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.

<table>
<tr><td colspan="5">1. Regulated Entity Name: FLORENCE SUBSTATION</td><td colspan="4">2. Regulated Entity No.:</td></tr>
<tr><td colspan="5">3. Customer Name: PEDERNALES ELECTRIC COOPERATIVE (PEC)</td><td colspan="4">4. Customer No.:</td></tr>
<tr><td>5. Project Type:
(Please circle/check one)</td><td colspan="2">New √</td><td>Modification</td><td>Extension</td><td>Exception</td><td colspan="2"></td></tr>
<tr><td>6. Plan Type:
(Please circle/check one)</td><td>WPAP</td><td>CZP √</td><td>SCS</td><td>UST</td><td>AST</td><td>EXP</td><td>EXT</td><td>Technical Clarification</td><td>Optional Enhanced Measures</td></tr>
<tr><td>7. Land Use:
(Please circle/check one)</td><td colspan="2">Residential</td><td colspan="3">Non-residential</td><td colspan="2">8. Site (acres):</td><td>9.98</td></tr>
<tr><td>9. Application Fee:</td><td colspan="2">$5000</td><td colspan="3">10. Permanent BMP(s):</td><td colspan="3">YES</td></tr>
<tr><td>11. SCS (Linear Ft.):</td><td colspan="2">N/A</td><td colspan="3">12. AST/UST (No. Tanks):</td><td colspan="3">N/A</td></tr>
<tr><td>13. County:</td><td colspan="2">WILLIAMSON</td><td colspan="3">14. Watershed:</td><td colspan="3">LOWER BERRY CREEK</td></tr>
</table>

Application Distribution

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

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

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

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

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

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Lena Roha
Print Name of Customer/Authorized Agent Lena Roha December 21, 2023
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):	

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: Lena Roha

Date: 12/21/2023

Signature of Customer/Agent:

Lena Roha

Regulated Entity Name: Florence Substation

Project Information

1. County: Williamson
2. Stream Basin: Lower Berry Creek Watershed; Brazos River Basin
3. Groundwater Conservation District (if applicable): N/A
4. Customer (Applicant):

   Contact Person: George "Corby" Craig
   Entity: Pedernales Electric Cooperative, Inc.
   Mailing Address: 201 S Avenue F
   City, State: Johnson City, Texas Zip: 78636
   Telephone: 830.992.7734 Fax: N/A
   Email Address: george.craig@peci.com

5. Agent/Representative (If any):

Contact Person: Lena Roha
Entity: Schneider Engineering, LLC
Mailing Address: 191 Menger Springs Parkway
City, State: Boerne, Texas Zip: 78006
Telephone: 830.249.3887 Fax: 830.249.5434
Email Address: lroha@poweredbysenergy.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 Georgetown.
☐ 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.

The site is located east of Ranch Road 2338, approximately 1/2 mile south of County Road 241 at 11800 FM 2338, Florence, Texas 76527.

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: Power Substation

13. Total project area (size of site): 9.98 Acres

    Total disturbed area: 8.10 Acres

14. Estimated projected population: 0

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	2,016	÷ 43,560 =	0.05
Parking	0	÷ 43,560 =	0
Other paved surfaces	350,593	÷ 43,560 =	8.05
Total Impervious Cover	353,514	÷ 43,560 =	8.10

Total Impervious Cover 8.10 **÷ Total Acreage** 9.98 **X 100 =** 82**% 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" = 40'.

35. 100-year floodplain boundaries:

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

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

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

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

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

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

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

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

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

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

42. ☐ Surface waters (including wetlands).

    ☒ N/A

43. ☐ Locations where stormwater discharges to surface water.

    ☒ There will be no discharges to surface water.

44. ☐ Temporary aboveground storage tank facilities.

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

45. ☐ Permanent aboveground storage tank facilities.

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

46. ☒ Legal boundaries of the site are shown.

Permanent Best Management Practices (BMPs)

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

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

☐ N/A

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

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

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

☐ N/A

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

☒ N/A

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

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

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

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

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

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

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

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

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

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

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

    ☒ N/A

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

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

☐ N/A

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

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

    ☒ N/A

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

    ☒ N/A

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

    ☒ N/A

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

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

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

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

Administrative Information

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

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

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

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

N
W E
S

SCHNEIDER ENGINEERING

DATE:	DRAWN BY:
10-27-2023	LLR
SCALE:	**MAP SOURCE:**
1" = 1000'-0"	CNES, 2023

PROJECT ADDRESS:

11800 FM 2338, FLORENCE,
WILLIAMSON COUNTY, TEXAS 76527

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

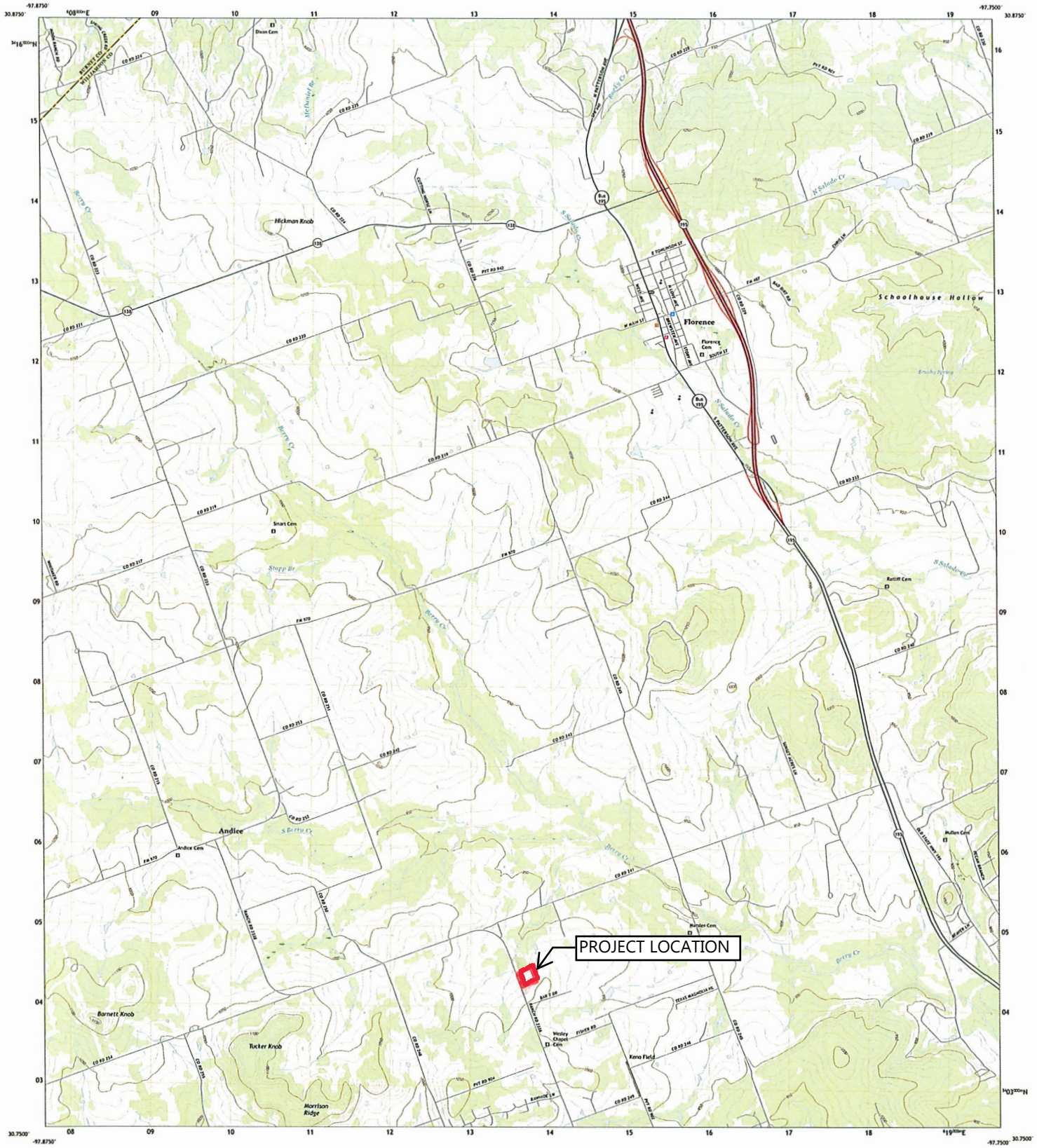
LEGEND:

PROPERTY BOUNDARY

ATTACHMENT A

PROJECT LOCATION MAP

ATTACHMENT B: Quadrangle Map



Attachment C – Project Narrative

1.0 AREA OF THE SITE

At approximately 9.98 acres total, the proposed substation site will consist of a substation pad and graded slopes, roadways leading to the substation gates, and a retention pond system. Approximately eight acres of land is to be used for the substation pad, grading, and roadway areas, the retention pond system will cover approximately one acre, and any remaining land will be undisturbed. (*See Civil Design Drawings for Reference*)

a) Road Map(s)
   - 911 Address for Florence Substation: 11800 FM 2338, Florence, Texas 76527
   - See ***Attachment A*** for road map showing directions to and the location of the project site.

b) USGS Quadrangle Map
   - See ***Attachment B*** for official 7 ½ minute USGS Quadrangle Map (Scale 1" = 2000') of project site.

2.0 OFFSITE AREAS

During the site reconnaissance conducted by Horizon Environmental Services, the surrounding land uses on adjoining properties were observed to be rangeland in all directions. A small pond is located on the property to the east, and RM 2338 is located adjacent to the western edge of the property. According to the environmental study, the surrounding area is generally dominated by agricultural land that has been historically used for agricultural purposes.

3.0 IMPERVIOUS COVER

Calculations to determine the impervious cover at the proposed Florence Substation site considers the following items: (*See Civil Design Drawings for Reference*)

- 265,615 sq. ft. of substation pad covered with 3" of ½" to 1" surface rock placed over a 1'-0" compacted, crushed limestone flexible base.
- 16,695 sq. ft. of flexible base on roadway paths leading to substation entrances from FM 2338.
- *905 sq. ft. of asphalt pavement for driveway access from FM 2338.
- 75,581 sq. ft. of rock rip rap placed along all 3:1 graded slopes around the substation pad and roadways and located at the western-most corner of the property.
- 4,356 sq. ft. of concrete foundations to support substation equipment per ultimate site layout conditions.
- 2,016 sq. ft. for two control house structures.

➢ $\mathbf{265,615}\ sq.ft.(Substation\ Pad) \div \mathbf{43,560}\ \frac{sq.ft.}{ac.}$ ***= 6.10 acres***

➢ $\mathbf{16,695}\ sq.ft.(Flexible\ Base) \div \mathbf{43,560}\ \frac{sq.ft.}{ac.}$ ***= 0.38 acres***

➢ $\mathbf{*905}\ sq.ft.(Asphalt\ Pavement\ Driveway) \div \mathbf{43,560}\ \frac{sq.ft.}{ac.}$ ***= 0.02 acres***

- $\mathbf{64,832}\ sq.ft.(Rock\ Rip\ Rap) \div \mathbf{43,560}\ \frac{sq.ft.}{ac.}$ ***= 1.49*** *acres*
- $\mathbf{4,356}\ sq.ft.(Concrete\ Foundations) \div \mathbf{43,560}\ \frac{sq.ft.}{ac.}$ ***= 0.10*** *acres*
- $\mathbf{2,016}\ sq.ft.(Control\ Houses) \div \mathbf{43,560}\ \frac{sq.ft.}{ac.}$ ***= 0.05*** *acres*
- $\mathbf{353,514}\ sq.ft.(Total\ Area) \div \mathbf{43,560}\ \frac{sq.ft.}{ac.}$ ***= 8.10*** *acres (Total Impervious Cover)*

- $\mathbf{8.10}\ ac.(Total\ Impervious\ Cover) \div \mathbf{9.98}\ ac.(Total\ Acreage)$ x 100 ***≈ 82 % Impervious Cover***

For the purpose of this application, all calculations for impervious cover consider the ultimate substation site layout design, which includes additional equipment that may be added to the substation in the future, if necessary.

**Asphalt pavement is to be installed above flexible base; therefore, it is not counted separately towards total area and total impervious cover.*

4.0 PERMANENT BMP(s)

Permanent BMPs are required to treat runoff from the developed substation site due to 82% impervious cover across the property.

A detention pond system and water quality treatment features are to be located on the north side of the property. A series of ponds and culvert pipes will mitigate stormwater runoff from the substation pad and station entrance roads into Pond 4 for treatment. Water quality features, such as precast concrete distribution boxes, rock berms, rock rip rap, a sand bed filtration medium and perforated pipe system in the retention pond will treat stormwater runoff before discharging from the property.

Additional BMPs included the installation of a 12" subsurface drain pipe and concrete flume along the west edge of the substation pad, ditching around three sides of the substation pad, and rock rip rap on all graded slopes to direct stormwater runoff into the detention pond system for water quality treatment.

Precast concrete distribution boxes serve to intercept outfall from the culvert pipes leading from Ponds 1-3 into Pond 4. Rock rip rap along the proposed surface contours and a series of rock berms separate Pond 4 into smaller sections to mitigate stormwater runoff collected from the substation pad. A sand bed filtration medium is used to filter stormwater, while perforated pipes at the base of the sand bed will direct the filtered stormwater towards the downstream section of Pond 4 and ultimately into Pond 5. A final rock berm separates Pond 4 and 5 to mitigate the flow of runoff to a series of culverts to exit Pond 5 into a bed of rock rip rap before finally exiting the station.

5.0 PROPOSED SITE USE

Florence substation will be a new power substation owned by Pedernales Electric Cooperative (PEC). The proposed substation will be an initial ring bus with two line-terminals and a single power transformer. The ultimate substation will be a breaker-and-a-half setup with four line-terminals and four power

transformers. The substation will have a split yard between LCRA and PEC, and LCRA will have ownership of equipment located in their portion of the substation yard.

The scope of the project includes installation of a new Prolec-GE Waukesha 138/26.18kV, 46.7 MVA power transformer (T-1) bank. This transformer has a 6,708-gallon oil capacity and will require secondary containment to prevent harmful transformer oil discharge into the surrounding environment.

To satisfy secondary containment requirements, a new "moat" style concrete foundation will be installed around the power transformer to capture any oil that may leak from the transformer. The "moat" is designed to contain 10,700 gallons of liquid.

6.0 SITE HISTORY

Horizon Environmental Services conducted an examination of available historical use information for the project site, including ownership records and aerial photography to develop a history of the previous uses of the project property site and surrounding areas. The examination consisted of reviewing aerial photography supplied by Environmental Risk Information Services (ERIS) spanning several years between 1941 to 2020, and additional aerial photograph supplied by the Environmental Systems Research Institute (ESRI) collected in 2020. As a result of the investigation, the property was determined to have no specific land use other than for agricultural purposes since 1941.

7.0 PREVIOUS DEVELOPMENT

According to the environmental study report, no records for previous development exist for the project site and is therefore **NOT APPLICABLE.**

8.0 AREA(s) TO BE DEMOLISHED

There are no areas to be demolished for this project and is therefore **NOT APPLICABLE.**

ATTACHMENT D – FACTORS AFFECTING SURFACE WATER QUALITY

Post-construction, there are no factors affecting surface water quality from the project site. Therefore, this section is **NOT APPLICABLE.**

ATTACHMENT E – Volume and Character of Stormwater

1.0 PRE-DEVELOPMENT CONDITIONS

The proposed project site has a total site area of 9.98 acres. The initial site surface conditions are classified as an *undeveloped, short grass pasture* with *50-70% cover* at a natural 3% slope. The pre-development runoff coefficients and Manning's roughness coefficient are as follows:

$C_{25} = 0.42$ $C_{100} = 0.49$ n= 0.25 (*Pre-Development*)

To calculate the time of concentration for pre-development site conditions, consider the travel time of storm water flow from the furthest point of the station to be 870'. For the initial 100 feet from the furthest point of the station, storm water runoff sheet flows at the following rate:

$$T_{f1} = \frac{Ln}{42\sqrt{s}} = \frac{(100')(0.25)}{42\sqrt{0.3}} = 3.4\ minutes \quad \text{(Equation 1.1)}$$

During the last 770', storm water runoff has shallow concentrated flow at the following rate:

$$T_{f2} = \frac{Ln}{60\sqrt{s}} = \frac{(770')(0.25)}{60\sqrt{0.3}} = 18.4\ minutes \quad \text{(Equation 1.2)}$$

The total time of concentration is 3.4 minutes plus 18.4 minutes, yielding 22 minutes for storm water to travel 870' across the proposed station. The average rain rate of intensity for a 25-year event and a 100-year event can then be calculated using the following:

$$i_{25} = \frac{a}{(i+b)^c} = \frac{111.07}{(22+17.23)^{0.7815}} = 6.30\ in/hr \quad \text{(Equation 1.3)}$$

$$i_{100} = \frac{a}{(i+b)^c} = \frac{129.03}{(22+17.83)^{0.7625}} = 7.77\ in/hr \quad \text{(Equation 1.4)}$$

Finally, the peak runoff for a 25-year event and a 100-year event for pre-construction site conditions are as follows:

$$Q_{25} = CiA = (0.42)\left(6.30\ \frac{in}{hr}\right)(9.98\ ac) = 26.4\ CFS \quad \text{(Equation 1.5)}$$

$$Q_{100} = CiA = (0.49)\left(7.77\ \frac{in}{hr}\right)(9.98\ ac) = 38.2\ CFS \quad \text{(Equation 1.6)}$$

2.0 POST-DEVELOPMENT CONDITIONS

Following site construction, the post-development site will cover approximately 8.10 acres between the substation pad, slopes, and access roads. The finished surface is classified as *crushed limestone base with 3" surface rock (3/4" to 1")* at a 1.2% slope. The runoff coefficients and Manning's roughness coefficient post-development are as follows:

$C_{25} = 0.55$ $C_{100} = 0.06$ n= 0.06 (*Post-Development*)

To calculate the time of concentration for post-development site conditions, consider the travel time of storm water flowing from the furthest point of the station to discharge at the last retention pond as follows:

- Storm water travels 685′ over the substation pad through 3" of gravel media by sheet flow:

$$T_{f1} = \frac{Ln}{42\sqrt{s}} = \frac{(685')(0.06)}{42\sqrt{0.15}} = 8.0\ minutes \quad \text{(Equation 2.1)}$$

- Storm water travels 130′ by subsurface drain:

$$T_{f2} = \frac{Ln}{42\sqrt{s}} = \frac{(130')(0.06)}{42\sqrt{0.15}} = 0.2\ minutes \quad \text{(Equation 2.2)}$$

- Storm water travels 115′ through ponds, assuming open channel flow approximately 1 ft/sec:

$$T_{f3} = 1.9\ minutes \quad \text{(Equation 2.3)}$$

- Storm water travels 100′ across undisturbed by land sheet flow at a 2% slope:

$$T_{f4} = \frac{Ln}{42\sqrt{s}} = \frac{(100')(0.25)}{42\sqrt{0.2}} = 4.2\ minutes \quad \text{(Equation 2.4)}$$

The total time of concentration is (8.0 + 0.2 + 1.9 + 4.2) minutes, yielding 14.3 minutes for storm water to travel across the finished site post-construction. The average rain rate of intensity for a 25-year event and a 100-year event can then be calculated using the following:

$$i_{25} = \frac{a}{(i+b)^c} = \frac{111.07}{(14.3+17.23)^{0.7815}} = 7.49\ in/hr \quad \text{(Equation 2.5)}$$

$$i_{100} = \frac{a}{(i+b)^c} = \frac{129.03}{(14.3+17.23)^{0.7625}} = 9.16\ in/hr \quad \text{(Equation 2.6)}$$

Finally, the peak runoff for a 25-year event and a 100-year event for post-construction site conditions are as follows:

$$Q_{25} = CiA = (0.55)\left(7.49\ \frac{in}{hr}\right)(8.10\ ac.) + (0.42)\left(7.49\frac{in}{hr}\right)(1.88\ ac) = 39.3\ CFS \quad \text{(Equation 2.7)}$$

$$Q_{100} = CiA = (0.60)\left(9.16\ \frac{in}{hr}\right)(8.10\ ac.) + (0.49)\left(9.16\frac{in}{hr}\right)(1.88\ ac) = 53.0\ CFS \quad \text{(Equation 2.7)}$$

TABLE 1: PRE-DEVELOPED VS POST-DEVELOPED RUNOFF

Condition	Storm Event	Peak Runoff	Difference
Pre-Developed	25-Year	26.4 CFS	-
Post-Developed	25-Year	39.3 CFS	12.8 CFS
Pre-Developed	100-Year	38.2 CFS	-
Post-Developed	100-Year	53.0 CFS	14.8 CFS

For a 100-year storm event, the peak runoff increases by 14.8 CFS. The ponds and discharge controls must limit Q to 38.2 CFS.

