CONTRIBUTING ZONE PLAN APPLICATION
FOR
AMS – ADVANCED MANUFACTURING SOLUTIONS – LIBERTY HILL

Prepared For:

Todd Cox
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Prepared By:

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TBPE Firm No. F-10496

06/14/2023

Job No. 22013
November 2022

Contributing Zone Plan Checklist

- **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- **Contributing Zone Plan Application (TCEQ-10257)**

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  Attachment E - Volume and Character of Stormwater
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- **Storm Water Pollution Prevention Plan (SWPPP)**

  -OR-

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  Attachment I - Inspection and Maintenance for BMPs
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- **Copy of Notice of Intent (NOI)**
- **Agent Authorization Form (TCEQ-0599), if application submitted by agent**

- **Application Fee Form (TCEQ-0574)**
- **Check Payable to the "Texas Commission on Environmental Quality"**
- **Core Data Form (TCEQ-10400)**

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: AMS – Advanced Manufacturing Solutions						**2. Regulated Entity No.:**			
3. Customer Name: Todd Cox						**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):**		62.41	
9. Application Fee:	$8,000		**10. Permanent BMP(s):**			Batch Detention and VFS			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			Middle South Fork of San Gabriel 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.)	__	__	_X_
Region (1 req.)	__	__	_X_
County(ies)	__	__	_X_
Groundwater Conservation District(s)	__Edwards Aquifer Authority __Barton Springs/ Edwards Aquifer __Hays Trinity __Plum Creek	__Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	__Austin __Buda __Dripping Springs __Kyle __Mountain City __San Marcos __Wimberley __Woodcreek	__Austin __Bee Cave __Pflugerville __Rollingwood __Round Rock __Sunset Valley __West Lake Hills	__Austin __Cedar Park __Florence __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. Marshal Brewer, P.E., Eckermann Engineering, Inc.
Print Name of Customer/**Authorized Agent**
 8/29/2022
Signature of Customer/Authorized Agent Date

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

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I. Contribution Zone Plan Application with Attachments (TCEQ-1257)

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: Todd Cox (Agent: Eckermann Engineering, Inc.)

Date: 2/27/2023

Signature of Customer/Agent:

Regulated Entity Name: AMS - Advanced Manufacturing Solutions

Project Information

1. County: Williamson County
2. Stream Basin: Middle South Fork of the San Gabriel River
3. Groundwater Conservation District (if applicable): N/A
4. Customer (Applicant):

   Contact Person: Todd Cox
   Entity: AMS - Advanced Manufacturing Solutions
   Mailing Address: 320 Creek Crossing Drive
   City, State: Georgetown, TX Zip: 78628
   Telephone: 512-733-1110 Fax: _____
   Email Address: tcox@mustangplumbingrr.com

5. Agent/Representative (If any):

   Contact Person: Marshal Brewer, P.E.
   Entity: Eckermann Engineering, Inc.
   Mailing Address: P.O. Box 388
   City, State: Lampasas, TX Zip: 76550
   Telephone: 512-556-8160 Fax: _____
   Email Address: marshal@eckermannengineering.com

6. Project Location:

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

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

   19600 W SH 29 Liberty Hill, Williamson County, Texas.

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

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

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

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

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

11. Existing project site conditions are noted below:

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

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

12. The type of project is:

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

13. Total project area (size of site): 62.41 Acres

Total disturbed area: _____ Acres

14. Estimated projected population: N/A

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	147,790	÷ 43,560 =	3.39
Parking		÷ 43,560 =	
Other paved surfaces	124,582	÷ 43,560 =	2.86
Total Impervious Cover	291,020	÷ 43,560 =	6.68

Total Impervious Cover 6.25 **÷ Total Acreage** 62.41 **X 100 =** 10**% Impervious Cover**

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

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

For Road Projects Only

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

☒ N/A

18. Type of project:

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

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

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

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

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

21. Pavement Area:

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

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

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

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

Stormwater to be generated by the Proposed Project

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

Wastewater to be generated by the Proposed Project

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

☐ N/A

26. Wastewater will be disposed of by:

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

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

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

☐ Sewage Collection System (Sewer Lines):

The sewage collection system will convey the wastewater to the _____ (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" = 60'.

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): FEMA Map 48491C0230F Dated December 20, 2019.

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.

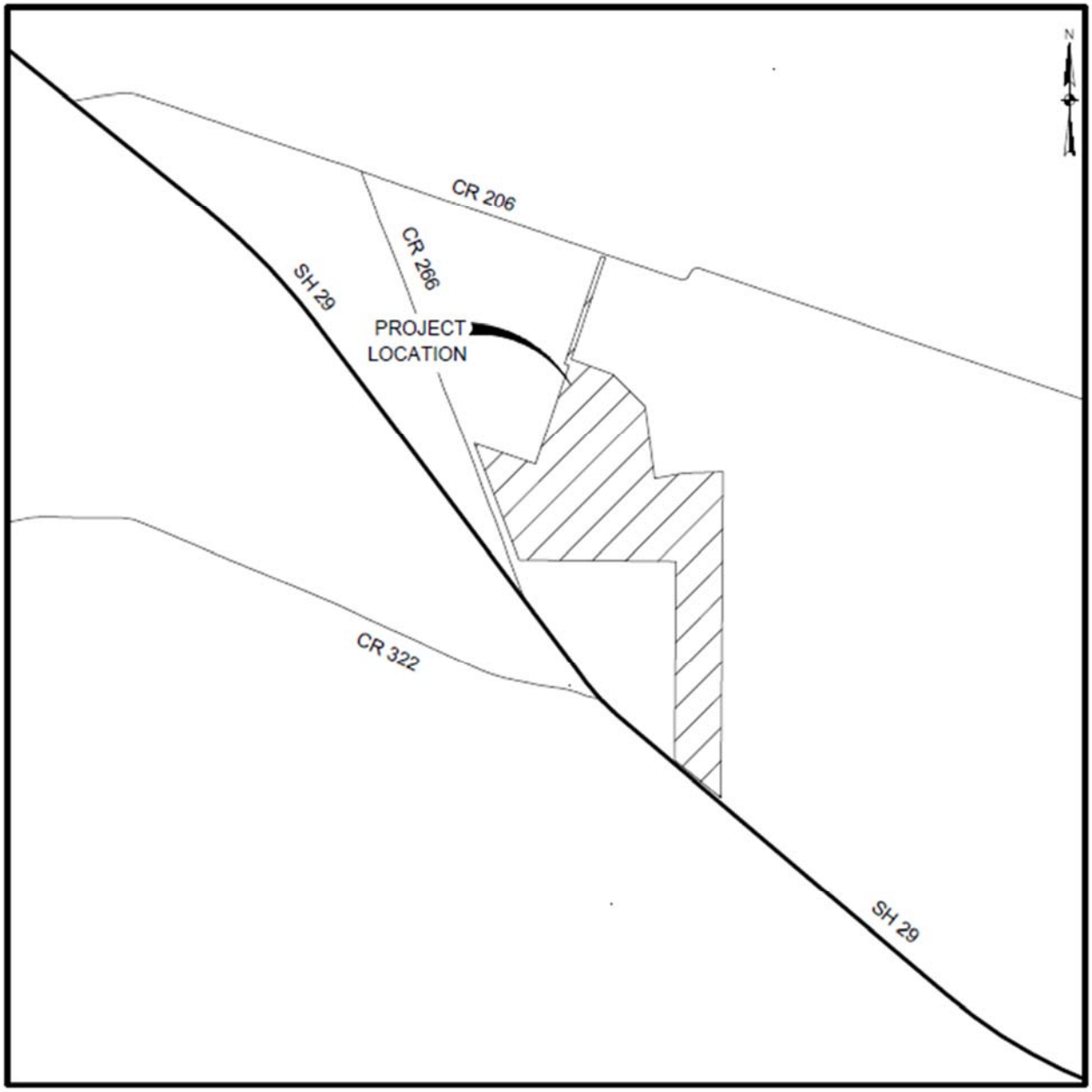
62. ☒ Any modification of this Contributing Zone Plan may require TCEQ review and Executive Director approval prior to construction, and may require submission of a revised application, with appropriate fees.

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.

ATTACHMENT A

ROAD MAP

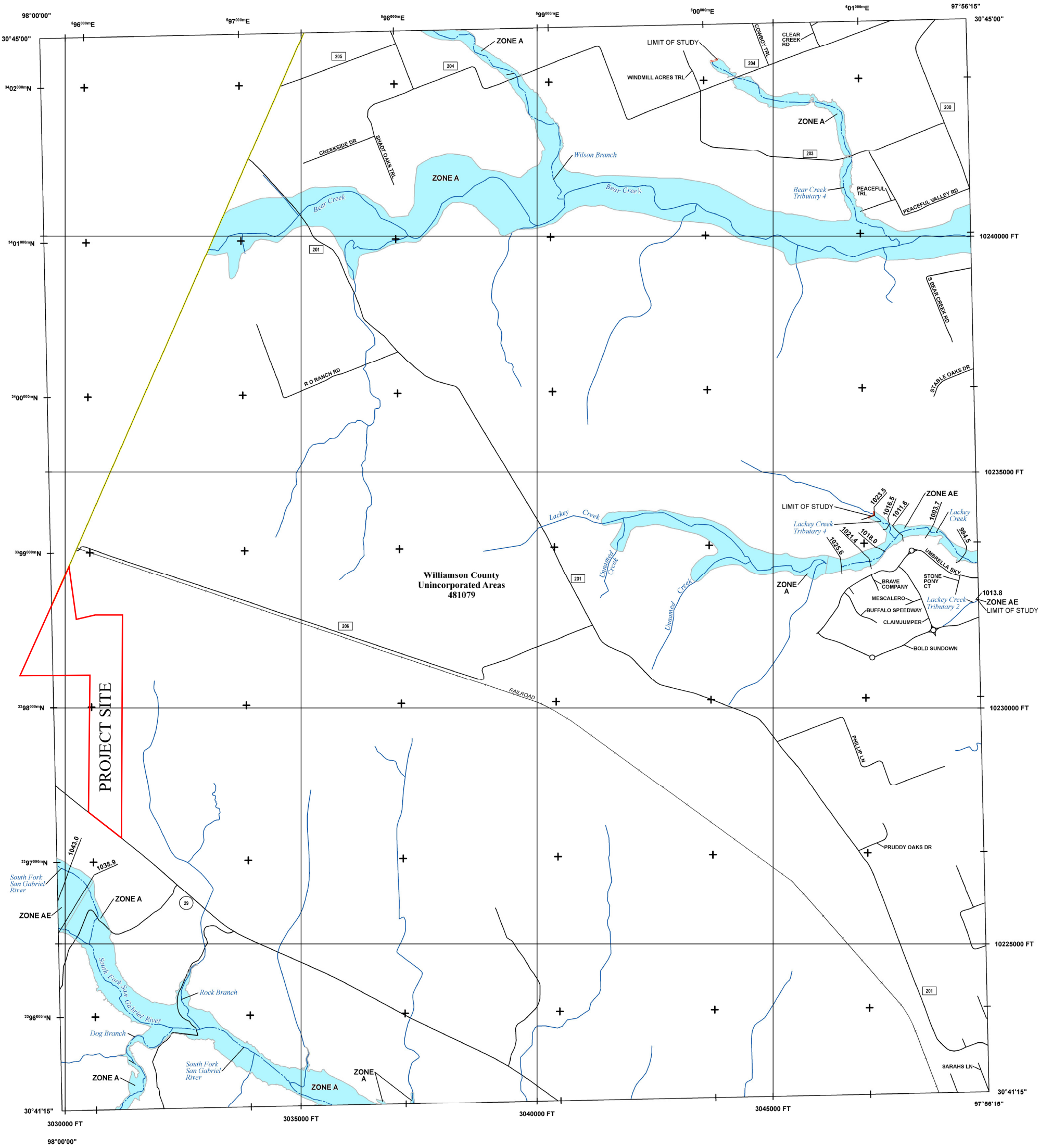


AMS – Advanced Manufacturing Solutions

Liberty Hill, TX

ATTACHMENT B

USGS QUADRANGLE MAP



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTPS://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A,V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes. *Zone X*
	Area with Flood Risk due to Levee *Zone D*
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard *Zone X*
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	E 18.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was derived from digital data obtained from Texas Natural Resource Information Systems (TNRIS), dated 2000; United States Census Bureau, dated 2015; United States Geological Survey, dated 2005; and the Williamson County Geographic Information Systems (GIS) Department, dated 2014 and 2017.

SCALE

Map Projection:
State Plane Lambert Conformal Conic, Texas Central Zone; North American Datum 1983; Western Hemisphere; Vertical Datum: NAVD 88

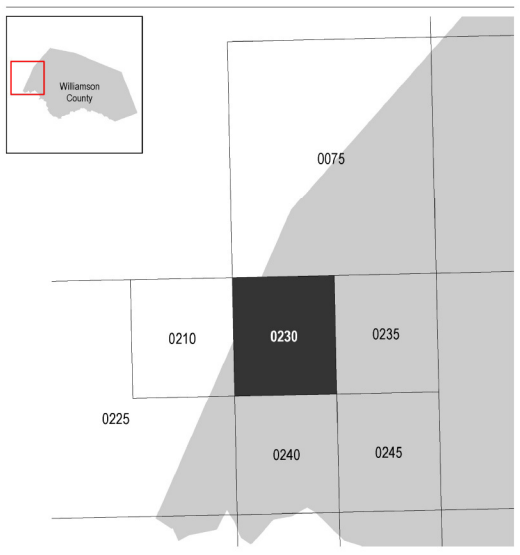
N

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 feet

0 250 500 1,000 meters

PANEL LOCATOR



FEMA National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

WILLIAMSON COUNTY, TEXAS
and Incorporated Areas

PANEL 230 OF 750

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
WILLIAMSON COUNTY	481079	0230	F

VERSION NUMBER
2.3.3.3

MAP NUMBER
48491C0230F

MAP REVISED
DECEMBER 20, 2019

ATTACHMENT C

PROJECT NARRATIVE

The AMS – Advanced Manufacturing Solutions project is a 62.41-acre tract of land located along State Highway 29 approximately 4.5 miles west from the intersection with County Road 200 within Williamson County, Texas. Refer to the Road Map in Attachment A for the site location. The subject site is located within the jurisdiction of Williamson County and no portion of the site lie within the FEMA 100-year floodplain per map number 48491C0230F, dated December 20, 2019. The proposed development is located within the Edward's Aquifer Contributing Zone. The project consists of the construction/development of 8 – 11,880 square foot buildings. The project will also include the development of a driveway with a right turn deceleration lane, parking, and fire lane to support the development of 8 warehouse buildings.

To accomplish this development grading and light clearing will be required. All fire protection will be accomplished with the existing well located on site. No additional wastewater flow is being proposed.

The proposed development will include a total of approximately 6.02 acres of impervious cover (5.91 acres on-site and 0.11 acres for the right turn deceleration lane within the TXDOT ROW). The development will utilize a batch detention facility, vegetative filter strips and grassy swales to treat flows from the project and remove 80% of the increase in total suspended solids. All existing impervious cover is being mitigated except the half of the main lanes of SH 29. No negative impact to downstream properties is anticipated.

ATTACHMENT D
FACTORS AFFECTION SURFACE WATER QUALITY

Potential Sources of Contamination associated with this project may include:

1. Oil and grease from runoff pollutants associated with paving operations,
2. Asphalt emulsion from streets just after construction is complete,
3. Construction equipment pollutants including hydraulic fluid, machine oil, and diesel,
4. Sediment from earth moving activities, and
5. Construction materials such as wood, paint, fertilizers, and concrete.

ATTACHMENT E

VOLUME AND CHARACTER OF STORMWATER

The project site is located on an undeveloped 62.41-acre tract of land that generally drains to South Fork of the San Gabriel River. The site currently conveys storm water from the property to the west and SH 29 to the south. Existing drainage patterns convey the on-site flows via sheet and channelized flow to the west property line where flows pass under SH 29 through a 27" CMP culvert. The flows then continue south to the South Fork of the San Gabriel River. No portion of the site lie within the FEMA 100-year floodplain per map number 48491C0230F, dated December 20, 2019.

ATTACHMENT F

SUITABILITY LETTER FROM AUTHORIZED AGENT

Department of Infrastructure
County Engineer's Office
3151 SE Inner Loop, Ste B
Georgetown, TX 78626
T: 512.943.3330
F: 512.943.3335

J. Terron Evertson, PE, DR, CFM

WILLIAMSON COUNTY
1848

May 16, 2023

RE: **AW0382 AW0382 - Leichtle, E. Sur., ACRES 62.4, {REF/R418384**

The above-referenced property is located within the Edwards Aquifer Contributing Zone.

