (30' diameter cave) and SC1 (12" x 10" solution cavity) in the geological assessment table. A temporary diversion dike can be placed upstream of the sensitive features to route runoff around the sensitive features.

Materials:

(1) Stone stabilization (required for velocities in excess of 6 fps) should consist of riprap placed in a layer at least 3 inches thick and should extend a minimum height of 3 inches above the design water surface up the existing slope and the upstream face of the dike.Stabilization riprap should conform to the following specifications:

Channel Grade Riprap Stabilization:

0.5 – 1% 4 inch rock
1.1 – 2% 6 inch rock
2.1 – 4 % 8 inch rock
4.1 – 5% 8 – 12 inch riprap

(2) Geotextile fabric should be a non-woven polypropylene fabric designed specifically for use as a soil filtration media with an approximate weight of 6 oz./yd2, a Mullen burst rating of 140 psi, and having an equivalent opening size (EOS) greater than a #50 sieve.

Installation:

(1) Diversion dikes should be installed prior to and maintained for the duration of construction and should intercept no more than 10 acres of runoff.
(2) Dikes should have a minimum top width of 2 feet and a minimum height of compacted fill of 18 inches measured form the top of the existing ground at the upslope toe to top of the dike and having side slopes of 2:1 or flatter.
(3) The soil for the dike should be placed in lifts of 8 inches or less and be compacted to 95 % standard proctor density.
(4) The channel, which is formed by the dike, must have positive drainage for its entire length to an outlet.
(5) When the slope exceeds 2 percent, or velocities exceed 6 feet per second (regardless of slope), stabilization is required. Situations in which velocities do not exceed 6 feet per second, vegetation may be used to control erosion.

Inspection and Maintenance Guidelines:

(1) Swales should be inspected weekly and after each rain event to determine if silt is building up behind the dike or if erosion is occurring on the face of the dike. Locate and repair any damage to the channel or clear debris or other obstructions so as not to diminish flow capacity.
(2) Silt should be removed in a timely manner to prevent remobilization and to maintain the effectiveness of the control.
(3) If erosion is occurring on the face of the dike, the slopes of the face should either be stabilized through mulch or seeding or the slopes of the face should be reduced.
(4) Damage from storms or normal construction activities such as tire ruts or disturbance of swale stabilization should be repaired as soon as practical.

ATTACHMENT "E"
Request to Temporarily Seal a Feature

There will be no request to temporarily seal a feature.

ATTACHMENT "F"
Structural Practices

Silt fence will be used to protect disturbed soils and to prevent contamination from leaving the project site and rock berms will be used at areas of channelized drainage leaving the project site. The majority of the site will remain in a natural condition with minimal impacts to existing drainage paths; therefore, natural filtration will be allowed to occur.

ATTACHMENT "G"
Drainage Area Map

See Drainage Area Map included in Construction Plans.

ATTACHMENT "H"
Temporary Sediment Pond Plans and Calculations

Do to the small scale of the site and the minor soil disturbance involved no sediment ponds will be constructed.

ATTACHMENT "I"
Inspection and Maintenance for BMP's

Inspection and Maintenance Plan

The contractor is required to inspect the fences and rock berms at weekly intervals and after any rainfall events to insure that they are functioning properly. The contractor is required to document any changes on the Site Plan; documentation must include person performing task, task performed, and date. The contractor must also document if proper inspection measures have

been taken while making changes. The person(s) responsible for maintenance controls and fences shall immediately make any necessary repairs to damaged areas.

Construction Entrance/Exit: The entrance should be maintained in a condition, which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic cleanup of existing entrances/exits. All sediment spilled, dropped, washed, or tracked onto public rights-of-way should be removed immediately by contractor. When necessary, wheels should be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it should be done on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin. All sediment should be prevented from entering any storm drain, ditch, or watercourse by using approved methods.

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

Rock Berm: Remove sediment and debris when buildup reaches 6 inches. Replace or rebuild any sections of berm that become damaged. Replace or repair any sections crushed or collapsed in the course of construction activity. If a section of berm is obstructing vehicular access, consider relocating it to a spot where it will provide equal protection, but will not obstruct vehicles. When construction is complete, the sediment should be disposed of in a manner that will not cause additional siltation and the prior location of the rock berm should be revegetated.