3.0 SUBSURFACE DRAIN

A 12″ subsurface drain will stretch 665′ in total length and an average slope of 1.4%. Per NDS flow charts, a *12″ pipe with 1.4% slope* will have Q = 2900 gpm = 6.4 CFS. (Equation 3.0)

The area of the substation pad contributing to the subsurface drain is estimated to be approximately 2.4 acres. The flow into the subsurface drain is calculated by the following:

$$Q_{DRAIN_{100}} = CiA = (0.60)\left(9.16\ \frac{in}{hr}\right)(2.4\ ac.) = 13.2\ CFS \quad \text{(Equation 3.1)}$$

$$(13.2\ CFS\ Contributing\ to\ Subsurface\ Drain) - (6.4\ CFS\ Capacity) = 6.8\ CFS \quad \text{(Equation 3.2)}$$

Therefore, for a 100-year event, 6.8 CFS must be conveyed in addition to the subsurface drain capacity. A concrete flume will be added along the southwest fence line to direct overflow from the subsurface drain into Pond 1.

4.0 POND INTERCONNECTION CULVERTS

Pond 1 has a maximum depth = 2′-0″. Discharge from a 12″ pipe with 2′-0″ of head yields the following:

$$v = \sqrt{2gh} = \sqrt{(2)\left(32.17\ \frac{ft}{s^2}\right)(2')} = 11.3\ \text{ft/s} \quad \text{(Equation 4.0)}$$

$$Q = v\left(\frac{\pi d^2}{4}\right) = \left(11.3\ \frac{ft}{s}\right)\left(\frac{\pi(1')^2}{4}\right) = 8.9\ CFS \quad \text{(Equation 4.1)}$$

5.0 STORM WATER RUNOFF SUMMARY

For a 100-year event, storm water runoff from upgradient will be diverted around the substation site by perimeter ditches included in the substation pad grading design.

Storm water runoff generated on the pad site will flow across the pad through 3″ of ¾″ to 1″ washed gravel media.

2.4 acres of surface area will drain towards a 12″ subsurface drain located along the west side of the station pad. Discharge of approximately 6.4 CFS will be collected in the subsurface drain and directed to Pond 2.

Excess runoff estimated at 6.8 CFS will be diverted by a surface flume located along the west fence line into Pond 1. 2.2 acres of substation pad will contribute runoff directly into Pond 1, resulting in an additional volume of $Q = (0.60)\left(9.16\ \frac{in}{hr}\right)(2.2\ ac.) = 12.1\ CFS$. Total flow into Pond 1 will be (6.8 CFS) + (12.1 CFS) = 18.9 CFS. Pond 1 will have a total capacity of approximately 7,000 cubic feet, and two 12″ discharge pipes into Pond 4 with a capacity of 17.8 CFS, which will prevent Pond 1 from overtopping during a 100-year event.

Pond 2 will collect 6.4 CFS of runoff from the subsurface drain, plus runoff from 2.1 acres that flow directly into Pond 2 at a rate of $Q = (0.60)\left(9.16\ \frac{in}{hr}\right)(2.1\ ac.) = 11.5\ CFS$. Total discharge into Pond 2 = (6.4 CFS) + (11.5 CFS) = 17.9 CFS. Pond 2 will have three 8″ discharge pipes with a total capacity of (6.3 CFS) * (3 pipes) = 18.9 CFS, which will prevent Pond 2 from overtopping during a 100-year event.

Pond 3 will collect runoff from 0.3 acres at a rate of $Q = (0.60)\left(9.16\ \frac{in}{hr}\right)(0.3\ ac.) = 1.6\ CFS$, and will have a single 8″ discharge pipe with a capacity of 6.3 CFS, which will prevent Pond 3 from overtopping during a 100-year event.

Pond 4 will receive runoff from the entire site, estimated at 53.0 CFS. Pond 4 will have a capacity of 36,500 cubic feet and will have four 8″ perforated discharge pipes with a capacity of (1.85 CFS) * (4 pipes) = 7.4 CFS. For a 100-year event with a time of concentration of 14 minutes, Pond 4 will fill in approximately 40 minutes, after which the 100-year rainfall intensity drops to half of the maximum intensity, which will prevent Pond 4 from overtopping. In the rare event Pond 4 is overtopped, all excess storm water runoff will flow into Pond 5.

Pond 5 will have four 12″ discharge pipes with a capacity of (8.9 CFS) * (4 pipes) = 35.6 CFS, which is less than the pre-development maximum site discharge of 38.2 CFS.

TABLE 2: POND PROPERTIES

Pond	Area	Max Depth	Average Depth	Volume	Max Discharge
1	3,500 ft²	2′-0″	2′-0″	7,000 ft²	17.8 CFS
2	8,000 ft²	5′-0″	2′-6″	20,000 ft²	17.9 CFS
3	3,000 ft²	5′-0″	2′-6″	7,500 ft²	6.3 CFS
4	36,500 ft²	2′-0″	2′-0″	73,120 ft²	26.7 CFS
5	5,000 ft²	2′-0″	2′-0″	10,000 ft²	26.7 CFS

ATTACHMENT J – BMP(s) FOR UPGRADIENT STORMWATER

Ditches located along the high side of the station pad will divert upgradient storm water around the station. Therefore, permanent BMPs are **NOT APPLICABLE** for this section.

ATTACHMENT K – BMP(s) FOR ON-SITE STORMWATER

On-site stormwater flows across the substation pad into a series of permanent BMPs to mitigate flow and for treatment for water quality before exiting the station.

A subsurface drain pipe is located along the western side of the station to collect and divert stormwater runoff into a retention pond system located at the northern side of the station. In the event the subsurface drain pipe is full, additional runoff from the station is diverted into Pond 1 by concrete flume along the western side of the station.

Ponds 1, 2, and 3 will collect stormwater runoff from the substation pad and mitigate flow into Pond 4 by culvert pipes located beneath the roadways to the substation entrances on the northern side of the pad.

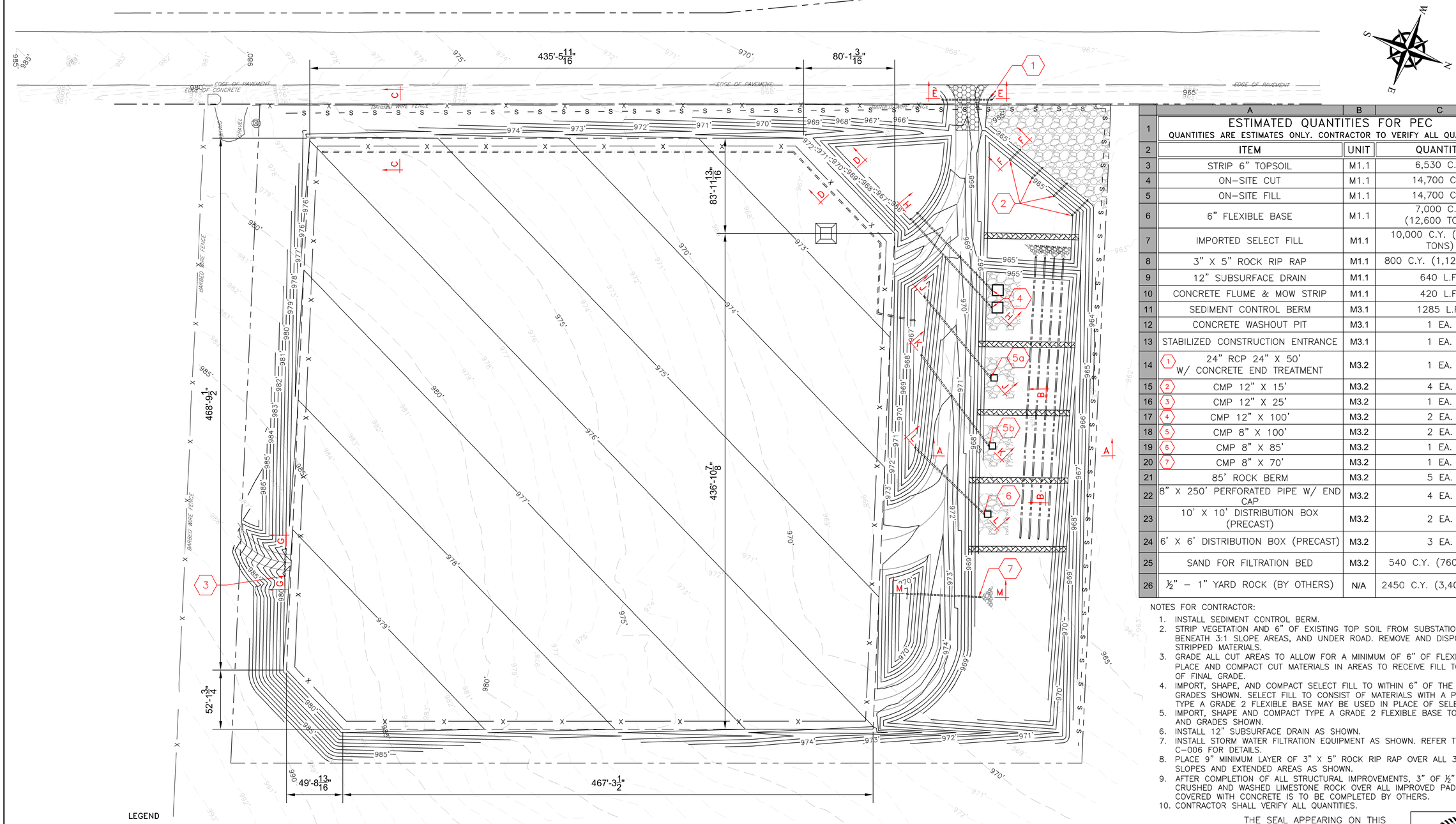
Precast concrete distribution boxes will intercept the outfall from the culvert pipes leading into Pond 4 from Ponds 1 and 2, and rock rip rap surrounding the distribution boxes will mitigate the flow of stormwater as it exits the distribution boxes.

Pond 4 is separated into six chambers by a series of berms and water quality treatment measures to filtrate stormwater runoff. Each chamber is separated by rock berm, except for a natural berm separating the final chamber and Pond 5.

The first chamber receiving stormwater from Pond 3 includes rock rip rap at the base of the culvert pipe to prevent erosion. A rock berm separates the next chamber receiving stormwater from Pond 3. The next three chambers, separated by rock berms, introduce a geotextile fabric lining beneath an 18″ minimum sand bed filter and four 8″ perforated PVC pipes at the base of the sand bed that divert filtered stormwater into the final chamber of Pond 4.

A rock berm separates Pond 4 and Pond 5. From Pond 5, the filtered runoff is diverted through four culvert pipes and over a bed of rock rip rap to exit the property.

ATTACHMENT M – CONSTRUCTION PLANS



	A	B	C
1	ESTIMATED QUANTITIES FOR PEC QUANTITIES ARE ESTIMATES ONLY. CONTRACTOR TO VERIFY ALL QUANTITIES.		
2	ITEM	UNIT	QUANTITY
3	STRIP 6" TOPSOIL	M1.1	6,530 C.Y.
4	ON-SITE CUT	M1.1	14,700 C.Y.
5	ON-SITE FILL	M1.1	14,700 C.Y.
6	6" FLEXIBLE BASE	M1.1	7,000 C.Y. (12,600 TONS)
7	IMPORTED SELECT FILL	M1.1	10,000 C.Y. (18,000 TONS)
8	3" X 5" ROCK RIP RAP	M1.1	800 C.Y. (1,120 TONS)
9	12" SUBSURFACE DRAIN	M1.1	640 L.F.
10	CONCRETE FLUME & MOW STRIP	M1.1	420 L.F.
11	SEDIMENT CONTROL BERM	M3.1	1285 L.F.
12	CONCRETE WASHOUT PIT	M3.1	1 EA.
13	STABILIZED CONSTRUCTION ENTRANCE	M3.1	1 EA.
14	(1) 24" RCP 24" X 50' W/ CONCRETE END TREATMENT	M3.2	1 EA.
15	(2) CMP 12" X 15'	M3.2	4 EA.
16	(3) CMP 12" X 25'	M3.2	1 EA.
17	(4) CMP 12" X 100'	M3.2	2 EA.
18	(5) CMP 8" X 100'	M3.2	2 EA.
19	(6) CMP 8" X 85'	M3.2	1 EA.
20	(7) CMP 8" X 70'	M3.2	1 EA.
21	85' ROCK BERM	M3.2	5 EA.
22	8" X 250' PERFORATED PIPE W/ END CAP	M3.2	4 EA.
23	10' X 10' DISTRIBUTION BOX (PRECAST)	M3.2	2 EA.
24	6' X 6' DISTRIBUTION BOX (PRECAST)	M3.2	3 EA.
25	SAND FOR FILTRATION BED	M3.2	540 C.Y. (760 TONS)
26	½" – 1" YARD ROCK (BY OTHERS)	N/A	2450 C.Y. (3,400 TONS)

NOTES FOR CONTRACTOR:

1. INSTALL SEDIMENT CONTROL BERM.
2. STRIP VEGETATION AND 6" OF EXISTING TOP SOIL FROM SUBSTATION PAD, BENEATH 3:1 SLOPE AREAS, AND UNDER ROAD. REMOVE AND DISPOSE OF STRIPPED MATERIALS.
3. GRADE ALL CUT AREAS TO ALLOW FOR A MINIMUM OF 6" OF FLEXIBLE BASE. PLACE AND COMPACT CUT MATERIALS IN AREAS TO RECEIVE FILL TO WITHIN 2' OF FINAL GRADE.
4. IMPORT, SHAPE, AND COMPACT SELECT FILL TO WITHIN 6" OF THE LINES AND GRADES SHOWN. SELECT FILL TO CONSIST OF MATERIALS WITH A PI OF 14–28. TYPE A GRADE 2 FLEXIBLE BASE MAY BE USED IN PLACE OF SELECT FILL.
5. IMPORT, SHAPE AND COMPACT TYPE A GRADE 2 FLEXIBLE BASE TO THE LINES AND GRADES SHOWN.
6. INSTALL 12" SUBSURFACE DRAIN AS SHOWN.
7. INSTALL STORM WATER FILTRATION EQUIPMENT AS SHOWN. REFER TO DRAWING C–006 FOR DETAILS.
8. PLACE 9" MINIMUM LAYER OF 3" X 5" ROCK RIP RAP OVER ALL 3:1 SIDE SLOPES AND EXTENDED AREAS AS SHOWN.
9. AFTER COMPLETION OF ALL STRUCTURAL IMPROVEMENTS, 3" OF ½" TO 1" CRUSHED AND WASHED LIMESTONE ROCK OVER ALL IMPROVED PAD AREAS NOT COVERED WITH CONCRETE IS TO BE COMPLETED BY OTHERS.
10. CONTRACTOR SHALL VERIFY ALL QUANTITIES.

LEGEND

- 600 EXISTING ELEVATION
- 600 PROPOSED ELEVATION
- X FENCE
- EDGE OF GRADED PAD
- PROPERTY BOUNDARY
- S SEDIMENT CONTROL BERM
- SUBSURFACE DRAIN
- 6" PERFORATED PIPE W/ END CAP
- ROCK BERM
- ROCK RIP RAP
- STABILIZED CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT PIT

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12–21–2023

ISSUED 12-21-2023
FINAL DESIGN

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

STATE OF TEXAS
J. GREG GRUSENDORF
80199
LICENSED
PROFESSIONAL ENGINEER

Ltr.	Date	Revision	By	Chkd.	Appd.
E					
D					
C					
B					
A					
K					
J					
H					
G					
F					

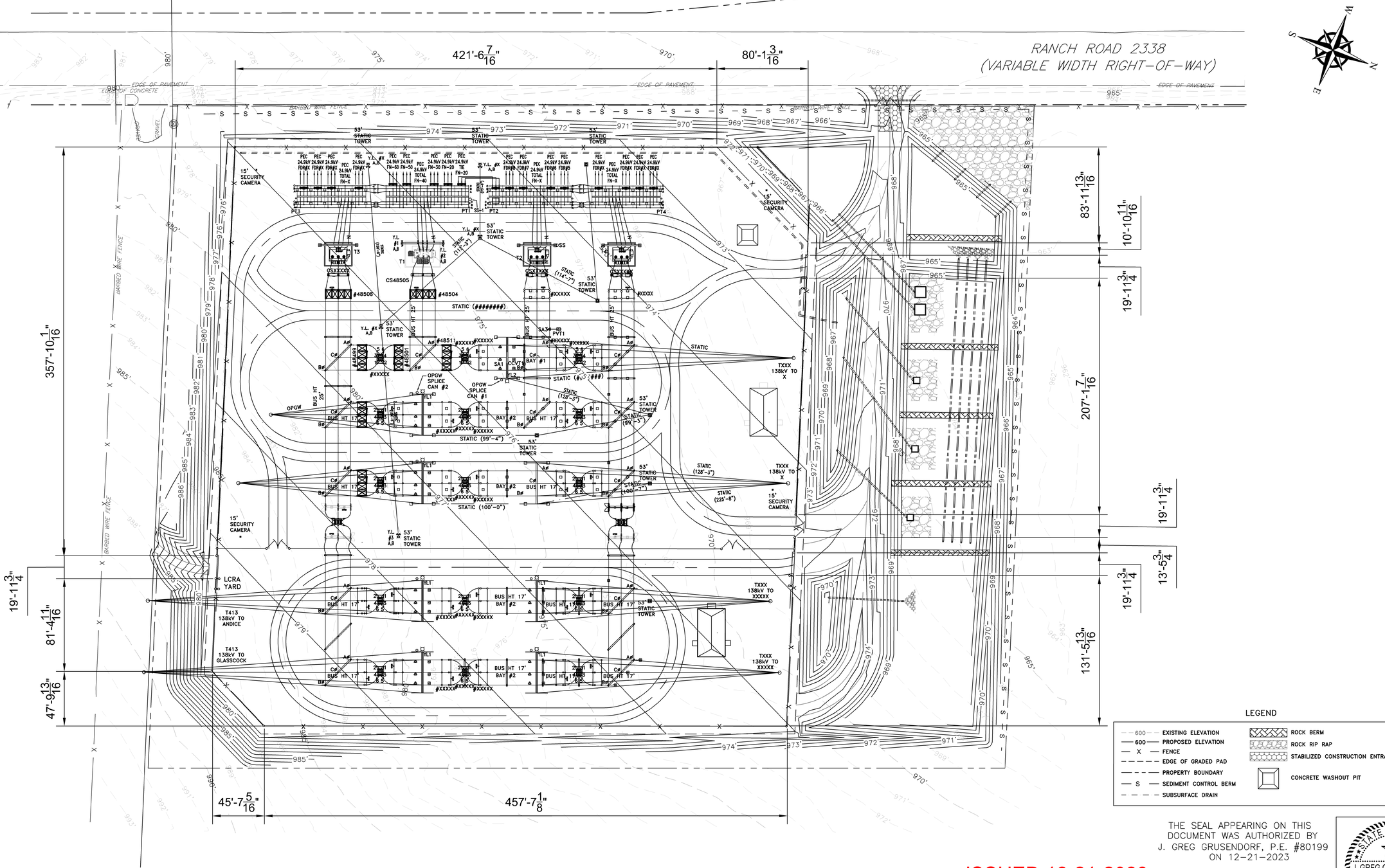
DRAWN LLR
CHECKED JGG
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

GRADING LAYOUT
ULTIMATE

DATE 06–28–2023
SCALE 1" = 40'–0"
DWG. NO. 2S–195–C–001

23PEC60 – R00000001539



LEGEND

- EXISTING ELEVATION
- PROPOSED ELEVATION
- FENCE
- EDGE OF GRADED PAD
- PROPERTY BOUNDARY
- SEDIMENT CONTROL BERM
- SUBSURFACE DRAIN
- ROCK BERM
- ROCK RIP RAP
- STABILIZED CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT PIT

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12-21-2023

ISSUED 12-21-2023
FINAL DESIGN

STATE OF TEXAS — J. GREG GRUSENDORF — 80199 — LICENSED PROFESSIONAL ENGINEER

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

Ltr.	Date	Revision	By	Chkd.	Appd.
E					
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Ltr.	Date	Revision	By	Chkd.	Appd.
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J					
H					
G					
F					