Based on the surrounding subdivisions, the soil survey for Williamson County, and the planning material received, this office is able to determine the soil and site conditions of this lot are suitable to allow the use of on-site sewage facilities (OSSF). It should be noted this office has not studied the physical properties of this site. Site-specific conditions, such as OSSF setbacks, recharge features, drainage, soil conditions, etc., will need to be taken into account in planning any OSSF.

These OSSFs must be designed by a professional engineer or a registered sanitarian. An Edwards Aquifer protection plan shall be approved by the appropriate TCEQ regional office before authorization to construct an OSSF may be issued. The owner will be required to inform each prospective buyer, lessee, or renter of the following in writing:

· That an authorization to construct shall be required before an OSSF can be constructed in the subdivision;
· That notice of approval shall be required for the operation of an OSSF;
· Whether an application for a water pollution abatement plan as defined in Chapter 213 has been made, whether it has been approved, and if any restrictions or conditions have been placed on the approval.

If this office can be of further assistance, please do not hesitate to call.

Sincerely,

Williamson County Engineer's Office
J. Austin Nelson, MPH, DR, RS, SE
Williamson County – OSSF 33516

ATTACHMENT G
ALTERNATIVE SECONDARY CONTAINMENT METHODS

(Not Applicable)

ATTACHMENT H
AST CONTAINMENT STRUCTURE DRAWINGS

(Not Applicable)

ATTACHMENT I

20% OR LESS IMPERVIOUS COVER WAIVER

(Not Applicable)

ATTACHMENT J

BMPS FOR UPGRADIENT STORMWATER

Upgradient flows to the north of SH 29 are conveyed under SH 29 via a culvert near the western property corner. All flows from the site will flow into a batch detention pond near the southwestern corner of the property or the detention pond located near the southeastern corner of the property. The batch detention pond then outflows into the CMP located near the southwestern property corner and under SH 29. The batch detention facility has been sized to remove 83% of the increase in TSS generated by the proposed development and work within the SH 29 right-of-way. The detention pond outflows into an existing channel along SH29 flowing southeast.

ATTACHMENT K

BMPS FOR ON-SITE STORMWATER

The proposed AMS – Advanced Manufacturing Solutions development is located outside the City of Bertram's and the City of Liberty Hill's ETJ. The project will be constructed in eight (1) single phase and will include the development of 8 storage buildings and asphalt roadway. A batch detention pond system is proposed for this project to prevent pollution of the on-site stormwater. The pond will be located at the southwest corner of the property and drainage analysis point. The efficiency of the batch detention facility to remove TSS is 91% per the TCEQ Complying with Edwards Aquifer Rules Manual. The pond has been designed to detain flows for a minimum of 12 hours after the storm event and then release flows via a 6-inch pipe with automated valve to the downstream side of detention pond outfall. Flows will be released within 48 hour after the initial delay and the valve will remain open for an additional two (2) hours after the floats sense that the pond is empty.

The required Total Capture Volume is 10,924 cubic feet and the proposed volume of the batch detention pond is 16,860 cubic feet which exceeds the required amount. Please refer to the construction documents contained within Attachment M and the TCEQ water quality calculation spreadsheet on the next couple of pages for more information.

ATTACHMENT L

BMPS FOR SURFACE STREAMS

On-site flows will be treated to remove 80% of the increase in TSS as described in the previous Attachments prior to being discharged to the culvert under SH 29 and channel along SH 29. No proposed flows will discharge directly to Surface Streams.

ATTACHMENT M

CONSTRUCTION PLANS

(UNDER SEPARATE COVER)

Texas Commission on Environmental Quality
Water Pollution Abatement Plan
General Construction Notes

Edwards Aquifer Protection Program Construction Notes – Legal Disclaimer

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

1. A written notice of construction must be submitted to the TCEQ regional office at least 48 hours prior to the start of any regulated activities. This notice must include:
   - the name of the approved project;
   - the activity start date; and
   - the contact information of the prime contractor.

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

3. If any sensitive feature(s) (caves, solution cavity, sink hole, etc.) is discovered during construction, all regulated activities near the sensitive feature must be suspended immediately. The appropriate TCEQ regional office must be immediately notified of any sensitive features encountered during construction. Construction activities may not be resumed until the TCEQ has reviewed and approved the appropriate protective measures in order to protect any sensitive feature and the Edwards Aquifer from potentially adverse impacts to water quality.

4. No temporary or permanent hazardous substance storage tank shall be installed within 150 feet of a water supply source, distribution system, well, or sensitive feature.

5. Prior to beginning any construction activity, all temporary erosion and sedimentation (E&S) control measures must be properly installed and maintained in accordance with the approved plans and manufacturers specifications. If inspections indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations. These controls must remain in place until the disturbed areas have been permanently stabilized.

6. Any sediment that escapes the construction site must be collected and properly disposed of before the next rain event to ensure it is not washed into surface streams, sensitive features, etc.

7. Sediment must be removed from the sediment traps or sedimentation basins not later than

when it occupies 50% of the basin's design capacity.

8. Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from being discharged offsite.

9. All spoils (excavated material) generated from the project site must be stored on-site with proper E&S controls. For storage or disposal of spoils at another site on the Edwards Aquifer Recharge Zone, the owner of the site must receive approval of a water pollution abatement plan for the placement of fill material or mass grading prior to the placement of spoils at the other site.

10. If portions of the site will have a temporary or permanent cease in construction activity lasting longer than 14 days, soil stabilization in those areas shall be initiated as soon as possible prior to the 14th day of inactivity. If activity will resume prior to the 21st day, stabilization measures are not required. If drought conditions or inclement weather prevent action by the 14th day, stabilization measures shall be initiated as soon as possible.

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

12. The holder of any approved Edward Aquifer protection plan must notify the appropriate regional office in writing and obtain approval from the executive director prior to initiating any of the following:

    A. any physical or operational modification of any water pollution abatement structure(s), including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;

    B. any change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;

    C. any development of land previously identified as undeveloped in the original water pollution abatement plan.

Austin Regional Office 12100 Park 35 Circle, Building A Austin, Texas 78753-1808 Phone (512) 339-2929 Fax (512) 339-3795	San Antonio Regional Office 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.

No.	Date	Revisions	App.

ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

TCEQ GENERAL NOTES

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.04

Sheet 4 OF 47

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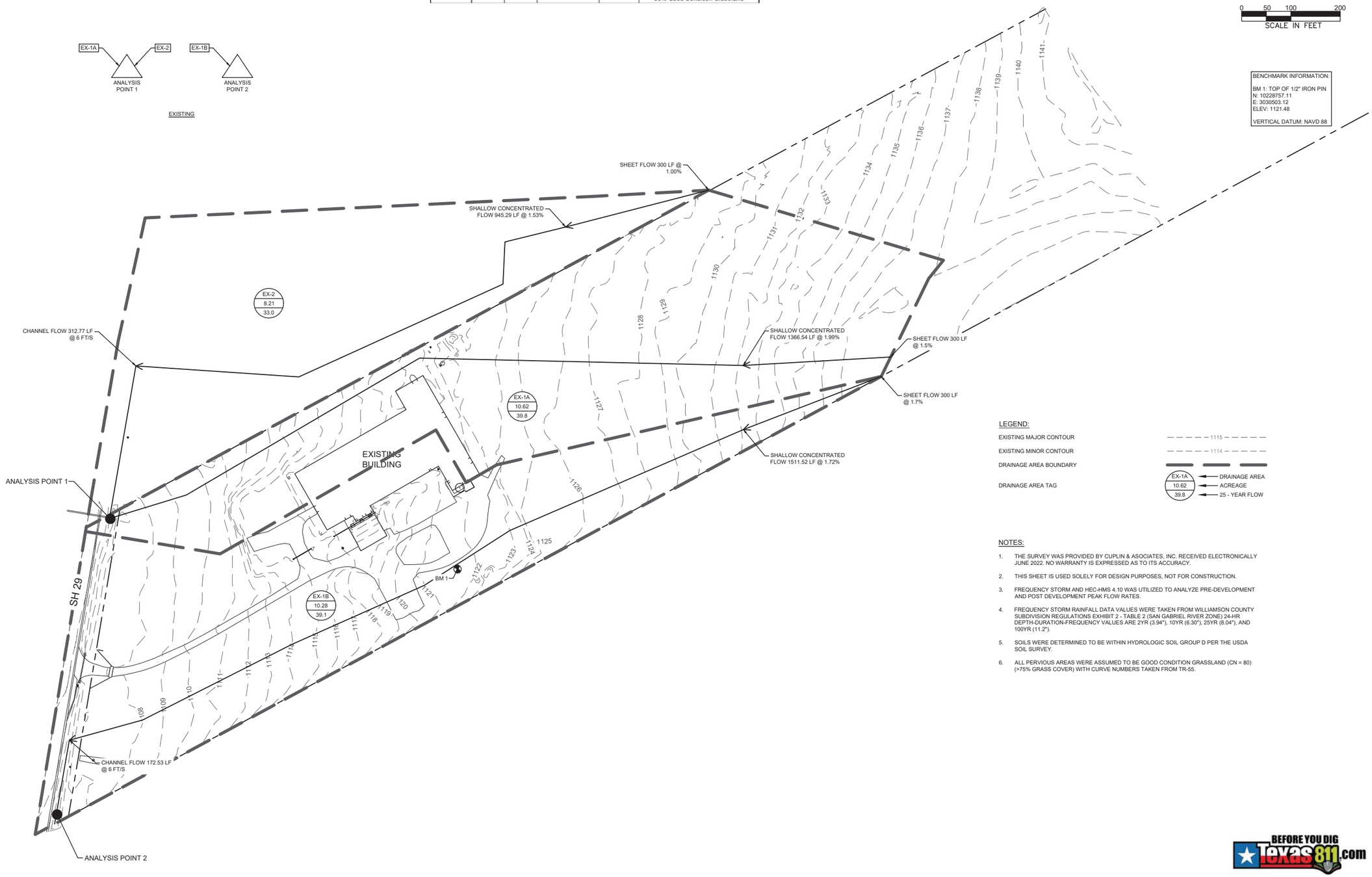
EXISTING CONDITIONS (SCS METHOD)								
Area ID	DA (ac.)	TC(min.)	TC(hr.)	CN	Q_2(cfs)	Q_{10}(cfs)	Q_{25}(cfs)	Q_{100}(cfs)
EX-1A	10.62	40.3	0.67	81	16.4	30.5	39.8	56.1
EX-1B	10.28	41.1	0.68	83	16.6	30.2	39.1	54.7
EX-2	8.21	42.8	0.71	90	15.9	26.3	33.0	44.7

ANALYSIS POINT 1 (CFS) ROUTED FLOWS				
Condition	2-year	10-year	25-year	100-year
Existing	32.3	56.7	72.8	100.8
Developed	31.2	51.9	65.4	88.9
Future	31.2	51.9	65.4	88.9

ANALYSIS POINT 2 (CFS) ROUTED FLOWS				
Condition	2-year	10-year	25-year	100-year
Existing	16.6	30.2	39.1	54.7
Developed	9.8	18.1	33.0	35.0
Future	16.4	18.9	22.5	36.8

CN CALCULATIONS					
WATERSHED CONDITIONS					
Area ID	Area	Area	Soil Group %	Weighted CN	CN Description
	Acres	sq. mi.			
EX-1A	10.62	0.0166	1.0-D	81	6.1% Impervious 0.1% Dirt Drive/Parking 93.8% Good Condition Grassland
EX-1B	10.28	0.0161	1.0-D	83	9.3% Impervious 10.2% Dirt Drive/Parking 80.4% Good Condition Grassland
EX-2	8.21	0.0128	1.0-D	90	39% Impervious 28% Dirt Drive/Parking 33% Good Condition Grassland

EXISTING



BENCHMARK INFORMATION:

BM 1: TOP OF 1/2" IRON PIN
N: 10228757.11
E: 3030503.12
ELEV: 1121.48

VERTICAL DATUM: NAVD 88

LEGEND:

EXISTING MAJOR CONTOUR — — — — 1115 — — — —

EXISTING MINOR CONTOUR — — — — 1114 — — — —

DRAINAGE AREA BOUNDARY

DRAINAGE AREA TAG — EX-1A / 10.62 / 39.8 — DRAINAGE AREA / ACREAGE / 25 - YEAR FLOW

NOTES:

1. THE SURVEY WAS PROVIDED BY CUPLIN & ASOCIATES, INC. RECEIVED ELECTRONICALLY JUNE 2022. NO WARRANTY IS EXPRESSED AS TO ITS ACCURACY.
2. THIS SHEET IS USED SOLELY FOR DESIGN PURPOSES, NOT FOR CONSTRUCTION.
3. FREQUENCY STORM AND HEC-HMS 4.10 WAS UTILIZED TO ANALYZE PRE-DEVELOPMENT AND POST DEVELOPMENT PEAK FLOW RATES.
4. FREQUENCY STORM RAINFALL DATA VALUES WERE TAKEN FROM WILLIAMSON COUNTY SUBDIVISION REGULATIONS EXHIBIT 2 - TABLE 2 (SAN GABRIEL RIVER ZONE) 24-HR DEPTH-DURATION-FREQUENCY VALUES ARE 2YR (3.94"), 10YR (6.30"), 25YR (8.04"), AND 100YR (11.2").
5. SOILS WERE DETERMINED TO BE WITHIN HYDROLOGIC SOIL GROUP D PER THE USDA SOIL SURVEY.
6. ALL PERVIOUS AREAS WERE ASSUMED TO BE GOOD CONDITION GRASSLAND (CN = 80) (>75% GRASS COVER) WITH CURVE NUMBERS TAKEN FROM TR-55.

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No.	Date	Revisions	App.

ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

EXISTING DRAINAGE AREA MAP

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.13

Sheet 13 OF 47

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6/14/2023 3:22:55 PM

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PROPOSED CONDITIONS (SCS METHOD)								
Area ID	DA (ac.)	TC(min.)	TC(hr.)	CN	Q_2(cfs)	Q_{10}(cfs)	Q_{25}(cfs)	Q_{100}(cfs)
PR-1A	7.27	29.7	0.50	87	16.4	27.4	34.7	47.2
PR-1B	12.34	32.3	0.54	84	23.5	41.8	54.0	74.8
PR-2	8.21	42.8	0.71	90	15.9	26.3	33.0	44.7
PR-1C	1.53	14.0	0.23	86	4.7	8.0	10.2	13.8

ANALYSIS POINT 1 (CFS) ROUTED FLOWS				
Condition	2-year	10-year	25-year	100-year
Existing	32.3	56.7	72.8	100.8
Developed	31.2	51.9	65.4	88.9
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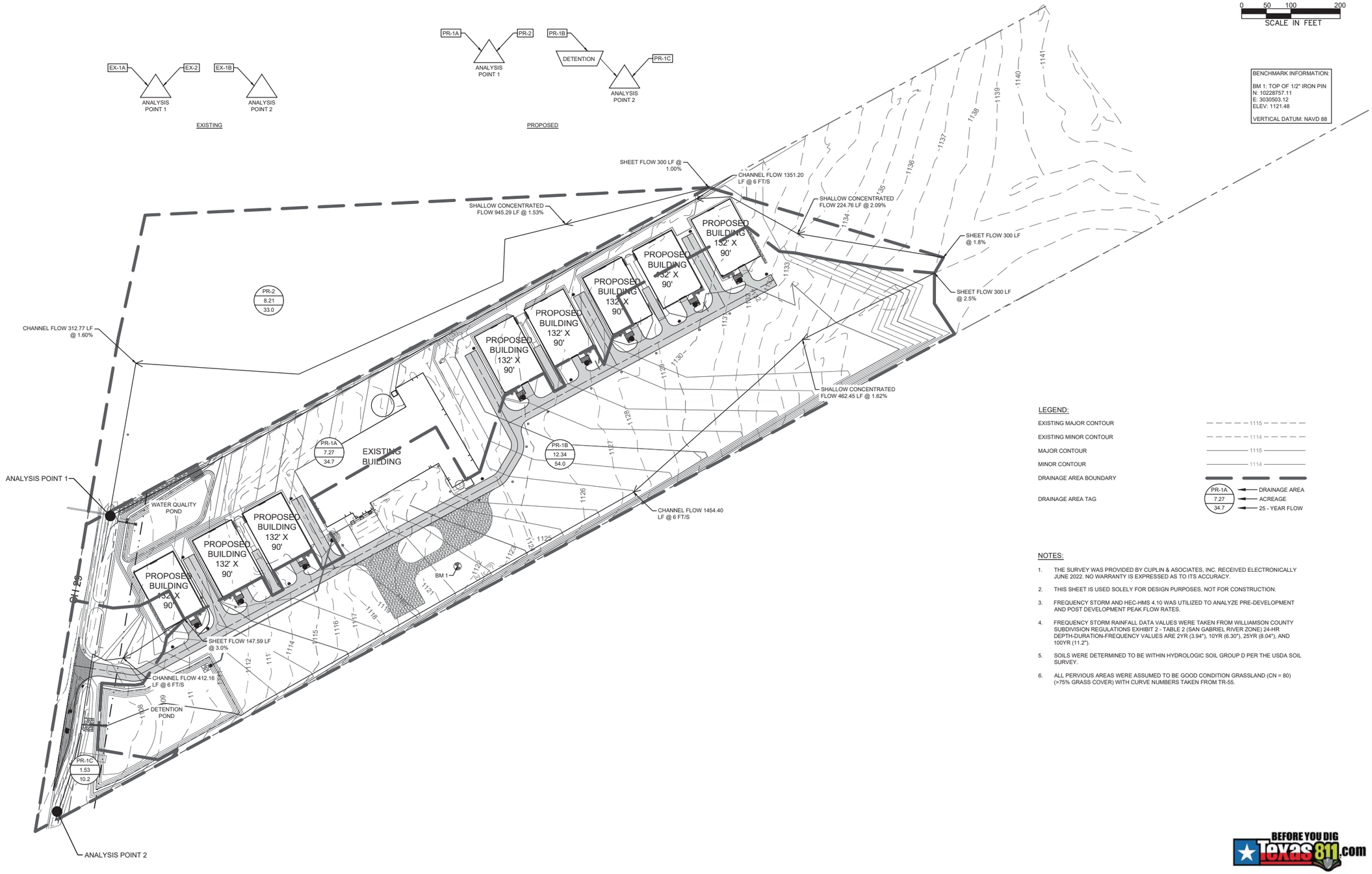
CN CALCULATIONS

