# Stormwater Management Design Report

Phase 3 Clearing and Grubbing Plans

(Carolina Crossroads)

SCDOT Project ID No. P039720

*Lexington / Richland County, South Carolina*

March 31, 2023

Revised August 10, 2023

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SOUTH CAROLINA
HDR ENGINEERING, INC. OF THE CAROLINAS
No. C0318
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
LICENSED PROFESSIONAL ENGINEER
No. 24246
6/10/2023
EDWARD J. OWENS, JR.

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# 1 Project Summary

To facilitate the I-20 / I-26 / I-126 Interchange Improvement Project (Carolina Crossroads) the South Carolina Department of Transportation (SCDOT) has divided the construction of the project into phases. Phase 3 of the project includes improvements at the I-26 / I-20 Interchange, I-26 / St. Andrews Road Interchange, and the I-20 / Bush River Road interchange. The SCDOT is currently acquiring right-of-way for Phase 3 and developing procurement documents for the construction of the interchange improvements. To advance the construction of Phase 3, the SCDOT has developed Erosion and Sediment Control Plans for the Clearing and Grubbing Phase for the Phase 3 project area. The Erosion and Sediment Control Plans will be used to obtain the Land Disturbance Permit for the Clearing and Grubbing Phase only. The Clearing and Grubbing Construction will include the removal of trees, shrubs, and other vegetation within the work area. The Clearing and Grubbing Phase will not include any major grading activities. The project will only include minor grading to smooth out any areas in which stumps and vegetation is removed.

The Clearing and Grubbing activities will include clearing, stump removal, minor grading, and the associated erosion control and traffic control. The project will not increase impervious area and will have no significant impact on stormwater discharges to downstream areas. Construction for the project will be performed under the NPDES General Permit for Stormwater Discharges from South Carolina Highway and Roadway Construction Activities. The construction plans indicate a land disturbance of 273.0 acres with the project area of 276.0 acres. Receiving waterbodies for the project area include Senn Branch, Stoop Creek, Saluda River, and Unnamed Tributaries to Stoop Creek and the Saluda River. Downstream water quality monitoring stations located along Stoop Creek indicate Stoop Creek is impaired for Macroinvertebrate and E-Coli. The Saluda River is also listed on the impaired list for E-Coli downstream of the project. SCDHEC has indicated sediment-laden runoff contributes to concentrations of Macroinvertebrate. The construction plans include an erosion control plan which if implemented and maintained during construction will minimize the potential for sediment-laden stormwater flows to impact downstream areas. Further discussion of the Sediment and Erosion Control plan is provided in Section 5.0.

Project location maps and the effective Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps are provided in Section 2.0. The following Special Flood Hazard Areas are located within the project area:

| | |
|---|---|
| Stoop Creek (Zone AE) | Panel No. 45063C0161J (effective July 5, 2018)<br>Panel No. 45063C0163J (effective July 5, 2018)<br>Panel No. 45079C0236L (effective Dec. 21, 2017) |
| Saluda River (Zone AE) | Panel No. 45063C0144J (effective July 5, 2018)<br>Panel No. 45063C0163J (effective July 5, 2018)<br>Panel No. 45079C0238L (effective Dec. 21, 2017) |
| Senn Branch (Zone AE) | Panel No. 45063C0163J (effective July 5, 2018) |

The project does not include major grading activities and therefore further studies for FEMA compliance were not performed for the Clearing and Grubbing Phase.

The drainage design and stormwater management techniques comply with SCDOT *Requirements for Hydraulic Design Studies*, published May 26, 2009. A copy of the project Notice of Intent for the stormwater permit as well as the SCDOT Stormwater Pollution Prevention Plan Checklist is included in this section. This phase of the project

does include any impacts to Jurisdictional Waters of the United States.  Although a Section 404 permit has been obtained for the overall project, no wetlands or streams will be impacted during this phase.

The information in this report is based on the Construction Plans for the Phase 3 Clearing and Grubbing Phase (Carolina Crossroads) completed by HDR as of August 2023.

# SCDOT Notice of Intent Application

# SCDOT NOTICE OF INTENT (NOI)

**For Stormwater Discharges from SCDOT Activities Covered Under South Carolina NPDES Construction General Permit SCR160000**

(Maintain As Part of On-Site SWPPP)

South Carolina Department of Transportation

***For Official DHEC Use Only***

**DHEC File Number:** ____-____-____-____

**Permit Number: SCR16**_____

**Submittal Package Complete:** _____

**Public Notice Start Date (OCRM only):** _____

***For official SCDOT use only***

**SCDOT File Number:** _____

*Submission of this Notice of Intent constitutes notice that the SCDOT intends to be authorized as a Primary Permittee under NPDES General Permit SCR160000.*

***For Official Use Only***

**Submission Date:** 03/31/2023 **Proposed Start Date:** 10/01/2023 **Proposed Completion Date:** 08/01/2025

**Project/Site Name:** Carolina Crossroads - Phase 3 C&G Plans **County:** Richland / Lexington

**(Modification or Change of Information Only):** Prior Approved NPDES Permit or File Number: _____

Do you want this project to be considered for the Expedited Review Program (ERP)? ☐ Yes ☒ No (see Instructions)

## I. Notice of Intent (NOI) Application Type(s)

**Project (Application/Review) Type(s)** (Select **ALL** that apply): ☒ New Project (Initial Notification) ☐ Ongoing Project:

☐ Permitted ☐ Un-Permitted ☐ Late Notification ☐ Major Modification: **(attach modifications)**

☐ Ocean and Coastal Resource Management (OCRM) Review

☐ Change of Information/Other (Specify): _____

## II. Owner and Operator Information

**A. Project Owner: South Carolina Department of Transportation** **SCDOT EIN: 5 7 - 6 0 0 0 9 5 4**

Phone: 803-737-6030 Fax: 803-737-2389 Email Address: rogersDL@scdot.org

Mailing Address: SCDOT Const. Office, P.O. Box 191 City: Columbia State: SC Zip: 29202

**B. Project Operator: South Carolina Department of Transportation Resident Engineer**

Name: David Rogers Phone: 803-737-6030 Email Address: rogersDL@scdot.org

Mailing Address: 317 Zimalcrest Drive City: Columbia State: SC Zip: 29210

## III. Site Information

**A. Type of Activity (check one):** ☐ Industrial ☐ Linear ☒ Site Preparation (No new impervious) ☐ Other: _____

**B. Site Location** (nearest intersection, etc.): I-20 / I-26 Interchange, I-26, I-20, St. Andrews Road, Bush River Road, & Sideroads

**City/Town:** Columbia, SC (See Project Location Map for Project Areas)

**Disturbed Area** (Nearest tenth of an acre): 273.0 **Project Area** (Nearest tenth of an acre): 276.0

**Beginning Latitude:** 34 ° 03 ' 03 " N **Beginning Longitude:** 81 ° 07 ' 28 " W

**Ending Latitude:** 34 ° 01 ' 16 " N **Ending Longitude:** 81 ° 06 ' 17 " W

**(Source):** ☐ GPS ☒ Website: Google Earth

C. Is the proposed site located on Indian Land? ☐ Yes ☒ No (If *yes*, name the reservation: _____

D. Are there State and Federal Environmental Permits or Approvals (other than USACOE 404 permit and 401 certification) applied for or obtained for this site? ☒ Yes ☐ No

If "Yes", list all obtained: NEPA Documentation

## IV. Stormwater Pollution Prevention Plan (SWPPP) Information

**A. General SWPPP Information:** Is the SWPPP prepared in accordance with the SCDOT CGP? ☒ Yes ☐ No

**B. SWPPP Preparer:** Edward J. Owens Jr. S.C. Registration #: 24246

**C. Company /Firm:** HDR Engineering Inc. of the Carolinas S.C. COA #: 0318

Mailing Address: 1201 Main Street, Suite 800 City: Columbia State: SC Zip: 29201

Phone: 803-730-8912 Fax: N/A Email: ed.owens@hdrinc.com

## V. Water Body Information:

**A. Receiving Waterbody(s) (RWB) Information:** List the nearest and next nearest receiving waterbodies to which the sites stormwater discharges will drain. If stormwater discharges drain to multiple waterbodies, then list all such waterbodies. (Attach additional sheet(s) as needed)

| 1. Name of Receiving Waterbodies (RWB) | 2. Distance to RWB (feet) | 3. Classification of RWB |
|---|---|---|
| a. Nearest: Senn Br. / Tribs to Stoop Creek / Saluda River | 0 feet | FW / TPGT |
| b. Next Nearest: Stoop Creek / Saluda River | 0 feet | FW / TPGT |
| c. Other Waterbodies: | feet | |

**B. Waters of the U.S. / State Information:** Attach additional sheet(s) as needed

No land disturbance will be performed in wetland / stream areas during this phase of the project.

| Waters of the U.S./ State | 1. On the Site? | 2. Delineated/ Identified? | 3. Impacts? | 4. Amount of impacts |
|---|---|---|---|---|
| a. Jurisdictional wetlands | ☒Yes ☐No | ☒Yes ☐No | ☐Yes ☒No | Ac |
| b. Non-jurisdictional wetlands | ☐Yes ☒No | ☐Yes ☐No | ☐Yes ☐No | Ac |
| c. Other Water(s): Jurisdictional Stream | ☒Yes ☐No | ☒Yes ☐No | ☐Yes ☒No | LF |
| d. Coastal Zone ONLY: Direct Critical Area | ☐Yes ☐No | ☐Yes ☐No | ☐Yes ☐No | Ac |

e. If *yes* for impacts, describe each impact and activity, and list all permits (e.g. USACOE Nationwide Permit, DHEC General Permit) and Certifications (e.g. CHZ certification number) that have been applied for or obtained: USACE SAC 2015-01080

USACE SAC 2015-01080 is permit for full CCR Project.

**C. S.C. Navigable Waterways (SCNW) Information:** Attach additional sheet(s) as needed.

**1. Are S. C. Navigable Waters (SCNW) on the site:** ☒ Yes ☐ No

a. If **no**, do not complete this question. Proceed to Section D (Impaired Waterbodies).

b. If **yes**, provide the name of S.C. Navigable Waters (SCNW) on the site: Saluda River

**2.** If **yes for C.1**, will construction activities cross over or occur in, under, or thru the SCNW? ☒ Yes ☐ No

If yes, describe SCNW activities (e.g., road crossing, sub-aqueous utility line, temp./perm. structures, etc.) and proceed to Section C.3: Bridge Construction. (Bridge Construction will not occur in this phase of the project.)

**3.** Identify permits providing coverage of SCNW activities proposed for your site. If NONE, list "none".

| Permits/Certifications | Permit or Certification No. | Corresponding Covered SCNW Activities |
|---|---|---|
| **a. DHEC General/ Other DHEC Permit** | | |
| **b.** USACOE **404 Permit or 401 Cert.** | SAC 2015-01080 | Bridge Construction |
| **c. SCNW Permit**<br>if applied for: Date: _____<br>if issued: Date: _____ | | ☐ **All Activities** or<br>☐ **Some Activities (Describe):** |

**d. If a SCNW Permit has NOT been applied for** provide an additional plan sheet that shows plan and profile views (drawn to scale) of the SCNW and associated activities. Include a description of all proposed activities on this plan.

**D. Impaired Waterbodies Information:** Attach additional sheet(s) as needed.

**D1. 303(d) Listed Impaired Waterbodies**

a. Name the nearest DHEC Water Quality Monitoring Station(s) (WQMS) that receives stormwater from your construction site and/or thru an MS4, as well as the Name of the Corresponding Waterbody?

Nearest DHEC WQMS(s): WQMS S-507, CRK08, CRK02, S-298

Corresponding Waterbody: Stoop Creek (S-507 & CRK08) Saluda River (CRK02 & S-298)

b. Is this WQMS(s) listed on most current 303(d) List? ■ Yes ☐ No

Name of impaired WQMS: S-507, CRK08, S-298

c. If yes for "b", list the impairment(s): BIO (S-507) & ECOLI (CRK08, S-298)

d. Will any pollutants contributing to the impairment be present in the site's construction stormwater discharges? ■ Yes ☐ No

e. If yes for "d" above, will the use of the BMPs proposed for your project ensure that the site's discharges will NOT contribute to or cause further WQS violations for the impairment(s) listed in "c"? ■ Yes ☐ No

(NOTE: If no for "e", this site is NOT eligible for coverage under the SCDOT CGP)

**D2. TMDL Impaired Waterbodies**

a. Name of Nearest DHEC Water Quality Monitoring Stations (WQMS(s)) that receives stormwater from your construction site and/or through an MS4?: WQMS S-507, CRK08, CRK02, S-298

b. Has a TMDL(s) been developed for this WQMS(s)? ☐ Yes ■ No

If Yes, Identify the TMDL: _____

c. If yes for "b", list the impairment(s) : _____

d. If yes for "b", has the standard been "ATTAINED" or "FULLY SUPPORTED" for the impairment(s)? ☐ Yes ☐ No

e. If no for "d" (Not Attained), Determine whether or not the stormwater discharge from the Project may contain pollutants that contribute to a sediment or a sediment-related impairment. ☐ Yes ☐ No

List the Pollutants: _____

f. If yes for "e" above, Have you carefully evaluated selected BMPs and their performance to minimize pollutants in the stormwater discharge to not cause or contribute to a violation of water quality standards? ☐ Yes ☐ No

(NOTE: If no for "f", this site is NOT eligible for coverage under the CGP).

## VI. Signatures and Certifications: DO NOT SIGN IN BLACK INK! SIGN IN BLUE INK.

**A.** "One copy of the SWPPP, all required specifications and supporting calculations, forms, and reports are herewith submitted and made a part of this application. I have placed my signature and seal on the design documents submitted signifying that I accept responsibility for the design of the system. Further, I certify to the best of my knowledge and belief that the design is consistent with the requirements of Title 48, Chapter 14 of the Code of Laws of SC, 1976 as amended, pursuant to Regulation 72-400 et seq., and in accordance with the terms and conditions of SCR160000." (This should be person identified in Section IV.)

Check one: ☒ Engineer ☐ Tier B Surveyor ☐ Landscape Architect

| Edward J. Owens Jr. | Edward J. Owens | 24246 |
|---|---|---|
| **Printed name of SWPPP Preparer** | **Signature of SWPPP Preparer** | **S.C. Registration #** |

**B.** "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 that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also hereby certify that all land-disturbing construction and associated activity pertaining to this site shall be accomplished pursuant to and in keeping with the terms and conditions of the approved plans and SCR160000. I also certify that a responsible person will be assigned to the project for day-to-day control. I hereby grant authorization to S.C. Department of Health and Environmental Control (DHEC) and/or the local implementing agency the right of access to the site at all times for the purpose of on-site inspections during the course of construction and to perform maintenance inspections following the completion of the land-disturbing activity. (See Section 122.22 of S.C. Reg. 61-9 for signatory authority information.) Having understood the above information, I am signing this certification as Project Owner to the aforementioned NPDES general permit."

| David Rogers | CCR Construction Manager |
|---|---|
| **Printed Name of Project Owner** | **Title/Position** |
| David Rogers | 8/21/23 |
| **Signature of Project Owner** | **Date Signed** |

## NPDES SCDOT CGP Fee Schedule

DO NOT MAIL CASH. DHEC will notify the Project Owner if the submitted check or credit card payment cannot be processed. The review clock will start when acceptable payment is received.

**1. Will this project ultimately disturb 1 acre or more state wide, or ½ acre or more if located within ½ mile of a RWB in one of the eight coastal counties (Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Horry, and Jasper counties)?** ☒ Yes ☐ No

If yes, enter $125 in right-hand column and proceed to item 2.
If no, coverage under SCR160000 is not required. $ 125 . 00

**Note: For projects greater than 2 acres SCDHEC may require additional review fees at $100/disturbed acre, but not to exceed $2000.**

4. Payment Method:

☐ **Payment by Check:**
Attach a **signed and dated check payable to S.C.DHEC** to the front of the Fee Schedule.
Please note that all checks must **be less than 30 days** old and must be for the **entire required fees.**

☐ **Payment by Credit Card:** (Check here if you wish to pay via credit card using the on-line payment system).
The Department will contact you to provide instructions and the invoice number necessary for online payment.
Please provide an email address where the invoice number may be sent:
Email Address: _____

☑ **Payment by Credit Card:** (Check here if this is an auto-draft to the SCDOT debit card account.)
I.D.T. Required

**For official use only:** **Invoice Number:** _____

# Stormwater Pollution Prevention Plan Checklist for SCDOT Construction Activities

# Stormwater Pollution Prevention Plan (SWPPP) Checklist
# For SCDOT Construction Activities (SCR160000)

## I. PROJECT IDENTIFICATION: (RPG Hydraulic Team Leader Task and/or Consultant)

### A. PROJECT TYPE:

PIN #: Project ID - P039720 Road #: I-20 / 26 / 126 County: Lexington / Richland

☐ Road construction ☐ Bridge construction ■ Other: Clearing and Grubbing

Acres Disturbed: 273.0

The "C-SWPPP" must be prepared by a qualified individual (SC Registered Professional Engineer, Landscape Architect, or Tier B Land Surveyor) for each project that disturbs 1 acre or more, and construction activities that result in land disturbance of greater than 0.5 acres located within one-half mile of a coastal receiving water body within the Coastal Zone. The Coastal Zone consists of the following counties: Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Horry, and Jasper.

### B. COASTAL COUNTY PROJECT:

☐ Yes ■ No Is the project located in one of the following eight coastal counties: Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Horry or Jasper?

## II. WATER BODY INFORMATION: (Environmental Permit Coordinator Task)

### A. Impairments and Classification

1. ■ Yes ☐ No Does the project discharge to a 303(d) listed water body?
   List Impairment(s): Macroinvertebrate & Eschericia Coli
2. ☐ Yes ■ No Has a TMDL been developed?
   List Impairment(s): _____
   If yes, is SCDOT listed as a potential contributor of any of the pollutants?
   List Pollutant(s): _____
3. ■ Yes ☐ No Does the project discharge stormwater to sensitive waterbodies (Trout Waters, Outstanding Resource Waters (ORW), or Shellfish Harvesting Areas)?
   List waterbody classification: Trout Waters

### B. Coastal Issues

1. ☐ Yes ■ No Are shellfish beds present within 1000 feet of the project discharge point(s)?
2. ☐ Yes ■ No Is the project within the OCRM Critical Area?
3. ☐ Yes ■ No Has a Coastal Zone Consistency (CZC) Checklist been completed?
4. ☐ Yes ■ No Is the CZC application or approved Certification included with the NOI package for OCRM?

### C. Wetland Locations:

1. ■ Yes ☐ No Have all wetland locations been mapped and added to the final plans?
2. ■ Yes ☐ No If there are wetlands, is a double row of silt fence proposed in areas adjacent to wetlands and land disturbance?

# Stormwater Pollution Prevention Plan (SWPPP) Checklist
# For SCDOT Construction Activities (SCR160000)

**D. Wetlands and Permits**

1. ■ Yes ☐ No ☐ N/A 404 permit obtained?
2. ■ Yes ☐ No ☐ N/A 401 certification obtained?
3. ■ Yes ☐ No ☐ N/A Navigable Waters permit?
4. ☐ Yes ☐ No ■ N/A OCRM Critical Area permit?
5. Other Permits: _____
6. How many freshwater wetland acres will be impacted? 0 (Clearing and Grubbing Phase)
7. How many tidal wetland acres will be impacted? 0
8. ■ Yes ☐ No ☐ N/A Have all the required permit approvals and certifications been obtained?

**III. WATER QUALITY - Sediment Control & Erosion Prevention** (RPG Hydraulic Team Lead Task)

**A. General Design and Report Information**

Note: For projects that disturb 50 acres or more, submit one (1) set of plans and C-SWPPP to DHEC for review along with all design/assessment calculation reports. For projects that disturb less than 50 acres, submit three (3) sets of plans.

1. ■ Yes ☐ No ☐ N/A Is the NOI prepared? **C-SWPPP section:** Section 1.0
2. Anti-Degradation Requirements:
   a. ■ Yes ☐ No ☐ N/A Does the project disturb 25 acres or more that discharges into an impaired waterbody? If Yes, then anti-degradation rules apply that require a Quantitative and Qualitative Analysis.
   b. ■ Yes ☐ No ☐ N/A Is the Quantitative and Qualitative Analysis Report (calculations report) included in the C-SWPPP submission? **C-SWPPP section:** Section 5.0
3. Are the following maps included in the SWPPP?
   a. ■ Yes ☐ No ☐ N/A Vicinity map of the project area **C-SWPPP section:** Section 2.0
   b. ■ Yes ☐ No ☐ N/A Soils map **C-SWPPP section:** Section 3.0
   c. ■ Yes ☐ No ☐ N/A Flood map **C-SWPPP section:** Section 2.0
   d. ■ Yes ☐ No ☐ N/A Topographical map **C-SWPPP section:** Section 2.0
   e. ■ Yes ☐ No ☐ N/A Drainage area map **C-SWPPP section:** Section 5.0
4. Are the following items included in the C-SWPPP Narrative? **C-SWPPP section:** See Below
   a. ■ Yes ☐ No ☐ N/A Description of the nature of the construction activity.
   b. ■ Yes ☐ No ☐ N/A Description of erosion prevention measures and sediment controls.
   c. ■ Yes ☐ No ☐ N/A Identification of all receiving water bodies. **Erosion Control Data Sheet**

**5.** ☐ Yes ☐ No ■ N/A Is there a pre/post development hydrologic analysis?
**C-SWPPP section:**_____

**6.** ☐ Yes ☐ No ■ N/A Has the outfall channel capacity been evaluated for the 10-year peak discharge based on pre and post construction conditions? (Note: the design discharge will be the 10, 25, or 50-year peak discharge depending on the road classification and the system or structure type). **C-SWPPP section:**_____

**7.** Are the following elements included in the Construction Plans?

a. ■ Yes ☐ No ☐ N/A Are the limits of disturbance and/or NPDES line and Right-of-Way limits clearly shown on the construction plans?

b. ☐ Yes ☐ No ■ N/A Are all discharge points identified and shown with proposed velocity dissipation BMPs and erosion controls to provide non-erosive flows?

c. ■ Yes ☐ No ☐ N/A Indicate location of all Waters of the State and Wetlands.

d. ☐ Yes ☐ No ■ N/A Are locations and details provided for any non-standard BMPs (either temporary or permanent controls)?

**B. Perimeter Control** **Construction Plan Sheet(s)**

**1.** ■ Yes ☐ No ☐ N/A Is Silt Fence proposed? See Supplemental Technical Spec Silt Fence Systems SC-M-815-2. (Drawings No. 815-605-00).

**2.** ■ Yes ☐ No ☐ N/A Does all Silt Fence meet the requirements of 100 maximum linear feet, storage, and overtopping?
See Supplemental Technical Spec. SC-M-815-2.

**3.** ☐ Yes ■ No ☐ N/A Is there an alternative Perimeter Control BMP?
See Supplemental Technical Spec. SC-M-815-17.

**C. Slope Protection & other Erosion Control**

**1.** ■ Yes ☐ No ☐ N/A Are diversion measures shown and type? (diversion dikes & berms, swales or silt ditches) (Drawing Nos. 815-605-10, 20, 815-008-01 & 02). For Pipe Slope Drains see the Field Manual. **Construction Plan Sheet(s)**

**2. Rolled Erosion Control Products** **Erosion Control Data Sheet**

a. Erosion Blankets
☐ Yes ☐ No ■ N/A Does the project have slopes 2.0H:1V or flatter? If so utilize Erosion Control Blankets (ECBs) or a mulch equivalent temporary stabilization. Reference Supplemental Technical Specifications SC-M-815-9, and SC-M-815-11, and Standard Drawing No. 815-605-30.

b. Matting
☐ Yes ☐ No ■ N/A Does the project have slopes greater than 2.0H:1V? If so, use Turf Reinforcement Matting (TRMs). Reference Supplemental Technical Specification SC-M-815-9, and Standard Drawing No.815-605-30.

**3.** ☐ Yes ☐ No ■ N/A Have the necessary Hydraulic Erosion Control Products (HECP) pay items been included on the construction plans' quantity sheet? Reference Supplemental Technical Specification SC-M-815-11. **Construction Plan Sheet(s)**

**4.** ☐ Yes ☐ No ■ N/A Have the necessary SCDOT Seeding Specification pay items been included on the construction plans' quantity sheet? Reference Supplemental Technical Specification SC-M-810-4. **Construction Plan Sheet(s)**

# Stormwater Pollution Prevention Plan (SWPPP) Checklist
# For SCDOT Construction Activities (SCR160000)

**D. Discharge Point Stabilization** **Construction Plan Sheet(s)**

1. ■ Yes ☐ No ☐ N/A Are locations shown for any Pipe Outlet Stabilization? Indicate locations on the construction plan sheets.
(Drawing Nos. 804-305-01, 02, & 03 and 804-310-00).

**E. Ditch Checks**

1. ■ Yes ☐ No ☐ N/A Are Rock Ditch Check Dams proposed? (Refer to Drawing No. 815-105-00).
**Construction Plan Sheet(s)**

2. ☐ Yes ■ No ☐ N/A Are Enhanced Stacked Ditch Checks proposed? Refer to Supplemental Technical Specification SC-M-815-19. Refer to (Drawing No. 815-106-00) for height and spacing.
**Construction Plan Sheet(s)**

3. ■ Yes ☐ No ☐ N/A Are Sediment Tubes for Ditch Checks proposed? Refer to Supplemental Tech Specs SC-M-815-1 and SC-M-815-12 and refer to Drawing No. 815-205-00.
**Erosion Control Data Sheet**

**F. Sediment Basins** **Construction Plan Sheet(s)**

1. ☐ Yes ■ No ☐ N/A Is a Standard Sediment Basin(s) proposed? (Drawings 815-305-01, 02, 03, 04, 05, 06, & 07).

2. If a non-standardized basin is proposed, then:

   a. ☐ Yes ☐ No ■ N/A Are locations included for the porous baffle(s), emergency spillway, outlet structure, sediment stake, inlet pipes, velocity controls & outlet protection (referenced on plans)?

   b. ☐ Yes ☐ No ■ N/A Are the basins designed to accommodate sediment loading and meet a removal efficiency of 80 percent TSS for the 10-year, 24- hr. design event, or 3,600 cubic feet of sediment storage volume per disturbed acre that drains to the outfall point excluding off site flows, whichever is less?

   c. ☐ Yes ☐ No ■ N/A Is surface withdrawal discharge included in the sediment basin design?

   d. ☐ Yes ☐ No ■ N/A Are calculations provided that show the basin has been designed to meet the same standards as required for a standard sediment basin?

**G. Sediment Dams** **Erosion Control Data Sheet**
(Applicable for drainage areas with 2 to <10 acres disturbed)

1. ■ Yes ☐ No ☐ N/A Are there Standard Sediment Dams used for this project?
Refer to (Drawing Nos. 815- 405-01, 815-405-02).

2. ☐ Yes ■ No ☐ N/A Are there equivalent measures used in place of sediment dams?

3. ☐ Yes ■ No ☐ N/A Are there any nonstandard sediment dam(s) proposed for this project?
If so, then calculations must be provided that show the basin has been designed to meet the same standards as required for a standard sediment dam.
**C-SWPPP section:**_____

4. ■ Yes ☐ No ☐ N/A Is the area draining to each basin been outlined on a drainage area map?
**C-SWPPP section:** Section 5.0

5. ■ Yes ☐ No ☐ N/A Are any Sediment Dam for Pipe Inlets proposed. See (Drawing No. 815-406-00).

## Stormwater Pollution Prevention Plan (SWPPP) Checklist
## For SCDOT Construction Activities (SCR160000)

**H. Inlet Protection** **Construction Plan Sheet(s)**

1. ■ Yes ☐ No ☐ N/A Are inlet protection locations shown or referenced? Supplemental Technical Spec. SC-M-815-8. Determine flows to inlet in order to determine type. Indicate type(s) on Erosion Control Data Sheet. :

   ■ Type A: Low Flow. For Filter Fabric & Sediment Tube types: Refer to Drawing No. 815- 001-01.

   ■ Type B: Medium Flow: Refer to Drawing No. 815-002-00.

   ■ Type D: High Flow, for drainage areas up to 2 acres: Refer to Drawing No. 815- 002- 0.

   ☐ Type E: Surface Course curb inlets: Refer to Drawing No. 815-005-00.

   ☐ Type F: For drainage areas less than 1 acre. Non-Weighted and Weighted Refer to Drawing No: 815-006-00.

   ☐ Type F: For use as a Slope Interruption Device: Refer to Type F: Drawing No 815-001-02.

   ☐ Type G: Medium Flow, for drainage areas less than 1 acre. Field Manual only: Drawing No. SC-11.

**I. Post Construction BMPs** **Construction Plan Sheet(s)**

1. ☐ Yes ■ No ☐ N/A Are there any proposed Stormwater Manufactured Treatment Devices (MTDs) Type 1 Separation Devices? Show locations. See Supplemental Technical Spec. SC-M-815-13.

2. ☐ Yes ■ No ☐ N/A Are there any post construction water quality ponds

**Note: <u>This form is to be kept in the Hydro SWPPP folder and in the CSWPPP Report.</u>**

## Signatures

■ Yes ☐ No ☐ N/A Has the C-SWPPP documents been prepared and signed?

■ **SCDOT Hydraulic Team Leader** Signature: Edward J Owen Date: 3/31/2023

■ **SCDOT Environmental Permit Coord.** Signature: Edward J Owen Date: 3/31/2023

☐ **Consultant Program Manager** Signature: _____ Date: _____

**DEPARTMENT OF THE ARMY**
**CHARLESTON DISTRICT, CORPS OF ENGINEERS**
**69A HAGOOD AVENUE**
**CHARLESTON, SC 29403-5107**

September 22, 2020

Regulatory Division

Mr. Chad Long
South Carolina Department of Transportation
P.O. Box 191
Columbia, South Carolina 29202
LongCC@scdot.org

Dear Mr. Long:

Enclosed is your Department of the Army Permit SAC-2015-01080. It authorizes you to perform the work specified in the attached drawings. This permit is issued under provision of Federal laws for the protection and preservation of waters of the United States.

Please notify this office promptly, in writing or via email to Stephen A. Brumagin, Project Manager, when you start and complete work. Be aware a special condition is included in this permit requiring a copy of the permit and drawings be available at the work site during the entire time of construction.

Sincerely,

HUGHES.TRAVIS.G.1229867748
2020.09.22 09:25:42
-04'00'

Travis G. Hughes
Chief, Regulatory Division

Attachments
DA Permit SAC-2015-01080
Carolina Crossroads Permitted Plans
PH Timber PRM Permitted Plans
Notice of Commencement or Completion

# DEPARTMENT OF THE ARMY PERMIT

Permitee: **South Carolina Department of Transportation** **P.O. Box 191**
**C/O Mr. Chad Long** **Columbia, South Carolina 29202**

Permit No: **SAC-2015-01080**

Issuing Office: **CHARLESTON DISTRICT**

**NOTE:** The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:**
The authorized work consists of the improvement of existing roadways and Interstate (Interstate 20, 26 & 126), construction of additional travel lanes and updates/improvements to the existing Interstate Interchanges within the Carolina Crossroads Corridor Improvement Project area. In detail, these construction activities will include the placement of fill within 2.76 acres of wetlands, conduct mechanical land clearing in 1.66 acres of wetland and the placement of fill/rock/structures in 8,136 linear feet of stream, 2,538 linear feet of morphologic impact and 2,295 linear feet of stream relocation (total 12,969 linear feet).

This permit will also authorize the following activities/impacts with waters of the U.S. in the PH Timber PRM site in Newberry County:

- 2,525 linear feet of in-stream impacts within several tributaries within the PH Timber site. These in-stream activities include placement of rock/fill/woody material for streambank stabilization/reinforcement, placement of rock/fill for development of riffles or for altering the elevation of the stream channel to modify stream grade and removal of areas of accumulated gravel bars.
- Construction of several reaches of new restored stream channel (off-line) within upland areas. This will include creation of new stable, functioning stream channel and placement of fill/rock in 15,354 linear feet of existing stream channel once flow has been directed into the newly constructed channel.
- The replacement of two existing roadway culverts with similarly sized culverts and will include the placement of 155 linear feet of rock riffle/pool within three tributaries adjacent to the culvert replacements.
- Cut/fill in 0.004 acre of wetland associated with authorized in-stream mitigation construction.
- Draining of an existing 0.39-acre impoundment within the PH Timber PRM site. Once this impoundment is drained, the impoundment area will be filled and stabilized.

All work is to be completed in accordance with attached drawings entitled:

SHEETS 1-40, 42, 44-63, 65-67 AND 74-78, “CAROLINA CROSSROADS PROJECT ID NO. P027662 RICHLAND COUNTY, SC LEXINGTON COUNTY, SC APPLICATION BY SCDOT, NOVEMBER 6, 2019”;

SHEETS 41 & 43 AND 69-73 “CAROLINA CROSSROADS PROJECT ID NO. P027662 RICHLAND COUNTY, SC LEXINGTON COUNTY, SC APPLICATION BY SCDOT REVISED JULY 15, 2020”;

SHEET 64 & 68, “CAROLINA CROSSROADS PROJECT ID NO. P027662 RICHLAND COUNTY, SC LEXINGTON COUNTY, SC APPLICATION BY SCDOT, REVISED AUGUST 27, 2020”;

and

“Carolina Crossroads Mitigation Site-PH Timber Tract Newberry County, South Carolina”, Sheets 1.1 to 1.9, Sheets 2.1.1 to 2.1.32 and Sheets 2.2.1 to 2.2.19, dated May 20, 2020

**Project Location:**

This project is located within a 28,800-acre project area around the intersections/interchanges of Interstate 20 (I-20), Interstate 26 (I-26) and Interstate 126 (I-126) in Lexington and Richland Counties, South Carolina. (Latitude 34.036752 N, Longitude 81.110618 W (NAD83)).

**General Permit Conditions:**

1. The time limit for completing the work authorized ends on **September 30, 2035**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Permit Conditions:**

See Appendix A, pages 6 through 11.

**Further information:**

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

☐ Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403)

☑ Section 404 of the Clean Water Act (33 USC 1344)

☐ Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 USC 1413)

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume liability for:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. The Corps may reevaluate its decision on this permit any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to:

a. Failure to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which the Corps did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by the Corps, and if you fail to comply with such directive, the Corps may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of DA permit SAC-2015-01080.

Christy A. Hall P.E. 9/21/2020

(PERMITTEE) (DATE)
**Christy A. Hall, P.E.**
**Secretary of Transportation**
**South Carolina Department of Transportation**

Christy A. Hall, P.E.
**PRINT NAME**

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

9/21/2020

**(DISTRICT ENGINEER)** **(DATE)**
**RACHEL A. HONDERD**
**Lieutenant Colonel, EN**
**Commander, U.S. Army Engineer District, Charleston**

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

**(TRANSFEREE) (PRINT NAME)** **(DATE)**

**APPENDIX A**
**SPECIAL CONDITIONS FOR PERMIT SAC-2015-01080**

**a.** **The permittee agrees to provide all contractors associated with construction of the authorized activity a copy of the permit and drawings. A copy of the permit must be available at the construction site at all times.**

**b.** **The permittee shall submit a signed compliance certification to the Corps within 60 days following completion of the authorized work and any required mitigation. The certification will include:**

**1. A copy of this permit.**

**2. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions.**

**3. A statement that any required mitigation was completed in accordance with the permit conditions.**

**4. The signature of the permittee certifying the completion of the work and mitigation.**

**c.** **The permittee shall implement the following environmental commitments to protect cultural resources present with the project boundary. The commitments include:**

**1. During the construction phase of the project, the contractor and subcontractors must notify their workers to watch for the presence of any prehistoric or historic remains, including but not limited to arrowheads, pottery, ceramics, flakes, bones, graves, gravestones, or brick concentrations. If any such remains are encountered, the Resident Construction Engineer (RCE) and SCDOT's Construction Manager would be immediately notified and all work in the vicinity of the discovered materials and site work shall cease until the SCDOT Chief Archaeologist directs otherwise. SCDOT Chief Archaeologist, Tracy Martin, can be contacted at 803-737-6371.**

**2. An archaeological professional will be present during any ground disturbing activities related to Site 38LX212 and 38RD59. Additionally, sites 38RD140, 38RD1175, and 38RD1176 will be protected from indirect effects, including borrow sites and equipment staging. Sites will be clearly marked in the field using orange construction fencing prior to beginning construction activities in the vicinity of the resources.**

**3. The Saluda Canal (Site 38RD59) would be clearly plotted on all construction plans. SCDOT has reduced ROW widths in the vicinity of the canal to avoid impacts to the canal during construction & any future maintenance activities along the ROW. A 25-foot buffer will be maintained around the canal for the majority of the resource. This zone would be clearly marked in the field using orange fencing during construction, and all ground disturbance and construction staging activities would be conducted outside of this buffer in order to avoid all possible impacts to the resource. SCDOT proposes to revise the commitment of a 25-foot buffer for a**

**distance of approximately 700 feet along the proposed ramp to allow room for temporary construction access & equipment near 1-26 Ramp C. To protect the boundary of the canal at this location, the following will be added to the contract as commitments:**

**a. Prior to construction activities orange protective fencing will be installed along the edge of boundary of the Saluda Canal Historic District in areas that will maintain the original buffer as well as those areas where the buffer has been requested to be reduced between the two drainages and for a length to the south of the southernmost drainage.**

**b. Prior to construction activities silt fencing will be installed along the edge of SCOOT right of way to prevent runoff.**

**c. For areas along the identified Saluda Canal located along the 1-26 Ramp C beginning Station 5412+50 and ending Station 5419+50 clearing will be allowable to the right of way but grubbing will be limited to within a distance of 5-feet inside of the right of way. Grubbing activities within the 5-foot buffer will require approval from SCOOT prior to occurring.**

**d. During land clearing activities prior to construction, an archaeologist will be present at all times to ensure that these activities undertaken close to the fencing do not damage the canal.**

**e. During construction, an archaeologist will visit the construction site twice a week to ensure that no activities have crossed over the protective fencing. Any observations during these visits will be recorded in an inspection log that will be made available to the SHPO.**

**f. As soon as an inadvertent impact is discovered, such as a previously unidentified cultural resource, archaeological feature, or artifact, construction in that area will stop immediately until an onsite consultation with SCOOT archaeologists and SHPO can determine the best strategies for avoiding, minimizing, or mitigating adverse effects upon the resource.**

**<u>d.</u> That the permittee shall utilize clean fill materials for the construction of the Carolina Crossroads Corridor Improvement project that are free of potential sources of pollution to protect the water quality of the tributaries to Saluda River and Broad River."**

**<u>e.</u> That the permittee will provide compensatory stream and wetland mitigation by implementing the permittee-responsible mitigation (PRM) plan entitled, "Mitigation Plan Carolina Crossroads I-20/26/126 Corridor Improvements Lexington and Richland counties, South Carolina" dated June 30, 2020. This PRM plan includes 2,525 linear feet of in stream enhancement, creation of 15, 354 linear feet of new restored stream channel and other impacts within waters. These restoration, enhancement and preservation activities contained in this PRM plan are authorized with this DA permit. The construction activities within waters associated with this approved PRM will need to commence prior to or concurrent with the beginning of the construction of the Carolina Crossroads Corridor Improvement Project. In addition, this PRM plan**

**includes steps to protect the site, to provide maintenance and management of the site, to provide financial assurances and monitoring activities to document site construction and success. Furthermore, that as part of the "Mitigation Plan Carolina Crossroads I-20/26/126 Corridor Improvements Lexington and Richland counties, South Carolina" dated June 30, 2020, the permittee will provide five years of monitoring including discussion of performance standards as detailed in this PRM plan. This five-year monitoring will begin during the first growing season after all activities (earthmoving, construction, stabilization and planting) within waters of the U.S. approved by this permit have been completed at the PRM sites.**

**f.** **That as part of the "Mitigation Plan Carolina Crossroads I-20/26/126 Corridor Improvements Lexington and Richland counties, South Carolina" dated June 30, 2020, SCDOT will provide the Corps with documentation of the transfer of ownership of this property to South Carolina Department of Natural Resources and will provide updates on the progression and documentation until the Belfast site and PH Timber site are incorporated into SCDNR's Belfast Wildlife Management Area.**

**g.** **That the permittee is not authorized to commence impacts to Tributary 39, including 2,295 linear feet of stream relocation (per drawing Sheets 64-67 of 78), until after the Corps has provided written notice to proceed. The permittee further agrees that as compensatory mitigation for 2,295 linear feet of stream relocation and fill activities associated with Tributary 39, the permittee will submit a draft mitigation plan to address and adequately mitigate for these impacts. No work in waters of the U.S. associated with Tributary 39 is authorized until the permittee receives, in writing, Corps approval of the final Tributary 39 stream mitigation plan (e.g., a stream restoration plan, or the purchase of adequate stream mitigation credits for the 2,295 linear feet of impacts). The permittee shall fully implement this final Tributary 39 mitigation plan concurrently with, or prior to, Tributary 39 impacts to waters of the U.S, including the 2,295 linear feet of stream relocation.**

**h.** **That as compensatory mitigation for impacts to aquatic resources, the permittee agrees to debit 11.32 acres of wetland from SCDOT's Black River Mitigation Bank. The applicant will provide at least 50% of the required stream and wetland mitigation credits as restoration mitigation credits.**

**i.** **That the permittee must submit evidence of the purchase or debit of the required mitigation credits to both the Corps of Engineers and SCDHEC prior to commencement of the authorized work. Your responsibility to complete the required compensatory mitigation will not be considered fulfilled until you have received written verification from the U.S. Army Corps of Engineers.**

**j.** **That the permittee will provide the following Hydrologic and Hydraulic evaluation information to the Corps for review and approval prior to beginning construction of each phase of the Carolina Crossroads Corridor Improvement Project. These items will include the following:**

1. **The permittee (or designated assignee) agrees that the drainage/conveyance systems shall be designed by a licensed Professional Engineer (PE) to meet all requirements set forth by the South Carolina Department of Transportation (SCDOT), AASHTO, FHWA, and FEMA. The design criteria for storm drainage, culverts, and bridges will be based on SCDOT's "Requirements for Hydraulic**

**Design Studies" dated May 26, 2009. In addition to the hydraulic analysis required by the SCDOT Requirements for Hydraulic Design Studies, hydraulic analysis the following hydraulic data for all structures (including bridges, culverts, cross-drainage structures and drainage systems) which are located in and/or are associated with jurisdictional Waters of the U.S. will be performed. This analysis will include:**

- **Pre- and post-flow rate analyses at each outfall location for the 10-year, 25-year, 50-year, and 100-year storms in accordance with SCDOT requirements.**

- **Pre- and post-construction hydraulic analyses of cross-lines and pipe inlets for the 10-year, 25-year, 50-year, and 100-year storms with HY-8, HEC-RAS, or other approved modeling software. The pre-construction analysis shall include an evaluation of the pre-construction flows for the pre-project hydraulic conditions. The post-construction analysis shall include an evaluation of the post-construction flows for the post-project hydraulic conditions. The analysis shall be performed to include a comparison of the pre-construction and post-construction water surface elevations and velocities upstream and downstream of cross-drainage structures and pipe inlets.**

- **Pre- and post-open channel analyses of outfall channels for the 10-year, 25-year, 50-year, and 100 –year storms.**

- **Pre- and post-flow rate analyses at each bridge location for the 10-year, 25-year, 50-year, and 100-year storms in accordance with SCDOT requirements.**

2. **For all project areas located within FEMA Special Flood Hazard Areas or within Flood Insurance Rate Map (FIRM) mapped areas, the hydraulic analysis and modeling shall be performed in accordance with the following:**

   - **HEC-RAS hydraulic modeling shall be used to evaluate drainage structures within FEMA Special Flood Hazard Areas. If the FEMA effective model utilizes an alternative software, the software used for the FEMA effective model may be utilized to evaluate the drainage structure.**

   - **Perform required analysis to satisfy requirements of the National Flood Insurance Program including coordination of the results of the hydraulic studies with the local Floodplain Manager. The summary report shall be provided to the local Floodplain Manager and a letter of concurrence shall be requested from the local Floodplain Manager confirming the design satisfies the typical FEMA design criteria.**

   - **Prepare documentation for coordination with FEMA as required (including receipt of No-Impact Certification or CLOMR/LOMR from FEMA).**

3. **For any future Department of Army permit modification, the following hydraulic design data shall be provided to the Corps for review/approval 120 days prior to the anticipated commencement of authorized work. Please note**

**that written authorization/ concurrence must be received from the Corps prior to commencement of work. This information should include:**

- **Project plans including structure/feature location with dimensions of existing and proposed structure/feature. These plans should include cross-sectional views detailing authorized structure or modified feature with proposed and existing water surface elevations during all analyzed storm events.**
- **Details related to any channel relocations that includes existing dimensions along proposed dimensions. These details should include cross sectional views detailing the work and proposed/existing water surface elevations during all analyzed storm events. This relocation plan will also include construction sequencing and Best Management Practices (BMPs) to minimize impact upon the aquatic environment and demonstrate adequate stabilization of the new channel.**

- **Hydraulic Design Summary Table to include the following:**

    - **Structure, or channel location**
    - **Waterbody Classification (Perennial Stream, Intermittent Stream, Non-Jurisdictional Feature, etc.)**
    - **Existing Drainage Structure dimensions**
    - **Proposed Drainage Structure dimensions**
    - **Invert elevations**
    - **Drainage Area**
    - **Pre- and Post-Construction Design Flows, Headwater Elevations, and Tail water Elevations for the 10-Year, 25-Year, 50-Year, 100-yearstorm events**
    - **Summary table for outfall (culverts / pipes) riprap protection to include discharge velocities for the 10-year, 25-year, 50-year, and 100-year design storms and dimensions of riprap pads.**
    - **Outlet Protection details**
    - **Top of roadway elevations**

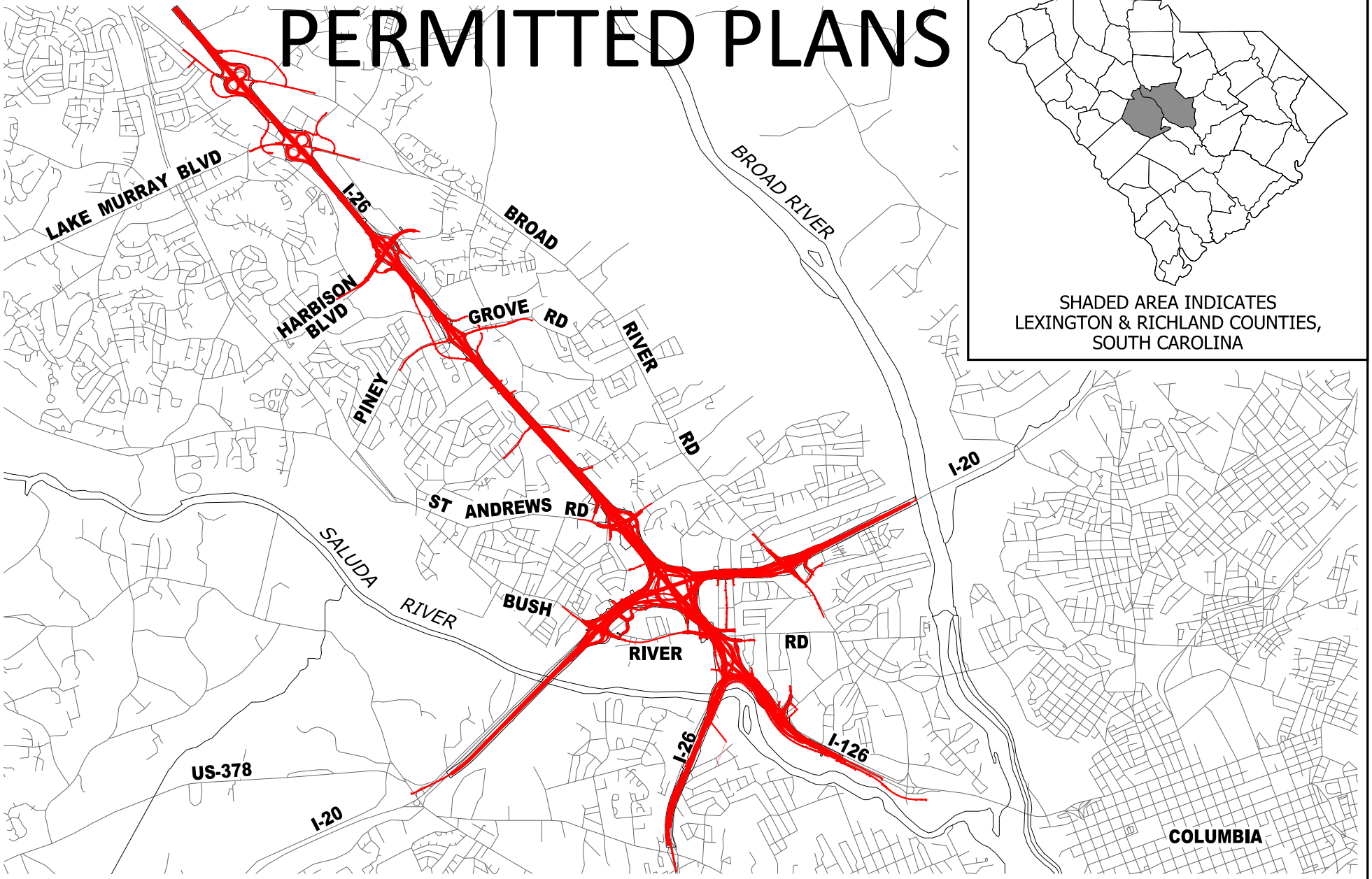
4. **For areas where this project will cause an increase upon Water Surface Elevation (WSE) that result in water outside of the permittee' s project Right-of-Way from the analyzed storm events, the permittee shall provide details of notification/coordination with each property owner.**

5. **For each property affected by an increase in post-development WSE, the permittee shall notify the affected property owner(s) and will provide the following details to them: property location, details of the impact to the property, area of extent ponded water (map), and water surface elevation information including the increase over existing conditions and duration of impact to each affected property.**

**k.** **The permittee must implement appropriate best management practices that will minimize erosion and migration of sediments on and off the project site during and after**

**construction. These practices should include the use of appropriate grading and sloping techniques, mulches, silt fences, or other devices capable of preventing erosion, migration of sediments, and bank failure. All disturbed land surfaces and sloped areas affected by the project must be stabilized upon project completion. This will include all requirements of the Water Quality Certification as approved by SCDHEC on August 31, 2020.**

# PERMITTED PLANS




SHADED AREA INDICATES
LEXINGTON & RICHLAND COUNTIES,
SOUTH CAROLINA

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GRAPHIC SCALE

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

VICINITY MAP

SHEET 1 OF 78

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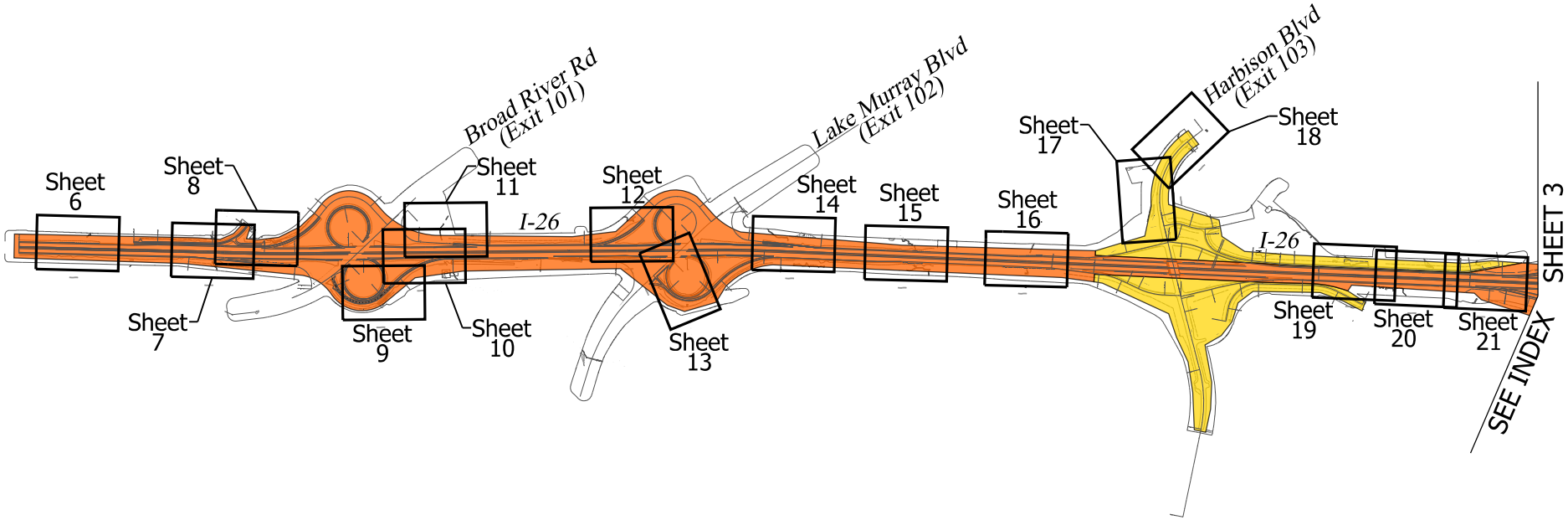
# PERMITTED PLANS

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GRAPHIC SCALE

## LEGEND

PROPOSED CONSTRUCTION PHASING AS OF OCT 2019 - SUBJECT TO CHANGE

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

PERMIT DRAWING
PLAN SHEET LAYOUT INDEX



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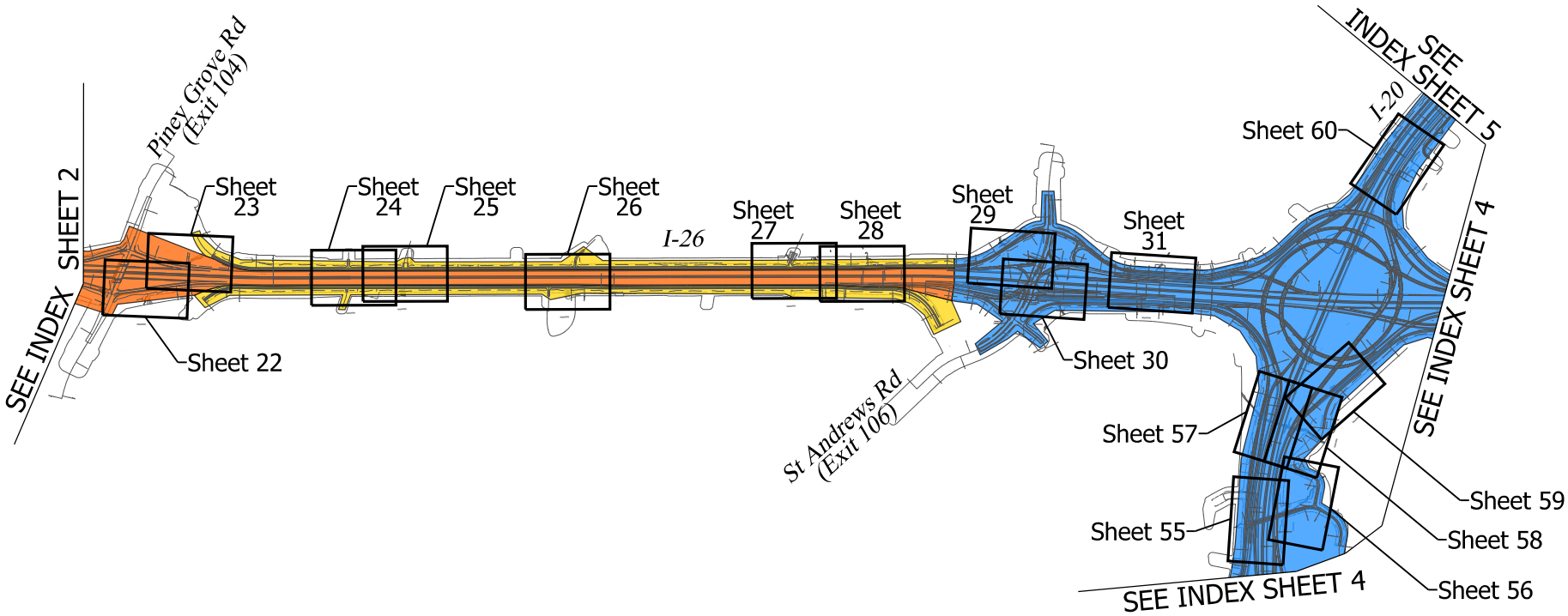
# PERMITTED PLANS

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GRAPHIC SCALE

## LEGEND

PROPOSED CONSTRUCTION PHASING AS OF OCT 2019 - SUBJECT TO CHANGE

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

PERMIT DRAWING
PLAN SHEET LAYOUT INDEX



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# PERMITTED PLANS

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GRAPHIC SCALE

## LEGEND

PROPOSED CONSTRUCTION PHASING AS OF OCT 2019 - SUBJECT TO CHANGE

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

PERMIT DRAWING
PLAN SHEET LAYOUT INDEX

SHEET 4 OF 78

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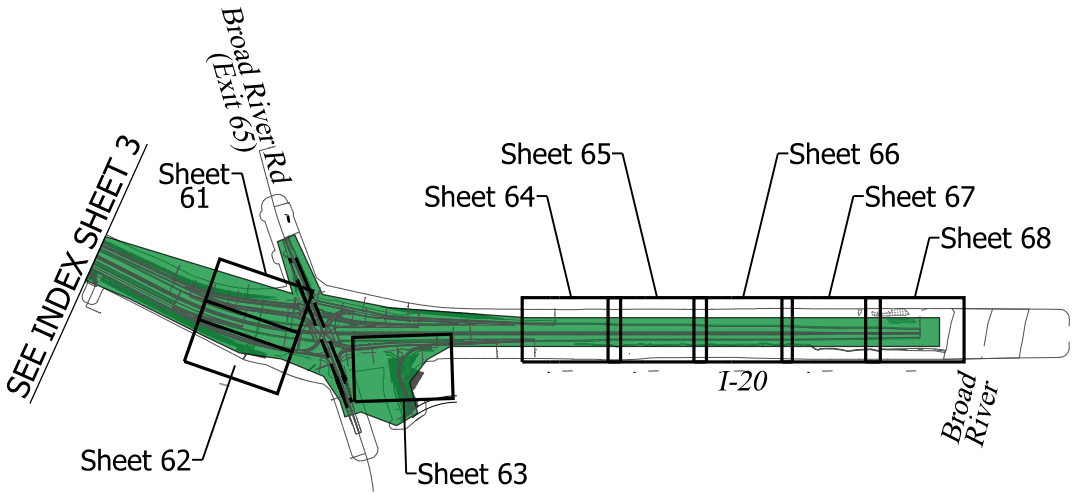


# PERMITTED PLANS

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GRAPHIC SCALE

## LEGEND

PROPOSED CONSTRUCTION PHASING AS OF OCT 2019 - SUBJECT TO CHANGE

- PHASE 1
- PHASE 2
- PHASE 3
- PHASE 4
- PHASE 5

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

PERMIT DRAWING
PLAN SHEET LAYOUT INDEX



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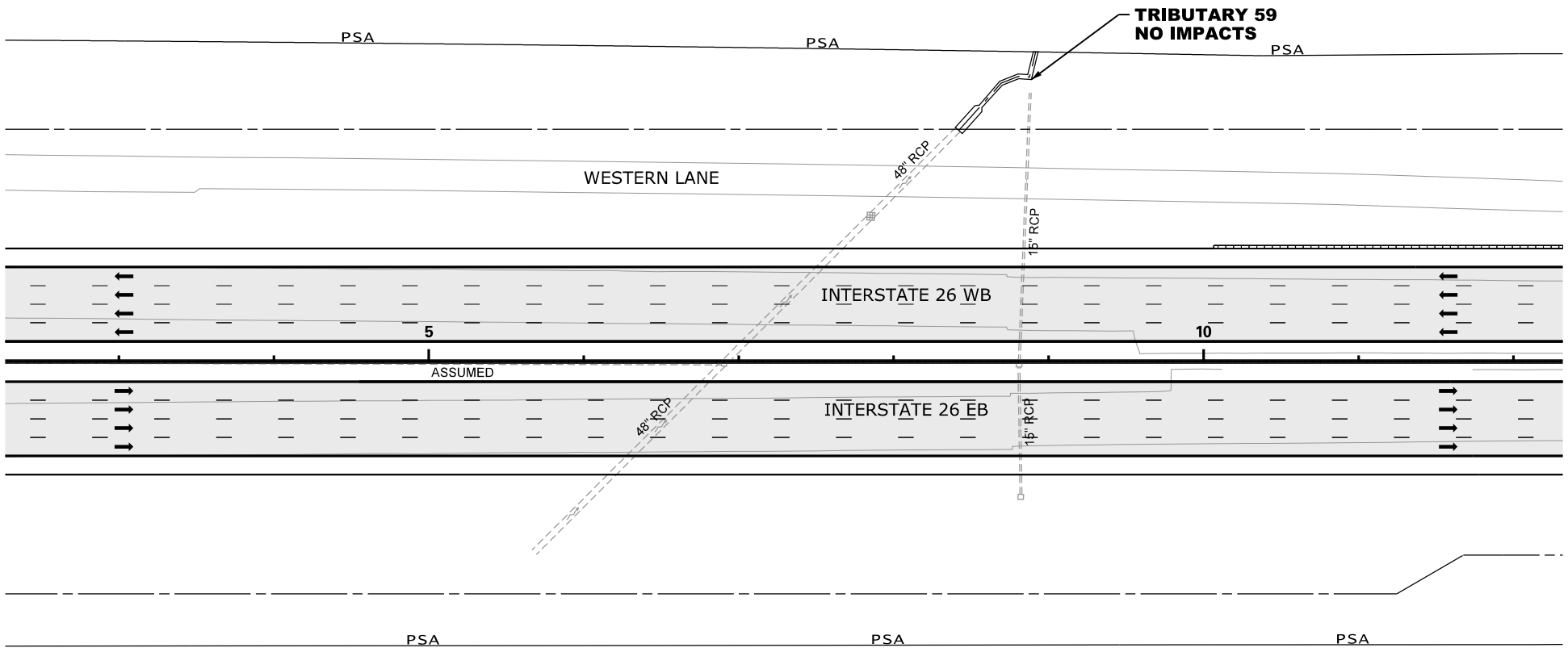
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 59

SHEET 6 OF 78

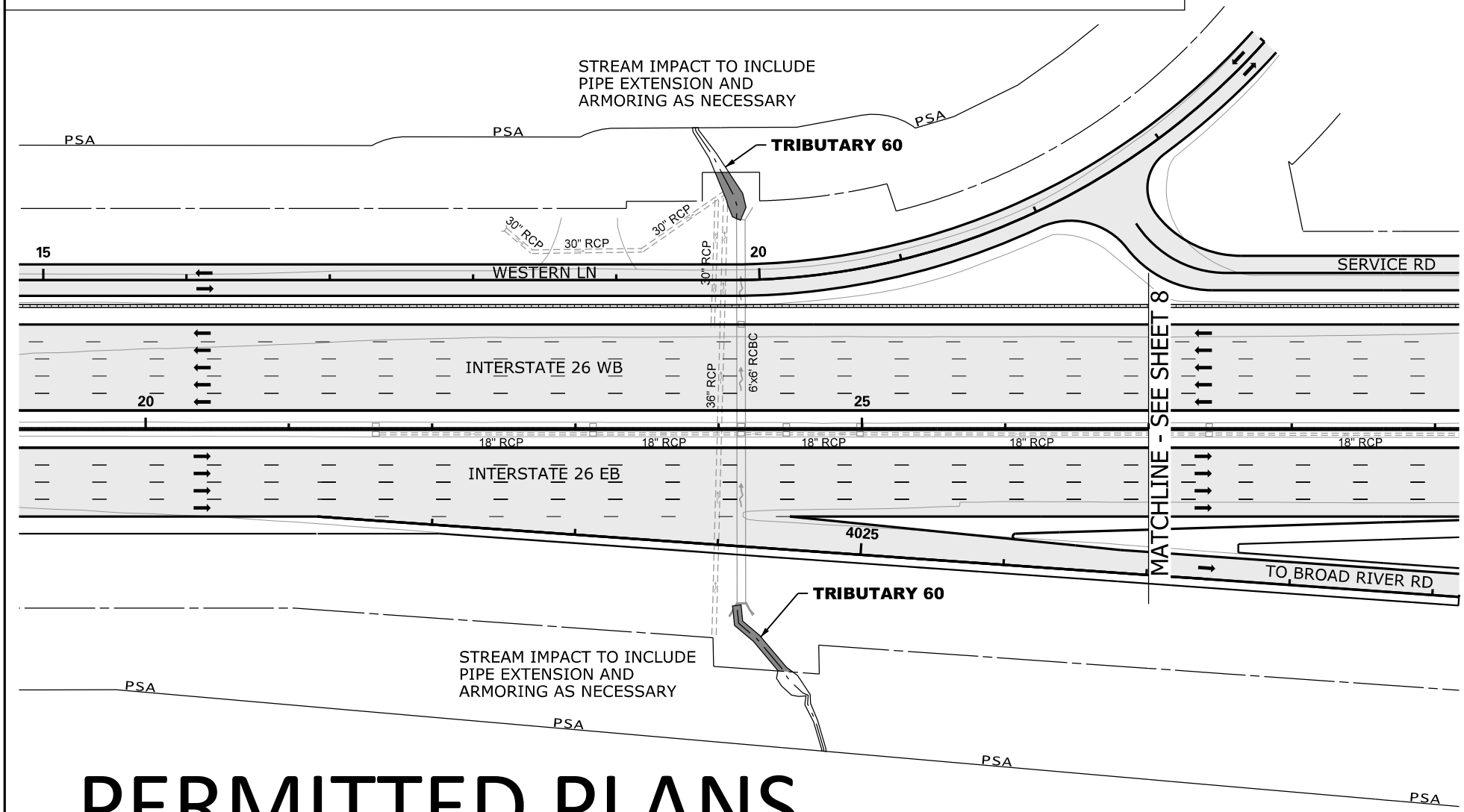
PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:11:41PM
FILE: CCR_Permit-Dwg_06.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 94 LF (716 SF) (0.02 AC)
TRIB 60 = 35 LF (359 SF) (0.01 AC)
TRIB 60 = 59 LF (357 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 60

SHEET 7 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:11:50 PM
FILE:CCR_Permit-Dwg_07.dgn

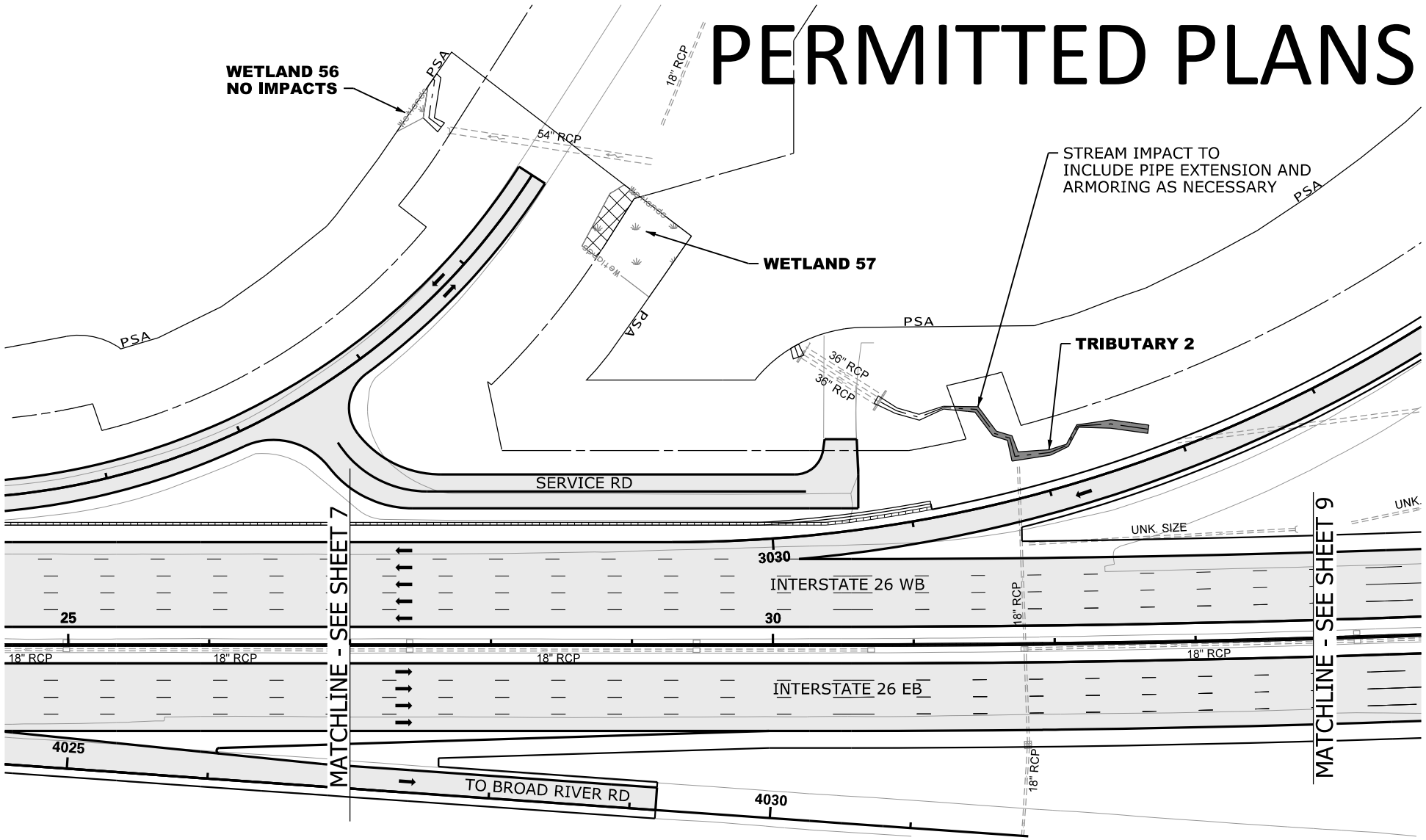
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 776 SF (0.02 AC)
WETLAND 57 = 776 SF (0.02 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 166 LF (698 SF) (0.02 AC)
TRIB 2 = 166 LF (698 SF) (0.02 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
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LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 2
WETLAND 57