DRAWN LLR
CHECKED JGG
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

ULTIMATE SITE & CIVIL LAYOUT

DATE 06-28-2023
SCALE 1" = 40'-0"
DWG. NO. 2S-195-C-001a

23PEC60 – R00000001539

CP 102-Control Point
N:10251287.67
E:3088095.13

CP 103-Control Point
N:10251410.52
E:3088345.01

CP 104-Control Point
N:10251523.84
E:3088001.01

CP 105-Control Point
N:10251781.05
E:3087909.68

RANCH ROAD 2338
(VARIABLE WIDTH RIGHT-OF-WAY)

EDGE OF PAVEMENT

EDGE OF CONCRETE

BARBED WIRE FENCE

FLOOD ZONE A

CP 100-Control Point
N:1025303.32
E:3088266.82

CP 101-Control Point
N:10251450.98
E:3088704.80

TBM 2000

GRAVEL

LEGEND

600	EXISTING ELEVATION
600	PROPOSED ELEVATION
X	FENCE
	EDGE OF GRADED PAD
	PROPERTY BOUNDARY
	FLOOD ZONE

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12-21-2023

ISSUED 12-21-2023
FINAL DESIGN

STATE OF TEXAS
J. GREG GRUSENDORF
80199
LICENSED PROFESSIONAL ENGINEER

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

Ltr.	Date	Revision	By	Chkd.	Appd.
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F					

DRAWN LLR
CHECKED JGG
APPROVED JGG

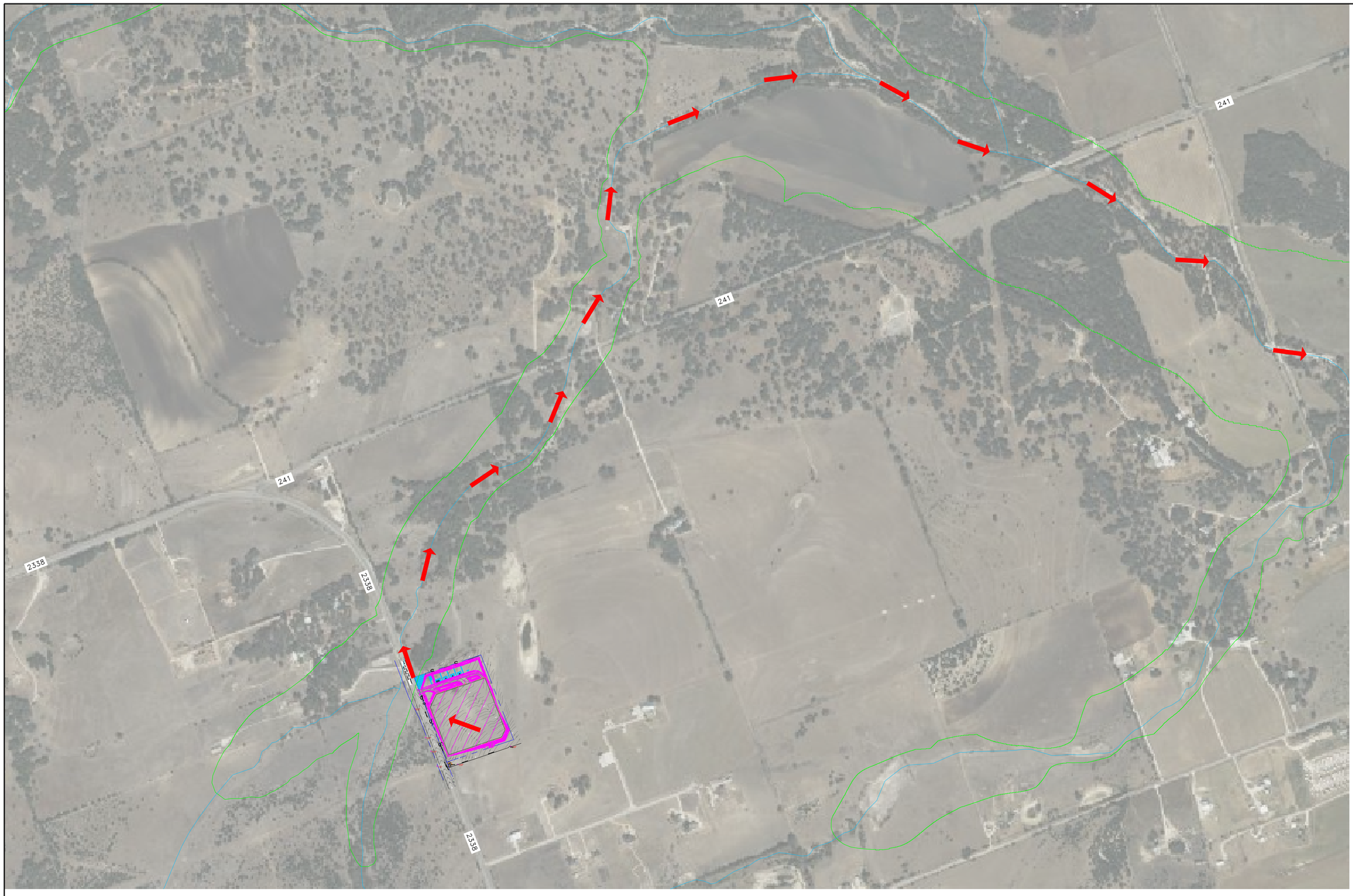
PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS

FLORENCE SUBSTATION

100-YR FLOOD ZONE EXHIBIT

DATE 06-28-2023
SCALE 1" = 40'-0"
DWG. NO. 2S-195-C-001b

23PEC60 – R00000001539



N
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LEGEND

- EXISTING GRADE
- PROPOSED GRADE
- PROPERTY BOUNDARY
- 100-YEAR FLOOD ZONE
- DRAINAGE FLOW LINE
- STATION RUNOFF FLOW DIRECTION
- ROCK RIP RAP

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12-21-2023

STATE OF TEXAS
J. GREG GRUSENDORF
80199
LICENSED PROFESSIONAL ENGINEER

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

ISSUED 12-21-2023
FINAL DESIGN

Ltr.	Date	Revision	By	Chkd.	Appd.
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Ltr.	Date	Revision	By	Chkd.	Appd.
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J					
H					
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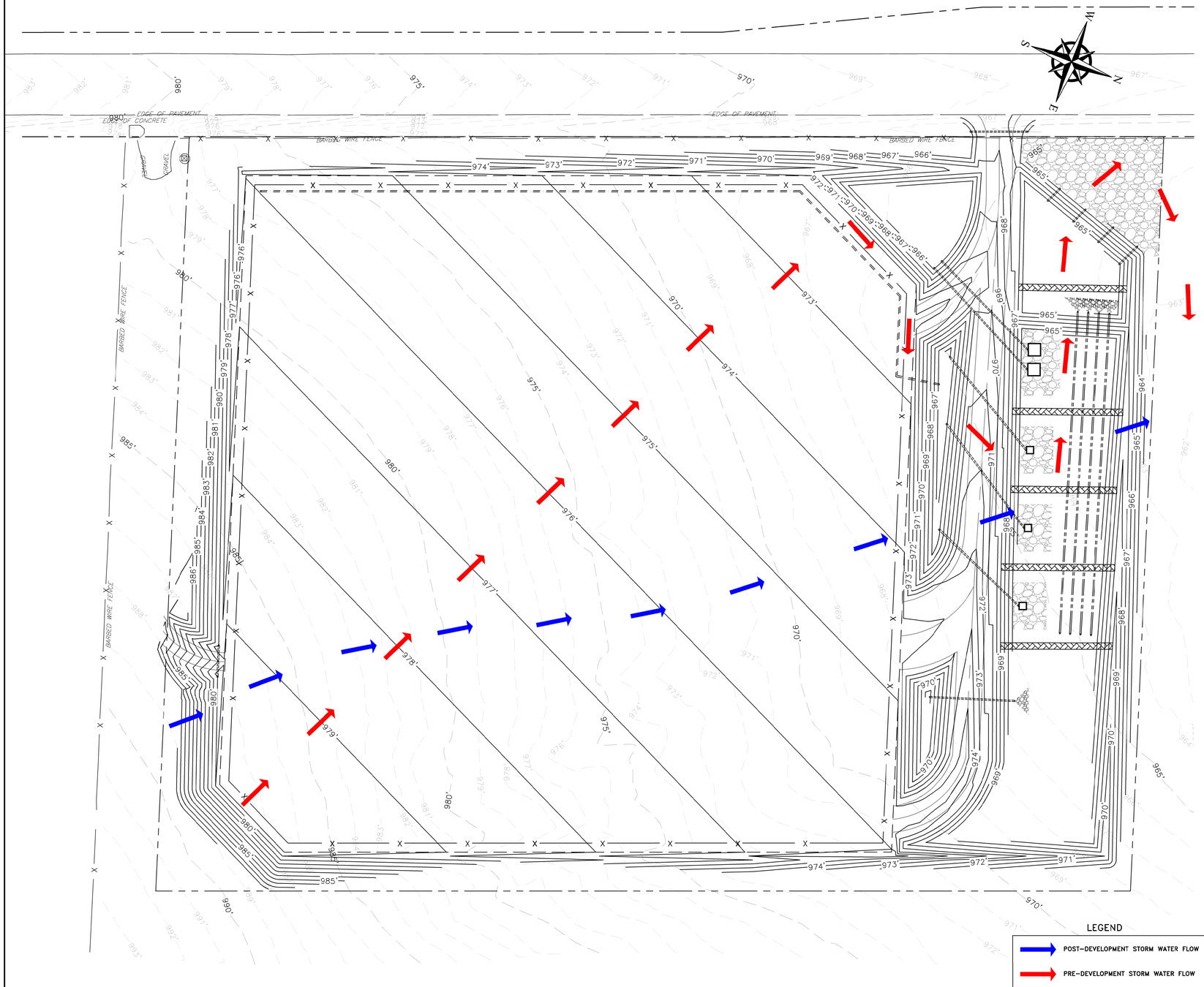
F					

DRAWN LLR
CHECKED JGG
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

DRAINAGE PLAN

DATE 10-24-2023
SCALE 1" = 400'
DWG. NO. 2S-195-C-002



A. PRE-DEVELOPMENT CONDITIONS:

- TOTAL SITE AREA = 750' X 580' = 9.98 ACRES
- SURFACE = UNDEVELOPED SHORT GRASS PASTURE, 50-70% COVER, 3% SLOPE
- RUNOFF COEFFICIENTS: C_{25}=0.42 C_{100}=0.49
- MANNING'S ROUGHNESS COEFFICIENT: n=0.25

TIME OF CONCENTRATION

- TRAVEL TIME OF STORM WATER FLOW FROM FURTHEST POINT (870'):

SHEET FLOW - FIRST 100'

$T_{t1} = Ln/42\sqrt{s} = (100')(0.25)/42\sqrt{0.3} = 3.4$ min.

SHALLOW CONCENTRATED FLOW - LAST 770'

$T_{t2} = Ln/60\sqrt{s} = (770')(0.25)/60\sqrt{0.3} = 18.4$ min.

TOTAL T_c = 3.4 + 18.4 = 22 minutes

- FOR T_c = 22 min.:

$i_{25} = a/(t+b)^c = 111.07/(22+17.23)^{0.7815} = 6.3$ in/hr

$i_{100} = a/(t+b)^c = 129.03/(22+17.83)^{0.7625} = 7.77$ in/hr

RUNOFF

- $Q_{25} = CiA = (0.42)(6.3)(9.98) = 26.4$ CFS
- $Q_{100} = CiA = (0.49)(7.77)(9.98) = 38.2$ CFS

B. POST-DEVELOPMENT CONDITIONS:

- SUBSTATION PAD + SLOPES + ROADWAY AREA = 635' X 550' = 8.1 ACRES
- FINISHED SURFACE = CRUSHED LIMESTONE BASE W/ 3" SURFACE ROCK ($\frac{3}{4}$" TO 1"), 1.2% SLOPE
- RUNOFF COEFFICIENTS: C_{25}=0.55 C_{100}=0.06
- MANNING'S ROUGHNESS COEFFICIENT: n=0.06
- (UNDEVELOPED/NATURAL/POND AREA = 1.88 ACRES)

TIME OF CONCENTRATION

- TRAVEL TIME OF STORM WATER FLOW FROM FURTHEST POINT TO DISCHARGE AT LAST RETENTION POND:

685' OVER SUBSTATION PAD THROUGH 3" OF GRAVEL MEDIA - SHEET FLOW

$T_{t1} = Ln/42\sqrt{s} = (685')(0.06)/42\sqrt{0.15} = 8.0$ min.

130' IN SUBSURFACE DRAIN

$T_{t2} = Ln/42\sqrt{s} = (130')(0.06)/42\sqrt{0.15} = 0.2$ min.

115' THROUGH PONDS (OPEN CHANNEL)

$T_{t3} = Ln/42\sqrt{s} = (115')(0.06)/42\sqrt{0.15} = 1.9$ min.

100' OVER LAND - SHEET FLOW (2% SLOPE)

$T_{t4} = Ln/42\sqrt{s} = (100')(0.25)/42\sqrt{0.2} = 4.2$ min.

TOTAL T_c = 8 + 0.2 + 1.9 + 4.2 = 14.3 minutes

- FOR T_c = 14.3 min.:

$i_{25} = a/(t+b)^c = 111.07/(14.3+17.23)^{0.7815} = 7.49$ in/hr

$i_{100} = a/(t+b)^c = 129.03/(14.3+17.83)^{0.7625} = 9.16$ in/hr

RUNOFF

- $Q_{25} = CiA = (0.55)(7.49)(8.10) + (0.42)(7.49)(1.88) = 39.3$ CFS
- $Q_{100} = CiA = (0.60)(9.16)(8.10) + (0.49)(9.16)(1.88) = 53.0$ CFS

PRE-DEVELOPED VS POST-DEVELOPED RUNOFF			
CONDITION	STORM EVENT	PEAK RUNOFF	DIFFERENCE
PRE-DEVELOPED	25-YEAR	26.4 CFS	-
POST-DEVELOPED	25-YEAR	39.2 CFS	12.8 CFS
PRE-DEVELOPED	100-YEAR	38.2 CFS	-
POST-DEVELOPED	100-YEAR	53.0 CFS	14.8 CFS

FOR 100-YEAR EVENT, PEAK RUNOFF INCREASE=14.8 CFS. PONDS AND DISCHARGE CONTROLS MUST LIMIT Q TO 38.2 CFS.

LEGEND

POST-DEVELOPMENT STORM WATER FLOW

PRE-DEVELOPMENT STORM WATER FLOW

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12-21-2023

STATE OF TEXAS
J. GREG GRUSENDORF
80199
LICENSED PROFESSIONAL ENGINEER

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

ISSUED 12-21-2023
FINAL DESIGN

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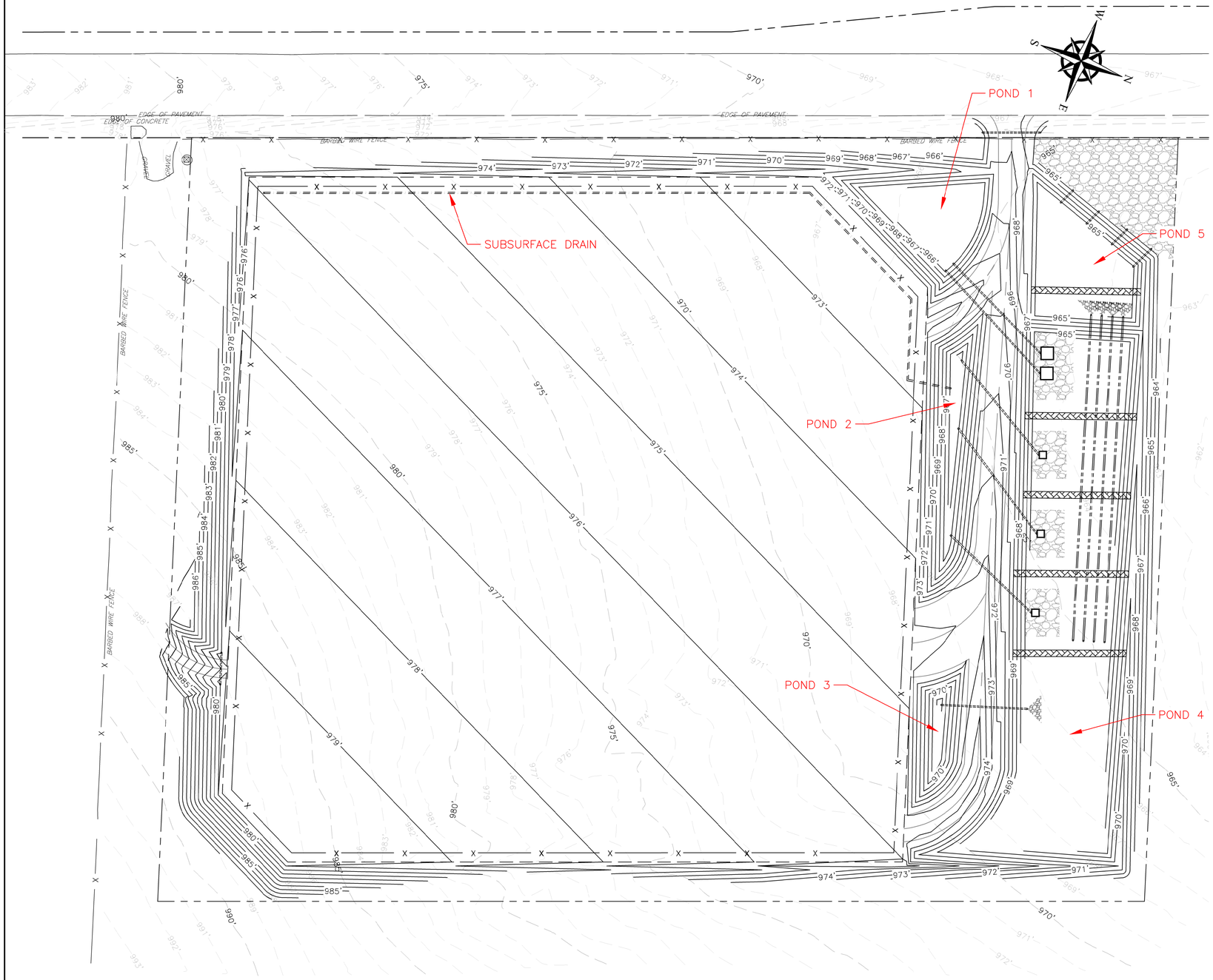
DRAWN LLR
CHECKED JGG
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

STORM WATER MANAGEMENT
STORM WATER RUNOFF CALCULATIONS

DATE 11-01-2023
SCALE 1" = 40'-0"
DWG. NO. 2S-195-C-003

23PEC60 - R00000001539



SUBSURFACE DRAIN:

- 12" SUBSURFACE DRAIN @ 665' TOTAL LENGTH, AVERAGE SLOPE = 1.4%
- PER NDS FLOW CHARTS, 12" PIPE WITH 1.4% GRADE, Q=2900 gpm = 6.4 CFS

AREA OF SUBSTATION PAD CONTRIBUTING TO SUBSURFACE DRAIN ≈ 2.4 ACRES

FLOW INTO SUBSURFACE DRAIN = DRAIN Q_{100} = CiA = (0.60)(9.16)(2.4) = 13.2 CFS

(13.2 CFS CONTRIBUTING TO SURFACE DRAIN) − (6.4 CFS CAPACITY) = 6.8 CF

THEREFORE, FOR 100−YEAR EVENT, 6.8 CFS MUST BE CONVEYED IN ADDITION TO SUBSURFACE DRAIN CAPACITY − ADD CONCRETE FLUME AT SOUTHWEST FENCE LINE TO DIRECT OVERFLOW FROM SUBSURFACE DRAIN INTO POND 1.