WATERSHED CONDITIONS

Area ID	Area	Area	Soil Group %	Weighted CN	CN Description
	Acres	sq. mi.			
PR-1A	7.27	0.0114	1.0-D	87	41.4% Impervious 0% Dirt Drive/Parking 58.6% Good Condition Grassland
PR-1B	12.34	0.019281	1.0-D	84	18.2% Impervious 3.7% Dirt Drive/Parking 78.1% Good Condition Grassland
PR-2	8.21	0.0128	1.0-D	90	39% Impervious 28% Dirt Drive/Parking 33% Good Condition Grassland
PR-1C	1.53	0.0024	1.0-D	86	35.3% Impervious 0% Dirt Drive/Parking 64.7% Good Condition Grassland

EXISTING

PROPOSED



0 50 100 200
SCALE IN FEET

BENCHMARK INFORMATION:

BM 1: TOP OF 1/2" IRON PIN
N: 10228757.11
E: 3030503.12
ELEV: 1121.48

VERTICAL DATUM: NAVD 88

LEGEND:

EXISTING MAJOR CONTOUR	1115
EXISTING MINOR CONTOUR	1114
MAJOR CONTOUR	1115
MINOR CONTOUR	1114
DRAINAGE AREA BOUNDARY	
DRAINAGE AREA TAG	PR-1A / 7.27 / 34.7 — DRAINAGE AREA / ACREAGE / 25 - YEAR FLOW

NOTES:

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BEFORE YOU DIG Texas811.com

No.	Date	Revisions	App.

ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

PROPOSED DRAINAGE AREA MAP

6/14/2023

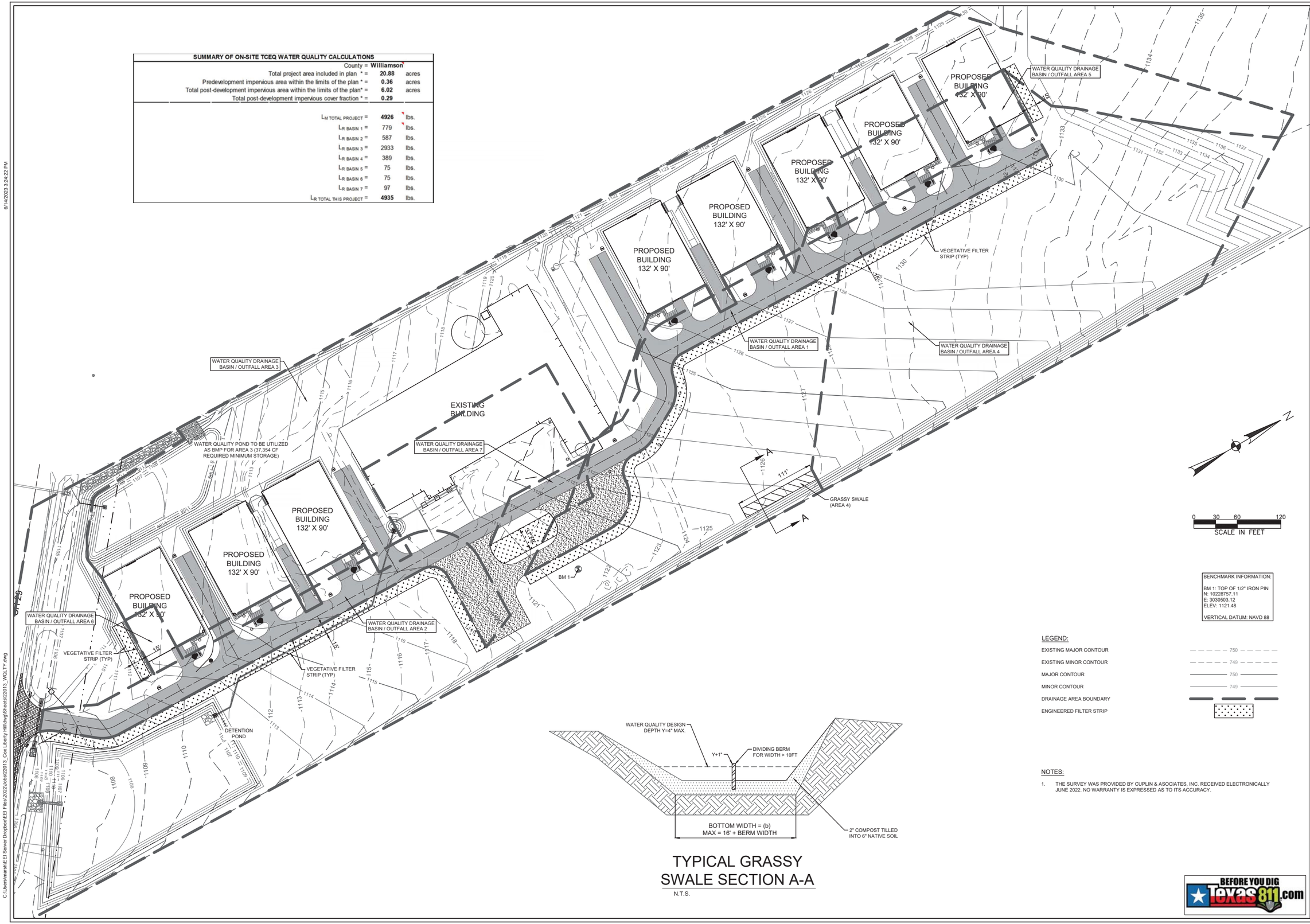
STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.14

Sheet 14 OF 47

SUMMARY OF ON-SITE TCEQ WATER QUALITY CALCULATIONS		
County =	Williamson	
Total project area included in plan * =	20.88	acres
Predevelopment impervious area within the limits of the plan * =	0.36	acres
Total post-development impervious area within the limits of the plan* =	6.02	acres
Total post-development impervious cover fraction * =	0.29	
$L_{M\ TOTAL\ PROJECT}$ =	4926	lbs.
$L_{R\ BASIN\ 1}$ =	779	lbs.
$L_{R\ BASIN\ 2}$ =	587	lbs.
$L_{R\ BASIN\ 3}$ =	2933	lbs.
$L_{R\ BASIN\ 4}$ =	389	lbs.
$L_{R\ BASIN\ 5}$ =	75	lbs.
$L_{R\ BASIN\ 6}$ =	75	lbs.
$L_{R\ BASIN\ 7}$ =	97	lbs.
$L_{R\ TOTAL\ THIS\ PROJECT}$ =	4935	lbs.



TYPICAL GRASSY SWALE SECTION A-A

N.T.S.

BENCHMARK INFORMATION:

BM 1: TOP OF 1/2" IRON PIN
N: 10228757.11
E: 3030503.12
ELEV: 1121.48

VERTICAL DATUM: NAVD 88

LEGEND:

EXISTING MAJOR CONTOUR	750
EXISTING MINOR CONTOUR	749
MAJOR CONTOUR	750
MINOR CONTOUR	749
DRAINAGE AREA BOUNDARY	
ENGINEERED FILTER STRIP	

NOTES:

1. THE SURVEY WAS PROVIDED BY CUPLIN & ASOCIATES, INC. RECEIVED ELECTRONICALLY JUNE 2022. NO WARRANTY IS EXPRESSED AS TO ITS ACCURACY.

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No.	Date	Revisions	App.

ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

WATER QUALITY PLAN

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.20

Sheet 20 OF 47

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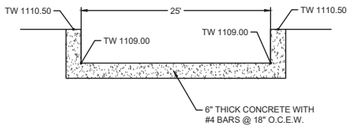


LEGEND:

EXISTING MAJOR CONTOUR	750
EXISTING MINOR CONTOUR	749
MAJOR CONTOUR	750
MINOR CONTOUR	749
PROPERTY LINE	
EXISTING OVERHEAD ELECTRIC	OHE OHE

NOTES:

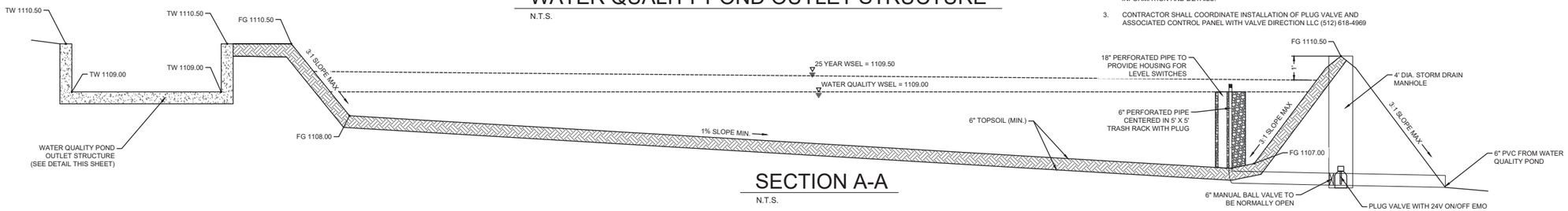
1. THE SURVEY WAS PROVIDED BY CUPLIN & ASOCIATES, INC. RECEIVED ELECTRONICALLY JUNE 2022. NO WARRANTY IS EXPRESSED AS TO ITS ACCURACY.
2. SEE TCEQ WATER QUALITY CALCULATIONS BASIN 1 SHEET FOR ADDITIONAL INFORMATION AND DETAILS.
3. CONTRACTOR SHALL COORDINATE INSTALLATION OF PLUG VALVE AND ASSOCIATED CONTROL PANEL WITH VALVE DIRECTION LLC (512) 618-4969

N

0 5 10 20
SCALE IN FEET

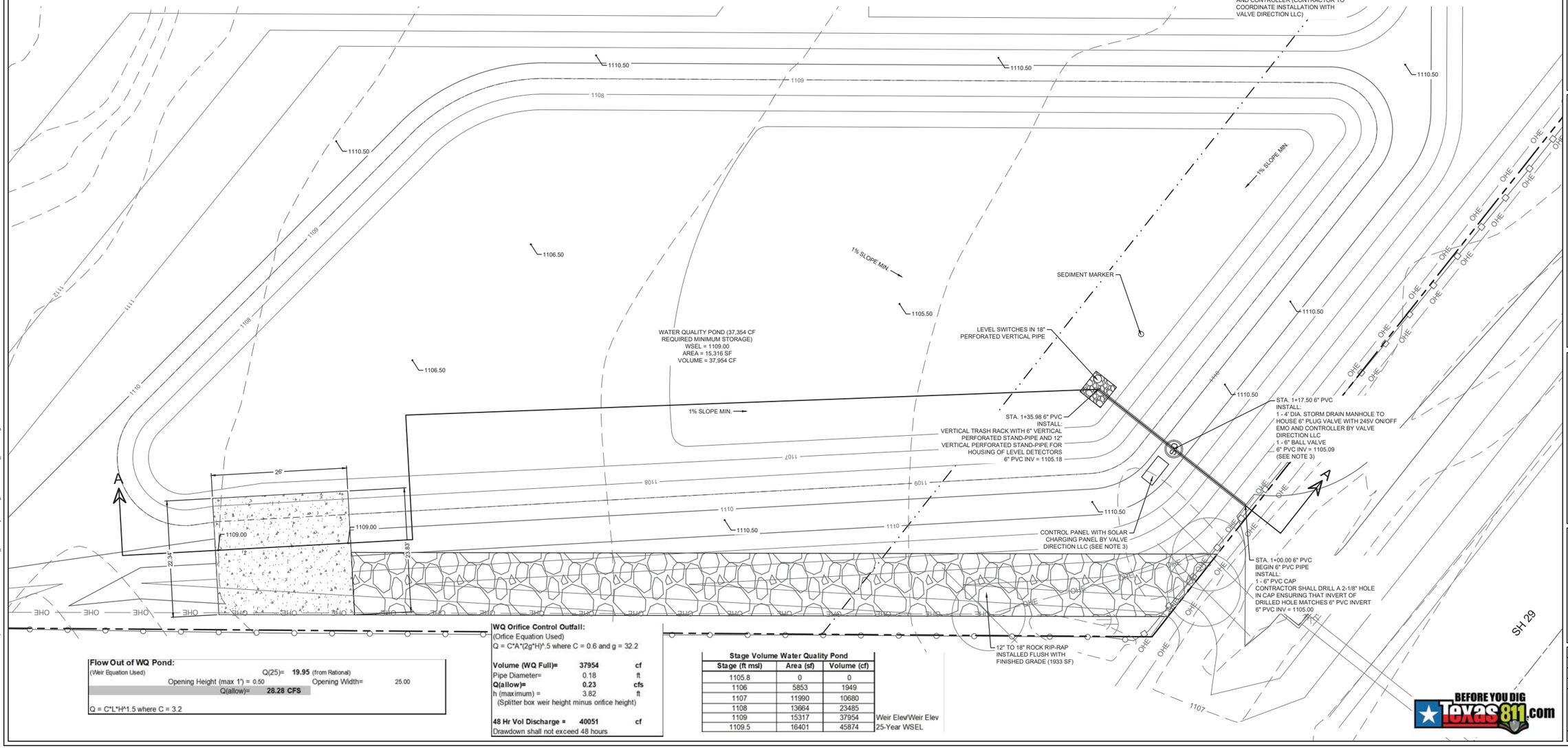
WATER QUALITY POND OUTLET STRUCTURE

N.T.S.



SECTION A-A

N.T.S.