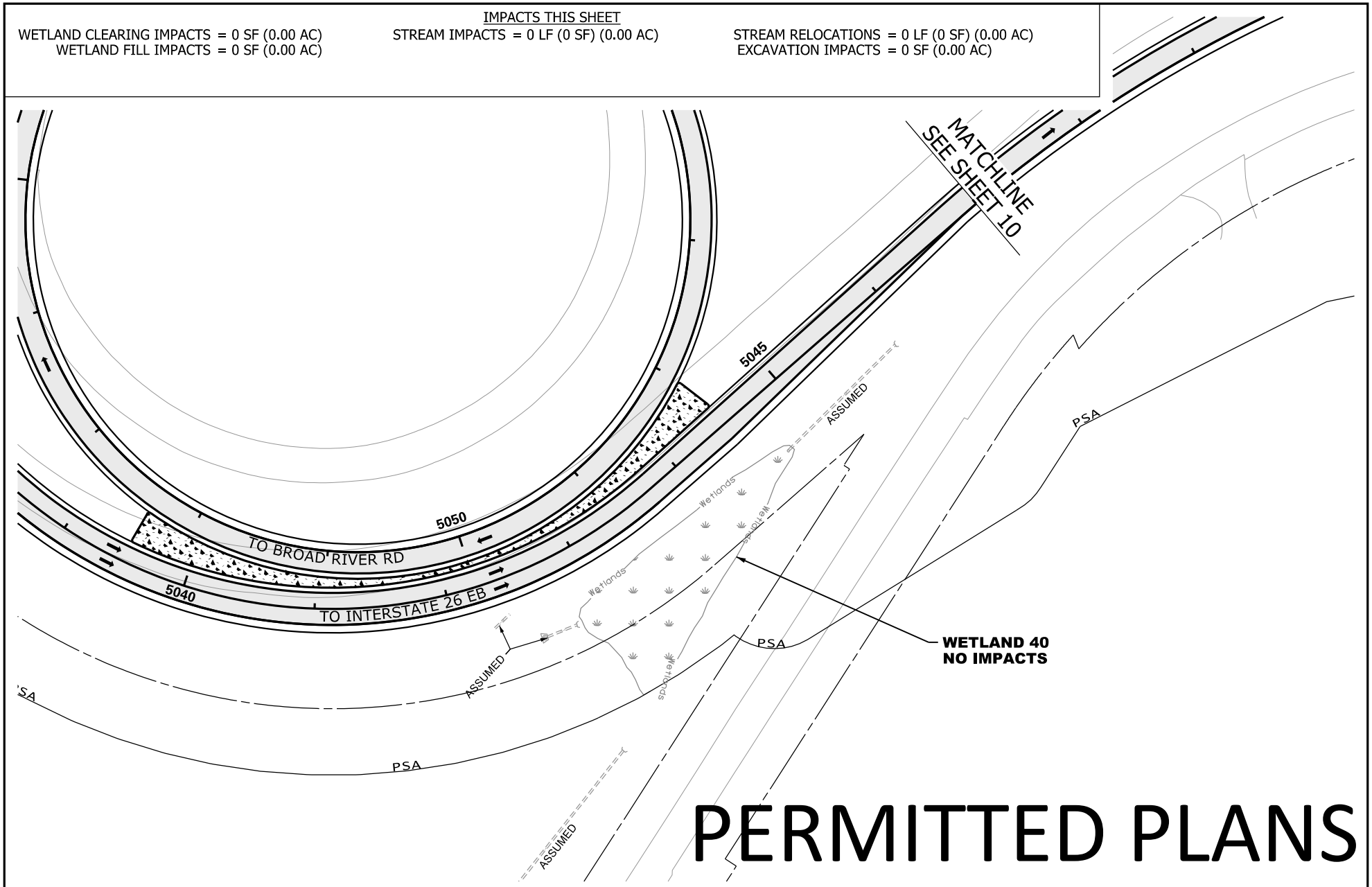
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:42:00 PM
FILE:CCR_Permit-Dwg_08.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 40

SHEET 9 OF 78

PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:12:10 PM
FILE: CCR_Permit-Dwg_09.dgn

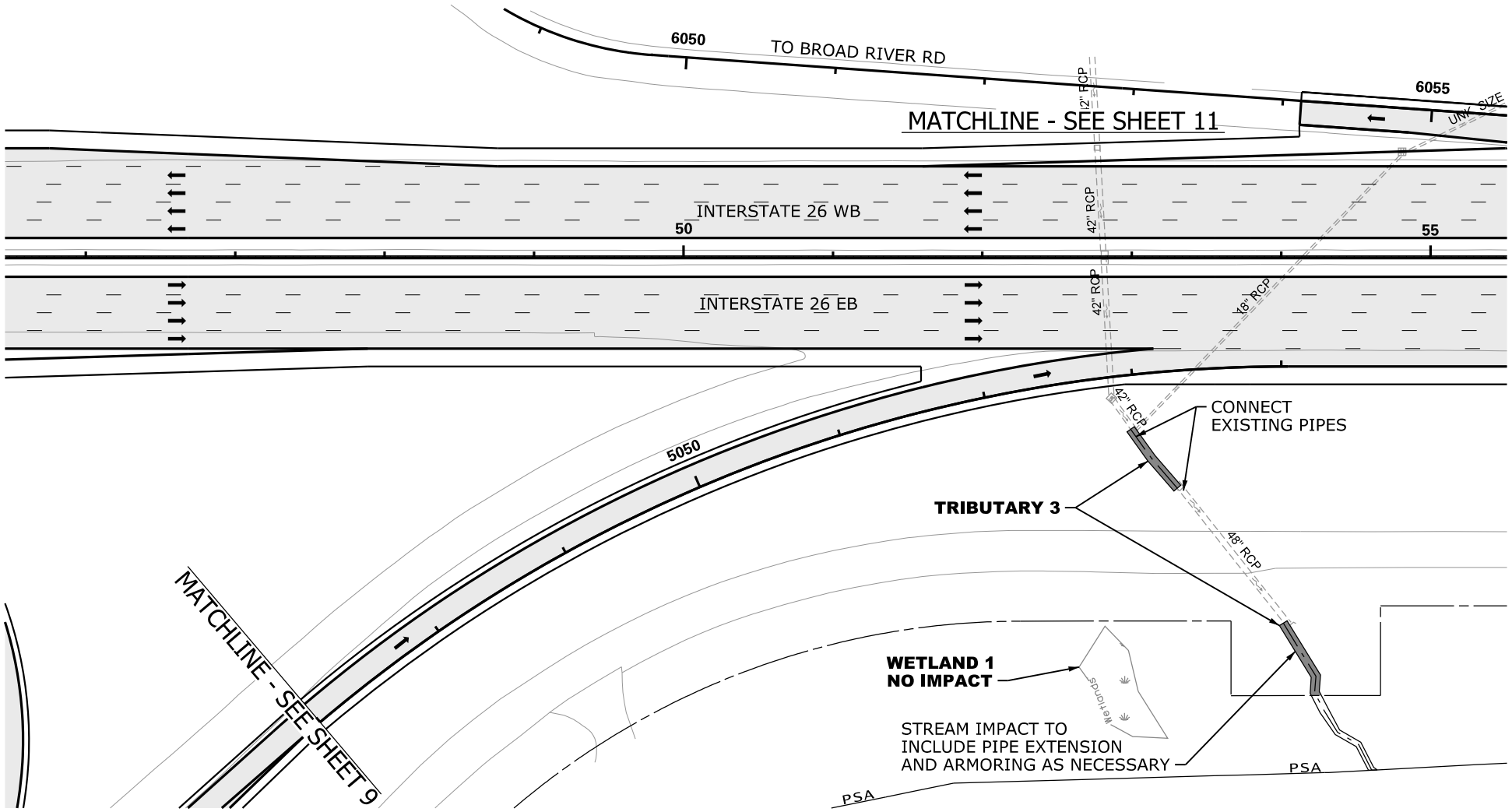
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 106 LF (632 SF) (0.02 AC)
TRIB 3 = 106 LF (632 SF) (0.02 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 3

SHEET 10 OF 78

PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:42:20 PM
FILE:CCR_Permit-Dwg_10.dgn

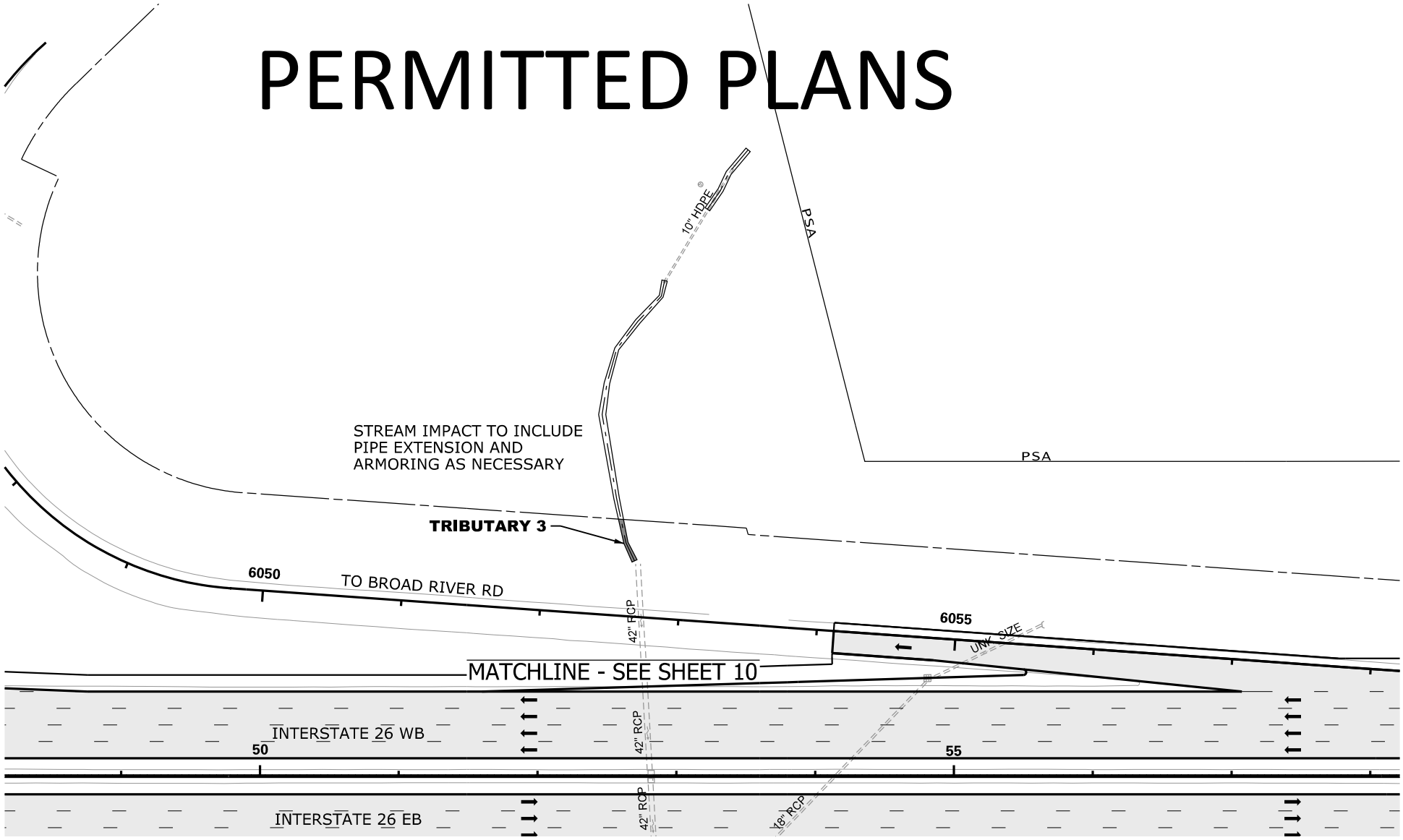
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 92 LF (108 SF) (0.01 AC)
TRIB 3 = 92 LF (108 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 3



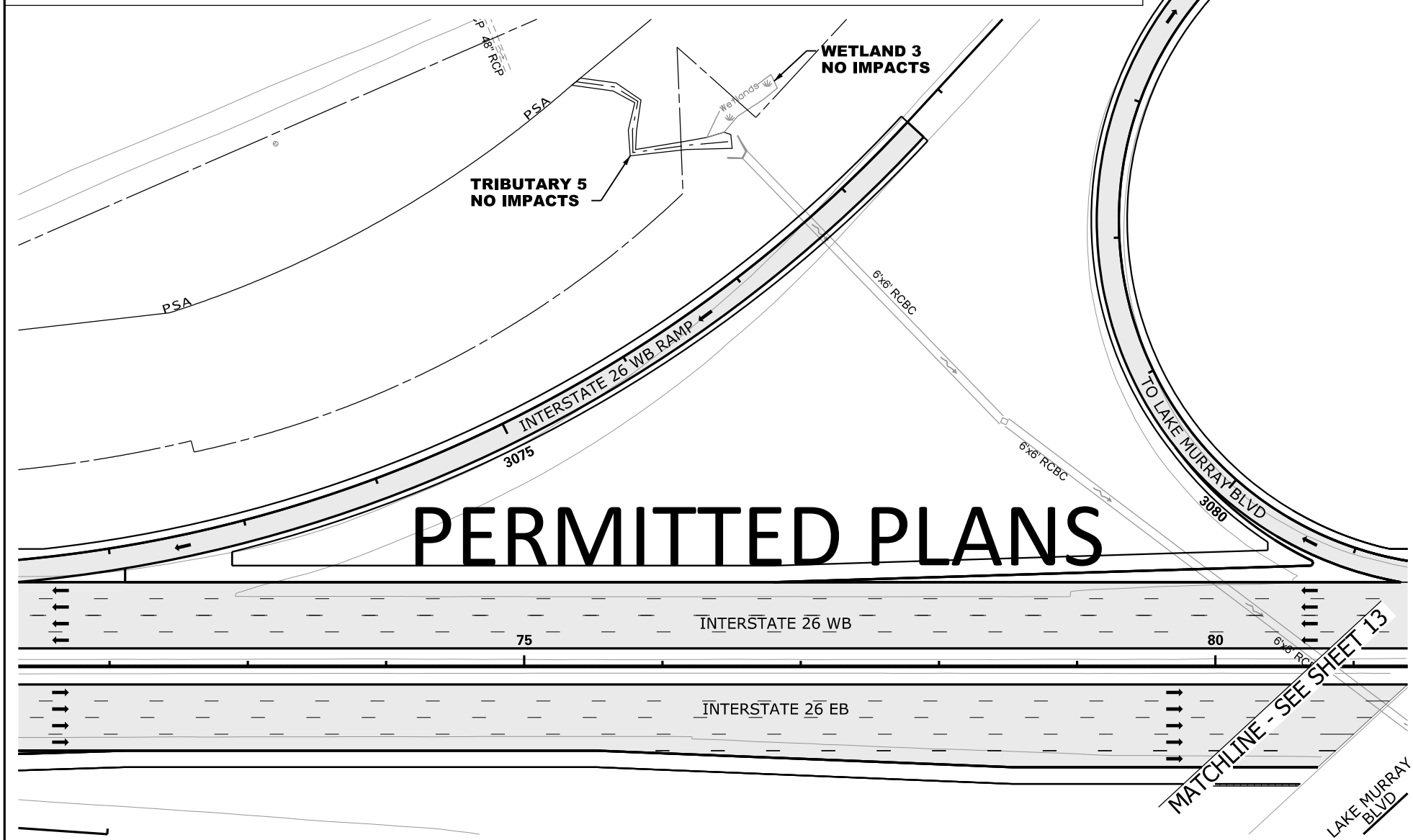
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:12:29 PM
FILE: CCR_Permit-Dwg_11.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 5
WETLAND 3



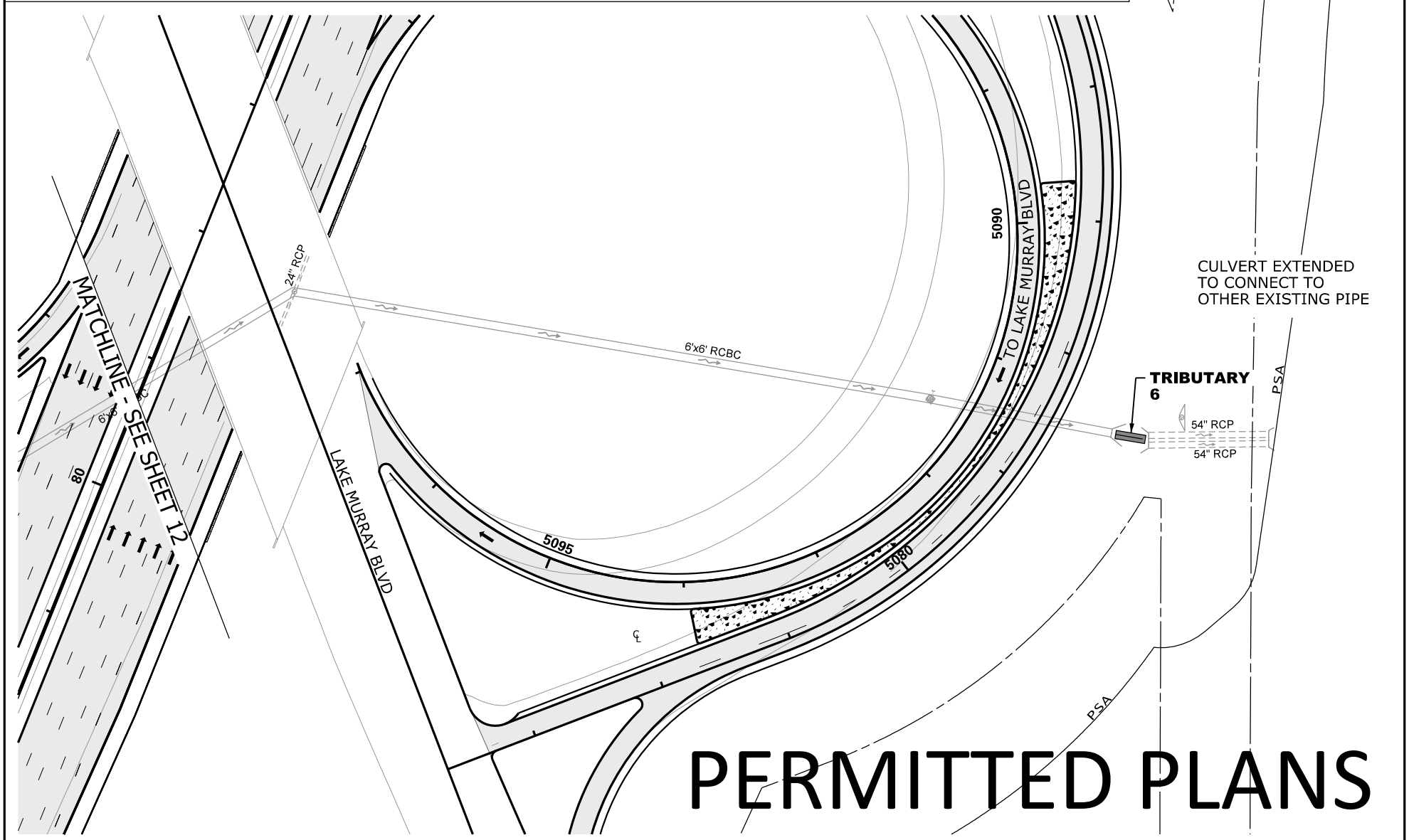
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:42:39 PM
FILE:CCR_Permit-Dwg_12.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 22 LF (132 SF) (0.01 AC)
TRIB 6 = 22 LF (132 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 6

SHEET 13 OF 78

PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:42:49 PM
FILE: CCR_Permit-Dwg_13.dgn

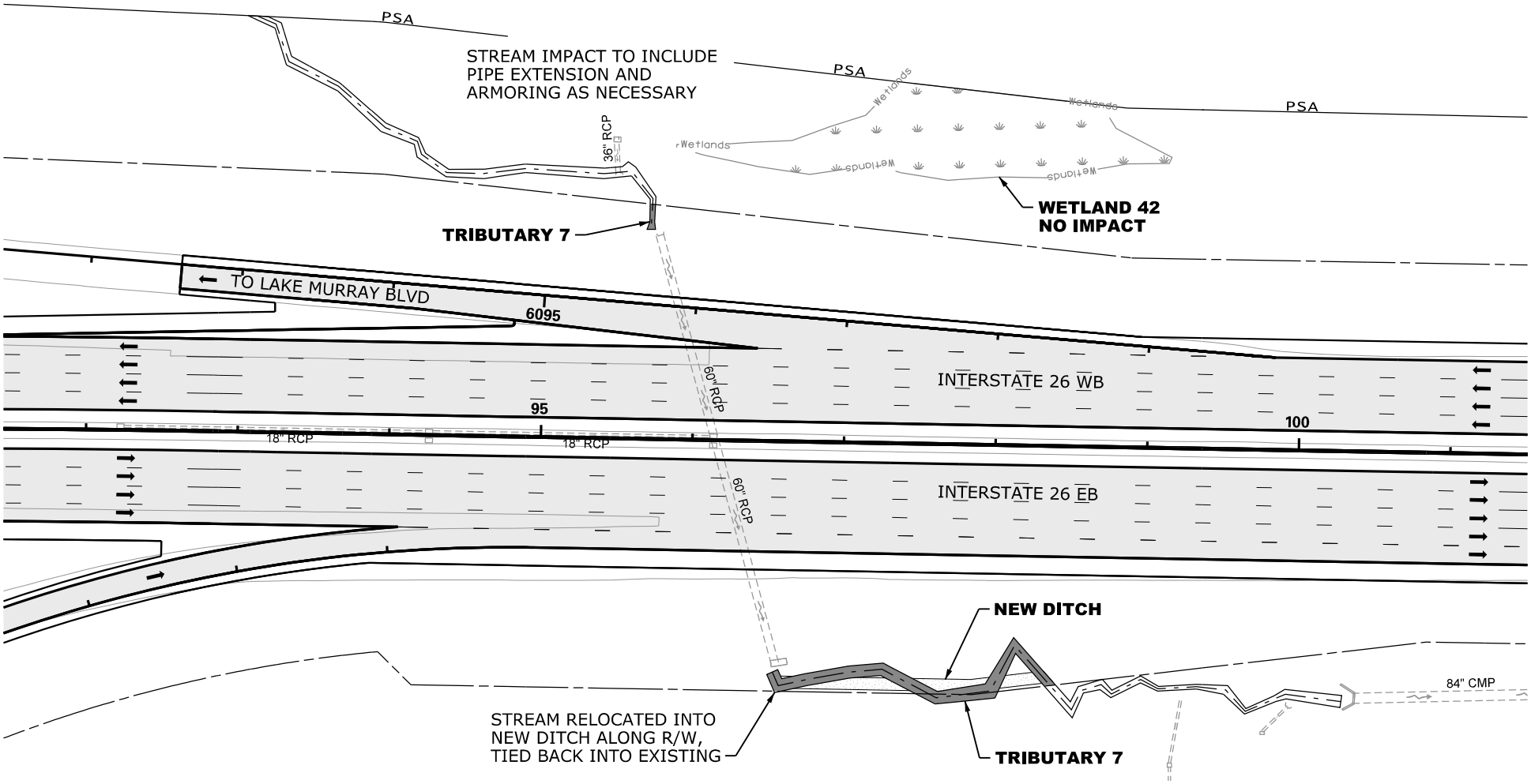
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 241 LF (1,825 SF) (0.04 AC)
TRIB 7 = 16 LF (62 SF) (0.01 AC)
TRIB 7 = 225 LF (1,763 SF) (0.03 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 7

SHEET 14 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:42:59 PM
FILE:CCR_Permit-Dwg_14.dgn

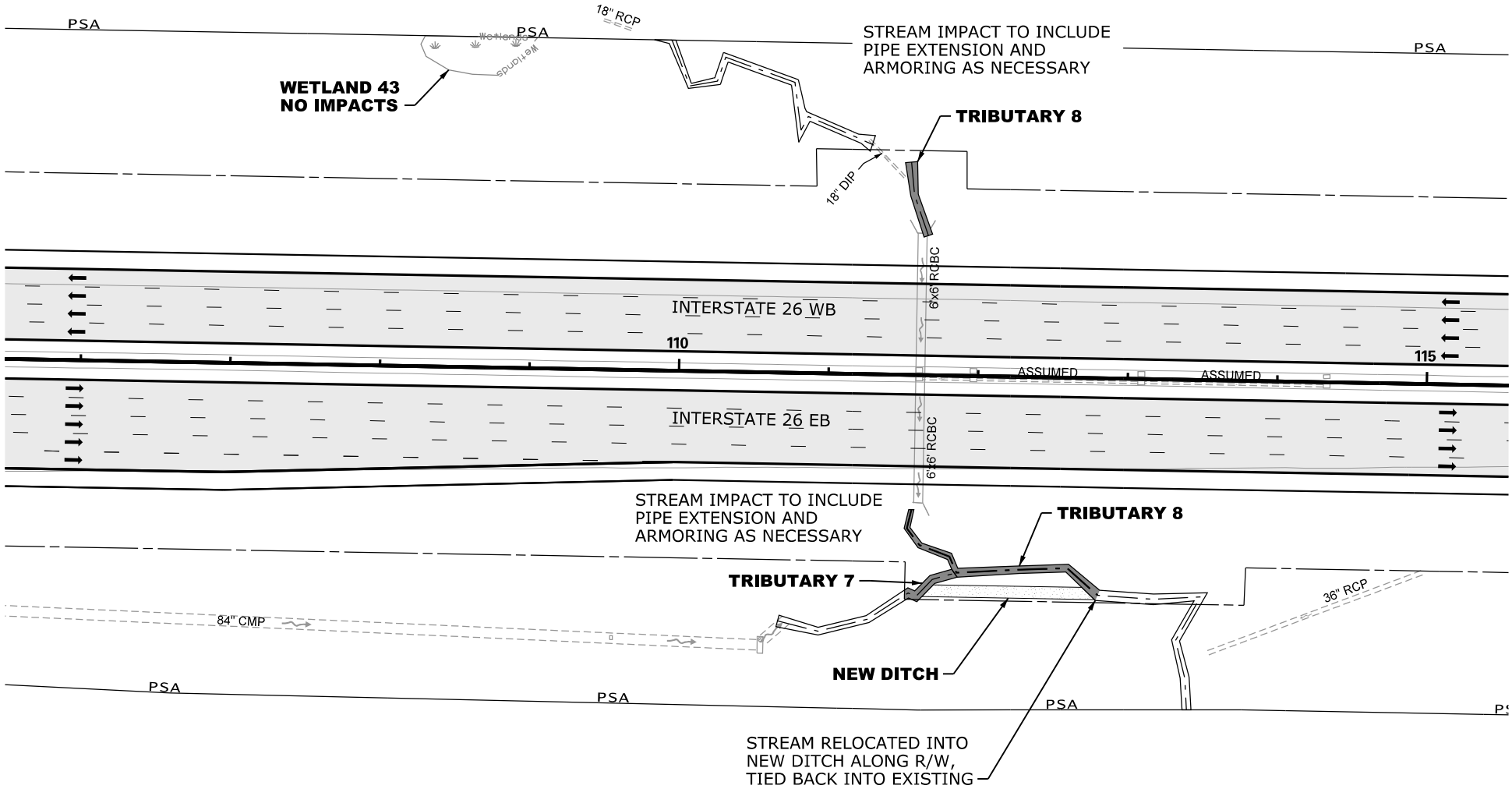
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 255 LF (1,326 SF) (0.04 AC)
TRIB 8 = 51 LF (302 SF) (0.01 AC)
TRIB 7 = 42 LF (238 SF) (0.01 AC)
TRIB 8 = 162 LF (786 SF) (0.02 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 8



PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:35:10 PM
FILE: CCR_Permit-Dwg-15.dgn

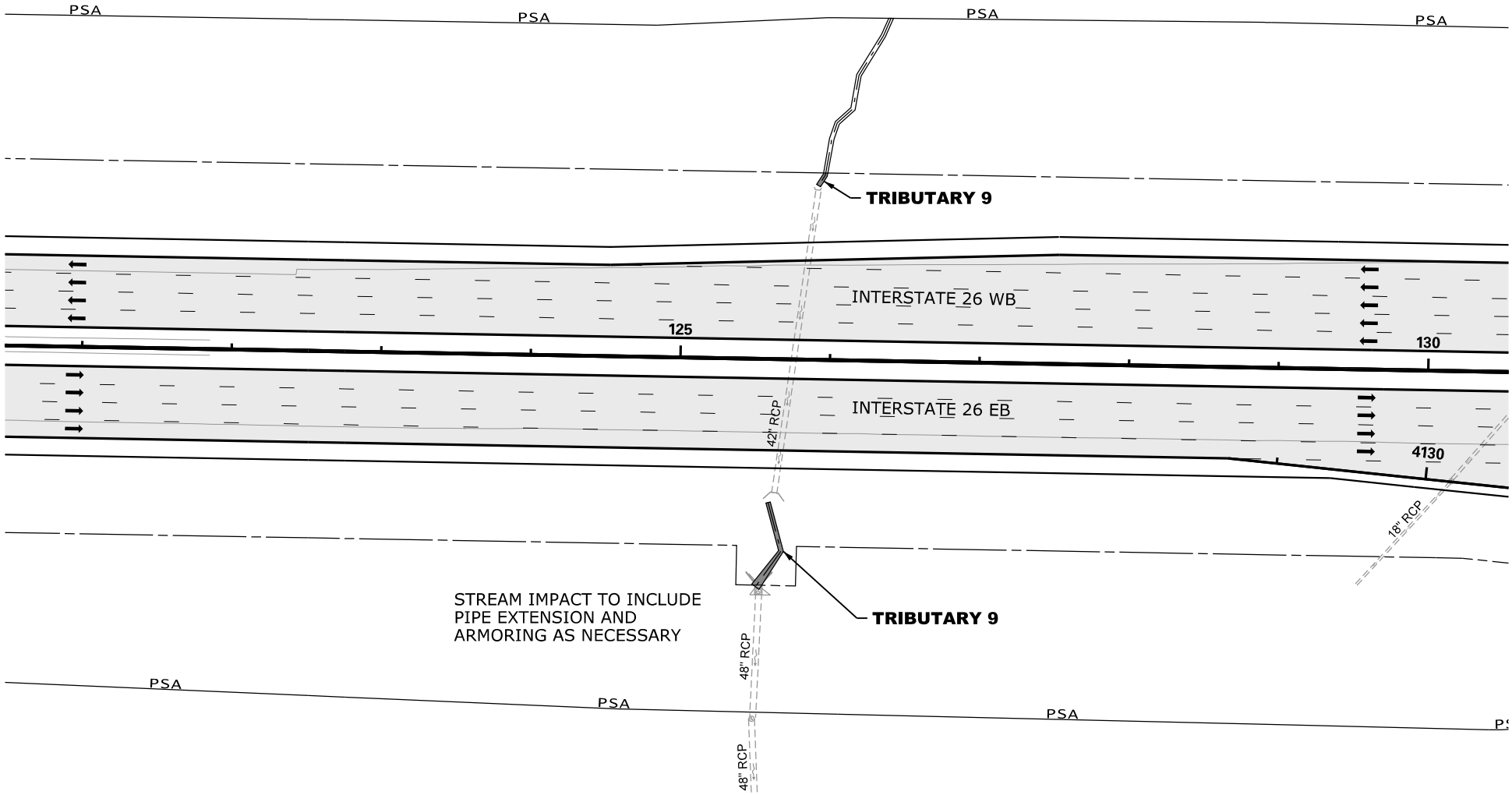
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 72 LF (254 SF) (0.02 AC)
TRIB 9 = 10 LF (29 SF) (0.01 AC)
TRIB 9 = 62 LF (225 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 9

SHEET 16 OF 78

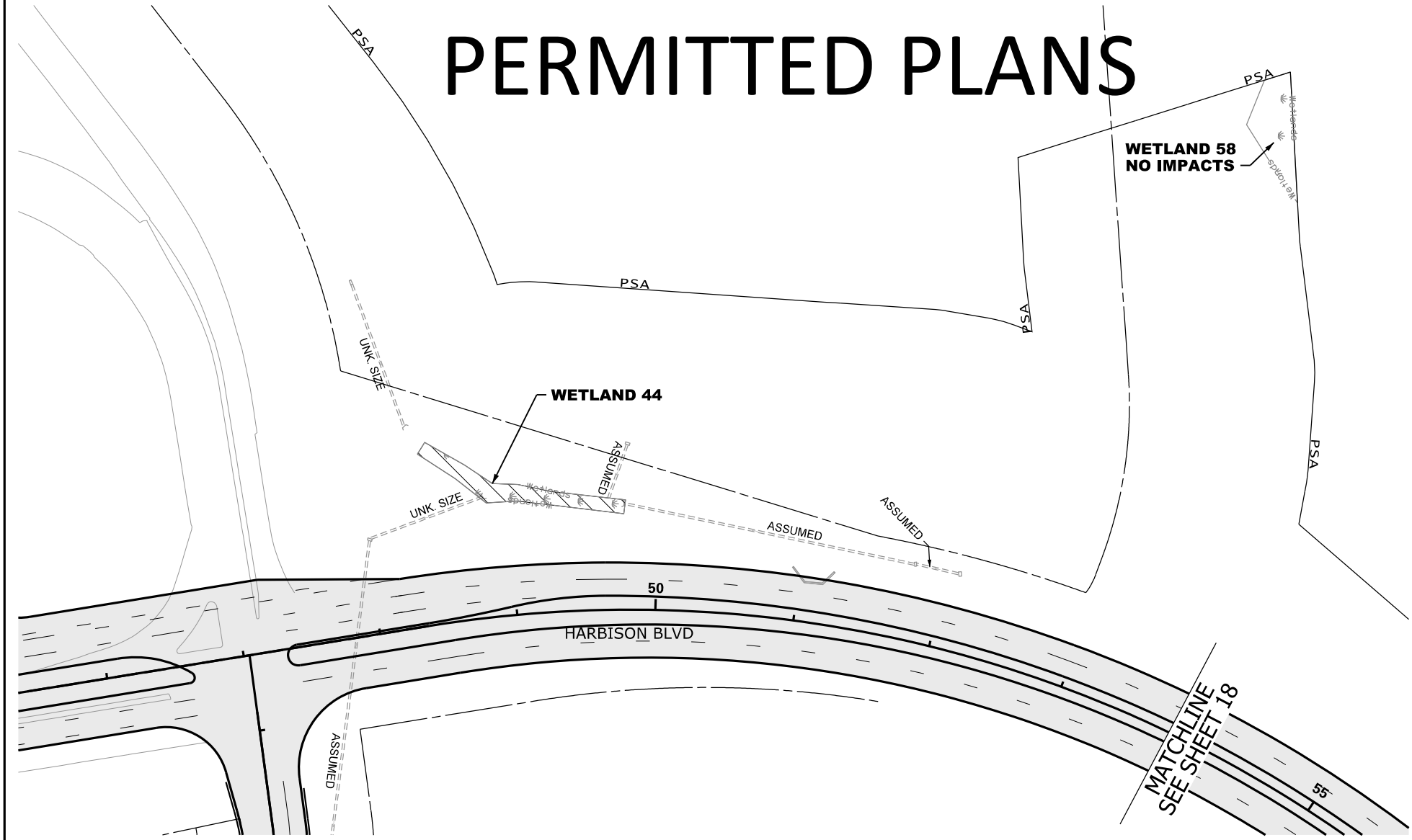
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:35:20 PM
FILE:CCR_Permit-Dwg_16.dgn

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 1,759 SF (0.04 AC)
WETLAND 44 = 1,759 SF (0.04 AC)

IMPACTS THIS SHEET
STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 44 & 58

SHEET 17 OF 78

PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:35:30 PM
FILE:CCR_Permit-Dwg_17.dgn

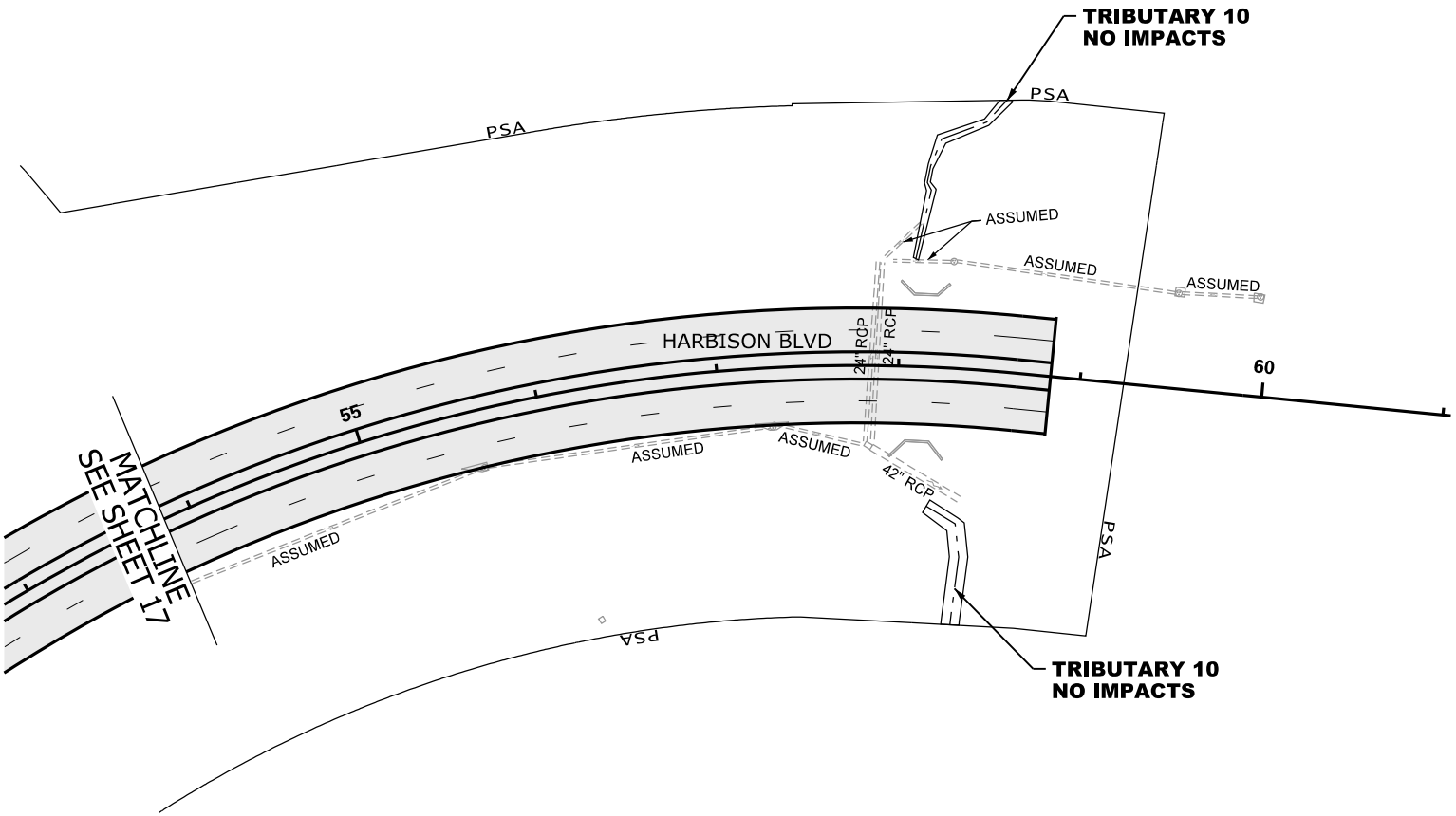
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 10



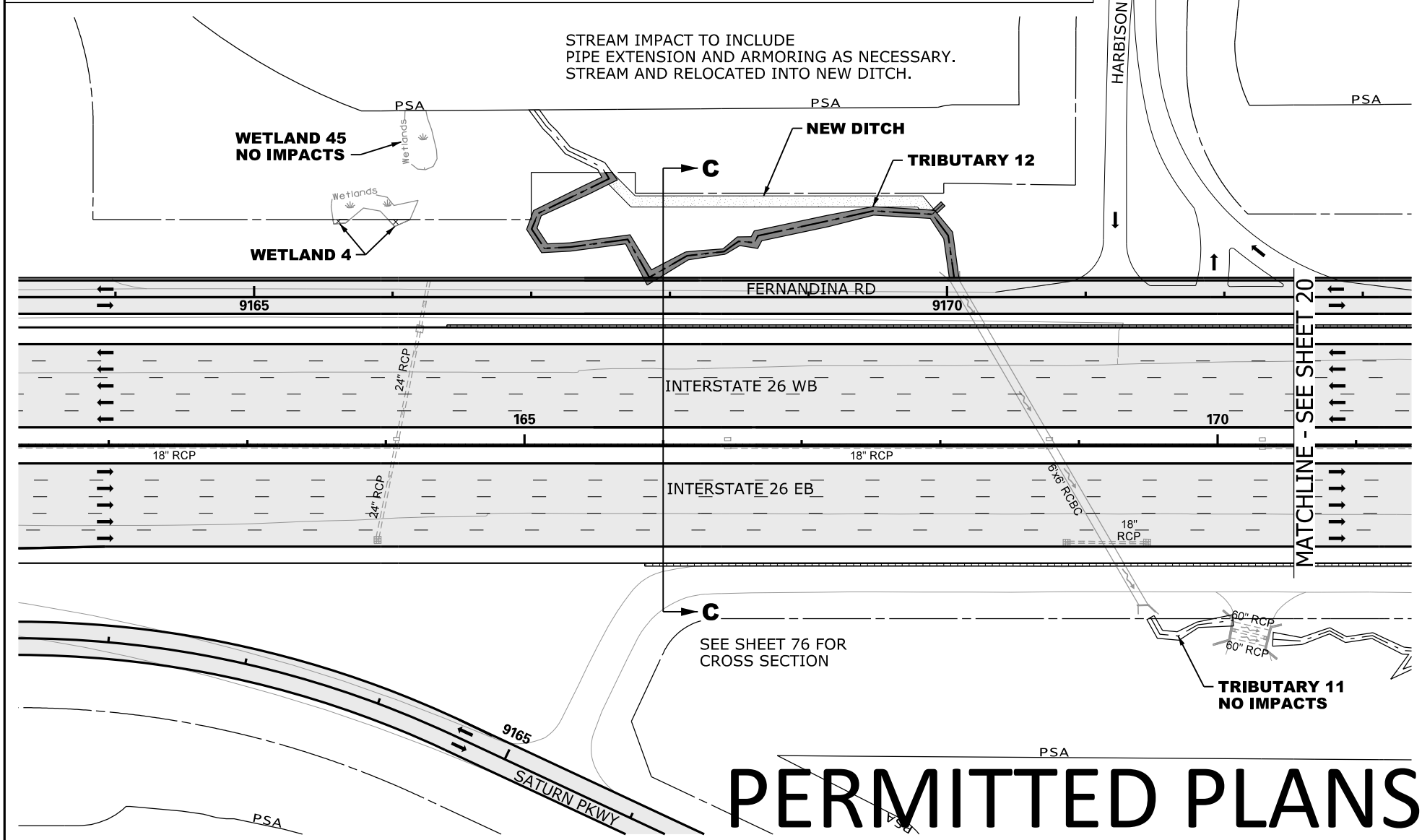
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:35:39 PM
FILE:CCR_Permit-Dwg.18.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 72 SF (0.01 AC)
WETLAND 4 = 72 SF (0.01 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 460 LF (3,028 SF) (0.07 AC)
TRIB 12 = 460 LF (3,028 SF) (0.07 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 12
WETLAND 4



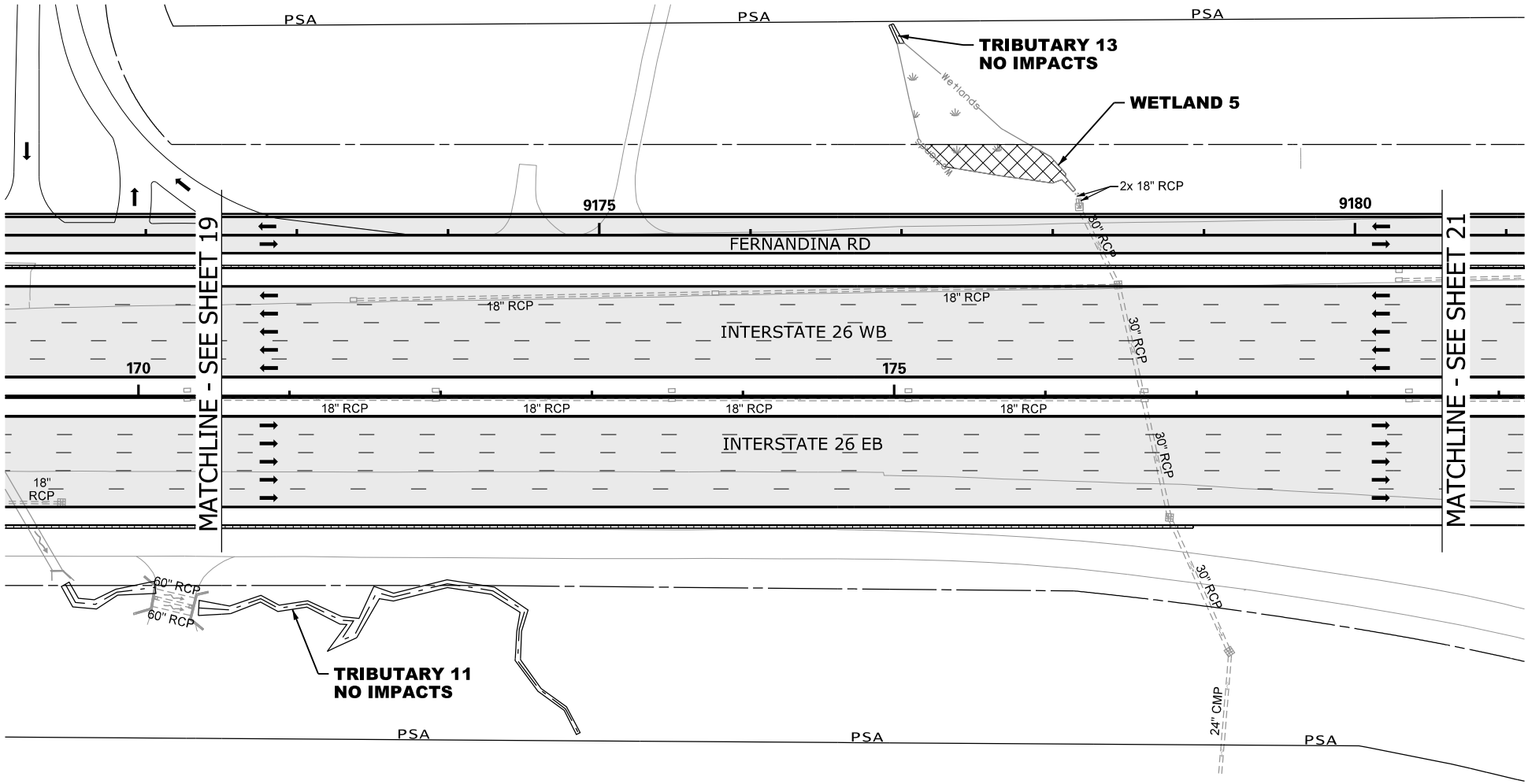
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:35:50 PM
FILE:CCR_Permit-Dwg_19.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 1,616 SF (0.04 AC)
WETLAND 5 = 1,616 SF (0.04 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 5

SHEET 20 OF 78

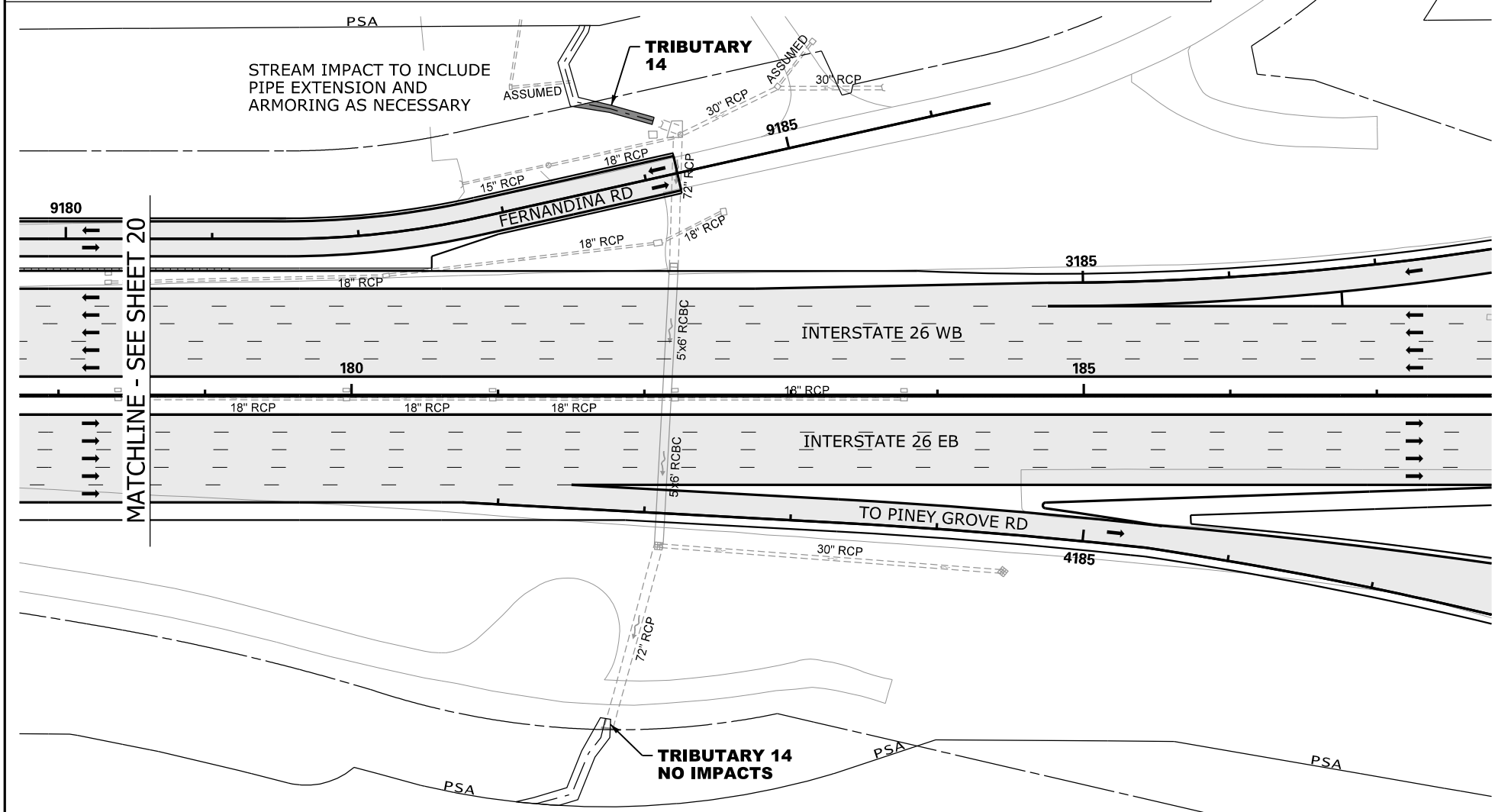
PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:44:01 PM
FILE: CCR_Permit-Dwg-20.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 49 LF (256 SF) (0.01 AC)
TRIB 14 = 49 LF (256 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
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LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 14



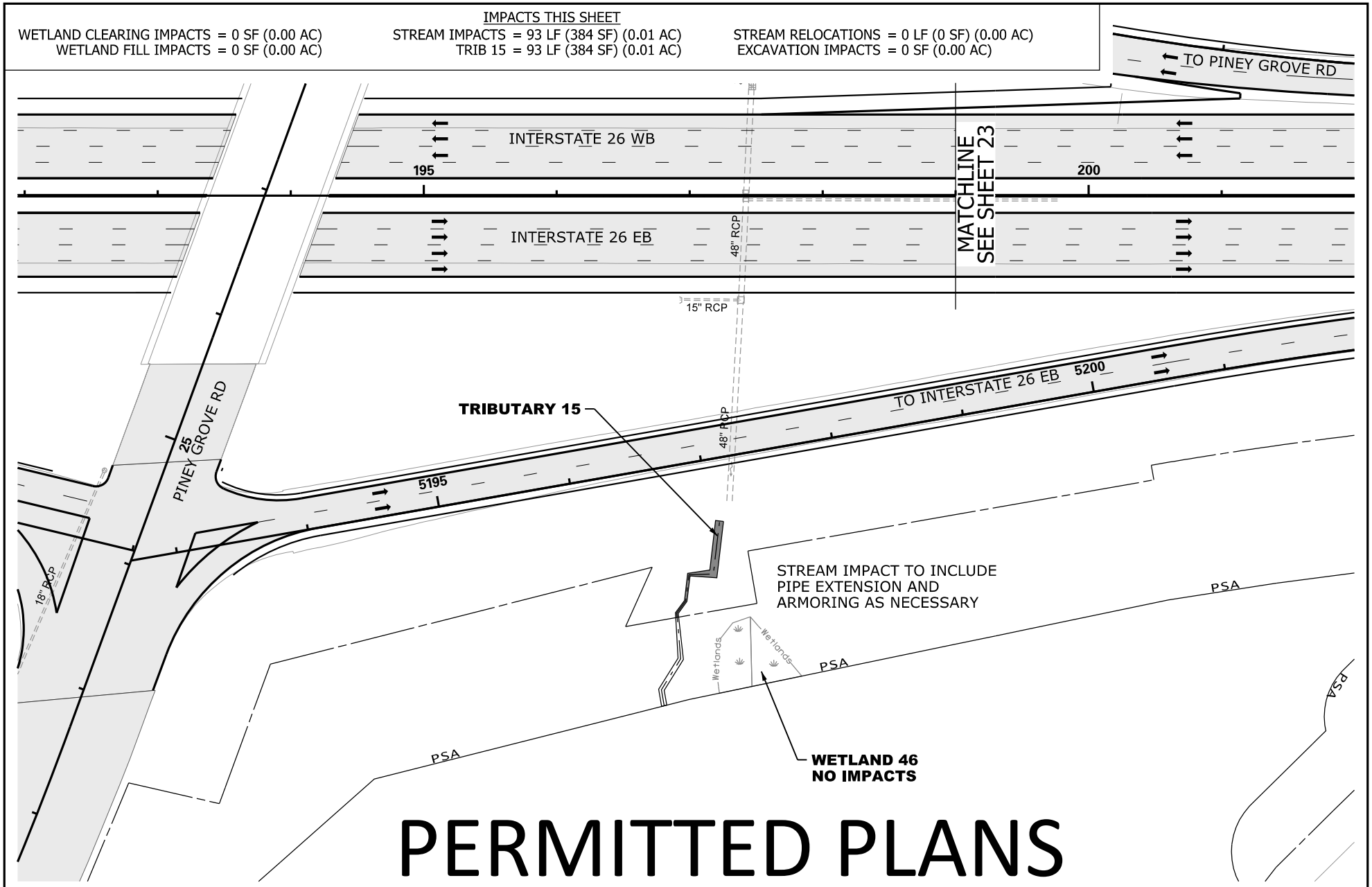
PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:44:3 PM
FILE:CCR_Permit-Dwg.21.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 93 LF (384 SF) (0.01 AC)
TRIB 15 = 93 LF (384 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
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TRIBUTARY 15

SHEET 22 OF 78

PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:44:23 PM
FILE: CCR_Permit-Dwg.22.dgn

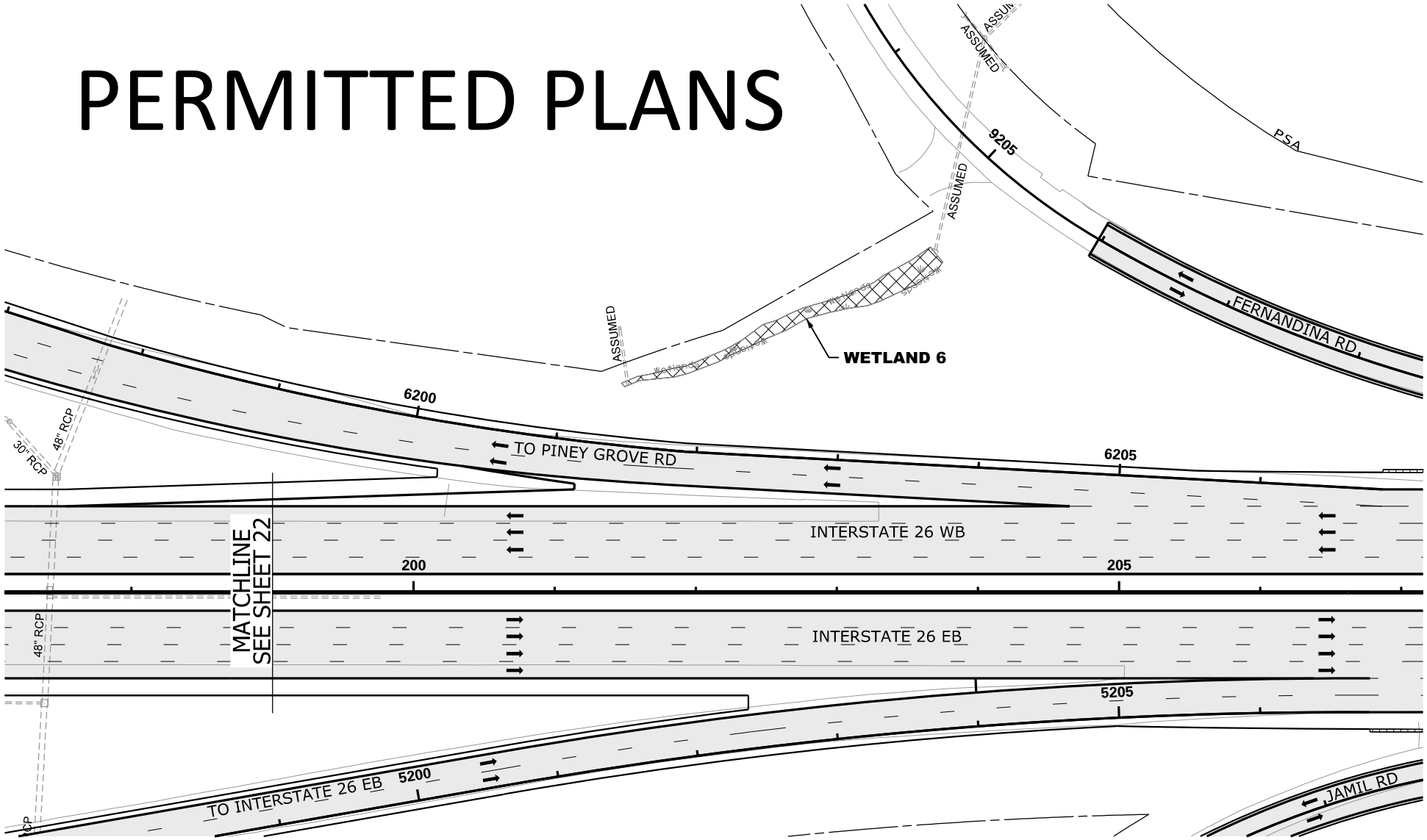
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 2,205 SF (0.05 AC)
WETLAND 6 = 2,205 SF (0.05 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

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South Carolina Department of Transportation

WETLAND 6



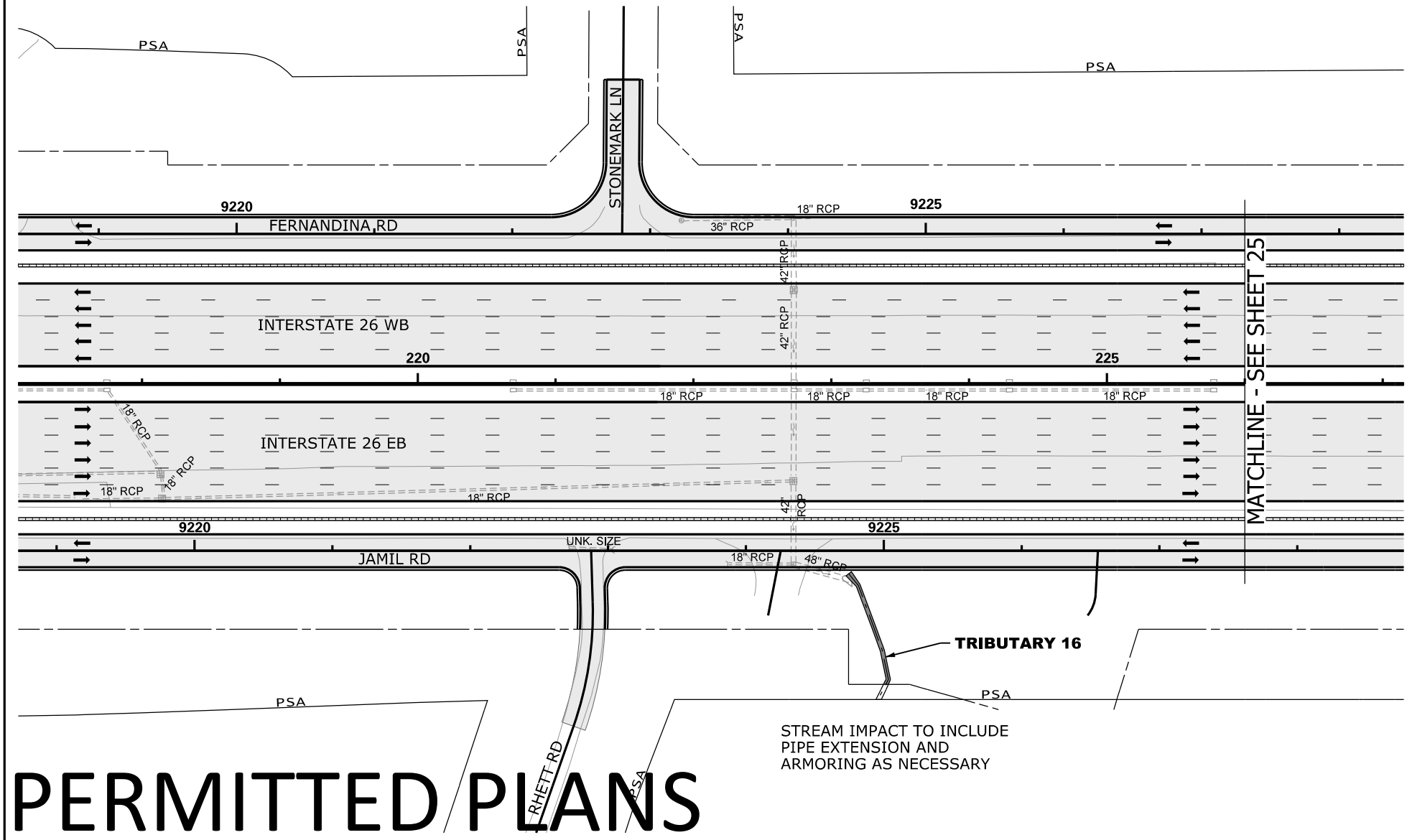
PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:44:34 PM
FILE:CCR_Permit-Dwg.23.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 87 LF (272 SF) (0.01 AC)
TRIB 16 = 87 LF (272 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




STREAM IMPACT TO INCLUDE
PIPE EXTENSION AND
ARMORING AS NECESSARY

# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
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SCDOT
South Carolina Department of Transportation

TRIBUTARY 16



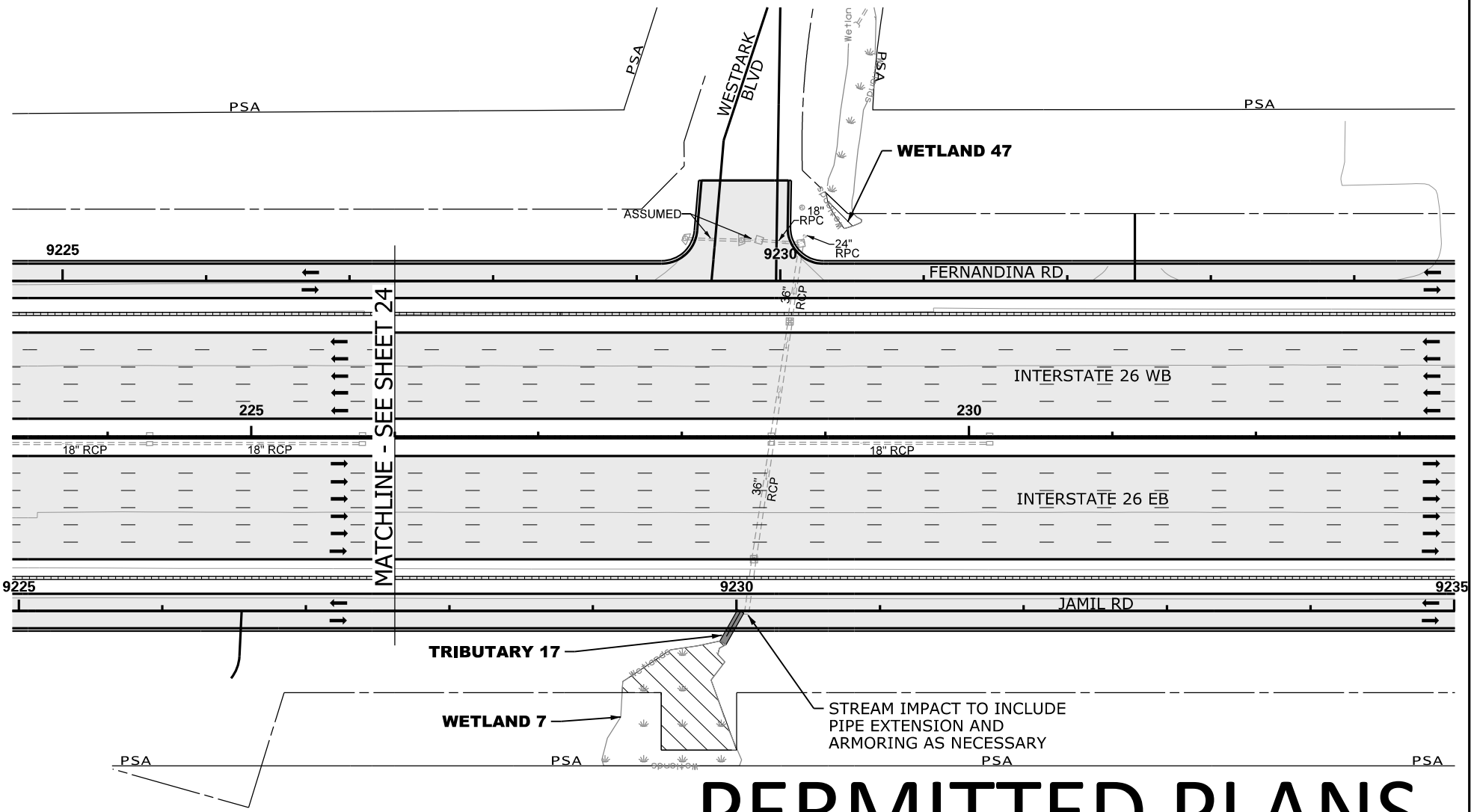
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:44:44 PM
FILE: CCR_Permit-Dwg.24.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 3,727 SF (0.09 AC)
WETLAND 7 = 3,517 SF (0.08 AC)
WETLAND 47 = 210 SF (0.01 AC)

STREAM IMPACTS = 26 LF (126 SF) (0.01 AC)
TRIB 17 = 26 LF (126 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
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RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 17
WETLAND 7 & 47

SHEET 25 OF 78

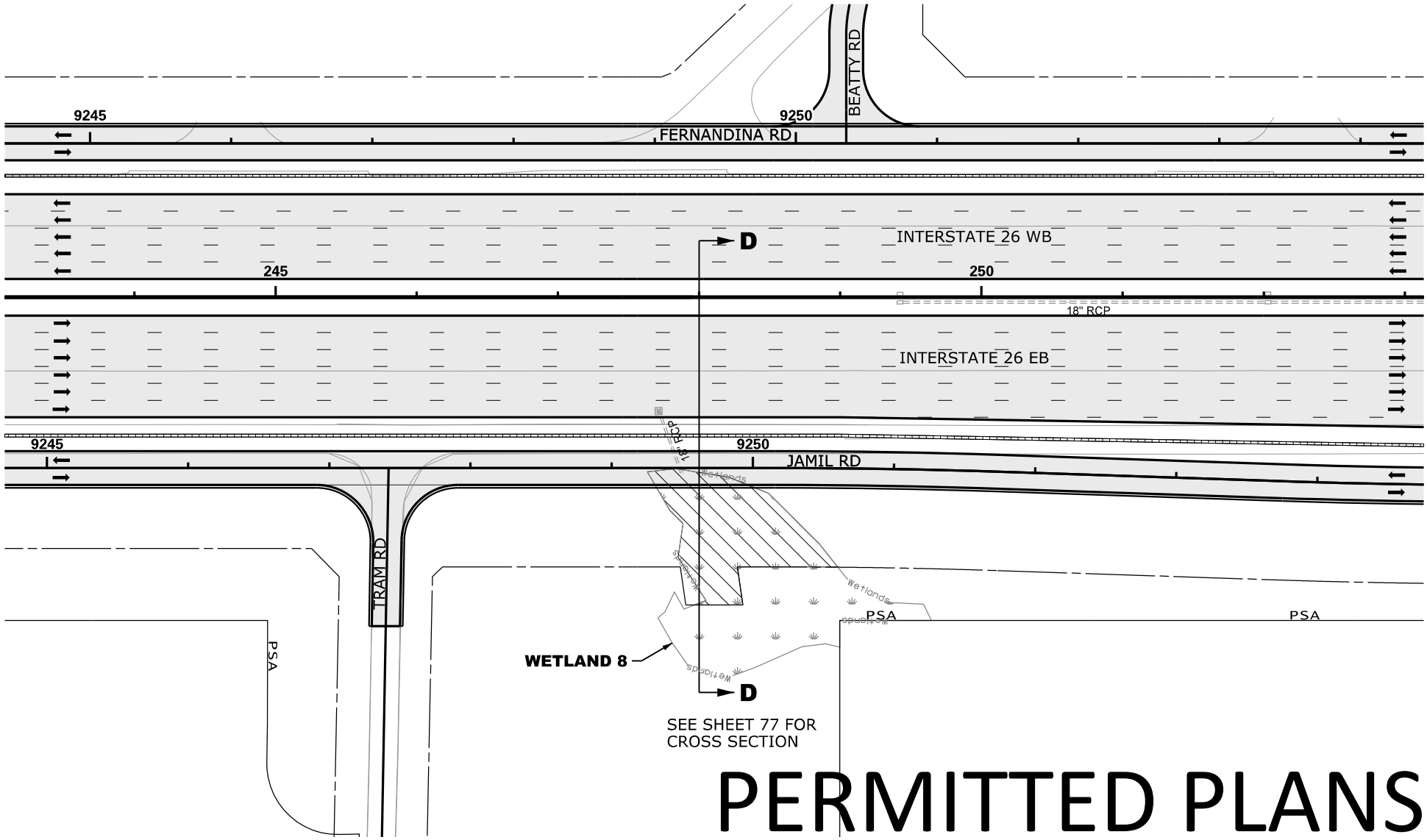
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:44:54 PM
FILE:CCR_Permit-Dwg.25.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 6,554 SF (0.15 AC)
WETLAND 8 = 6,554 SF (0.15 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