POND INTERCONNECTION CULVERTS

- POND 1 − MAX DEPTH = 2'
  DISCHARGE FROM 12" PIPE WITH 2' OF HEAD:
  $v = \sqrt{2gh} = \sqrt{(2)(32.17\ ft/s^2)(2')} = 11.3\ ft/s$
  $Q = (11.3\ ft/s)((\pi d^2)/4) = (11.3)(\pi*(1^2))/4) = 8.9\ CFS$

STORM WATER RUNOFF SUMMARY

1. FOR 100−YEAR EVENT, STORM WATER RUNOFF FROM UPGRADIENT WILL BE DIVERTED AROUND THE SUBSTATION SITE BY PERIMETER DITCHES.
2. STORM WATER RUNOFF GENERATED ON THE PAD SITE WILL FLOW ACROSS THE PAD THROUGH 3" OF ¾" TO 1" WASHED GRAVEL MEDIA.
3. 2.4 ACRES OF SURFACE AREA WILL DRAIN TOWARDS A 12" SUBSURFACE DRAIN.
4. DISCHARGE OF APPROXIMATELY 6.4 CFS WILL BE COLLECTED IN THE SUBSURFACE DRAIN AND DIRECTED TO POND 2.
5. EXCESS RUNOFF ESTIMATED AT 6.8 CFS WILL BE DIVERTED BY A SURFACE FLUME INTO POND 1. 2.2 ACRES OF SUBSTATION PAD WILL CONTRIBUTE RUNOFF DIRECTLY INTO POND 1, RESULTING IN AN ADDITIONAL VOLUME OF Q = (0.6)(9.16)(2.2) = 12.1 CFS. TOTAL FLOW INTO POND 1 WILL BE (6.8 CFS) + (12.1 CFS) = 18.9 CFS. POND 1 WILL HAVE A TOTAL CAPACITY OF APPROXIMATELY 7000 CUBIC FEET, AND TWO 12" DISCHARGE PIPES INTO POND 4 WITH A CAPACITY OF 17.8 CFS, WHICH WILL PREVENT THE POND FROM OVERTOPPING DURING A 100−YEAR EVENT.
6. POND 2 WILL COLLECT 6.4 CFS OF RUNOFF FROM THE SUBSURFACE DRAIN, PLUS RUNOFF FROM 2.1 ACRES THAT FLOW DIRECTLY INTO POND 2 AT A RATE OF Q = (0.6)(9.16)(2.1) = 11.5 CFS. TOTAL DISCHARGE INTO POND 2 = 6.4 + 11.5 = 17.9 CFS. POND 2 WILL HAVE 3~8" DISCHARGE PIPES WITH A TOTAL CAPACITY OF (6.3 CFS)(3) = 18.9 CFS, WHICH WILL PREVENT POND 2 FROM OVERTOPPING DURING A 100−YEAR EVENT.
7. POND 3 WILL COLLECT RUNOFF FROM 0.3 ACRES AT A RATE OF Q = (0.6)(9.16)(0.3) = 1.6 CFS, AND WILL HAVE A SINGLE 8" DISCHARGE PIPE WITH A CAPACITY OF 6.3 CFS, WHICH WILL PREVENT POND 3 FROM OVERTOPPING DURING A 100−YEAR EVENT.
8. POND 4 WILL RECEIVE THE RUNOFF FROM THE ENTIRE SITE, ESTIMATED AT 53.0 CFS FOR A 100−YEAR EVENT. POND 4 WILL HAVE A CAPACITY OF 36,500 ft^3 AND WILL HAVE 4~8" PERFORATED DISCHARGE PIPES WITH A CAPACITY OF (4)(1.85) = 7.4 CFS. FOR A 100−YEAR EVENT WITH A TIME OF CONCENTRATION OF 14 MINUTES, POND 4 WILL FILL IN APPROXIMATELY 40 MINUTES, AFTER WHICH THE 100−YEAR RAINFALL INTENSITY DROPS TO HALF OF THE MAXIMUM INTENSITY, WHICH WILL PREVENT POND 4 FROM OVERTOPPING. IN THE RARE EVENT POND 4 IS OVERTOPPED, ALL EXCESS STORM WATER RUNOFF WILL FLOW INTO POND 5.
9. POND 5 WILL HAVE 4~12" DISCHARGE PIPES WITH A CAPACITY OF (4)(8.9) = 35.6 CFS, WHICH IS LESS THAN THE PRE−DEVELOPED MAXIMUM SITE DISCHARGE OF 38.2 CFS.

POND PROPERTIES

POND	AREA	MAX DEPTH	AVG. DEPTH	VOLUME	MAX DISCHARGE
1	3500 ft^2	2'−0"	2'−0"	7000 ft^3	17.8 CFS
2	8000 ft^2	5'−0"	2'−6"	20,000 ft^3	17.9 CFS
3	3000 ft^2	5'−0"	2'−6"	7,500 ft^3	6.3 CFS
4	36,500 ft^2	2'−0"	2'−0"	73,120 ft^3	26.7 CFS
5	5000 ft^2	2'−0"	2'−0"	10,000 ft^3	26.7 CFS

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12−21−2023

STATE OF TEXAS · J. GREG GRUSENDORF · 80199 · LICENSED PROFESSIONAL ENGINEER

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

ISSUED 12-21-2023
FINAL DESIGN

Ltr.	Date	Revision	By	Chkd.	Appd.
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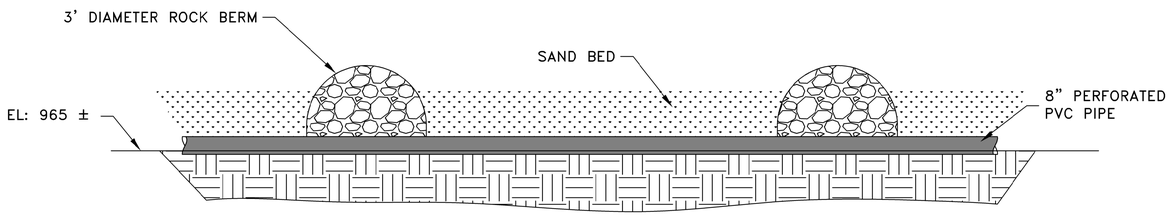
DRAWN LLR
CHECKED JGG
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

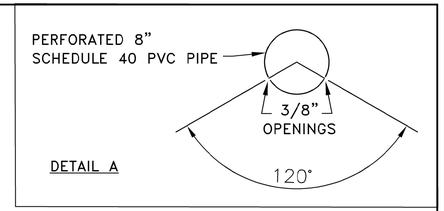
STORM WATER MANAGEMENT
DRAIN AND POND CALCULATIONS & RUNOFF SUMMARY

DATE 11−01−2023
SCALE 1" = 40'−0"
DWG. NO. S2−195−C−004

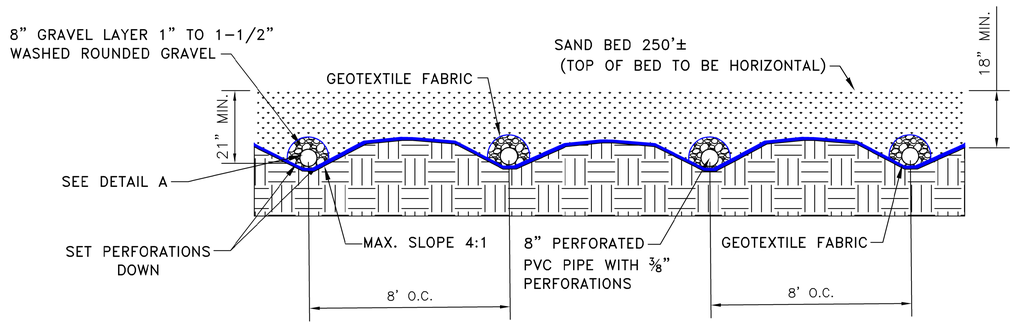
23PEC60 − R00000001539



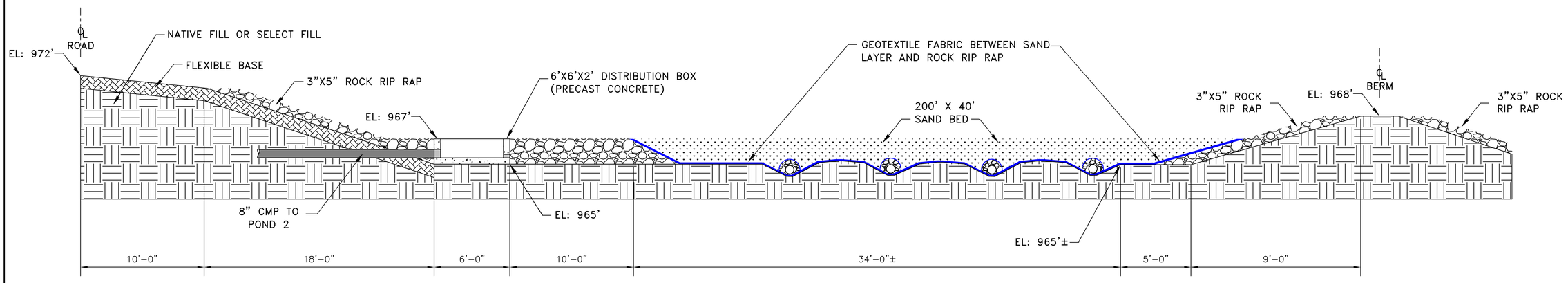
SECTION B–B



DETAIL A



SAND BED SECTION (TRENCH DESIGN) DETAILS



SECTION A–A

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ISSUED 12-21-2023
FINAL DESIGN

STATE OF TEXAS
J. GREG GRUSENDORF
80199
LICENSED PROFESSIONAL ENGINEER

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TEXAS REGISTRATION NUMBER F-1594

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CHECKED JGG
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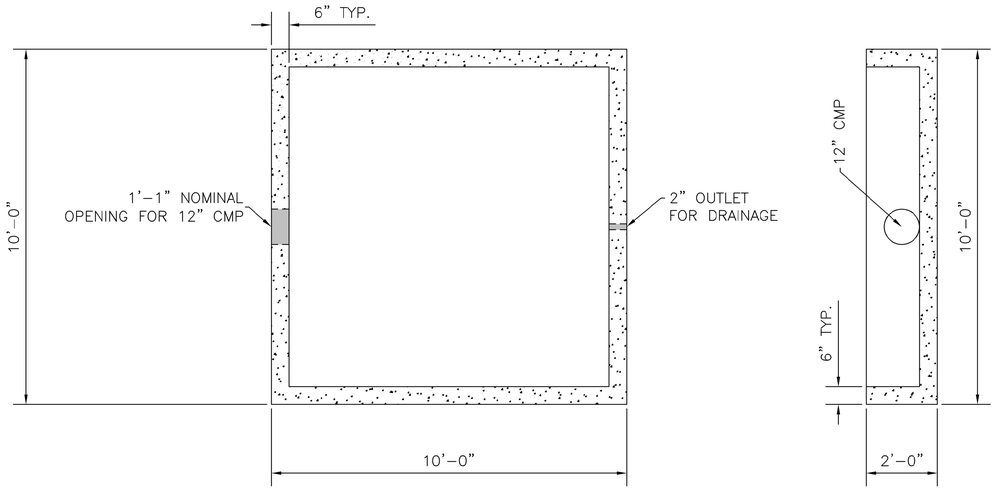
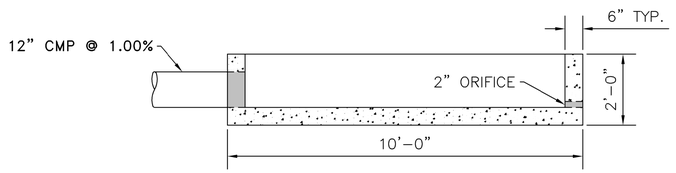
PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

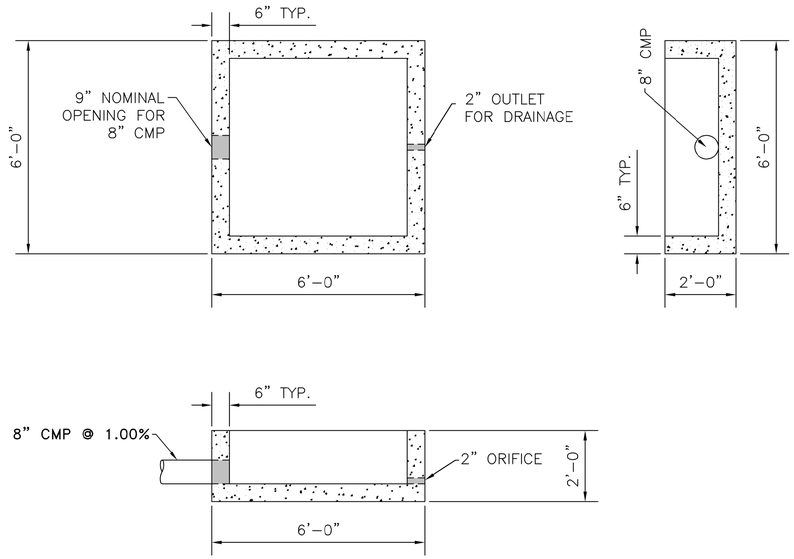
STORM WATER FILTRATION POND DETAILS

DATE 11/28/2023
SCALE N.T.S.
DWG. NO. 2S–195–C–005





10' X 10' DISTRIBUTION BOX (PRECAST CONCRETE) DETAILS



6' X 6' DISTRIBUTION BOX (PRECAST CONCRETE) DETAILS

GENERAL NOTES:

1. PRECAST CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS.
2. MINIMUM WALL THICKNESS SHALL BE 6".
3. MINIMUM REINFORCEMENT SHALL BE 6'X6" 6GA. WELDED WIRE MESH OR EQUIVALENT.
4. ALL EXPOSED EDGES SHALL HAVE A ¾" OR GREATER CHAMFER.
5. LIFTING EYES/HOOKS OR SIMILAR HARDWARE SHALL BE CAST INTO THE INTERIOR WALL FOR LIFTING PURPOSES.
6. FABRICATION DRAWINGS SHALL BE SUBMITTED BY THE MANUFACTURER FOR APPROVAL BY PEC PRIOR TO FABRICATION.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12-21-2023

ISSUED 12-21-2023
FINAL DESIGN

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

STATE OF TEXAS
J. GREG GRUSENDORF
80199
LICENSED PROFESSIONAL ENGINEER

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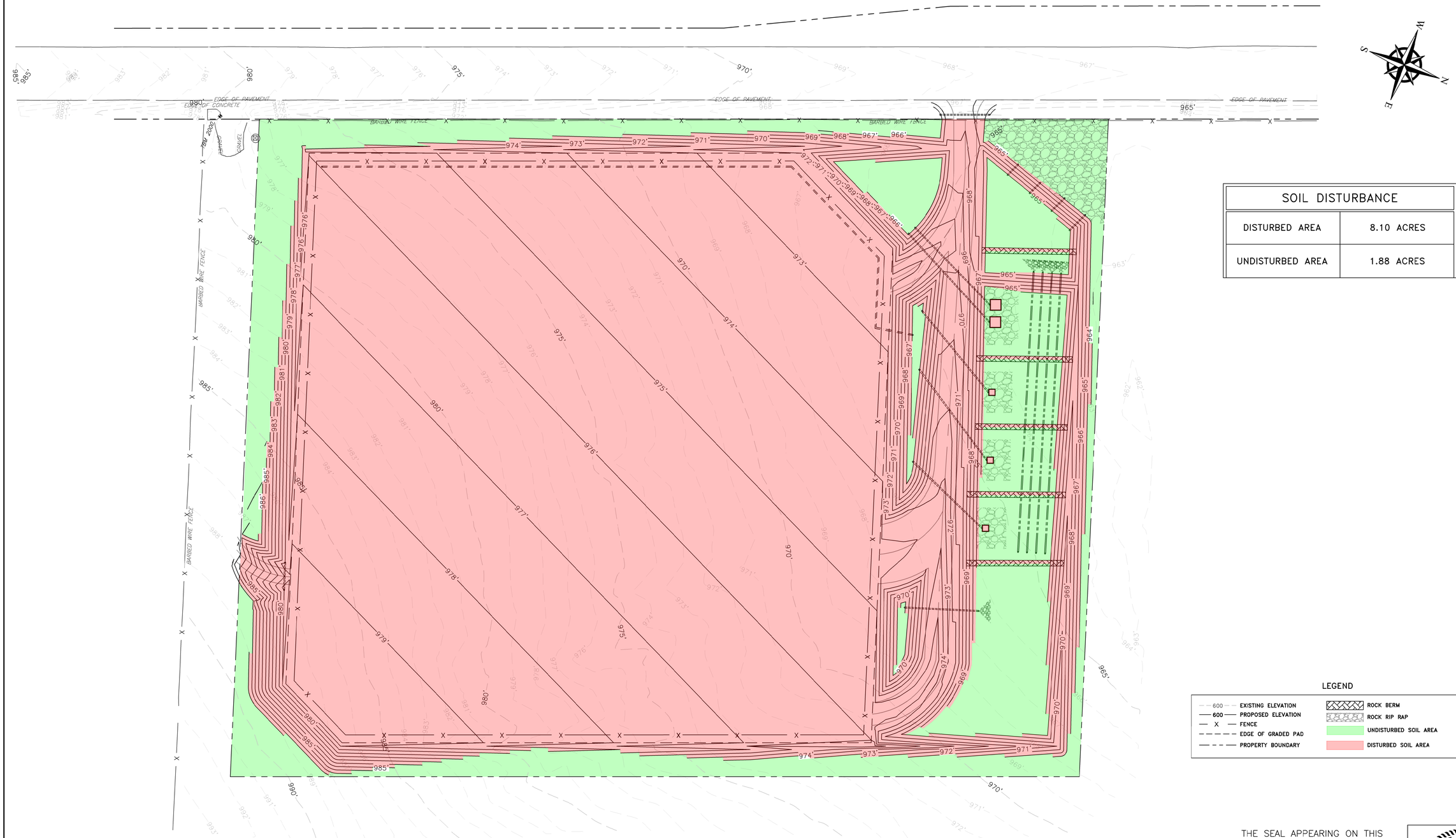
CHECKED JGG
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

DISTRIBUTION BOX DETAILS

DATE 11/28/2023
SCALE N.T.S.
DWG. NO. 2S-195-C-006

23PEC60 – R00000001539



SOIL DISTURBANCE	
DISTURBED AREA	8.10 ACRES
UNDISTURBED AREA	1.88 ACRES

LEGEND

600 EXISTING ELEVATION	ROCK BERM
600 PROPOSED ELEVATION	ROCK RIP RAP
X FENCE	UNDISTURBED SOIL AREA
EDGE OF GRADED PAD	DISTURBED SOIL AREA
PROPERTY BOUNDARY	

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12-21-2023

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J. GREG GRUSENDORF
80199
LICENSED PROFESSIONAL ENGINEER

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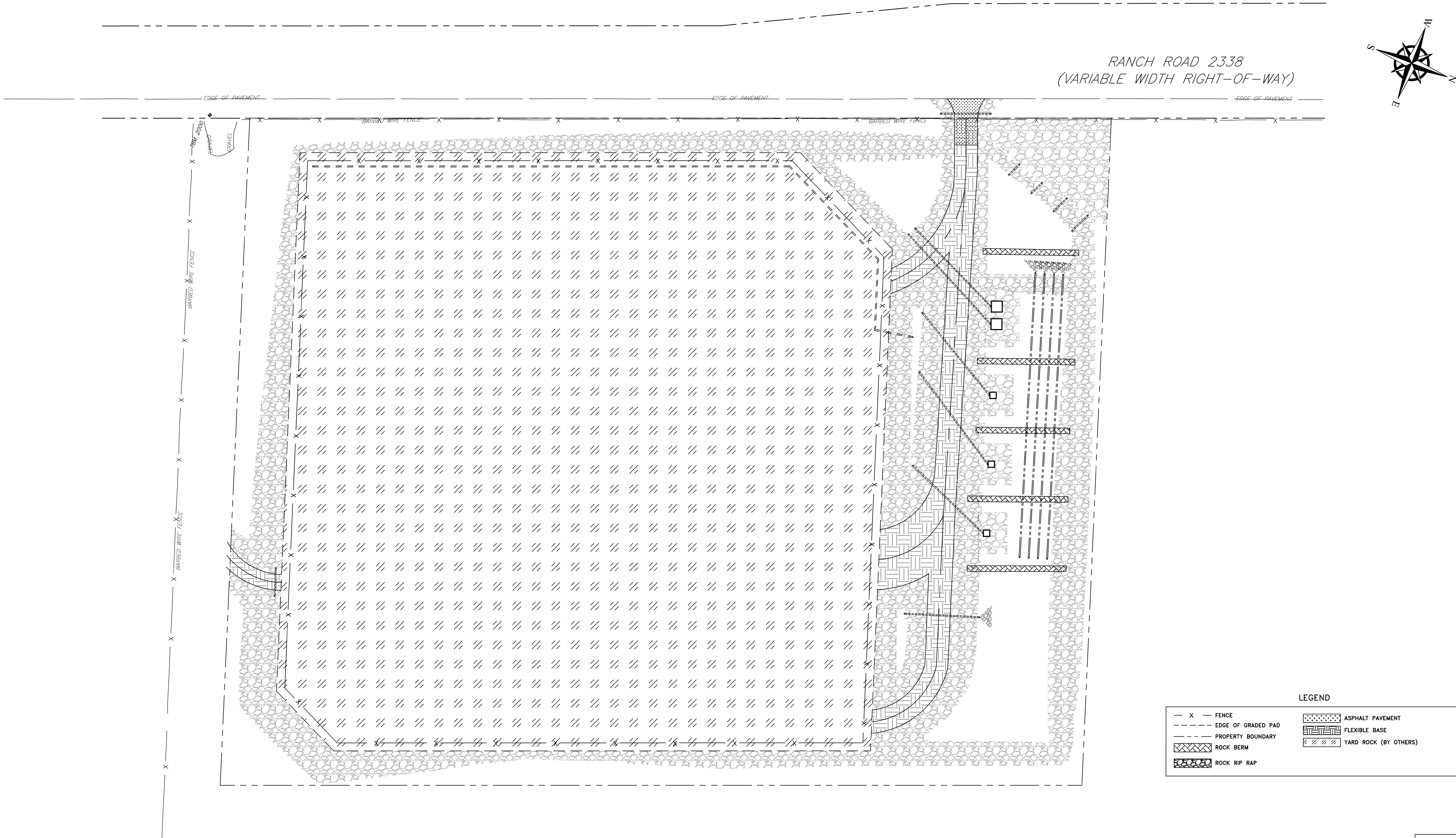
CHECKED JGG
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