Flow Out of WQ Pond:

(Weir Equation Used) Q(25)= **19.95** (from Rational)

Opening Height (max 1') = 0.50 Opening Width= 25.00

Q(allow)= **28.28 CFS**

Q = C*L*H^1.5 where C = 3.2

WQ Orifice Control Outfall:

(Orfice Equation Used)

Q = C*A*(2g*H)^.5 where C = 0.6 and g = 32.2

Volume (WQ Full)=	**37954**	**cf**
Pipe Diameter=	0.18	ft
Q(allow)=	**0.23**	**cfs**
h (maximum) =	3.82	ft

(Splitter box weir height minus orifice height)

48 Hr Vol Discharge = 40051 cf

Drawdown shall not exceed 48 hours

Stage Volume Water Quality Pond

Stage (ft msl)	Area (sf)	Volume (cf)	
1105.8	0	0	
1106	5853	1949	
1107	11990	10680	
1108	13664	23485	
1109	15317	37954	Weir Elev/Weir Elev
1109.5	16401	45874	25-Year WSEL

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ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
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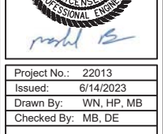
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

WATER QUALITY POND

6/14/2023



Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.21

Sheet 21 OF 47

6/14/2023 3:24:36 PM

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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AMS
Date Prepared: 6/14/2023

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

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

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

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

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

County =	**Williamson**	
Total project area included in plan * =	**20.88**	acres
Predevelopment impervious area within the limits of the plan * =	**0.36**	acres
Total post-development impervious area within the limits of the plan* =	**6.02**	acres
Total post-development impervious cover fraction * =	**0.29**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**4926**	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **4**

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

Drainage Basin/Outfall Area No. = **1**

Total drainage basin/outfall area =	**1.98**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.81**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.41**	
$L_{M\ THIS\ BASIN}$ =	**705**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Vegetated Filter Strips**
Removal efficiency = **85** percent

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

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

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

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

A_C =	**1.98**	acres
A_I =	**0.81**	acres
A_P =	**1.17**	acres
L_R =	**779**	lbs

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

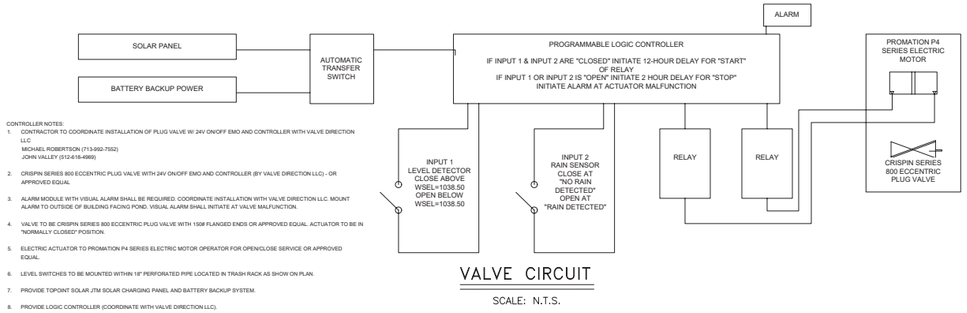
Desired $L_{M\ THIS\ BASIN}$ =	**779**	lbs.
F =	**1.00**	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.31**	
On-site Water Quality Volume =	**8948**	cubic feet

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

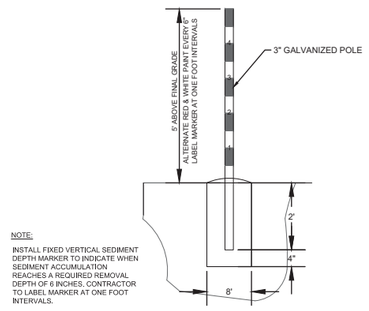
Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**1790**	



CONTROLLER NOTES:
1. CONTRACTOR TO COORDINATE INSTALLATION OF PLUG VALVE W/ 24V ON/OFF EMO AND CONTROLLER WITH VALVE DIRECTION LLC
MICHAEL ROBERTSON (713-992-7502)
JOHN VALLEY (512-515-4960)
2. CRISPIN SERIES 800 ECCENTRIC PLUG VALVE WITH 24V ON/OFF EMO AND CONTROLLER (BY VALVE DIRECTION LLC) - OR APPROVED EQUAL
3. ALARM MODULE WITH VISUAL ALARM SHALL BE REQUIRED. COORDINATE INSTALLATION WITH VALVE DIRECTION LLC. MOUNT ALARM TO OUTSIDE OF BUILDING FACING POND. VISUAL ALARM SHALL INITIATE AT VALVE MALFUNCTION.
4. VALVE TO BE CRISPIN SERIES 800 ECCENTRIC PLUG VALVE WITH 150# FLANGED ENDS OR APPROVED EQUAL. ACTUATOR TO BE IN "NORMALLY CLOSED" POSITION.
5. ELECTRIC ACTUATOR TO PROMATION P4 SERIES ELECTRIC MOTOR OPERATOR FOR OPEN/CLOSE SERVICE OR APPROVED EQUAL.
6. LEVEL SWITCHES TO BE MOUNTED WITHIN 18" PERFORATED PIPE LOCATED IN TRASH RACK AS SHOW ON PLAN.
7. PROVIDE TOPOINT SOLAR JTM SOLAR CHARGING PANEL AND BATTERY BACKUP SYSTEM.
8. PROVIDE LOGIC CONTROLLER (COORDINATE WITH VALVE DIRECTION LLC).
9. LOGIC CONTROLLER TO BE IN A LOCKABLE, WEATHER PROOF BOX PROVIDED BY VALVE DIRECTION LLC.

VALVE CIRCUIT

SCALE: N.T.S.



NOTE:
INSTALL FIXED VERTICAL SEDIMENT DEPTH MARKER TO INDICATE WHEN SEDIMENT ACCUMULATION REACHES A REQUIRED REMOVAL DEPTH OF 6 INCHES. CONTRACTOR TO LABEL MARKER AT ONE FOOT INTERVALS.

SEDIMENT DEPTH MARKER DETAIL

SCALE: N.T.S.

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LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

TCEQ WATER QUALITY CALCULATIONS BASIN 1

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.22

Sheet 22 OF 47

6/14/2023 3:24:42 PM

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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AMS
Date Prepared: 6/14/2023

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

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

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

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

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

County =	**Williamson**	
Total project area included in plan * =	**20.88**	acres
Predevelopment impervious area within the limits of the plan * =	**0.36**	acres
Total post-development impervious area within the limits of the plan* =	**6.02**	acres
Total post-development impervious cover fraction * =	**0.29**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**4926**	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **4**

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

Drainage Basin/Outfall Area No. = **2**

Total drainage basin/outfall area =	**0.84**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.62**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.74**	
$L_{M\ THIS\ BASIN}$ =	**540**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Vegetated Filter Strips**
Removal efficiency = **85** percent

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

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

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

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

A_C =	**0.84**	acres
A_I =	**0.62**	acres
A_P =	**0.22**	acres
L_R =	**587**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	**587**	lbs.
F =	**1.00**	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.55**	
On-site Water Quality Volume =	**6662**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**1332**	

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LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

TCEQ WATER QUALITY CALCULATIONS BASIN 2

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.23

Sheet 23 OF 47

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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AMS
Date Prepared: 6/14/2023

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
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1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

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

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

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

County =	**Williamson**	
Total project area included in plan * =	**20.88**	acres
Predevelopment impervious area within the limits of the plan * =	**0.36**	acres
Total post-development impervious area within the limits of the plan* =	**6.02**	acres
Total post-development impervious cover fraction * =	**0.29**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**4926**	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **4**

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

Drainage Basin/Outfall Area No. = **3**

Total drainage basin/outfall area =	**6.75**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**2.85**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.42**	
$L_{M\ THIS\ BASIN}$ =	**2481**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Batch Extended Detention**
Removal efficiency = **91** percent

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

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

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

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

A_C =	**6.75**	acres
A_I =	**2.85**	acres
A_P =	**3.90**	acres
L_R =	**2933**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	**2933**	lbs.
F =	**1.00**	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.32**	
On-site Water Quality Volume =	**31128**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**6226**	
Total Capture Volume (required water quality volume(s) x 1.20) =	**37354**	cubic feet

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

8. Batch Extended Detention Basin System Designed as Required in EA Addendum, Section 3.2.17

Required Water Quality Volume for batch extended detention basin =	**37354**	cubic feet

ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

No.	Date	Revisions	App.

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

TCEQ WATER QUALITY CALCULATIONS BASIN 3

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.24

Sheet 24 OF 47

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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AMS
Date Prepared: 6/14/2023

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

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

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

County =	**Williamson**	
Total project area included in plan * =	**20.88**	acres
Predevelopment impervious area within the limits of the plan * =	**0.36**	acres
Total post-development impervious area within the limits of the plan* =	**6.02**	acres
Total post-development impervious cover fraction * =	**0.29**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**4926**	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **4**

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

Drainage Basin/Outfall Area No. = **4**

Total drainage basin/outfall area =	**4.39**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.44**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.10**	
$L_{M\ THIS\ BASIN}$ =	**383**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Grassy Swale**
Removal efficiency = **70** percent

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

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

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

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

A_C =	**4.39**	acres
A_I =	**0.44**	acres
A_P =	**3.95**	acres
L_R =	**389**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ = **389** lbs.

F = **1.00**

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth = **4.00** inches
Post Development Runoff Coefficient = **0.13**
On-site Water Quality Volume = **7982** cubic feet

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

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

Storage for Sediment = **1596**
Total Capture Volume (required water quality volume(s) x 1.20) = **9578** cubic feet
The following sections are used to calculate the required water quality volume(s) for the selected BMP.
The values for BMP Types not selected in cell C45 will show NA.

15. Grassy Swales Designed as Required in RG-348 Pages 3-51 to 3-54

Design parameters for the swale:

Drainage Area to be Treated by the Swale = A =	4.39 acres
Impervious Cover in Drainage Area =	0.44 acres
Rainfall intensity = i =	1.1 in/hr
Swale Slope =	0.012 ft/ft
Side Slope (z) =	3
Design Water Depth = y =	0.33 ft
Weighted Runoff Coefficient = C =	0.37
A_{CS} = cross-sectional area of flow in Swale =	4.95 sf
P_W = Wetted Perimeter =	16.09 feet
R_H = hydraulic radius of flow cross-section = A_{CS}/P_W =	0.31 feet
n = Manning's roughness coefficient =	0.2

15A. Using the Method Described in the RG-348

Manning's Equation: $Q = \frac{1.49}{n} A_{CS} R_H^{2/3} S^{0.5}$

$b = \frac{0.134 \times Q}{y^{1.67} S^{0.5}} - zy$ = 14.00 feet

Q = CiA = 1.79 cfs

To calculate the flow velocity in the swale:

V (Velocity of Flow in the swale) = Q/A_{CS} = 0.36 ft/sec

To calculate the resulting swale length:

L = Minimum Swale Length = V (ft/sec) * 300 (sec) = 108.68 feet

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AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

TCEQ WATER QUALITY CALCULATIONS BASIN 4

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AMS
Date Prepared: 6/14/2023

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

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

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

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

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

County =	**Williamson**	
Total project area included in plan * =	**20.88**	acres
Predevelopment impervious area within the limits of the plan * =	**0.36**	acres
Total post-development impervious area within the limits of the plan* =	**6.02**	acres
Total post-development impervious cover fraction * =	**0.29**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**4926**	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **5**

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

Drainage Basin/Outfall Area No. = **4**

Total drainage basin/outfall area =	**0.09**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.07**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.82**	
$L_{M\ THIS\ BASIN}$ =	**62**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Aqualogic Cartridge Filter**
Removal efficiency = **95** percent

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

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

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

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

A_C =	**0.09**	acres
A_I =	**0.07**	acres
A_P =	**0.02**	acres
L_R =	**75**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	**75**	lbs.
F =	**1.00**	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.66**	
On-site Water Quality Volume =	**828**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**166**	

No.	Date	Revisions	App.

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LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

TCEQ WATER QUALITY CALCULATIONS BASIN 5

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

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Sheet 26 OF 47

Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AMS
Date Prepared: 6/14/2023

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

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

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

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

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

County =	**Williamson**	
Total project area included in plan * =	**20.88**	acres
Predevelopment impervious area within the limits of the plan * =	**0.36**	acres
Total post-development impervious area within the limits of the plan* =	**6.02**	acres
Total post-development impervious cover fraction * =	**0.29**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**4926**	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **6**

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

Drainage Basin/Outfall Area No. = **4**

Total drainage basin/outfall area =	**0.09**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.07**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.82**	
$L_{M\ THIS\ BASIN}$ =	**62**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Aqualogic Cartridge Filter**
Removal efficiency = **95** percent

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

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

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

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

A_C =	**0.09**	acres
A_I =	**0.07**	acres
A_P =	**0.02**	acres
L_R =	**75**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	**75**	lbs.
F =	**1.00**	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.65**	
On-site Water Quality Volume =	**825**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**165**	

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19600 W SH 29
LIBERTY HILL, TX 78642

TCEQ WATER QUALITY CALCULATIONS BASIN 6

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

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Sheet 27 OF 47

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Texas Commission on Environmental Quality

TSS Removal Calculations 04-20-2009

Project Name: AMS
Date Prepared: 6/14/2023

Additional information is provided for cells with a red triangle in the upper right corner. Place the cursor over the cell.
Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG-348.
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1. The Required Load Reduction for the total project: Calculations from RG-348 Pages 3-27 to 3-30

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

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

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

County =	**Williamson**	
Total project area included in plan * =	**20.88**	acres
Predevelopment impervious area within the limits of the plan * =	**0.36**	acres
Total post-development impervious area within the limits of the plan* =	**6.02**	acres
Total post-development impervious cover fraction * =	**0.29**	
P =	**32**	inches
$L_{M\ TOTAL\ PROJECT}$ =	**4926**	lbs.

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

Number of drainage basins / outfalls areas leaving the plan area = **7**

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

Drainage Basin/Outfall Area No. = **4**

Total drainage basin/outfall area =	**0.13**	acres
Predevelopment impervious area within drainage basin/outfall area =	**0.00**	acres
Post-development impervious area within drainage basin/outfall area =	**0.09**	acres
Post-development impervious fraction within drainage basin/outfall area =	**0.70**	
$L_{M\ THIS\ BASIN}$ =	**80**	lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = **Aqualogic Cartridge Filter**
Removal efficiency = **95** percent

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

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

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

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

A_C =	**0.13**	acres
A_I =	**0.09**	acres
A_P =	**0.04**	acres
L_R =	**97**	lbs

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

Desired $L_{M\ THIS\ BASIN}$ =	**97**	lbs.
F =	**1.00**	

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area. Calculations from RG-348 Pages 3-34 to 3-36

Rainfall Depth =	**4.00**	inches
Post Development Runoff Coefficient =	**0.51**	
On-site Water Quality Volume =	**962**	cubic feet

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

Off-site area draining to BMP =	**0.00**	acres
Off-site Impervious cover draining to BMP =	**0.00**	acres
Impervious fraction of off-site area =	**0**	
Off-site Runoff Coefficient =	**0.00**	
Off-site Water Quality Volume =	**0**	cubic feet
Storage for Sediment =	**192**	

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AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

TCEQ WATER QUALITY CALCULATIONS BASIN 7

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.28

Sheet 28 OF 47

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LEGEND:

EXISTING MAJOR CONTOUR	1115
EXISTING MINOR CONTOUR	1114
MAJOR CONTOUR	1115
MINOR CONTOUR	1114
SILT FENCE	SF
ROCK BERM	RB
LIMITS OF CONSTRUCTION	LOC
STABILIZED CONSTRUCTION ENTRANCE / EXIT	
SPOILS / STAGING AREA	
CONCRETE WASHOUT PIT	

NOTES:

1. THE SURVEY WAS PROVIDED BY CUPLIN & ASOCIATES, INC. RECEIVED ELECTRONICALLY JUNE 2022. NO WARRANTY IS EXPRESSED AS TO ITS ACCURACY
2. CONTRACTOR IS RESPONSIBLE FOR DEWATERING OF WORK AREAS. WHEN REQUIRED CONTRACTOR SHALL DEWATER EXCAVATED AREAS USING A COUNTY METHOD (I.E. SILT FENCE, HAY BALE DIKE, ROCK BERM, ETC.)
3. CONTRACTOR SHALL PROVIDE TEMPORARY STAGING AND SPOILS AREA AS NEEDED AND PROVIDE ADDITIONAL SILT FENCE ALONG THE DOWNSTREAM SIDE OF THESE AREAS THROUGHOUT CONSTRUCTION.
4. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP, OR REVEGETATION MATTING.
5. COUNTY INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/ SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE COUNTY RULES AND REGULATIONS.
6. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER COUNTY REQUIREMENTS, OR AS DIRECTED BY THE COUNTY INSPECTOR.
7. REFER TO GENERAL NOTES FOR THE SEQUENCE OF CONSTRUCTION.
8. STAGING / SPOILS AREA MAYBE RELOCATED AS NEEDED TO COMPLETE CONSTRUCTION ACTIVITIES.
9. CONTRACTOR SHALL INSTALL J-HOOKS WHERE SILT FENCE IS NOT INSTALLED PARALLEL TO CONTOURS.