N

0 100
GRAPHIC SCALE

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
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WETLAND 8

SHEET 26 OF 78

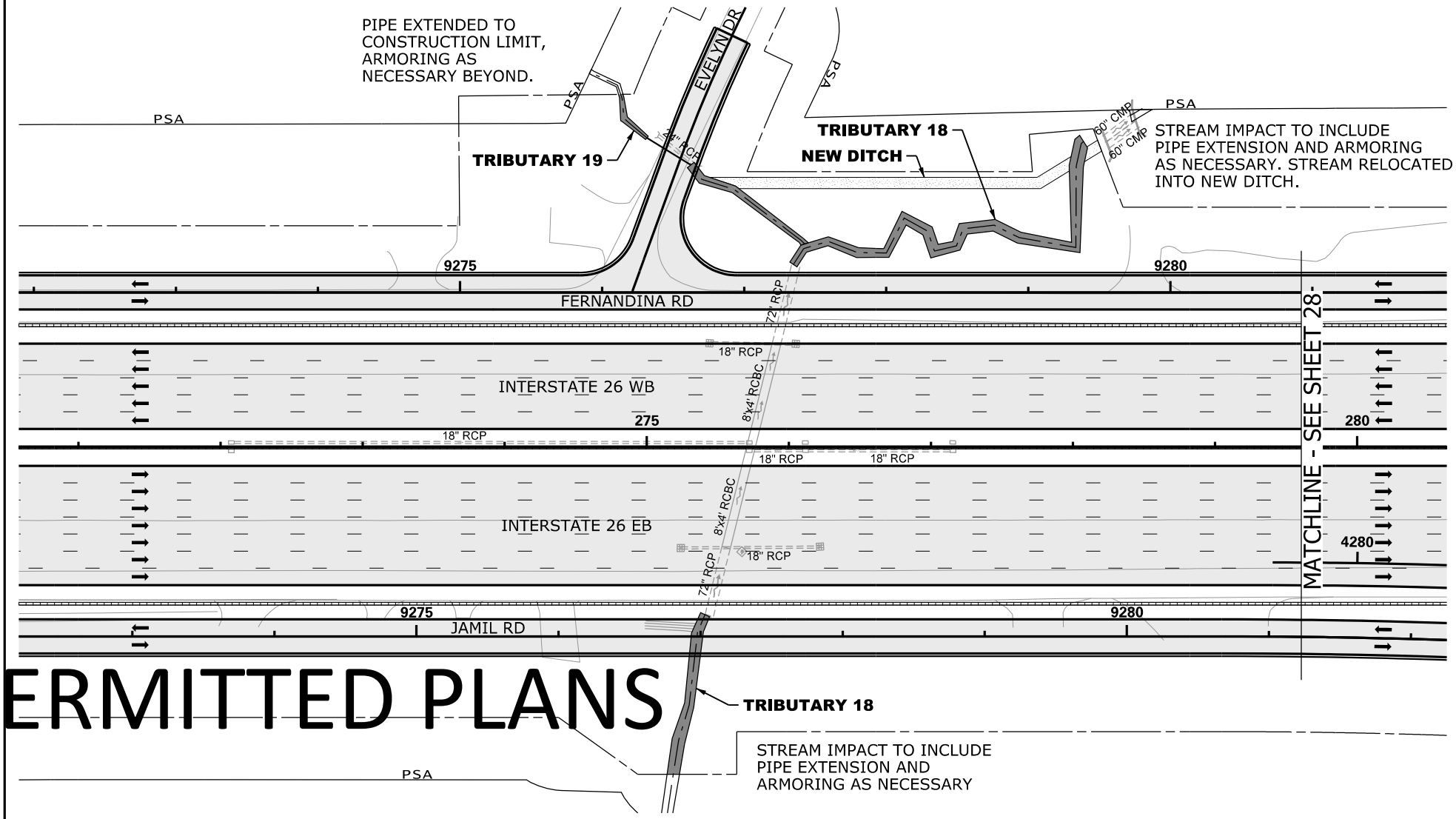
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:15:05 PM
FILE:CCR_Permit-Dwg.26.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 580 LF (3,930 SF) (0.09 AC)
TRIB 18 = 322 LF (2,379 SF) (0.05 AC)
TRIB 18 = 116 LF (910 SF) (0.02 AC)
TRIB 19 = 39 LF (151 SF) (0.01 AC)
TRIB 19 = 103 LF (490 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
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LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
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TRIBUTARY 18 & 19

SHEET 27 OF 78

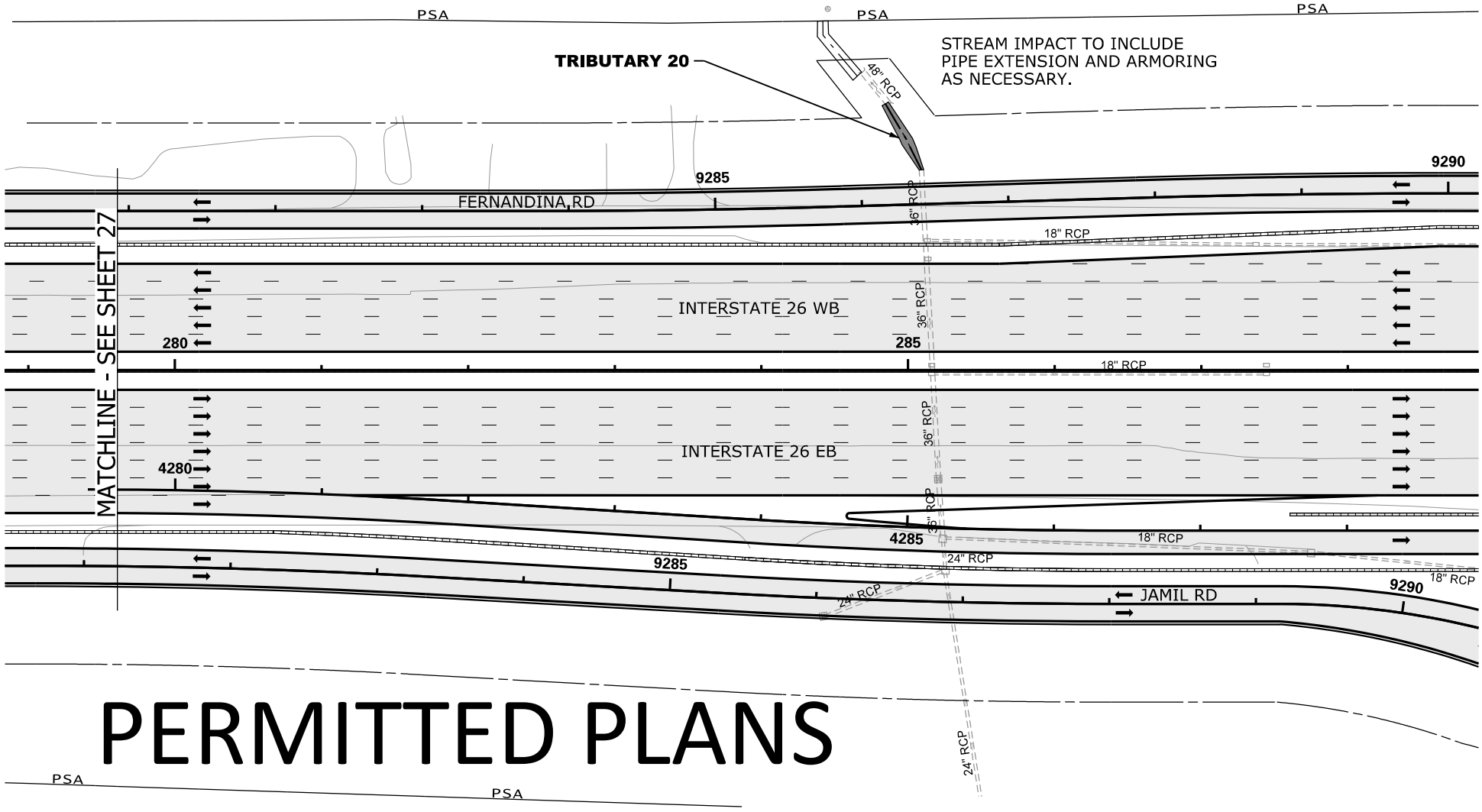
PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:15:15 PM
FILE:CCR_Permit-Dwg.27.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 55 LF (308 SF) (0.01 AC)
TRIB 21 = 55 LF (308 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

N

0 100
GRAPHIC SCALE

CAROLINA CROSSROADS
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TRIBUTARY 20

SHEET 28 OF 78

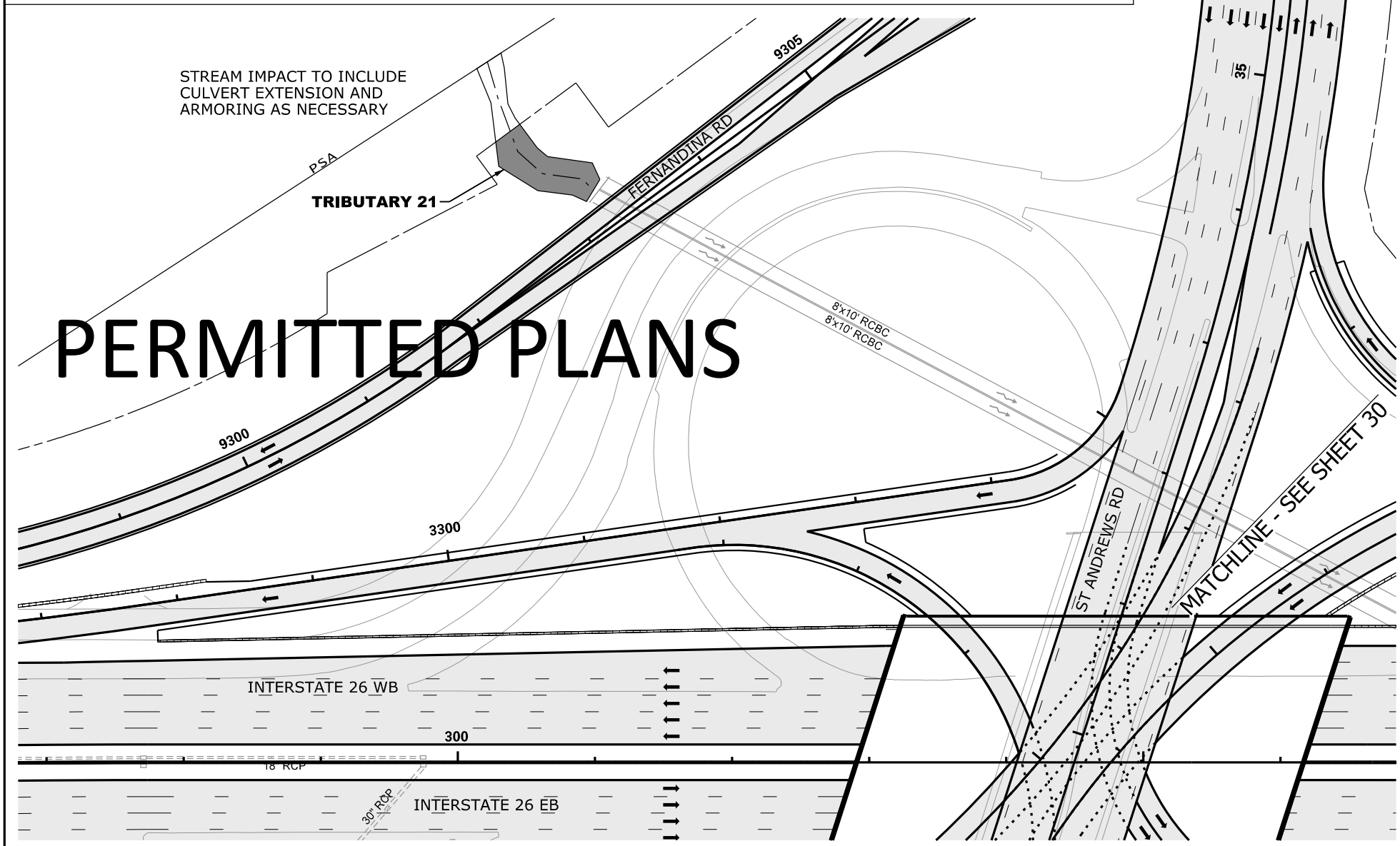
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:15:26 PM
FILE:CCR_Permit-Dwg.28.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 81 LF (2,057 SF) (0.05 AC)
TRIB 21 = 81 LF (2,057 SF) (0.05 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
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LEXINGTON COUNTY, SC
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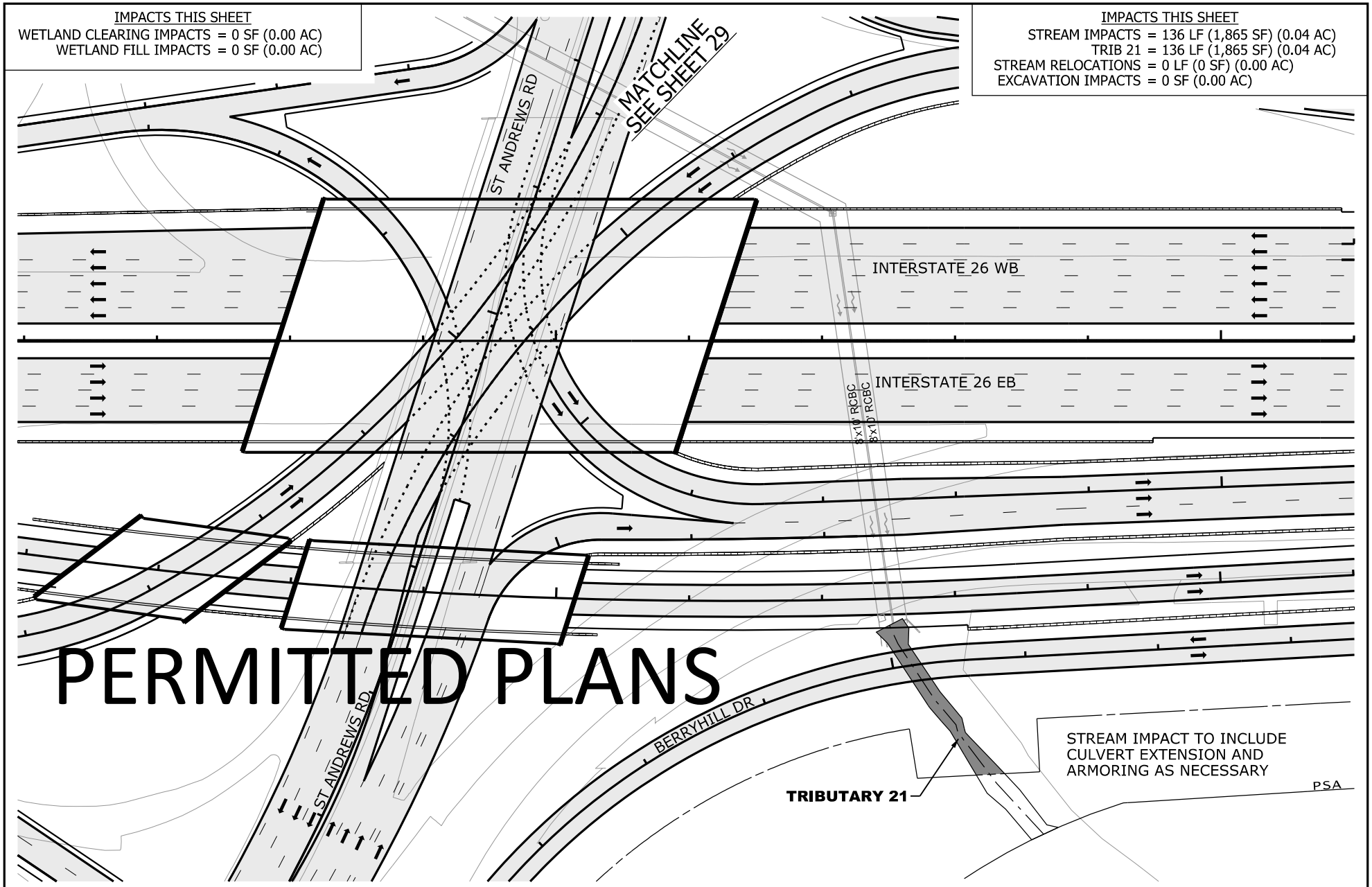
TRIBUTARY 21

SHEET 29 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:05:35 PM
FILE:CCR_Permit-Dwg.29.dgn

IMPACTS THIS SHEET
WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

IMPACTS THIS SHEET
STREAM IMPACTS = 136 LF (1,865 SF) (0.04 AC)
TRIB 21 = 136 LF (1,865 SF) (0.04 AC)
STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
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TRIBUTARY 21

SHEET 30 OF 78

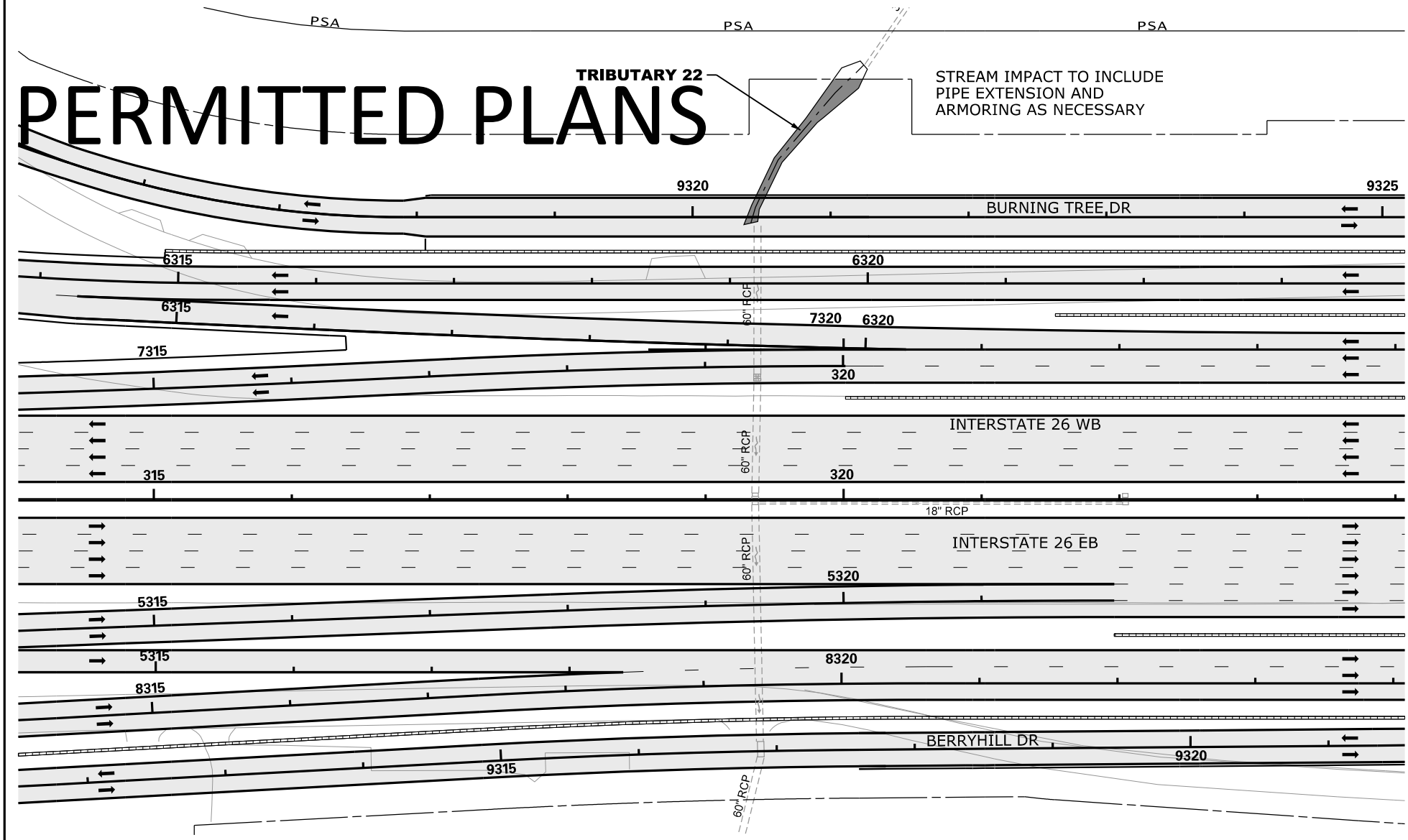
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:05:45 PM
FILE: CCR_Permit-Dwg_30.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 128 LF (1,154 SF) (0.03 AC)
TRIB 22 = 128 LF (1,154 SF) (0.03 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)
DET AREA 49




N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

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TRIBUTARY 22

SHEET 31 OF 78

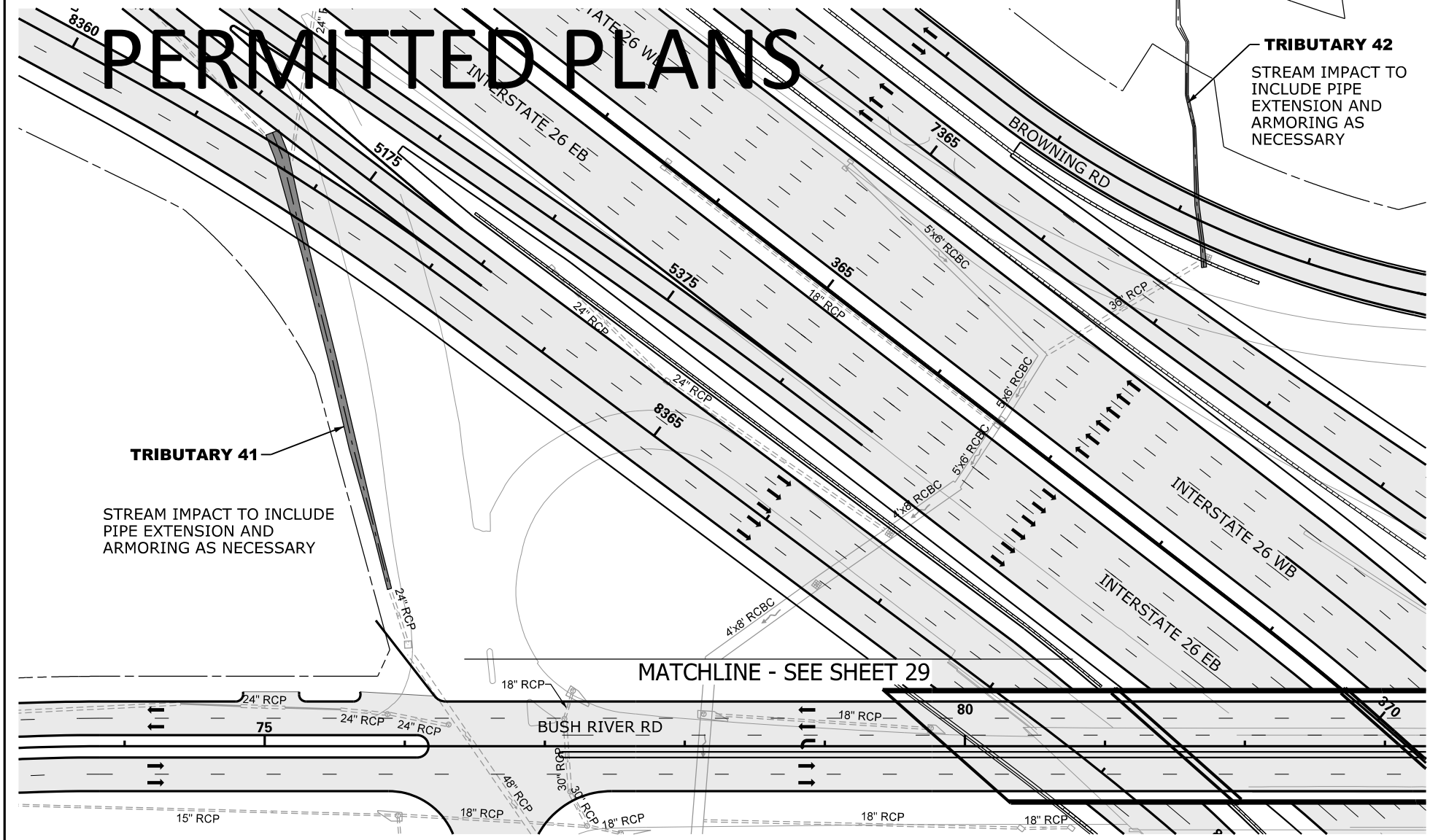
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:15:56 PM
FILE: CCR_Permit-Dwg.3L.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 483 LF (2,384 SF) (0.06 AC)
TRIB 41 = 337 LF (2,022 SF) (0.05 AC)
TRIB 42 = 146 LF (362 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

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TRIBUTARY 41 & 42



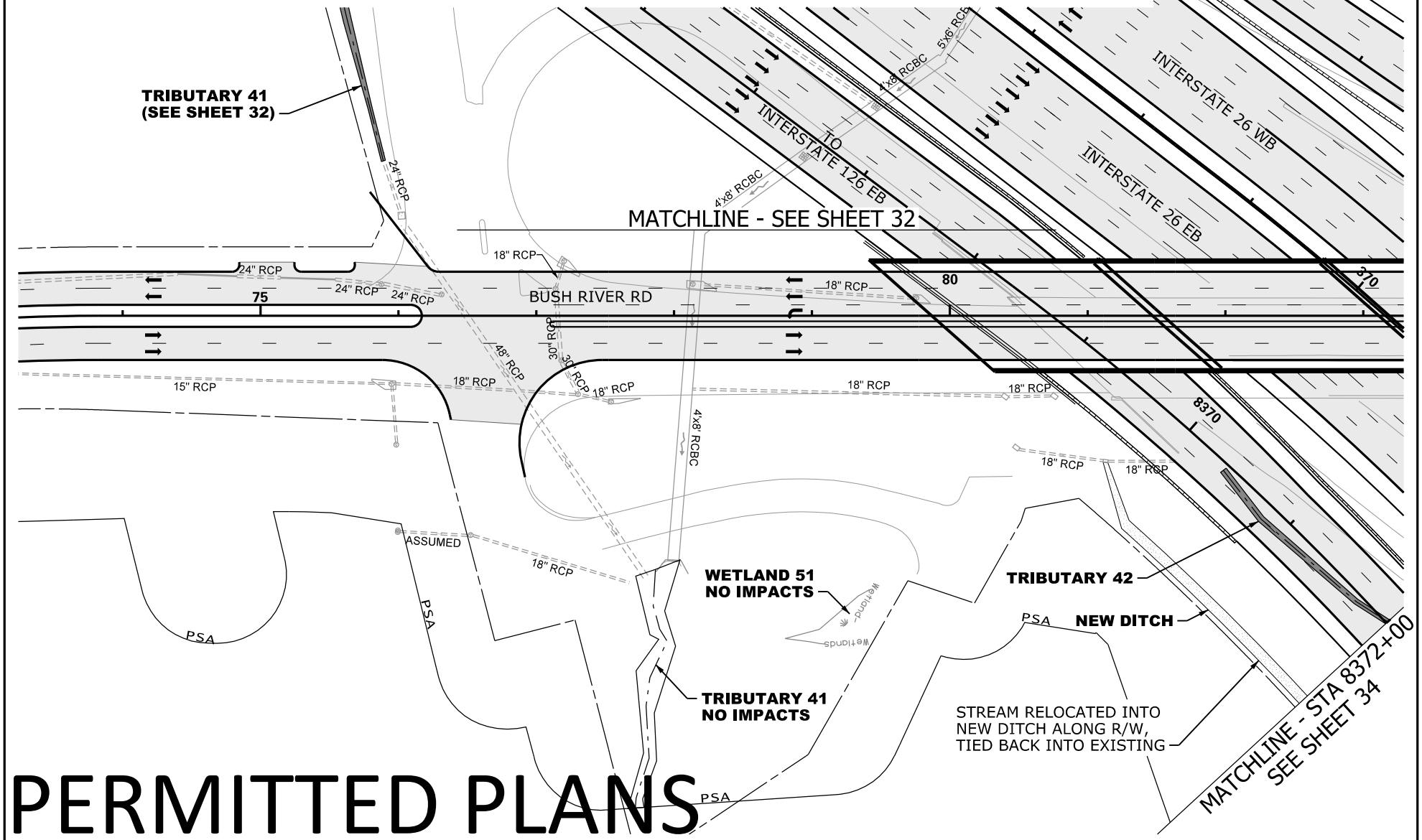
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:16:06 PM
FILE: CCR_Permit-Dwg_32.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 164 LF (742 SF) (0.02 AC)
TRIB 42 = 164 LF (742 SF) (0.02 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

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South Carolina Department of Transportation

TRIBUTARY 42

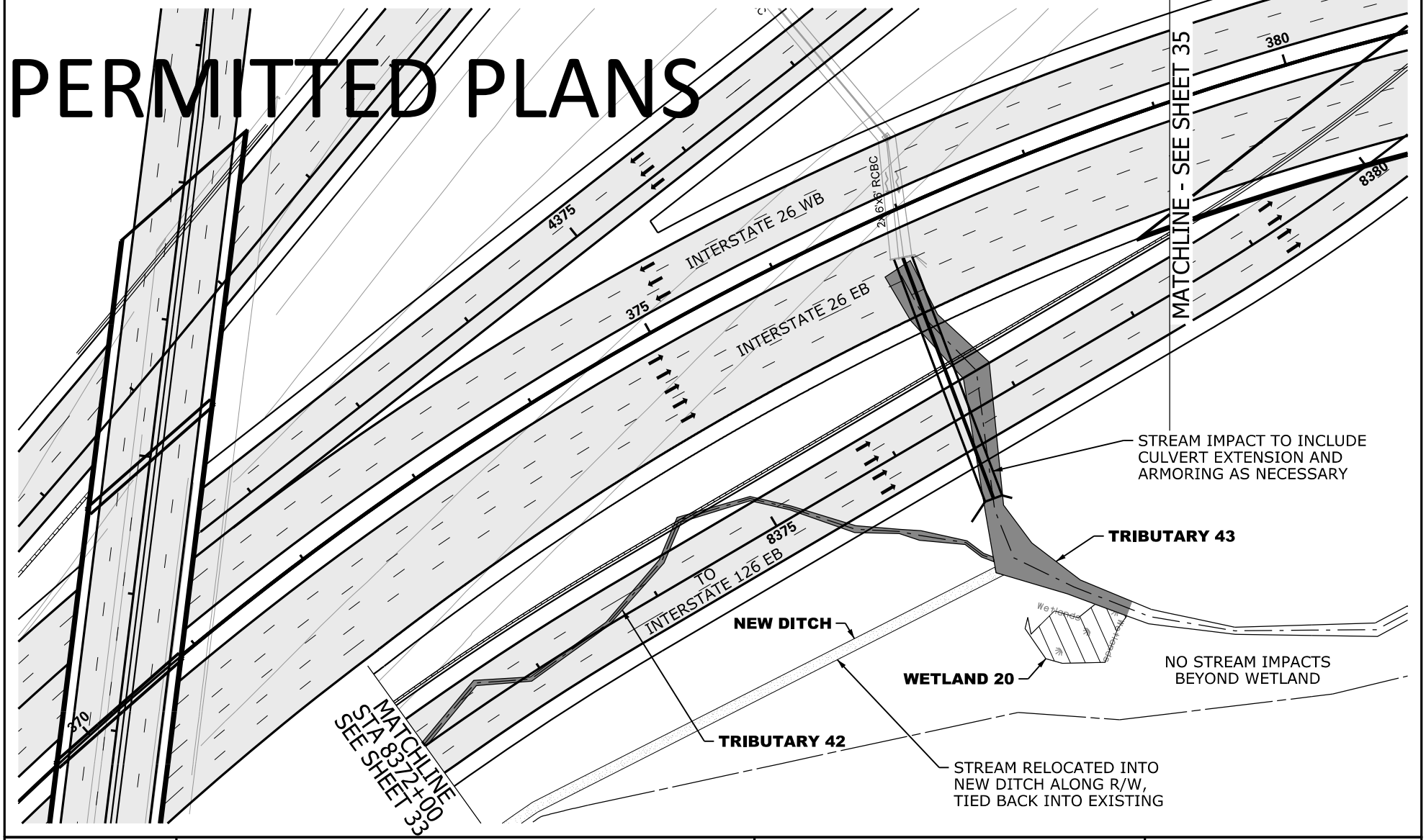
SHEET 33 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:46:16 PM
FILE:CCR_Permit-Dwg_33.dgn

IMPACTS THIS SHEET

| | | |
|---|---|---|
| WETLAND CLEARING IMPACTS = 0 SF (0.00 AC) | STREAM IMPACTS = 837 LF (7,858 SF) (0.19 AC) | STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC) |
| WETLAND FILL IMPACTS = 2,024 SF (0.05 AC) | TRIB 42 = 512 LF (1,831 SF) (0.05 AC) | EXCAVATION IMPACTS = 6213 SF (0.15 AC) |
| WETLAND 20 = 2,024 SF (0.05 AC) | TRIB 43 = 325 LF (6,027 SF) (0.14 AC) | DET AREA 49 = 6213 SF (0.15 AC) |

# PERMITTED PLANS




N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

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South Carolina Department of Transportation

TRIBUTARY 42, 43
WETLAND 20



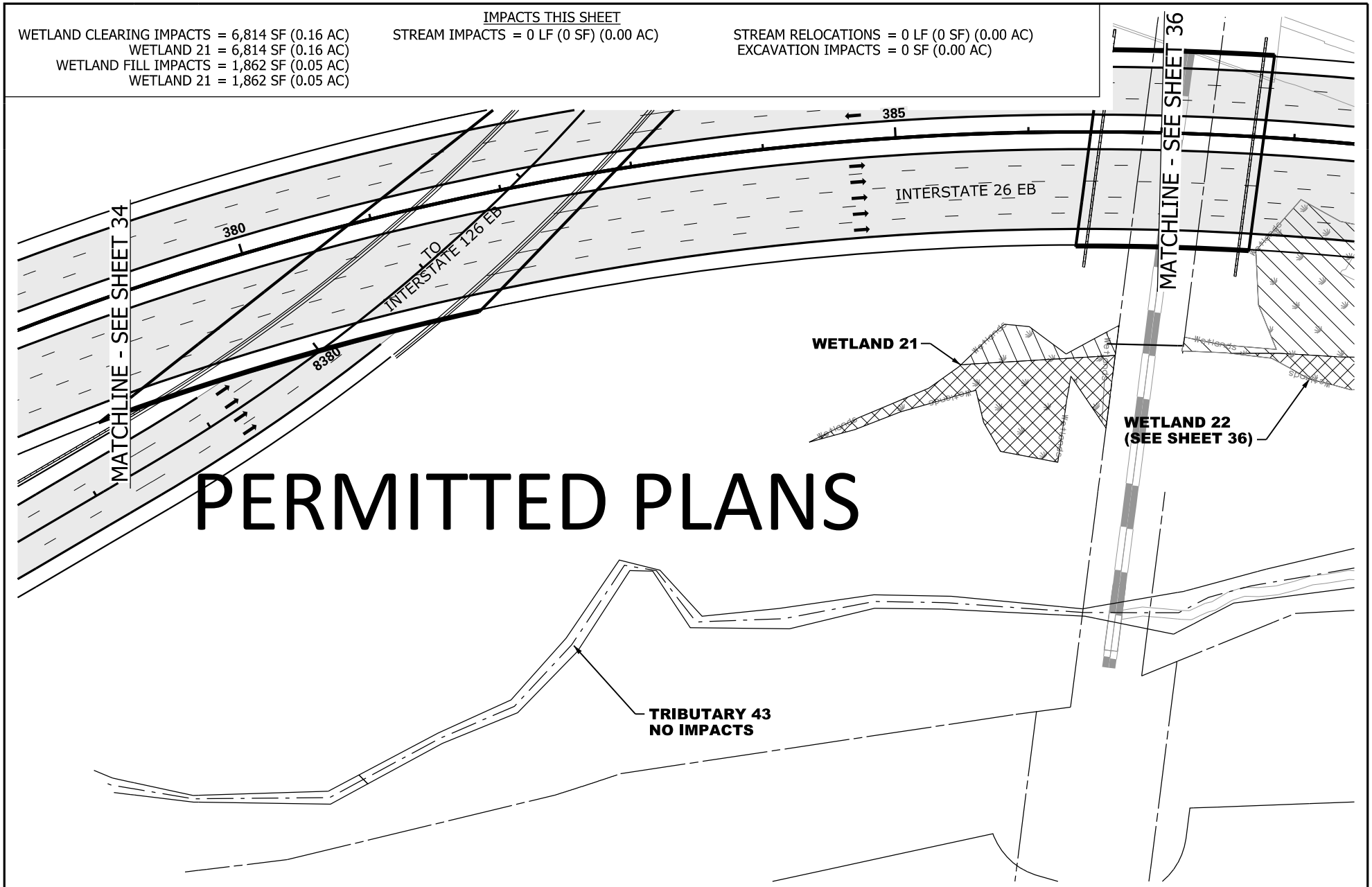
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:16:27 PM
FILE:CCR_Permit-Dwg_34.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 6,814 SF (0.16 AC)
WETLAND 21 = 6,814 SF (0.16 AC)
WETLAND FILL IMPACTS = 1,862 SF (0.05 AC)
WETLAND 21 = 1,862 SF (0.05 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 21



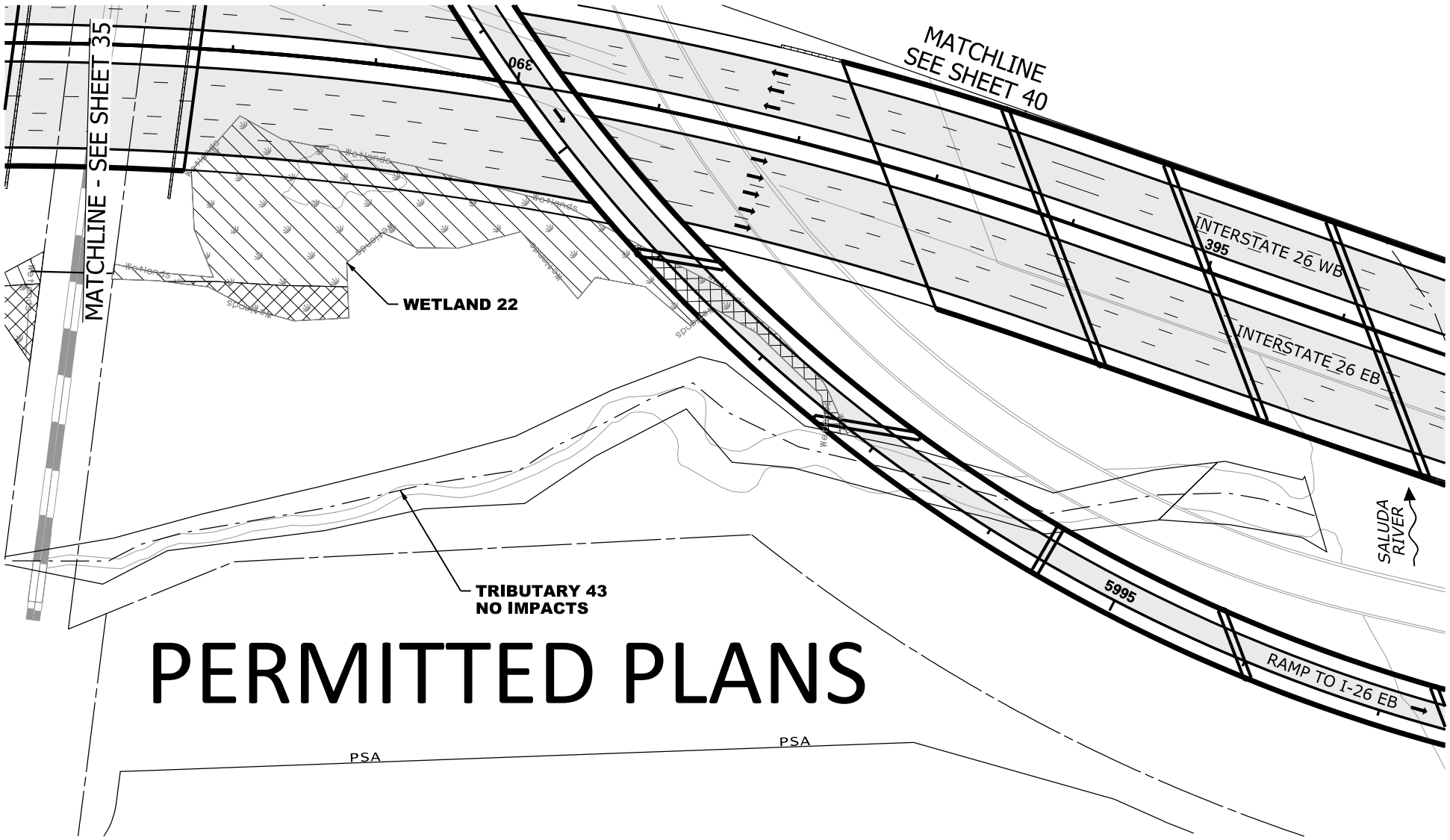
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:46:37 PM
FILE: CCR_Permit-Dwg_35.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 4,333 SF (0.10 AC)
WETLAND 22 = 4,333 SF (0.10 AC)
WETLAND FILL IMPACTS = 20,881 SF (0.48 AC)
WETLAND 22 = 20,881 SF (0.48 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 22

SHEET 36 OF 78

PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:46:51PM
FILE: CCR_Permit-Dwg_36.dgn

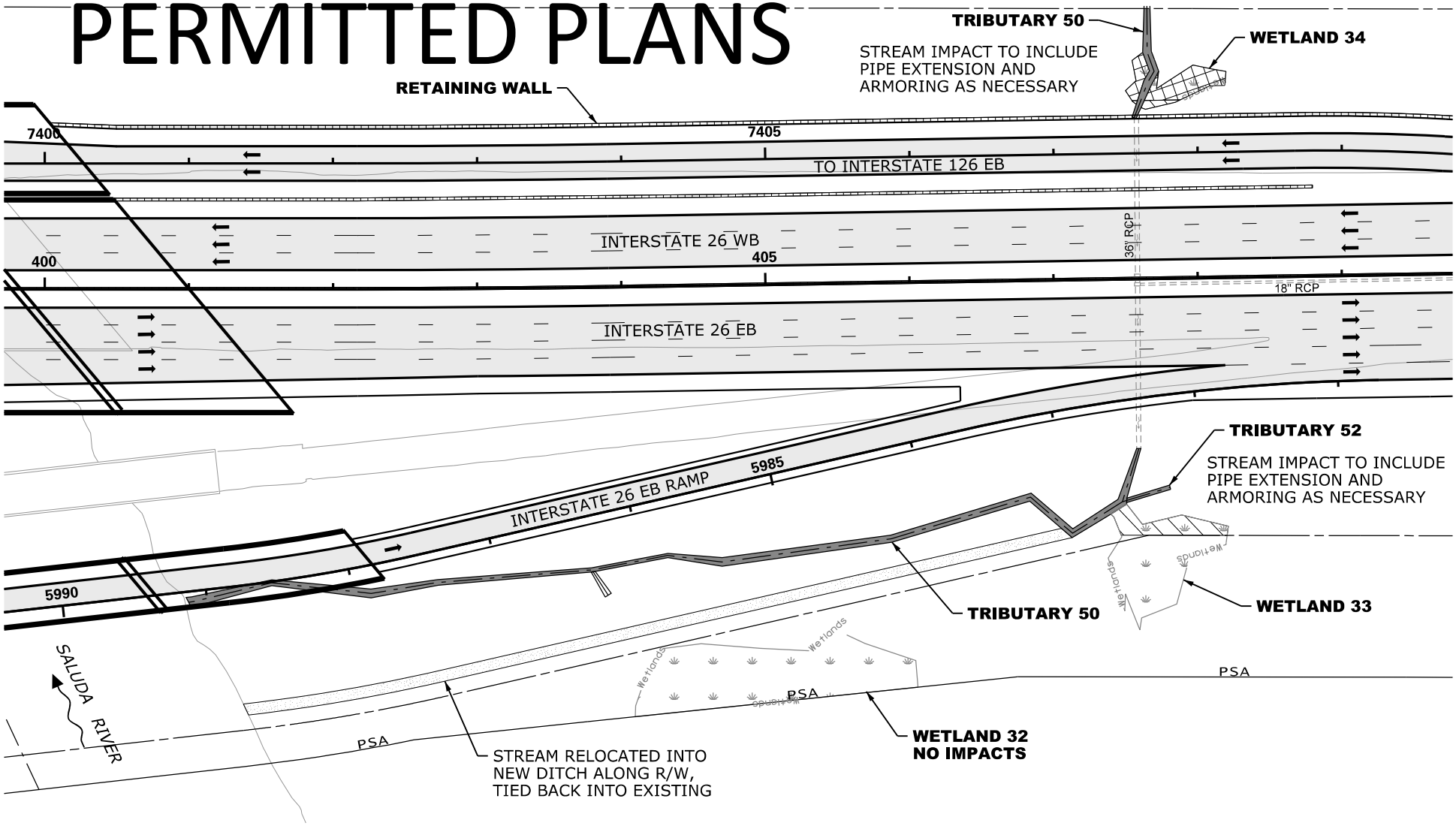
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 1,034 SF (0.03 AC)
WETLAND 34 = 1,034 SF (0.03 AC)
WETLAND FILL IMPACTS = 1,021 SF (0.03 AC)
WETLAND 33 = 923 SF (0.02 AC)
WETLAND 34 = 98 LF (0.01 AC)

STREAM IMPACTS = 827 LF (3,863 SF) (0.10 AC)
TRIB 50 = 80 LF (411 SF) (0.01 AC)
TRIB 50 = 712 LF (3,358 SF) (0.08 AC)
TRIB 52 = 35 LF (94 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 50
WETLAND 33, 34



PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:17:01 PM
FILE: CCR_Permit-Dwg.37.dgn

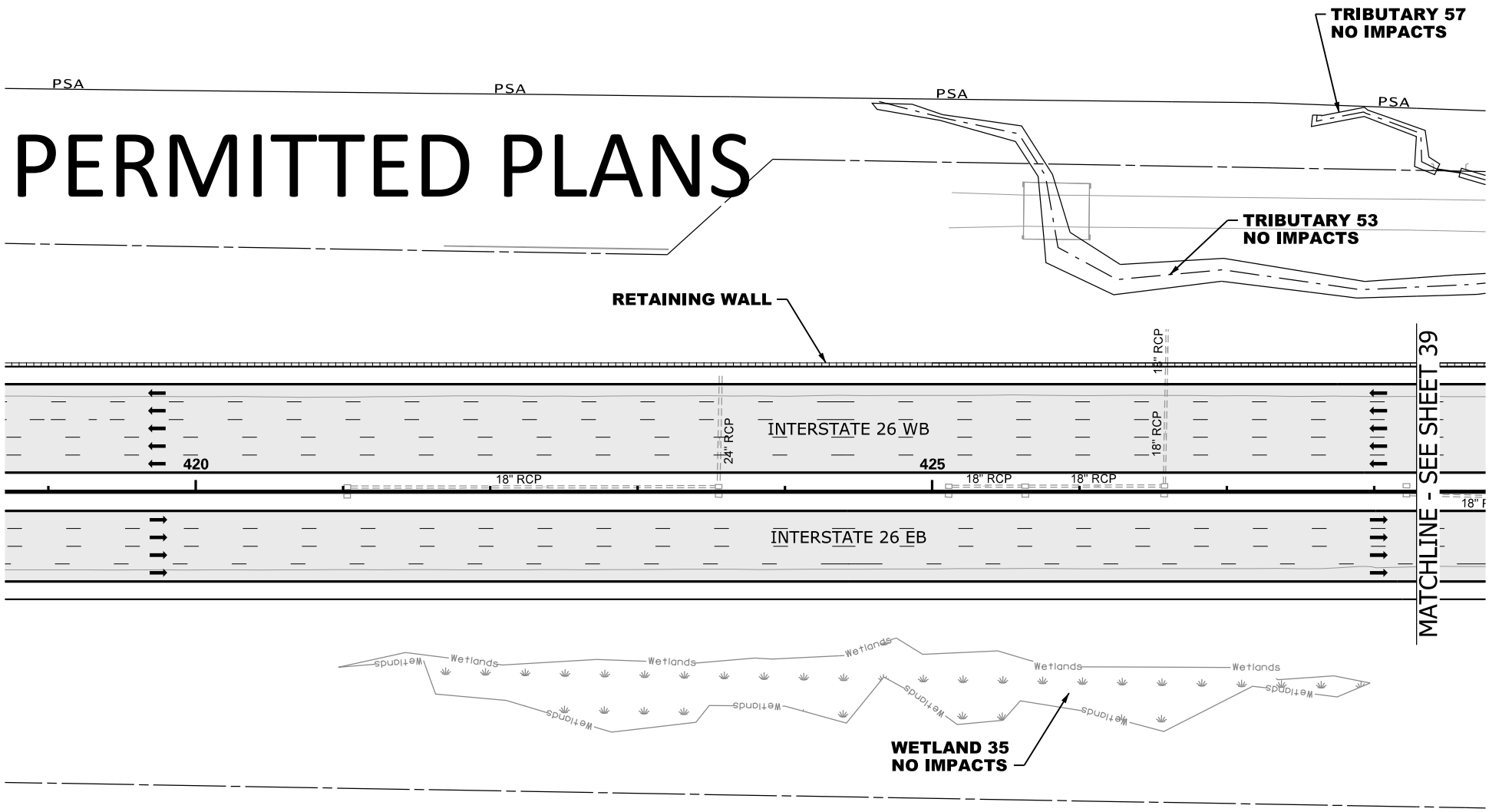
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

0 100
GRAPHIC SCALE

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 53 & 57
WETLAND 35



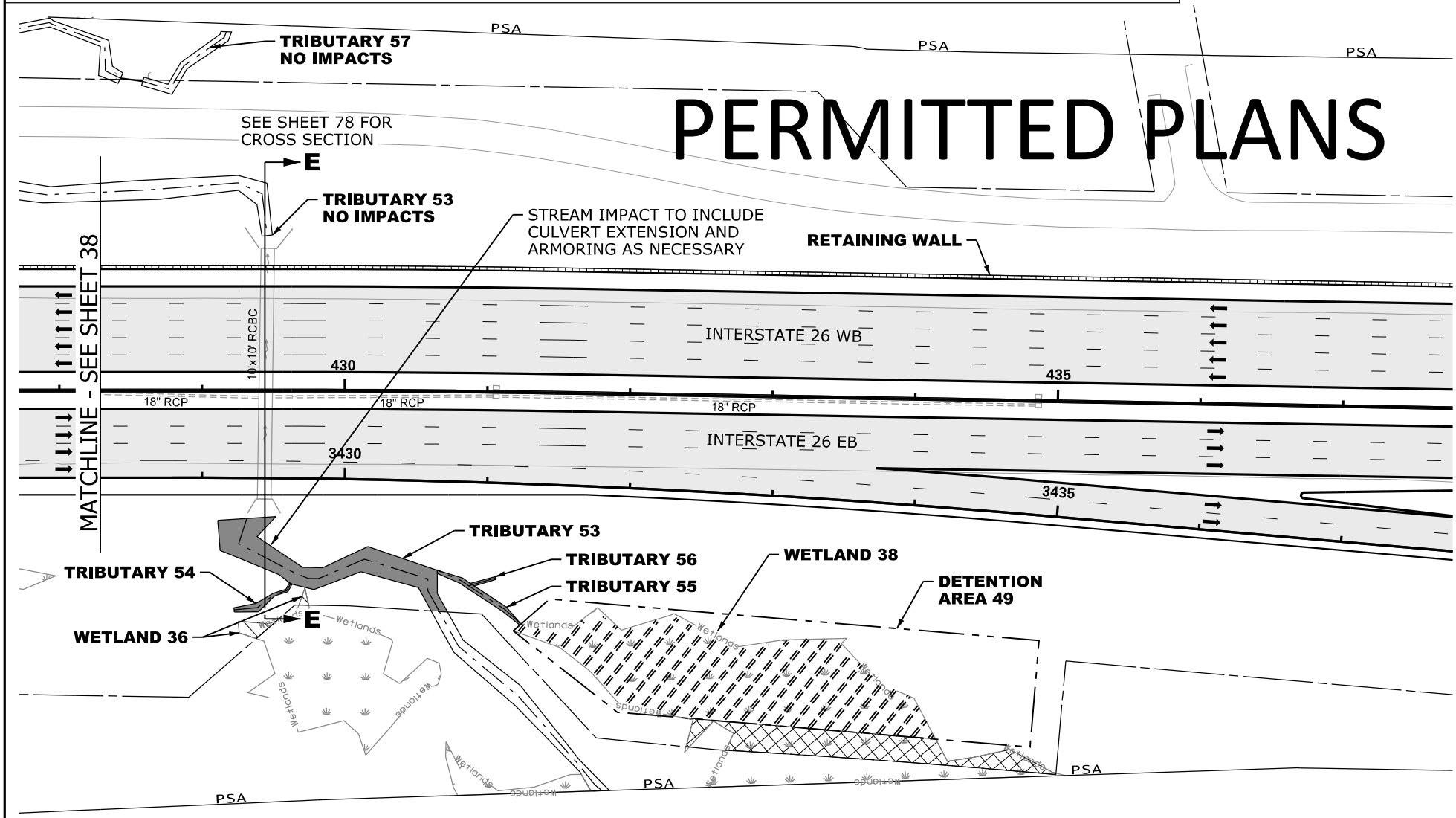
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:17:11PM
FILE: CCR_Permit-Dwg_38.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 3,603 SF (0.08 AC)
WETLAND 38 = 3,603 SF (0.08 AC)
WETLAND FILL IMPACTS = 229 SF (0.01 AC)
WETLAND 36 = 229 LF (0.01 AC)

STREAM IMPACTS = 333 LF (3,460 SF) (0.09 AC)
TRIB 53 = 187 LF (3,038 SF) (0.07 AC)
TRIB 54 = 55 LF (162 SF) (0.01 AC)
TRIB 55 = 70 LF (240 SF) (0.01 AC)
TRIB 56 = 20 LF (38 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 13,700 SF (0.32 AC)
DET AREA 49 = 13,700 SF (0.32 AC)




## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

0 100
GRAPHIC SCALE

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 53-56
WETLAND 36, 38



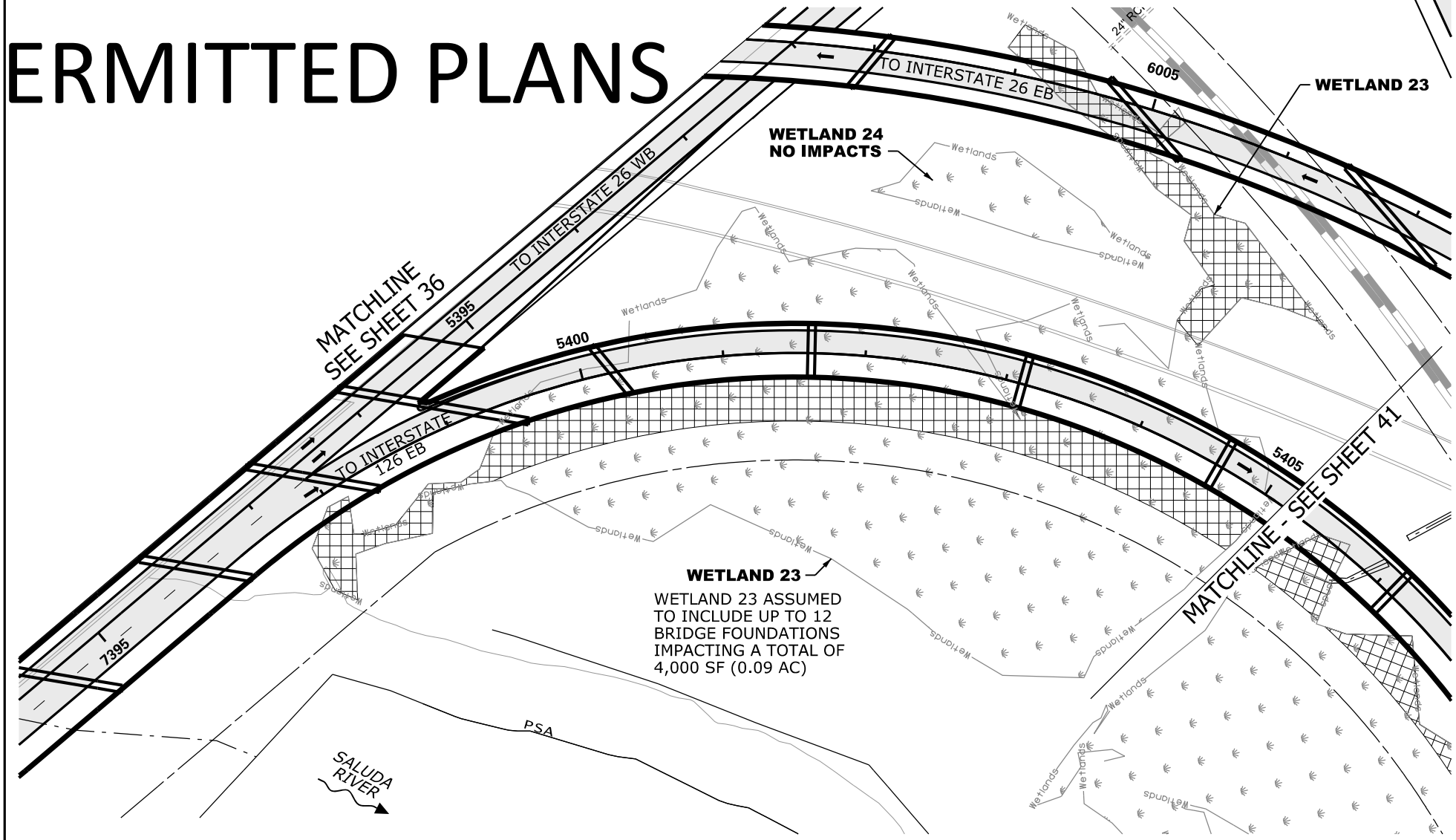
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:27:48 PM
FILE: CCR_Permit-Dwg_39.dgn

WETLAND CLEARING IMPACTS = 27,363 SF (0.63 AC)
WETLAND 23 = 27,363 SF (0.63 AC)
WETLAND 24 = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 4,000 SF (0.09 AC)
WETLAND 23 = 4,000 SF (0.09 AC)

IMPACTS THIS SHEET
STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 23 & 24

SHEET 40 OF 78

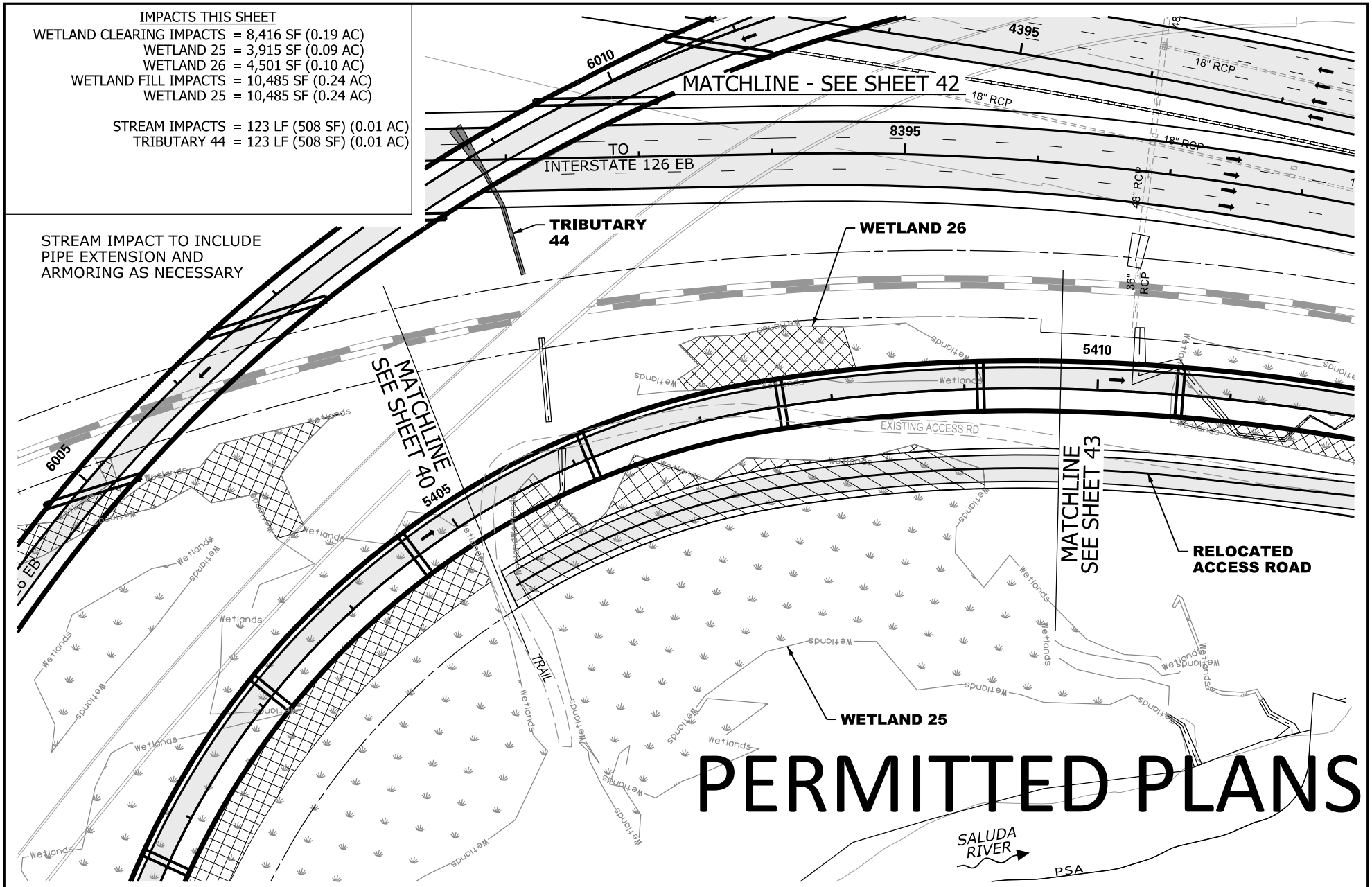
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:17:33 PM
FILE: CCR_Permit-Dwg_40.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 8,416 SF (0.19 AC)
WETLAND 25 = 3,915 SF (0.09 AC)
WETLAND 26 = 4,501 SF (0.10 AC)
WETLAND FILL IMPACTS = 10,485 SF (0.24 AC)
WETLAND 25 = 10,485 SF (0.24 AC)

STREAM IMPACTS = 123 LF (508 SF) (0.01 AC)
TRIBUTARY 44 = 123 LF (508 SF) (0.01 AC)

STREAM IMPACT TO INCLUDE PIPE EXTENSION AND ARMORING AS NECESSARY




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
REVISED JULY 15, 2020

SCDOT
South Carolina Department of Transportation

WETLAND 25 & 26

SHEET 41 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:7/15/2020 TIME:11:58:46 AM
FILE:CCR_Permit-Dwg_4L.dgn

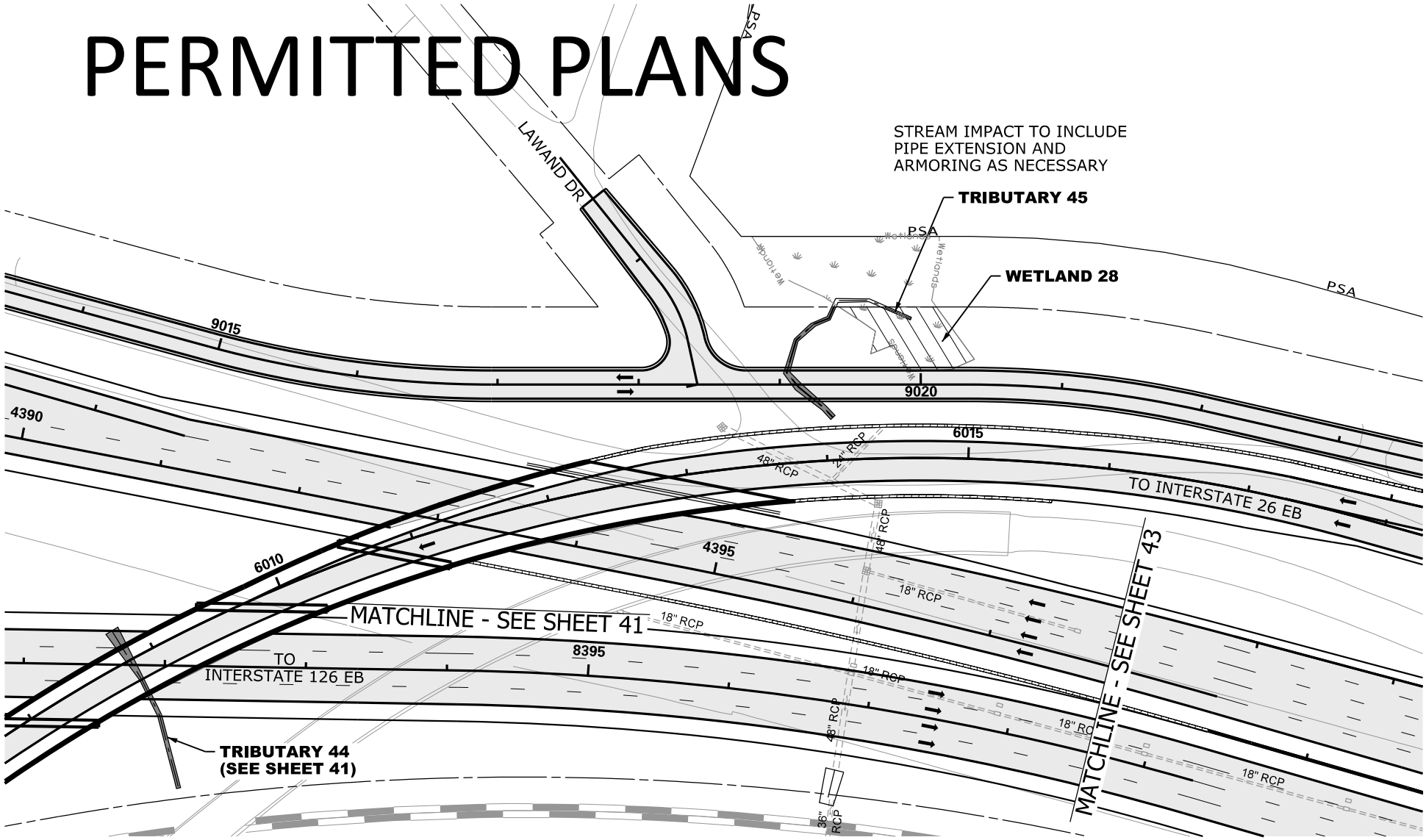
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 2,502 SF (0.06 AC)
WETLAND 28 = 2,502 SF (0.06 AC)

STREAM IMPACTS = 107 LF (418 SF) (0.01 AC)
TRIB 45 = 107 LF (418 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 45
WETLAND 28