SOIL DISTURBANCE LAYOUT

DATE 11-03-2023
SCALE 1" = 40'-0"
DWG. NO. 2S-195-C-007

23PEC60 – R00000001539



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STATE OF TEXAS
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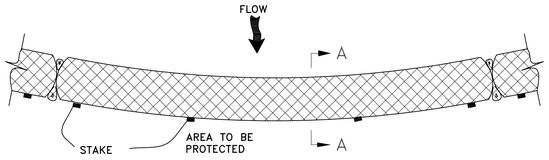
CHECKED JGG
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

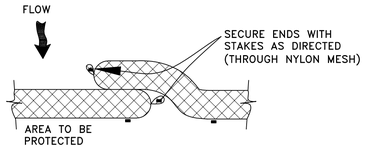
YARD SURFACE LAYOUT

DATE 11-13-2023
SCALE 1" = 40'-0"
DWG. NO. 2S-195-C-008

23PEC60 – R00000001539



PLAN VIEW



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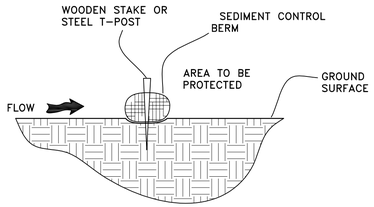
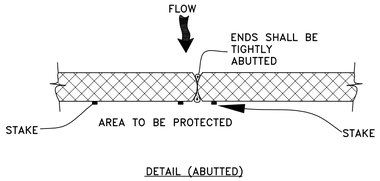
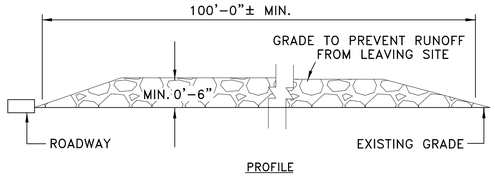


SECTION A–A



DETAIL (ABUTTED)

SEDIMENT CONTROL BERM



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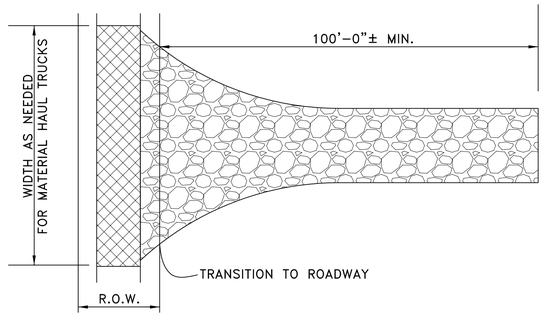
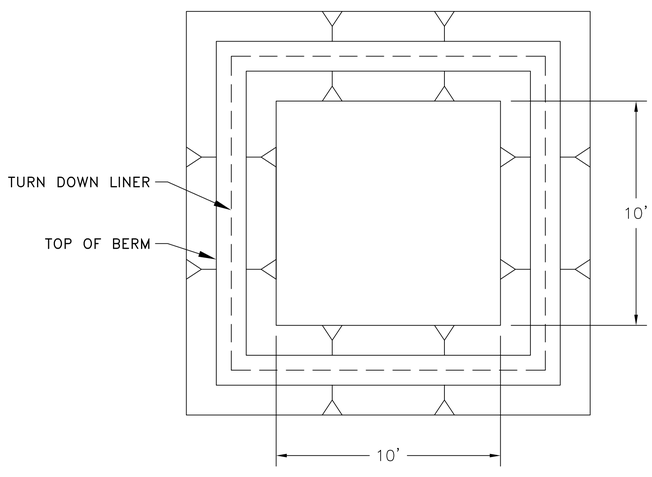


PLAN VIEW

STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES:

1. STONE SIZE– 3 TO 5 INCH OPEN GRADED ROCK.
2. LENGTH– AS EFFECTIVE, BUT NOT LESS THAN 100 FEET.
3. THICKNESS– NOT LESS THAN 6 INCHES.
4. WIDTH– NOT LESS THAT FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING–WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE USING APPROVED METHODS.
6. MAINTENANCE– THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
7. DRAINAGE– ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.



CONCRETE TRUCK WASH–OUT AREA

CONCRETE TRUCK WASH–OUT NOTES:

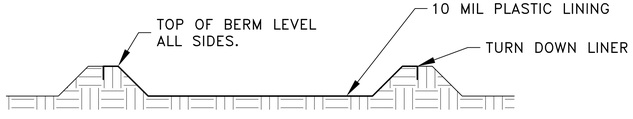
1. THE DIRECT DISCHARGE OF CONCRETE WASH OUT WATER TO SURFACE WATER IS PROHIBITED.
2. WASH OUT OF CONCRETE TRUCKS DURING RAINFALL EVENTS SHALL BE MINIMIZED. THE CONTRACTOR SHALL INSURE THAT BMP'S ARE SUFFICIENT TO PREVENT THE DISCHARGE OF CONCRETE TRUCK WASH OUT AS A RESULT OF RAIN.
3. THE CONCRETE WASH OUT PIT SHALL BE CONSTRUCTED IN AN AREA OF MINIMAL SLOPE AND AWAY FROM CONCENTRATED STORM WATER RUN–OFF FLOWS, AS TO PREVENT DISCHARGE TO SURFACE WATERS.

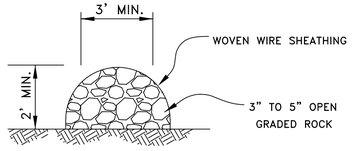
CONCRETE TRUCK WASH–OUT

ONE WASH–OUT PIT PER UNIT

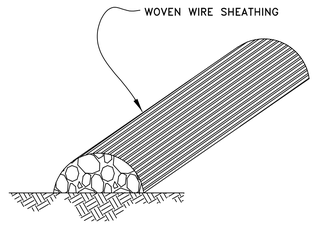
UNIT REQUIREMENTS:
MATERIAL: 730 SQUARE YARDS OF 10 MIL PLASTIC LINER
DIRT: 110 CUBIC YARDS OF COMPACTED BASE MATERIAL

MAKE 1 TIME





CROSS–SECTION



MATERIAL SPECIFICATIONS:

1. THE ROCK BERM SHALL BE CONSTRUCTED OF CLEAN OPEN ROCK GRADED 3–5 INCH DIAMETER. THE WIRE SHEATHING SHALL BE A MINIMUM 20 GAUGE WOVEN WIRE MESH WITH 1 INCH OPENINGS.

BERM LOCATION:

1. SEE GRADING LAYOUT FOR BERM LOCATION.
2. RELOCATE THE ROCK BERM AS NECESSARY TO AVOID UNNECESSARY CLEARING OF VEGETATION.
3. CLEAR THE MINIMUM AREA OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
4. PLACE WOVEN WIRE FABRIC ON THE GROUND ALONG THE PROPOSED INSTALLATION WITH ENOUGH OVERLAP TO COMPLETELY ENCIRCLE THE FINISHED SIZE OF THE BERM.

ROCK BERM

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ISSUED 12-21-2023
FINAL DESIGN

STATE OF TEXAS · J. GREG GRUSENDORF · 80199 · LICENSED PROFESSIONAL ENGINEER

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

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CHECKED JGG
APPROVED JGG

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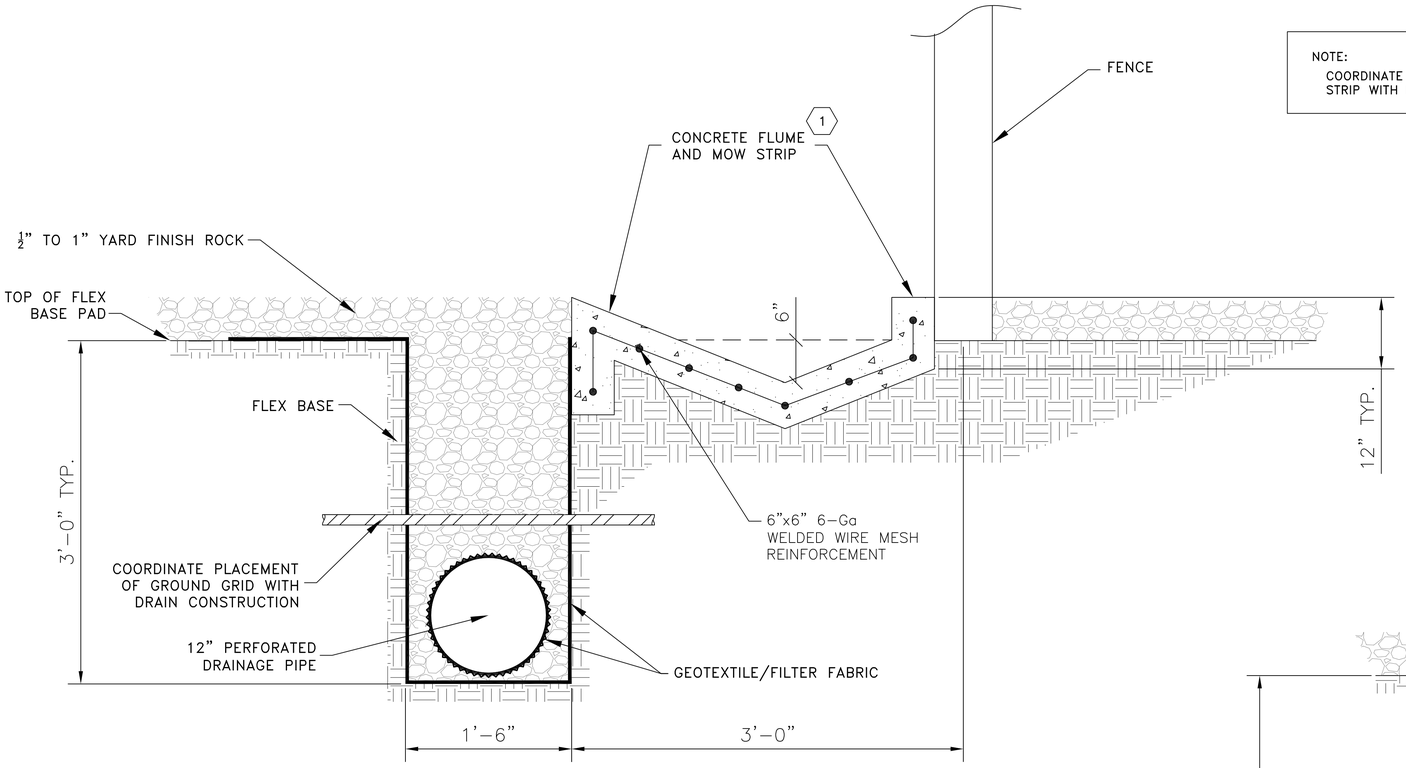
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

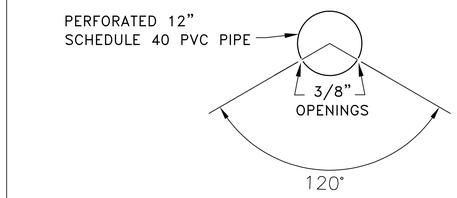
SEDIMENT CONTROL DETAILS

DATE 09–13–2023
SCALE N.T.S.
DWG. NO. 2S–195–C–009

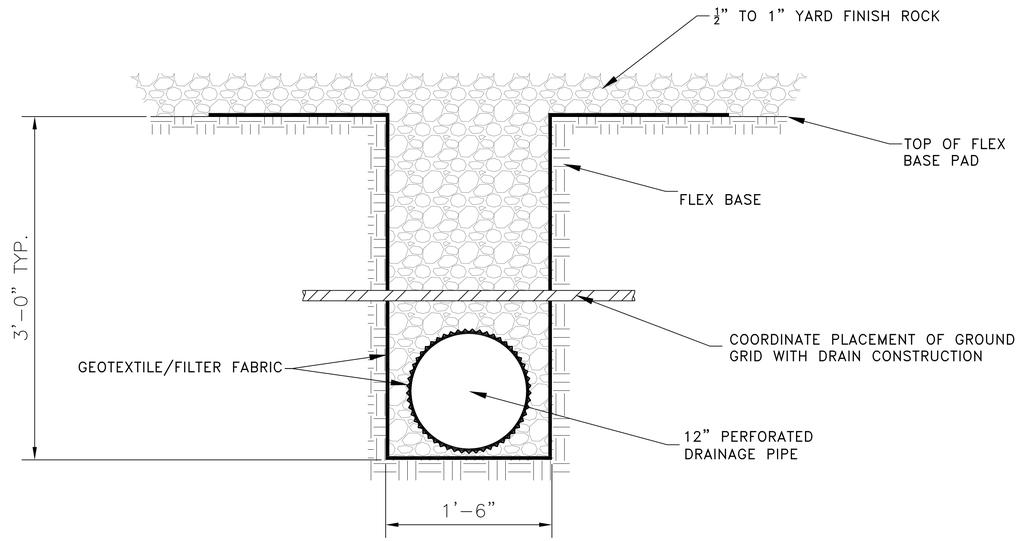


SECTION C–C

NOTE:
COORDINATE PLACEMENT OF MOW STRIP WITH FENCE CONTRACTOR.



PERFORATED PIPE DETAILS



SECTION D–D

KEYED NOTE:

1. INSTALL CONCRETE FLUME AND MOW STRIP ALONG 420' LONG RUN OF SECURITY FENCE ADJACENT AND PARALLEL TO FM 2338. PLACE ROCK RIP RAP AT TERMINATION OF FLUME TO DISSIPATE STORM WATER EXITING FLUME AND FLOWING INTO POND 1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.

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ISSUED 12-21-2023
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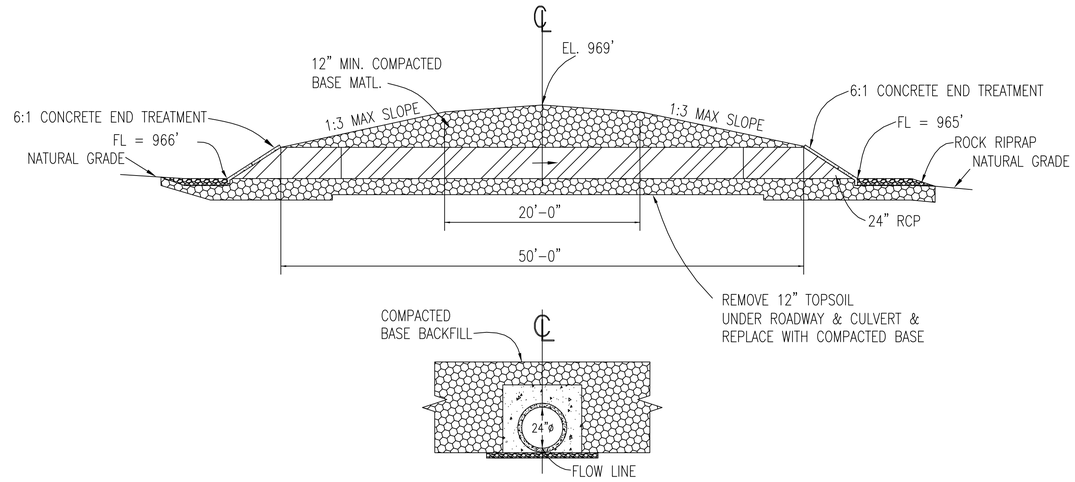
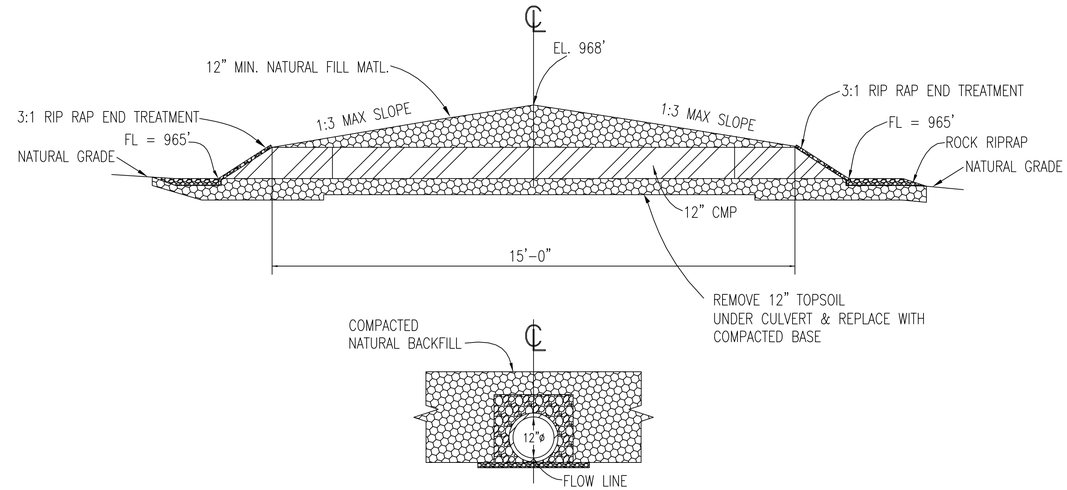
SUBSURFACE DRAIN & CONCRETE FLUME DETAILS

DATE 09–13–2023
SCALE N.T.S.
DWG. NO. 2S–195–C–010



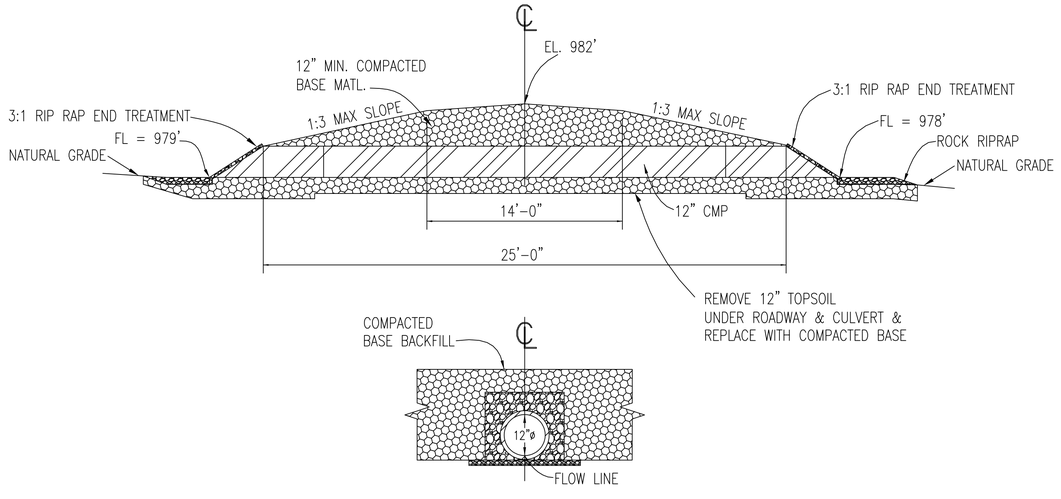
SECTION E-E

1 24" REINFORCED CONCRETE PIPE (RCP) 24"X 50'