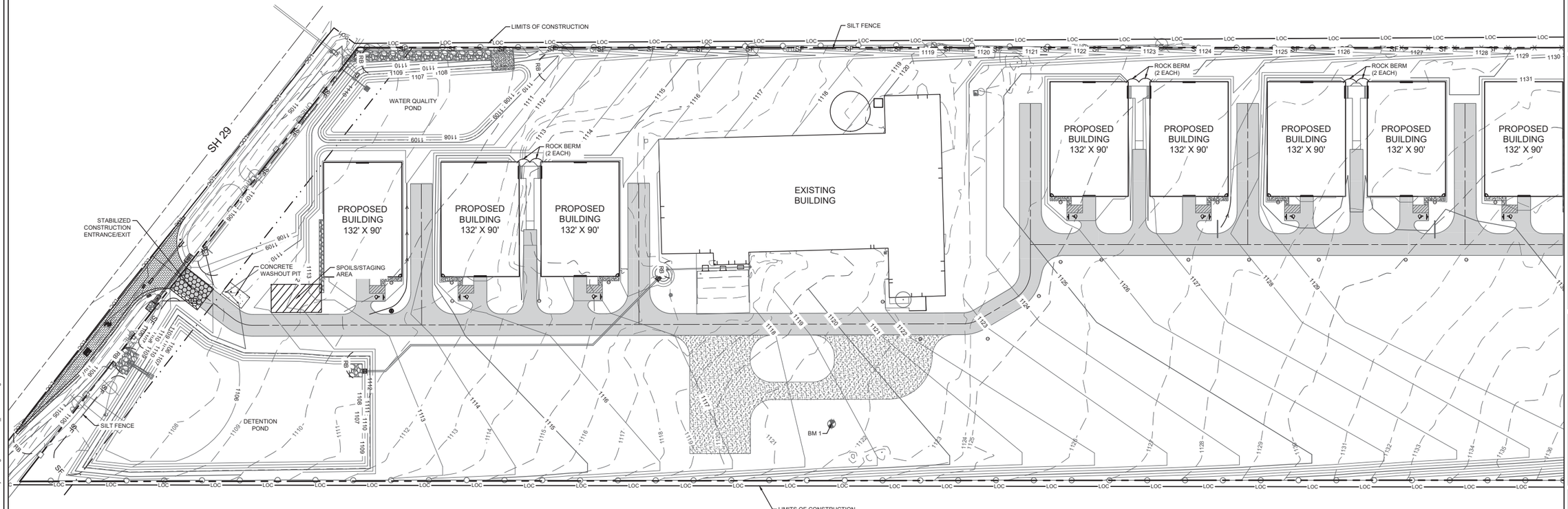
N

0 30 60 120
SCALE IN FEET

BENCHMARK INFORMATION:

BM 1: TOP OF 1/2" IRON PIN
N: 10228757.11
E: 3030503.12
ELEV: 1121.48

VERTICAL DATUM: NAVD 88



EROSION CONTROL QUANTITIES		
ROCK BERM	12	EA
SILT FENCE	1,945	LF
LIMITS OF CONSTRUCTION	22.12	AC

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LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

EROSION AND SEDIMENTATION CONTROL PLAN

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

C.36

Sheet 36 OF 47

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EROSION CONTROL NOTES:

CONSTRUCTION SEQUENCING

1. INSTALL CONSTRUCTION FENCING, STABILIZED CONSTRUCTION ENTRANCE AND EROSION CONTROLS PER APPROVED EROSION CONTROL PLAN.
2. THE CONTRACTOR SHALL ARRANGE AND COORDINATE ACCEPTABLE MEETING TIMES FOR AN ON-SITE PRE-CONSTRUCTION MEETING WITH THE OWNER, PROJECT ENGINEER, RELEVANT CONTRACTORS, RELEVANT UTILITY REPRESENTATIVES, AND THE COUNTY ENGINEER/INSPECTOR.
3. BEGIN SITE CLEARING/DEMOLITION.
4. ROUGH GRADE SITE AND CONSTRUCT DRAINAGE SWALES / IMPROVEMENTS IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
5. CONSTRUCT ALL-WEATHER DRIVING SURFACE.
6. COMPLETE GRADING, DRAINAGE AND PAVING.
7. CLEAN UP SITE.
8. FINAL CLEARING OF EROSION CONTROLS AND STORM DRAIN STRUCTURES.
9. COUNTY VISITS SITE AND ISSUES CERTIFICATE OF ACCEPTANCE ONLY IF ALL CONSTRUCTION IS IN SUBSTANTIAL CONFORMANCE TO THE PLANS.

TEMPORARY E&S NOTES

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION). SEE CONSTRUCTION DETAILS SHEET FOR EROSION/SEDIMENTATION CONTROL DETAILS.
2. THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENTATION CONTROL/TREE PROTECTION PLAN. NO EROSION CONTROLS SHALL BE PLACED BEYOND THE PROPERTY LINES OF THE SITE UNLESS WRITTEN PERMISSION HAS BEEN OBTAINED FROM ADJACENT PROPERTY OWNERS.
3. THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
4. ANY DIRT, MUD, ROCKS, DEBRIS, ETC., THAT IS SPILLED, TRACKED, OR OTHERWISE DEPOSITED ON ANY EXISTING PAVED STREET SHALL BE CLEANED UP IMMEDIATELY.
5. THE CODE ENFORCEMENT OFFICER, COUNTY ENGINEER OR DESIGNATED COUNTY INSPECTOR HAS THE AUTHORITY TO REQUIRE ADDITIONAL EROSION/SEDIMENTATION CONTROLS OR TREE PROTECTION BEFORE OR DURING CONSTRUCTION.

PERMANENT EROSION AND SEDIMENTATION NOTES

1. EROSION CONTROL MATTING IS REQUIRED ON ALL DISTURBED AREA THAT HAVE A FINISHED GRADE IN EXCESS OF 3:1.
2. ALL DISTURBED AREAS ON THE ENTIRE PROJECT (SUCH AS AREAS THAT HAVE BEEN DRIVEN ON, GRADED, USED FOR STORAGE OF ANYTHING AND ARE NOT IN THE EXACT CONDITION THAT EXISTED PRIOR TO CONSTRUCTION) SHALL HAVE A MINIMUM OF SIX (6) INCHES OF TOPSOIL PLACED PRIOR TO REVEGETATION.
3. TOPSOIL SHALL BE CLEAN, FRIABLE, FERTILE SOIL WITH A RELATIVELY HIGH EROSION RESISTANCE, FREE OF OBJECTIONABLE MATERIALS INCLUDING ROOTS AND ROCKS LARGER THAN ONE (1) INCH. TOPSOIL SHALL NOT CONTAIN CALICHE OR LIMESTONE. TOPSOIL SHALL BE READILY ABLE TO SUPPORT THE GROWTH OF PLANTING, SEEDING AND SODDING, AS ACCEPTED BY THE CITY.
4. THE SEEDING FOR PERMANENT EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION.
5. FERTILIZE AS RECOMMENDED BY LANDSCAPE ARCHITECT.
6. ALL CONSTRUCTED AND ALTERED DRAINAGE CHANNELS SHALL BE STABILIZED AND VEGETATED IMMEDIATELY AFTER FINAL GRADING.

TOPSOIL

1. THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING,GRUBBING OR EXCAVATION).
2. TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.

   ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO HAVE A MINIMUM OF SIX (6) INCHES OF TOPSOIL. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES. THE TOPSOIL SHALL MEET THE SPECIFICATIONS CONTAINED IN THE LANDSCAPE PLANS/SPECIFICATIONS. THE SOIL SHALL BE LOCALLY AVAILABLE NATIVE SOIL THAT MEETS THE FOLLOWING SPECIFICATIONS.

   - SHALL BE FREE OF TRASH, WEEDS, DELETERIOUS MATERIALS, ROCKS, AND DEBRIS.
   - 100% SHALL PASS THROUGH A 1-5 INCH (38-MM) SCREEN.
   - SOIL TO BE LOAMY MATERIAL

   TOPSOIL SALVAGED FROM THE EXISTING SITE MAY OFTEN BE USED, BUT IT SHOULD MEET THE SAME STANDARDS AS SET FORTH IN THESE STANDARDS OR AS SPECIFIED BY OTHERS.

TEMPORARY VEGETATIVE STABILIZATION:

1. TEMPORARY VEGETATION TO BE ESTABLISHED BY SOWN SEED OR HYDROMULCH IF WORK IS STOPPED FOR 14 DAYS. CURLEX BLANKET SHALL BE UTILIZED WITH SOWN SEED ON SLOPES 3:1 OR GREATER. LANDSCAPE SPECIFICATIONS AND PLANS SHALL TAKE PRECEDENT OVER THIS PLAN IN THE EVENT OF A DISCREPANCY.
2. FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH COOL SEASON COVER CROPS (WHEAT AT 5.6 POUNDS PER ACRE, OATS AT 4.0 POUNDS PER ACRE, CEREAL RYE GRAIN AT 45 POUNDS PER ACRE). COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.
3. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE OR A NATIVE PLANT SEED MIX CONFORMING TO ITEM 604S OR 609S OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
   A. FERTILIZER SHALL BE APPLIED ONLY IF WARRANTED BY A SOIL TEST AND SHALL CONFORM TO ITEM NO. 606S OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS. FERTILIZER SHOULD NOT OCCUR WHEN RAINFALL IS EXPECTED OR DURING SLOW PLANT GROWTH OR DORMANCY. CHEMICAL FERTILIZER MAY NOT BE APPLIED IN THE CRITICAL WATER QUALITY ZONE.
   B. HYDROMULCH SHALL COMPLY WITH TABLE 1, BELOW.
   C. TEMPORARY EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1-1/2 INCHES HIGH WITH A MINIMUM OF 95% TOTAL COVERAGE SO THAT ALL AREAS OF A SITE THAT RELY ON VEGETATION FOR TEMPORARY STABILIZATION ARE UNIFORMLY VEGETATED, AND PROVIDED THERE ARE NO BARE SPOTS LARGER THAN 10 SQUARE FEET.
   D. WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, AND STANDARD SPECIFICATION 604S OR 609S.

TABLE 1: HYDROMULCHING FOR TEMPORARY VEGETATIVE STABILIZATION

MATERIAL	DESCRIPTION	LONGEVITY	TYPICAL APPLICATIONS	APPLICATION RATES
100% OR ANY BLEND OF WOOD, CELLULOSE, STRAW, AND/OR COTTON PLANT MATERIAL (EXCEPT NO MULCH SHALL EXCEED 30% PAPER)	70% OR GREATER WOOD/STRAW 30% OR LESS PAPER OR NATURAL FIBERS	0-3 MONTHS	MODERATE SLOPES; FROM FLAT TO 3:1	1500 TO 2000 LBS PER ACRE

PERMANENT VEGETATIVE STABILIZATION: (OR AS APPROVED BY THE OWNER)

1. PERMANENT VEGETATION TO BE ESTABLISHED BY SOWN SEED OR SOD. CURLEX BLANKET SHALL BE UTILIZED WITH SOWN SEED ON SLOPES 3:1 OR GREATER. LANDSCAPE SPECIFICATIONS AND PLANS SHALL TAKE PRECEDENT OVER THIS PLAN IN THE EVENT OF A DISCREPANCY.
2. FROM SEPTEMBER 15 TO MARCH 1, SEEDING IS CONSIDERED TO BE TEMPORARY STABILIZATION ONLY. IF COOL SEASON COVER CROPS EXIST WHERE PERMANENT VEGETATIVE STABILIZATION IS DESIRED, THE GRASSES SHALL BE MOWED TO A HEIGHT OF LESS THAN ONE- HALF (1/2) INCH AND THE AREA SHALL BE RE- SEEDED IN ACCORDANCE WITH TABLE 2, BELOW. ALTERNATIVELY, THE COOL SEASON COVER CROP CAN BE MIXED WITH BERMUDAGRASS OR NATIVE SEED AND INSTALLED TOGETHER, UNDERSTANDING THAT GERMINATION OF WARM-SEASON SEED TYPICALLY REQUIRES SOIL TEMPERATURES OF 60 TO 70 DEGREES.
3. FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 45 POUNDS PER ACRE WITH A PURITY OF 95% AND A MINIMUM PURE LIVE SEED (PLS) OF 0.83. BERMUDA GRASS IS A WARM SEASON GRASS AND IS CONSIDERED PERMANENT EROSION CONTROL. PERMANENT VEGETATIVE STABILIZATION CAN ALSO BE ACCOMPLISHED WITH A NATIVE PLANT SEED MIX CONFORMING TO ITEM 604S OR 609S OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.
   A. FERTILIZER USE SHALL FOLLOW THE RECOMMENDATION OF A SOIL TEST. SEE ITEM 606S OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS. APPLICATIONS OF FERTILIZER (AND PESTICIDE) ON CITY-OWNED AND MANAGED PROPERTY REQUIRES THE YEARLY SUBMITTAL OF A PESTICIDE AND FERTILIZER APPLICATION RECORD, ALONG WITH A CURRENT COPY OF THE APPLICATOR'S LICENSE. FOR CURRENT COPY OF THE RECORD TEMPLATE CONTACT THE CITY OF AUSTIN'S IPM COORDINATOR.
   B. HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
   C. WATER THE SEEDED AREAS IMMEDIATELY AFTER INSTALLATION TO ACHIEVE GERMINATION AND A HEALTHY STAND OF PLANTS THAT CAN ULTIMATELY SURVIVE WITHOUT SUPPLEMENTAL WATER. APPLY THE WATER UNIFORMLY TO THE PLANTED AREAS WITHOUT CAUSING DISPLACEMENT OR EROSION OF THE MATERIALS OR SOIL. MAINTAIN THE SEEDBED IN A MOIST CONDITION FAVORABLE FOR PLANT GROWTH. ALL WATERING SHALL COMPLY WITH CITY CODE, AT RATES AND FREQUENCIES DETERMINE BY A LICENSED IRRIGATOR OR OTHER QUALIFIED PROFESSIONAL, AND AS ALLOWED BY THE WATER SERVICE PROVIDER AND CURRENT WATER RESTRICTIONS AND WATER CONSERVATION INITIATIVES.
   D. PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN TO AT LEAST 1 1/2 INCHES HIGH WITH A MINIMUM OF 95% FOR THE NON-NATIVE MIX, AND 95% COVERAGE FOR THE NATIVE MIX SO THAT ALL AREAS OF A SITE THAT RELY ON VEGETATION FOR STABILITY MUST BE UNIFORMLY VEGETATED, AND PROVIDED THERE ARE NO BARE SPOTS LARGER THAN 10 SQUARE FEET.
   E. WHEN REQUIRED, NATIVE PLANT SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL, ITEM 604S AND 609S OF THE CITY OF AUSTIN STANDARD SPECIFICATIONS.

TABLE 2: HYDROMULCHING FOR PERMANENT VEGETATIVE STABILIZATION

MATERIAL	DESCRIPTION	LONGEVITY	TYPICAL APPLICATIONS	APPLICATION RATES
BONDED FIBER MATRIX (BFM)	80% ORGANIC DEFIBRATED FIBERS 10% TACKIFIER	6 MONTHS	ON SLOPES UP TO 2:1 AND EROSIVE SOIL CONDITIONS	2500 TO 4000 LBS PER ACRE (SEE MANUFACTURERS RECOMMENDATIONS)
FIBER REINFORCED MATRIX (FRM)	65% ORGANIC DEFIBRATED FIBERS 25% REINFORCING FIBERS OR LESS 10% TACKIFIER	UP TO 12 MONTHS	ON SLOPES UP TO 1:1 AND EROSIVE SOIL CONDITIONS	3000 TO 4500 LBS PER ACRE (SEE MANUFACTURERS RECOMMENDATIONS)

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ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

EROSION CONTROL NOTES

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED
PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

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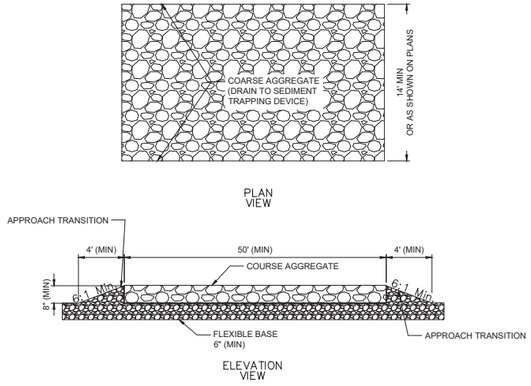
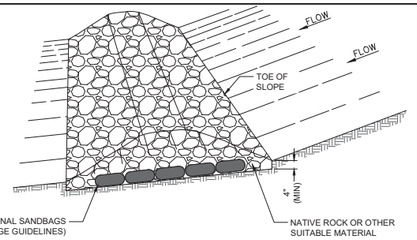


GENERAL NOTES:

1. THE LENGTH OF THE CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6:1.
4. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW FOR POSITIVE DRAINAGE.