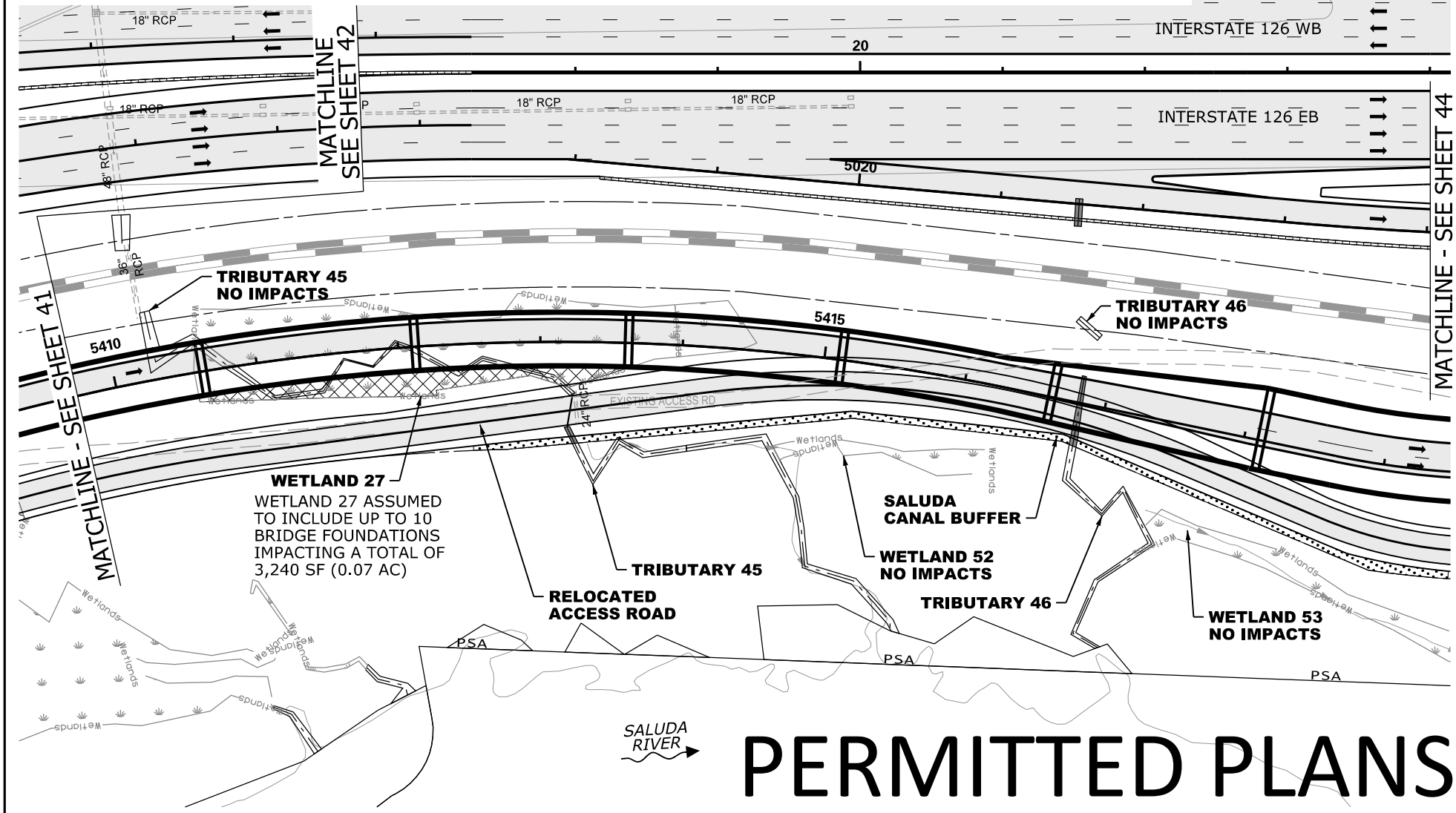


PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:17:54 PM
FILE:CCR_Permit-Dwg_42.dgn

WETLAND CLEARING IMPACTS = 3,214 SF (0.07 AC)
WETLAND 27 = 3,214 SF (0.07 AC)
WETLAND FILL IMPACTS = 3,240 SF (0.07 AC)
WETLAND 27 = 3,240 SF (0.07 AC)
WETLAND 52 = 0 SF (0.00 AC)
WETLAND 53 = 0 SF (0.00 AC)

IMPACTS THIS SHEET
STREAM IMPACTS = 53 LF (206 SF) (0.01 AC)
TRIB 45 = 8 LF (28 SF) (0.01 AC)
TRIB 46 = 45 LF (178 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- SALUDA CANAL BUFFER
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
REVISED JULY 15, 2020

SCDOT
South Carolina Department of Transportation

TRIBUTARY 45
WETLAND 27, 52 & 53

SHEET 43 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:7/15/2020 TIME:11:56:53 AM
FILE:CCR_Permit-Dwg_43.dgn

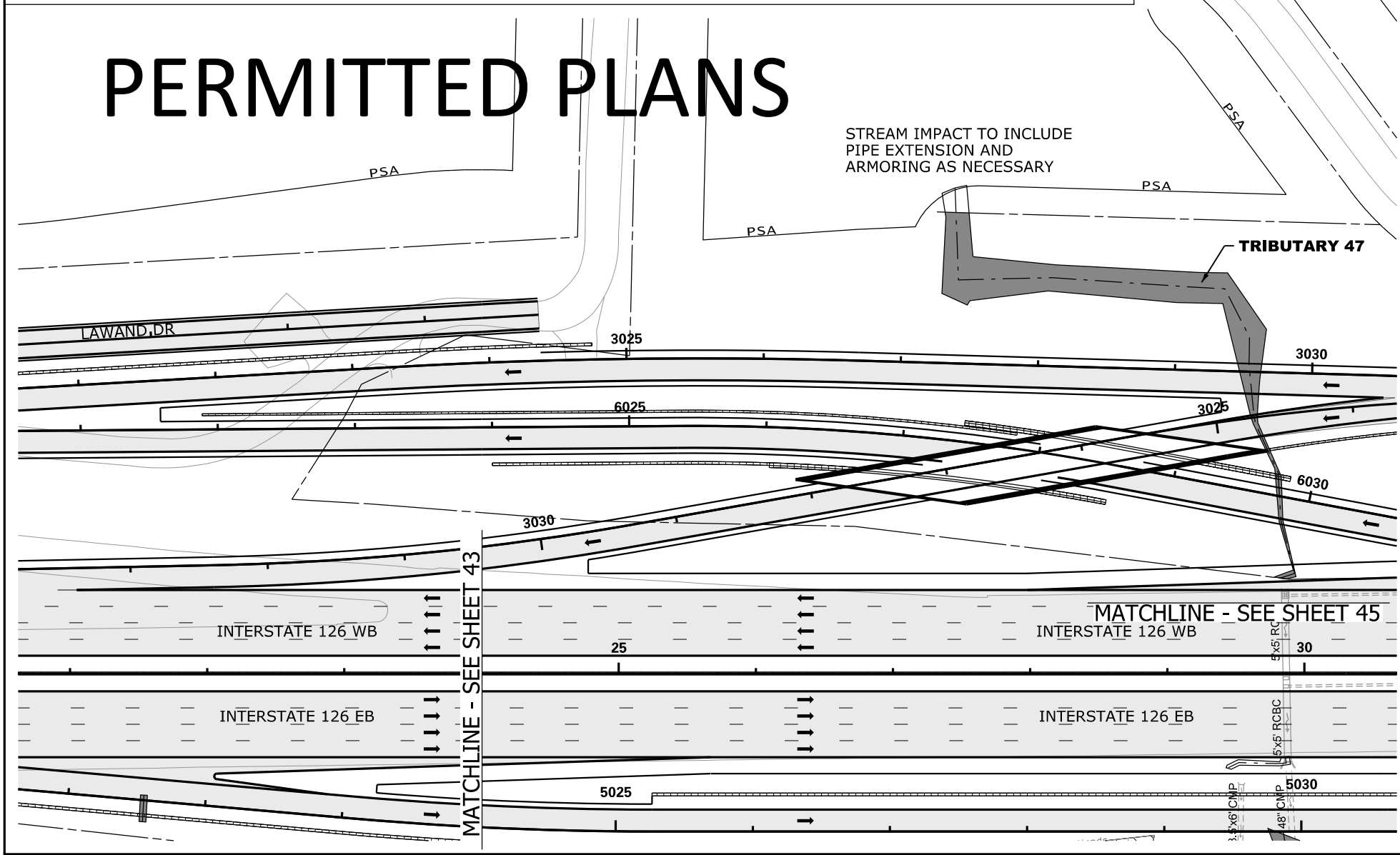
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 472 LF (7,474 SF) (0.18 AC)
TRIB 47 = 472 LF (7.474 SF) (0.18 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

N

0 100
GRAPHIC SCALE

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

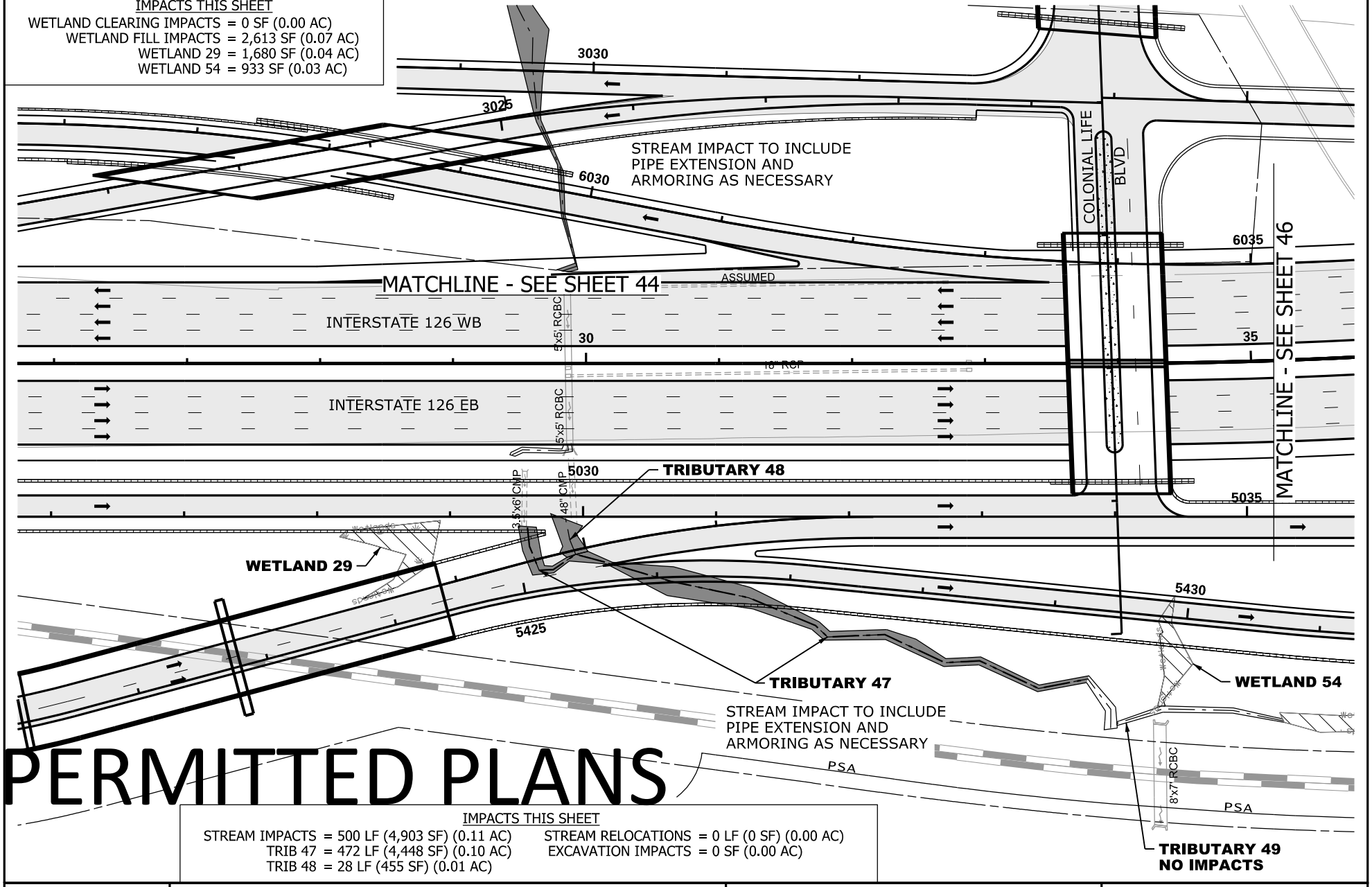
SCDOT
South Carolina Department of Transportation

TRIBUTARY 47

SHEET 44 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:18:16 PM
FILE:CCR_Permit-Dwg_44.dgn

IMPACTS THIS SHEET
WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 2,613 SF (0.07 AC)
WETLAND 29 = 1,680 SF (0.04 AC)
WETLAND 54 = 933 SF (0.03 AC)




# PERMITTED PLANS

IMPACTS THIS SHEET
STREAM IMPACTS = 500 LF (4,903 SF) (0.11 AC)
TRIB 47 = 472 LF (4,448 SF) (0.10 AC)
TRIB 48 = 28 LF (455 SF) (0.01 AC)
STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 47
WETLAND 29 & 54



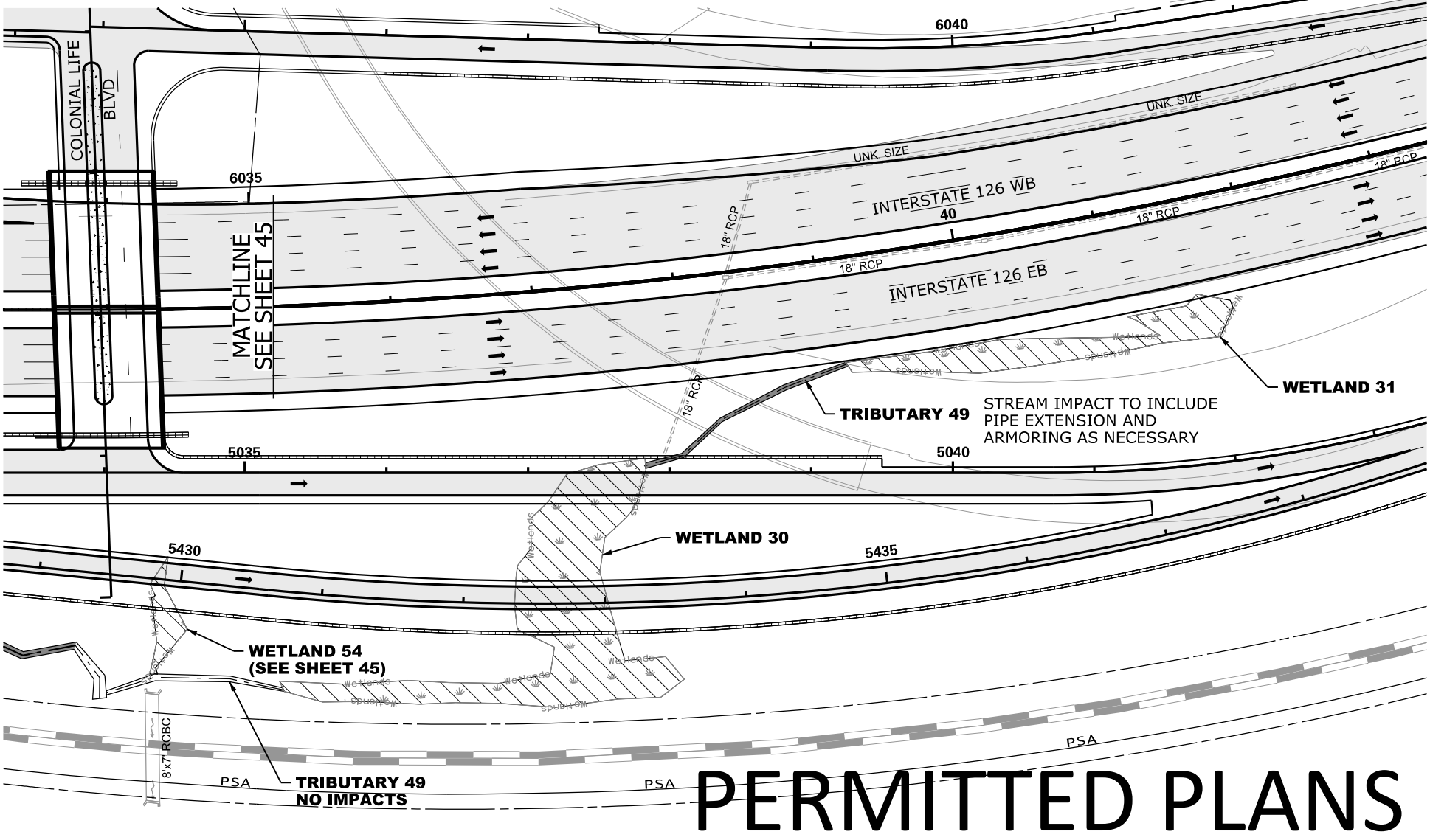
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:18:26 PM
FILE: CCR_Permit-Dwg_45.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 18,026 SF (0.42 AC)
WETLAND 30 = 13,400 SF (0.31 AC)
WETLAND 31 = 4,626 SF (0.11 AC)

STREAM IMPACTS = 162 LF (549 SF) (0.01 AC)
TRIB 49 = 162 LF (549 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 49
WETLAND 30 & 31



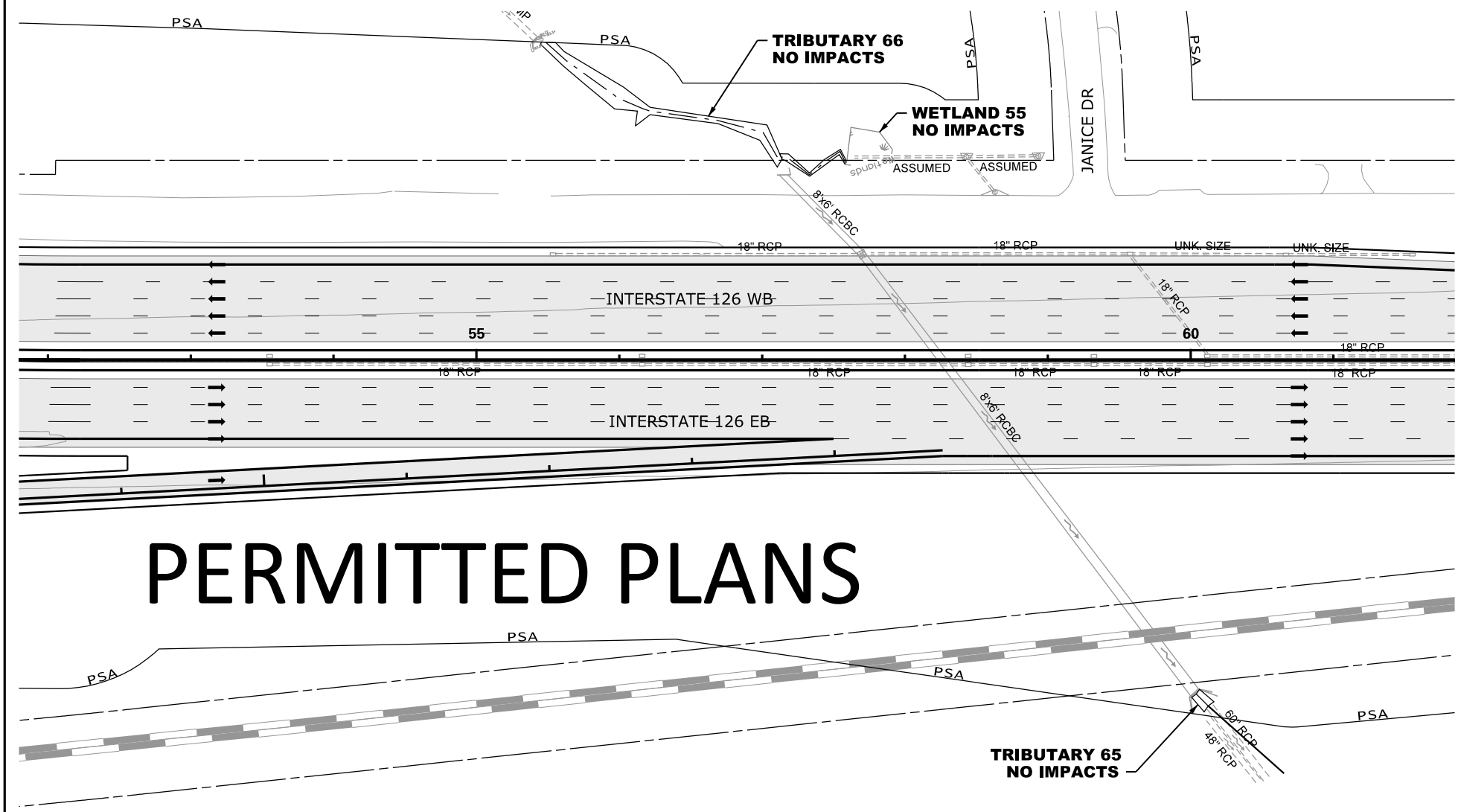
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:18:40 PM
FILE: CCR_Permit-Dwg_46.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)
WETLAND 55 = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)
TRIB 65 = 0 LF (0 SF) (0.00 AC)
TRIB 65 = 0 LF (0 SF) (0.00 AC)
TRIB 66 = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 65 & 66
WETLAND 55

SHEET 47 OF 78

PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:18:53 PM
FILE:CCR_Permit-Dwg_47.dgn

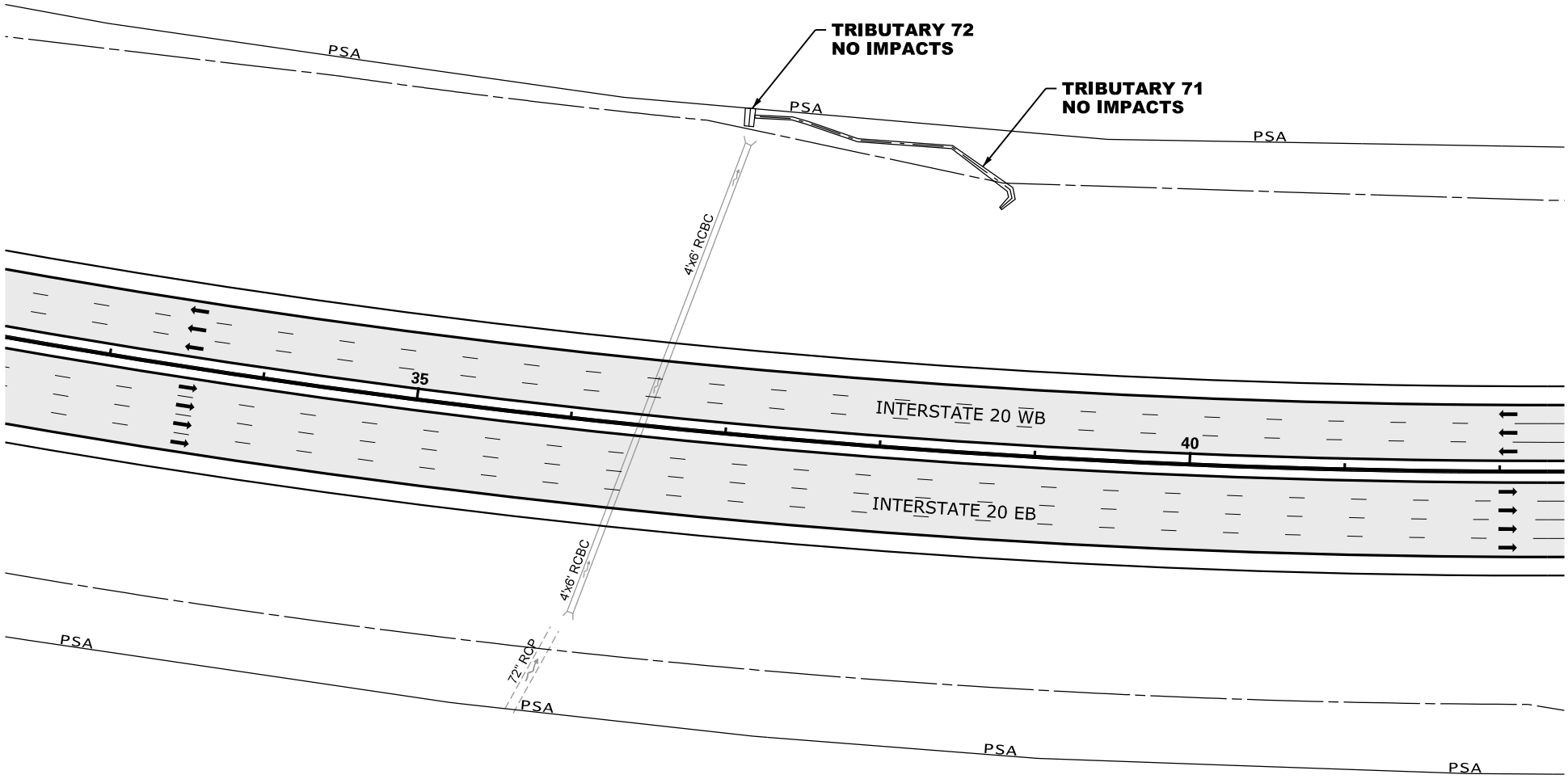
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 71

SHEET 48 OF 78

PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:19:04 PM
FILE: CCR_Permit-Dwg_48.dgn

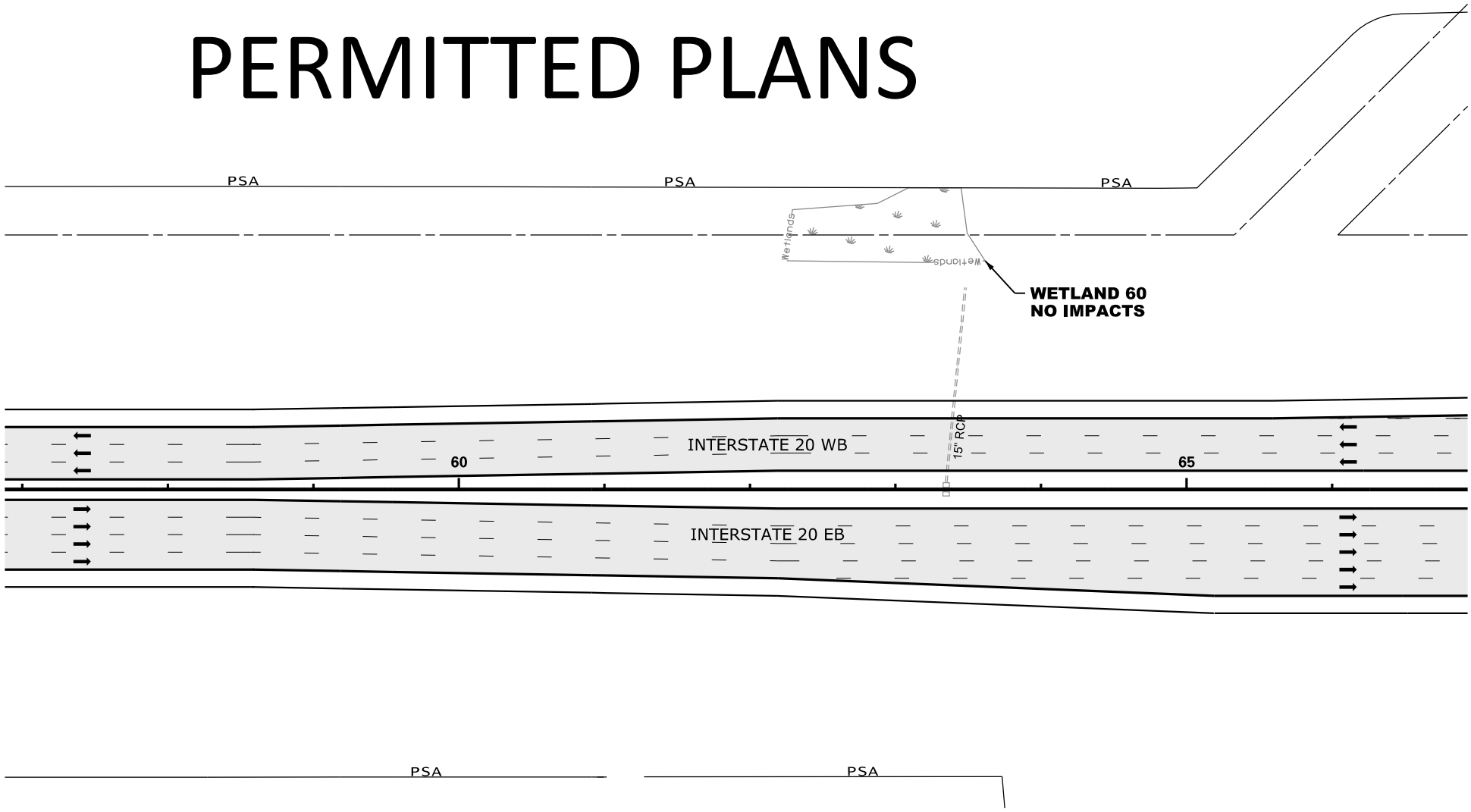
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS



0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 60



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:19:15 PM
FILE:CCR_Permit-Dwg_49.dgn

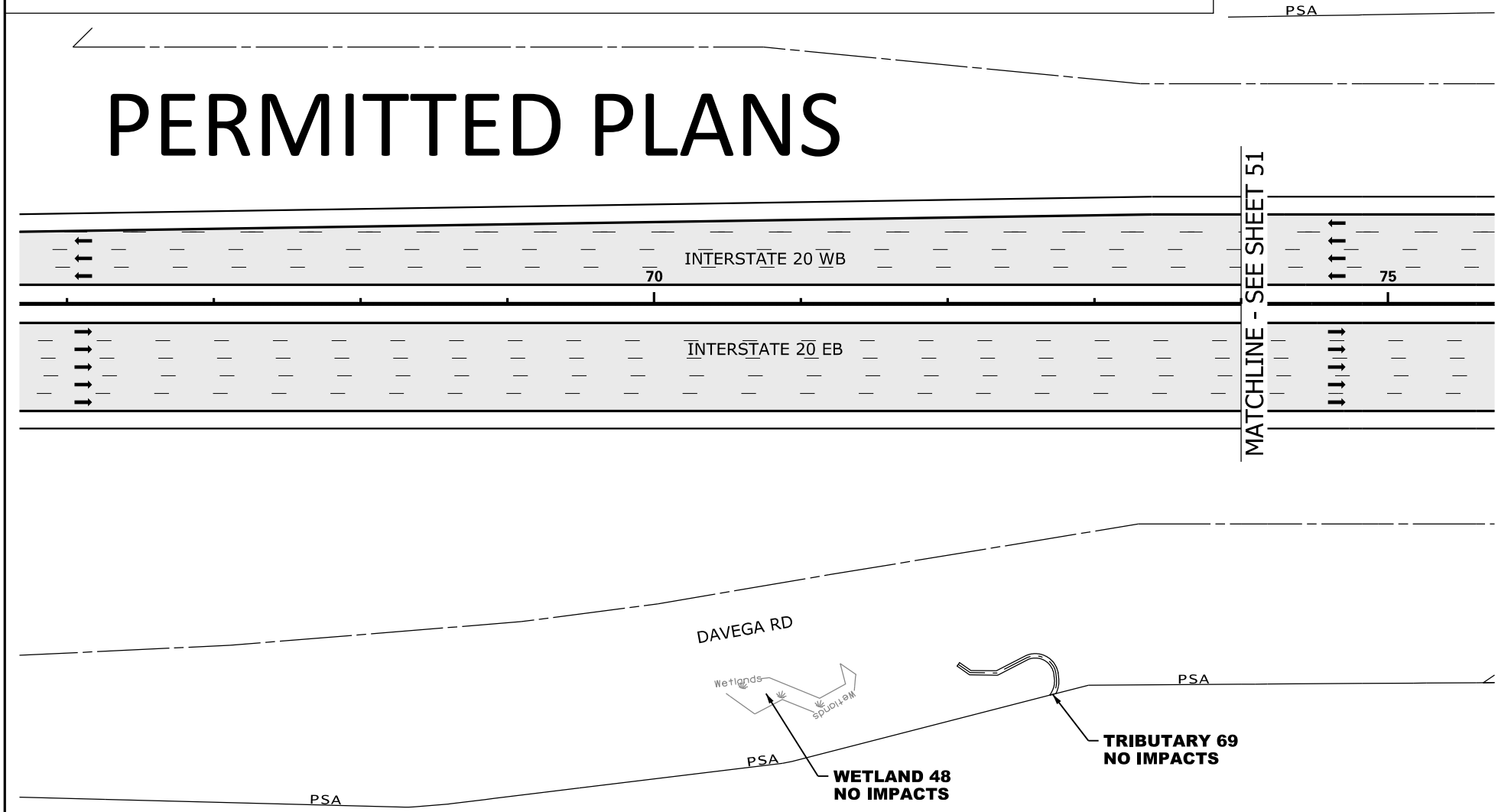
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 69
WETLAND 48

SHEET 50 OF 78

PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:19:28 PM
FILE: CCR_Permit-Dwg_50.dgn

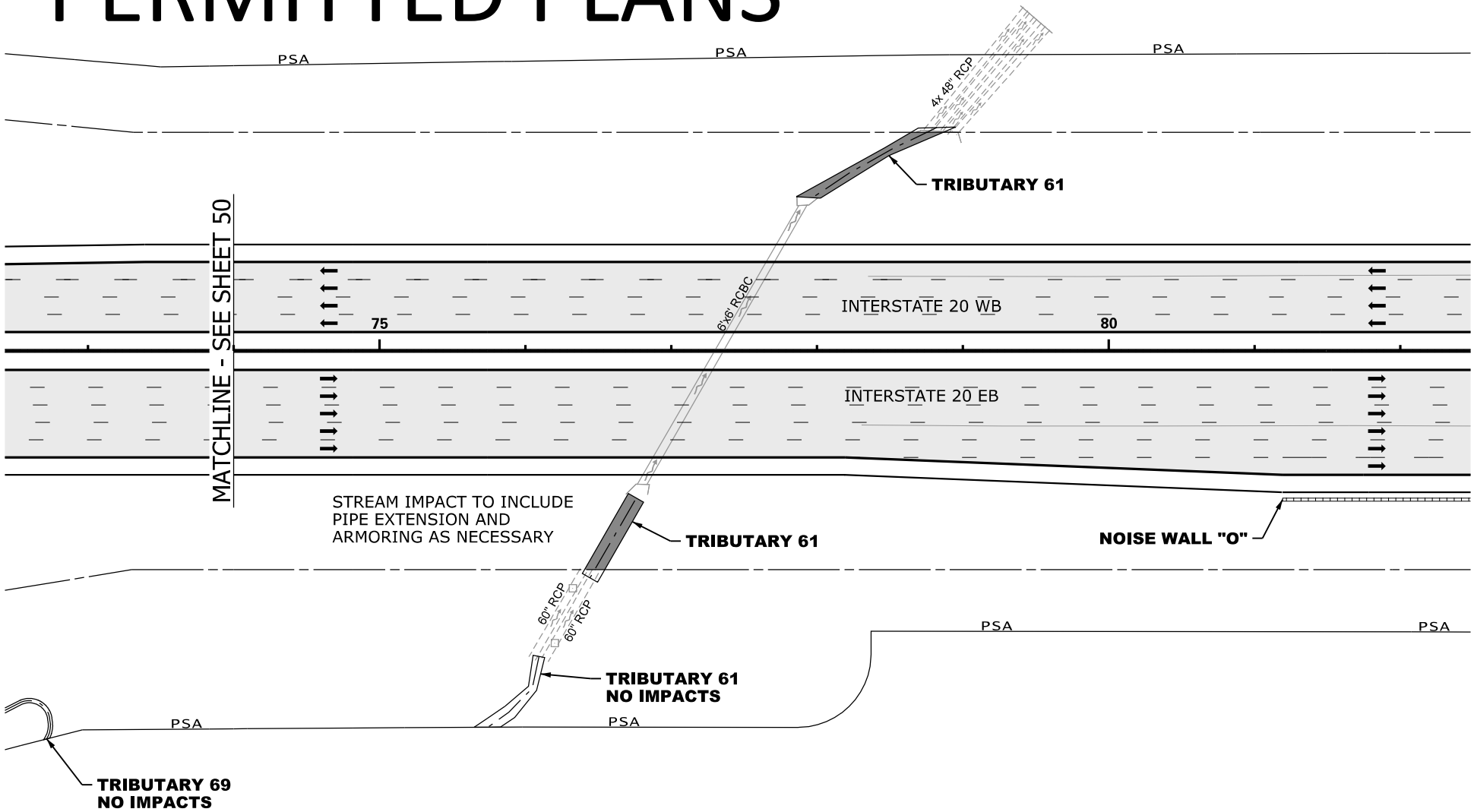
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 148 LF (1,394 SF) (0.04 AC)
TRIB 61 = 148 LF (1,394 SF) (0.04 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 61



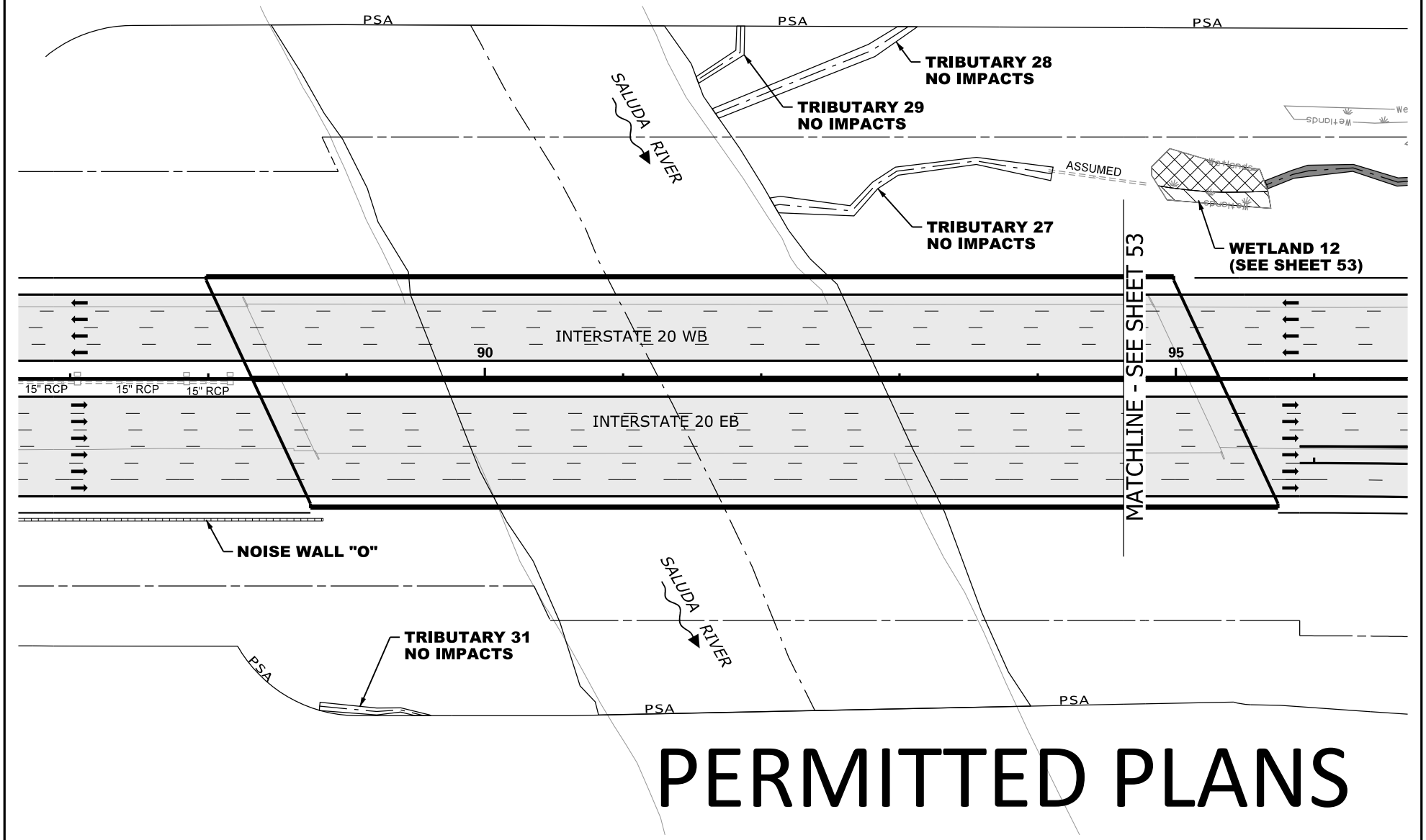
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:56:48 PM
FILE: CCR_Permit-Dwg.51.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)
TRIB 27 = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 27

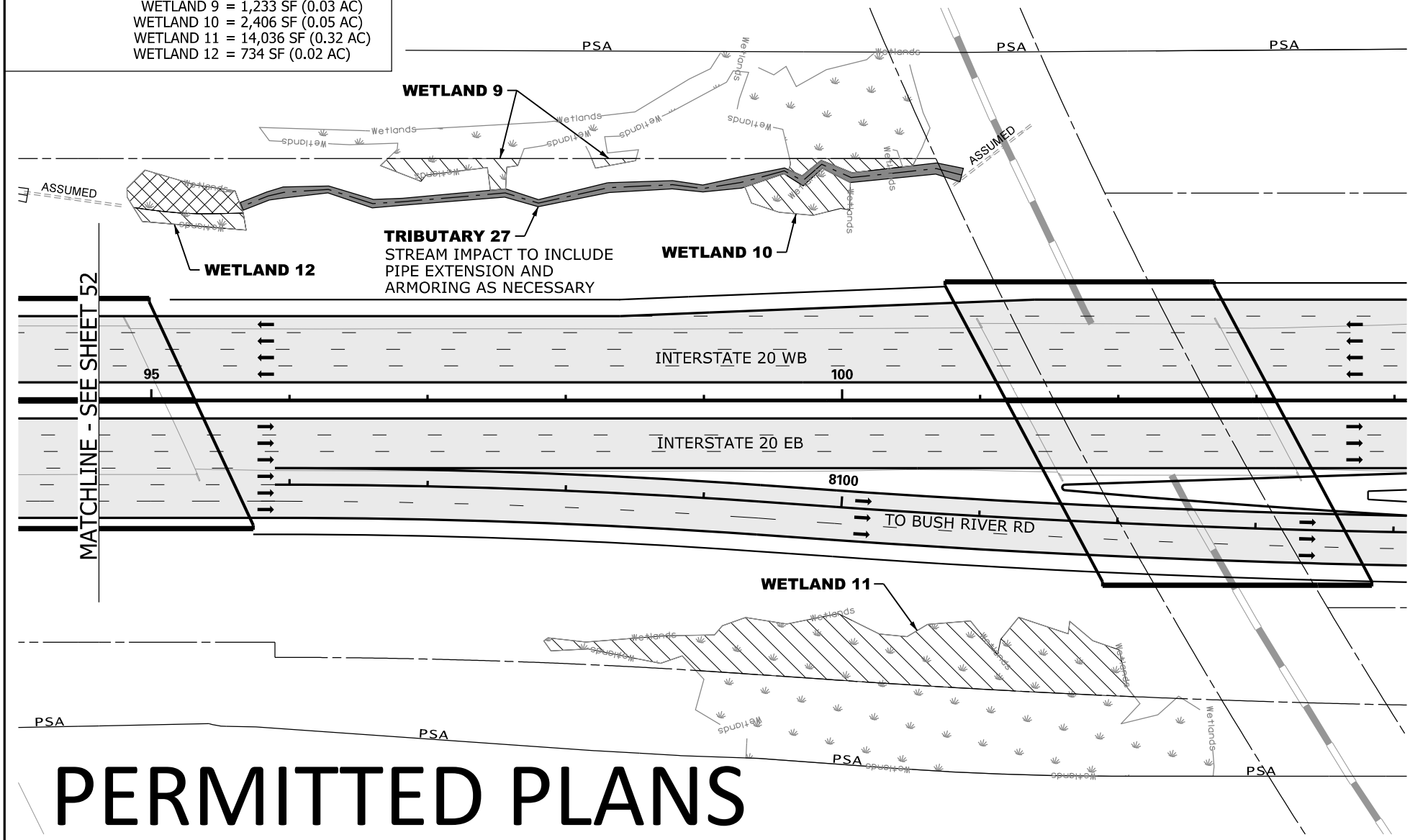
SHEET 52 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:19:47 PM
FILE:CCR_Permit-Dwg_52.dgn

WETLAND CLEARING IMPACTS = 1,744 SF (0.04 AC)
WETLAND 12 = 1,744 SF (0.04 AC)

WETLAND FILL IMPACTS = 18,409 SF (0.42 AC)
WETLAND 9 = 1,233 SF (0.03 AC)
WETLAND 10 = 2,406 SF (0.05 AC)
WETLAND 11 = 14,036 SF (0.32 AC)
WETLAND 12 = 734 SF (0.02 AC)

IMPACTS THIS SHEET
STREAM IMPACTS = 539 LF (3,331 SF) (0.08 AC)
TRIB 27 = 539 LF (3,331 SF) (0.08 AC)
STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 27
WETLAND 9, 10 & 11

SHEET 53 OF 78

PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:49:58 PM
FILE:CCR_Permit-Dwg_53.dgn

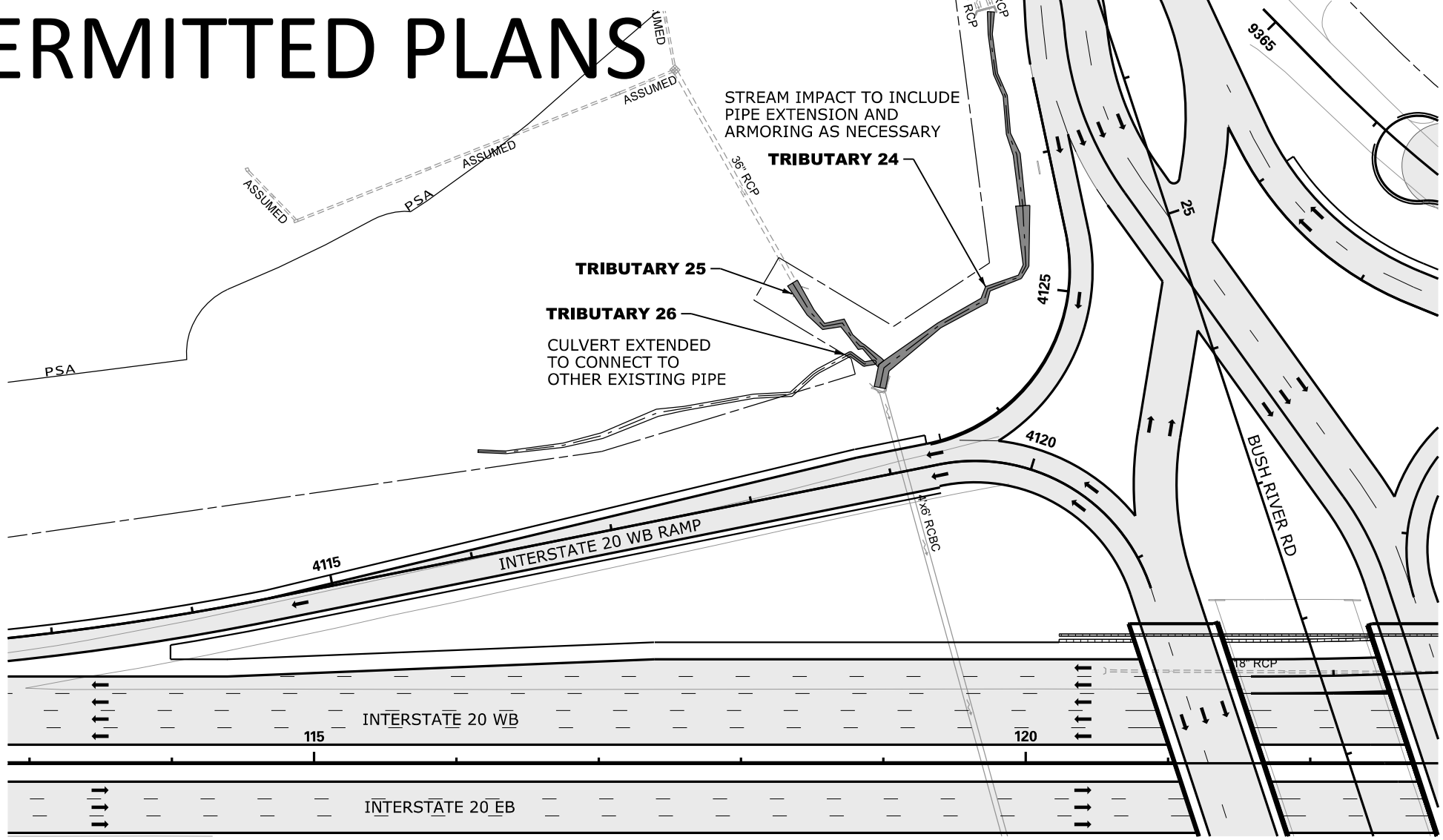
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 444 LF (2,063 SF) (0.06 AC)
TRIB 24 = 323 LF (1,529 SF) (0.04 AC)
TRIB 25 = 95 LF (468 SF) (0.01 AC)
TRIB 26 = 26 LF (66 SF) (0.01 AC)

# PERMITTED PLANS




N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 24, 25 & 26

SHEET 54 OF 78

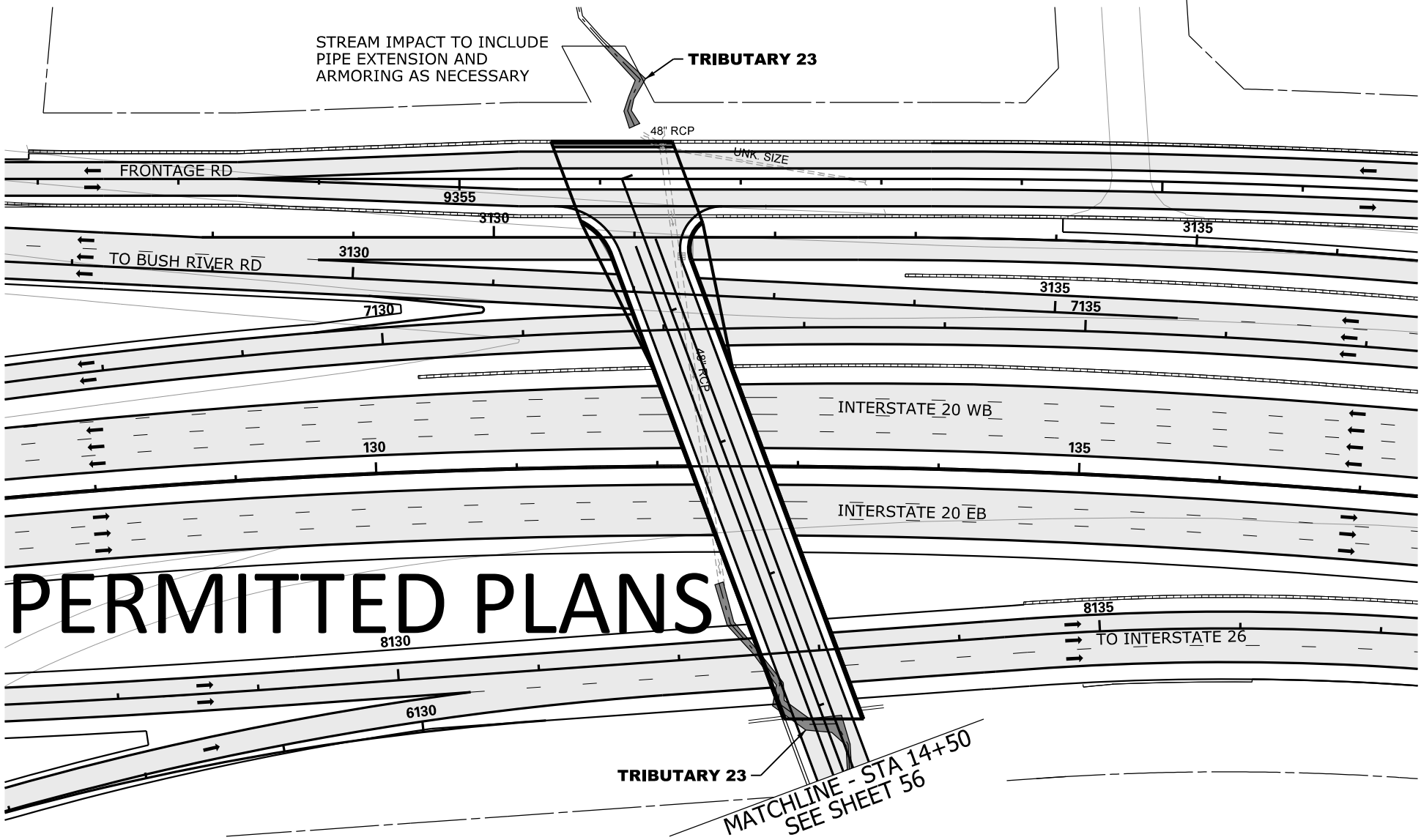
PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:20:04 PM
FILE: CCR_Permit-Dwg_54.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 250 LF (1,445 SF) (0.04 AC)
TRIB 23-1 = 70 LF (350 SF) (0.01 AC)
TRIB 23-2 = 180 LF (1,095 SF) (0.03 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 23



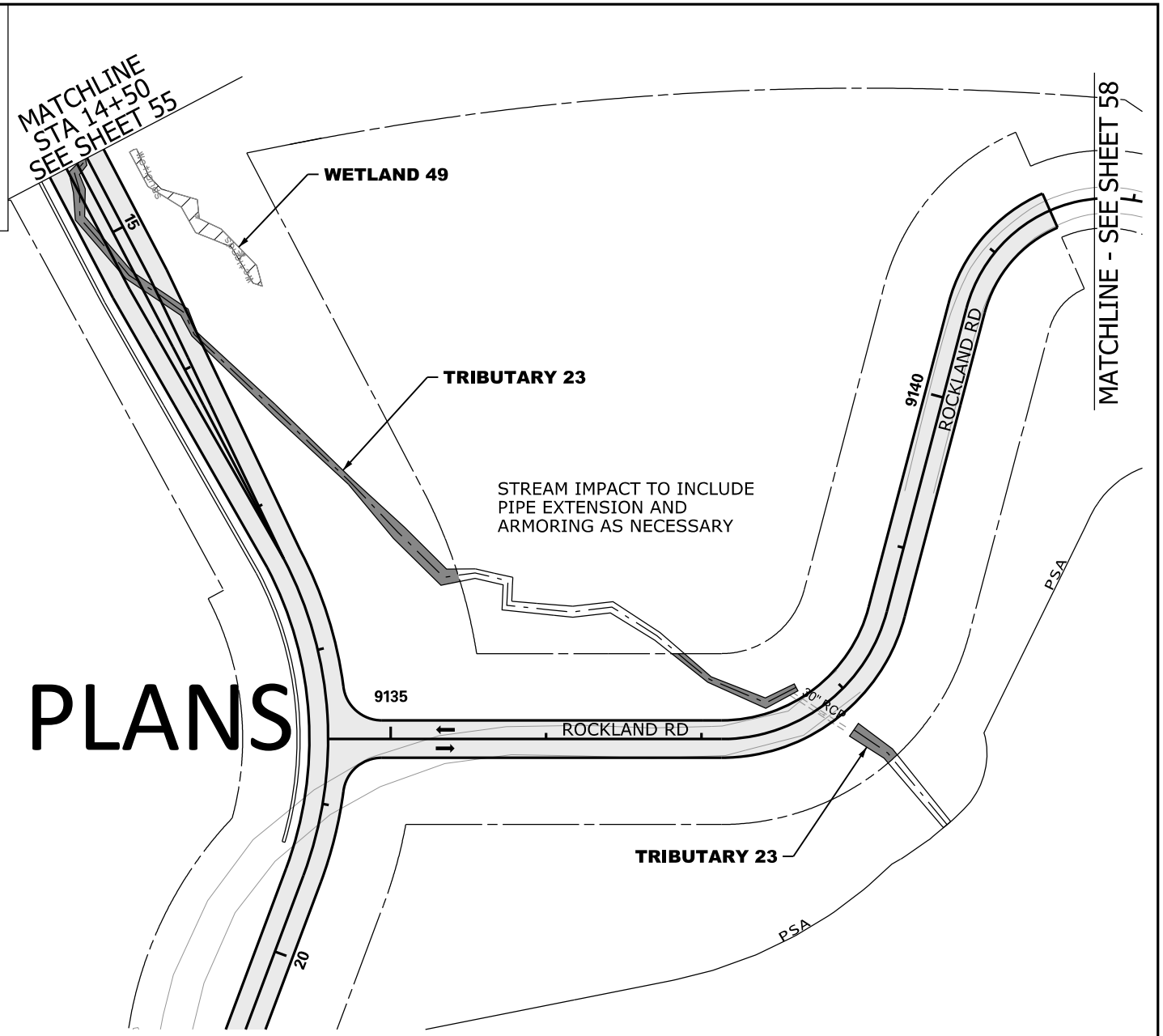
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:20:16 PM
FILE: CCR_Permit-Dwg_55.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 755 SF (0.01 AC)
WETLAND 49 = 755 SF (0.01 AC)

STREAM IMPACTS = 501 LF (2,365 SF) (0.08 AC)
TRIB 23 = 381 LF (3,038 SF) (0.06 AC)
TRIB 23 = 88 LF (438 SF) (0.01 AC)
TRIB 23 = 32 LF (277 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 49
TRIBUTARY 23

SHEET 56 OF 78

PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:20:27 PM
FILE: CCR_Permit-Dwg_56.dgn

IMPACTS THIS SHEET
WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS

TRIBUTARY 21

STREAM IMPACT TO INCLUDE CULVERT EXTENSION AND ARMORING AS NECESSARY

TRIBUTARY 34

18" RCP

42" RCP

9340

3145

36" RCP

36" RCP

9345

3140

10'x7' RCBC

10'x7' RCBC

10'x7' RCBC

7145

7140

INTERSTATE 20 WB RAMP

15" RCP

15" RCP

15" RCP

INTERSTATE 20 WB

145

140

24" RCP

10'x7' RCBC

10'x7' RCBC

10'x7' RCBC

INTERSTATE 20 EB

MATCHLINE - SEE SHEET 58

TRIBUTARY 32 (SEE SHEET 58)

8140

TRIBUTARY 33 (SEE SHEET 58)

5145

TRIBUTARY 21 (SEE SHEET 58)

IMPACTS THIS SHEET

STREAM IMPACTS = 551 LF (5,892 SF) (0.14 AC)
TRIB 21 = 169 LF (4,011 SF) (0.09 AC)
TRIB 34 = 382 LF (1,881 SF) (0.05 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

N

0 100

GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 21 & 34

SHEET 57 OF 78

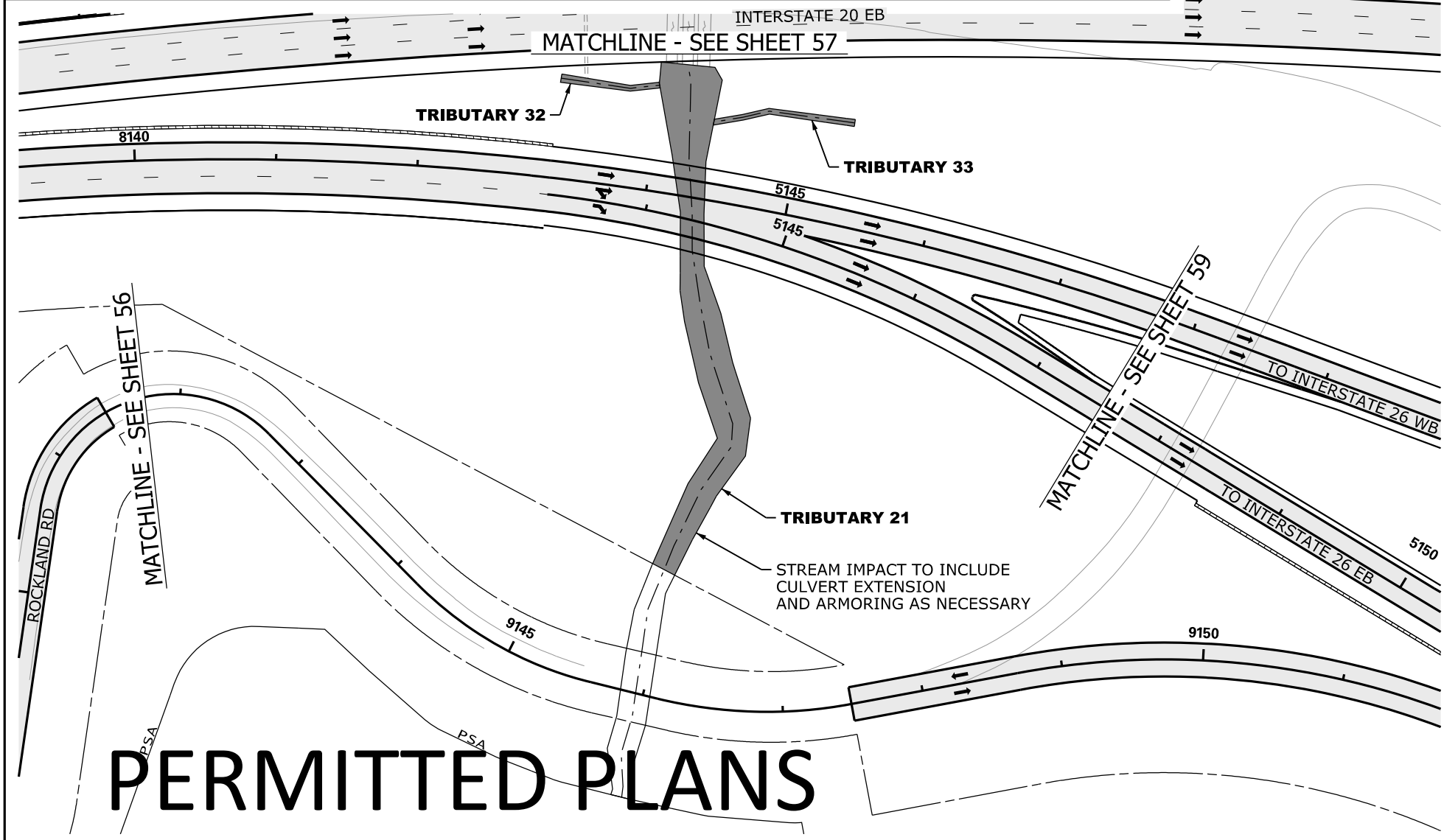
PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:20:37 PM
FILE: CCR_Permit-Dwg_57.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 546 LF (9,857 SF) (0.23 AC)
TRIB 21 = 374 LF (9,091 SF) (0.21 AC)
TRIB 32 = 71 LF (331 SF) (0.01 AC)
TRIB 33 = 101 LF (435 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY
21, 32 & 33



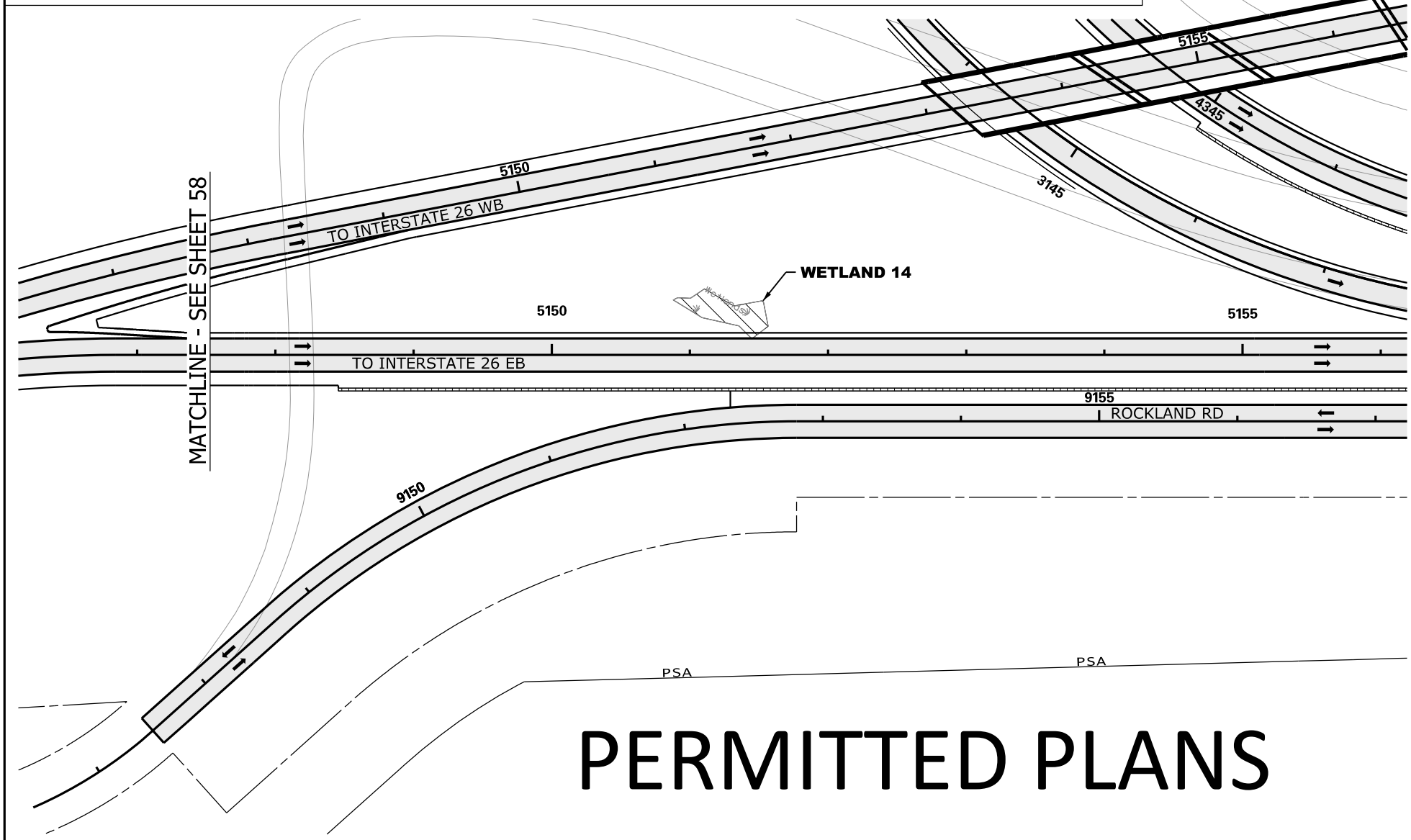
PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 22:04:47 PM
FILE: CCR_Permit-Dwg_58.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 1,071 SF (0.01 AC)
WETLAND 14 = 1,071 SF (0.01 AC)

STREAM IMPACTS = 0 LF ( SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 14

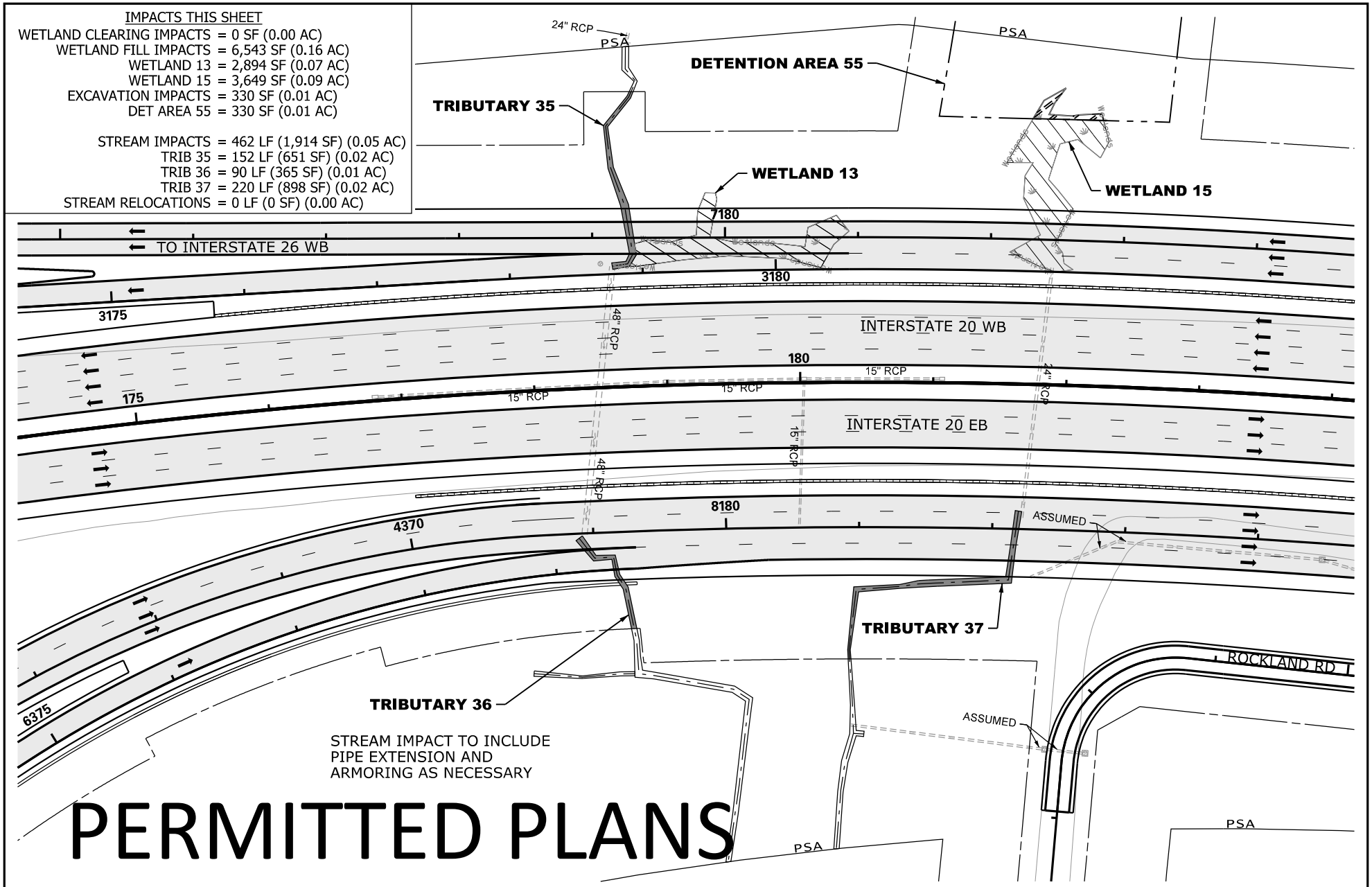


PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:20:56 PM
FILE:CCR_Permit-Dwg_59.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 6,543 SF (0.16 AC)
WETLAND 13 = 2,894 SF (0.07 AC)
WETLAND 15 = 3,649 SF (0.09 AC)
EXCAVATION IMPACTS = 330 SF (0.01 AC)
DET AREA 55 = 330 SF (0.01 AC)

STREAM IMPACTS = 462 LF (1,914 SF) (0.05 AC)
TRIB 35 = 152 LF (651 SF) (0.02 AC)
TRIB 36 = 90 LF (365 SF) (0.01 AC)
TRIB 37 = 220 LF (898 SF) (0.02 AC)
STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)