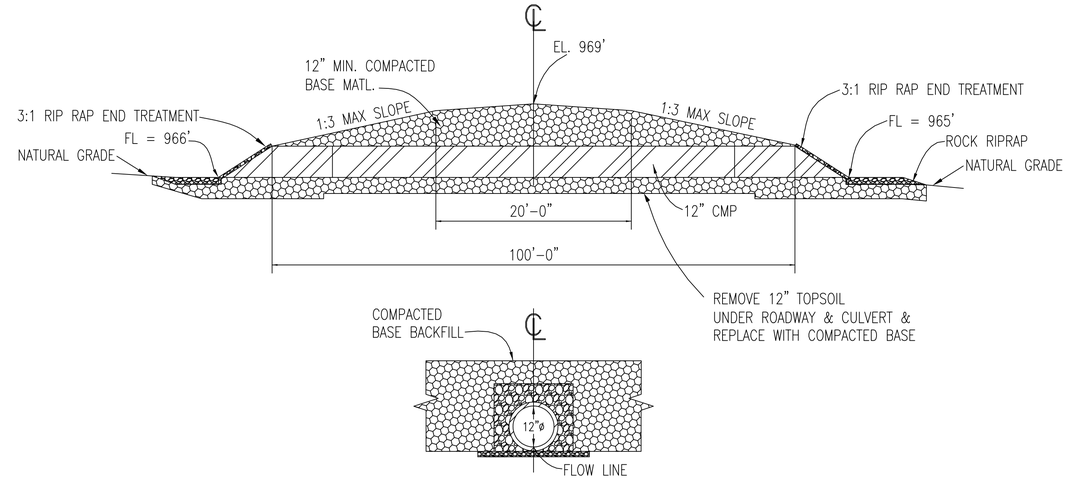
SECTION F-F

2 CMP 12" X 15'



SECTION G-G

3 CMP 12" X 25'



SECTION H-H

4 CMP 12" X 100'

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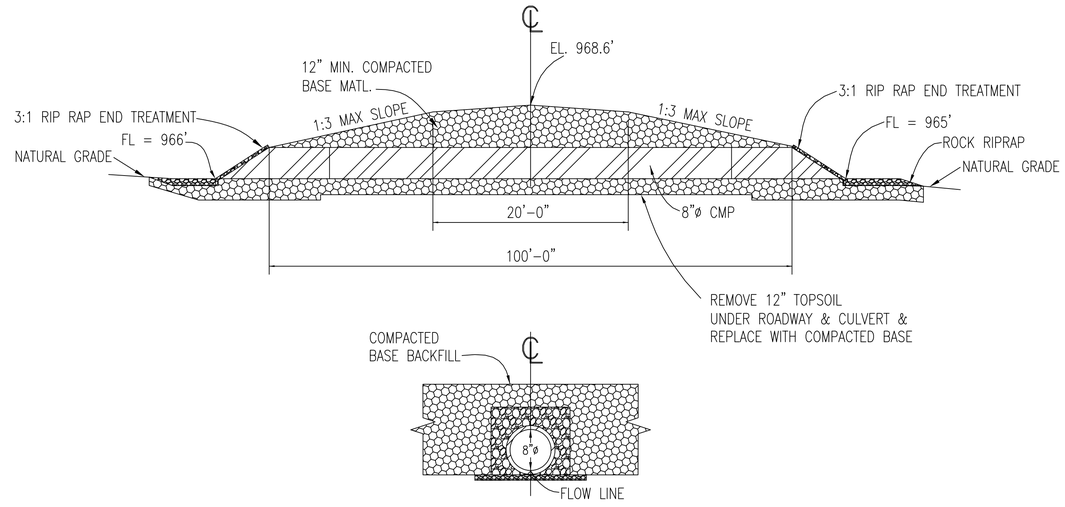
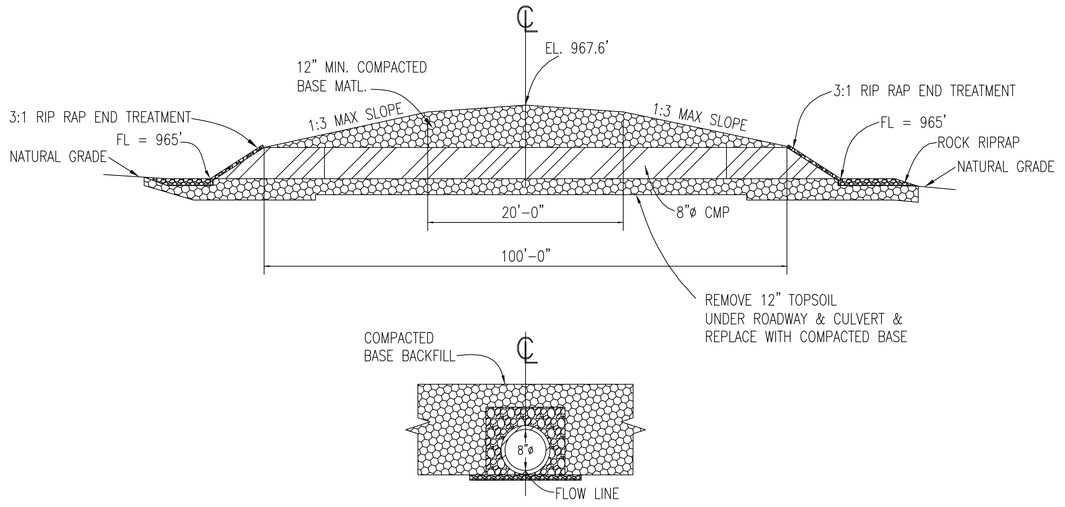
CULVERT DETAILS
(SHEET 1 OF 2)

DATE 09-29-2023
SCALE N.T.S.
DWG. NO. 2S-195-C-011



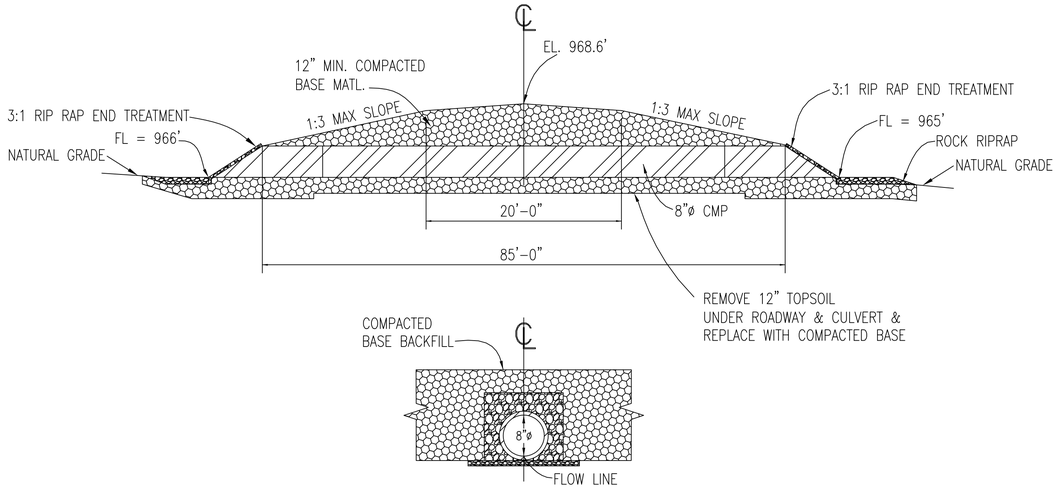
SECTION J-J

5a CMP 8" X 100'



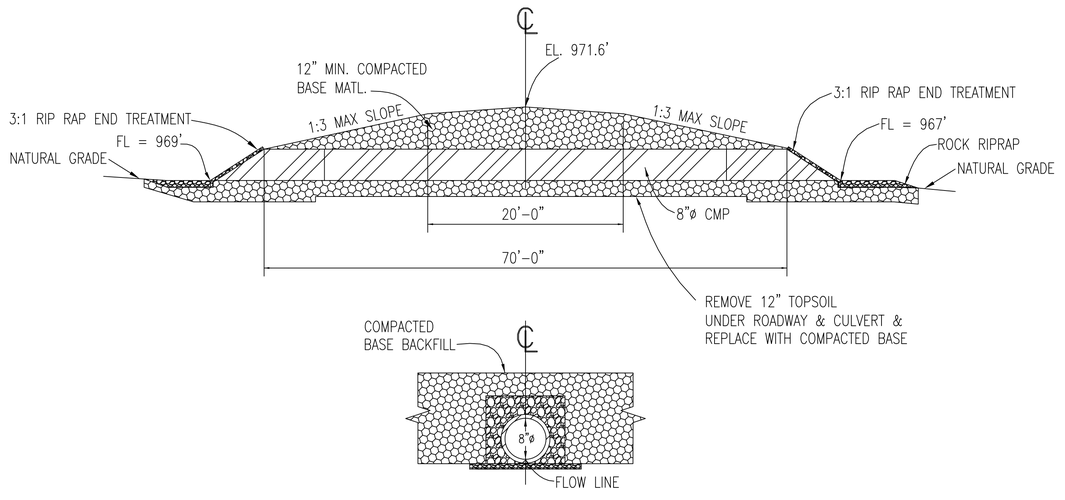
SECTION K-K

5b CMP 8" X 100'



SECTION L-L

6 CMP 8" X 85'



SECTION M-M

7 CMP 8" X 70'

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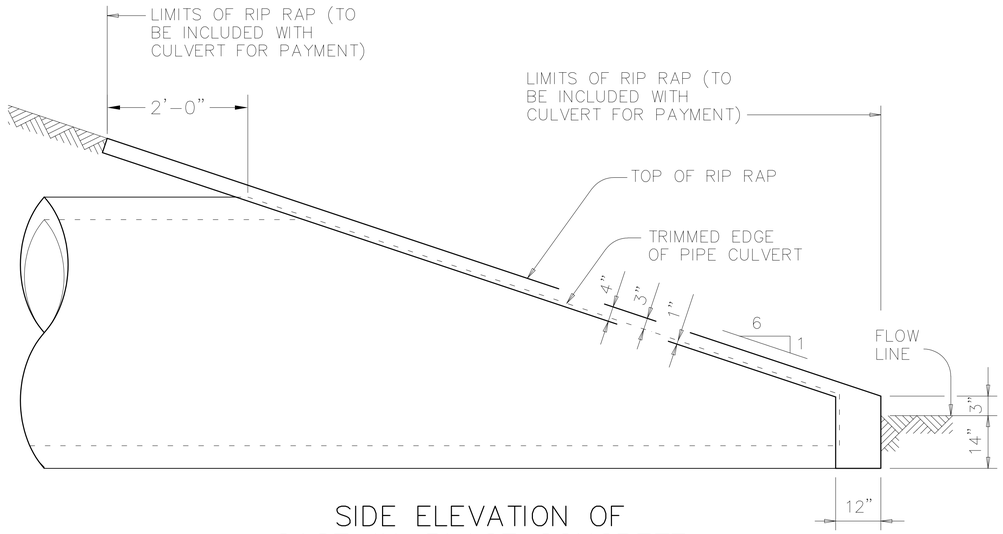
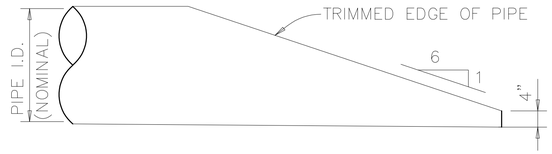
FLORENCE SUBSTATION

CULVERT DETAILS
(SHEET 2 OF 2)

DATE 09-29-2023
SCALE N.T.S.
DWG. NO. 2S-195-C-012

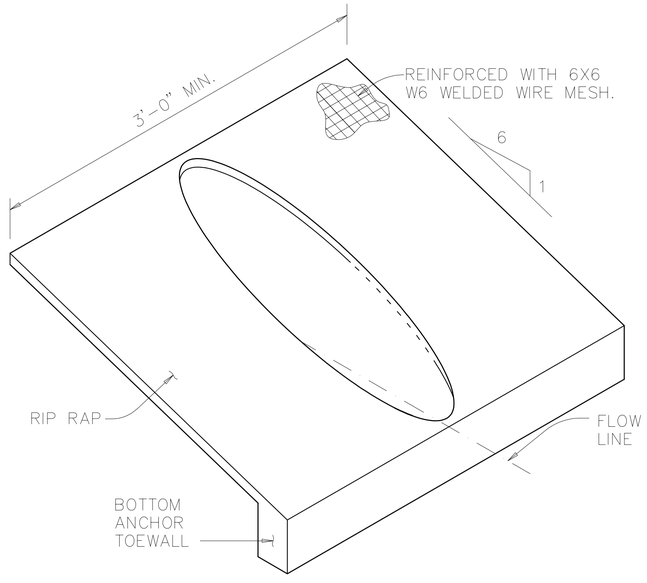


SIDE ELEVATION OF CAST-IN-PLACE CONCRETE



SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(SHOWING PIPE CULVERT DETAILS OF CONCRETE PIPE CULVERT ARE SIMILAR.)



ISOMETRIC VIEW OF TYPICAL INSTALLATION

NOTES:

1. REINFORCING STEEL SHALL BE PER ASTM A185 SPECIFICATION.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI. @ 28 DAYS.
3. THE TESTED SLUMP VALUE SHOULD BE NO GREATER THAN 5" FOR THE SLAB.

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CULVERT END TREATMENT DETAILS

DATE 09-29-2023
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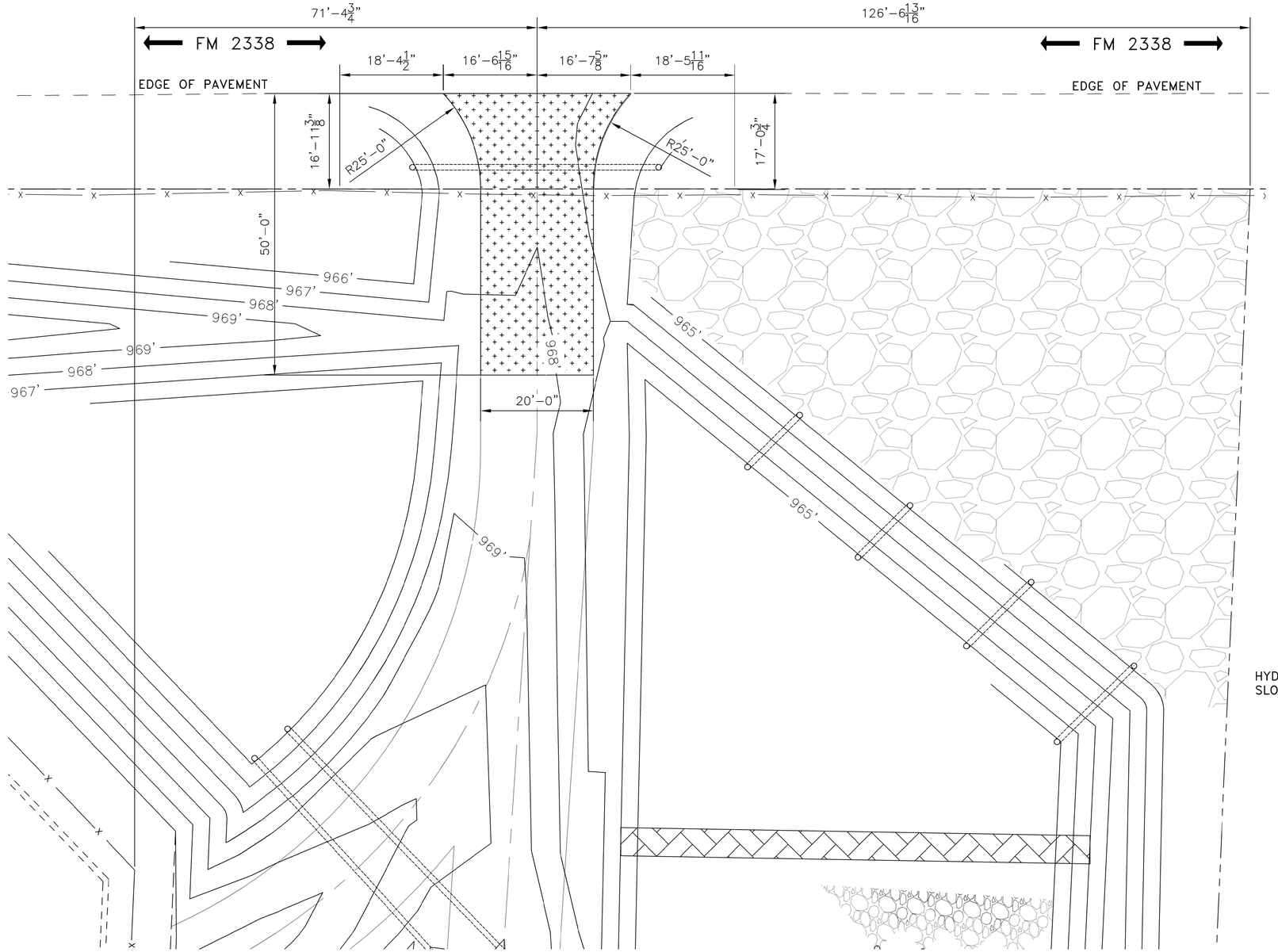
DWG. NO. 2S-195-C-013

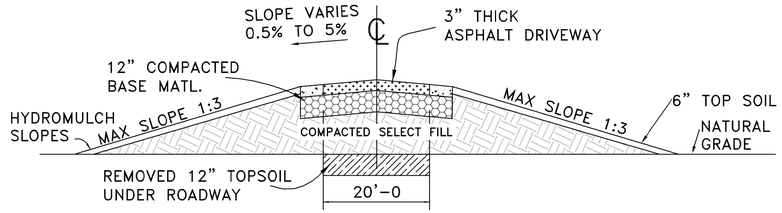


GENERAL DETAIL NOTES:

1. CONSTRUCT ASPHALT DRIVEWAY FROM EDGE OF EXISTING HIGHWAY.
2. DIMENSIONS ARE GIVEN PARALLEL AND/OR PERPENDICULAR TO THE PROPERTY LINE.
3. EDGES OF ASPHALT ARE TO MATCH THE ELEVATION OF SURROUNDING GRADE.
4. EXCAVATE DEEP ENOUGH TO ALLOW FOR 12" OF COMPACTED BASE AND 3" OF HMAC.

GENERAL CONSTRUCTION NOTES:

1. IF WASTE AREAS OR MATERIAL SOURCE AREAS RESULT FROM THIS PROJECT, THE CONTRACTOR IS REMINDED TO FOLLOW THE REQUIREMENTS OF THE TEXAS AGGREGATE QUARRY AND PIT SAFETY ACT. IN ADDITION, IT IS REQUESTED THAT THESE AREAS NOT BE VISIBLE FROM ANY HIGHWAY ON THE STATE SYSTEM.
2. AT NO TIME WILL THE ROADWAY TRAVEL WAY BE BLOCKED.
3. A MINIMUM 3:1 (H:V) TEMPORARY SAFETY SLOPE OF STABLE COMPACTED MATERIAL WILL BE REQUIRED ADJACENT TO THE ROAD EDGE OF PAVEMENT AT ALL TIMES DURING NON WORKING HOURS.
4. ALL PAVEMENT WIDENING INCLUDING SHOULDERS WILL MATCH THE EXISTING PAVEMENT CROSS SLOPE.
5. THE CONTRACTOR WILL USE BEST MANAGEMENT PRACTICES (BMP'S) TO MINIMIZE EROSION AND SEDIMENTATION IN THE RIGHT OF WAY RESULTING FROM THE PROPOSED CONSTRUCTION.
6. PRIOR TO SEEDING OR RE-VEGETATION THE FRONT SLOPES WILL BE SHOULDERED UP WITH TOPSOIL TO ELIMINATE ANY PAVEMENT EDGE DROP-OFF.
7. MUD TRACKED ONTO THE ROADWAY FROM THE SITE WILL BE IMMEDIATELY REMOVED.