CONSTRUCTION EXIT



GENERAL NOTES:

1. IF SHOWN ON THE PLANS OR AS REQUIRED, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND/OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. THE ROCK BERM DIMENSIONS SHALL BE AS INDICATED ON THE PLANS.
3. SIDE SLOPES SHOULD BE 3:1 OR FLATTER.
4. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK BERM WEIR AND TOP OF EMBANKMENT.
5. ROCK BERMS SHALL BE EMBEDDED A MINIMUM OF 4" INTO EXISTING GROUND.
6. ROCK BERMS TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT & SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. FOR IN STREAM USE, THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
7. SACK GABIONS SHOULD BE STAKED DOWN WITH 3/4" DIA. REBAR STAKES.
8. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).

ROCK BERM USAGE GUIDLINES:

ROCK BERMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF AND/OR CONCENTRATED FLOW.

TYPE 1 (18" HIGH WITH NO WIRE MESH) (3" TO 6" AGGREGATE):
TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES, AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF BERM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROXIMENTLY 8 FT/SEC OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS.

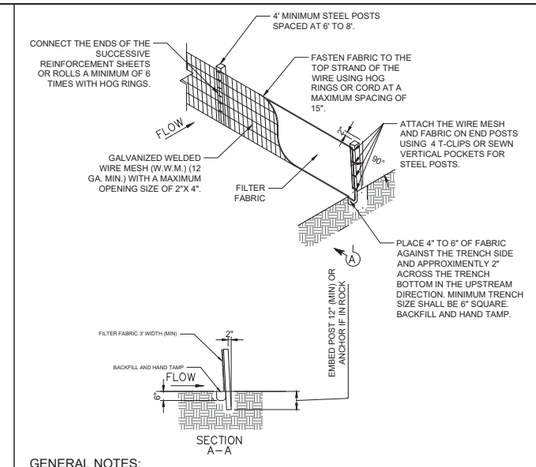
TYPE 2 (18" HIGH WITH WIRE MESH) (3" TO 6" AGGREGATE):
TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (36" HIGH WITH WIRE MESH) (4" TO 8" AGGREGATE):
TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4 (SACK GABIONS) (3" TO 6" AGGREGATE):
TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

TYPE 5:
PROVIDE ROCK BERMS AS SHOWN ON PLANS.

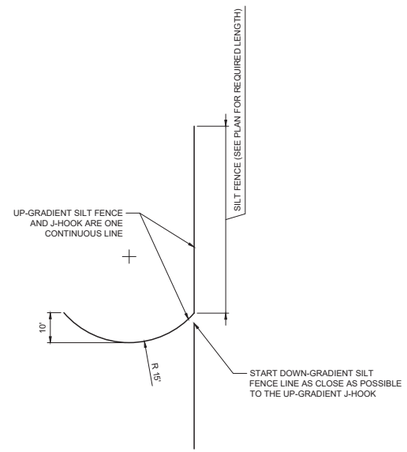
ROCK BERM



GENERAL NOTES:

1. A SILT FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF.
2. LAYOUT THE SILT FENCE FOLLOWING AS CLOSELY AS POSSIBLE TO THE CONTOUR.
3. CLEAR THE GROUND OF DEBRIS, ROCKS, PLANTS (INCLUDING GRASSES TALLER THAN 2") TO PROVIDE A SMOOTH FLOW APPROACH SURFACE. EXCAVATE 4" DEEP X 4" WIDE TRENCH ON THE UPSTREAM SIDE OF FACE PER PLANS.
4. DRIVE THE HEAVY DUTY T-POST AT LEAST 12" INTO THE GROUND AND AT A SLIGHT ANGLE TOWARDS THE FLOW.
5. ATTACH THE 2" X 4" 12 GAUGE WELDED WIRE MESH TO THE T-POST WITH 11½ GAUGE GALVANIZED T-POST CLIPS. THE TOP OF THE WIRE TO BE 24" ABOVE GROUND LEVEL. THE WELDED WIRE MESH TO BE OVERLAPPED 6" AND TIED AT LEAST 6 TIMES WITH HOG RINGS.
6. THE SILT FENCE TO BE INSTALLED WITH A SKIRT A MINIMUM OF 11" WIDE PLACED ON THE UPHILL SIDE OF THE FENCE INSIDE EXCAVATED TRENCH. THE FABRIC TO OVERLAP THE TOP OF THE WIRE BY 1".
7. ANCHOR THE SILT FENCE BY BACKFILLING WITH EXCAVATED DIRT AND ROCKS.
8. GEOTEXTILE SPLICES SHOULD BE A MINIMUM OF 18" WIDE ATTACHED IN AT LEAST 6 PLACES. SPLICES IN CONCENTRATED FLOW AREAS WILL NOT BE ACCEPTED.
9. J-HOOKS SHALL BE USED WHEN THE SILT FENCE IS INSTALLED AT AN ANGLE OF 30° OR GREATER FROM PARALLEL TO THE CONTOURS.

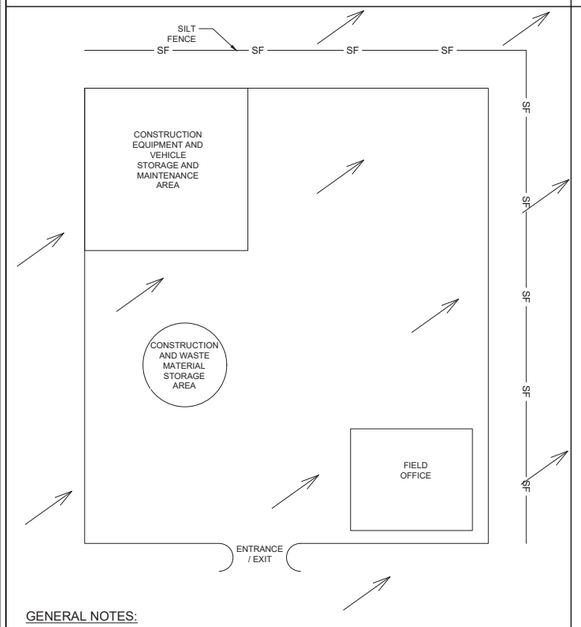
SILT FENCE



GENERAL NOTES:

1. J-HOOK SHALL BE INSTALLED IN THE SAME MANNER AS "SILT FENCE"
2. J-HOOKS SHALL BE USED WHEN THE SILT FENCE IS INSTALLED AT AN ANGLE OF 30° OR GREATER FROM PARALLEL TO THE CONTOURS.

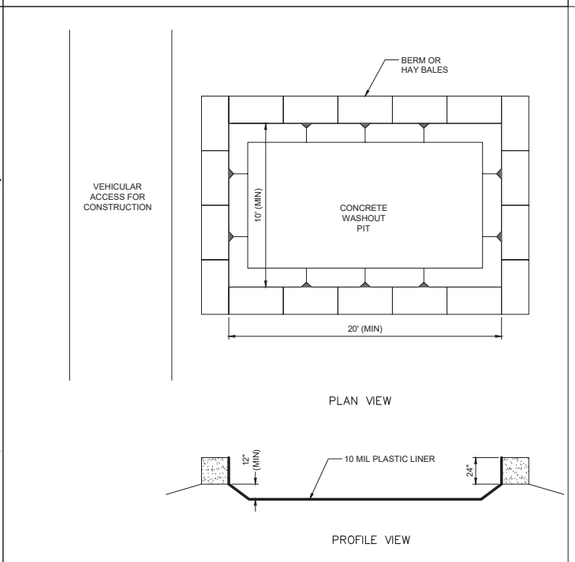
SILT FENCE J-HOOK



GENERAL NOTES:

1. SILT FENCE SHALL BE INSTALLED ON THE DOWNSTREAM SIDE OF THE STAGING AREA

CONSTRUCTION STAGING AREA



GENERAL NOTES:

1. PIT SHALL BE LINED WITH 10 MIL PLASTIC (BOTTOM AND SIDES)
2. 10' X 20' DIMENSIONS SHOWN ABOVE ARE THE MINIMUM DIMENSIONS. SIZE CAN BE INCREASED IF FREQUENCY OF USE INCREASES
3. IF HAY BALES ARE USED, CONFIGURATION SHOULD MATCH DETAIL
4. WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC
5. WASHOUT PIT SHALL NOT BE LOCATED IN AREAS SUBJECT TO INUNDATION FROM STORM WATER RUNOFF
6. IF HAY BALES ARE USED, 2 WOOD OR METAL STAKES SHOULD BE DRIVEN IN EACH BALE TO STABILIZE THE SIDES OF THE PIT

CONCRETE WASHOUT PIT

No.	Date	Revisions	App.

ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
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AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

EROSION AND SEDIMENTATION CONTROL DETAILS

6/14/2023

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

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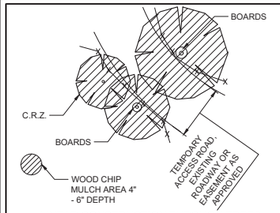
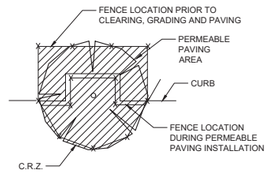
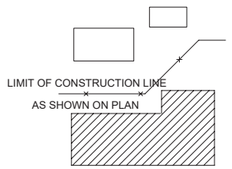


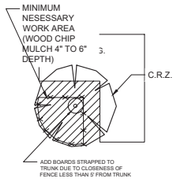
LINEAR CONSTRUCTION THROUGH TREES



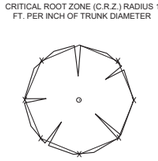
TREES IN PAVING AREA



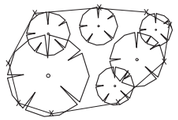
NATURAL AREAS



TREES NEAR CONSTRUCTION ACTIVITY

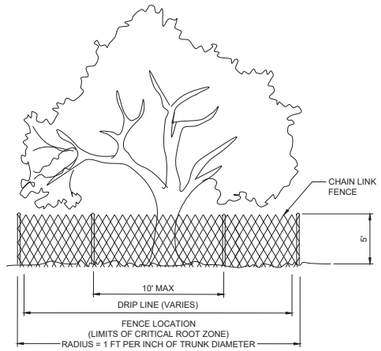


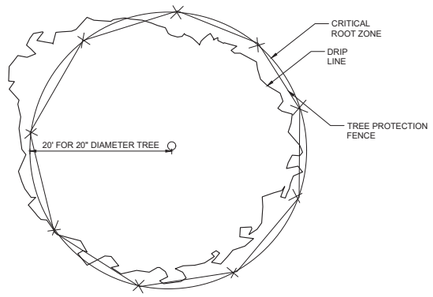
INDIVIDUAL TREE



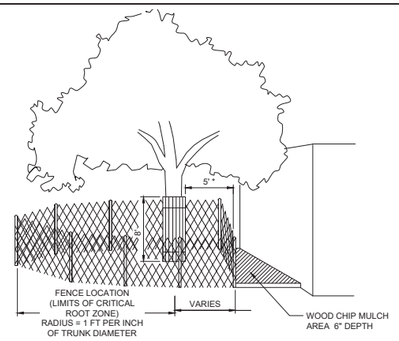
GROUP OF TREES

TREE PROTECTION

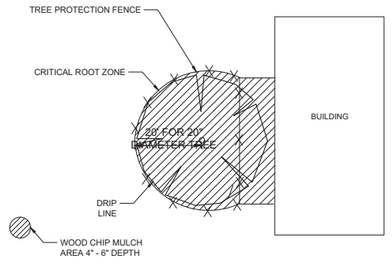




TREE PROTECTION TYPE A - CHAIN LINK



*AS NEEDED TO PROVIDE MINIMUM NECESSARY WORK SPACE.
IF LESS THAN 5', THEN ADD BOARDS STRAPPED TO TRUNK.



TREE PROTECTION MODIFIED TYPE A - CHAIN LINK

No.	Date	Revisions	App.

ECKERMANN ENGINEERING, INC.
202 SPRING HO AVENUE
LAMPASAS, TEXAS 76550
PHONE: 512-556-8160
TBPE FIRM NO. F-10496

AMS - ADVANCED MANUFACTURING SOLUTIONS
19600 W SH 29
LIBERTY HILL, TX 78642

TREE PROTECTION DETAILS

6/14/2023

STATE OF TEXAS
MARSHAL BREWER
111299
LICENSED PROFESSIONAL ENGINEER

Project No.:	22013
Issued:	6/14/2023
Drawn By:	WN, HP, MB
Checked By:	MB, DE

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ATTACHMENT N
INSPECTION, MAINTENANCE, REPAIR AND RETROFIT PLAN

PROJECT NAME: **AMS – Advanced Manufacturing Solutions**
ADDRESS: **19600 W SH 29**
CITY, STATE: **Liberty Hill, TX**

BATCH DETENTION BASIN

Batch detention basin maintenance activities are identical to those of extended detention basins with the addition of maintenance and inspections of the automatic controller and the valve at the outlet. Refer to the Edward's Aquifer Technical Guidance Manual if additional information is required.

- Inspections: Inspections should take place a minimum of twice a year. One inspection should take place during wet weather to determine if the basin is meeting the target detention time of 12 hours and a drawdown time of no more than 48 hours. The remaining inspections should occur between storm events so that manual operation of the valve and controller can be verified. The level sensor in the basin should be inspected and any debris or sediment in the area should be removed. The outlet structure and the trash screen should be inspected for signs of clogging. Debris and sediment should be removed from the orifice and outlet(s). Debris obstructing the valve should be removed. During each inspection, erosion areas inside and downstream of this BMP should be identified and repaired/revegetated immediately.

- Mowing: The basin, basin side-slopes, and embankment of the basin must be mowed to prevent woody growth and control weeds. A mulching mower should be used, or the grass clippings should be caught and removed. Mowing should take place at least twice a year, or more frequently if vegetation exceeds 18 inches in height. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas.

- Litter and Debris Removal: Litter and debris removal should take place at least twice a year, as part of the periodic mowing operations and inspections. Debris and litter should be removed from the surface of the basin. Particular attention should be paid to floatable debris around the outlet structure. The outlet should be checked for possible clogging or obstructions and any debris removed.

- Erosion control: The basin side slopes and embankment all may periodically suffer from slumping and erosion. To correct these problems, corrective action, such as regrading and revegetation, may be necessary. Correction of erosion control should take place whenever required based on the periodic inspections.

- Nuisance Control: Standing water or soggy conditions may occur in the basin. Some standing water may occur after a storm event since the valve may close with 2 to 3 inches of water in the basin. Some flow into the basin may also occur between storms due to spring flow and residential water use that enters the storm sewer system. Twice a year, the facility should be evaluated in terms of nuisance control (insects, weeds, odors, algae, etc.).

- Structural Repairs and Replacement: With each inspection, any damage to structural elements of the basin (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. An example of this type of repair can include patching of cracked concrete, sealing of voids, removal of vegetation from cracks and joints. The various inlet/outlet structures in a basin will eventually deteriorate and must be replaced.

- Sediment Removal: A properly designed batch detention basin will accumulate quantities of sediment over time. The accumulated sediment can detract from the appearance of the facility and reduce the pollutant removal performance of the facility. The sediment also tends to accumulate near the outlet structure and can interfere with the level sensor operation. Sediment shall be removed from the basin at

least every 5 years, when sediment depth exceeds 150 mm (6 inches), when the sediment interferes with the level sensor or when the basin does not drain within 48 hours. Care should be taken not to compromise the basin lining during maintenance. The silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.

- Logic Controller: The Logic Controller should be inspected as part of the twice yearly investigations. Verify that the external indicators (active, cycle in progress) are operating properly by turning the controller off and on, and by initiating a cycle by triggering the level sensor in the basin. The valve should be manually opened and closed using the open/close switch to verify valve operation and to assist in inspecting the valve for debris. The solar panel, if applicable, should be inspected and any dust or debris on the panel should be carefully removed. The controller and all other circuitry and wiring should be inspected for signs of corrosion, damage from insects, water leaks, or other damage. At the end of the inspection, the controller should be reset.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Responsible Party: Todd Cox
Mailing Address: 320 Creek Crossing Drive
City, State: Georgetown, TX Zip: 78628
Telephone: (512) 733-1110 Fax: _____

Signature of Responsible Party _____ Date 8-24-22

Engineer: Marshal Brewer, P.E.
Firm: Eckermann Engineering, Inc.
TBPE Firm No.: F-10496
Mailing Address: P.O. Box 388
City, State: Lampasas, TX 76550
Telephone: (512) 556-8160

ATTACHMENT O
PILOT-SCALE FIELD TESTING PLAN
(Not Applicable)

ATTACHMENT P

MEASURES FOR MINIMIZING SURFACE STREAM CONTAMINATION

All flow generated from the development of the subject site is treated by the proposed water quality permanent BMPs prior to being discharged. The proposed development will also reduce the peak discharge flow rates of the 2, 10, 25, and 100-year events below the existing discharge rates. These two measures will decrease contamination within the downstream flows that ultimately enters the South Fork of the San Gabriel River.