# PERMITTED PLANS

N

0 100
GRAPHIC SCALE

## LEGEND

EXCAVATION IMPACT
WETLAND
PROPOSED PAVEMENT
IMPACTED STREAM
PERMANENT FILL IMPACT
CLEARING IMPACT
RELOCATED DITCH
PERMIT BOUNDARY
PROJECT STUDY AREA PSA
PROP MEDIAN BARRIER WALL
EXISTING ROAD
EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 35, 36 & 37
WETLAND 13 & 15

SHEET 60 OF 78

PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 22:05 PM
FILE: CCR_Permit-Dwg.60.dgn

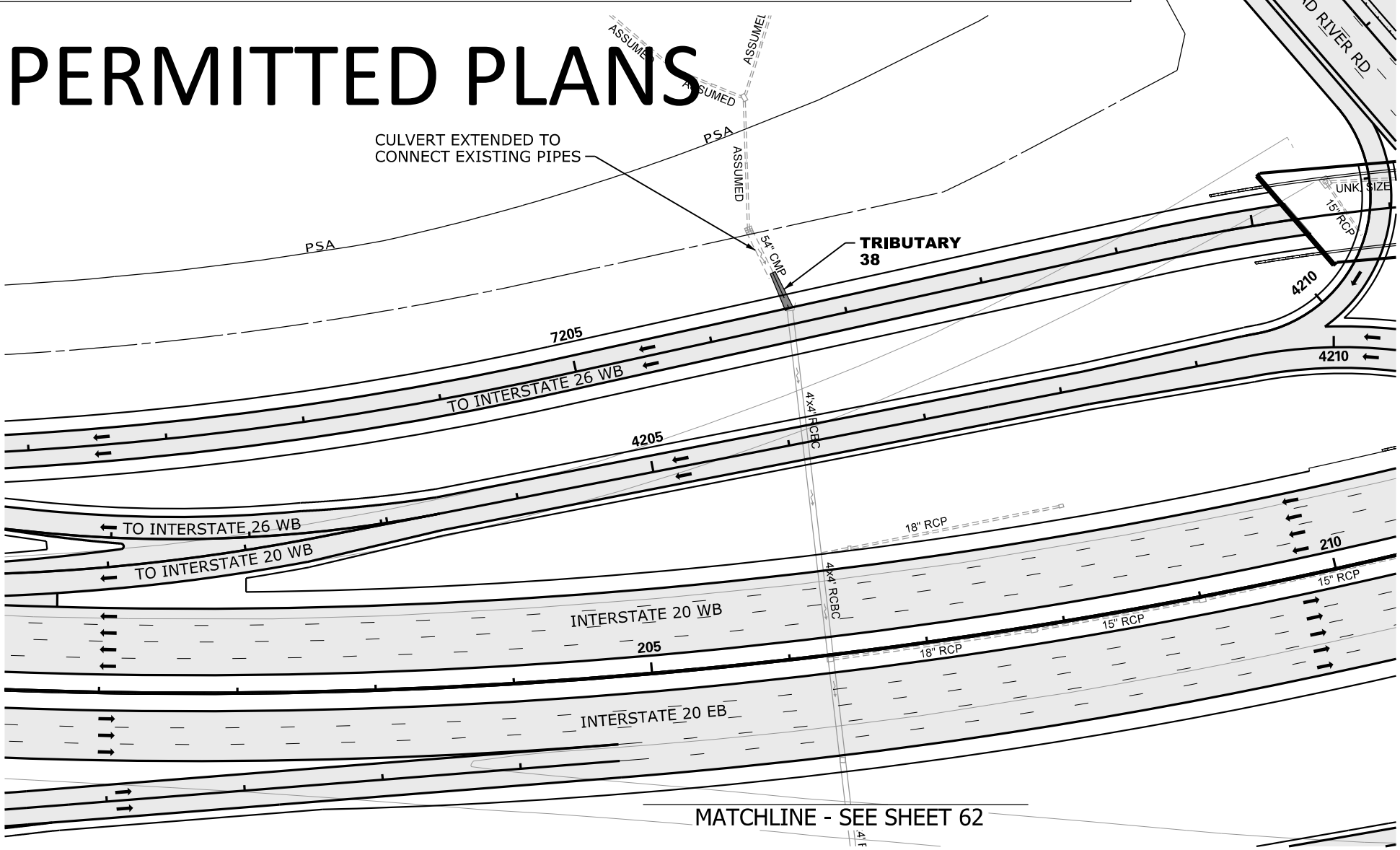
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 29 LF (143 SF) (0.01 AC)
TRIB 38 = 29 LF (143 SF) (0.01 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 38



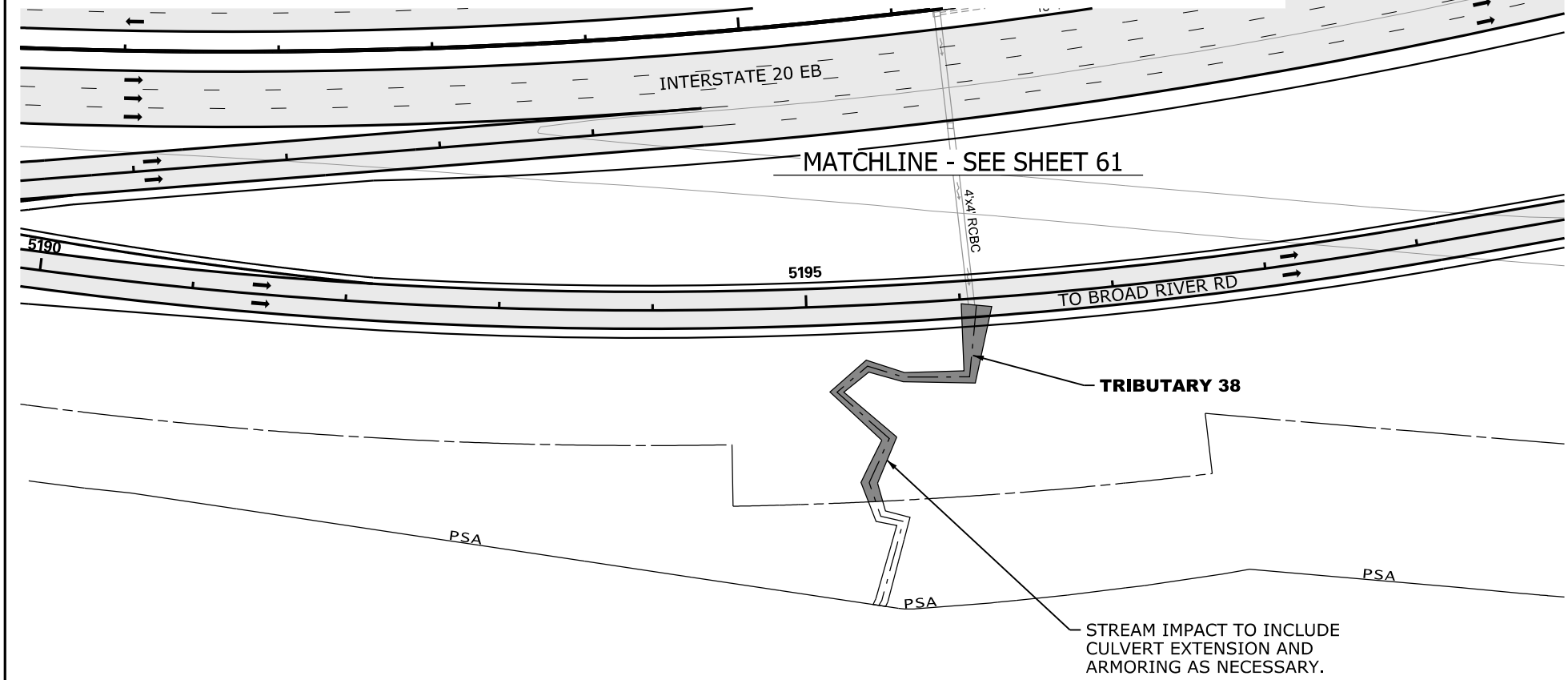
PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:26:16 PM
FILE:CCR_Permit-Dwg.61.dgn

IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 231 LF (2,012 SF) (0.05 AC)
TRIB 38 = 231 LF (2,012 SF) (0.05 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 38



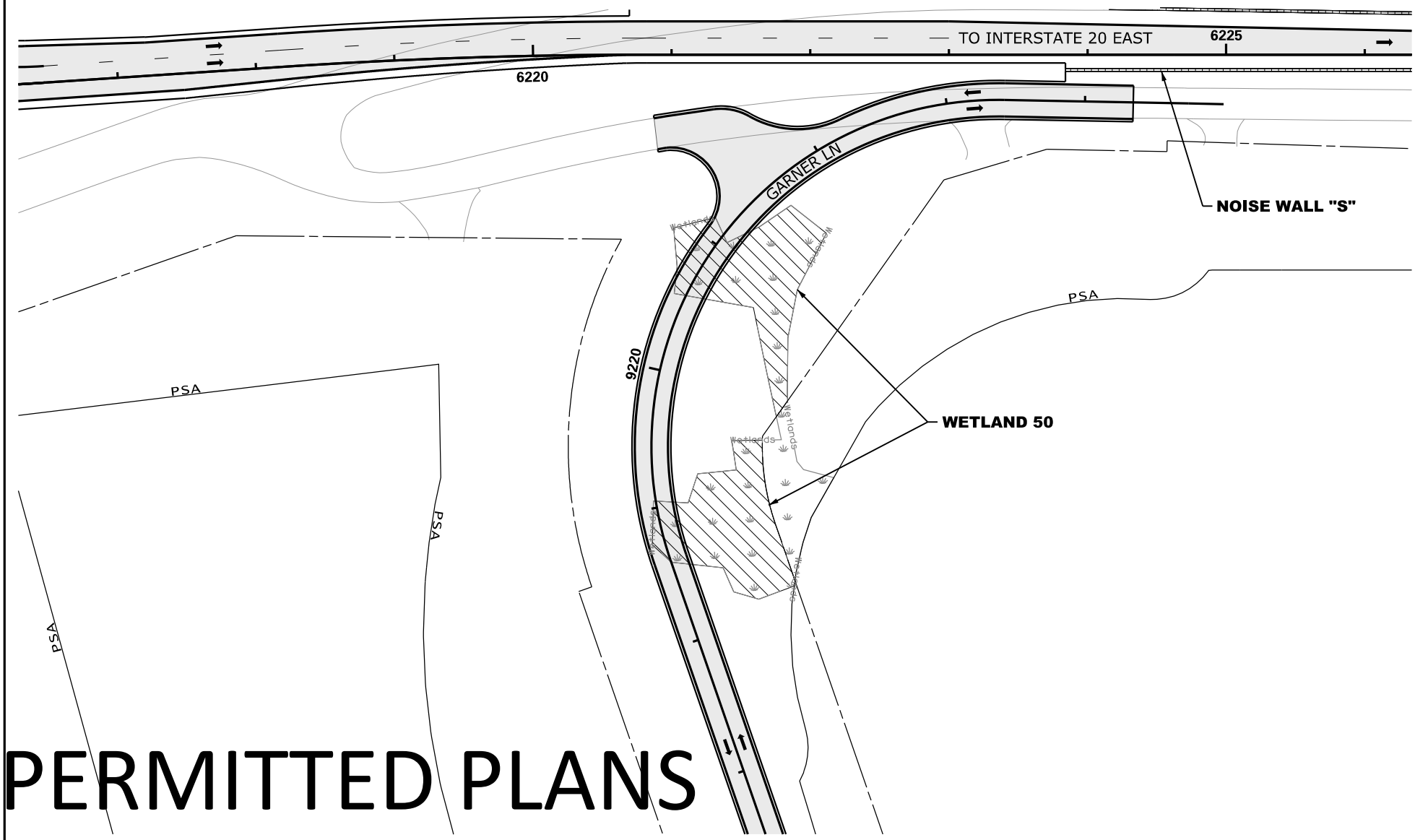
PLOT DRIVER: CCR_LETTER_PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:26:25 PM
FILE: CCR_Permit-Dwg.62.dgn

IMPACTS THIS SHEET

WETLAND FILL IMPACTS = 13,511 SF (0.31 AC)
WETLAND 50 = 13,511 SF (0.31 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




# PERMITTED PLANS

N

0 100

GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

WETLAND 50

SHEET 63 OF 78

PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:26:34 PM
FILE: CCR_Permit-Dwg.63.dgn

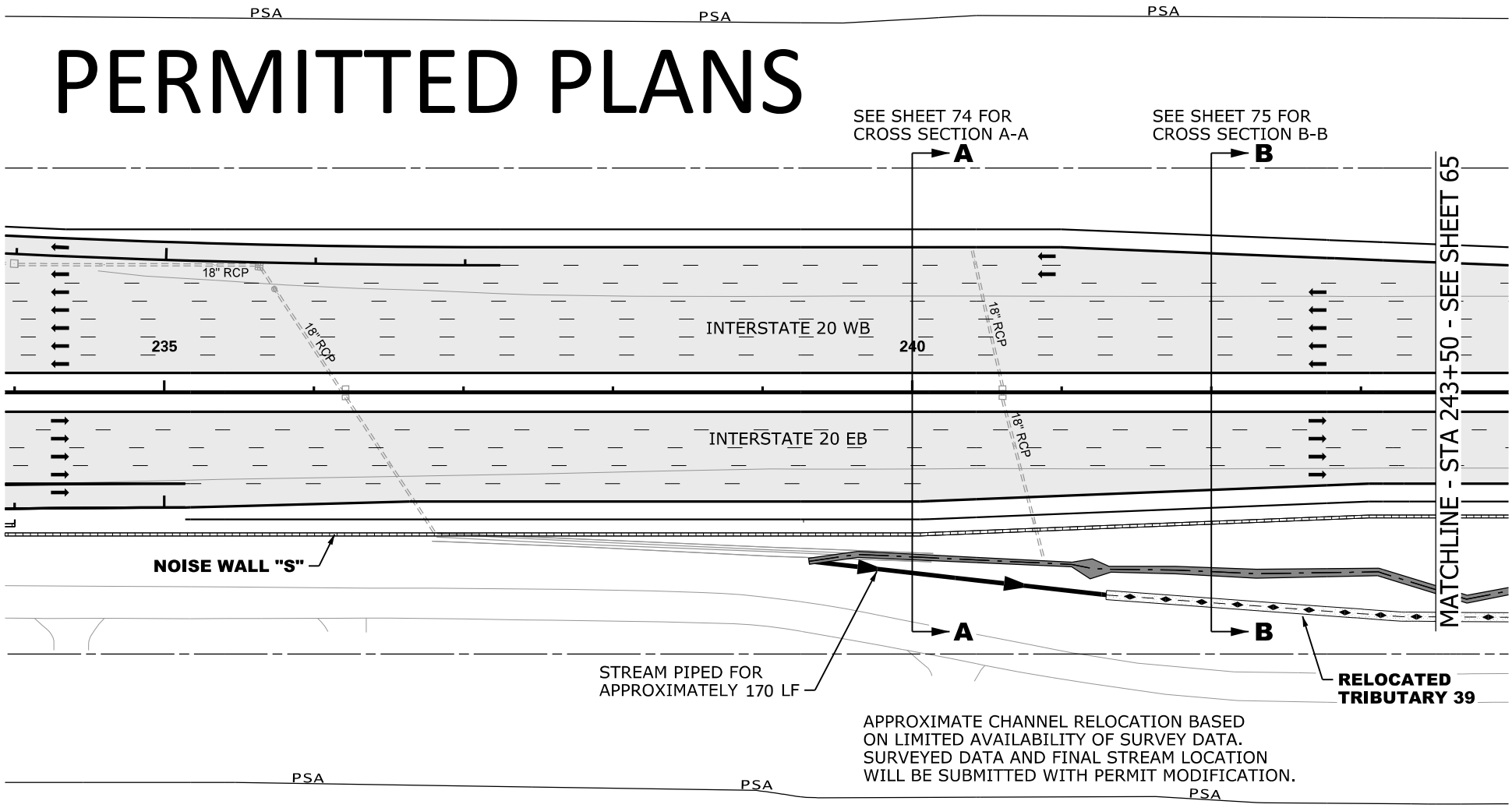
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 170 LF ( 850 SF) (0.02 AC)
TRIB 39 = 170 LF ( 850 SF) (0.02 AC)

STREAM RELOCATIONS = 220 LF (1,348 SF) (0.03 AC)
TRIB 39 = 220 LF (1,348 SF) (0.03 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- CHANNEL RELOCATION
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
REVISED AUGUST 27, 2020

SCDOT
South Carolina Department of Transportation

TRIBUTARY 39
STREAM RELOCATION



PLOT DRIVER: CCR_LETTER.PDF.pltcfg PENTABLE: HDR_Permit-Dwg.tbl
USER: CWOLFE DATE: 11/5/2019 TIME: 2:28:44 PM
FILE: CCR_Permit-Dwg.64.dgn

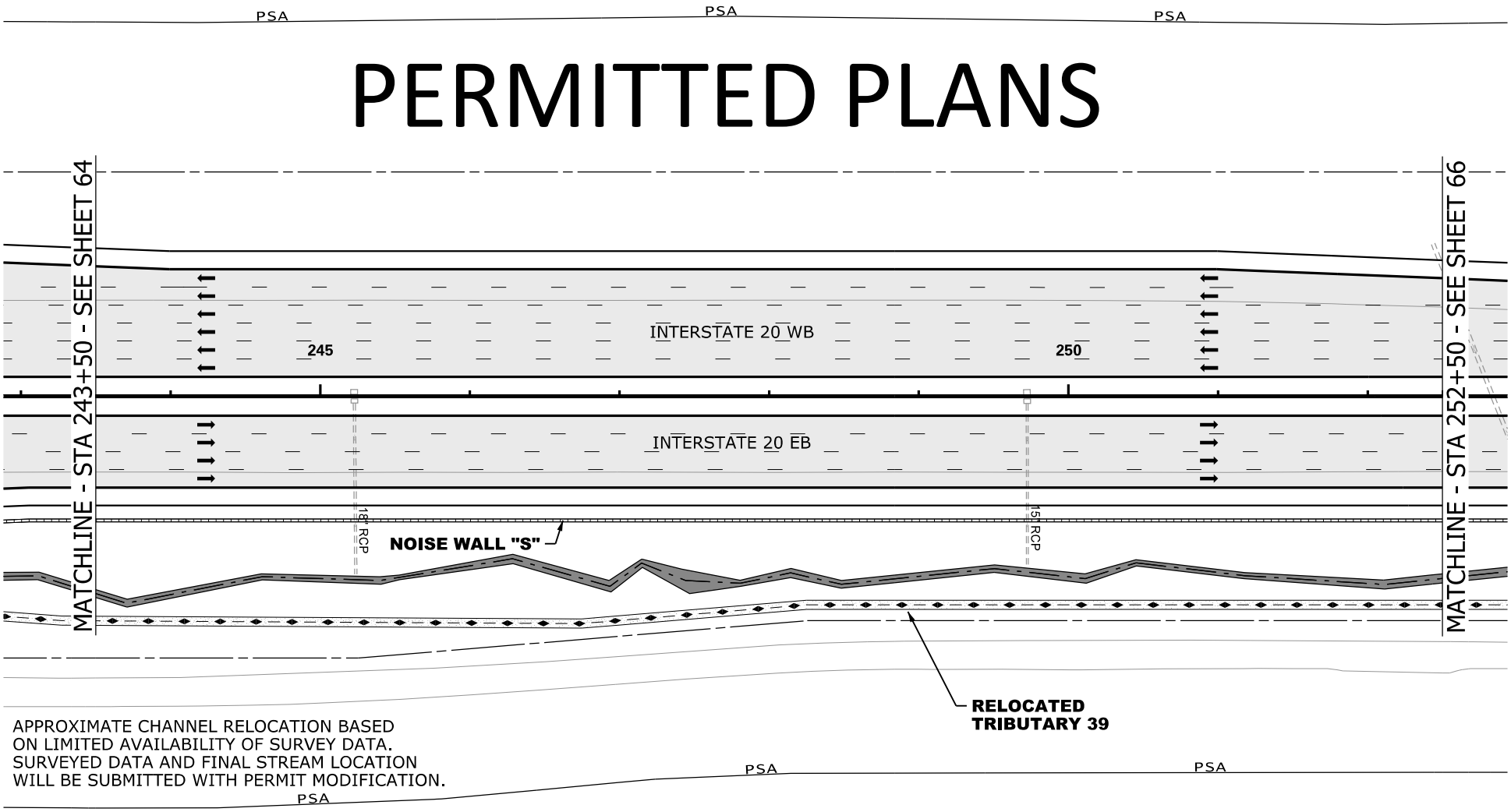
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 900 LF (5,105 SF) (0.12 AC)
TRIB 39 = 900 LF (5,105 SF) (0.12 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- CHANNEL RELOCATION
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 39
STREAM RELOCATION

SHEET 65 OF 78

PLOT DRIVER:CCR_LETTER.PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:21:54 PM
FILE:CCR_Permit-Dwg.65.dgn

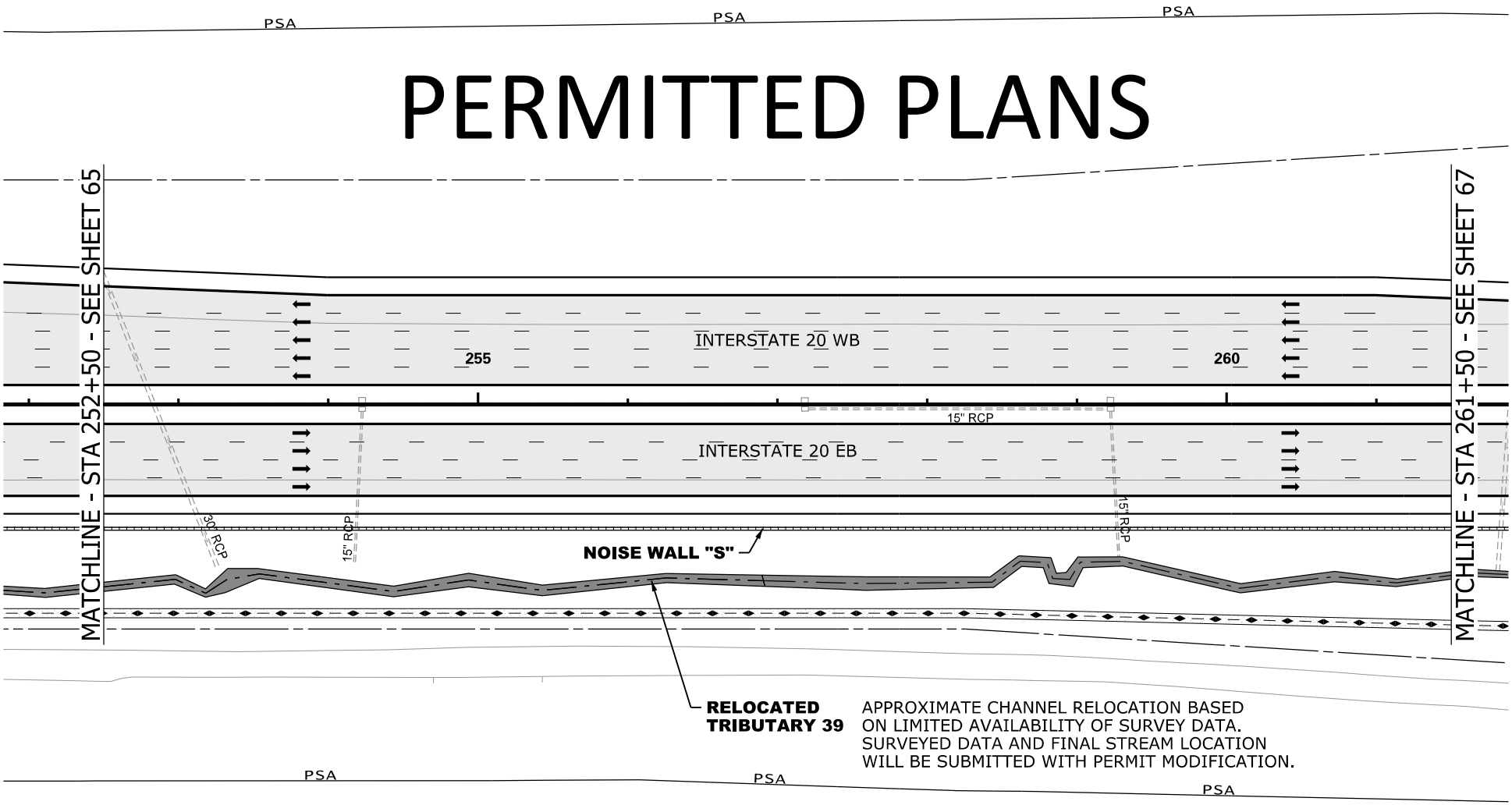
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 900 LF (5,105 SF) (0.12 AC)
TRIB 39 = 900 LF (5,105 SF) (0.12 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- CHANNEL RELOCATION
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 39
STREAM RELOCATION



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:22:04 PM
FILE:CCR_Permit-Dwg.66.dgn

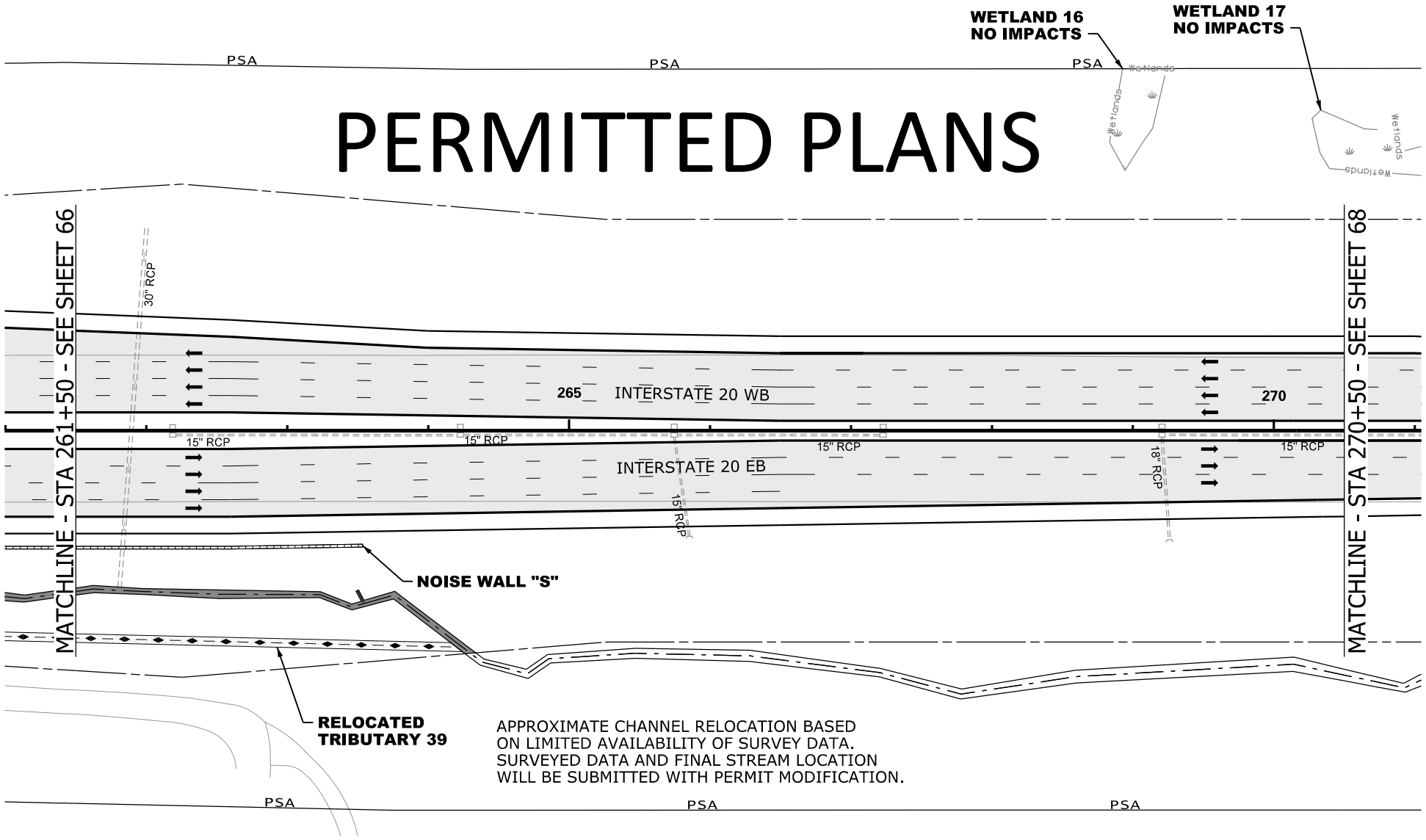
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 0 SF (0.00 AC)
WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 275 LF (1,685 SF) (0.04 AC)
TRIB 39 = 275 LF (1,685 SF) (0.04 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)

# PERMITTED PLANS




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- CHANNEL RELOCATION
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

TRIBUTARY 39
STREAM RELOCATION

SHEET 67 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:22:13 PM
FILE:CCR_Permit-Dwg.67.dgn

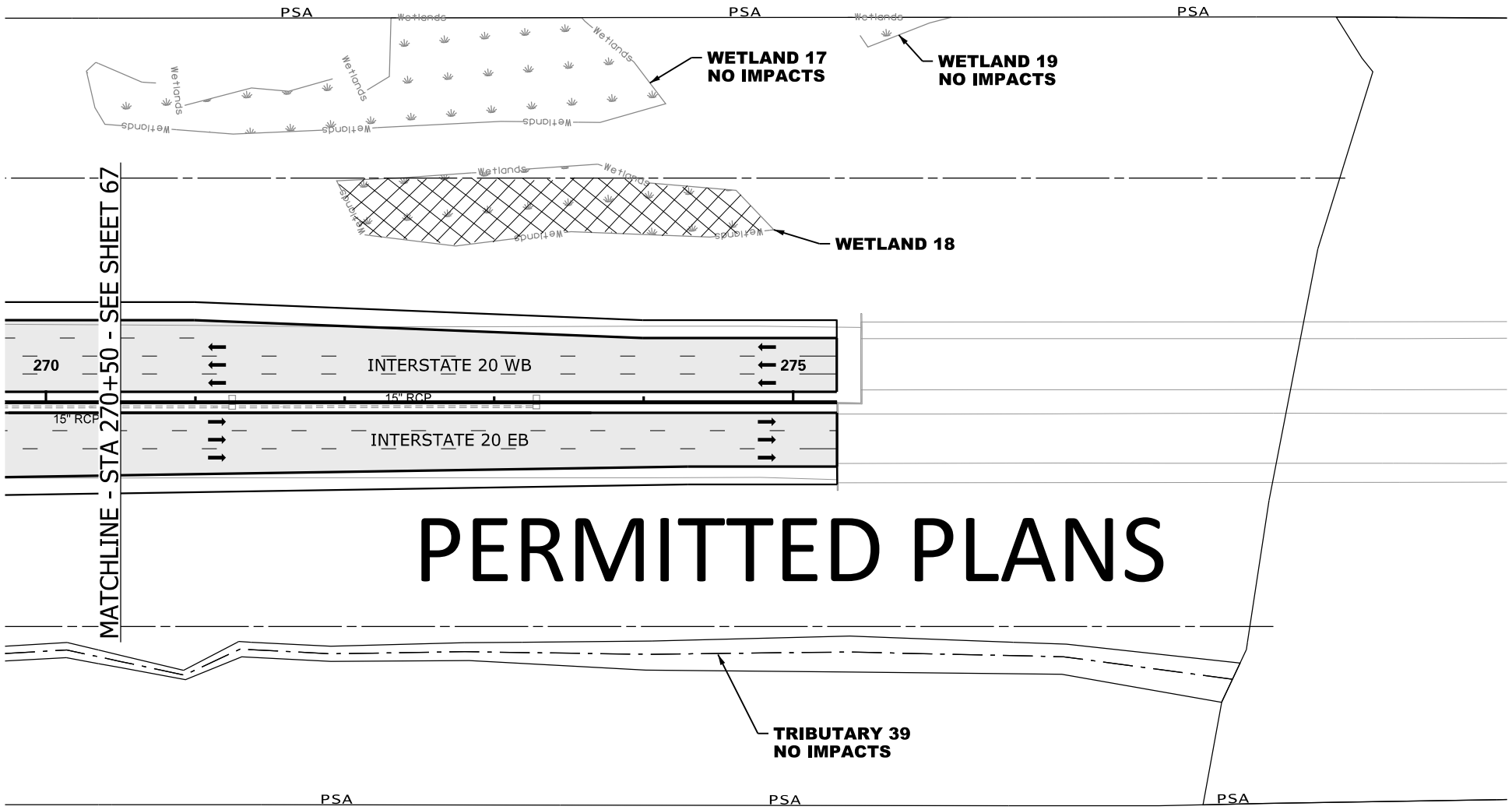
IMPACTS THIS SHEET

WETLAND CLEARING IMPACTS = 10,454 SF (0.24 AC)
WETLAND 18 = 10,454 SF (0.24 AC)

WETLAND FILL IMPACTS = 0 SF (0.00 AC)

STREAM IMPACTS = 0 LF (0 SF) (0.00 AC)

STREAM RELOCATIONS = 0 LF (0 SF) (0.00 AC)
EXCAVATION IMPACTS = 0 SF (0.00 AC)




N

0 100
GRAPHIC SCALE

## LEGEND

- EXCAVATION IMPACT
- WETLAND
- PROPOSED PAVEMENT
- IMPACTED STREAM
- PERMANENT FILL IMPACT
- CLEARING IMPACT
- RELOCATED DITCH
- PERMIT BOUNDARY
- PROJECT STUDY AREA PSA
- PROP MEDIAN BARRIER WALL
- EXISTING ROAD
- EXISTING RAILROAD

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
REVISED AUGUST 27, 2020

SCDOT
South Carolina Department of Transportation

TRIB 39 STREAM RELOC
WETLAND 18

SHEET 68 OF 78

PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/5/2019 TIME:2:22:23 PM
FILE:CCR_Permit-Dwg.68.dgn

# PERMITTED PLANS

Table 2: Impact Summary

| Feature | Delineated Area | | Permitted Impacts | | | Sheet Number |
|---|---|---|---|---|---|---|
| | Linear Feet | Acre | Linear Feet | Acre | | |
| | | | | Fill | Clear | |
| Tributary 59 | 77 | 0.006 | - | - | - | 5 |
| Tributary 60 aka Moccasin Branch | 195 | 0.030 | 94 | - | - | 6 |
| Tributary 2 | 273 | 0.029 | 166 | - | - | 7 |
| Wetland 56 | - | 0.004 | - | - | - | 7 |
| Wetland 57 | - | 0.075 | - | - | 0.02 | 7 |
| Wetland 40 | - | 0.240 | - | - | - | 9 |
| Tributary 3 | 440 | 0.046 | 198 | - | - | 10,11 |
| Wetland 1 | - | 0.045 | - | - | - | 10 |
| Tributary 5 | 157 | 0.022 | - | - | - | 12 |
| Wetland 3 | - | 0.014 | - | - | - | 12 |
| Tributary 6 | 22 | 0.003 | 22 | - | - | 13 |
| Tributary 7 | 970 | 0.130 | 283 | - | - | 14, 15 |
| Wetland 42 | - | 0.262 | - | - | - | 14 |
| Tributary 8 | 571 | 0.070 | 213 | - | - | 15 |
| Wetland 43 | - | 0.034 | - | - | - | 15 |
| Tributary 9 | 188 | 0.014 | 72 | - | - | 16 |
| Wetland 44 | - | 0.040 | - | 0.04 | - | 17 |
| Wetland 58 | - | 0.043 | - | - | - | 17 |
| Tributary 10 | 186 | 0.028 | - | - | - | 18 |
| Tributary 11 | 1,755 | 0.308 | - | - | - | 19,20 |
| Tributary 12 | 10 | 0.001 | 460 | - | - | 19 |
| Wetland 4 | - | 0.020 | | - | 0.01 | 19 |
| Wetland 45 | - | 0.018 | - | - | - | 19 |
| Tributary 13 | 14 | 0.001 | - | - | - | 20 |
| Wetland 5 | - | 0.092 | - | - | 0.04 | 20 |

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
JULY 15, 2020

SCDOT
South Carolina Department of Transportation

IMPACT SUMMARY



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:JWHITESIDE DATE:8/27/2020 TIME:3:59:47 PM
FILE:CCR_Permit-Dwg.69.dgn

| Feature | Delineated Area | | Permitted Impacts | | | Sheet Number |
|---|---|---|---|---|---|---|
| | Linear Feet | Acre | Linear Feet | Acre | | |
| | | | | Fill | Clear | |
| Tributary 14 | 195 | 0.035 | 49 | - | - | 21 |
| Tributary 15 | 164 | 0.015 | 93 | | | 22 |
| Wetland 46 | - | 0.051 | - | - | - | 22 |
| Wetland 6 | - | 0.051 | - | - | 0.05 | 23 |
| Tributary 16 | 99 | 0.007 | 87 | - | - | 24 |
| Wetland 7 | - | 0.134 | - | 0.08 | - | 25 |
| Wetland 47 | - | 0.070 | - | 0.01 | - | 25 |
| Tributary 17 | 25 | 0.003 | 26 | - | - | 25 |
| Wetland 8 | - | 0.330 | - | 0.15 | - | 26 |
| Tributary 18 | 485 | 0.084 | 438 | - | - | 27 |
| Tributary 19 | 166 | 0.017 | 142 | - | - | 27 |
| Tributary 20 | 101 | 0.015 | 55 | - | - | 28 |
| Tributary 21, aka Stoop Creek | 1,281 | 0.594 | 760 | - | - | 29,30,57,58 |
| Tributary 22 | 143 | 0.031 | 128 | - | - | 31 |
| Tributary 41 | 517 | 0.107 | 337 | - | - | 32,33 |
| Tributary 42 | 874 | 0.071 | 822 | - | - | 32, 33, 34 |
| Wetland 51 | - | 0.017 | - | - | - | 33 |
| Tributary 43 | 2,244 | 1.135 | 325 | - | - | 34,35,36 |
| Wetland 20 | - | 0.046 | - | 0.05 | - | 34 |
| Wetland 21 | - | 0.189 | - | 0.05 | 0.16 | 35 |
| Wetland 22 | - | 0.579 | - | 0.48 | 0.10 | 36 |
| Tributary 50 | 889 | 0.098 | 792 | - | - | 37 |
| Tributary 52 | 35 | 0.002 | 35 | - | - | 37 |
| Wetland 32 | - | 0.166 | - | - | - | 37 |
| Wetland 33 | - | 0.085 | - | 0.02 | - | 37 |
| Wetland 34 | - | 0.026 | - | 0.01 | 0.03 | 37 |

# PERMITTED PLANS

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
JULY 15, 2020

SCDOT
South Carolina Department of Transportation

IMPACT SUMMARY



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:JWHITESIDE DATE:8/27/2020 TIME:3:25:09 PM
FILE:CCR_Permit-Dwg_70.dgn

| Feature | Delineated Area | | Permitted Impacts | | | Sheet Number |
|---|---|---|---|---|---|---|
| | Linear Feet | Acre | Linear Feet | Acre | | |
| | | | | Fill | Clear | |
| Tributary 53, aka Senn Branch | 933 | 0.279 | 187 | - | - | 38,39 |
| Tributary 57 | 187 | 0.027 | - | - | - | 38,39 |
| Wetland 35 | - | 0.470 | - | - | | 38 |
| Tributary 54 | 46 | 0.004 | 55 | - | - | 39 |
| Tributary 55 | 70 | 0.005 | 70 | - | - | 39 |
| Tributary 56 | 20 | 0.001 | 20 | - | - | 39 |
| Wetland 36 | - | 0.168 | - | 0.01 | - | 39 |
| Wetland 38 | - | 0.474 | - | - | 0.08 | 39 |
| Wetland 23 | - | 2.483 | - | 0.09 | 0.63 | 40 |
| Wetland 24 | - | 0.148 | - | - | - | 40 |
| Wetland 25 | - | 1.537 | - | 0.24 | 0.09 | 41 |
| Wetland 26 | - | 0.200 | - | - | 0.10 | 41 |
| Tributary 44 | 229 | 0.021 | 123 | - | - | 41 |
| Tributary 45 | 934 | 0.088 | 115 | - | - | 42,43 |
| Wetland 28 | - | 0.181 | -- | 0.06 | - | 42 |
| Tributary 46 | 322 | 0.026 | 45 | - | - | 43 |
| Wetland 27 | - | 0.470 | - | 0.07 | 0.07 | 43 |
| Wetland 52 | - | 0.037 | - | - | - | 43 |
| Wetland 53 | - | 2.483 | - | - | - | 43 |
| Tributary 47 | 1,052 | 0.292 | 944 | - | - | 44,45 |
| Tributary 48 | 29 | 0.010 | 28 | - | - | |
| Wetland 29 | - | 0.039 | - | 0.04 | - | 45 |
| Wetland 54 | - | 0.021 | - | 0.03 | - | 45 |
| Tributary 49 | 298 | 0.024 | 162 | - | - | 46 |
| Wetland 30 | - | 0.311 | - | 0.31 | - | 46 |
| Wetland 31 | - | 0.106 | - | 0.11 | - | 46 |

# PERMITTED PLANS

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
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APPLICATION BY SCDOT
JULY 15, 2020

SCDOT
South Carolina Department of Transportation

IMPACT SUMMARY



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:JWHITESIDE DATE:8/27/2020 TIME:3:27:12 PM
FILE:CCR_Permit-Dwg_71.dgn

| Feature | Delineated Area | | Permitted Impacts | | | Sheet Number |
|---|---|---|---|---|---|---|
| | Linear Feet | Acre | Linear Feet | Acre | | |
| | | | | Fill | Clear | |
| Tributary 65 | 205 | 0.041 | - | - | - | 47 |
| Tributary 66 | 60 | 0.004 | - | - | - | 47 |
| Wetland 55 | - | 0.015 | - | - | - | 47 |
| Tributary 71 | 191 | 0.01 | - | - | - | 48 |
| Tributary 72 | 11 | 0.002 | - | - | - | 48 |
| Wetland 60 | - | 0.123 | - | - | - | 49 |
| Wetland 48 | - | 0.029 | - | - | - | 50 |
| Tributary 69 | 19 | 0.003 | - | - | - | 50 |
| Tributary 61 | 124 | 0.029 | 148 | - | - | 51 |
| Tributary 27 | 752 | 0.112 | 539 | - | - | 52,53 |
| Tributary 28 | 153 | 0.032 | - | - | - | 52 |
| Tributary 29 | 56 | 0.007 | - | - | - | 52 |
| Tributary 30 aka Saluda River | 555 | 3.471 | - | - | - | 52 |
| Tributary 31 | 76 | 0.008 | - | - | - | 52 |
| Wetland 9 | - | 0.358 | - | 0.03 | - | 53 |
| Wetland 10 | | 0.05 | - | 0.05 | - | 53 |
| Wetland 11 | - | 0.800 | - | 0.32 | - | 53 |
| Wetland 12 | - | 0.057 | - | 0.02 | 0.04 | 53 |
| Tributary 24 | 323 | 0.035 | 323 | - | - | 54 |
| Tributary 25 | 94 | 0.011 | 95 | - | - | 54 |
| Tributary 26 | 295 | 0.022 | 26 | - | - | 54 |
| Tributary 23 | 1,031 | 0.141 | 751 | - | - | 55,56 |
| Wetland 49 | - | 0.017 | - | 0.01 | - | 56 |
| Tributary 34 | 382 | 0.043 | 382 | - | - | 57 |
| Tributary 32 | 70 | 0.008 | 71 | - | - | 58 |

# PERMITTED PLANS

CAROLINA CROSSROADS
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LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
JULY 15, 2020

SCDOT
South Carolina Department of Transportation

IMPACT SUMMARY



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:JWHITESIDE DATE:8/27/2020 TIME:3:29:46 PM
FILE:CCR_Permit-Dwg_72.dgn

| Feature | Delineated Area | | Permitted Impacts | | | Sheet Number |
|---|---|---|---|---|---|---|
| | Linear Feet | Acre | Linear Feet | Acre | | |
| | | | | Fill | Clear | |
| Tributary 33 | 101 | 0.010 | 101 | - | - | 58 |
| Wetland 14 | - | 0.024 | - | 0.01 | - | 59 |
| Tributary 35 | 522 | 0.052 | 152 | - | - | 60 |
| Tributary 36 | 76 | 0.005 | 90 | - | - | 60 |
| Tributary 37 | 372 | 0.034 | 220 | - | - | 60 |
| Wetland 13 | - | 0.066 | - | 0.07 | - | 60 |
| Wetland 15 | - | 0.091 | - | 0.09 | - | 60 |
| Tributary 38 | 342 | 0.064 | 260 | - | - | 61,62 |
| Wetland 50 | - | 0.371 | - | 0.31 | - | 63 |
| Tributary 39 | 3,958 | 0.753 | 170 | - | - | 64 |
| Tributary 39 | 3,958 | 0.753 | 2,295 | | | 65,66,67,68 |
| Wetland 16 | - | 0.041 | - | - | - | 67 |
| Wetland 17 | - | 0.393 | - | - | - | 67,68 |
| Wetland 18 | - | 0.251 | - | - | 0.24 | 68 |
| Wetland 19 | - | 0.015 | - | - | - | 68 |
| **Impact Totals** | | | **12,969** | **2.76** | **1.66** | |

# PERMITTED PLANS

CAROLINA CROSSROADS
PROJECT ID NO. P027662
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LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
JULY 15, 2020

South Carolina Department of Transportation

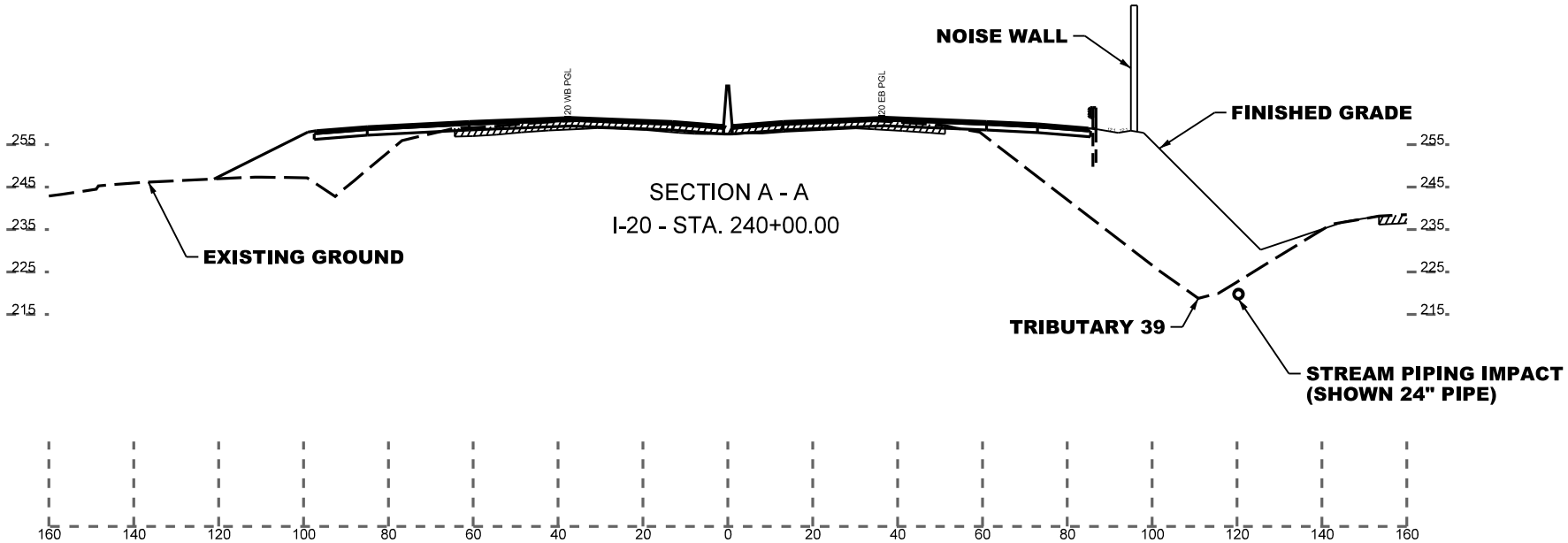
IMPACT SUMMARY



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:JWHITESIDE DATE:8/27/2020 TIME:3:34:32 PM
FILE:CCR_Permit-Dwg_73.dgn

EXAMPLE STREAM PIPING IMPACT

# PERMITTED PLANS




REPRESENTATIVE SECTION SHOWN.
FINAL CROSS SECTIONS WILL BE PROVIDED
WITH FINAL DESIGN AND PERMIT MODIFICATION

20
20
GRAPHIC SCALE

## LEGEND

PERMANENT FILL IMPACT

RIGHT OF WAY LINE

CAROLINA CROSSROADS
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South Carolina Department of Transportation



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
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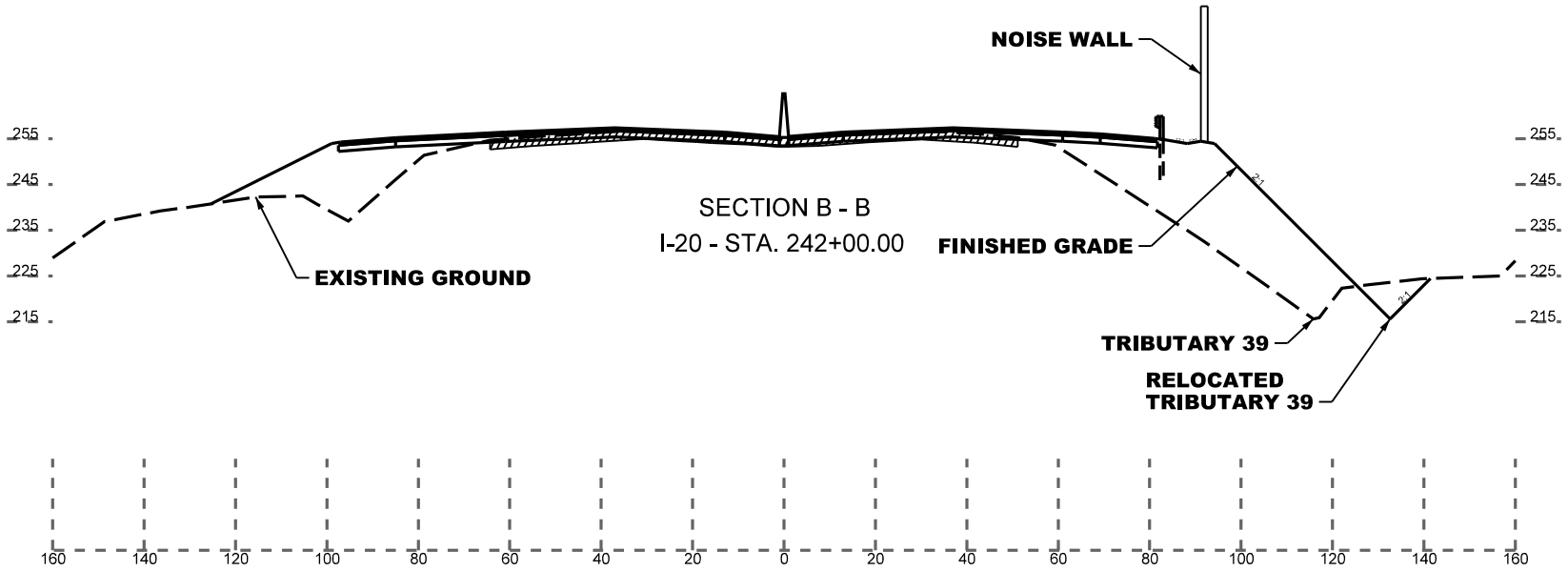
FILE:Permit-Dwg_Cross Sections Sheet.dgn

EXAMPLE TRIBUTARY RELOCATION

# PERMITTED PLANS




REPRESENTATIVE SECTION SHOWN.
FINAL CROSS SECTIONS WILL BE PROVIDED
WITH FINAL DESIGN AND PERMIT MODIFICATION

20
20
GRAPHIC SCALE

LEGEND

PERMANENT FILL IMPACT

RIGHT OF WAY LINE

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

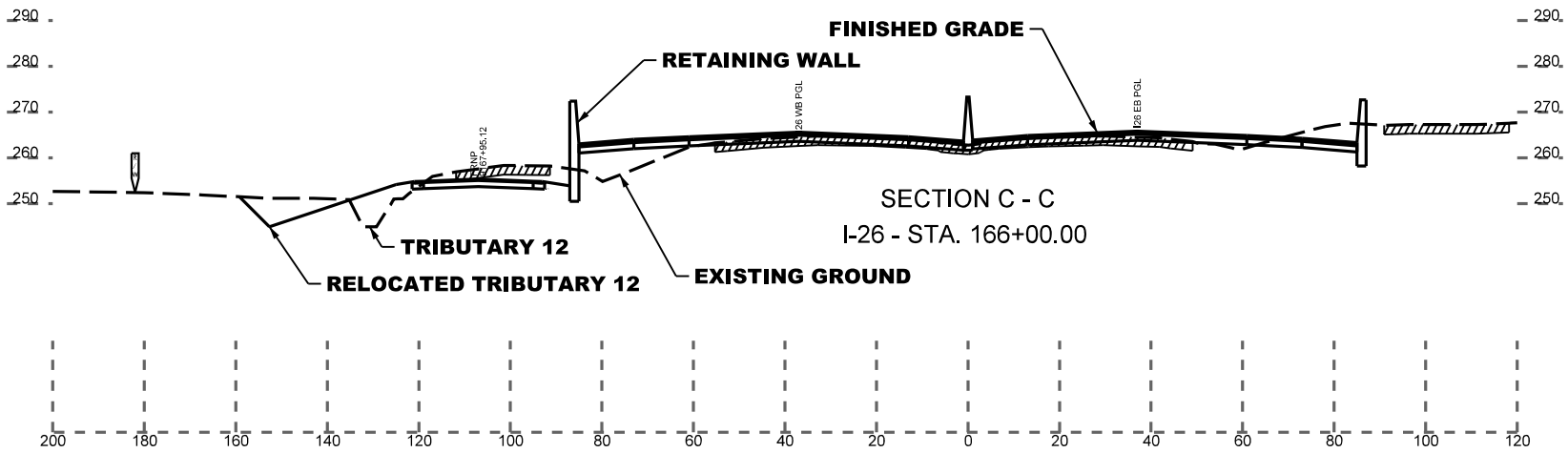
SCDOT
South Carolina Department of Transportation



PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/6/2019 TIME:9:28:12 AM
FILE:Permit-Dwg_Cross Sections Sheet.dgn

EXAMPLE TRIBUTARY RELOCATION

# PERMITTED PLANS




REPRESENTATIVE SECTION SHOWN.
FINAL CROSS SECTIONS WILL BE PROVIDED
WITH FINAL DESIGN AND PERMIT MODIFICATION

20
20
GRAPHIC SCALE

LEGEND

PERMANENT FILL IMPACT

RIGHT OF WAY LINE

CAROLINA CROSSROADS
PROJECT ID NO. P027662
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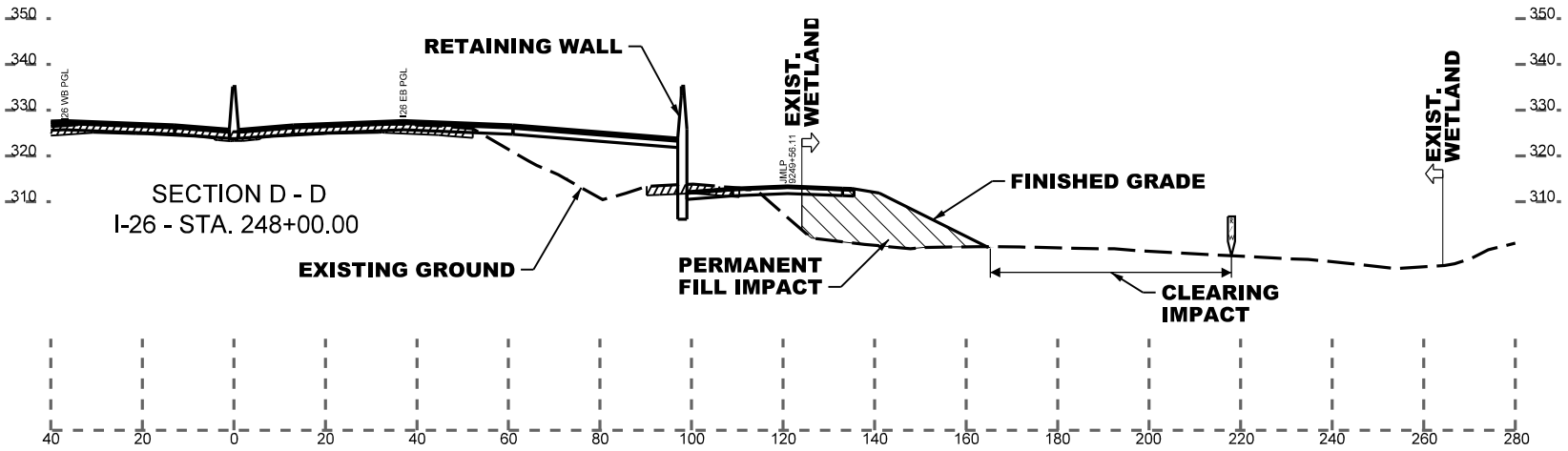
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/6/2019 TIME:9:28:27 AM
FILE:Permit-Dwg_Cross Sections Sheet.dgn

EXAMPLE WETLANDS IMPACT

# PERMITTED PLANS




REPRESENTATIVE SECTION SHOWN.
FINAL CROSS SECTIONS WILL BE PROVIDED
WITH FINAL DESIGN AND PERMIT MODIFICATION

20
20
GRAPHIC SCALE

LEGEND

PERMANENT FILL IMPACT

RIGHT OF WAY LINE

CAROLINA CROSSROADS
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LEXINGTON COUNTY, SC
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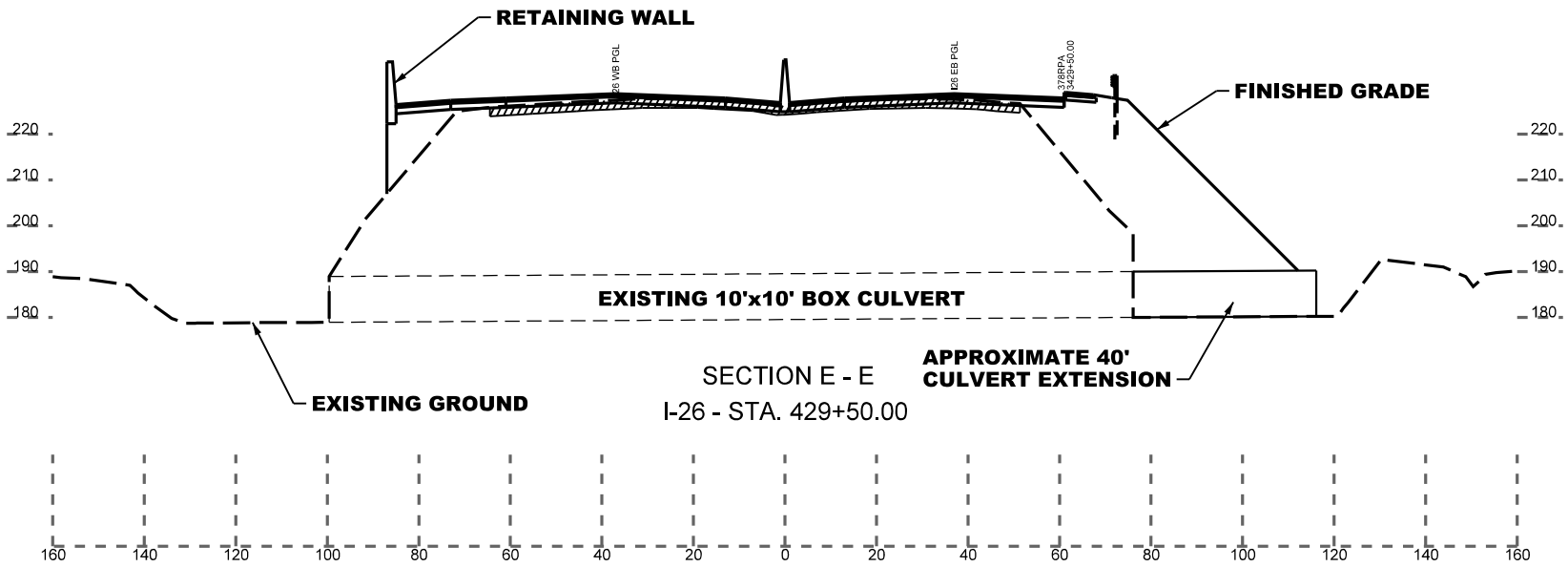
PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/6/2019 TIME:9:28:45 AM
FILE:Permit-Dwg_Cross Sections Sheet.dgn

EXAMPLE CULVERT/PIPE EXTENSION

# PERMITTED PLANS




SECTION E - E
I-26 - STA. 429+50.00

REPRESENTATIVE SECTION SHOWN.
FINAL CROSS SECTIONS WILL BE PROVIDED
WITH FINAL DESIGN AND PERMIT MODIFICATION

20
20
GRAPHIC SCALE

LEGEND

PERMANENT FILL IMPACT

RIGHT OF WAY LINE

CAROLINA CROSSROADS
PROJECT ID NO. P027662
RICHLAND COUNTY, SC
LEXINGTON COUNTY, SC
APPLICATION BY SCDOT
NOVEMBER 6, 2019

SCDOT
South Carolina Department of Transportation

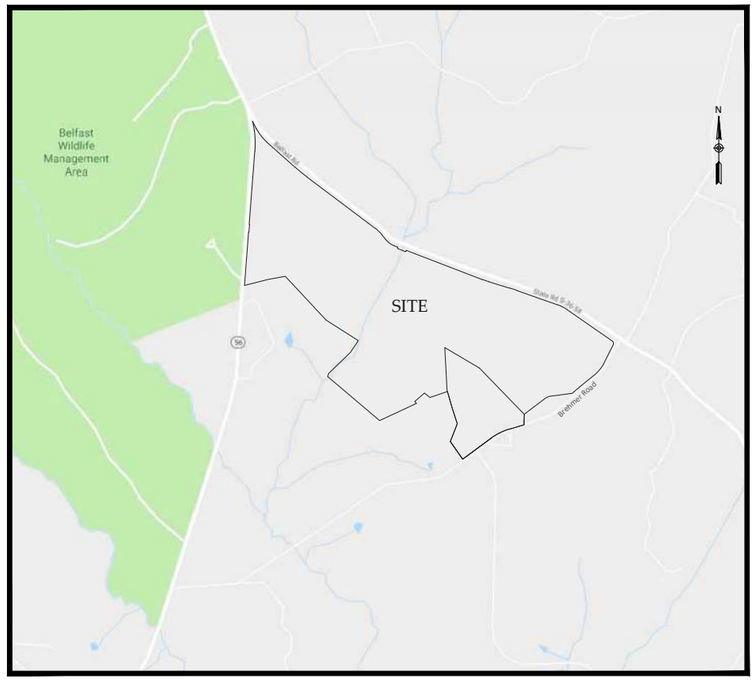


PLOT DRIVER:CCR_LETTER_PDF.pltcfg PENTABLE:HDR_Permit-Dwg.tbl
USER:CWOLFE DATE:11/6/2019 TIME:9:29:01 AM
FILE:Permit-Dwg_Cross Sections Sheet.dgn

# Carolina Crossroads Mitigation Site - PH Timber Tract

## Newberry County, South Carolina
## for
## South Carolina Department of Transportation

Newberry County, SC




Vicinity Map
Not to Scale

SCDOT

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

Pre-Construction Notification Figures
05.20.2020

# PERMITTED PLANS

### Sheet Index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|---|---|
| Title Sheet | 1.1 |
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| Impact Typical Section In-line Channel Construction | 1.7 |
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| Stream Plan View | 2.1.1-2.1.32; 2.2.1-2.2.19 |


### Project Directory


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License No. F-3966
497 Bramson Ct, Ste. 104
Mount Pleasant, SC 29464
Daniel Johnson, MBA, PE, PH
843-277-6221

Surveying:
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N. Charleston, SC 29418
M. Hart Weatherford, PE, PLS, CFM
843-308-0524

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955 Park Street
PO Box 191
Columbia, SC 29201-3959

WILDLANDS ENGINEERING
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Fax: 843.212.2101


PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina
Title Sheet

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 1.1


May 21, 2020
X:\Shared\Projects\005-05200 Carolina Crossroads\Cadd\Plans\Copy from KCN\05200-Cover and Notes.dwg

GENERAL NOTES:

1. SEDIMENT AND EROSION CONTROL PRACTICES SHALL COMPLY WITH THE SOUTH CAROLINA DHEC BMP HANDBOOK, CURRENT EDITION.
2. THE CONTRACTOR WILL INSTALL PUMP-AROUND SYSTEMS AS A SEDIMENT AND EROSION CONTROL PRACTICE. THE CONTRACTOR SHALL NOT REMOVE A PUMP-AROUND SYSTEM OR ADVANCE TO SUBSEQUENT WORK AREAS UNTIL THE DISTURBED WORK AREA IS STABILIZED IN ACCORDANCE WITH THE PLANS. IF FLOW IS NOT SUFFICIENT AT THE TIME OF CONSTRUCTION TO CAUSE SEDIMENTATION TO DOWNSTREAM WATERS, PUMP-AROUND OPERATIONS MAY NOT BE REQUIRED, AS DETERMINED BY THE ENGINEER. IN THESE CASES, ROCK CHECK DAMS WILL BE IMPLEMENTED IN ACCORDANCE WITH SPACING AND PLACEMENT REQUIREMENTS OUTLINED IN THE SOUTH CAROLINA DHEC BMP HANDBOOK.
3. TREES DEPICTED WITHIN THE LIMITS OF DISTURBANCE AND NOT PROTECTED WITH SAFETY FENCING MAY BE HARVESTED AND USED FOR IN-STREAM STRUCTURES (E.G., BRUSH TOE OR LOG SILLS) AT THE DIRECTION OF THE ENGINEER.
4. ON-SITE ROCK WILL BE SALVAGED AND STOCKPILED FOR REUSE. ROCK SHALL BE REUSED IN ACCORDANCE WITH THE APPLICABLE MATERIAL SPECIFICATIONS HEREIN AND AS DIRECTED BY THE ENGINEER.
5. UPON COMPLETION OF STABILIZATION ACTIVITIES WITHIN ACTIVE WORK AREAS, TEMPORARY HAUL ROADS WILL BE REMOVED AND GRADED TO FINISH GRADE AS SHOWN ON THE PLANS AS DIRECTED BY THE ENGINEER. FINISH GRADE HAUL ROAD AREAS WILL BE DISKED OR RIPPED TO A MINIMUM DEPTH OF 18 INCHES, RAKED AND SEEDED TO FACILITATE STABILIZATION. NO ADDITIONAL USE OF RIPPED/DISKED AND SEEDED HAUL ROADS WILL BE PERMITTED.

CONSTRUCTION SEQUENCE:

THE CONSTRUCTION SEQUENCE OUTLINED BELOW REPRESENTS GENERAL CONSTRUCTION ACTIVITIES, SEDIMENT AND EROSION CONTROL MEASURES AND DETAILED MEASURES TO FACILITATE THE CONSTRUCTION OF THE SITE. PRIOR TO LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A DETAILED SEQUENCE OF CONSTRUCTION. THIS SEQUENCE WILL INCLUDE THE PROPOSED CONSTRUCTION SEQUENCE FOR EACH RESTORATION AREA, GENERAL TIMELINE FOR COMPLETION AND STABILIZATION OF EACH REACH AND ANY PROPOSED HAUL ROADS OR STOCKPILE AREAS THAT MAY DEVIATE FROM THE PLANS HEREIN. THE ENGINEER WILL REVIEW THIS CONSTRUCTION SCHEDULE FOR COMPLIANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE SITE AND APPLICABLE PERMIT REQUIREMENTS. THE CONTRACTOR WILL NOT COMMENCE LAND DISTURBING ACTIVITIES OR MOBILIZATION PRIOR TO APPROVAL OF THE CONSTRUCTION SEQUENCE BY THE ENGINEER.