ENTRANCE ROAD
N.T.S

LEGEND

600 EXISTING ELEVATION	ROCK BERM
600 PROPOSED ELEVATION	ROCK RIP RAP
X FENCE	3" ASPHALT PAVEMENT
EDGE OF GRADED PAD	ROAD BASE
PROPERTY BOUNDARY	
SUBSURFACE DRAIN	

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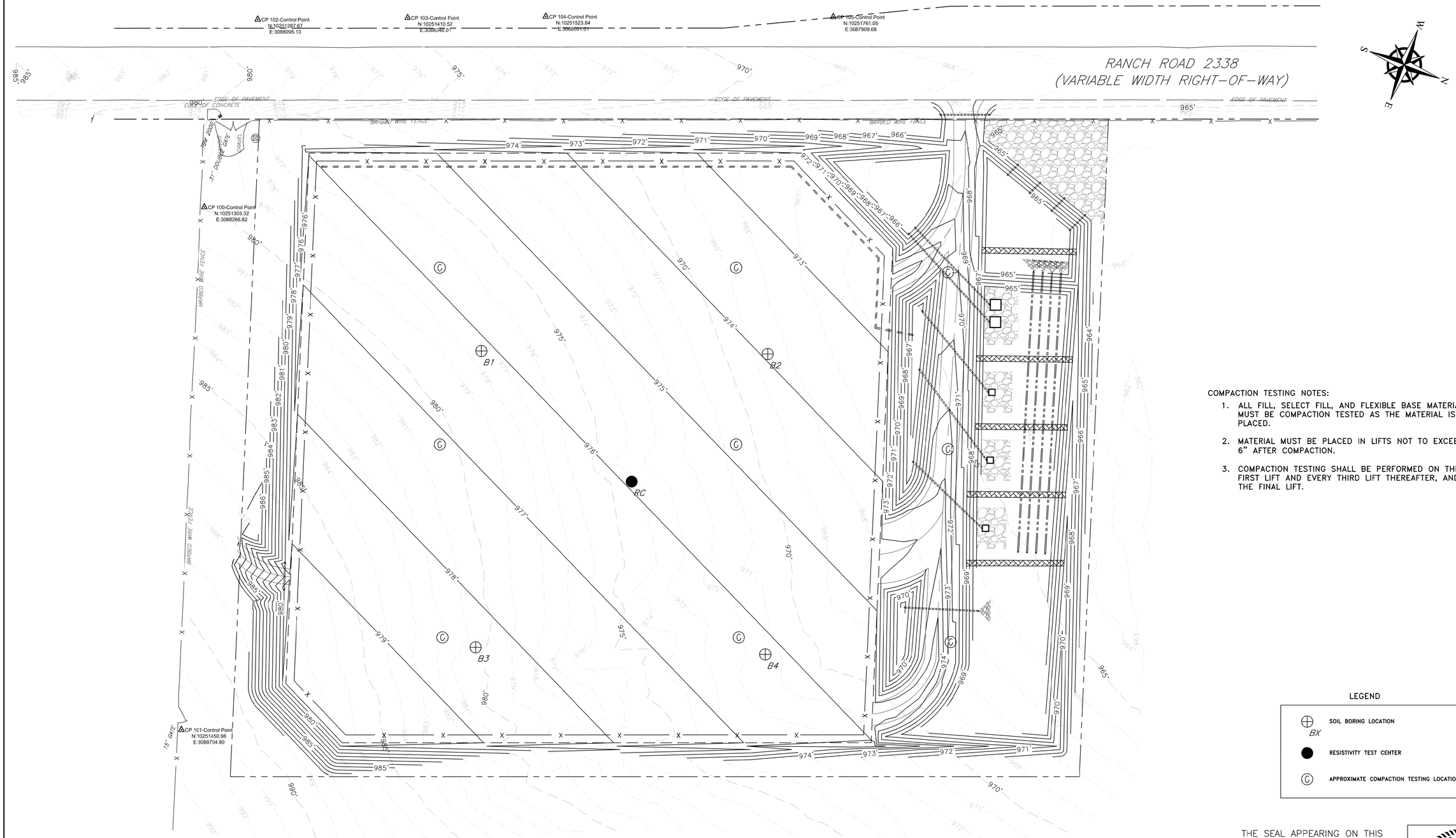
PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

DRIVEWAY DETAILS

DATE 11/10/2023
SCALE 1" = 10'-0"
DWG. NO. 2S-195-C-014



COMPACTION TESTING NOTES:

1. ALL FILL, SELECT FILL, AND FLEXIBLE BASE MATERIAL MUST BE COMPACTION TESTED AS THE MATERIAL IS PLACED.
2. MATERIAL MUST BE PLACED IN LIFTS NOT TO EXCEED 6" AFTER COMPACTION.
3. COMPACTION TESTING SHALL BE PERFORMED ON THE FIRST LIFT AND EVERY THIRD LIFT THEREAFTER, AND ON THE FINAL LIFT.

LEGEND

- ⊕ BX — SOIL BORING LOCATION
- ● — RESISTIVITY TEST CENTER
- Ⓒ — APPROXIMATE COMPACTION TESTING LOCATION

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J. GREG GRUSENDORF
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JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

SOIL BORING AND COMPACTION TESTING

DATE 06-28-2023
SCALE 1" = 40'-0"
DWG. NO. 2S-195-C-015

23PEC60 – R00000001539

Geotechnical Field and Laboratory Data Report
Florence Substation | Williamson County, Texas
July 7, 2023 | Terracon Project No. 96235073

Terracon

Exploration Plan

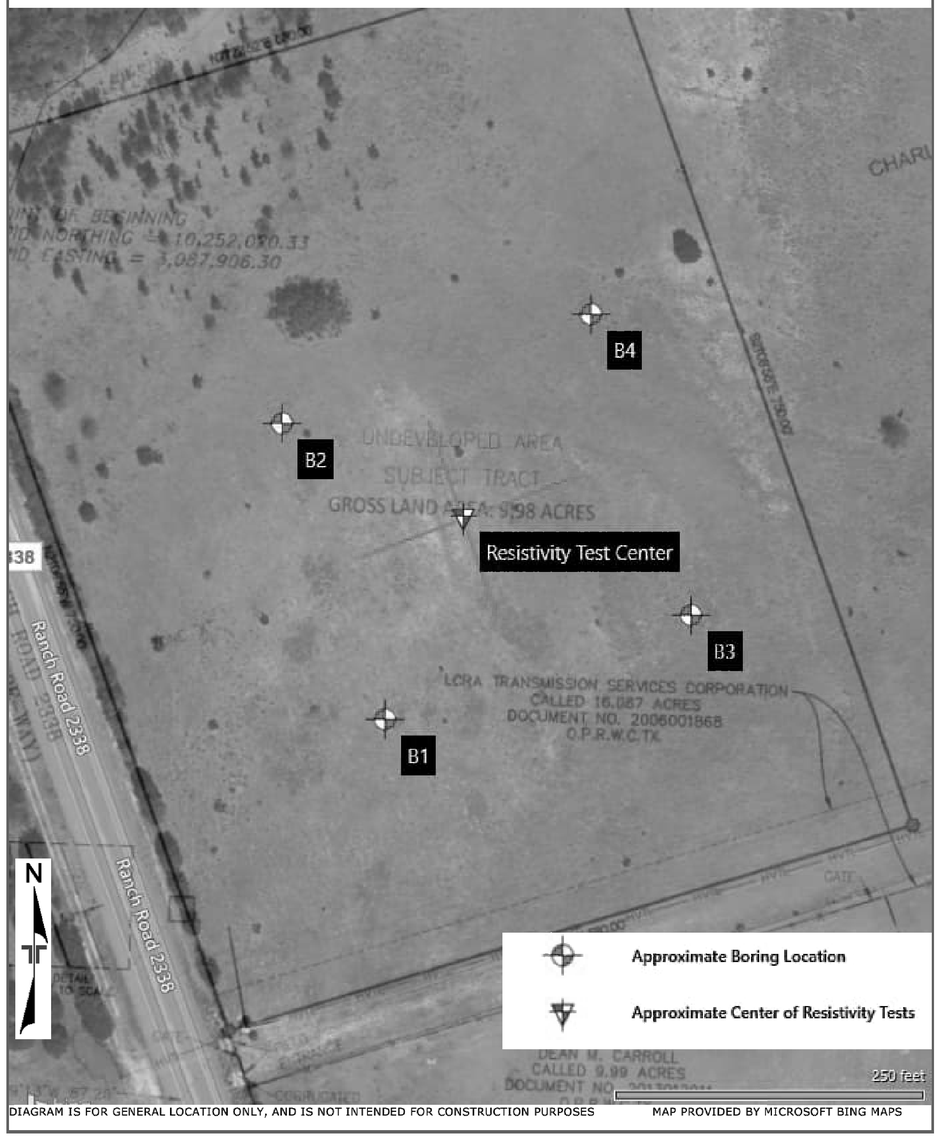

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES MAP PROVIDED BY MICROSOFT BING MAPS

Facilities | Environmental | **Geotechnical** | Materials

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TEXAS REGISTRATION NUMBER F-1594

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PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

SOIL BORING LOGS
PLAN

DATE 07-06-2023
SCALE N.T.S.
DWG. NO. 2S-195-E-424

Florence Substation
RR 2338 and CR 241 | Williamson Cty, TX
Terracon Project No. 96235073

Terracon
5307 Industrial Oaks Blvd Ste 160
Austin, TX

Boring Log No. B-1

Location: See Exploration Plan

Latitude: 30.7668° Longitude: -97.8122°

Depth (Ft.) | Elevation: 977 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	RECOVERY (%) RQD (%)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits: LL-PL-PI	Percent Fines
1		0			3 tsf (HP)								
		2.0 975											
		CLAYEY GRAVEL (GC), with calcareous nodules, pale brown			3 tsf (HP)		UC	1.40	8.1	6.9	117	28-16-12	38
		4.0 973											
		SANDY LEAN CLAY WITH GRAVEL (CL), pale brown, very stiff to hard			3.5 tsf (HP)					9.5			
					20-50/4"					9.5		33-15-18	52
		8.5 968.5											
2		**WEATHERED LIMESTONE (Walnut Formation)**, with clay seams and layers, light brown to very pale brown, marly, extremely fractured and extremely weak rock, highly weathered to 16 feet			50/4"					9.0			
						43/0							
		light gray, with dark gray clay seams, highly fractured, moderately weathered below 16 feet				60/0							
						100/0							
		weak rock below 25 feet				100/7	UC	196.59		4.2	147		
		30.0 947											
		Boring Terminated at 30 Feet											

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Elevation Reference: Elevations from Google Earth Pro

Classification estimated from disturbed or core samples. Petrographic analysis may reveal other rock types.

Water Level Observations
Not encountered

Advancement Method
Dry augered 0 to 10 feet, air rotary 10 to 30 feet

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite

Drill Rig
CME 45

Hammer Type
Automatic

Driller
Austin Geo-Logic

Logged by
Mike

Boring Started
05-22-2023

Boring Completed
05-22-2023

Facilities | Environmental | **Geotechnical** | Materials

Florence Substation
RR 2338 and CR 241 | Williamson Cty, TX
Terracon Project No. 96235073

Terracon
5307 Industrial Oaks Blvd Ste 160
Austin, TX

Boring Log No. B-2

Location: See Exploration Plan

Latitude: 30.7674° Longitude: -97.8125°

Depth (Ft.) | Elevation: 968 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	RECOVERY (%) RQD (%)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits: LL-PL-PI	Percent Fines
1		**SANDY LEAN CLAY WITH GRAVEL (CL)**, with calcareous nodules, trace gravel, brown to yellowish brown, stiff			4-6-7 N=13					11.0		33-19-14	50
		hard below 3 feet			6-15-26 N=41								
		4.0 964											
		WEATHERED LIMESTONE (Walnut Formation), with clay seams and layers, pale brown to yellowish brown, marly, extremely fractured, highly weathered, extremely weak rock			50/4"					4.7			
						90/27	UC	6.39	1.6	6.2	122		
		highly to moderately fractured, weak rock below 10 feet				100/45	UC	73.47		6.8	139		
2						100/65	UC	132.91		4.8	148		
		light gray with dark gray clay layers, moderately to slightly weathered below 20 feet				100/70	UC	26.80	4.3	4.7	140		
		very weak rock from 20 to 25 feet				100/72	UC	198.77		3.6	149		
		30.0 938											
		Boring Terminated at 30 Feet											

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).

See Supporting Information for explanation of symbols and abbreviations.

Notes

Elevation Reference: Elevations from Google Earth Pro

Classification estimated from disturbed or core samples. Petrographic analysis may reveal other rock types.

Water Level Observations
Not encountered

Advancement Method
Dry augered 0 to 5 feet, air rotary 5 to 30 feet

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite

Drill Rig
CME 45

Hammer Type
Automatic

Driller
Austin Geo-Logic

Logged by
Jacob

Boring Started
05-23-2023

Boring Completed
05-23-2023

Facilities | Environmental | **Geotechnical** | Materials

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY J. GREG GRUSENDORF, P.E. #80199 ON 12-21-2023

ISSUED 12-21-2023
FINAL DESIGN

SCHNEIDER ENGINEERING
TEXAS REGISTRATION NUMBER F-1594

STATE OF TEXAS
J. GREG GRUSENDORF
80199
LICENSED PROFESSIONAL ENGINEER

Ltr.	Date	Revision	By	Chkd.	Appd.
E					
D					
C					
B					
A					

Ltr.	Date	Revision	By	Chkd.	Appd.
K					
J					
H					
G					
F					

DRAWN RGG
CHECKED WSE
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

SOIL BORING LOGS
B-1 AND B-2

DATE 07-06-2023
SCALE N.T.S.
DWG. NO. 2S-195-E-424a

23PEC60 – R00000001539

Florence Substation
RR 2338 and CR 241 | Williamson Cty, TX
Terracon Project No. 96235073

Terracon
5307 Industrial Oaks Blvd Ste 160
Austin, TX

Boring Log No. B-3

Location: See Exploration Plan
Latitude: 30.7670° Longitude: -97.8114°
Depth (Ft.) Elevation: 980 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	RECOVERY (%) RQD (%)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits: LL-PL-PI	Percent Fines
1		0			4 tsf (HP)		UC	2.72	9.3	14.1	103	35-17-18	79
					4 tsf (HP)		UC	1.37	7.7	11.0	119		
		5			24-7-11 N=18								
					11-12-17 N=29					16.3			
		10			9-25-50 N=75					15.7		NP	90
					32-50/4"					8.2			
2		15				47 0							
		20				75 10	UC	37.93		5.8	141		
		25				40 0							
		30											

LEAN CLAY WITH SAND (CL), with calcareous nodules, yellowish brown to brown, very stiff

8.0 972

SILT (ML), with calcareous nodules, yellowish brown to pale brown, hard

14.0 966

WEATHERED LIMESTONE (Walnut Formation), with clay seams and layers, pale brown to brown, marly, extremely fractured and extremely weak rock, highly weathered to 20 feet

light gray, with dark gray clay seams, highly fractured, moderately weathered below 20 feet

very weak rock below 23 feet

30.0 950

Boring Terminated at 30 Feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.

Notes
Elevation Reference: Elevations from Google Earth Pro
Classification estimated from disturbed or core samples. Petrographic analysis may reveal other rock types.

Water Level Observations
Not encountered

Advancement Method
Dry augered 0 to 15 feet, air rotary 15 to 30 feet

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite

Drill Rig
CME 45

Hammer Type
Automatic

Driller
Austin Geo-Logic

Logged by
Mike

Boring Started
05-22-2023

Boring Completed
05-22-2023

Facilities | Environmental | **Geotechnical** | Materials

Florence Substation
RR 2338 and CR 241 | Williamson Cty, TX
Terracon Project No. 96235073

Terracon
5307 Industrial Oaks Blvd Ste 160
Austin, TX

Boring Log No. B-4

Location: See Exploration Plan
Latitude: 30.7677° Longitude: -97.8117°
Depth (Ft.) Elevation: 972 (Ft.) +/-

Model Layer	Graphic Log	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	RECOVERY (%) RQD (%)	Strength Test: Test Type	Strength Test: Compressive Strength (tsf)	Strength Test: Strain (%)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits: LL-PL-PI	Percent Fines
1		0			4.5 tsf (HP)		UC	4.03	6.9	18.4	102		
					4.5 tsf (HP)		UC	2.75	7.1	12.2	115	49-16-33	51
		5			9-13-27 N=40					11.9		34-14-20	53
					50/5"					8.3			
		10			50/4"					8.7			
					50/2"					4.1			
2		15				23 0							
		20				50 0							
		25				75 28	UC	192.51		4.0	145		
		30											

SANDY LEAN CLAY WITH GRAVEL (CL), with calcareous nodules, brown to yellowish brown, hard

yellowish brown below 2.5 feet

6.0 966

WEATHERED LIMESTONE (Walnut Formation), with clay seams and layers, very pale brown, marly, extremely fractured and extremely weak rock, highly weathered to 20 feet

light gray, with dark gray clay seams, highly fractured, highly weathered below 20 feet

weak rock below 25 feet

30.0 942

Boring Terminated at 30 Feet

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (If any).
See Supporting Information for explanation of symbols and abbreviations.

Notes
Elevation Reference: Elevations from Google Earth Pro
Classification estimated from disturbed or core samples. Petrographic analysis may reveal other rock types.

Water Level Observations
Not encountered

Advancement Method
Dry augered 0 to 15 feet, air rotary 15 to 30 feet

Abandonment Method
Boring backfilled with Auger Cuttings and/or Bentonite

Drill Rig
CME 45

Hammer Type
Automatic

Driller
Austin Geo-Logic

Logged by
Mike

Boring Started
05-22-2023

Boring Completed
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DRAWN RGG
CHECKED WSE
APPROVED JGG

PEDERNALES ELECTRIC COOPERATIVE, INC.
JOHNSON CITY, TEXAS
FLORENCE SUBSTATION

SOIL BORING LOGS
B-3 AND B-4

DATE 07-06-2023
SCALE N.T.S.
DWG. NO. 2S-195-E-424b

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Construction General Permit Stormwater Pollution Prevention Plan (SWP3) Worksheets
December 2023

Texas Pollutant Discharge Elimination Systems (TPDES)

Construction Stormwater General Permit (TXR150000)

Stormwater Pollution Prevention Plan (SWP3)

Company: Schneider Engineering

Role: Engineer

Project Name: Florence Substation

Plan Date: December 2023

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY • PO BOX 13087 • AUSTIN, TX 78711-3087

Table of Contents

Certification Page

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.

Sign as required by 30 TAC 305.128

Signed: _____ Date: 12/20/2023

Greg Grusendorf
Senior Engineer

Primary Operator(s)

Schneider Engineering

Secondary Operator(s)

Site Description

Section 1

Nature of Construction and List of Pollutants

Part III, Sect. F.1. (a)

Description of the general nature of construction activities:

The Florence Substation project is located at 11800 FM 2338, Florence, Texas 76527. The work will consist of constructing a new power substation for Pedernales Electric Cooperative (PEC).

The nature of the project includes the installation of a new power transformer bank, new distribution breakers, total breaker, tie breaker, a new "moat" style concrete foundation, circuit switcher, circuit breakers, hook stick switches, PT's, TWACS power transformer with OMU, station service power transformer, control panels, batteries with charger, and other miscellaneous equipment.

The Construction activities include land clearing and excavation activities for grading of the site and the substation equipment foundations, establishing security measures, adding permanent driveways to access the adjacent road, installing erosion and sediment controls, installing drainage structures, underground conduit placement, erecting steel structures and electrical equipment, and energizing the substation.

Part III, Sect. F.1. (b)

List of ALL potential pollutants and their sources:

Potential Pollutants	*Source*
Sediment to stormwater runoff	Soil on site
Fluids such as oil, gas, etc.	Equipment and Construction Vehicles

Section 2

Construction Schedule

Part III Sect. F.1. (c)

Description of the intended schedule, or a sequence of the major activities that will be disturbing soil for the major portions of the site. Add or subtract rows as needed.

Name of Operator	*Phase of Project Projected dates Month/year*	*Activity Disturbing Soil clearing, excavation, etc.*	*Location on-site where activity will be conducted*	*Acreage being disturbed*
PEC	02/2024-05/2024	Clearing	Majority of Property	8.10 ac.
PEC	02/2024-05/2024	Excavation	Majority of Property	8.10 ac.
PEC	02/2024-05/2024	Cut/Fill	Majority of Property	8.10 ac.
PEC	02/2024-05/2024	Compaction	Majority of Property	8.10 ac.

Section 3

Acreage, Material Storage, and Soil Type

Part III, Sect. F.1. (d)

The total acreage of the entire property and the total acreage where construction activity will occur. Include off-site material storage areas, overburden and stockpiles of dirt or aggregates, and borrow areas.