II. Temporary Stormwater Section (TCEQ-0602)

Temporary Stormwater Section

Texas Commission on Environmental Quality

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

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

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

Signature

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

Print Name of Customer/Agent: Todd Cox (Agent: Eckermann Engineering, Inc.)

Date: 8/25/2022

Signature of Customer/Agent:

Regulated Entity Name: AMS - Advanced Manufacturing Solutions

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: South Fork of the San Gabriel River

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

Spills will be prevented utilizing Best Management Practices such as proper material storage, handling, and disposal practices. However, despite such efforts, a spill may occur on site. If a spill occurs, the following procedures will be utilized.

- ***Stop the spill, if possible.*** This can include shutting off power to a pump, righting an overturned container, or plugging a hole in a damaged container.

- ***Contain the spill, safely.*** Spill containment can be accomplished using a variety of materials and methods such as the use of absorbents (i.e. sawdust, Oil Dri, rags, soil, polypropylene pads or booms, etc.) to dike the area around the spill, or placing a leaking container inside one which is not leaking. Spill containment should only be attempted if it is safe to do so. Proper safety equipment such as gloves and eye protection should be used as directed on the Material Safety Data Sheet for the spilled material.

- ***Report the spill, if necessary.*** Certain quantities of hazardous or toxic materials such as pesticides, paint thinners, gasoline, etc. are required by Federal Law to be reported to the National Response Center (NRC) at 1-800-424-8802 as soon as you have knowledge of the spill. Since most of the quantities which require reporting to the NRC are larger than that found on a typical construction site, spill reporting to the State or Local authorities is more likely. When in doubt, report the spill. Refer to *https://www.tceq.texas.gov/response/spills/spill_rq.html* to determine reportable quantities of hazardous materials.

The reporting requirements which may apply to the sites covered in this SWPPP are:

Texas Commission on Environmental Quality (TCEQ)
1-800-832-8224

TCEQ requires reporting of spills of 25 gallons or greater, especially those which might impact a waterway.

- ***Clean the spill up, properly.*** Spill cleanup should be performed in accordance with applicable regulations or according to the manufacturer's recommendations on the Material Safety Data Sheet. In most cases, proper spill cleanup is to use a dry method such as absorbing the spill and containerize for disposal via a licensed disposal company. For non-hazardous and non-toxic materials this may be through your solid waste disposal service with prior approval.

- ***Fill in table on next page.***

The SWPPP must be modified within 14 days of a release to provide a description of the spill, the circumstances leading to the spill, and the date of the spill. Spill clean-up materials, methods, and additional Best Management Practices addressing spill prevention should also be included.

Spill Date	Material Spilled	Amount of spill (in gallons)	Circumstance of Spill (what caused the spill)	Corrective Action	Correction Date & Sign-off

ATTACHMENT B

POTENTIAL SOURCES OF CONTAMINATION

Potential Sources of Contamination associated with this project may include:

1. Oil and grease from runoff pollutants associated with paving operations,
2. Asphalt emulsion from streets just after construction is complete,
3. Construction equipment pollutants including hydraulic fluid, machine oil, and diesel,
4. Sediment from earth moving activities, and
5. Construction materials such as wood, paint, fertilizers, and concrete.

ATTACHMENT C

SEQUENCE OF MAJOR ACTIVITIES

1. Install construction fencing, stabilized construction entrance, erosion controls, and tree protection fencing per approved erosion and sedimentation control/tree protection plan. (Area Disturbed = 19.04 acres)
2. The contractor shall arrange and coordinate acceptable meeting times for an on-site pre-construction meeting with the Owner, Project Engineer, relevant contractors, and the City Environmental Inspector. The Environmental Inspector shall be contacted 72 hours prior to the required on-site preconstruction meeting. (Area Disturbed = 0.0 acres)
3. Begin site clearing/demolition. Silt Fence and SCE must be installed prior to and maintained during operations. (Area Disturbed = 19.04 acres)
4. Rough grade the site and drainage swales in accordance with plans and specifications. Silt Fence, Rock Berms, and SCE must be maintained during operations. (Area Disturbed = 19.04 acres)
5. Construct all-weather driving surface. Silt Fence, Rock Berms, Inlet Protection, and SCE must be maintained during operations. (Area Disturbed = 19.04 acres)
6. Complete final grading, drainage, and pavement. Silt Fence, Rock Berms, and Inlet Protection must be maintained during operations. (Area Disturbed = 19.04 acres)
7. Hydromulch or sod all disturbed areas per landscape plan and general site cleanup. Silt Fence, Rock Berms, and Inlet Protection must be maintained during operations.
8. Final clearing of erosion and sedimentation controls and storm drain structures.
9. County Environmental inspector visits site and issues certificate of acceptance only if all construction is in substantial conformance to the plans.

Total Disturbed Area = 19.04 acres

*Note: Areas identified above in the sequence of construction may overlap and should not be totaled.

ATTACHMENT D

TEMPORARY BEST MANAGEMENT PRACTICES AND MEASURES

- Silt Fence – Approximately 1,935 linear feet of silt fence will be installed along the right of way line or limits of construction prior to the start of demolition or construction activities. The silt fence will prevent total suspended solids from leaving the site via sheet flow.

- Stabilized Construction Entrance – One (1) stabilized construction entrances will be installed at the driveway into the site prior to the start of construction activities. The construction entrances will be located as shown on the erosion control plan and will prevent the tracking of mud onto the public road.

- Rock Berm – Approximately eight (8) rock berms will be installed along the drainage channels and at headwalls to prevent erosion during construction.

- Concrete Washout – A concrete washout area to be located near the Stabilized Construction Entrance.

  All of the above listed temporary BMPs will be removed upon the completion of site construction activities and the establishment of permanent stabilization on the site.

ATTACHMENT E

REQUEST TO TEMPORARILY SEAL A FEATURE

(Not Applicable)

ATTACHMENT F

STRUCTURAL PRACTICES

Upgradient flows from this site will be routed around any future BMP's and permanent vegetation will be established in all disturbed areas upon completion of those grading activities. All on-site drainage during construction will flow through the proposed temporary BMP's listed in Attachment D.

ATTACHMENT G

DRAINAGE AREA MAPS

(EXISTING AND PROPOSED)

(REFER TO CONSTRUCTION PLANS UNDER SEPARATE COVER)

ATTACHMENT H
TEMPORARY SEDIMENT POND PLANS AND CALCULATIONS

(Not Applicable)

ATTACHMENT I
INSPECTION AND MAINTENANCE FOR BMPs

PROJECT NAME: **AMS – Advanced Manufacturing Solutions**
ADDRESS: **19600 W SH 29**
CITY, STATE: **Liberty Hill, TX**

SILT FENCE

- Inspections: Inspections shall be made weekly or after each rainfall event.
- Repair and Replacement: Repair or replacement of torn fabric shall be made promptly as needed or a second line of fencing parallel to the torn section shall be installed. 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.
- Sediment Removal: Accumulated silt shall be removed when it reaches a depth of 150mm (6 inches). The silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.

Silt fence shall be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

ROCK BERM

- Inspections: Inspections shall be made weekly or after each rainfall event. Daily inspections shall be made on high-service rock berms or rock berms within streambeds.
- Repair and Replacement: Repair any loose wire sheathing as needed. The stone and/or fabric core-woven sheathing shall be replaced or reshaped when the structure ceases to function as intended, due to silt accumulation among the rocks, washout, construction traffic damage, etc.
- Sediment Removal: Accumulated silt shall be removed when it reaches a depth of 150mm (6 inches). The silt shall be disposed of on an approved site and in such a manner that will not contribute to additional siltation.

Rock berms shall be removed when the site is completely stabilized so as not to block or impede storm flow or drainage.

STABILIZED CONSTRUCTION ENTRANCE

- 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 sediment that is spilled, dropped, washed or tracked onto public roadway must be removed immediately.
- 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 another approved BMP.

The stabilized construction entrance will be removed once the driveway to the proposed site is complete.

CONCRETE WASHOUT AREAS

- When temporary concrete washout facilities are no longer required for the work, the hardened concrete should be removed and disposed of.
- Materials used to construct temporary concrete washout facilities should be removed from the site of the work and disposed of.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities should be backfilled and repaired.

Disposal of accumulated silt shall be accomplished following Texas Commission on Environmental Quality guidelines and specifications.

An amended copy of this document will be provided to the Texas Commission on Environmental Quality within thirty (30) days of any changes in the following information.

Responsible Party: Todd Cox
Mailing Address: 320 Creek Crossing Drive
City, State: Georgetown, TX Zip: 78628
Telephone: (512) 733-1110 Fax: _____

Signature of Responsible Party _____ Date 8-29-22

ATTACHMENT J

SCHEDULE FOR INTERIM AND PERMANENT SOIL STABILIZATION PRACTICES

Interim stabilization shall be achieved through the temporary erosion controls. All disturbed pervious areas shall receive permanent hydromulch or sod after final grading is completed or if construction activities stop for more than 14 days. The remaining disturbed areas will be stabilized by the installation of pavement or building structures.

Bare 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.

III. Notice of Intent (NOI) (TCEQ-20022)

NOI to be completed on-line at:

https://www3.tceq.texas.gov/steers/index.cfm

TCEQ Office Use Only
Permit No:
CN:
RN:

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

IMPORTANT INFORMATION

Please read and use the General Information and Instructions prior to filling out each question in the NOI form.

Use the NOI Checklist to ensure all required information is completed correctly. **Incomplete applications delay approval or result in automatic denial.**

Once processed your permit authorization can be viewed by entering the following link into your internet browser: http://www2.tceq.texas.gov/wq_dpa/index.cfm or you can contact TCEQ Stormwater Processing Center at 512-239-3700.

ePERMITS

Effective September 1, 2018, this paper form must be submitted to TCEQ with a completed electronic reporting waiver form (TCEQ-20754).

To submit an NOI electronically, enter the following web address into your internet browser and follow the instructions: https://www3.tceq.texas.gov/steers/index.cfm

APPLICATION FEE AND PAYMENT

The application fee for submitting a paper NOI is $325. The application fee for electronic submittal of a NOI through the TCEQ ePermits system (STEERS) is $225.

Payment of the application fee can be submitted by mail or through the TCEQ ePay system. The payment and the NOI must be mailed to separate addresses. To access the TCEQ ePay system enter the following web address into your internet browser: http://www.tceq.texas.gov/epay.

Provide your payment information for verification of payment:

- If payment was mailed to TCEQ, provide the following:
  - Check/Money Order Number: Click here to enter text
  - Name printed on Check: Click here to enter text
- If payment was made via ePay, provide the following:
  - Voucher Number: Click here to enter text
  - A copy of the payment voucher is attached to this paper NOI form.

RENEWAL (This portion of the NOI is not applicable after June 3, 2018)

Is this NOI for a renewal of an existing authorization? ☐ Yes ☒ No

If Yes, provide the authorization number here: TXR15 Click here to enter text

NOTE: If an authorization number is not provided, a new number will be assigned.

SECTION 1. OPERATOR (APPLICANT)

a) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? CN Click here to enter text

(Refer to Section 1.a) of the Instructions)

b) What is the Legal Name of the entity (applicant) applying for this permit? (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

AMS – Advanced Manufacturing Solutions

c) What is the contact information for the Operator (Responsible Authority)?

Prefix (Mr. Ms. Miss): Mr.

First and Last Name: Todd Cox Suffix: Click here to enter text

Title: Owner Credentials: Click here to enter text

Phone Number: 512-733-1110 Fax Number: Click here to enter text

E-mail: tcox@mustangplumbing.com

Mailing Address: 320 Creek Crossing Drive

City, State, and Zip Code: Georgetown, TX 78628

Mailing Information if outside USA:

Territory: Click here to enter text

Country Code: Click here to enter text Postal Code: Click here to enter text

d) Indicate the type of customer:

☒ Individual
☐ Limited Partnership
☐ General Partnership
☐ Trust
☐ Sole Proprietorship (D.B.A.)
☐ Corporation
☐ Estate
☐ Federal Government
☐ County Government
☐ State Government
☐ City Government
☐ Other Government
☐ Other: Limited Liability Corporation

e) Is the applicant an independent operator? ☒ Yes ☐ No

(If a governmental entity, a subsidiary, or part of a larger corporation, check No.)

f) Number of Employees. Select the range applicable to your company.

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

g) Customer Business Tax and Filing Numbers: (**Required** for Corporations and Limited Partnerships. **Not Required** for Individuals, Government, or Sole Proprietors.)

State Franchise Tax ID Number: Click here to enter text.

Federal Tax ID: Click here to enter text.

Texas Secretary of State Charter (filing) Number: Click here to enter text.

DUNS Number (if known): Click here to enter text.

SECTION 2. APPLICATION CONTACT

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

☒ Yes, go to Section 3

☐ No, complete this section

Prefix (Mr. Ms. Miss): Click here to enter text.

First and Last Name: Click here to enter text. Suffix: Click here to enter text.

Title: Click here to enter text. Credential: Click here to enter text.

Organization Name: Click here to enter text.

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

E-mail: Click here to enter text.

Mailing Address: Click here to enter text.

Internal Routing (Mail Code, Etc.): Click here to enter text.

City, State, and Zip Code: Click here to enter text.

Mailing information if outside USA:

Territory: Click here to enter text.

Country Code: Click here to enter text. Postal Code: Click here to enter text.

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

a) If this is an existing permitted site, what is the Regulated Entity Number (RN) issued to this site? RN Click here to enter text.

(Refer to Section 3.a) of the Instructions)

b) Name of project or site (the name known by the community where it's located): AMS – Advanced Manufacturing Solutions

c) In your own words, briefly describe the type of construction occurring at the regulated site (residential, industrial, commercial, or other): Commercial manufacturing and storage

d) County or Counties (if located in more than one): Williamson

e) Latitude: 30.707342 Longitude: -97.9986

f) Site Address/Location

If the site has a physical address such as 12100 Park 35 Circle, Austin, TX 78753, complete *Section A*.

If the site does not have a physical address, provide a location description in *Section B*. Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Section A:

Street Number and Name: 19600 W SH 29

City, State, and Zip Code: Liberty Hill, TX 78642

Section B:

Location Description: ___

City (or city nearest to) where the site is located: ___

Zip Code where the site is located: ___

SECTION 4. GENERAL CHARACTERISTICS

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

☐ Yes, do not submit this form. You must obtain authorization through EPA Region 6.

☒ No

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

☐ Yes. Note: The construction stormwater runoff may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA Region 6.

☒ No

c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site? **3089**

d) What is the Secondary SIC Code(s), if applicable? 2673

e) What is the total number of acres to be disturbed? 20

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

☒ Yes

☐ No. The total number of acres disturbed, provided in e) above, must be 5 or more. If the total number of acres disturbed is less than 5, do not submit this form. See the requirements in the general permit for small construction sites.

g) What is the estimated start date of the project? 9/15/2022

h) What is the estimated end date of the project? 3/1/2023

i) Will concrete truck washout be performed at the site? ☒ Yes ☐ No

j) What is the name of the first water body(ies) to receive the stormwater runoff or potential runoff from the site? South Fork San Gabriel River

k) What is the segment number(s) of the classified water body(ies) that the discharge will eventually reach? 1250

l) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?

☐ Yes ☒ No

If Yes, provide the name of the MS4 operator: ___

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

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

☒ Yes, complete the certification below.

☐ No, go to Section 5

I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented. ☒ Yes

SECTION 5. NOI CERTIFICATION

a) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). ☒ Yes

b) I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. ☒ Yes

c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. ☒ Yes

d) I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the Construction General Permit (TXR150000). ☒ Yes

Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3, provided all obligations are confirmed by at least one operator.

SECTION 6. APPLICANT CERTIFICATION SIGNATURE

Operator Signatory Name: Todd Cox

Operator Signatory Title: Owner

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

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

Signature (use blue ink): _____Date: _____

NOTICE OF INTENT CHECKLIST (TXR150000)

Did you complete everything? Use this checklist to be sure!

Are you ready to mail your form to TCEQ? Go to the General Information Section of the Instructions for mailing addresses.

Confirm each item (or applicable item) in this form is complete. This checklist is for use by the applicant to ensure a complete application is being submitted. **Missing information may result in denial of coverage under the general permit.** (See NOI process description in the General Information and Instructions.)