CONSTRUCTION SHALL COMMENCE IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE AS APPROVED BY THE ENGINEER. IN GENERAL, THE CONSTRUCTION SEQUENCE SHALL, AT A MINIMUM, INCLUDE THE FOLLOWING:

1. CONTRACTOR SHALL CONTACT SOUTH CAROLINA 811 PRIOR TO SITE MOBILIZATION.
2. INSTALL PERIMETER SEDIMENT AND EROSION CONTROL MEASURES AS SHOWN ON THE PLANS INCLUDING CONSTRUCTION ENTRANCES, STAGING AND STOCKPILE AREAS, TEMPORARY ACCESS ROADS, SILT FENCE, TREE PROTECTION FENCING, CHECK DAMS, AND TEMPORARY STREAM CROSSINGS.
3. SET UP TEMPORARY FACILITIES AND MOBILIZE EQUIPMENT AND MATERIALS TO THE SITE. PLACE IMPORTED MATERIALS WITHIN THE LIMITS OF THE PROTECTED STOCKPILE AREAS.
4. MATERIAL HARVESTED FROM EXISTING CHANNEL SHALL BE MAINTAINED FOR REUSE ONSITE.
5. INSTALL AND MAINTAIN ONSITE RAIN GAUGE AND LOG BOOKS FOR NPDES AND SWPPP PERMIT REQUIREMENTS IN ACCORDANCE WITH THE ON-SITE SWPPP. THE ON-SITE SWPPP MUST BE EXECUTED AND MAINTAINED ON-SITE FOR THE DURATION OF PROJECT ACTIVITIES.
6. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED AT THE END OF EACH WORK DAY TO ENSURE THEY ARE FUNCTIONING IN ACCORDANCE WITH THE SWPPP AND PLANS HEREIN. ANY DEFICIENCIES SHALL BE REPAIRED IMMEDIATELY.
7. IN-STREAM WORK SHALL COMMENCE FROM UPSTREAM TO DOWNSTREAM UNLESS OTHERWISE DIRECTED BY THE ENGINEER TO PRECLUDE THE TRANSPORT OF SEDIMENT TO RESTORED SECTIONS OF THE STREAM.
8. WHEN WORKING IN A LIVE WATERCOURSE A PUMP-AROUND SYSTEM IS REQUIRED. INSTALL IMPERVIOUS DIKES UPSTREAM AND DOWNSTREAM OF THE PUMP-AROUND LOCATIONS. THE PUMP-AROUND OPERATION SHALL BE PERFORMED BETWEEN THESE DIKE LOCATIONS. THE PUMP-AROUND SYSTEM SHALL BE IN PLACE PRIOR TO CLEARING AND GRUBBING ACTIVITIES WITHIN THE WORK ZONE.
9. PERFORM ANY NECESSARY CLEARING AND GRUBBING IN PHASES AS WORK PROGRESSES. BANK VEGETATION AND VEGETATION IMMEDIATELY ADJACENT TO LIVE CHANNELS SHALL BE LEFT UNDISTURBED AS LONG AS POSSIBLE.
10. THE TOP 6 INCHES OF TOPSOIL WITHIN THE LIMITS OF CLEARING SHALL BE STRIPPED AND STOCKPILED ON-SITE FOR REUSE UPON ACHIEVEMENT OF FINISH GRADE. WHERE BEDROCK OR UNSUITABLE SOIL CONDITIONS EXIST TO PREVENT TOPSOIL STRIPPING, THE ENGINEER SHALL DIRECT THE CONTRACTOR TO THE LIMITS OF TOPSOIL TO BE REMOVED. TOPSOIL SHALL BE STRIPPED AS WORK PROGRESSES. MASS STRIPPING OF TOPSOIL IS NOT PERMITTED.
11. PERFORM EXCAVATION AND GRADING OF CHANNEL AND FLOODPLAIN.
12. STOCKPILE EXCAVATED SOIL AS NECESSARY. THE CONTRACTOR WILL ENSURE THAT EROSION AND SEDIMENT CONTROL PRACTICES ARE PROPERLY INSTALLED AND FUNCTIONING IN STOCKPILE AREAS AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN (SWPPP).
13. CONSTRUCT IN-STREAM STRUCTURES AND INSTALL RIFFLE AND POOL FEATURES ACCORDING TO PLANS, DETAILS, AND SPECIFICATIONS AS CONSTRUCTION PROGRESSES.
14. PRIOR TO PERFORMING RESTORATION ACTIVITIES ON UT7, THE POND AT THE UPPER LIMITS OF THE WORK AREA SHALL BE MANUALLY BREACHED AND DRAINED THROUGH SILT BAGS PRIOR TO STREAM CONSTRUCTION. DISCHARGE THROUGH THE BREACH MUST BE CONTROLLED TO PREVENT DOWNSTREAM SEDIMENT DISCHARGE.
15. SEED AND MAT BANKS AND FLOODPLAIN AREAS ACCORDING TO THE PLANS AND DETAILS.
16. ONCE DISTURBED AREAS AND EXPOSED SLOPES ARE STABILIZED, REMOVE PUMP-AROUND SYSTEM, IF USED, AND MOVE TO THE NEXT PHASE OF CONSTRUCTION.
17. BACKFILL ABANDONED CHANNEL SECTIONS WITH STOCKPILED SOIL. ALL NON-NATIVE, INVASIVE SPECIES SHALL BE TREATED AND/OR REMOVED FROM THE OLD CHANNEL PRIOR TO BACKFILLING.
18. SEED AND MULCH OR SOD ANY BACKFILL SECTIONS BEFORE PROCEEDING TO NEXT PHASE.
19. ONCE ALL PHASES OF CHANNEL AND FLOODPLAIN GRADING ARE COMPLETE, PREPARE THE FLOODPLAIN FOR PLANTING PER THE SPECIFICATIONS.
20. APPLY PERMANENT SEED AND PLANT VEGETATION IN THE FLOODPLAIN.
21. SEED AND STABILIZE STAGING AREAS AND STOCKPILE AREAS.
22. ONCE PERMANENT SEED IS ESTABLISHED, MINIMUM 70% COVERAGE AND APPROVAL FROM THE ENGINEER, REMOVE TEMPORARY STREAM CROSSINGS, STOCKPILE AREAS, AND SEDIMENT AND EROSION CONTROL PRACTICES. NO SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED WITHIN PRIOR APPROVAL FROM ENGINEER.
23. CONTRACTOR SHALL REMOVE ALL TRASH, DEBRIS, AND ANY LEFTOVER CONSTRUCTION MATERIALS PRIOR TO DEMOBILIZATION.
24. DEMOBILIZE EQUIPMENT FROM THE SITE.
25. DEMOBILIZE ALL EQUIPMENT, OFFICES, BUILDINGS, AND OTHER FACILITIES ASSEMBLED ON THE SITE.

## Existing Features

- 10+00 — Existing Thalweg*
- Existing Property Line
- 100 — Existing Major Contour
- Existing Minor Contour
- OUE — OUE — Existing Overhead Electric Easement
- Existing Culvert
- Existing Road
- Existing Access Road
- Existing Wetland
- Existing Tree
- Existing Bedrock
- Existing Treeline
- Existing Pond

## Proposed Features

- 10+00 — Proposed Thalweg Alignment
- Proposed Bankfull
- IMPACT: Proposed Culvert Replacement
- Proposed Culvert Crossing
- Proposed Ford Crossing
- IMPACT: Open Water Draining
- IMPACT: In-line Channel Construction
- IMPACT: Off-line Channel Construction
- IMPACT: Wetland Grading

*THE EXISTING THALWEG STATIONING WAS UTILIZED FOR STREAM IMPACT QUANTIFICATIONS

# PERMITTED PLANS


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497 Bramson Ct. Suite 104
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Fax: 843.212.2101


PRELIMINARY DO NOT USE FOR CONSTRUCTION

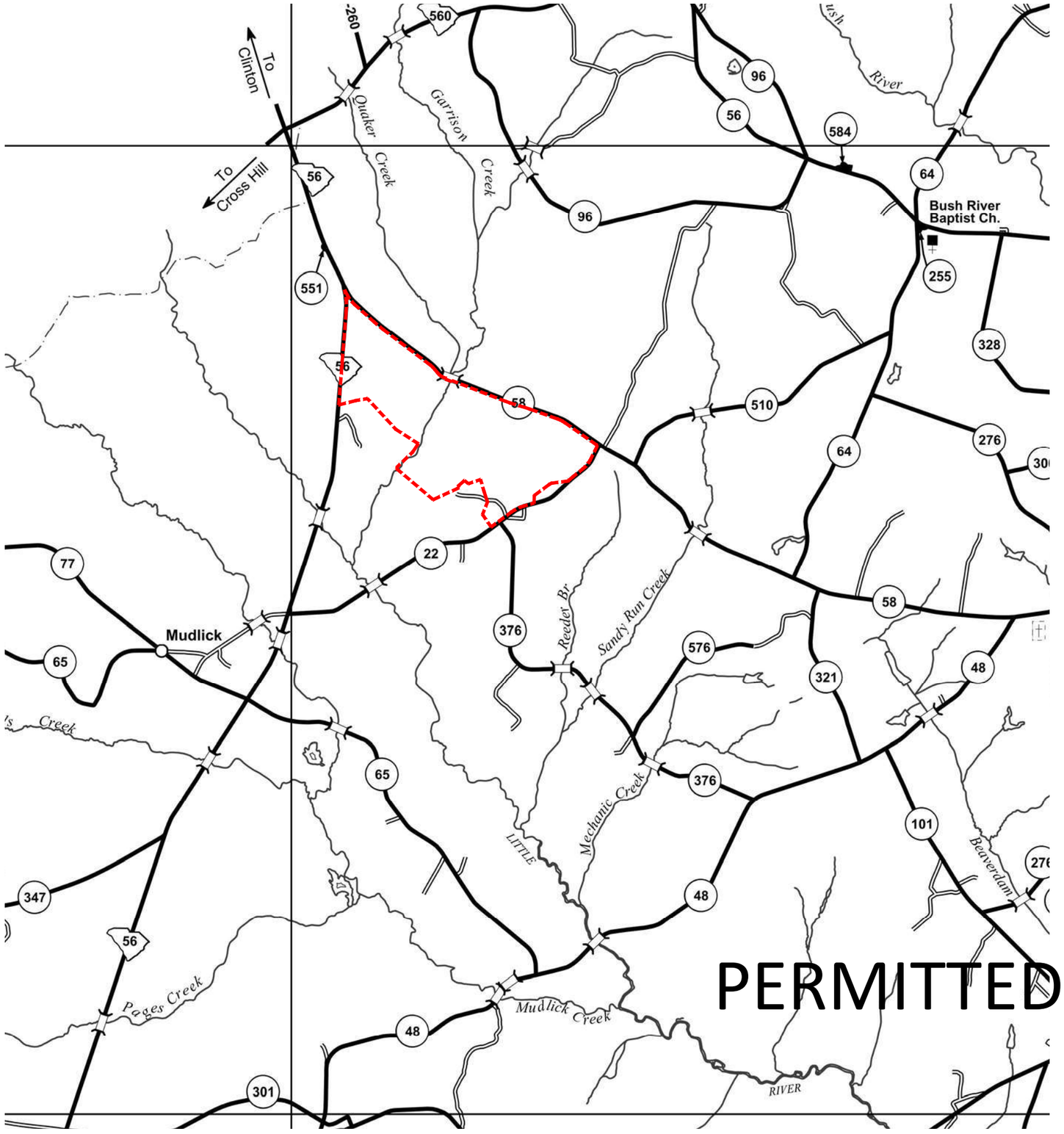
Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina
General Notes and Legend

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 1.2


May 21, 2020
A:\Shared Projects\005-05200 Carolina Crossroads Credit Plans\Cover Form PCN\05200-Cover and Notes.dwg




PERMITTED PLANS

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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

Vicinity Map

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 1.3

May 21, 2020

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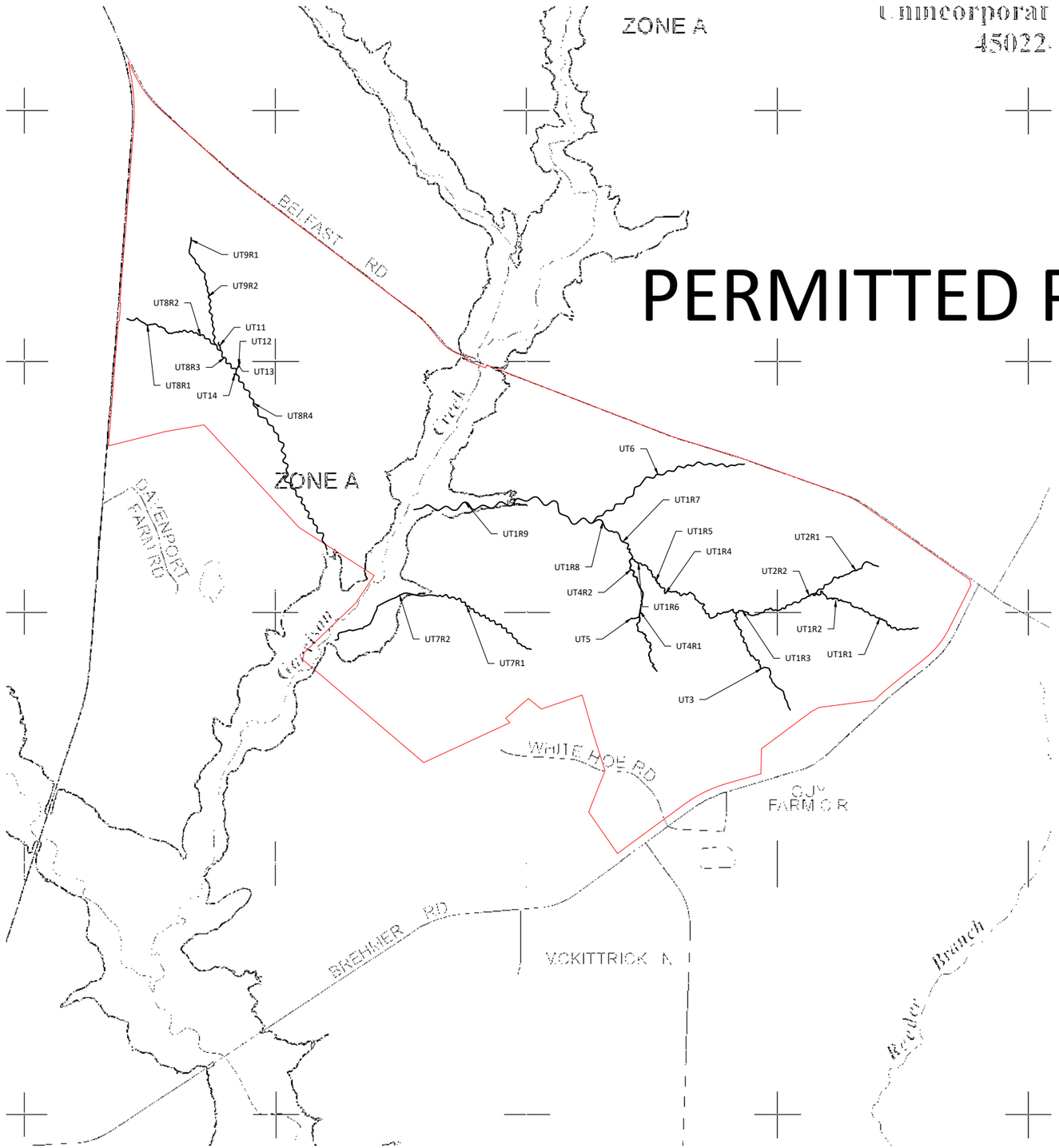


# PERMITTED PLANS

## LEGEND

**SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, ARE, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

| | |
|---|---|
| ZONE A | No Base Flood Elevations determined. |
| ZONE AE | Base Flood Elevations determined. |
| ZONE AH | Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined. |
| ZONE AO | Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined. |
| ZONE AR | Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| ZONE A99 | Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined. |
| ZONE V | Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined. |
| ZONE VE | Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined. |

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

| | |
|---|---|
| ZONE X | Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. |

**OTHER AREAS**

| | |
|---|---|
| ZONE X | Areas determined to be outside the 0.2% annual chance floodplain. |
| ZONE D | Areas in which flood hazards are undetermined, but possible. |

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

| | |
|---|---|
| | Floodplain boundary |
| | Floodway boundary |
| | Zone D boundary |
| | CBRS and OPA boundary |
| | Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities |
| 513 | Base Flood Elevation line and value; elevation in feet* |
| (EL 987) | Base Flood Elevation value where uniform within zone; elevation in feet* |

* Referenced to the North American Vertical Datum of 1988

| | |
|---|---|
| A — A | Cross section line |
| B — B | Transect line |
| 97°07'30", 32°22'30" | Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) NAD83, Western Hemisphere |
| 4779000m E | 1000-meter Universal Transverse Mercator grid ticks, zone 17 |
| 6000000 FT | 3000-foot grid values: South Carolina State Plane coordinate system (FIPSZONE = 2000), Lambert projection |
| DX5510 X | Bench mark (see explanations in Notes to Users section of this FIRM panel) |
| • M1.5 | River Mile |

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
SEPTEMBER 16, 2011

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0200C

**FIRM**
**FLOOD INSURANCE RATE MAP**
**NEWBERRY COUNTY, SOUTH CAROLINA**
**AND INCORPORATED AREAS**

**PANEL 200 OF 485**
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| NEWBERRY COUNTY | 450234 | 0200 | C |

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**45071C0200C**

**EFFECTIVE DATE**
**SEPTEMBER 16, 2011**

Federal Emergency Management Agency


WILDLANDS ENGINEERING
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Fax: 843.212.2101


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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

FIRM

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 006-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DH |

Sheet 1.4


May 21, 2020
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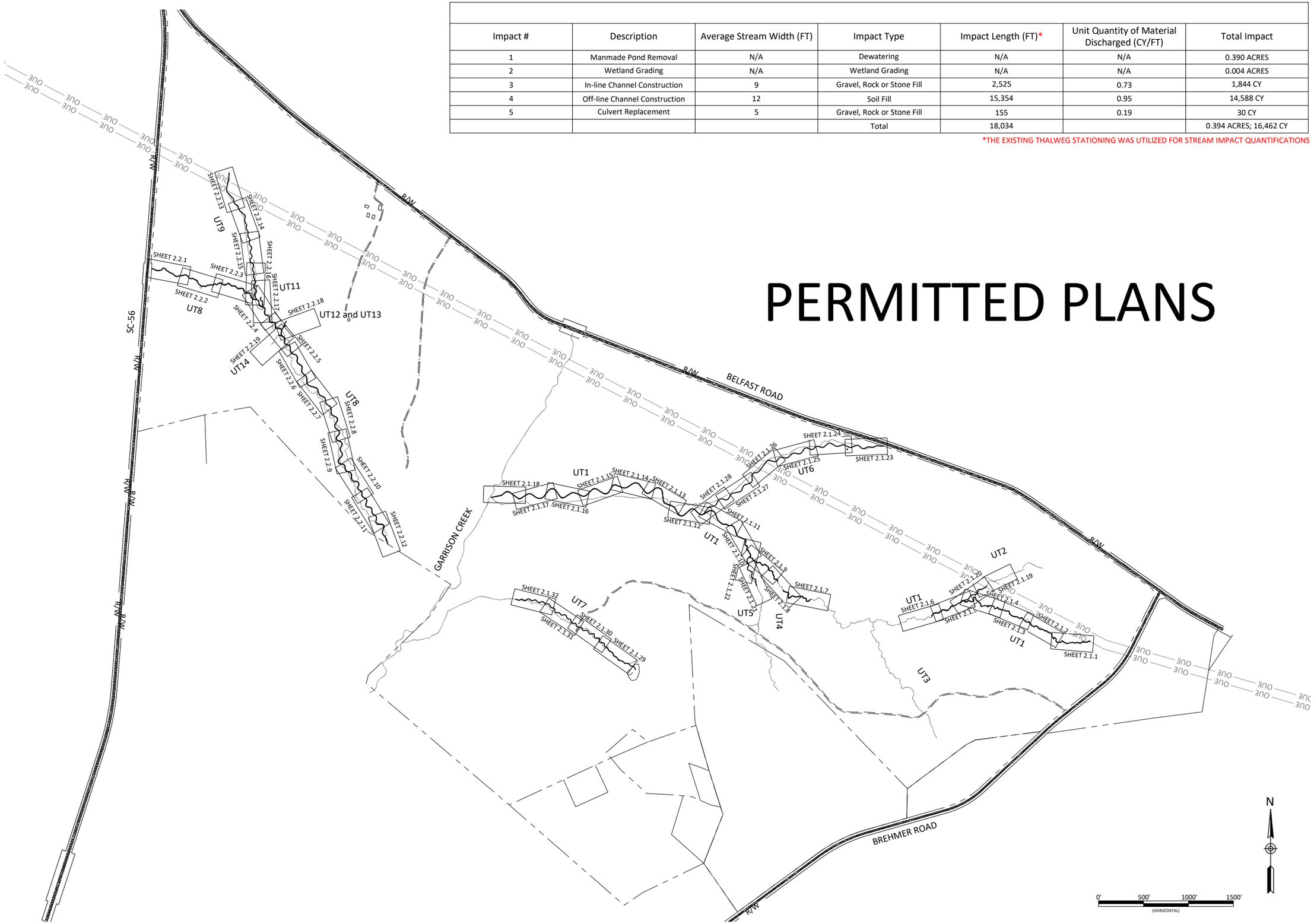
| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT)* | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 1 | Manmade Pond Removal | N/A | Dewatering | N/A | N/A | 0.390 ACRES |
| 2 | Wetland Grading | N/A | Wetland Grading | N/A | N/A | 0.004 ACRES |
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 2,525 | 0.73 | 1,844 CY |
| 4 | Off-line Channel Construction | 12 | Soil Fill | 15,354 | 0.95 | 14,588 CY |
| 5 | Culvert Replacement | 5 | Gravel, Rock or Stone Fill | 155 | 0.19 | 30 CY |
| | | | Total | 18,034 | | 0.394 ACRES; 16,462 CY |

*THE EXISTING THALWEG STATIONING WAS UTILIZED FOR STREAM IMPACT QUANTIFICATIONS

# PERMITTED PLANS





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Fax: 843.212.2101


PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

Project Overview and Impact Table

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 1.5

May 21, 2020

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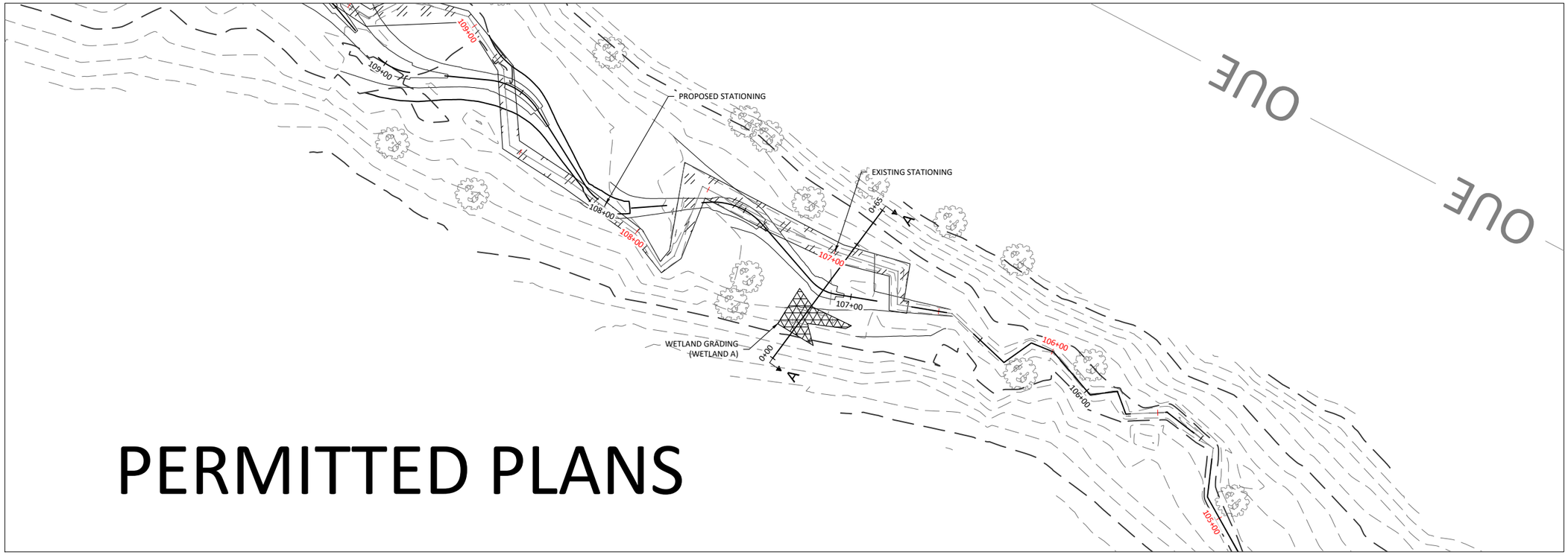
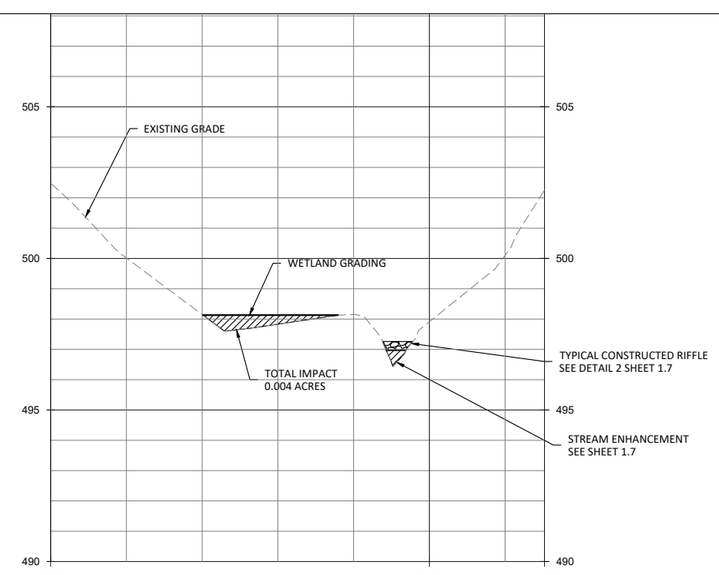



# PERMITTED PLANS

| Impact Cross Section | Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|---|
| A-A | 2 | Wetland Grading | N/A | Wetland Grading | N/A | N/A | 0.004 ACRES |




1 / 1.6 Typical Wetland Cross Section (Section A-A)
Not to Scale

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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

Impact Typical Section - Wetland

Revisions:

Date: 05.20.2020
Job Number: 005-05210
Project Engineer: GLS
Drawn By: MJC
Checked By: DH

Sheet 1.6

May 21, 2020

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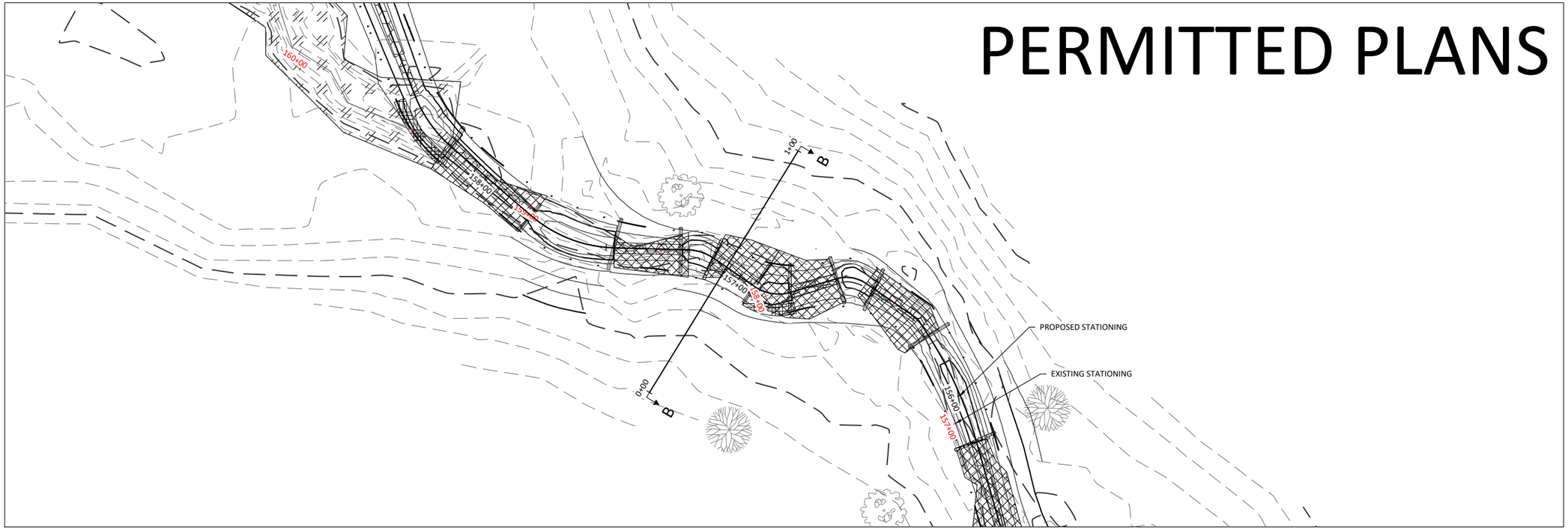
# PERMITTED PLANS

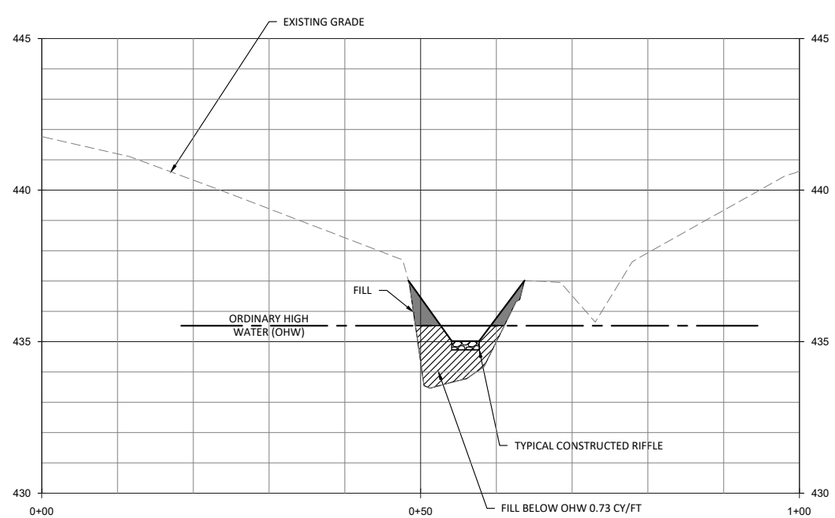



| Impact Cross Section | Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT)* | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|---|
| Typical B-B | 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 2,525 | 0.73 | 1,844 CY |

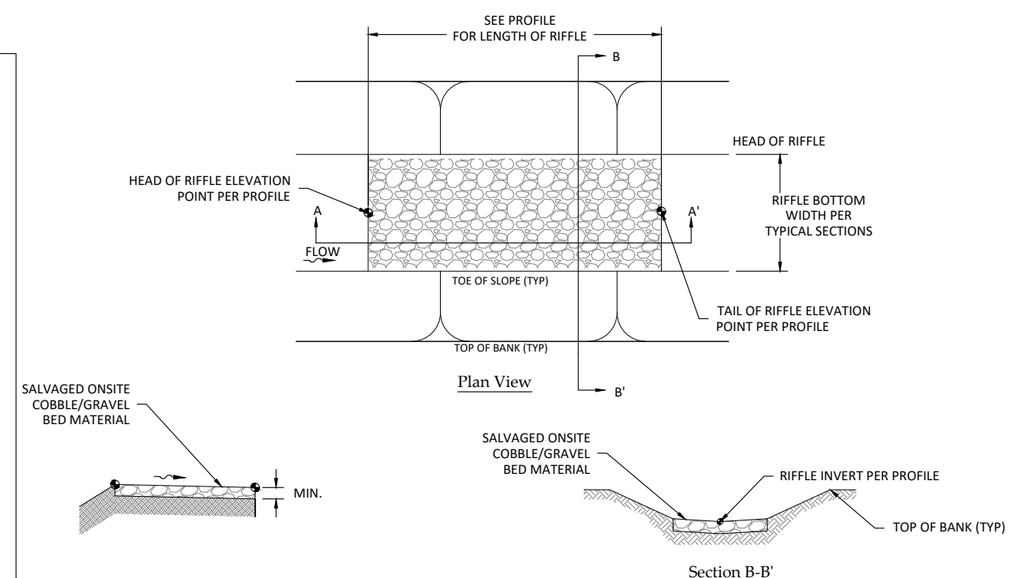
*THE EXISTING THALWEG STATIONING WAS UTILIZED FOR STREAM IMPACT QUANTIFICATIONS

NOTES:

1. ENHANCEMENT REACHES INCLUDE A COMBINATION OF LOCALIZED CHANNEL RECONSTRUCTION AND BANK TREATMENTS. CHANNEL RECONSTRUCTION OCCURS WITHIN THE EXISTING CHANNEL USING A SERIES OF IN-STREAM STRUCTURES (I.E., CONSTRUCTED RIFFLES) TO ELEVATE THE STREAM BED AND IMPROVE CHANNEL DIMENSION AND PROFILE. THESE RIFFLE STRUCTURES ALSO PROMOTE STABILITY AND IMPROVE HABITAT. BANK TREATMENTS SUCH AS LIVE STAKES, POINT BAR SHAVING (FLATTENING A POINT BAR) AND BRUSH TOE ARE IMPLEMENTED TO REINFORCE BANKS AND CHANNEL STABILITY AND PROVIDE HABITAT DIVERSITY.




1 / 1.7 Typical In-line Channel Construction Cross Section (Section B-B)
Not to Scale




2 / 1.7 Constructed Riffle
Not to Scale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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

Impact Typical Section - In-line Channel Construction

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05230 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 1.7


May 21, 2020
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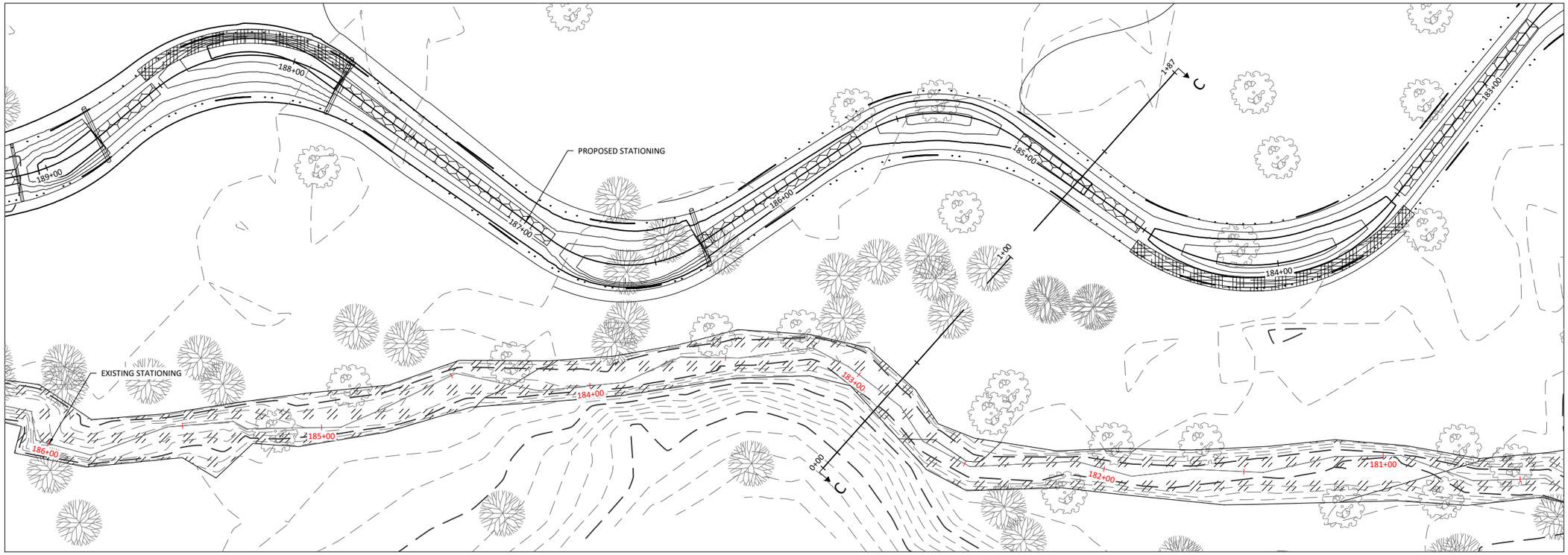


| Impact Cross Section | Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT)* | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|---|
| Typical C-C | 4 | Off-line Channel Construction | 12 | Soil Fill | 15,354 | 0.95 | 14,588 CY |

*THE EXISTING THALWEG STATIONING WAS UTILIZED FOR STREAM IMPACT QUANTIFICATIONS

# PERMITTED PLANS

NOTES:
1. PRIORITY 1 RESTORATION ENTAILS THE CONSTRUCTION OF STABLE AND FUNCTIONAL STREAM CHANNELS TYPICALLY OFFLINE OF, BUT MAY CROSS, THE EXISTING CHANNEL AND THE EXISTING CHANNEL IS BACKFILLED OR PARTIAL BACKFILLED, TO CREATE A VERNAL POOL. PRIORITY 2 RESTORATION ENTAILS THE CONSTRUCTION OF A STABLE AND FUNCTIONAL STREAM CHANNEL AND A BANKFULL BENCH. CONSTRUCTION MAY OCCUR OFFLINE OR IN-LINE WITH THE EXISTING CHANNEL.

1/1.8 Typical Off-line Channel Construction Cross Section (Section C-C)
Not to Scale

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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

Impact Typical Section - Off-line Channel Construction

Revisions:

Date: 05.20.2020
Job Number: 006-05230
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 1.8

May 21, 2020

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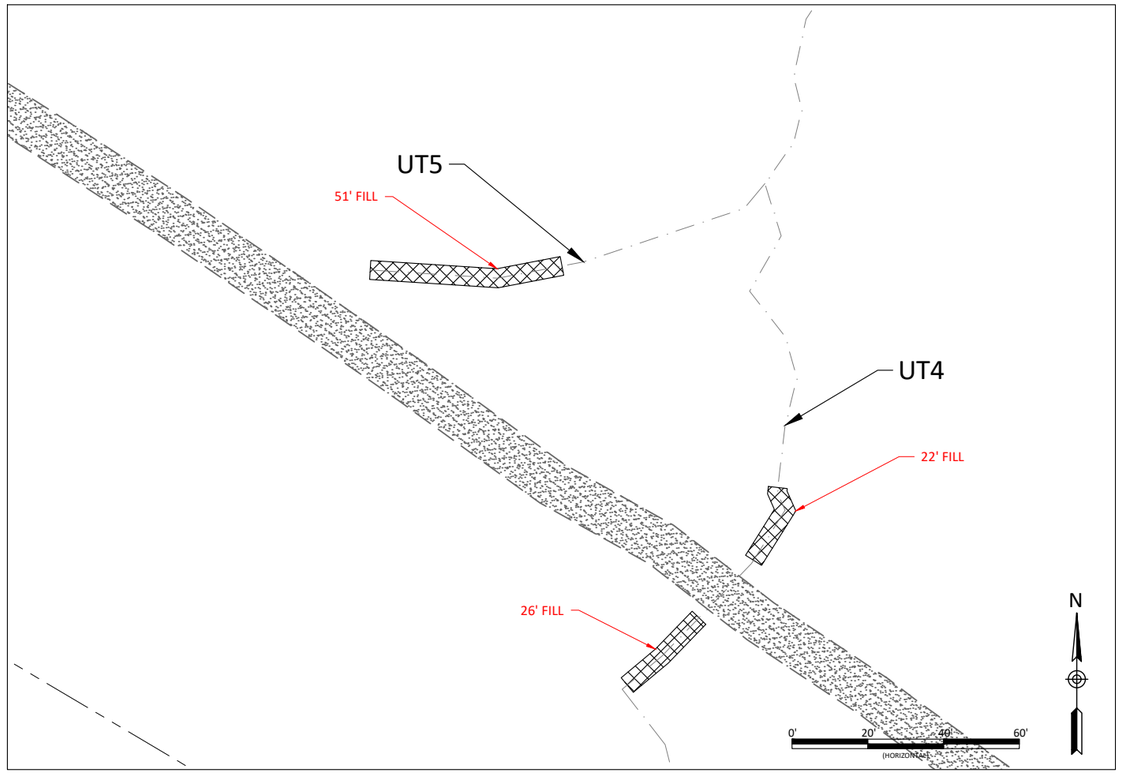
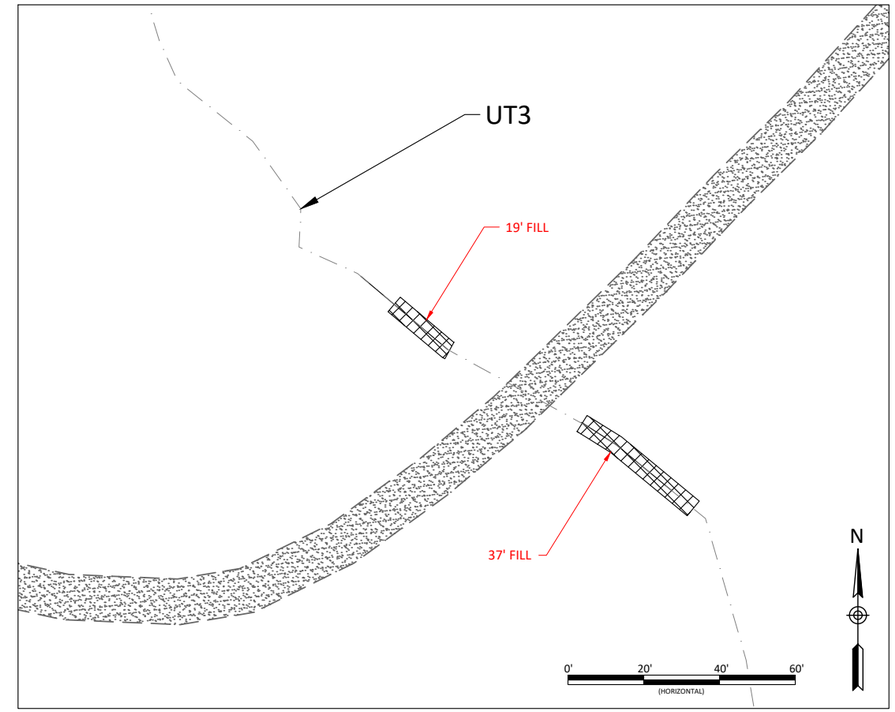
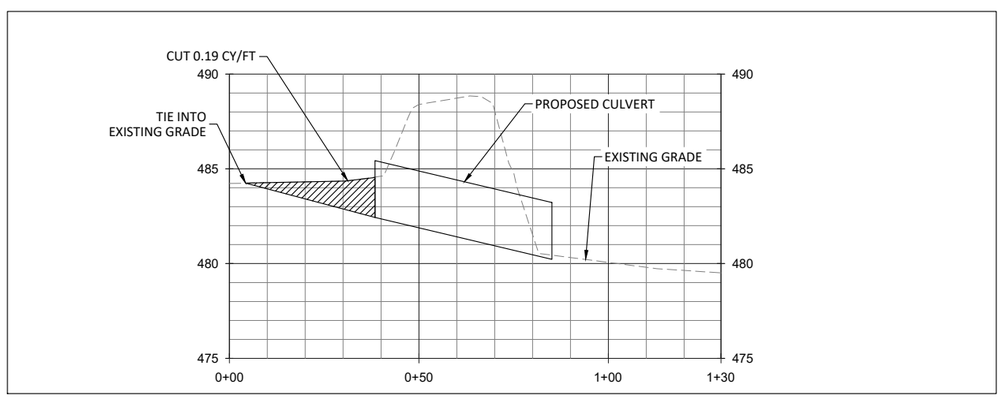


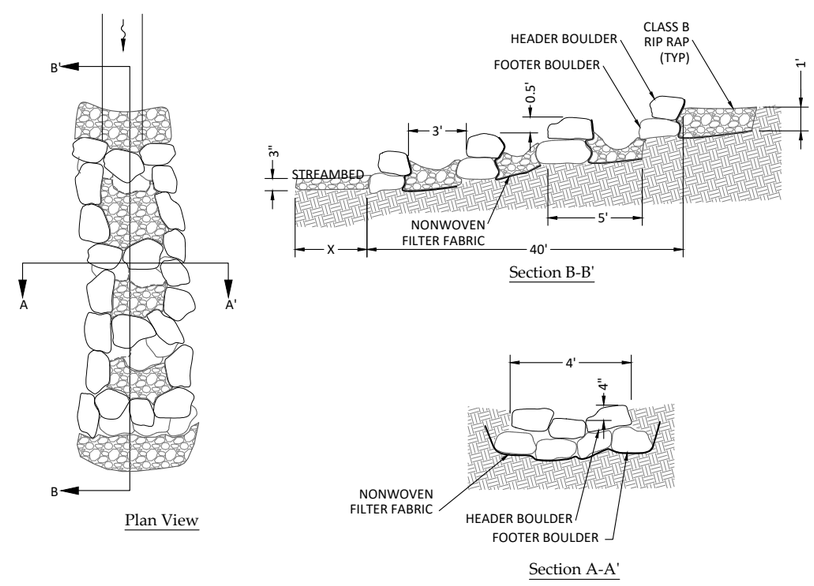




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 5 | Culvert Replacement | 5 | Gravel, Rock or Stone Fill | 155 | 0.19 | 30 CY |

# PERMITTED PLANS




1 / 1.9 Typical Culvert Cross Section
Not to Scale




2 / 1.9 Rock Cascade with Pools
Not to Scale

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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

Impact Typical - Culverts

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 1.9

May 21, 2020
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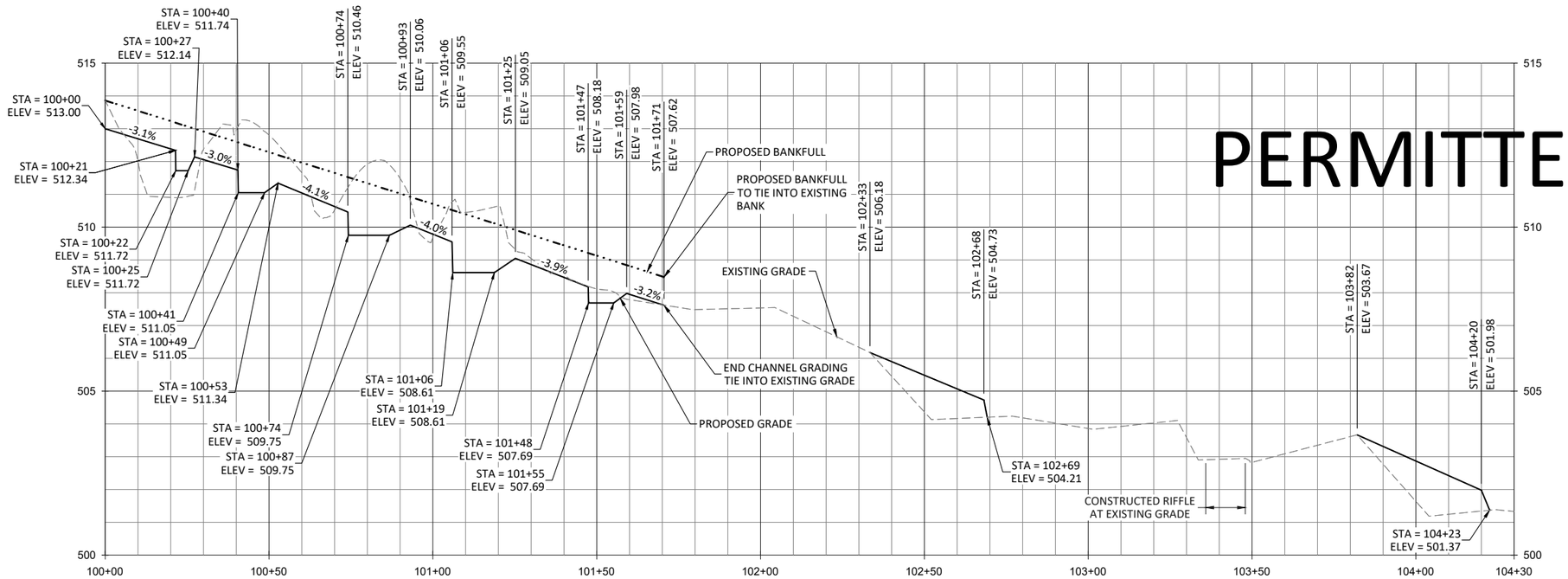
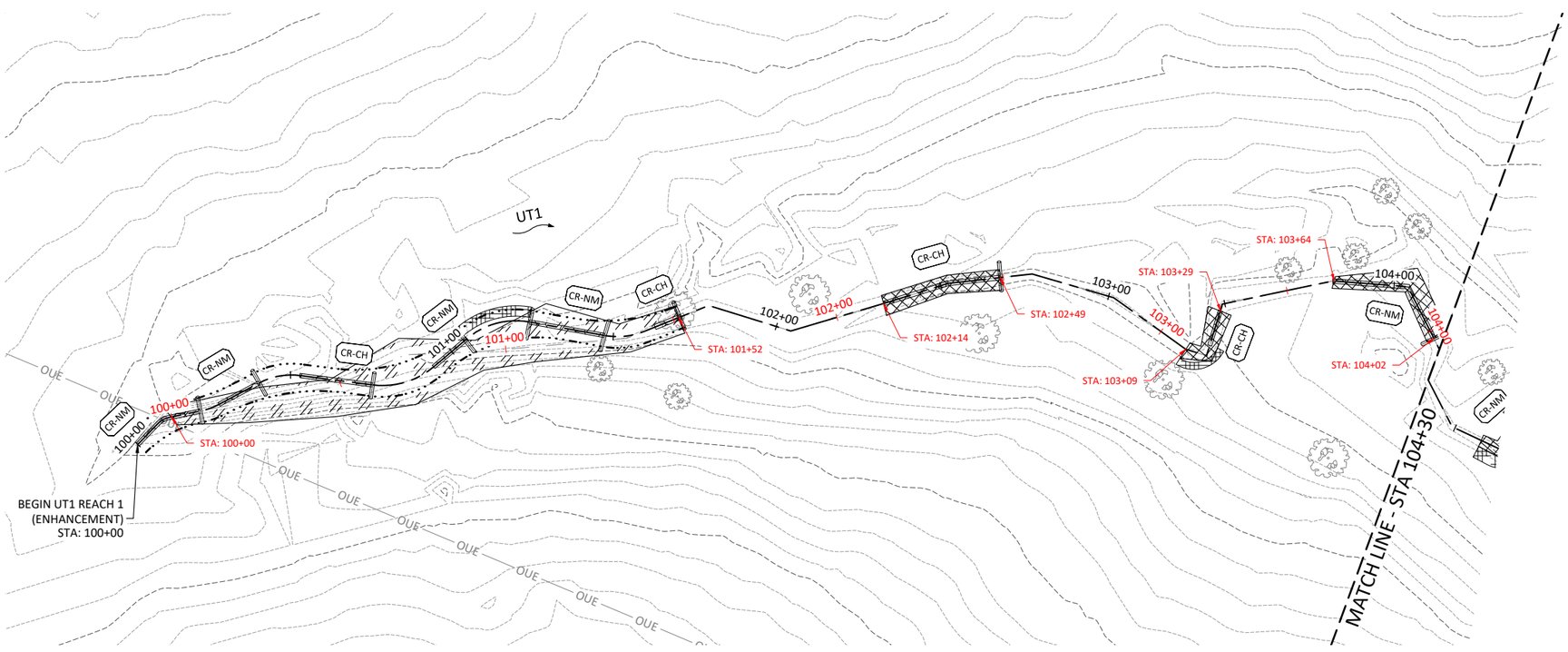
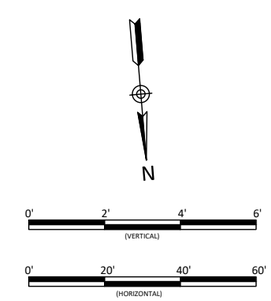
# PERMITTED PLANS




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 93 | 0.73 | 68 CY |
| 4 | Off-line Channel Construction | 12 | Soil Fill | 152 | 0.95 | 144 CY |

NOTE: THE EXISTING THALWEG STATIONING WAS UTILIZED FOR STREAM IMPACT QUANTIFICATIONS

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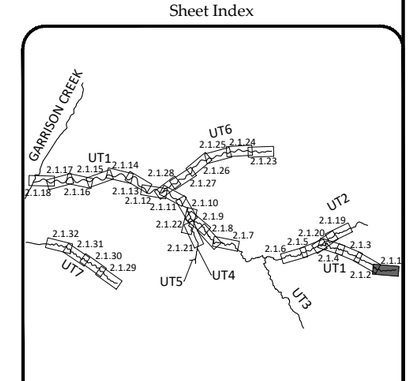



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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

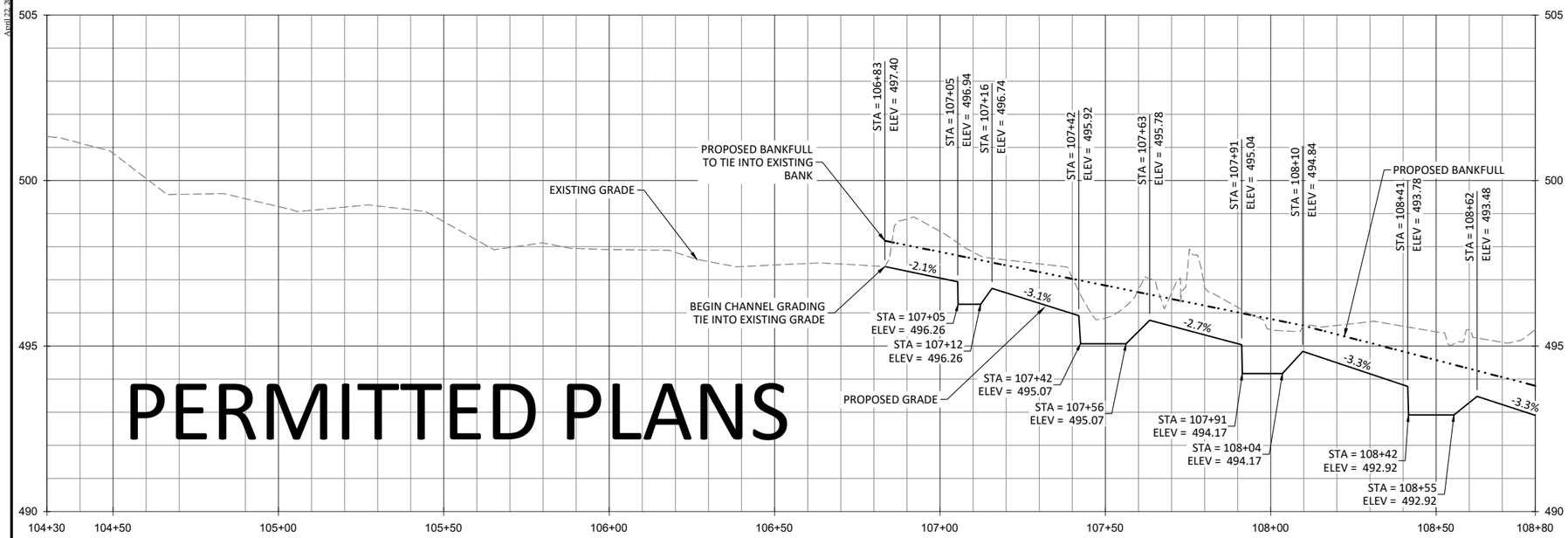
UT1 Reach 1
PCN

Revisions:

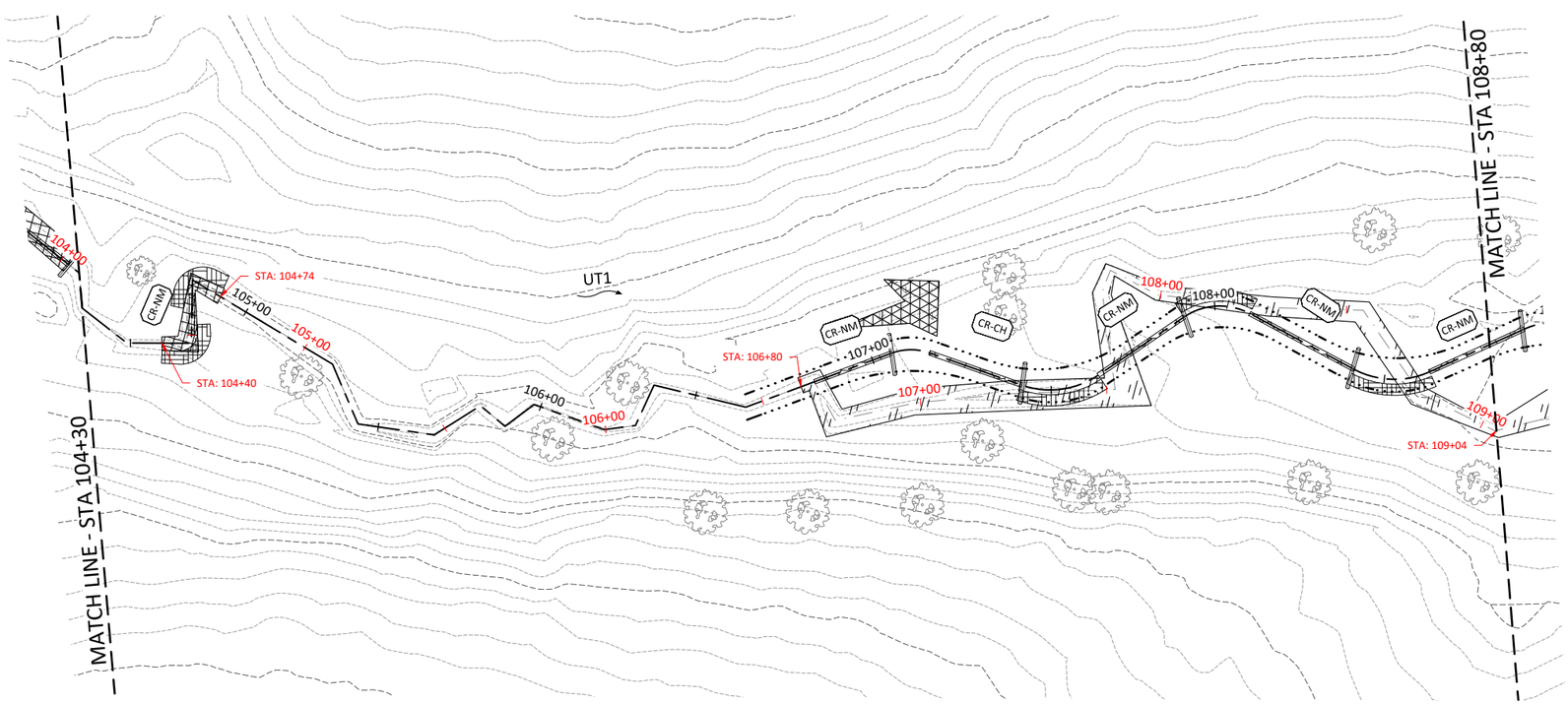
Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

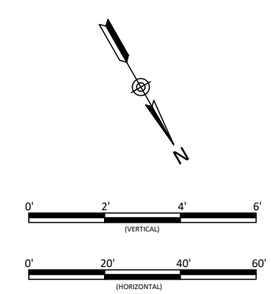
Sheet 2.1.1

April 22, 2020

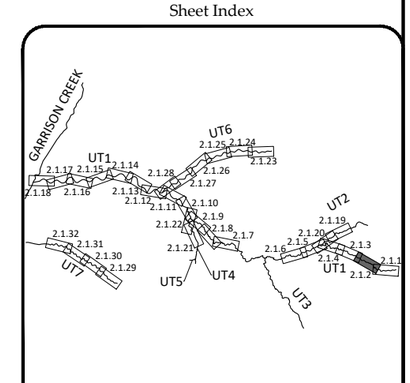



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 2 | Wetland Grading | N/A | Wetland Grading | N/A | N/A | 0.004 ACRES |
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 34 | 0.73 | 25 CY |
| 4 | Off-line Channel Construction | 12 | Soil Fill | 224 | 0.95 | 213 CY |




Sheet Index





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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT1 Reach 1
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.2

April 22, 2020

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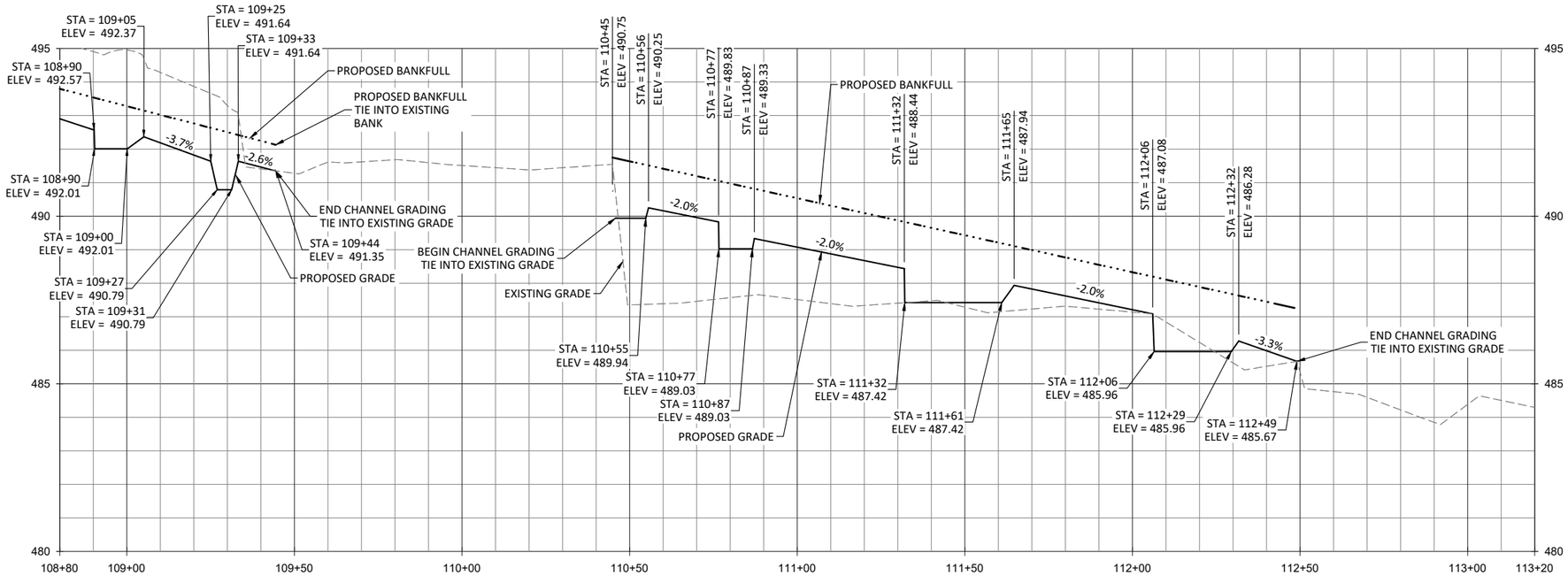
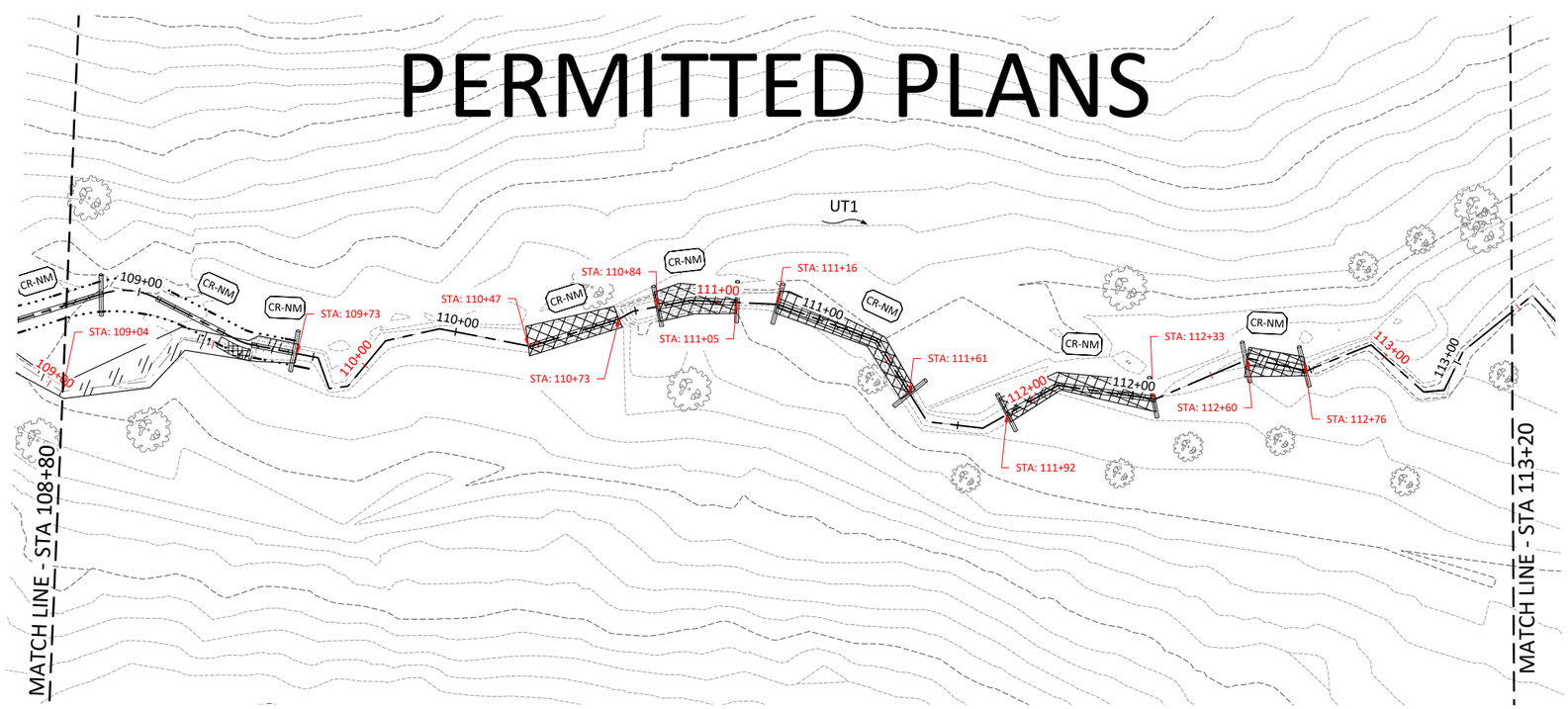
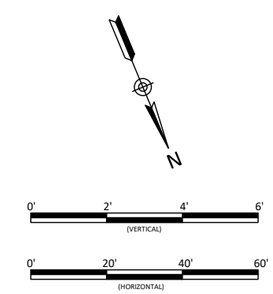



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 149 | 0.73 | 109 CY |
| 4 | Off-line Channel Construction | 12 | Soil Fill | 69 | 0.95 | 66 CY |

# PERMITTED PLANS

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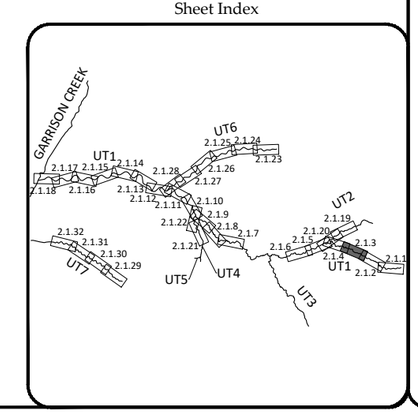



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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 1
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.3


April 22, 2020
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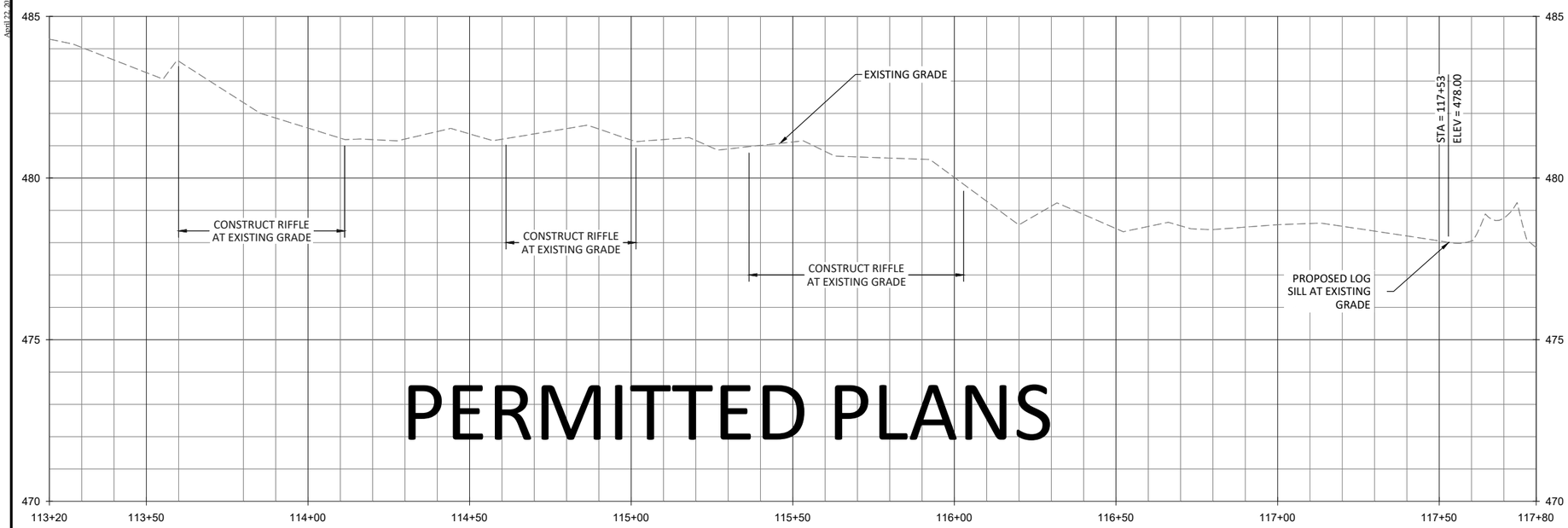
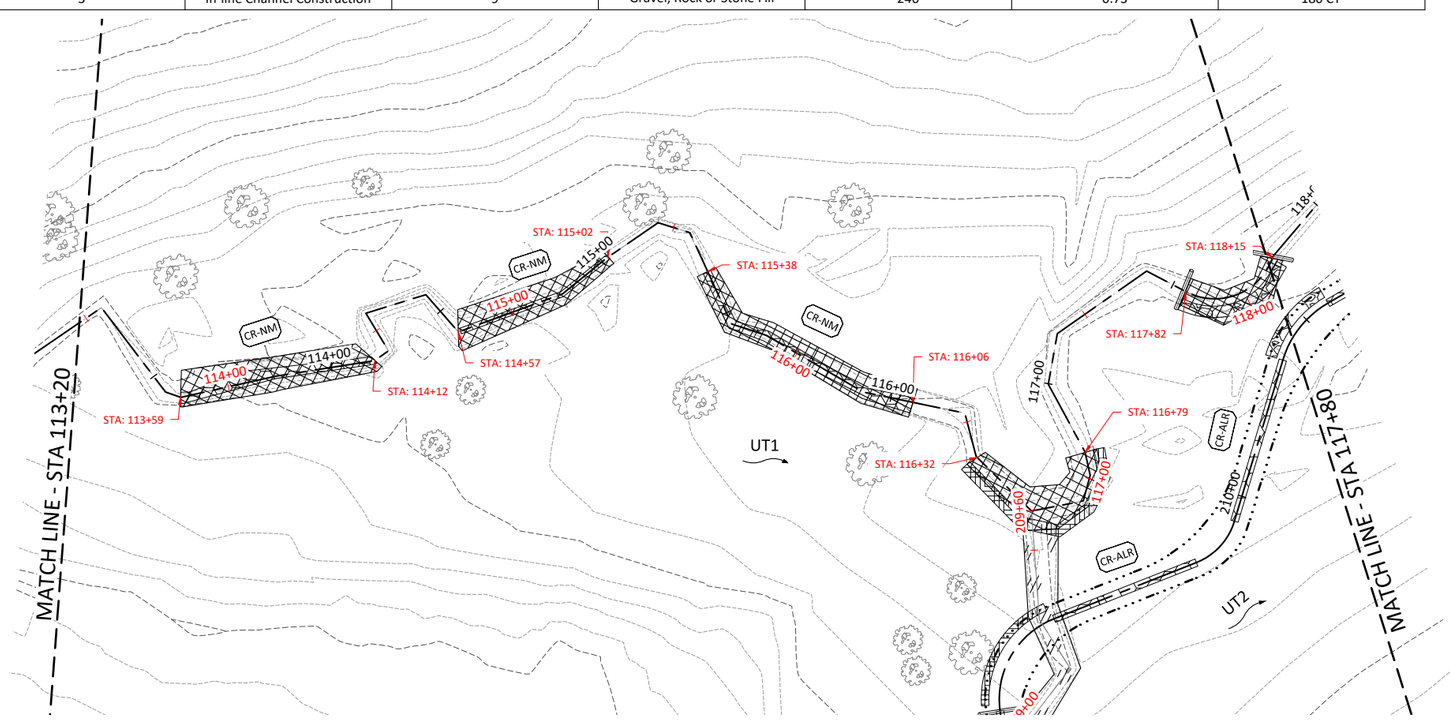
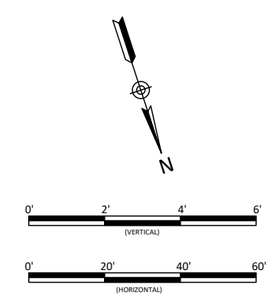



PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 246 | 0.73 | 180 CY |

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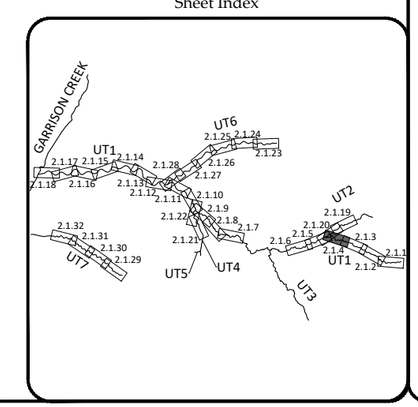


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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 1
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05230 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHT |

Sheet 2.1.4

April 22, 2020

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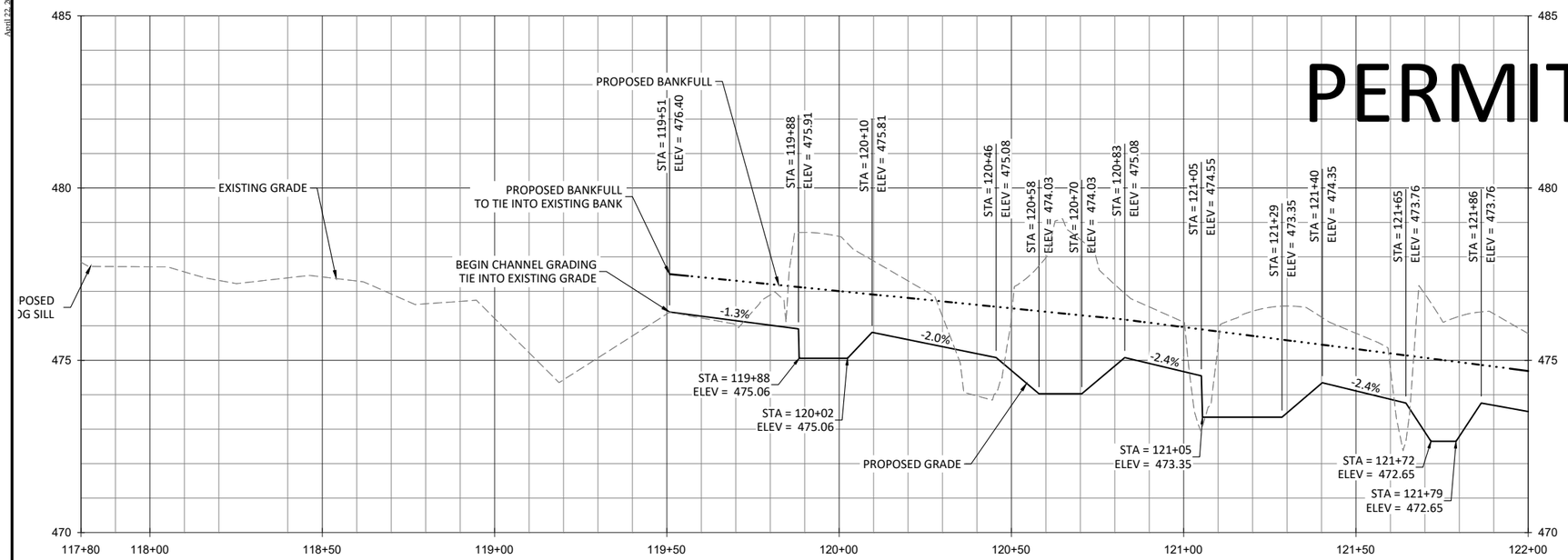
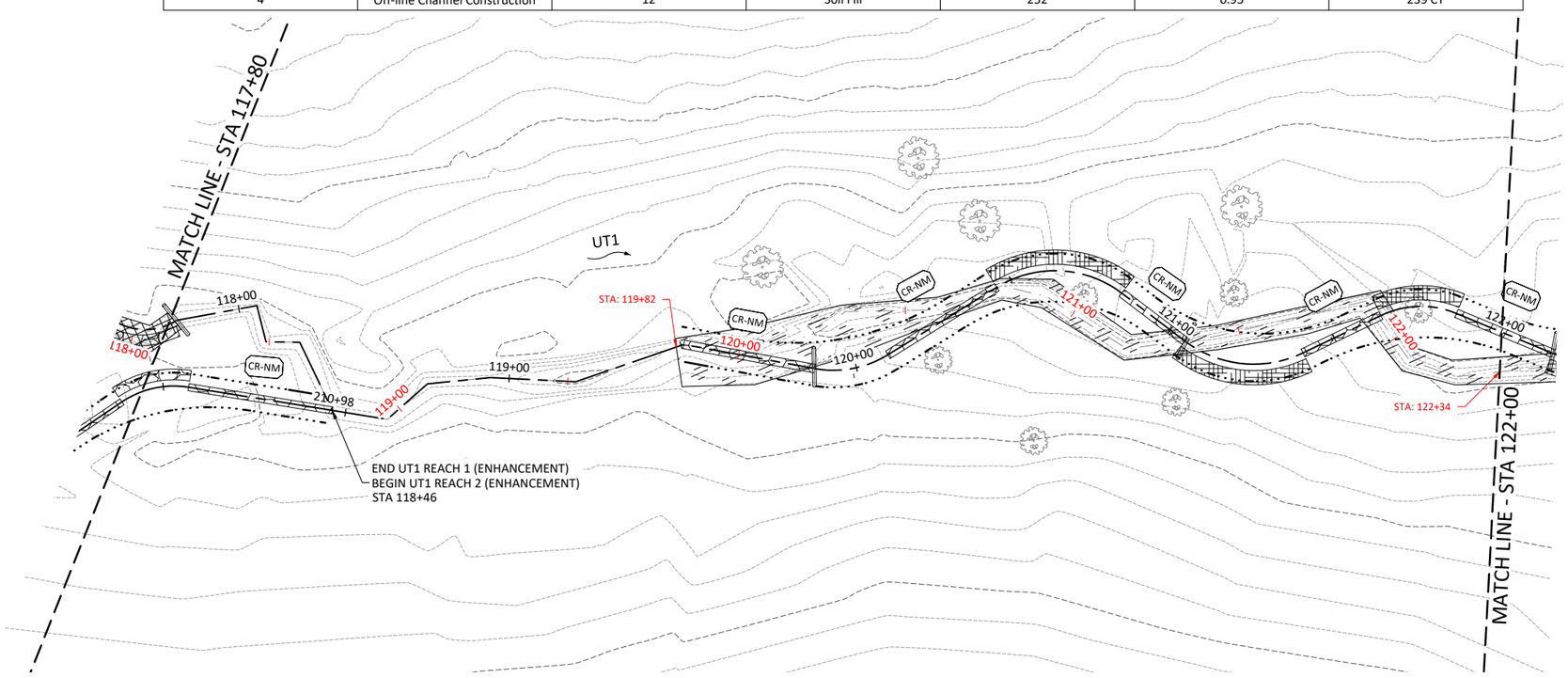
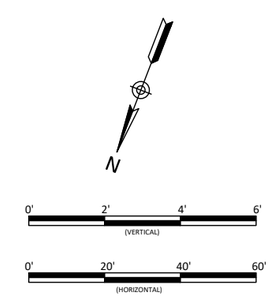
# PERMITTED PLANS




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 252 | 0.95 | 239 CY |

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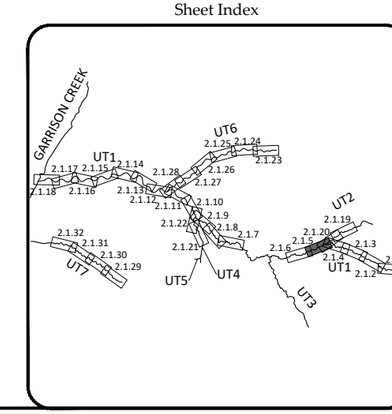



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Mount Pleasant, SC 29464
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Fax: 843.212.2101


PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 1 & 2
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.5

April 22, 2020

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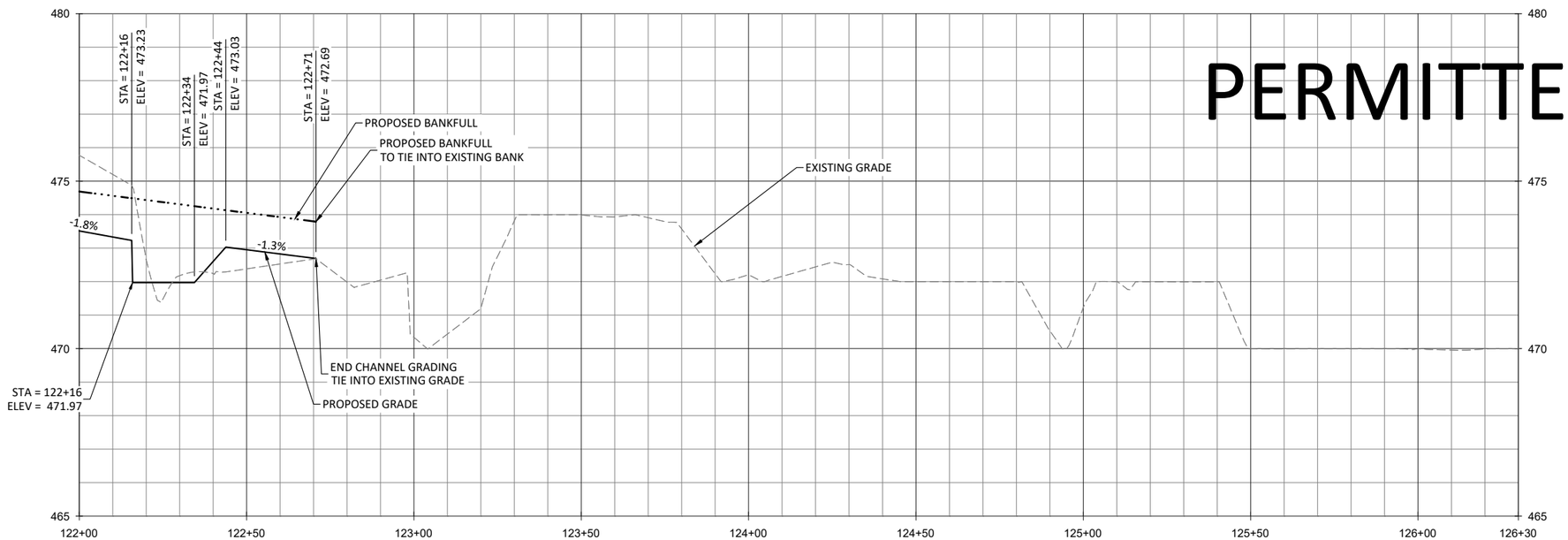
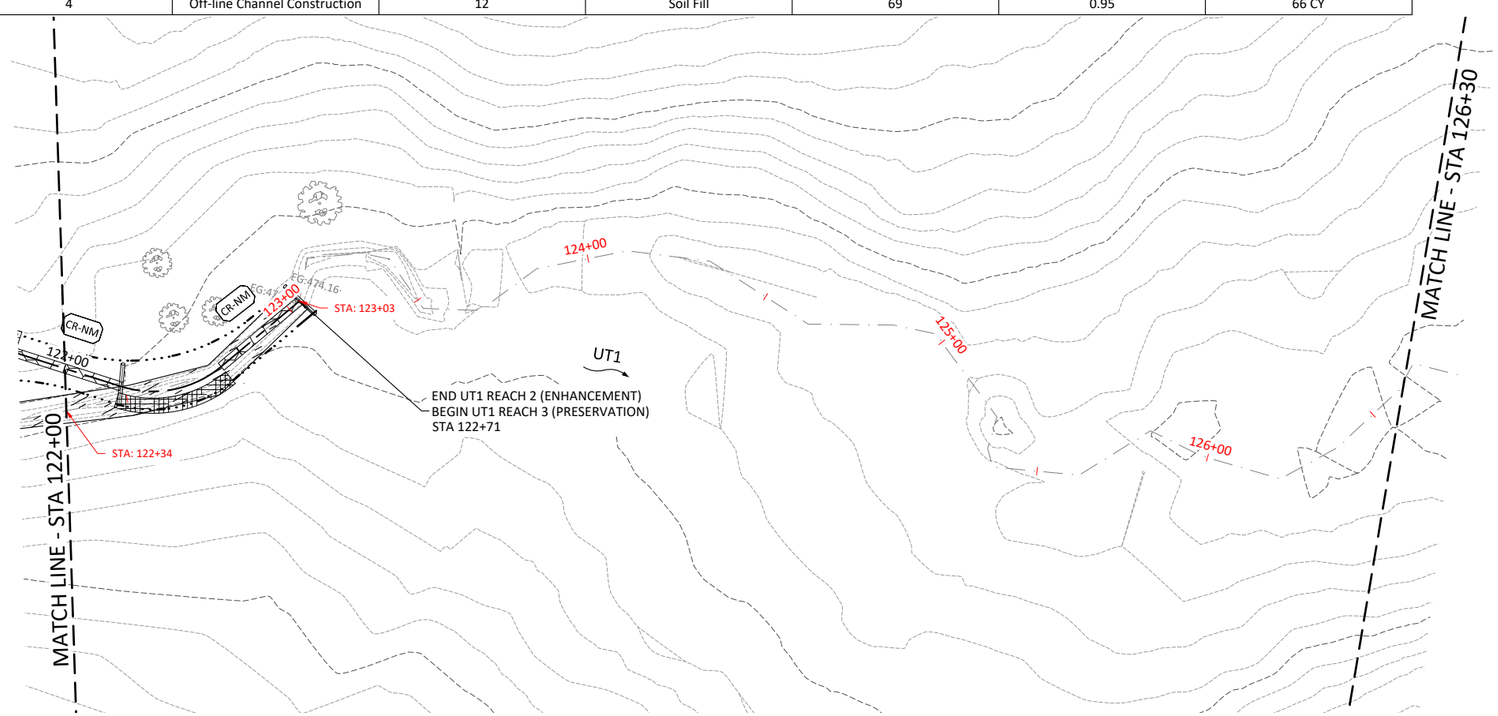
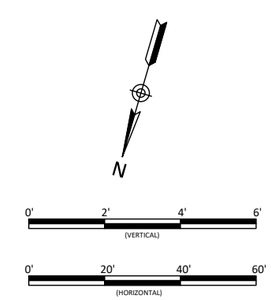
# PERMITTED PLANS




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 69 | 0.95 | 66 CY |

NOTE: TOPOGRAPHY WITHIN PRESERVATION AREAS INTERPOLATED AND NOT DETAIL SURVEY. PRESERVATION PROFILE SHOWN FOR ALIGNMENT REPRESENTATION ONLY. ACTUAL THALWEG ELEVATIONS WITHIN PRESERVATION AREAS VARY.

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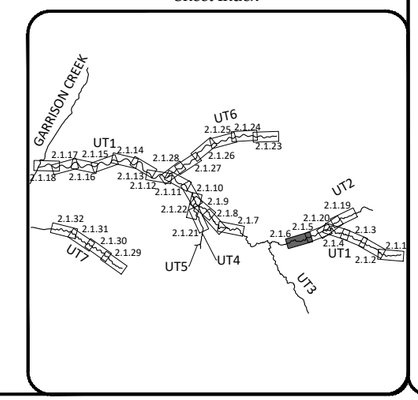



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 2 & 3
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.6

April 22, 2020

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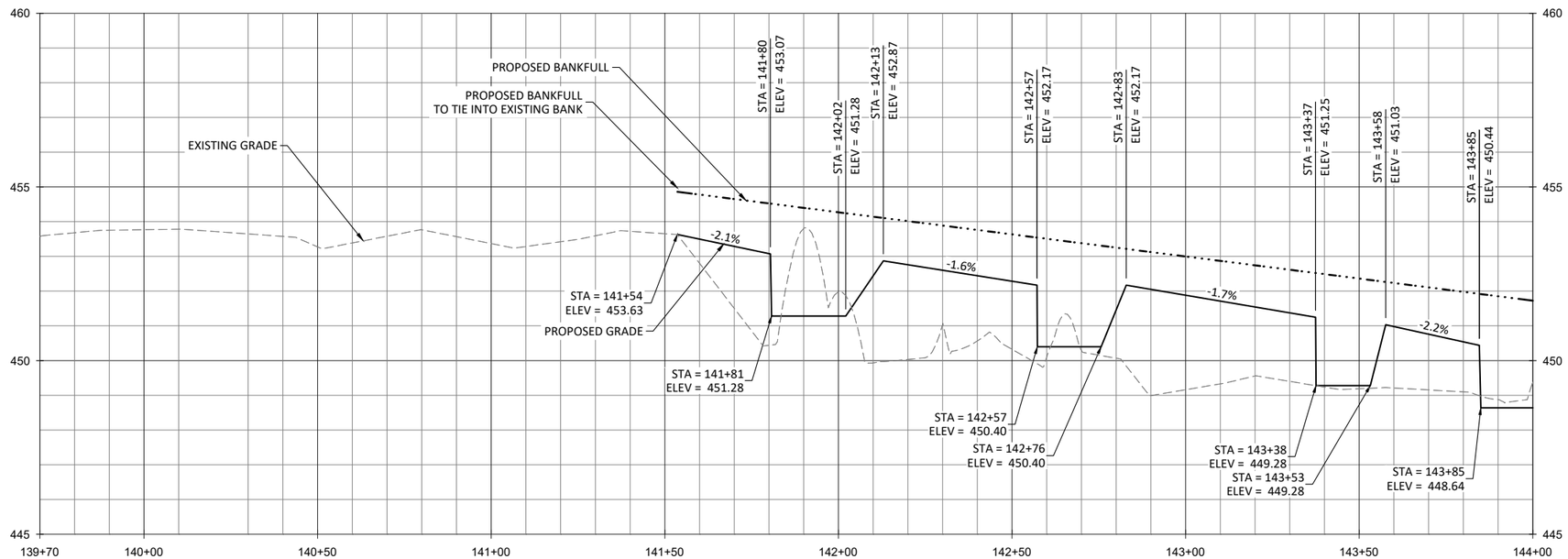
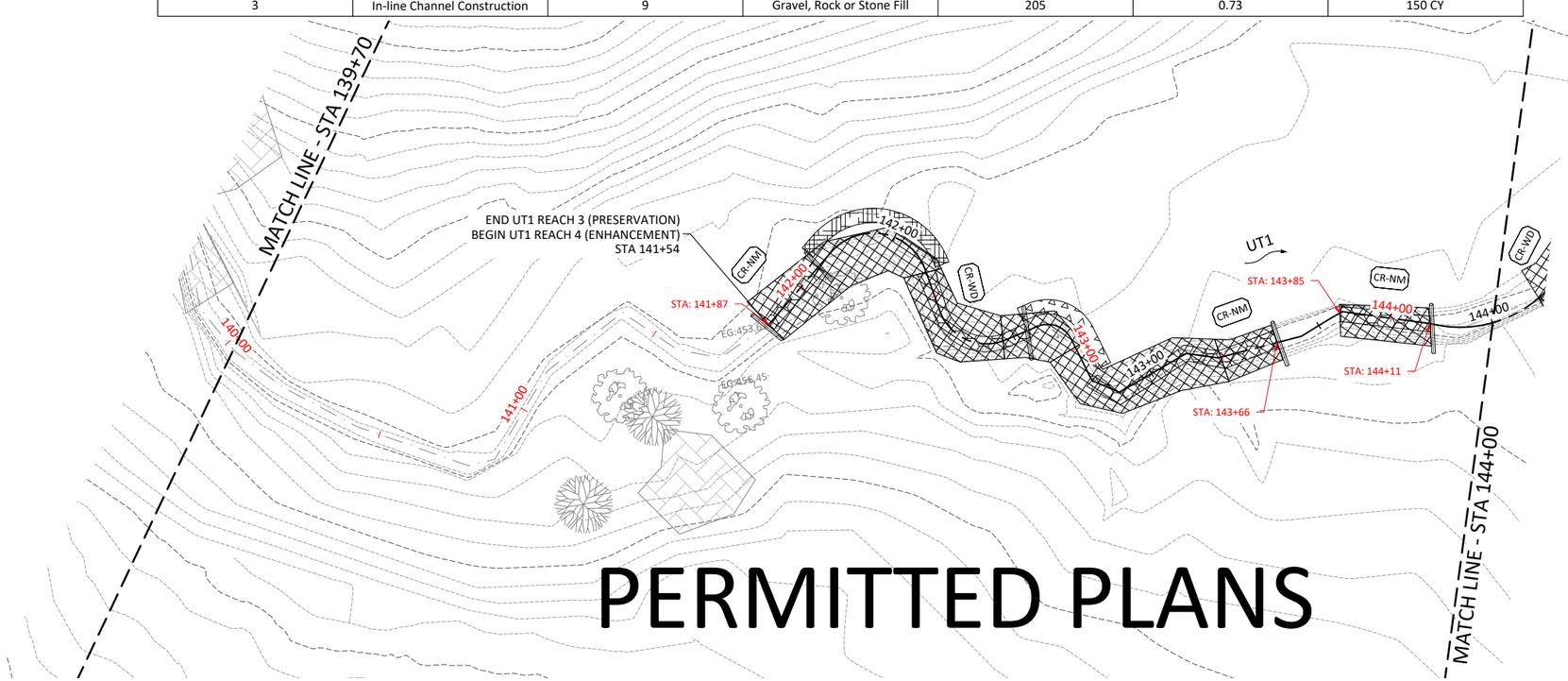
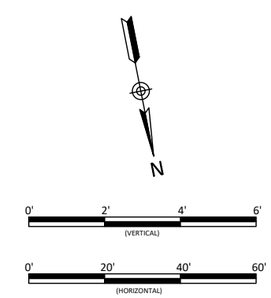



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 205 | 0.73 | 150 CY |




PERMITTED PLANS

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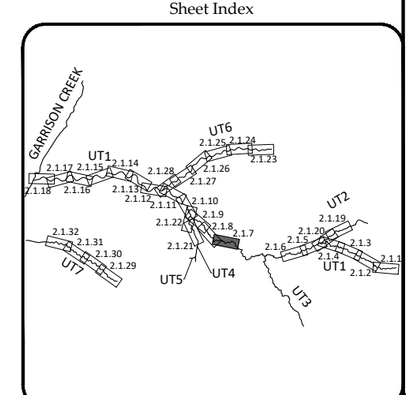



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# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT1 Reach 3 & 4
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.7


April 22, 2020
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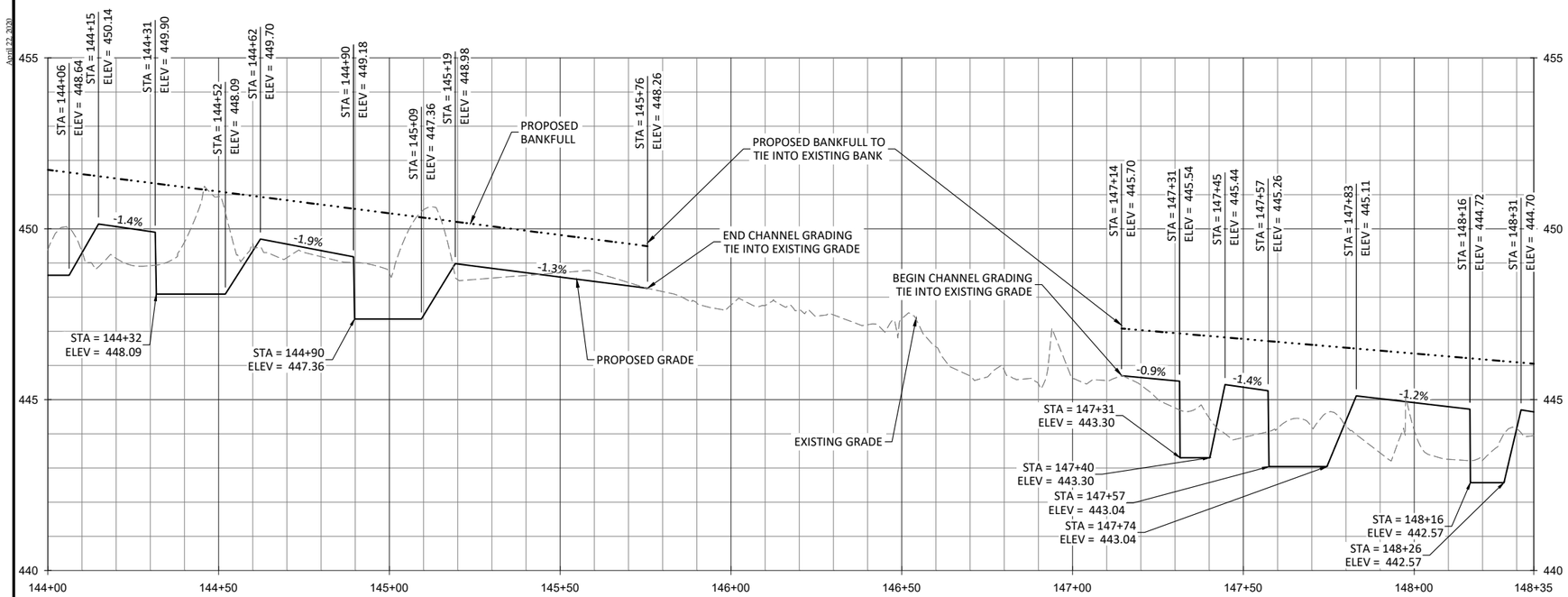
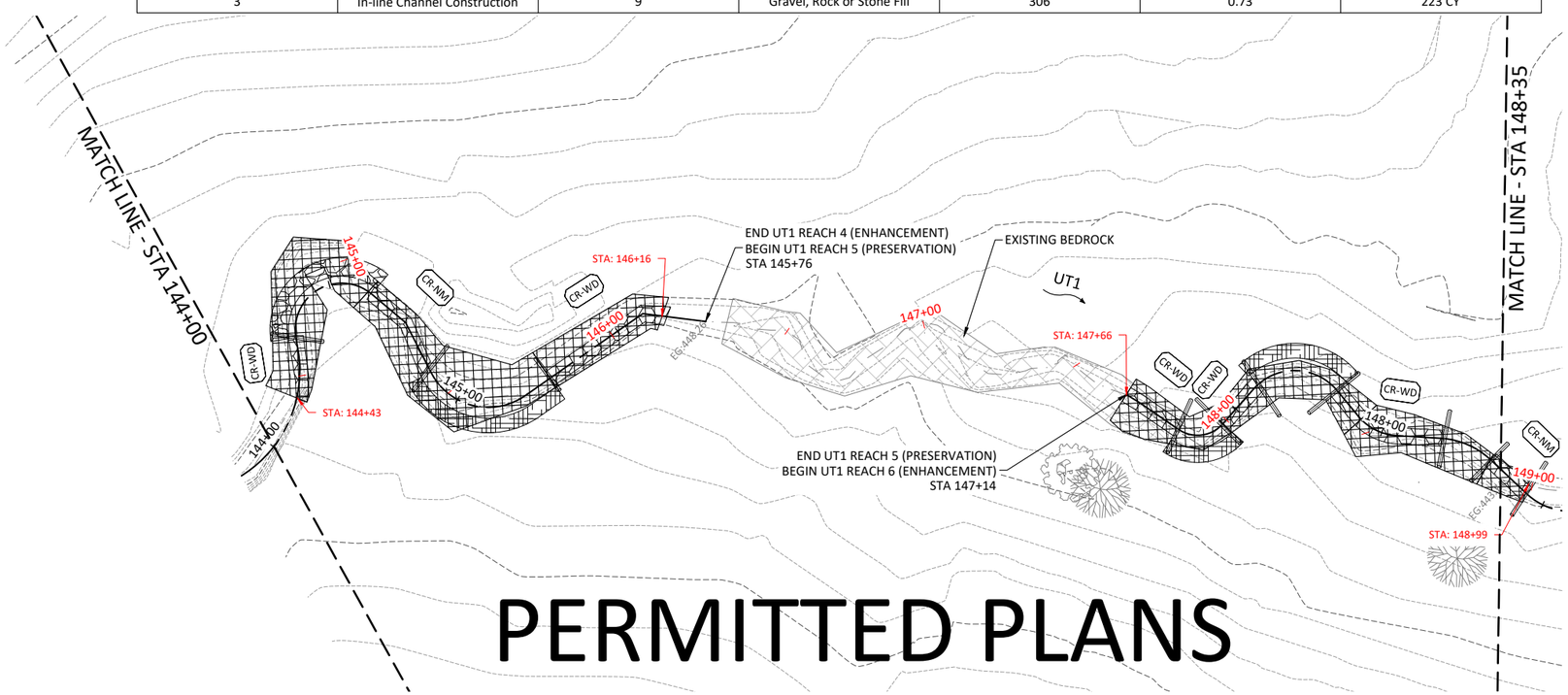
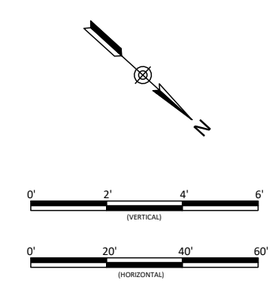



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 306 | 0.73 | 223 CY |




# PERMITTED PLANS

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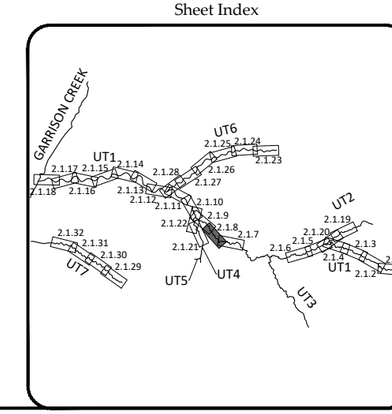



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 4, 5 & 6
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.8

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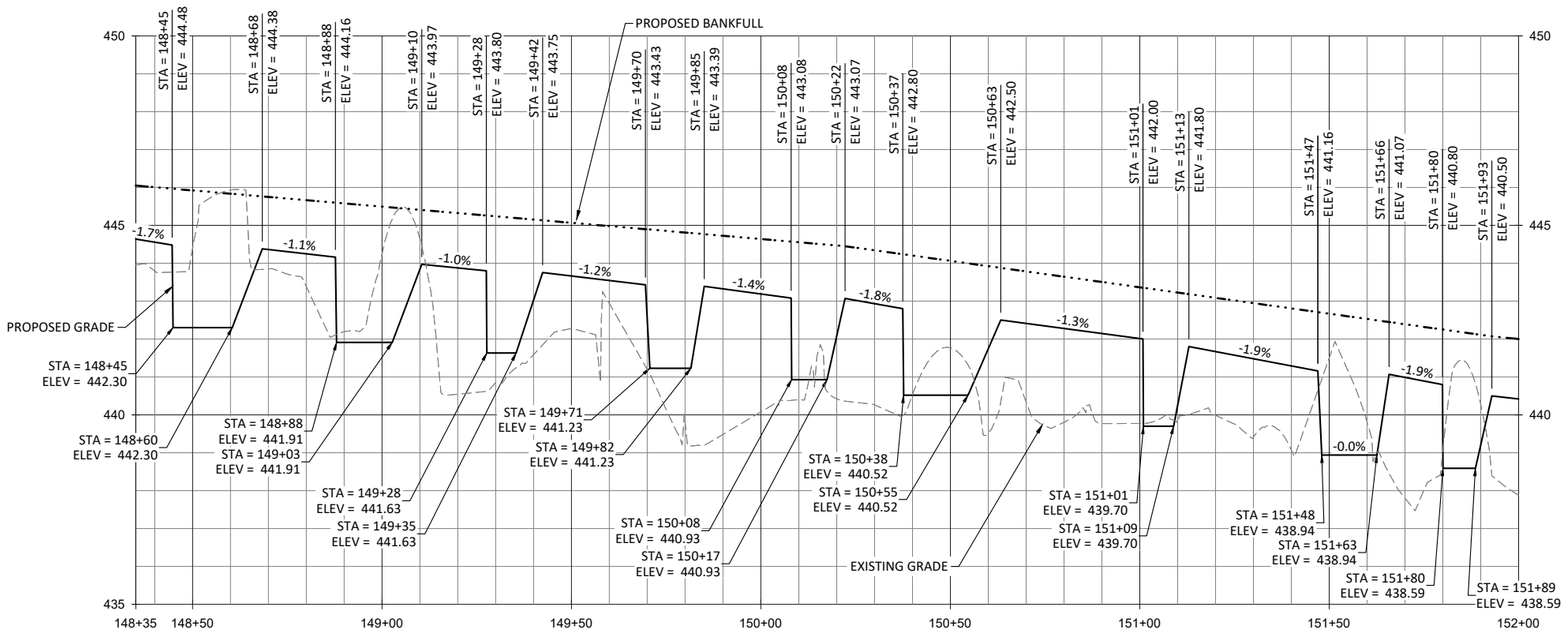
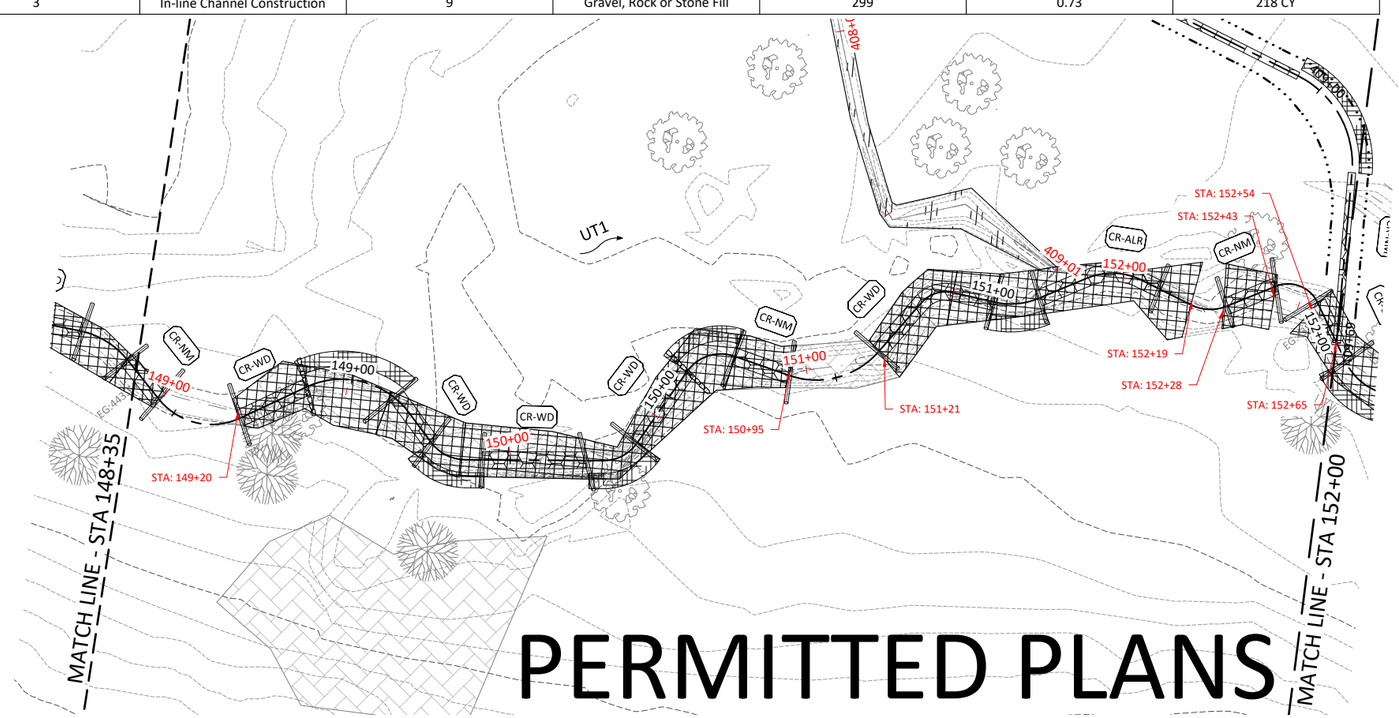
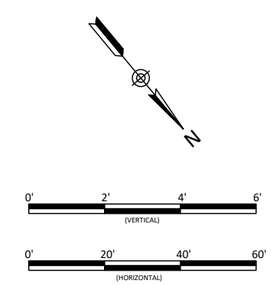



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 299 | 0.73 | 218 CY |




PERMITTED PLANS

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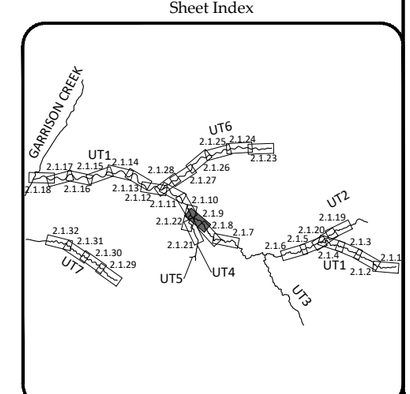



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT1 Reach 6
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.9

April 22, 2020

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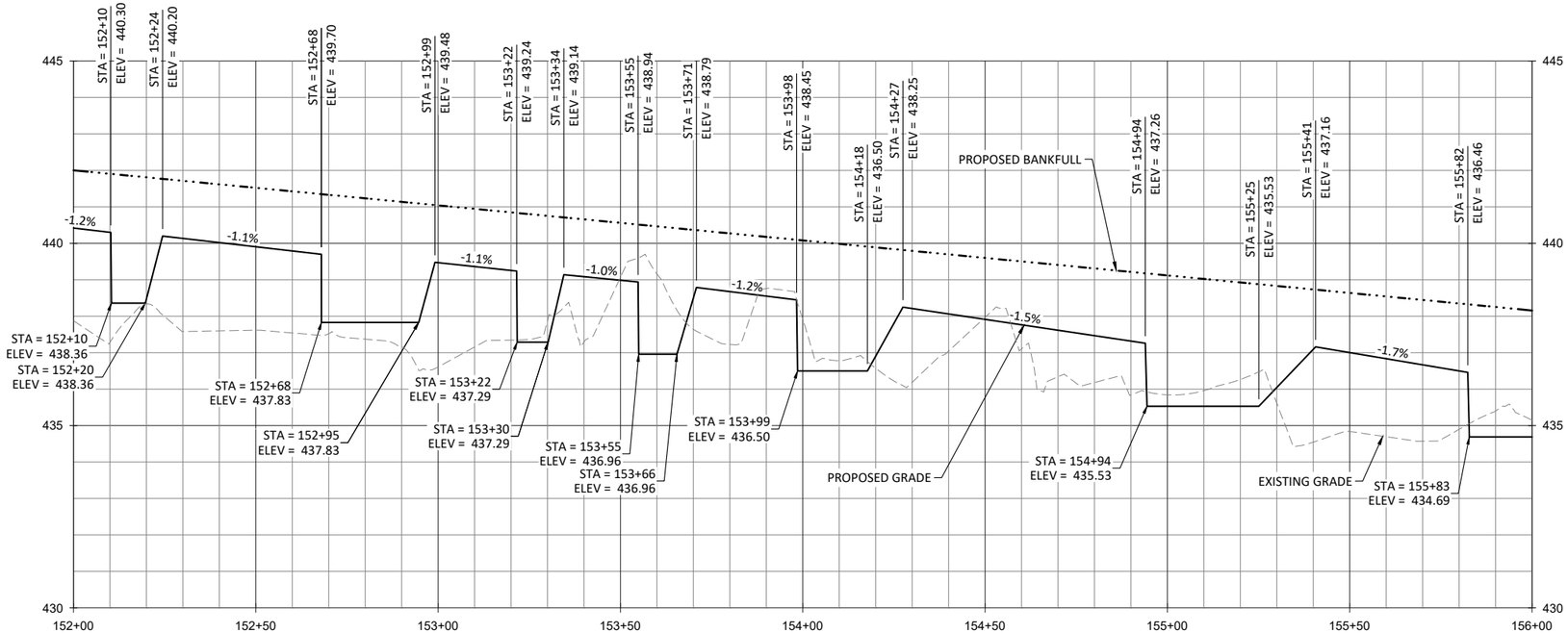
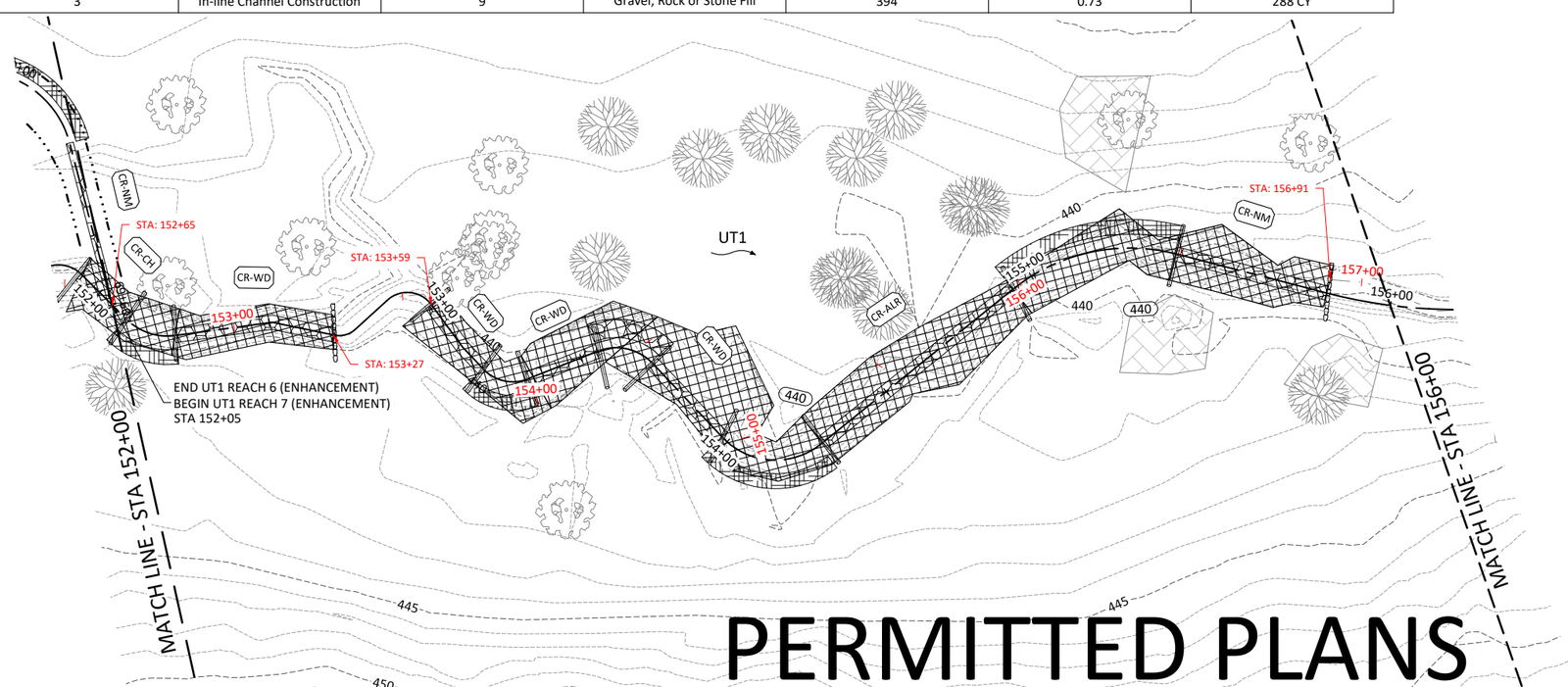
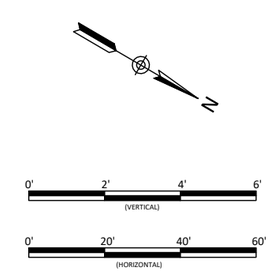



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 394 | 0.73 | 288 CY |




PERMITTED PLANS

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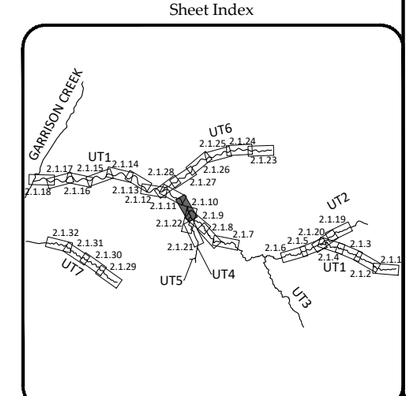



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT1 Reach 7
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.10

April 22, 2020

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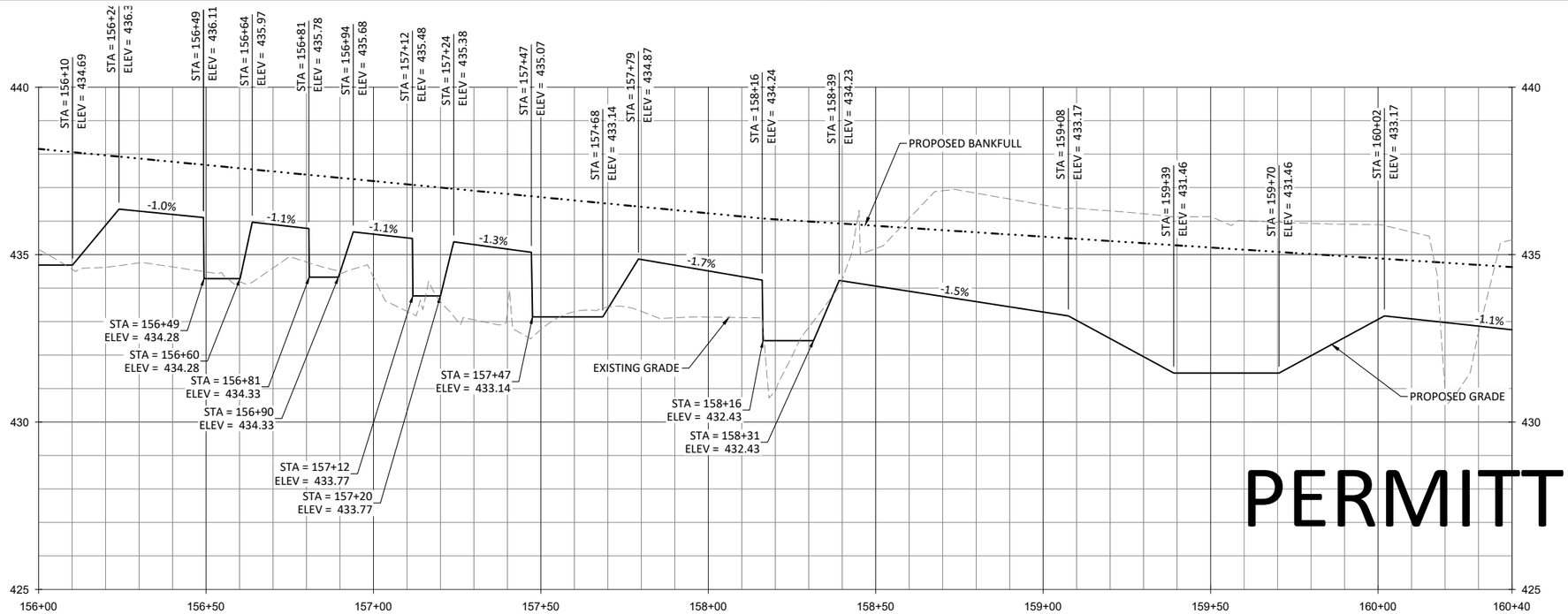
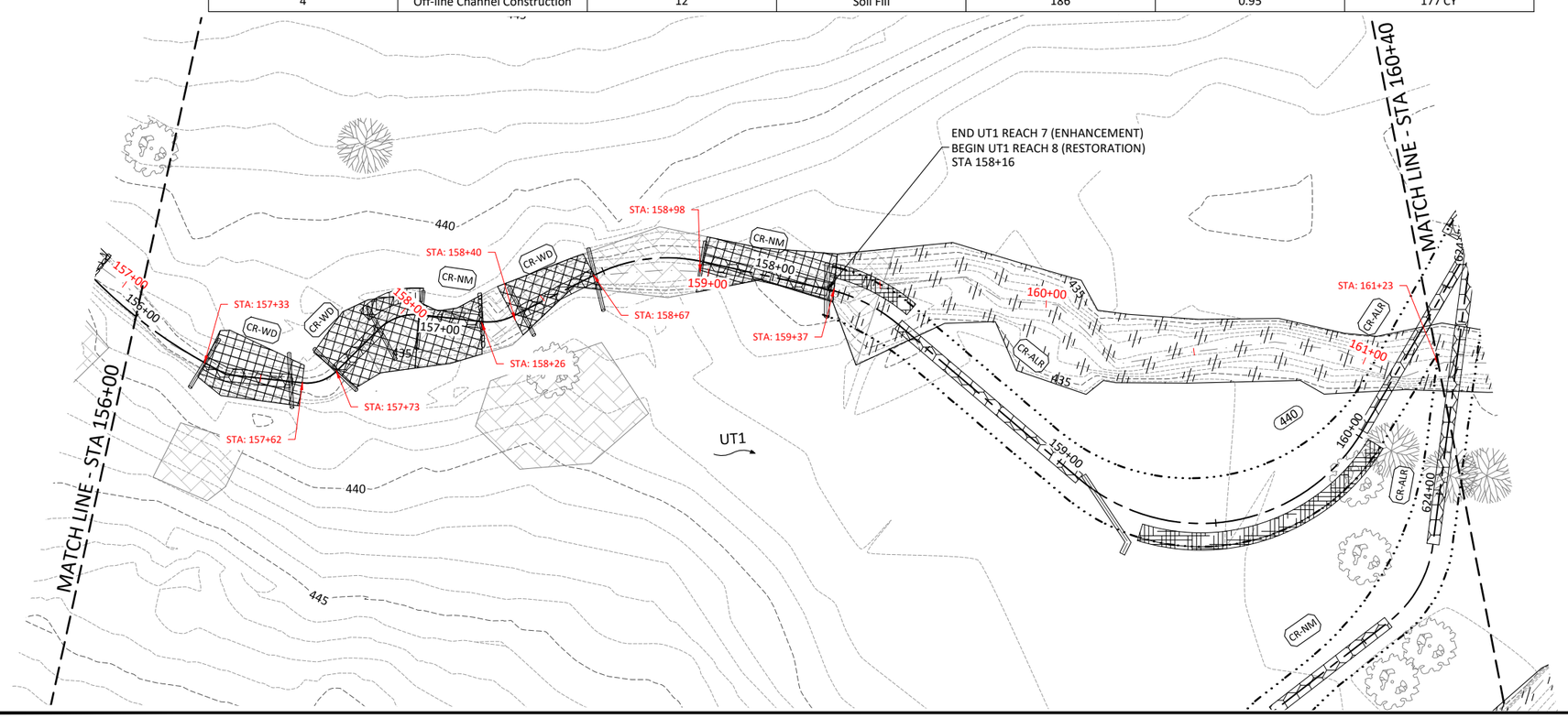
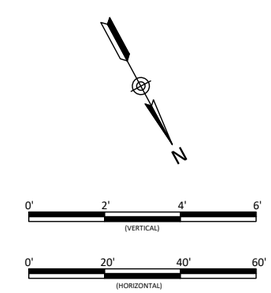



# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 148 | 0.73 | 108 CY |
| 4 | Off-line Channel Construction | 12 | Soil Fill | 186 | 0.95 | 177 CY |

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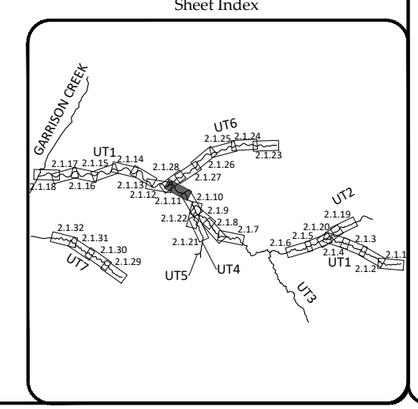



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 7 & 8
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.11


April 22, 2020
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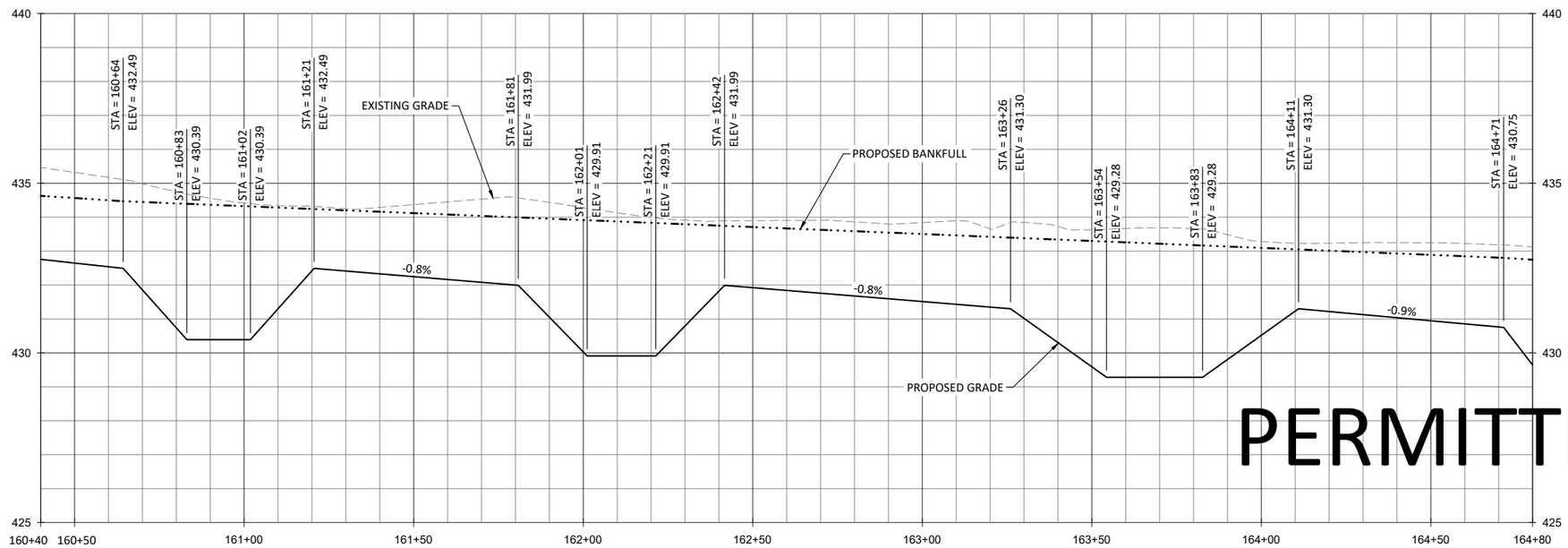


# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
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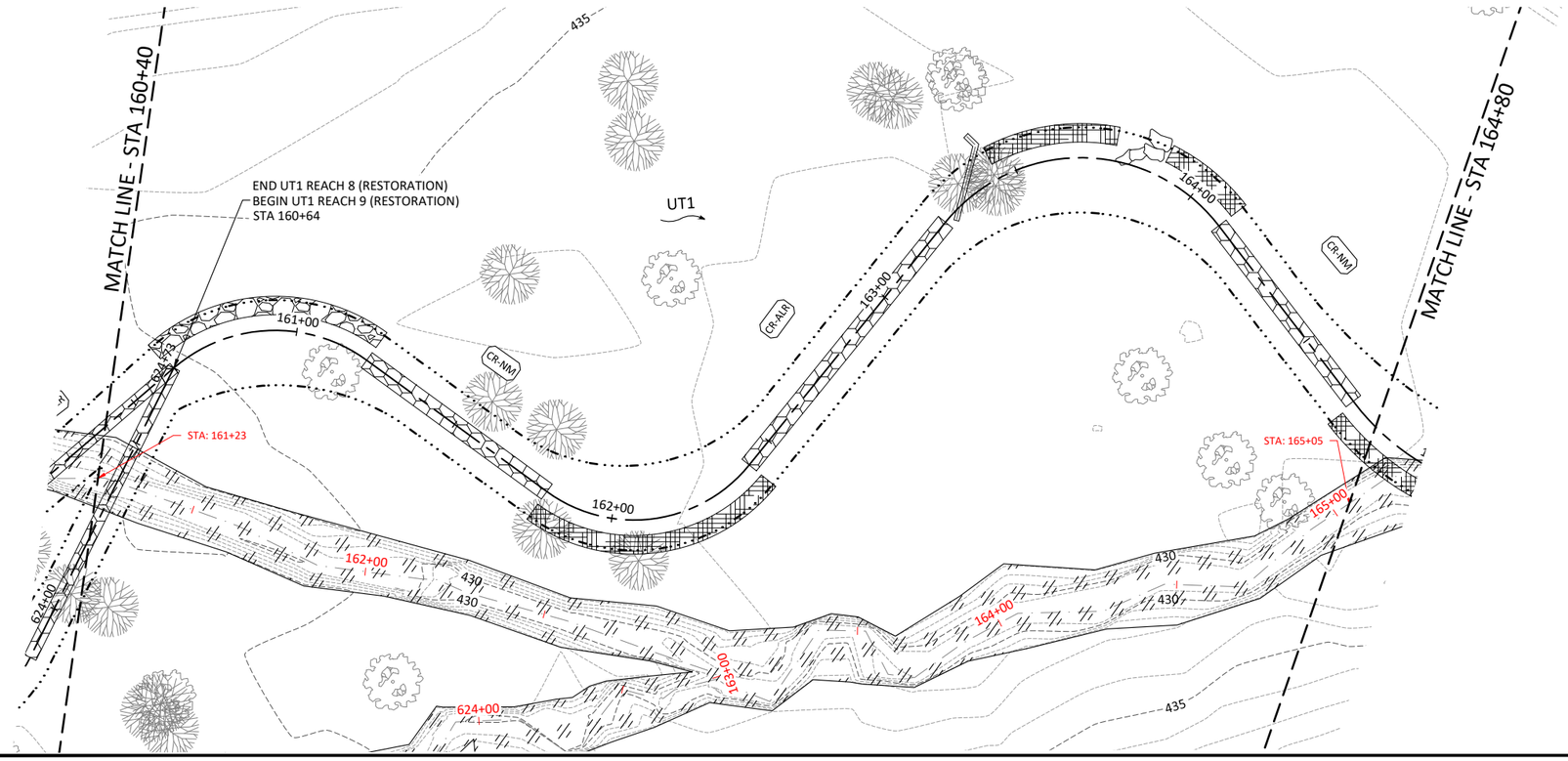
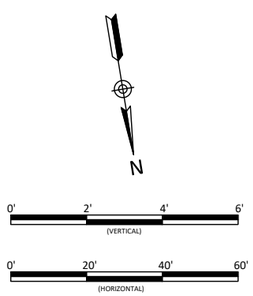
| 4 | Off-line Channel Construction | 12 | Soil Fill | 382 | 0.95 | 363 CY |

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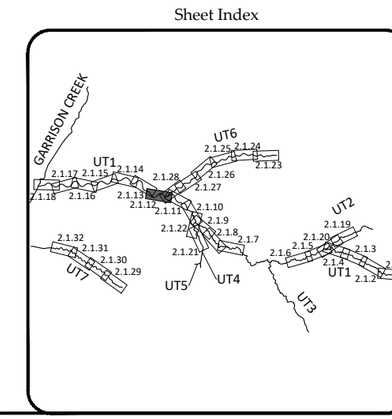



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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

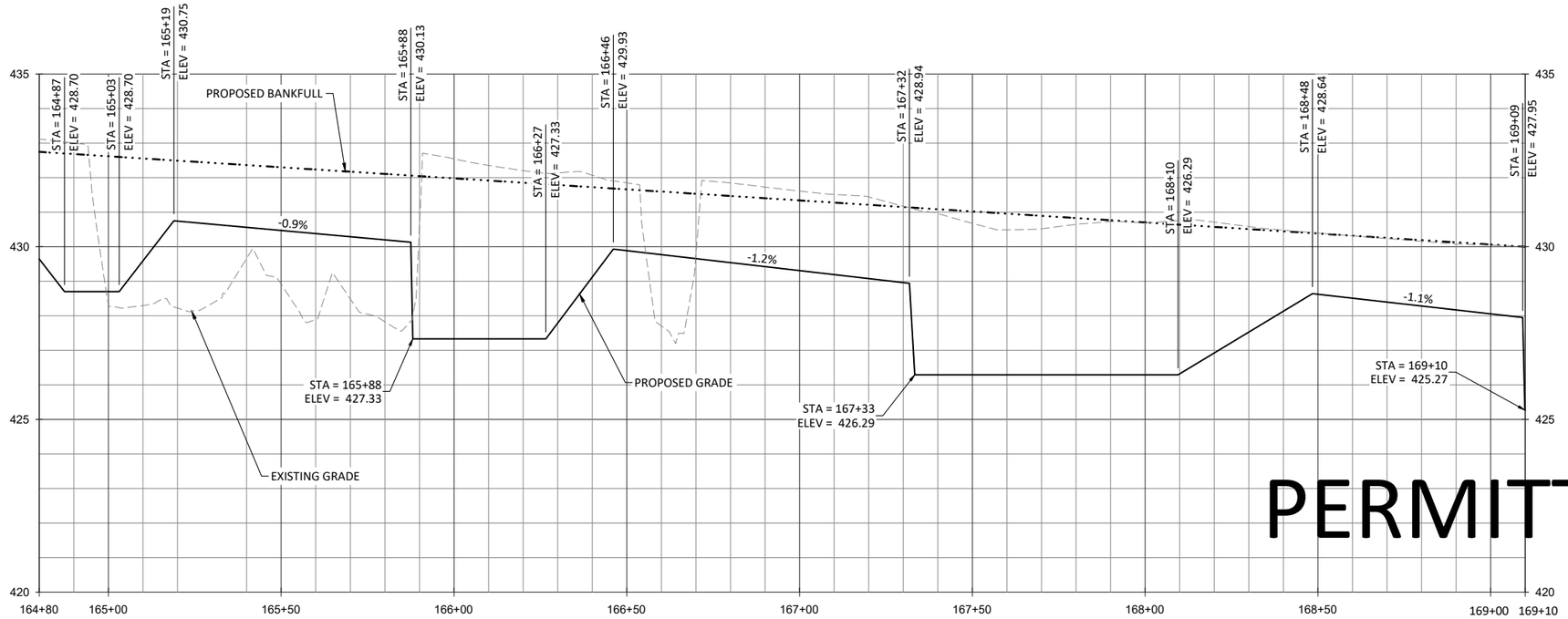
UT1 Reach 9
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

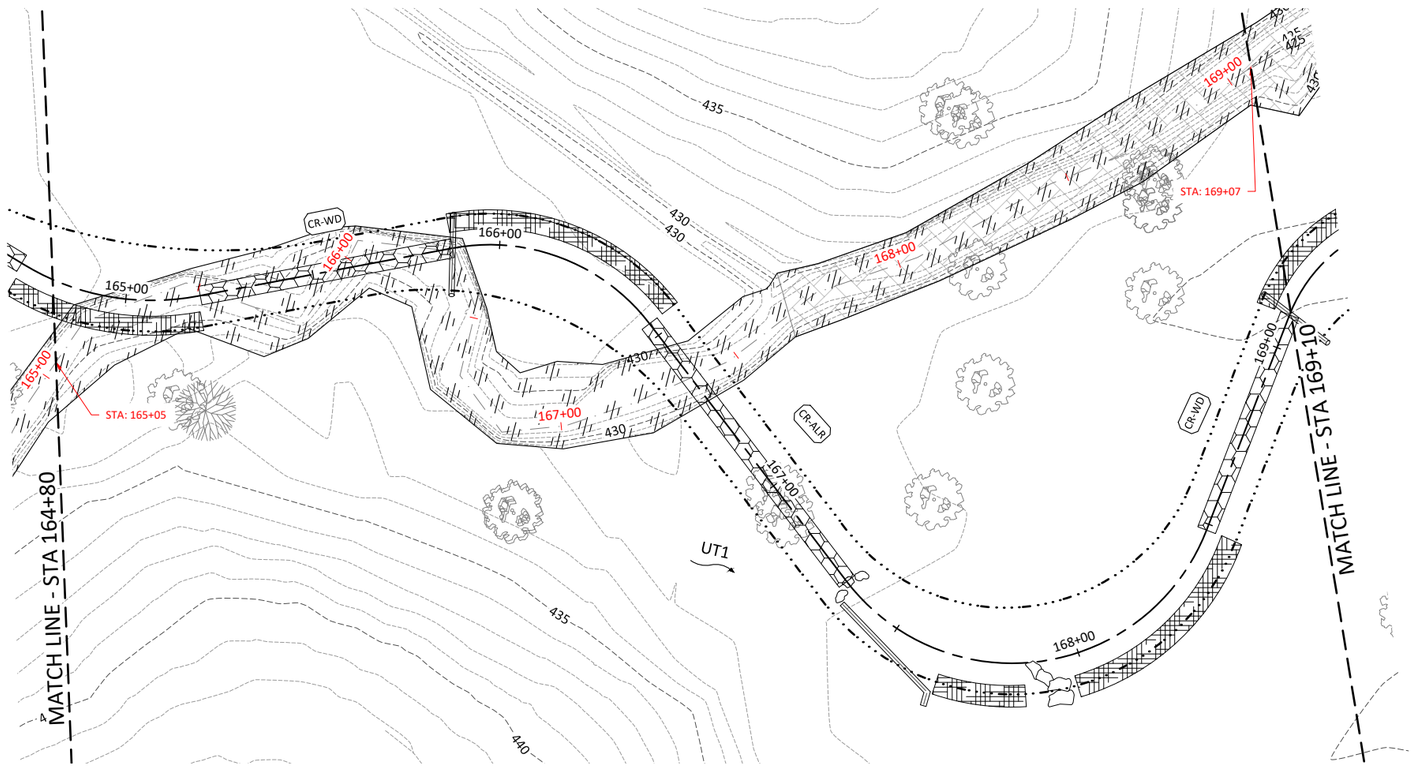
Sheet 2.1.12

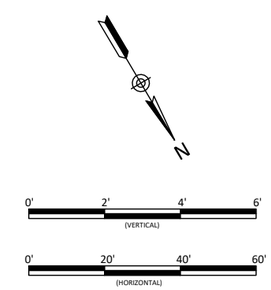
April 22, 2020




# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 402 | 0.95 | 382 CY |

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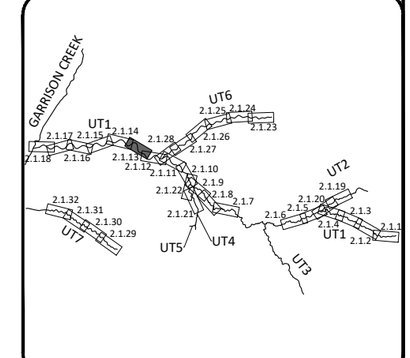


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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 9
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MLC |
| Checked By: | DHI |