TCEQ staff will be allowed full access to the property during construction of the project for inspecting controls and fences and to verify that the accepted plan is being utilized in the field. TCEQ staff has the right to speak with the contractor to verify plan changes and modifications.

Any changes made to the location or type of controls shown on the accepted plans, due to onsite conditions, shall be documented on the site plan that is part of this Water Pollution Abatement Plan. No other changes shall be made unless approved by TCEQ and the Design Engineer. The contractor is required to document any changes on the Site Plan, documentation must include person performing task, task performed, and date. The contractor must also document if proper inspection measures have been taken while making changes. Documentation shall clearly show changes made, date, and person responsible and reason change was made.

ATTACHMENT "J"

Schedule of Interim and Permanent Soil Stabilization Practices

Areas which are disturbed by construction staging and storage areas will be hydra mulched with the appropriate seed mixture. Areas between the edge of construction site and right-of-way line

will also be hydra mulched if soil layers exist. Areas within 15' of new pavement will be protected with an engineered vegetative filter strip and remaining areas will be landscaped with appropriate plants and mulched. There will be no fill slopes exceeding a 3:1 slope and all fill slopes will be hydra mulched. All disturbed soils should be seeded or otherwise stabilized within 14 calendar days after final grading or where construction activity has temporarily -ceased for more than 21 days. Installation and acceptable mixtures of hydra mulch are as follows:

Materials:

Hydraulic Mulches: Wood fiber mulch can be applied alone or as a component of hydraulic matrices. Wood fiber applied alone is typically applied at the rate of 2,000 to 4,000 lb/acre. Wood fiber mulch is manufactured from wood or wood waste from lumber mills or from urban sources.

Hydraulic Matrices: Hydraulic matrices include a mixture of wood fiber and acrylic polymer or other tackifier as binder. Apply as a liquid slurry using a hydraulic application machine (i.e., hydra seeder) at the following minimum rates, or as specified by the manufacturer to achieve complete coverage of the target area: 2,000 to 4,000 lb/acre wood fiber mulch, and 5 to 10% (by weight) of tackifier (acrylic copolymer, guar, psyllium, etc.)

Bonded Fiber Matrix: Bonded fiber matrix (BFM) is a hydraulically applied system of fibers and adhesives that upon drying forms an erosion resistant blanket that promotes vegetation, and prevents soil erosion. BFMs are typically applied at rates from 3,000 lb/acre to 4,000 lb/acre based on the manufacturer's recommendation. A biodegradable BFM is composed of materials that are 100% biodegradable. The binder in the BFM should also be biodegradable and should not dissolve or disperse upon re-wetting. Typically, biodegradable BFMs should not be applied immediately before, during, or immediately after rainfall if the soil is saturated. Depending on the product, BFMs typically require 12 to 24 hours to dry and become effective.

Seed Mixtures:

Dates	**Climate**	**Species**	**(lb/ac.)**
Sept. 1 to Nov. 30	Temporary Cool Season	Tall Fescue	4.0
		Oats	21.0
		Wheat's	30.0
		Total	**55.0**
Sept. 1 to Nov. 30	Cool Season Legume	Hairy Vetch	8.0
May 1 to Aug. 31	Temporary Warm Season	Foxtail Millet	30.0

Fertilizer: Fertilizer should be applied at the rate of 40 pounds of nitrogen and 40 pounds of phosphorus per acre, which is equivalent to about 1.0 pounds of nitrogen and phosphorus per 1000 square feet.

Installation:

(1) Prior to application, roughen embankment and fill areas by rolling with a crimping or punching type roller or by track walking. Track walking shall only be used where other methods are impractical.

(2) To be effective, hydraulic matrices require 24 hours to dry before rainfall occurs.

(3) Avoid mulch over spray onto roads, sidewalks, drainage channels, existing vegetation, etc.