APPLICATION FEE

If paying by check:

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

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

If using ePay:

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

RENEWAL

☐ If this application is for renewal of an existing authorization, the authorization number is provided.

OPERATOR INFORMATION

☐ Customer Number (CN) issued by TCEQ Central Registry

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

☐ Name and title of responsible authority signing the application.

☐ Phone number and e-mail address

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

☐ Type of operator (entity type). Is applicant an independent operator?

☐ Number of employees.

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

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

REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

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

☐ Site/project name and construction activity description

☐ County

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

☐ Site Address/Location. Do not use a rural route or post office box.

GENERAL CHARACTERISTICS

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

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

☐ Primary SIC Code that best describes the construction activity being conducted at the site. www.osha.gov/oshstats/sicser.html

☐ Estimated starting and ending dates of the project.

☐ Confirmation of concrete truck washout.

☐ Acres disturbed is provided and qualifies for coverage through a NOI.

☐ Common plan of development or sale.

☐ Receiving water body or water bodies.

☐ Segment number or numbers.

☐ MS4 operator.

☐ Edwards Aquifer rule.

CERTIFICATION

☐ Certification statements have been checked indicating Yes.

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

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

GENERAL INFORMATION

Where to Send the Notice of Intent (NOI):

By Regular Mail:
TCEQ
Stormwater Processing Center (MC228)
P.O. Box 13087
Austin, Texas 78711-3087

By Overnight or Express Mail:
TCEQ
Stormwater Processing Center (MC228)
12100 Park 35 Circle
Austin, TX

Application Fee:

The application fee of $325 is required to be paid at the time the NOI is submitted. Failure to submit payment at the time the application is filed will cause delays in acknowledgment or denial of coverage under the general permit. Payment of the fee may be made by check or money order, payable to TCEQ, or through EPAY (electronic payment through the web).

Mailed Payments:

Use the attached General Permit Payment Submittal Form. The application fee is submitted to a different address than the NOI. Read the General Permit Payment Submittal Form for further instructions, including the address to send the payment.

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

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

TCEQ Contact List:

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

Notice of Intent Process:

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

- **Administrative Review**: Each item on the form will be reviewed for a complete response. In addition, the operator's legal name must be verified with Texas Secretary of State as valid and active (if applicable). The address(es) on the form must be verified with the US Postal service as receiving regular mail delivery. Do not give an overnight/express mailing address.
- **Notice of Deficiency:** If an item is incomplete or not verifiable as indicated

above, a notice of deficiency (NOD) will be mailed to the operator. The operator will have 30 days to respond to the NOD. The response will be reviewed for completeness.

- **Acknowledgment of Coverage:** An Acknowledgment Certificate will be mailed to the operator. This certificate acknowledges coverage under the general permit.

  or

  Denial of Coverage: If the operator fails to respond to the NOD or the response is inadequate, coverage under the general permit may be denied. If coverage is denied, the operator will be notified.

General Permit (Your Permit)

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

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

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

Change in Operator

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

TCEQ Central Registry Core Data Form

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

For existing customers and sites, you can find the Customer Number and Regulated Entity Number by entering the following web address into your internet browser: http://www15.tceq.texas.gov/crpub/ or you can contact the TCEQ Stormwater Processing Center at 512-239-3700 for assistance. On the website, you can search by your permit number, the Regulated Entity (RN) number, or the Customer Number (CN). If you do not know these numbers, you can select "Advanced Search" to search by permittee name, site address, etc.

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

INSTRUCTIONS FOR FILLING OUT THE NOI FORM

Renewal of General Permit. Dischargers holding active authorizations under the expired General Permit are required to submit a NOI to continue coverage. The existing permit

number is required. If the permit number is not provided or has been terminated, expired, or denied, a new permit number will be issued.

Section 1. OPERATOR (APPLICANT)

a) Customer Number (CN)

TCEQ's Central Registry will assign each customer a number that begins with CN, followed by nine digits. **This is not a permit number, registration number, or license number**.

If the applicant is an existing TCEQ customer, the Customer Number is available at the following website: http://www15.tceq.texas.gov/crpub/. If the applicant is not an existing TCEQ customer, leave the space for CN blank.

b) Legal Name of Applicant

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

c) Contact Information for the Applicant (Responsible Authority)

Provide information for the person signing the application in the Certification section. This person is also referred to as the Responsible Authority.

Provide a complete mailing address for receiving mail from the TCEQ. The mailing address must be recognized by the US Postal Service. You may verify the address on the following website: https://tools.usps.com/go/ZipLookupAction!input.action.

The phone number should provide contact to the applicant.

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

d) Type of Customer (Entity Type)

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

Individual

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

Partnership

A customer that is established as a partnership as defined by the Texas Secretary of State Office (TX SOS). If the customer is a 'General Partnership' or 'Joint Venture' filed in the county (not filed with TX SOS), the legal name of each partner forming the 'General Partnership' or 'Joint Venture' must be provided. Each 'legal entity' must apply as a co-applicant.

Trust or Estate

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

Sole Proprietorship (DBA)

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

1. be under the person's name
2. have its own name (doing business as or DBA)
3. have any number of employees.

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

Corporation

A customer that meets all of these conditions:

1. is a legally incorporated entity under the laws of any state or country
2. is recognized as a corporation by the Texas Secretary of State
3. has proper operating authority to operate in Texas

The corporation's 'legal name' as filed with the Texas Secretary of State must be provided as applicant. An 'assumed' name of a corporation is not recognized as the 'legal name' of the entity.

Government

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

The customer is either an agency of one of these levels of government or the governmental body itself. The government agency's 'legal name' must be provided as the applicant. A department name or other description of the organization is not recognized as the 'legal name'.

Other

This may include a utility district, water district, tribal government, college district, council of governments, or river authority. Provide the specific type of government.

e) Independent Entity

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

f) Number of Employees

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

g) Customer Business Tax and Filing Numbers

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

State Franchise Tax ID Number

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

Federal Tax ID

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

TX SOS Charter (filing) Number

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

DUNS Number

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

Section 2. APPLICATION CONTACT

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

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

a) Regulated Entity Number (RN)

The RN is issued by TCEQ's Central Registry to sites where an activity is regulated by TCEQ. This is not a permit number, registration number, or license number. Search TCEQ's Central Registry to see if the site has an assigned RN at http://www15.tceq.texas.gov/crpub/. If this regulated entity has not been assigned an RN, leave this space blank.

If the site of your business is part of a larger business site, an RN may already be assigned for the larger site. Use the RN assigned for the larger site.

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

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

b) Name of the Project or Site

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

c) Description of Activity Regulated

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

d) County

Provide the name of the county where the site or project is located. If the site or project is located in more than one county, provide the county names as secondary.

e) Latitude and Longitude

Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. For help obtaining the latitude and longitude, go to: http://www.tceq.texas.gov/gis/sqmaview.html.

f) Site Address/Location

If a site has an address that includes a street number and street name, enter the complete address for the site in *Section A*. If the physical address is not recognized as a USPS delivery address, you may need to validate the address with your local police (911 service) or through an online map site used to locate a site. Please confirm this to be a complete and valid address. Do not use a rural route or post office box for a site location.

If a site does not have an address that includes a street number and street name, provide a complete written location description in *Section B.* For example: "The site is located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1."

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

Section 4. GENERAL CHARACTERISTICS

a) Indian Country Lands

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

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

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

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

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

For more information about the jurisdictions of the RRC and the TCEQ, read the Memorandum of Understanding (MOU) between the RRC and TCEQ at 16 Texas Administrative Code, Part 1, Chapter 3, Rule 3.30, by entering the following link into an internet browser: http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30 or contact the TCEQ Stormwater Team at 512-239-4671 for additional information.

c) Primary Standard Industrial Classification (SIC) Code

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

Common SIC Codes related to construction activities include:

- 1521 - Construction of Single Family Homes
- 1522 - Construction of Residential Buildings Other than Single Family Homes
- 1541 - Construction of Industrial Buildings and Warehouses
- 1542 - Construction of Non-residential Buildings, other than Industrial Buildings and Warehouses
- 1611 - Highway and Street Construction, except Highway Construction
- 1622 - Bridge, Tunnel, and Elevated Highway Construction

- 1623 - Water, Sewer, Pipeline and Communications, and Power Line Construction

For help with SIC Codes, enter the following link into your internet browser: http://www.osha.gov/pls/imis/sicsearch.html or you can contact the TCEQ Small Business and Local Government Assistance Section at 800-447-2827 for assistance.

d) Secondary SIC Code

Secondary SIC Code(s) may be provided. Leave this blank if not applicable. For help with SIC Codes, enter the following link into your internet browser: http://www.osha.gov/pls/imis/sicsearch.html or you can contact the TCEQ Small Business and Environmental Assistance Section at 800-447-2827 for assistance.

e) Total Number of Acres Disturbed

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

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

f) Common Plan of Development

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

For more information on what a common plan of development is, refer to the definition of "Common Plan of Development" in the Definitions section of the general permit or enter the following link into your internet browser: www.tceq.texas.gov/permitting/stormwater/common_plan_of_development_steps.html

For further information, go to the TCEQ stormwater construction webpage enter the following link into your internet browser: www.tceq.texas.gov/goto/construction and search for "Additional Guidance and Quick Links". If you have any further questions about the Common Plan of Development you can contact the TCEQ Stormwater Team at 512-239-4671 or the TCEQ Small Business and Environmental Assistance at 800-447-2827.

g) Estimated Start Date of the Project

This is the date that any construction activity or construction support activity is initiated at the site. If renewing the permit provide the original start date of when construction activity for this project began.

h) Estimated End Date of the Project

This is the date that any construction activity or construction support activity will end and final stabilization will be achieved at the site.

i) Will concrete truck washout be performed at the site?

Indicate if you expect that operators of concrete trucks will washout concrete trucks at the construction site.

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

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

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

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

Identify the classified segment number(s) receiving a discharge directly or indirectly. Enter the following link into your internet browser to find the segment number of the classified water body where stormwater will flow from the site: www.tceq.texas.gov/waterquality/monitoring/viewer.html or by contacting the TCEQ Water Quality Division at (512) 239-4671 for assistance.

You may also find the segment number in TCEQ publication GI-316 by entering the following link into your internet browser: www.tceq.texas.gov/publications/gi/gi-316 or by contacting the TCEQ Water Quality Division at (512) 239-4671 for assistance.

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

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

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

l) Discharge into MS4 – Identify the MS4 Operator

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

m) Discharges to the Edwards Aquifer Recharge Zone and Certification

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

See maps on the TCEQ website to determine if the site is located within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer by entering the following link into an internet browser: www.tceq.texas.gov/field/eapp/viewer.html or by contacting the TCEQ Water Quality Division at 512-239-4671 for assistance.

If the discharge or potential discharge is within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, a site-specific authorization approved by the Executive Director under the Edwards Aquifer Protection Program (30 TAC Chapter 213) is required before construction can begin.

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

Section 5. NOI CERTIFICATION

Note: Failure to indicate Yes to all of the certification items may result in denial of coverage under the general permit.

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

Provisional coverage under the Construction General Permit (TXR150000) begins 7 days after the completed paper NOI is postmarked for delivery to the TCEQ. Electronic applications submitted through ePermits have immediate provisional coverage. You must obtain a copy and read the Construction General Permit before submitting your application. You may view and print the Construction General Permit for which you are seeking coverage at the TCEQ web site by entering the following link into an internet browser: www.tceq.texas.gov/goto/construction or you may contact the TCEQ Stormwater processing Center at 512-239-3700 for assistance.

b) Certification of Legal Name

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

c) Understanding of Notice of Termination

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

d) Certification of Stormwater Pollution Prevention Plan

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

Section 6. APPLICANT CERTIFICATION SIGNATURE

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

If you are a corporation:

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

If you are a municipality or other government entity:

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

If you have any questions or need additional information concerning the signatory requirements discussed above, please contact the TCEQ's Environmental Law Division at 512-239-0600.

30 Texas Administrative Code

§305.44. Signatories to Applications

(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the

corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

(2) For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

Texas Commission on Environmental Quality
General Permit Payment Submittal Form

Use this form to submit your Application Fee only if you are mailing your payment.

Instructions:

- Complete items 1 through 5 below:
- Staple your check in the space provided at the bottom of this document.
- *Do not mail this form with your NOI form.*
- *Do not mail this form to the same address as your NOI.*

Mail this form and your check to either of the following:

By Regular U.S. Mail
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, TX 78711-3088

By Overnight or Express Mail
Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, TX 78753

Fee Code: GPA General Permit: TXR150000

1. Check or Money Order No: Click here to enter text
2. Amount of Check/Money Order: Click here to enter text
3. Date of Check or Money Order: Click here to enter text
4. Name on Check or Money Order: Click here to enter text
5. NOI Information:

   If the check is for more than one NOI, list each Project or Site (RE) Name and Physical Address exactly as provided on the NOI. **Do not submit a copy of the NOI with this form, as it could cause duplicate permit application entries!**

   If there is not enough space on the form to list all of the projects or sites the authorization will cover, then attach a list of the additional sites.

   Project/Site (RE) Name: Click here to enter text

   Project/Site (RE) Physical Address: Click here to enter text

Staple the check or money order to this form in this space.

IV. Agent Authorization Forms (TCEQ-0599)

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

I Todd Cox,
Print Name

Owner,
Title - Owner/President/Other

of N/A,
Corporation/Partnership/Entity Name

have authorized Marshal Brewer, P.E
Print Name of Agent/Engineer

of Eckermann Engineering, Inc.
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

8-26-2022
Date

THE STATE OF Texas §

County of Williamson §

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

GIVEN under my hand and seal of office on this 26th day of August, 2022.

Mary Selena Long
NOTARY PUBLIC

Mary Selena Long
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 9-15-2023

NOTARY PUBLIC STATE OF TEXAS
MARY SELENA LONG
Notary ID #124682334
My Commission Expires
September 15, 2023

V. Application Fee Form (TCEQ-0574)

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: AMS - Advanced Manufacturing Solutions - Liberty Hill, TX

Regulated Entity Location: 19600 W SH 29 Liberty Hill, Williamson County, Texas

Name of Customer: Todd Cox

Contact Person: Todd Cox Phone: 512-733-1110

Customer Reference Number (if issued):CN _____

Regulated Entity Reference Number (if issued):RN _____

Austin Regional Office (3373)

☐ Hays ☐ Travis ☒ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde

☐ Comal ☐ Kinney

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

☒ Austin Regional Office

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

☐ San Antonio Regional Office

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

Site Location (Check All That Apply):

☐ Recharge Zone ☒ Contributing Zone ☐ Transition Zone

Type of Plan	***Size***	***Fee Due***
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	62.41 Acres	$ 8,000.00
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: 8/25/2022

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

VI. Core Data Form (TCEQ-10400)

TCEQ Core Data Form

TCEQ Use Only

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:*
Cox, Todd	

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

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

12. Number of Employees	13. Independently Owned and Operated?
☒ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher	☒ 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:							
	Todd Cox						
	320 Creek Crossing Drive						
	City	Georgetown	State	TX	ZIP	78628	ZIP + 4

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

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(512) 845-7742		( ) -

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.)*

AMS - Advanced Manufacturing Solutions

23. Street Address of the Regulated Entity: *(No PO Boxes)*	19600 W SH 29							
	City	Liberty Hill	State	TX	ZIP	78642	ZIP + 4	
24. County								

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	North of SH 29 just inside Williamson County at the Burnet/Williamson County line

26. Nearest City	State	Nearest ZIP Code
Liberty Hill	TX	78642

27. Latitude (N) In Decimal:			28. Longitude (W) In Decimal:		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	42	25.57	-97	59	54.65

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)
3089	2673	333248	236220

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

Injection molding/manufacturing and storing products

34. Mailing Address:	19600 W SH 29							
	City	Liberty Hill	State	TX	ZIP	78642	ZIP + 4	

35. E-Mail Address:	chet.lange@mccoys.com

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(512) 368-9178		( ) -

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:

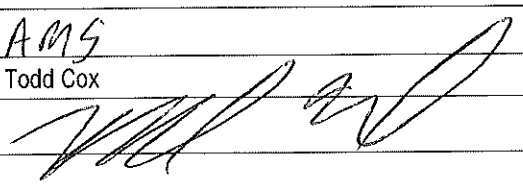
SECTION IV: Preparer Information

40. Name:	Marshal Brewer, P.E.-Eckermann Engineering, Inc.	41. Title:	Project Manager

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 556-8160		( ) -	marshal@eckermannengineering.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:	AMS	Job Title:	Owner
Name(In Print) :	Todd Cox	Phone:	(512) - 845 7742
Signature:		Date:	8-26-2022