Material Storage	*Material (s)*	*Acreage*	*Location*
Off-site	**Select Fill**	**N/A**	**Offsite Quarry**
On-site	**Low to Moderate Plasticity Soils**	**9.98 ac.**	**Inside Property Lines**
Overburden/Stockpiles of Dirt	**N/A**	**N/A**	**N/A**
Borrow Areas	**N/A**	**N/A**	**N/A**
Other areas used as part of the project	**N/A**	**N/A**	**N/A**
Total acreage of project property:	**9.98 ac.**	**Total acreage of disturbed soil:**	**8.10 ac.**

Part III Sect. F.1. (e)

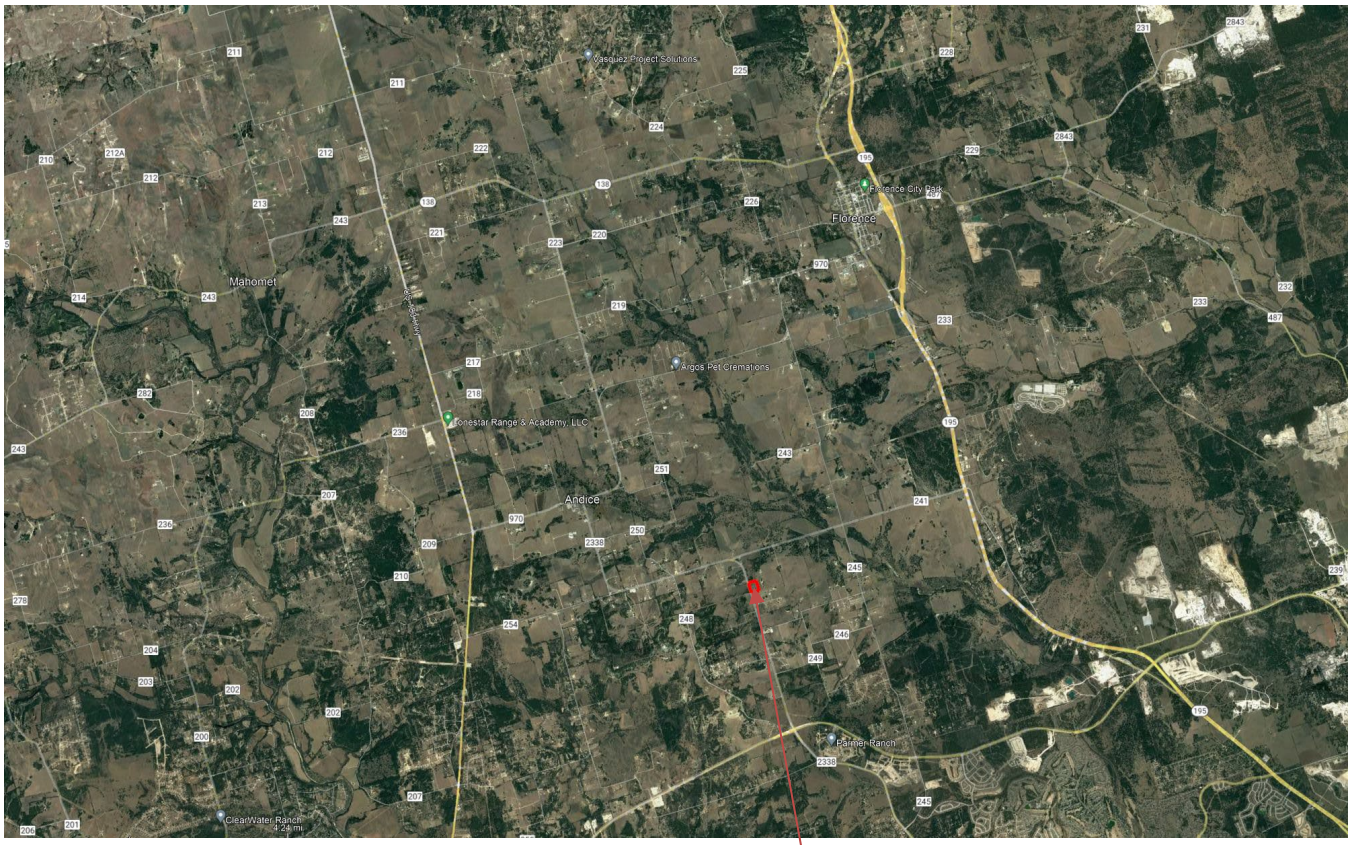
Description of the soil type (e.g., loamy, clayey, sandy, rocky) or the quality of any discharge from the site.

The existing soil contains a mixture of low to moderate plasticity soils, including lean clay (LC), silt (ML), and loose to very dense clayey gravel (GC). Discharge from the station is diverted into the retention pond located at the northern edge of the property, which is then mitigated towards the roadway culvert leading to Berry Creek and ultimately the San Gabriel River.

Section 4

Location Map

Part III Sect. F.1. (f)



SUBSTATION SITE

Section 5

Detailed Site Map(s)

Part III Sect. F.1.g (i)-(viii)

Section 6

Site Description – Support Facilities

Part III Sect. F.1. (h)

A description of the activities and their locations of any asphalt plants, concrete batch plants or other activity supporting this construction site.

Facility	*Description*	*Location*
Concrete Batch Plant	**Foundations for substation**	**Martin Marietta – Georgetown Ready Mix**

Part III Sect. F.1. (i)

List of receiving waters at or near the site that will be disturbed or that will receive discharges from the project's disturbed areas.

Name of Receiving	*Will Receiving Water Be Disturbed?*	*Location of Receiving water*
Berry Creek	**NO**	**Approximately 1.0 mile from project site**

Section 7

Copies of Construction General Permit (CGP) TXR150000 or description of location of CGP NOI, certificate, and/or site notice

Best Management Practices

Section 8

Best Management Practices (BMPs) Erosion and Sediment Controls

Part III Section F.2.a.(i)-(ii) and F.2. (c)

Description of Erosion and Sediment Controls designed to retain sediment. Add as many rows as needed.

BMPs Installed	***Location(s) On-Site***	***Inspection/Maintenance Schedule***	***Modifications/Replacement Activities***
Silt Fence & Sediment Control Wattles	Along western and northern Property lines	Weekly	Remove and Replace as needed
Stabilized Construction Entrance	Main Entrance	Weekly	Remove and Replace as needed
Rock Riprap	Northwest corner of Property and along station pad contours	Weekly	Remove and Replace as needed
Concrete Washout Pit	Northwest corner of substation pad	Weekly	Remove and Replace as needed
Culvert Pipes	Main Entrance, access roads, berm drains, subgrade drain	Weekly	Remove and Replace as needed

Are there sedimentation basins or traps?* *If yes, list the measures taken to reduce the pollutants transported off-site by pumping activities.*	***Yes*** ☒	***No*** ☐
Prevention Measure	***Location On-Site***	***Implementation Date***
Storm water detention pond system with grass bottom, rock berms, sand bed, and rock rip rap at culvert exits will mitigate and treat storm water runoff.	North	02/2024

* Part III Section F.6. (c) Sediment must be removed from sediment traps and basins no later than the time that the design capacity has been reduced by 50 percent.

Section 9

BMPs, Off-Site Transfer of Pollutant Controls

Part III Section F.2.a. (iii)

List of good housekeeping practices implemented to limit the off-site transport of litter, construction debris, and construction materials.

Litter Controls:	
Good Housekeeping Activity	***Location(s) On-Site***
Trash Bags	In Company Trucks
Roll-Off Dumpster	Inside fenced substation perimeter
Construction Debris Controls:	
Good Housekeeping Activity	***Location(s) On-Site***
Silt Fence and Sediment Control Wattles	In ditches, pond bottoms, concrete washout, and spoils area
Stabilized Construction Entrance	Main entrance
Rock Riprap	At northwestern corner of Property, at culvert entrances/exits, and along station pad contours
Construction Material Controls:	
Good Housekeeping Activity	***Location(s) On-Site***
Concrete Washout Pit	Northwest corner of substation pad

Section 10

BMPs, Stabilization and Erosion Control Practices

Part III Section F.2.b. (i)

Stabilization and erosion control practices may include but are not limited to: establishing temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, and protecting existing trees and vegetation. List practices used where they are located, when they will be implemented, and whether they are temporary (interim) or permanent.

Stabilization Practices	*Location On-Site*	*Implementation Date*	*Interim or Permanent*
Pad Stabilization – 3" top rock cover	**Substation pad**	**04/2024**	**Permanent**
Rock Rip-Rap	**Outside substation pad and at northwest corner of property**	**04/2024**	**Permanent**

Section 11

Dates of Major Grading Activities and Construction Stoppage

Part III Section F.2.b. (ii) (A)-(C), (iii-iv)

If you do not list activities below, either attach documentation or state where records for the activities can be accessed:

Documentation attached? Yes ☐ No ☒

Where can documentation be found (if not included in SWP3)? **N/A**
Contact Person: **N/A** Phone Number: **N/A**

Dates when major grading activities will occur and locations on-site:

Activity	*Location*	*Dates when Activity is Scheduled*
Stripping	Substation Pad	02/2024 – 02/2024
Filling & Compacting	Substation Pad	02/2024 – 02/2024

Dates when construction activity will temporarily or permanently cease:

Location on-site	*Date activity is to be stopped*	*Temporary or Permanent?*	*Stabilization Initiation Date*
Substation Pad	05/2024	Permanent	05/2024

Section 12

Sediment Control Practices

Part III Section F.2. (c)

Will the project disturb 10 acres or more at one time? Yes☐ No☒

If yes, is it feasible to install a sediment basin? Yes☒ No☐

Calculate the volume of runoff from a 2-year, 24-hour storm event:

- 3.92" for a 2-year, 24-hour storm event.
- Runoff Volume: (9.98 ac.) * (3.92") = 14,230 cubic feet.
- Volume of sediment basin: 43,560 cubic feet (Note: Disturbed area is 8.10 acres).

In determining feasibility have you considered (attach any additional justification in determining feasibility):

Site Factor	*Considered?*	*Site Factor*	*Considered?*
Site Soils	Yes	Precipitation pattern	Yes
Slope	Yes	Site geometry	Yes
Available area	Yes	Site vegetation	Yes
Public safety	Yes	Geotechnical factors	Yes
Groundwater depth	Yes	Infiltration capacity	Yes
Other? (list)	Surface rock on completed substation pad.	Other? (list)	**N/A**

Based on above information, sedimentation basin will ☒ be used ***OR*** ☐ is not feasible.

In addition to settlement ponds the following structural control practices that will be used:

Article II. Structural Control	*Used? Yes/No*	*Location On-Site*
A series of smaller sediment basins	Yes ☐ No☒	**N/A**
Silt fences	Yes ☒ No ☐	**In ditches, pond bottoms, concrete washout, and spoils area**
Vegetative buffer strips	Yes ☒ No ☐	**In ditches, pond bottoms, concrete washout, and spoils area**
Sediment traps	Yes ☐ No ☒	**N/A**

Article II. Structural Control	*Used? Yes/No*	*Location On-Site*
Other (list): Riprap	Yes ☒ No ☐	**At northwestern corner of Property and along substation pad contours**
Other (list): Stabilized Construction Entrance	Yes ☒ No ☐	**Main Entrance**

Section 13

Permanent Stormwater Controls

Part III Section F.3

The following measures will be constructed to control post-construction runoff:

Control Measure	*Location on Project Site*	*Control runoff from what areas*
Culvert Pipes	Under driveways, along roadways, at berm exit	Roadway, Drainage Ditch, and Substation Pad Areas
Rock Riprap	At northwestern corner of Property and along substation pad contours	Inside Property boundary
Storm Water Retention Ponds	North	Between Substation and Property Boundary

Section 14

Other Stormwater Controls

Part III Section F.4. (a)

Control to minimize dust generation and off-site tracking of sediment:

Control Practice Used	*Location(s) On-Site*
Water	When needed on Entrance
Gradation	Pad and Entrance

Part III Section F.4. (b)

The following construction and waste materials will be stored on-site:

Materials Stored On-Site	*Average Amount Stored*	*Location On-Site*	*Controls Used to Prevent Pollutants*
N/A	**N/A**	**N/A**	**N/A**

Other Stormwater Controls

Part III Section F.4. (c)- (d)

Describe pollutant sources from areas other than construction (make additional copies of this worksheet as needed):

Type of pollutant source	*Pollutant(s)*	*Control(s) or measure(s) used to minimize pollutants*
N/A	**N/A**	**N/A**

Describe the velocity dissipation devices that will be placed at discharge locations and/or along the length of any outfall channels:

Dissipation Device (hay bales, silt fence, pond, etc.)	*Outfall Discharging to (MS4, bar ditch, creek/stream)*	*At Outfall or Channel (distance interval for channel)*
Rock Riprap, Retention Pond with outlet pipes	Roadway Ditch	Approximately 1.0 mile away from Berry Creek

Section 15

Inspection of Controls Worksheets/Report

Part III Section F.7.

Complete this worksheet every seven days; **OR**, every 14 days and within 24 hours of a 0.5 inch rainfall event, and retain in your SWP3.

Inspector (name/title): **Inspection Date:** **Day:** **Time:** **am/pm**

Scope of inspection: 14 Day Inspection ☐ or Weekly Inspection ☐

Day of week normally conducted: _____ 0.5 inch Rainfall Event ☐

Inspection Type:	*Inspected? (Y/N)*	*Areas of Concern (Describe in detail in the narrative section)*
Disturbed Soil Areas	Yes ☐ No☐	
Material Storage Areas	Yes ☐ No☐	
Structural Controls	Yes☐ No☐	
Sediment & Erosion Controls	Yes☐ No☐	
Entrance(s) and Exit(s)	Yes☐ No ☐	

Discharges:

Nature of discharge (silt, gravel, sand, other pollutant)	*Location on-site discharge*

Inspection of Controls Worksheets (contd.)

Part III Section F.7.

Best Management Practices Inspected: Add additional rows if needed.

BMP and Location	*OK (no action required)*	*BMP failed (describe failure)*	*Required Maintenance (describe corrective actions needed)*
	☐		
	☐		
	☐		
	☐		
	☐		
	☐		

Additional BMPs Needed

Location	*Best Management Practice*	*Replacing Existing BMP?*

Inspection Narrative Description/Certification

Part III Section F.7.

Complete this worksheet every seven days; **OR**, every 14 days and within 24 hours of a 0.5 inch rainfall event and retain in your SWP3.

Describe the inspector's qualifications to conduct the inspections:

Describe how your inspection was conducted:

Describe all incidents of non-compliance (i.e. major discharges, BMP failures):

"I certify that the facility or site is in compliance with the stormwater pollution prevention plan and this permit."

I further certify that I am authorized to sign this report under TCEQ rules at 30 TAC 305.128 (relating to Signatories to Reports)

Name/Title: Date:

Section 16

Eligible Non-Stormwater Discharges (listed in Part II.3. [a]-[h])

Part III, Sect. F.8

Eligible Non-stormwater Discharge	*Used? Yes/No*	*Pollution Prevention Measure(s)*	*Implementation Date*
Fire Fighting Activities	Yes☐ No☒	**N/A**	**N/A**
Fire Hydrant Flushing	Yes☐ No☒	**N/A**	**N/A**
Washing of Vehicles, Buildings, or Pavement without detergents or soap (see description in Part II.3.[c])	Yes☒ No☐	Riprap/Construction Entrance	02/2024
Dust Control	Yes☒ No☐	Water, Construction Entrance and Substation Pad	02/2024
Potable Water Sources (water line flushing)	Yes☒ No☐	Riprap	02/2024
Air Conditioning Condensate	Yes☒ No☐	Riprap	04/2024
Uncontaminated Ground/Spring Water	Yes☐ No☒	**N/A**	**N/A**
Other? (List)	Yes☐ No☒	**N/A**	**N/A**

List any other non-stormwater discharge permitted by a separate NPDES, TPDES, or TCEQ Permit.

Non-stormwater Discharge	*Pollution Prevention Measure*	*Implementation Date*

Section 17

Stormwater Runoff from Concrete Batch Plants

Part IV

See Instructions for Information regarding Concrete Batch Plants associated with Construction Projects.

Concrete is coming from offsite, therefore Stormwater runoff is not a concern.

Section 18

Concrete Truck Washout Requirements

Part V

Location of concrete washout area on site and description of BMPs established to prevent the concrete wash out water from contributing to groundwater contamination or entering the waters of the state.

The concrete washout area is located towards the northwestern corner of the substation pad. BMPs that prevent the concrete wash out water from contributing to groundwater contamination or entering the waters of the state include putting down plastic lining as well as having elevated berms in order to contain all water from the concrete wash out area.

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

I Jose Trevino,
Print Name

V P, Engineering,
Title - Owner/President/Other

of Pedernales Electric Cooperative, Inc.,
Corporation/Partnership/Entity Name

have authorized Lena Roha
Print Name of Agent/Engineer

of Schneider Engineering, LLC
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

10/30/23
Date

THE STATE OF Texas §

County of Blanco §

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

GIVEN under my hand and seal of office on this 30 day of October, 2023

Kathy K. Stevenson
NOTARY PUBLIC

Kathy K. Stevenson
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: June 17, 2027

KATHY K. STEVENSON
Notary Public, State of Texas
Notary ID# 784161-4
My Commission Expires
JUNE 17, 2027

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: Florence Substation
Regulated Entity Location: 11800 FM 2338, Florence, Texas 76527
Name of Customer: Pedernales Electric Cooperative (PEC)
Contact Person: Lena Roha Phone: (830) 249-3887
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	9.98 Acres	$ 5,000
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: Lena Roha Date: 12/21/2023

Application Fee Schedule

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

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

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

Organized Sewage Collection Systems and Modifications

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

Underground and Aboveground Storage Tank System Facility Plans and Modifications

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

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Use Only

TCEQ Core Data Form

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

SECTION I: General Information

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

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

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

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

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy): 01/19/2024

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

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

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

PEDERNALES ELECTRIC COOPERATIVE

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
0007336401	N/A - TAX EXEMPT (SEE ATTACHED)	N/A - TAX EXEMPT (SEE ATTACHED)	N/A

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☑ Other ☐ Sole Proprietorship ☑ Other: ELECTRIC COOPERATIVE

12. Number of Employees

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

13. Independently Owned and Operated?

☑ **Yes** ☐ **No**

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

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

15. Mailing Address:

PEDERNALES ELECTRIC COOPERATIVE
201 S AVENUE F

City	**State**	**ZIP**	**ZIP + 4**
JOHNSON CITY	TX	78636	78696-0001

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

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

(830)868-7155		( ) -

SECTION III: Regulated Entity Information

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

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

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

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

FLORENCE SUBSTATION

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	FLORENCE SUBSTATION						
	11800 FM 2338						
	City	FLORENCE	**State**	TX	**ZIP**	76527	**ZIP + 4**	
24. County	BLANCO						

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	LOCATED EAST OF RANCH ROAD 2338, APPROXIMATELY ONE-HALF MILE SOUTH OF COUNTY ROAD 241

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

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

27. Latitude (N) In Decimal:	30.766152		**28. Longitude (W) In Decimal:**	-97.812559	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	45	58.1472	-97	48	45.2118

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)
4911	N/A	221122	N/A

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

POWER SUBSTATION

34. Mailing Address:	PEDERNALES ELECTRIC COOPERATIVE						
	201 S AVENUE F						
	City	JOHNSON CITY	**State**	TX	**ZIP**	78636	**ZIP + 4**	78636-0001
35. E-Mail Address:	GEORGE.CRAIG@PECI.COM						

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(830)992-7734		( ) -

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

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

SECTION IV: Preparer Information

40. Name:	LENA ROHA	**41. Title:**	APPLICANT REPRESENTATIVE

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(830)249-3887		(830)249-5434	LROHA@POWEREDBYSENERGY.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:	SENERGY	**Job Title:**	PROJECT ENGINEER
Name *(In Print):*	LENA ROHA	**Phone:**	(830)280-0625
Signature:	Lena Roha	**Date:**	01/19/2024

01-339 (Back)
(Rev.4-13/8)

Texas Sales and Use Tax Exemption Certification

This certificate does not require a number to be valid.

Name of purchaser, firm or agency	
Pedernales Electric Cooperative, Inc.	
Address *(Street & number, P.O. Box or Route number)*	Phone *(Area code and number)*
P.O. Box 1	**(830) 868-7155**
City, State, ZIP code	
Johnson City, TX 78636	

I, the purchaser named above, claim an exemption from payment of sales and use taxes (for the purchase of taxable items described below or on the attached order or invoice) from:

Seller: _____

Street address: _____ City, State, ZIP code: _____

Description of items to be purchased or on the attached order or invoice:

All Purchases

Purchaser claims this exemption for the following reason:

Texas Administrative Tax Rule 3.322(b) (8) - EXEMPT ORGANIZATION - ...an electric cooperative formed under the electric cooperative act (Texas Civil Statues, Article 1528b) and nonprofit electric cooperatives located outside the state.

**TIN 74-0828412

I understand that I will be liable for payment of all state and local sales or use taxes which may become due for failure to comply with the provisions of the Tax Code and/or all applicable law.

I understand that it is a criminal offense to give an exemption certificate to the seller for taxable items that I know, at the time of purchase, will be used in a manner other than that expressed in this certificate, and depending on the amount of tax evaded, the offense may range from a Class C misdemeanor to a felony of the second degree.

Purchaser	Title	Date
sign here ▶	Chief Financial Officer	

NOTE: This certificate cannot be issued for the purchase, lease, or rental of a motor vehicle.

THIS CERTIFICATE DOES NOT REQUIRE A NUMBER TO BE VALID.

Sales and Use Tax "Exemption Numbers" or "Tax Exempt" Numbers do not exist.

This certificate should be furnished to the supplier.
Do <u>not</u> send the completed certificate to the Comptroller of Public Accounts.