Owner's Information:

Owner: Frame Middleton LLC
Contact: Logan Middleton
Phone: (737)529-6791
Address: 11203 Brushy Glen Dr
Austin, Texas 78754

Design Engineer:

Company: Tri-Tech Engineering, L.P.
Contact: Al Carroll Jr., P.E.
Phone: (512) 353-3335
Address: 155 Riverwalk Dr.
San Marcos, Texas 78666

Person or Firm Responsible for Erosion/Sedimentation Control Maintenance:

Company: To be determined
Contact:
Phone:
Address:

Signature of Responsible Party: _____

This portion of the form shall be filled out and signed by the responsible party prior to construction.

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

I Logan Middleton,
Print Name

President,
Title - Owner/President/Other

of Frame Middleton LLC,
Corporation/Partnership/Entity Name

have authorized Al Carroll
Print Name of Agent/Engineer

of Tri-Tech Engineering
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

2.7.23
Date

THE STATE OF Texas §

County of Travis §

BEFORE ME, the undersigned authority, on this day personally appeared Logan Middleton 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 7 day of February, 2023.

NOTARY PUBLIC

Scott McFarland
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 8-21-23

SCOTT ALLEN MCFARLAND
Notary Public, State of Texas
Comm. Expires 08-21-2023
Notary ID 132138541

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

I James Parman,
Print Name

Environmental Manager,
Title - Owner/President/Other

of Hays County Transportation Department,
Corporation/Partnership/Entity Name

have authorized Al Carroll
Print Name of Agent/Engineer

of Tri-Tech Engineering
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.

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SIGNATURE PAGE:

Applicant's Signature

4/21/23
Date

THE STATE OF Texas §

County of Hays §

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

GIVEN under my hand and seal of office on this 21 day of April, 2023.

NOTARY PUBLIC

LISA RODRIGUEZ
Notary Public, State of Texas
Comm. Expires 07-15-2026
Notary ID 6616441

Lisa Rodriguez
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 7/15/26

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Frame Middleton LLC
Regulated Entity Location: 13111 High Sierra Dr, Austin, Texas 78737
Name of Customer: Logan Middleton
Contact Person: Al Carroll Phone: (512)440-0222
Customer Reference Number (if issued):CN _____
Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☒ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde
☐ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to:

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

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

Site Location (Check All That Apply):

☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	20.0 Acres	$ 4,000
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: _____ Date: 2/2/2023

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 regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

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

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

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

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

SECTION II: Customer Information

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

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

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

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

Frame Middleton LLC

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (*if applicable*)
0802946758	32066358022	82-4577563	

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

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

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

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

☒ Owner ☐ Operator ☐ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:

11203 Brushy Glen Dr

City	Austin	State	TX	ZIP	78754	ZIP + 4	2007

16. Country Mailing Information (*if outside USA*)

17. E-Mail Address (*if applicable*)
logan@framemiddleton.com

18. Telephone Number	19. Extension or Code	20. Fax Number (*if applicable*)
(737) 529-6791		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (*If 'New Regulated Entity" is selected below this form should be accompanied by a permit application*)

☒ 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 Agency 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.*)

Frame Middleton LLC

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	13001 High Sierra Dr							
	City	Austin	**State**	TX	**ZIP**	78737	**ZIP + 4**	
24. County								

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	At the intersection of Paisano Pass and Paisano Trail, 1/2 mile W of the intersection of Trail Driver St and Paisano Trail.

26. Nearest City	**State**	**Nearest ZIP Code**

27. Latitude (N) In Decimal:	30.2190225	**28. Longitude (W) In Decimal:**	-98.0137757

Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	13	8.481	-98	0	49.5926

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)
6552		237210	

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

34. Mailing Address:								
	City		**State**		**ZIP**		**ZIP + 4**	
35. E-Mail Address:								

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

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

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

SECTION IV: Preparer Information

40. Name:	Al Carroll Jr	**41. Title:**	P.E., Civil Engineer Manager

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(512) 440-0222		( ) -	acarroll@tritechtx.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:	Tri-Tech Engineering, L.P.	**Job Title:**	Engineer
Name *(In Print):*	Al Carroll, P.E.	**Phone:**	(512) 440- **0222**
Signature:		**Date:**	