Sheet 2.1.13

April 29, 2020
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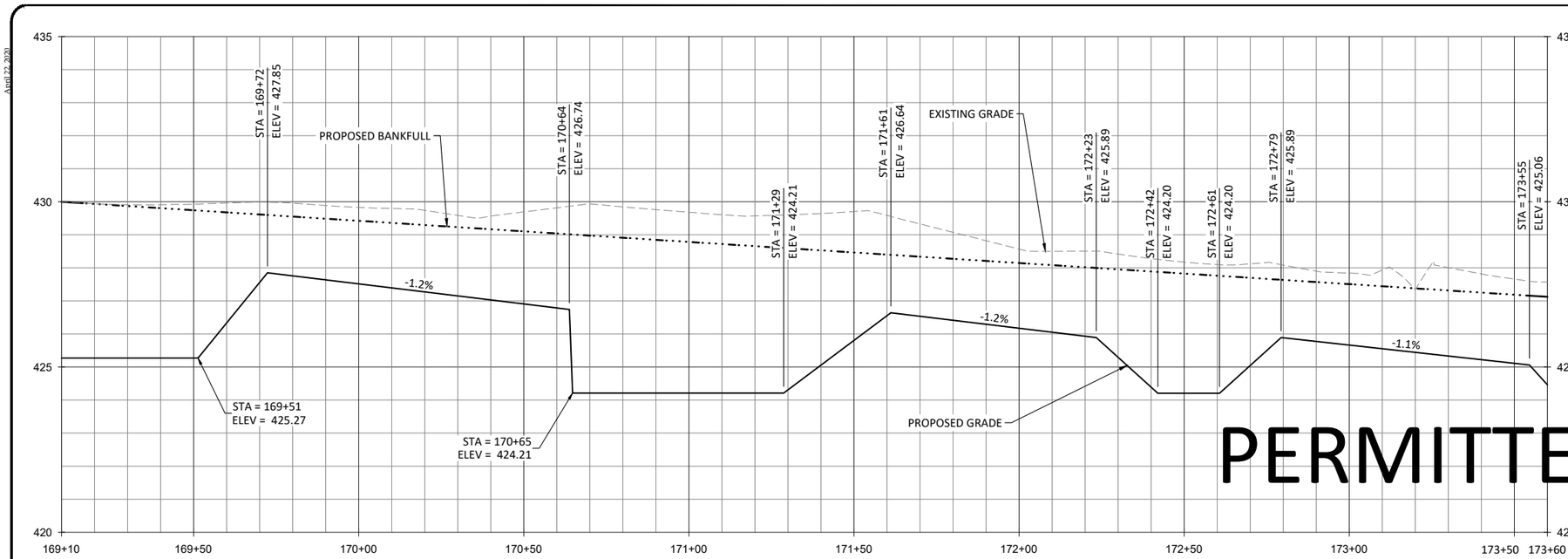


# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
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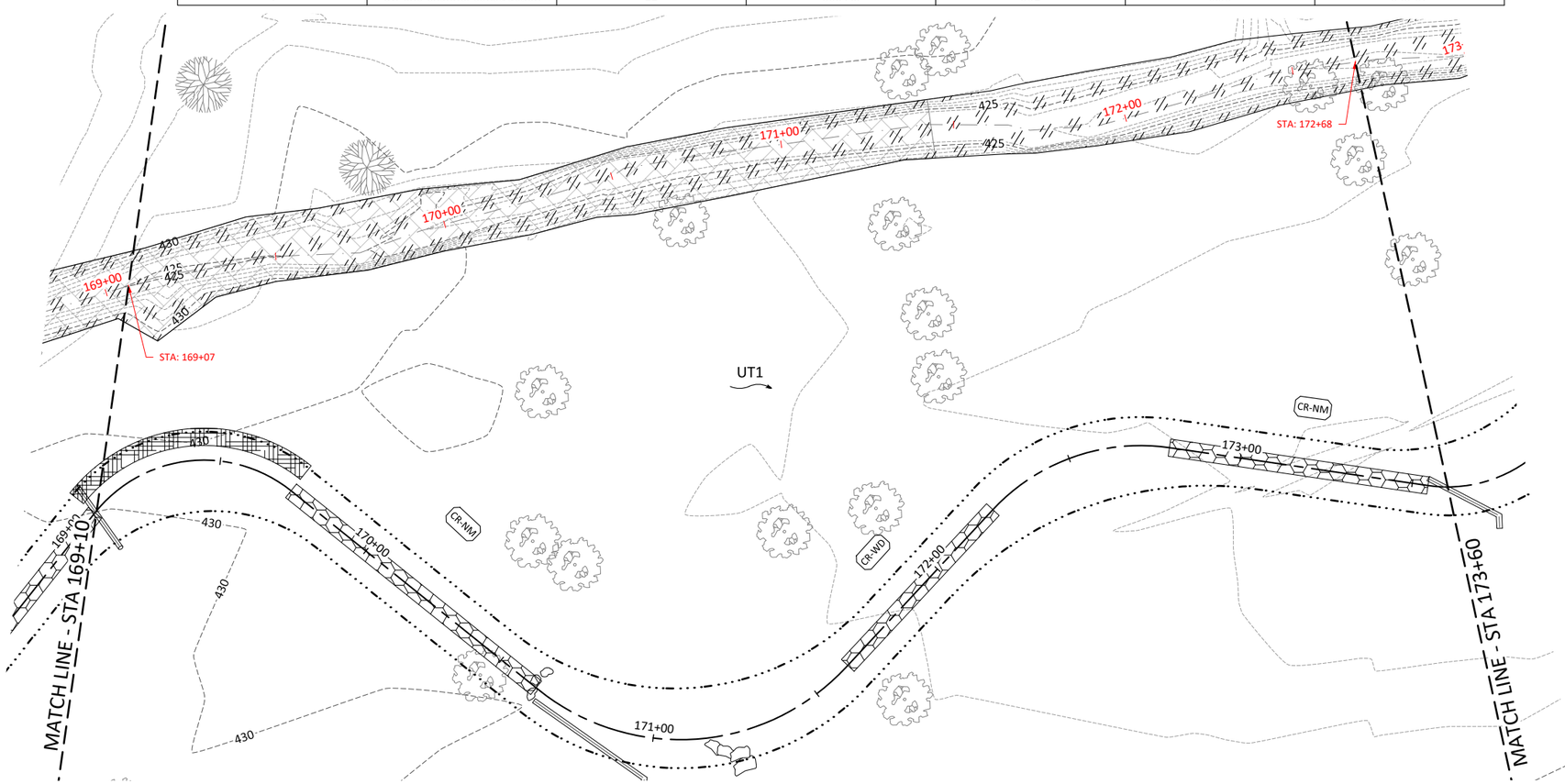
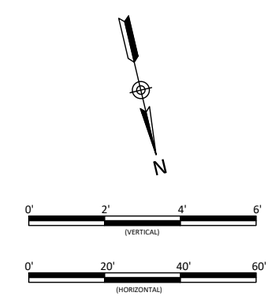
| 4 | Off-line Channel Construction | 12 | Soil Fill | 361 | 0.95 | 343 CY |

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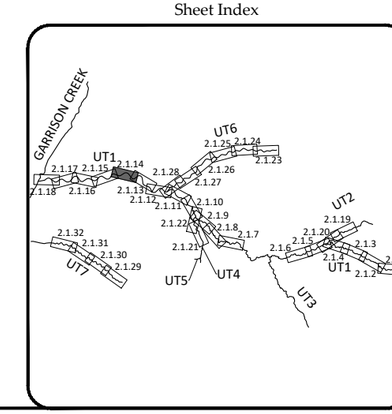



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 9
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.14

April 22, 2020

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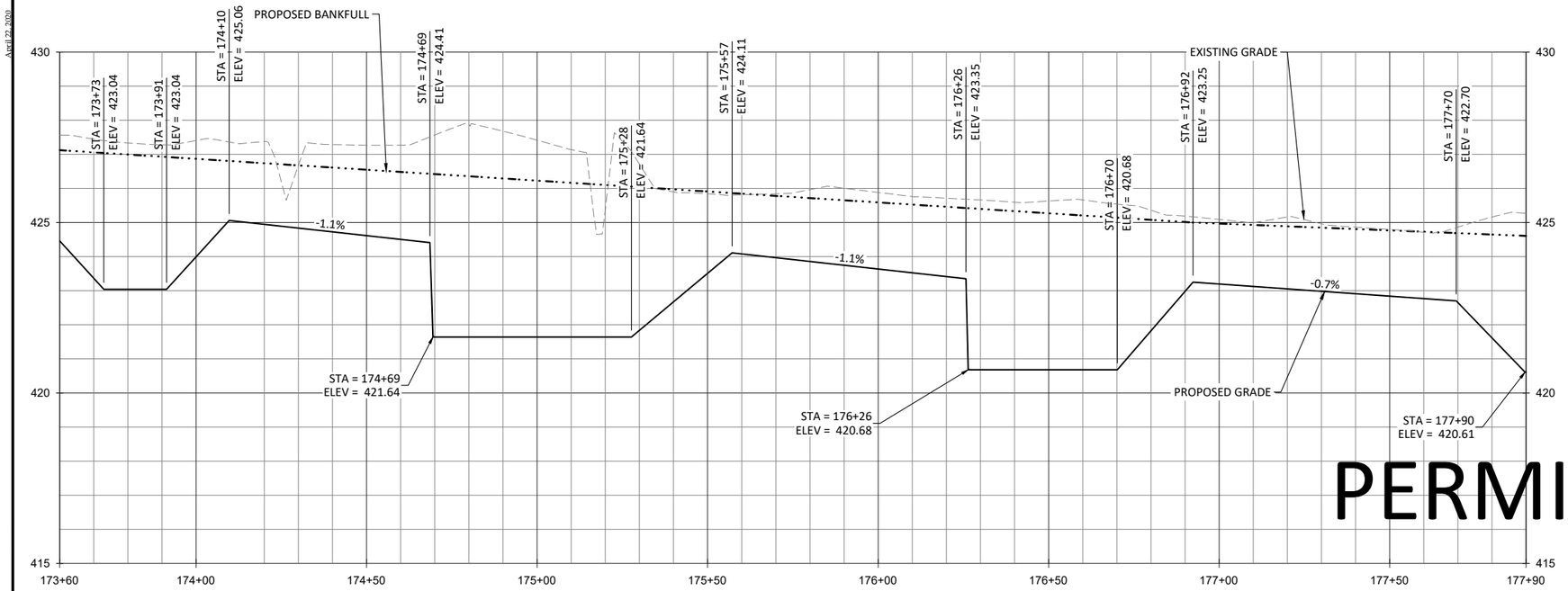


# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
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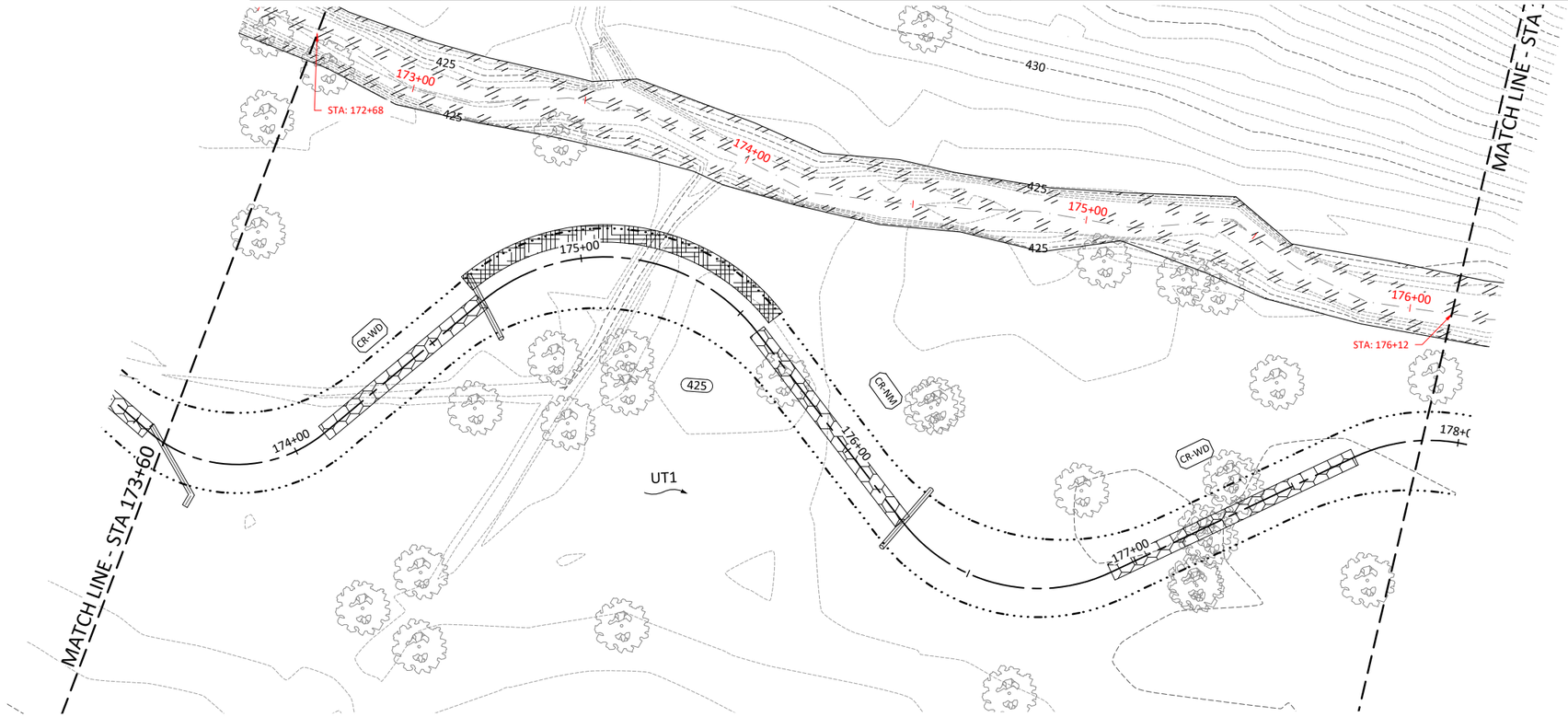
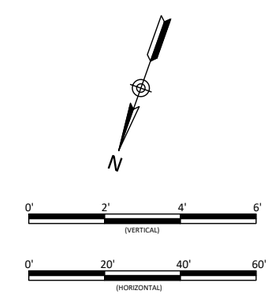
| 4 | Off-line Channel Construction | 12 | Soil Fill | 344 | 0.95 | 327 CY |

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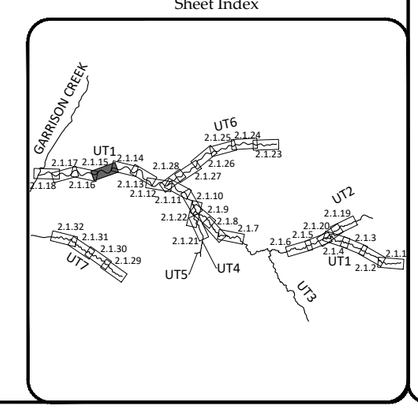



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

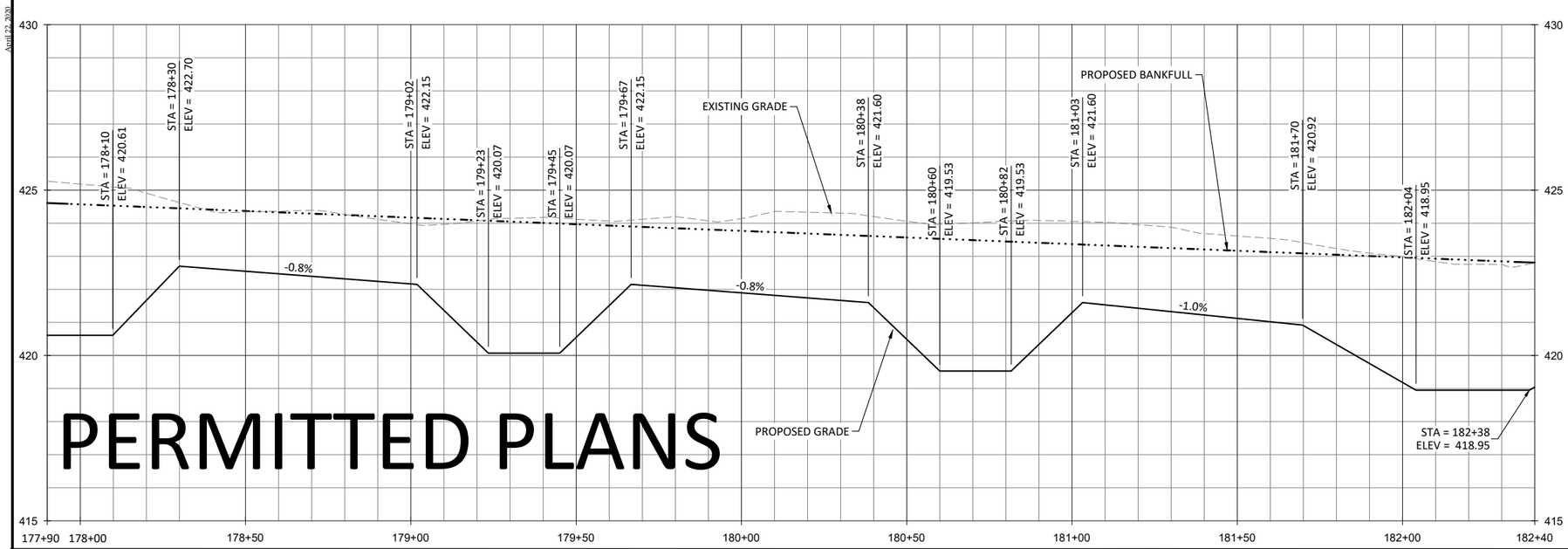
UT1 Reach 9
PCN

Revisions:

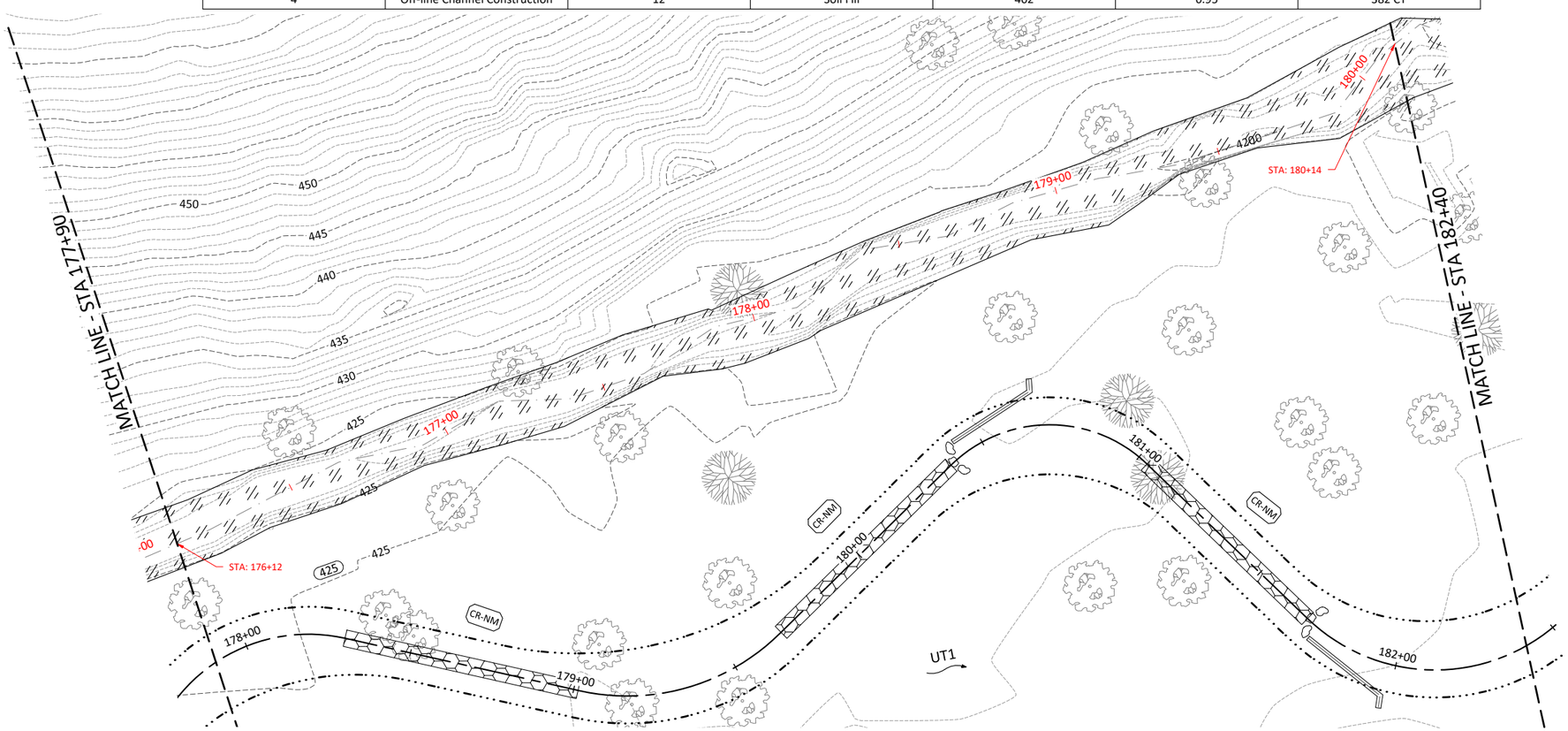
Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

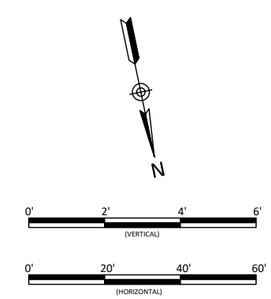
Sheet 2.1.15

April 22, 2020




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 402 | 0.95 | 382 CY |

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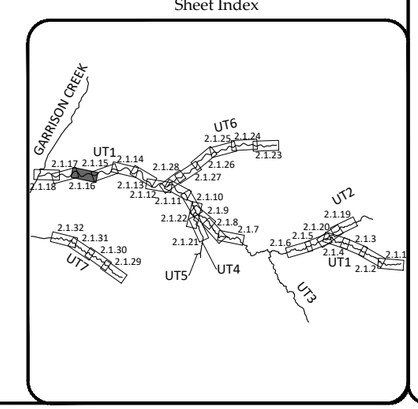



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT1 Reach 9
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.16

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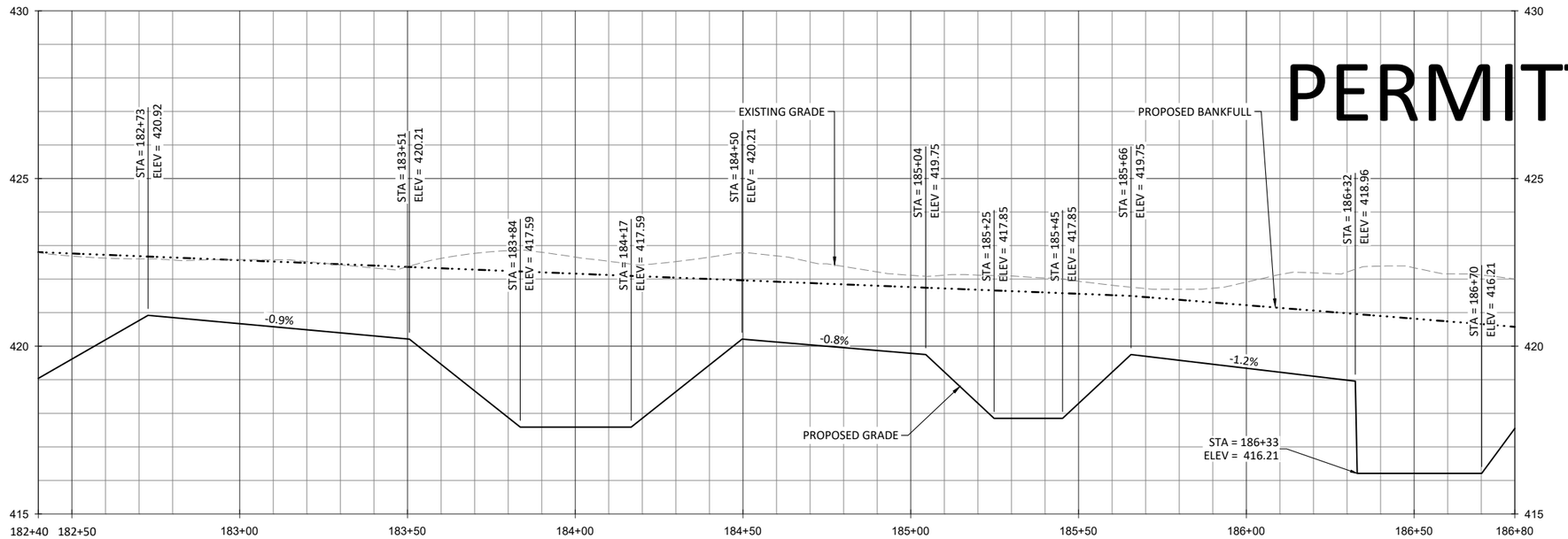
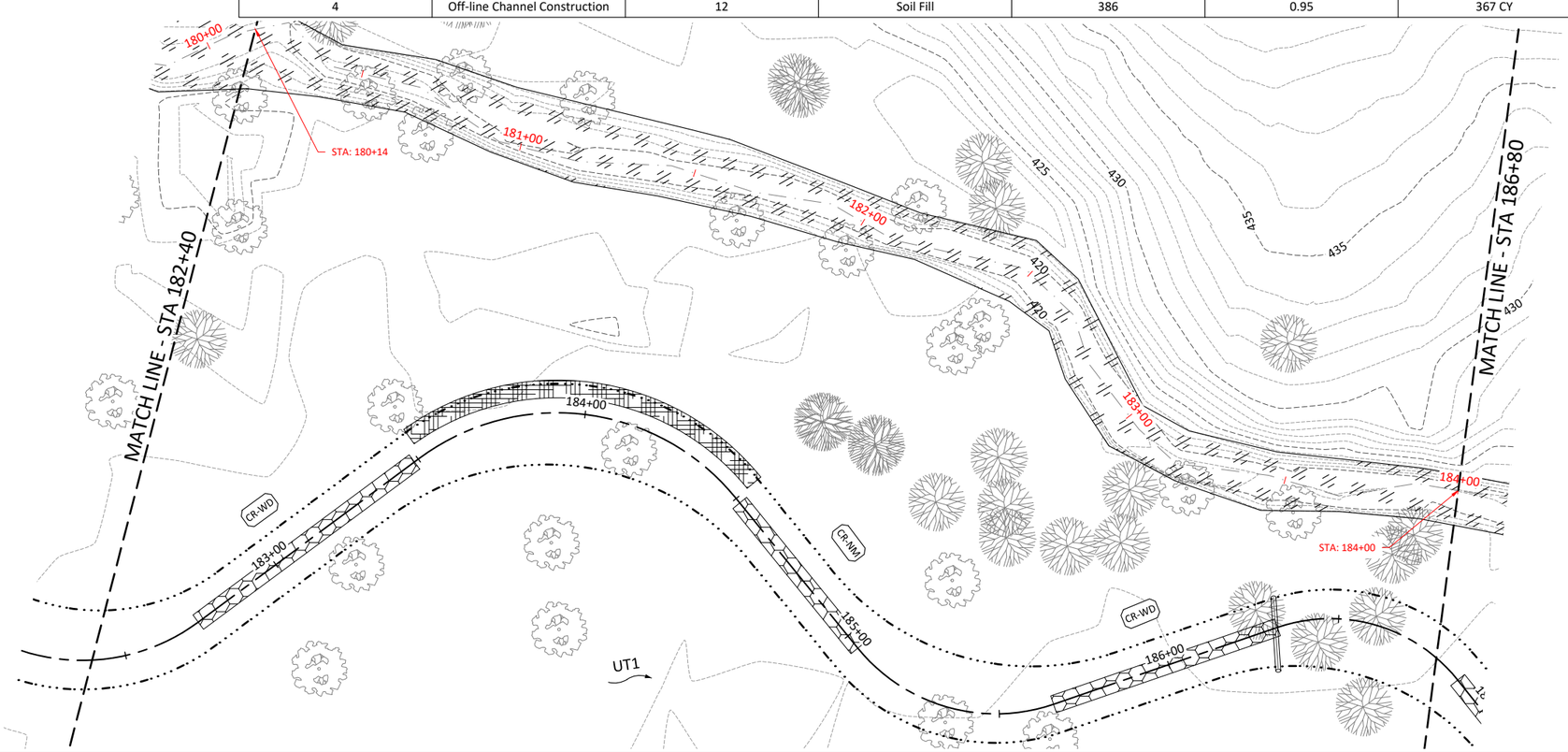
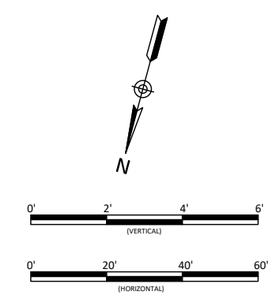
# PERMITTED PLANS




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 386 | 0.95 | 367 CY |

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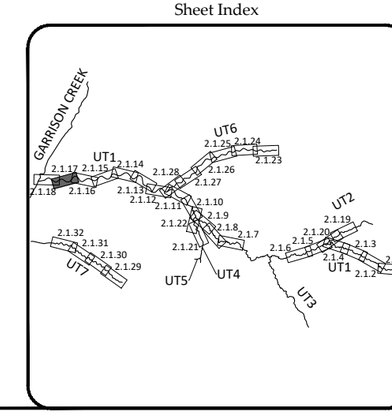



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 9
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.17

April 22, 2020

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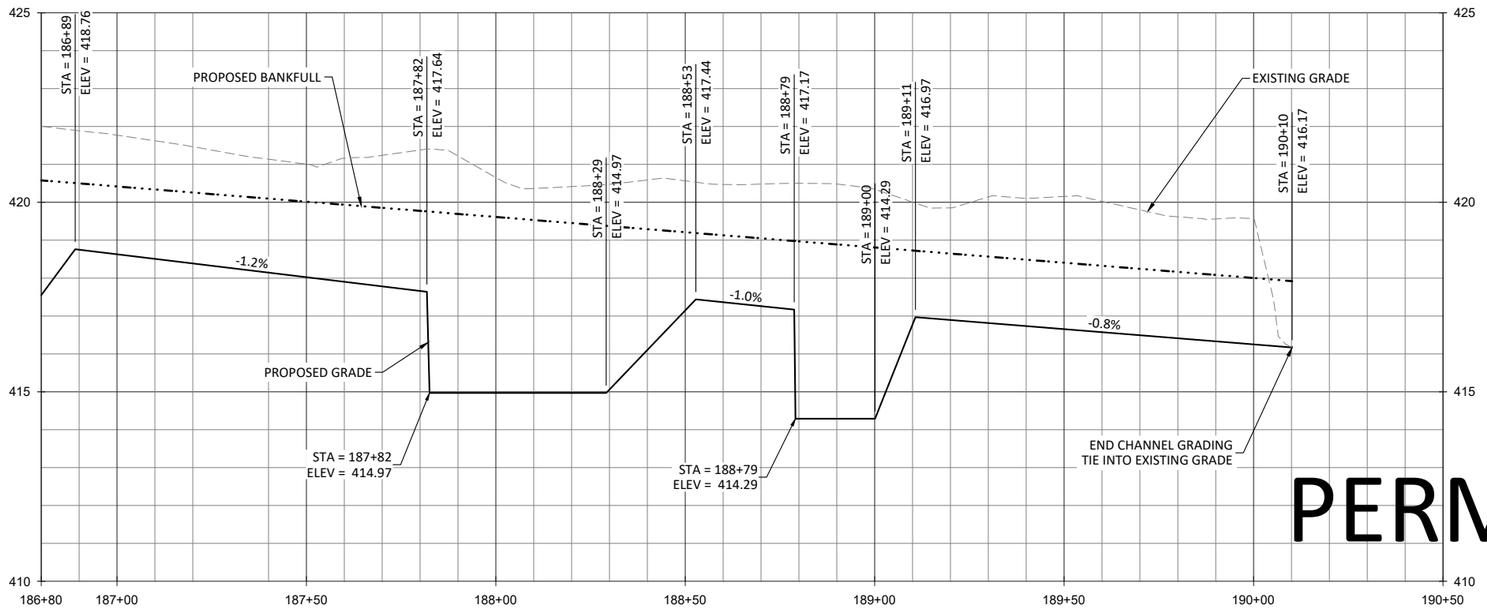
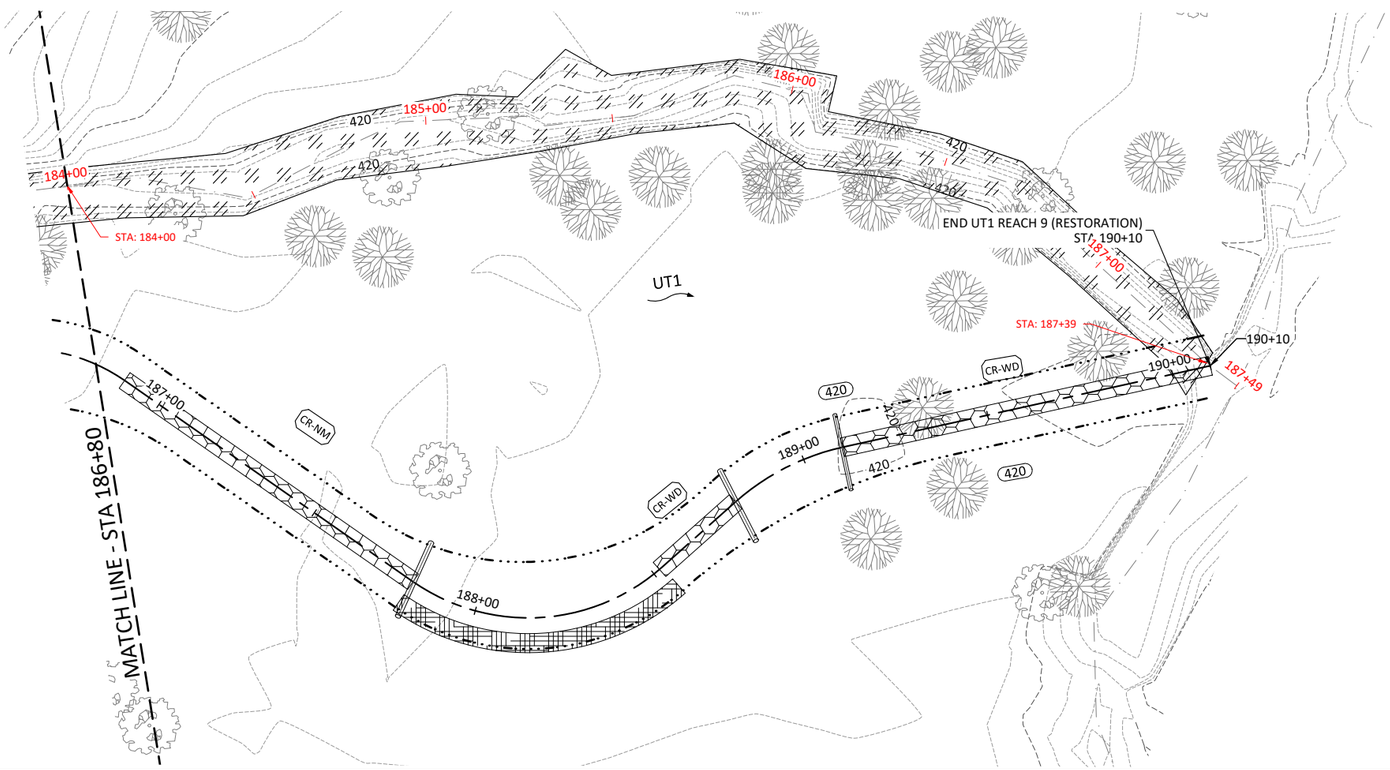
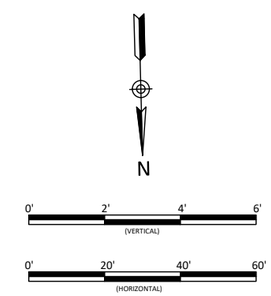



# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 339 | 0.95 | 322 CY |

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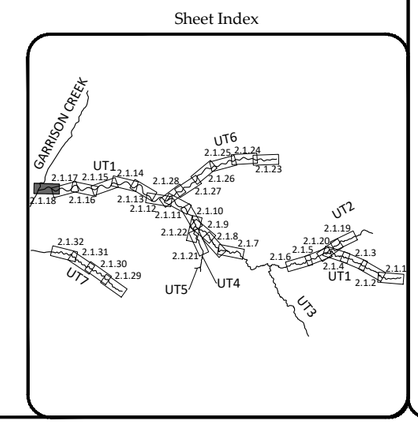



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT1 Reach 9
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.18

April 22, 2020

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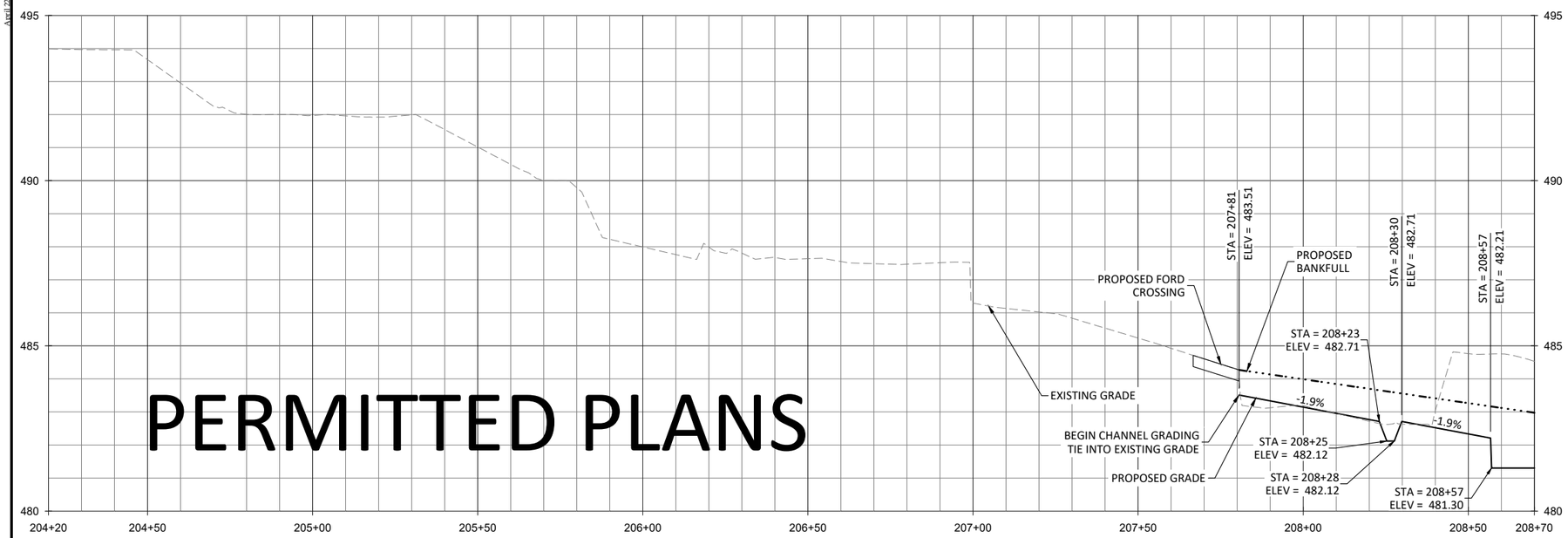
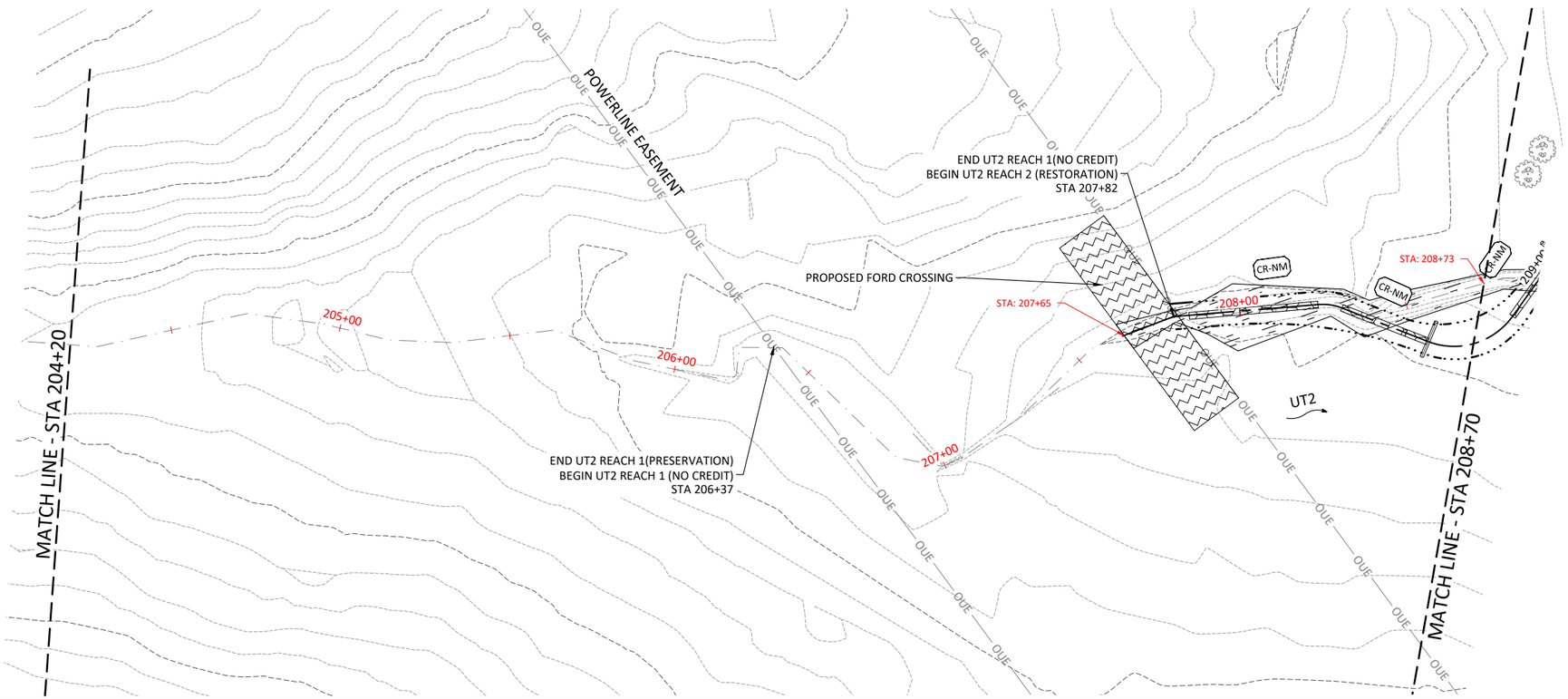
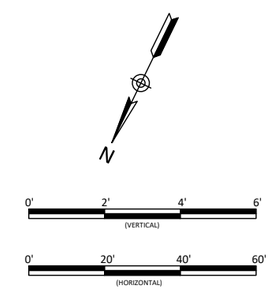



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 108 | 0.95 | 103 CY |

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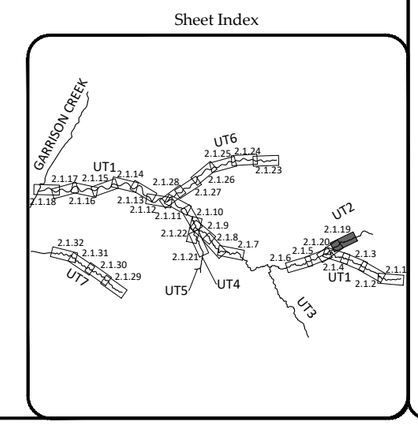



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT2 Reach 1 & 2
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

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April 22, 2020

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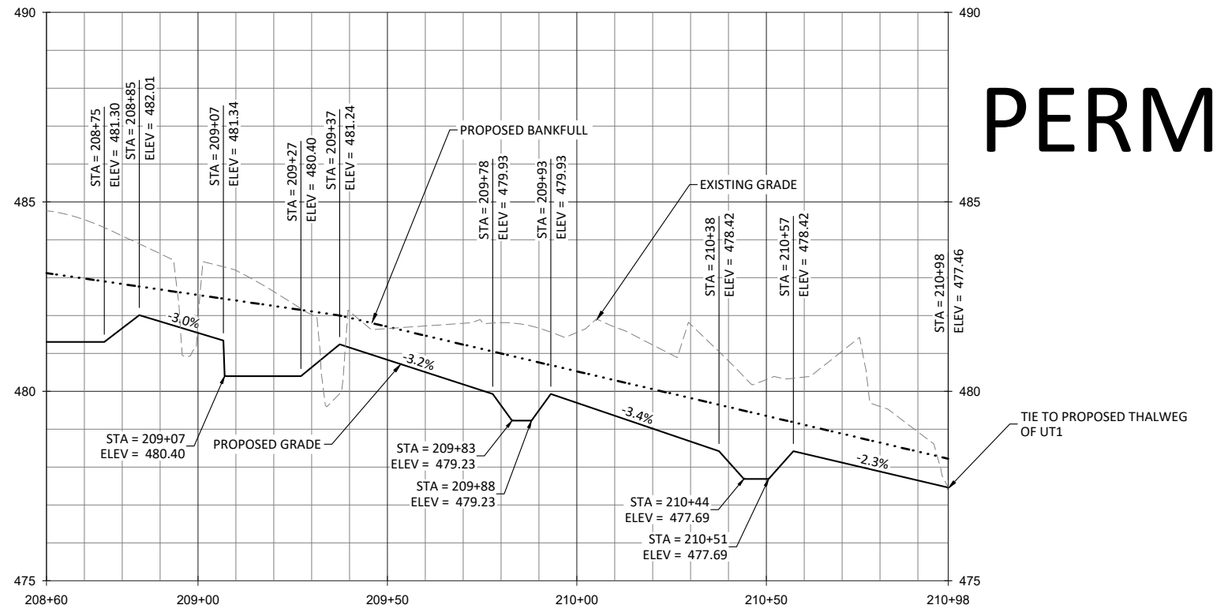
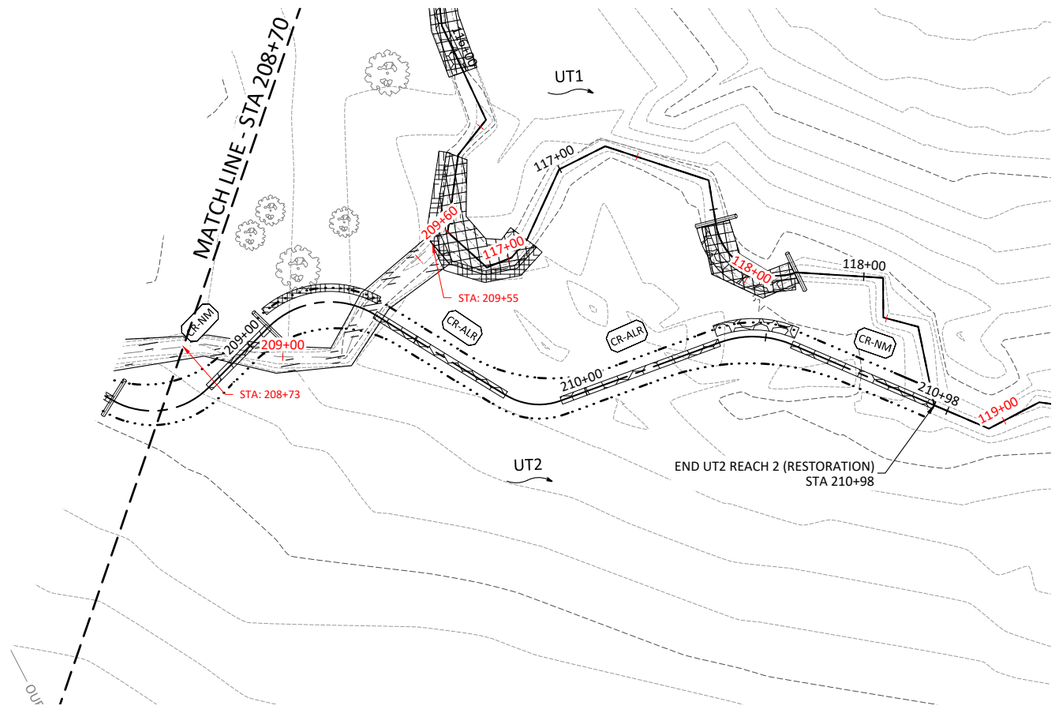
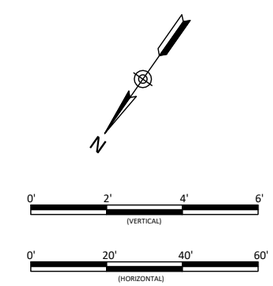
# PERMITTED PLANS




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 82 | 0.95 | 78 CY |

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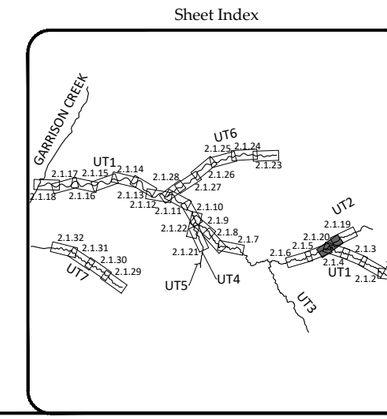



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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT2 Reach 2
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.20


April 22, 2020
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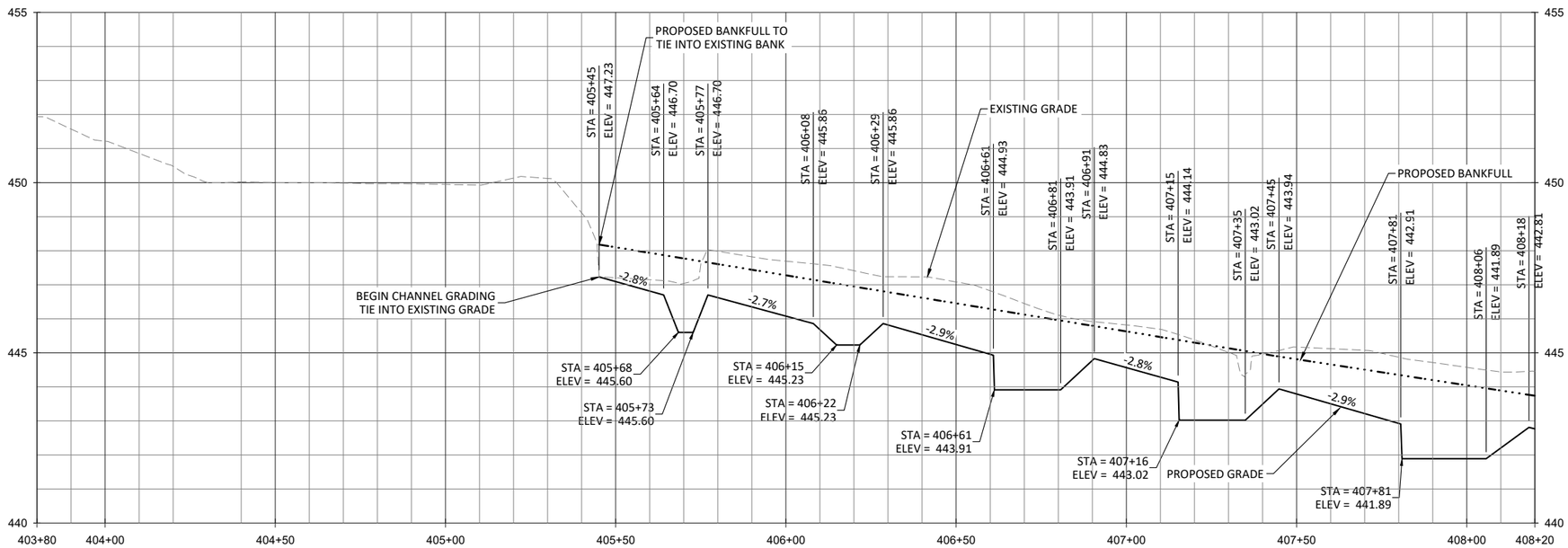
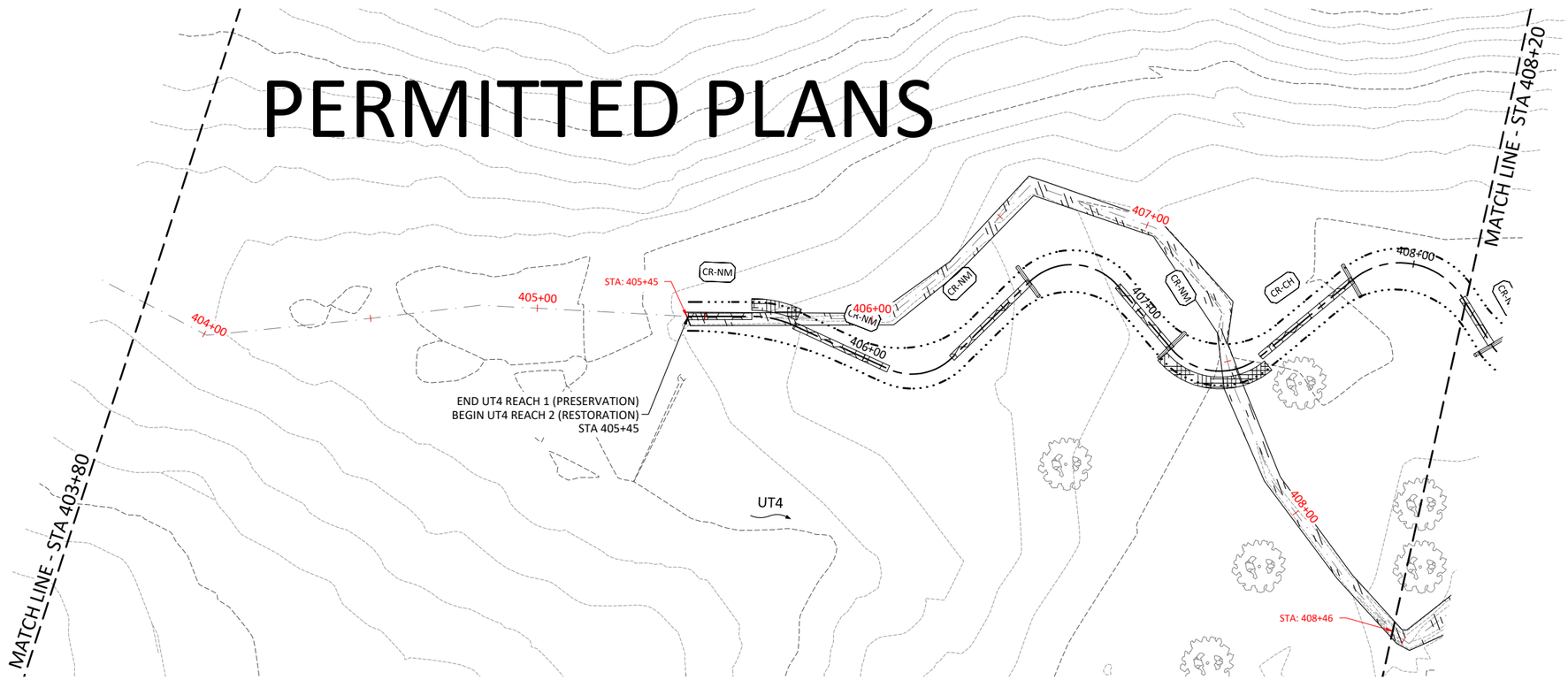
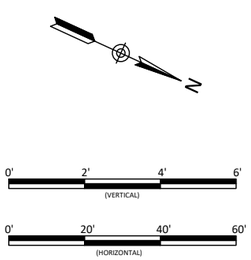



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 301 | 0.95 | 286 CY |

# PERMITTED PLANS

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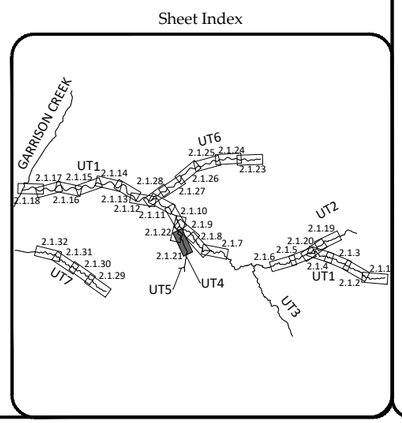


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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT4 Reach 1 & 2
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHI |

Sheet 2.1.21

April 22, 2020

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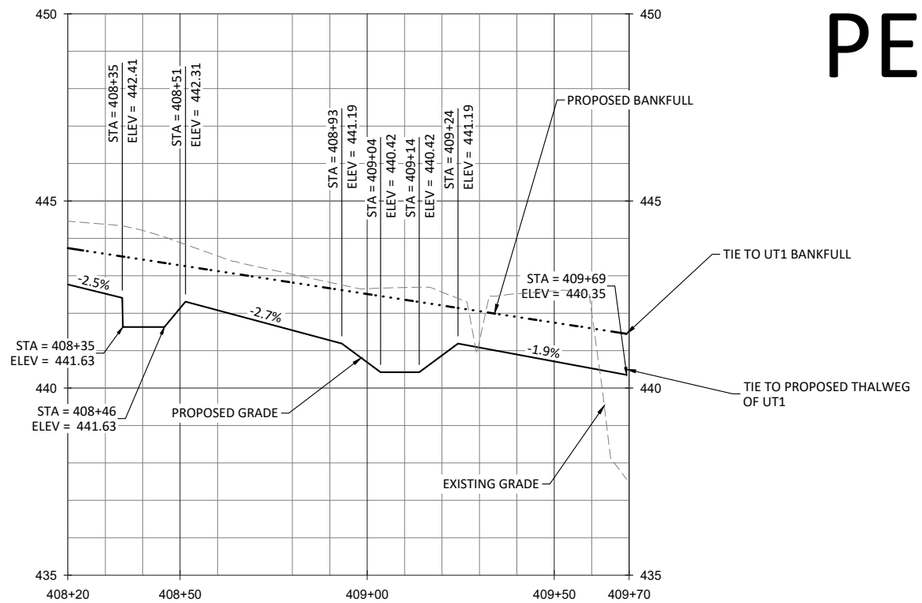
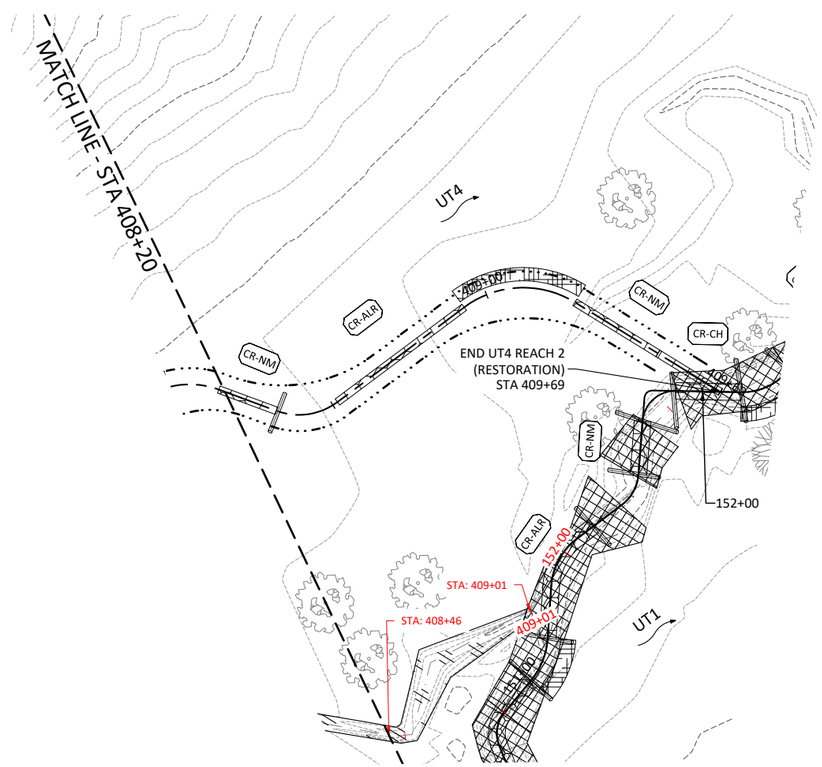
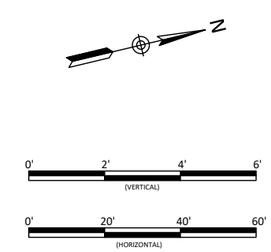
# PERMITTED PLANS




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 55 | 0.95 | 52 CY |

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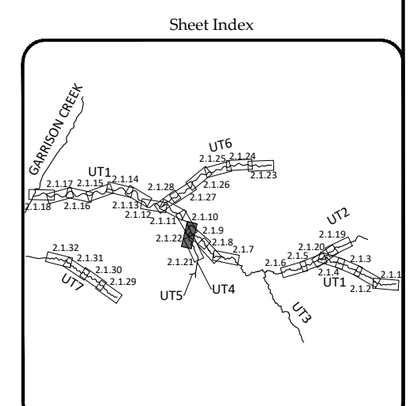



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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT4 Reach 2
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MLC |
| Checked By: | DHI |

Sheet 2.1.22

April 22, 2020

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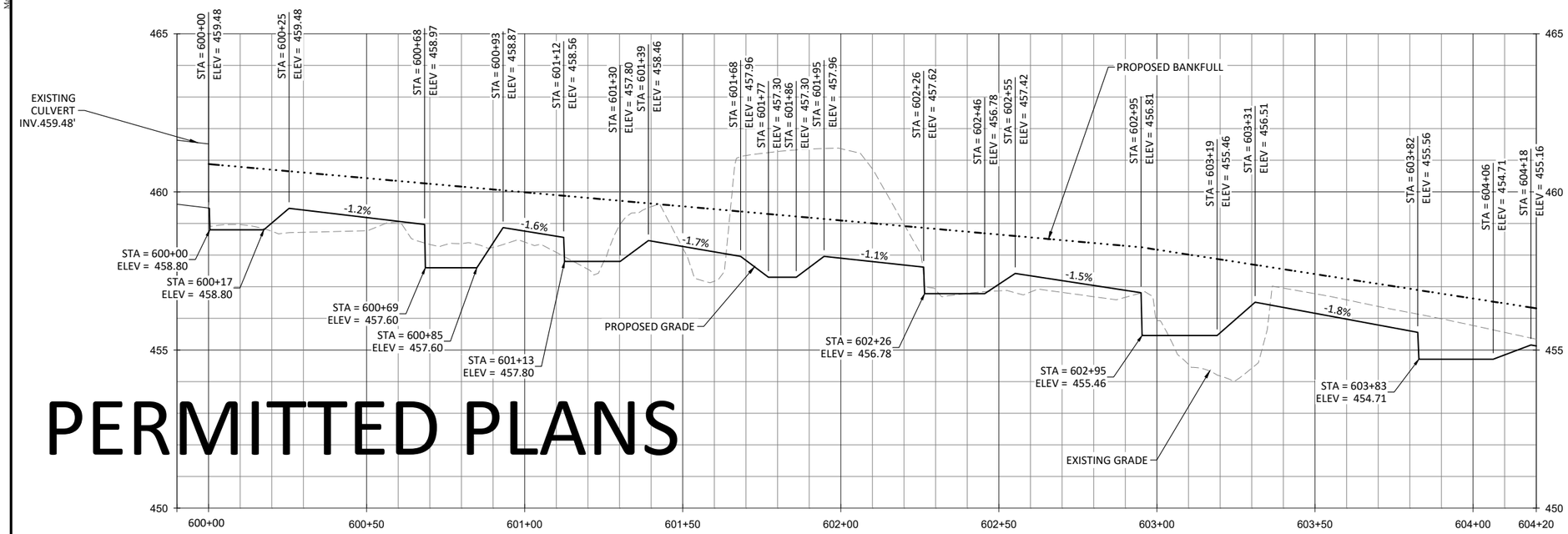
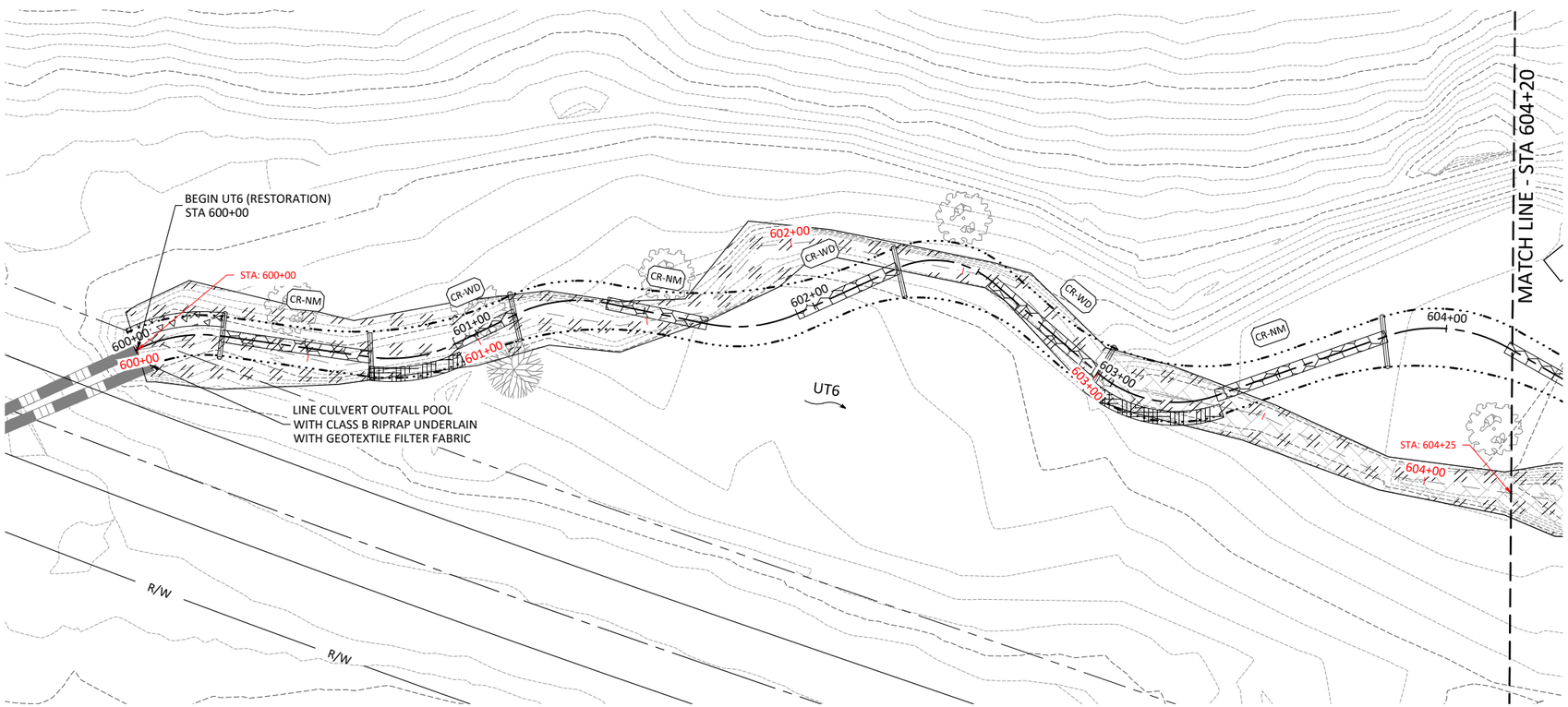
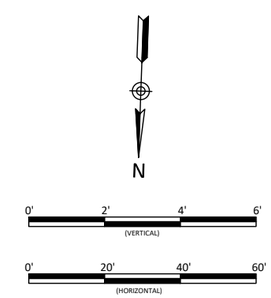



# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 425 | 0.95 | 404 CY |

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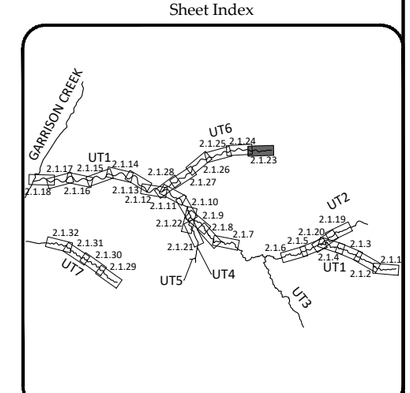



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

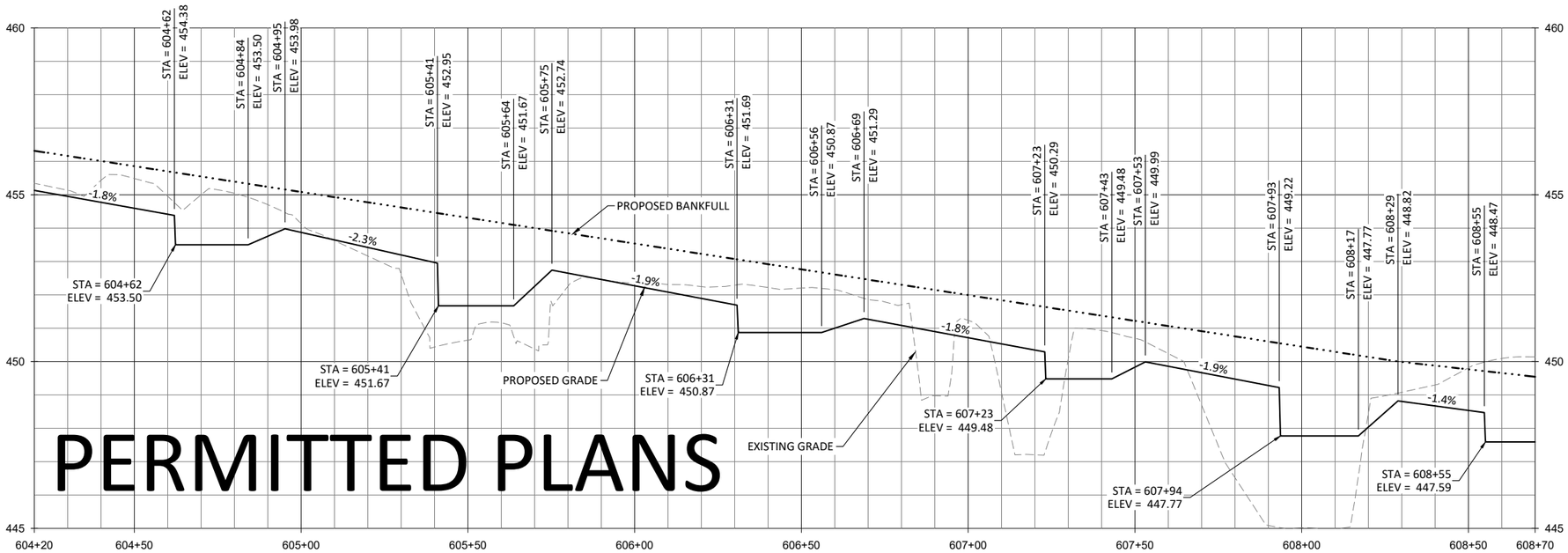
UT6
PCN

Revisions:

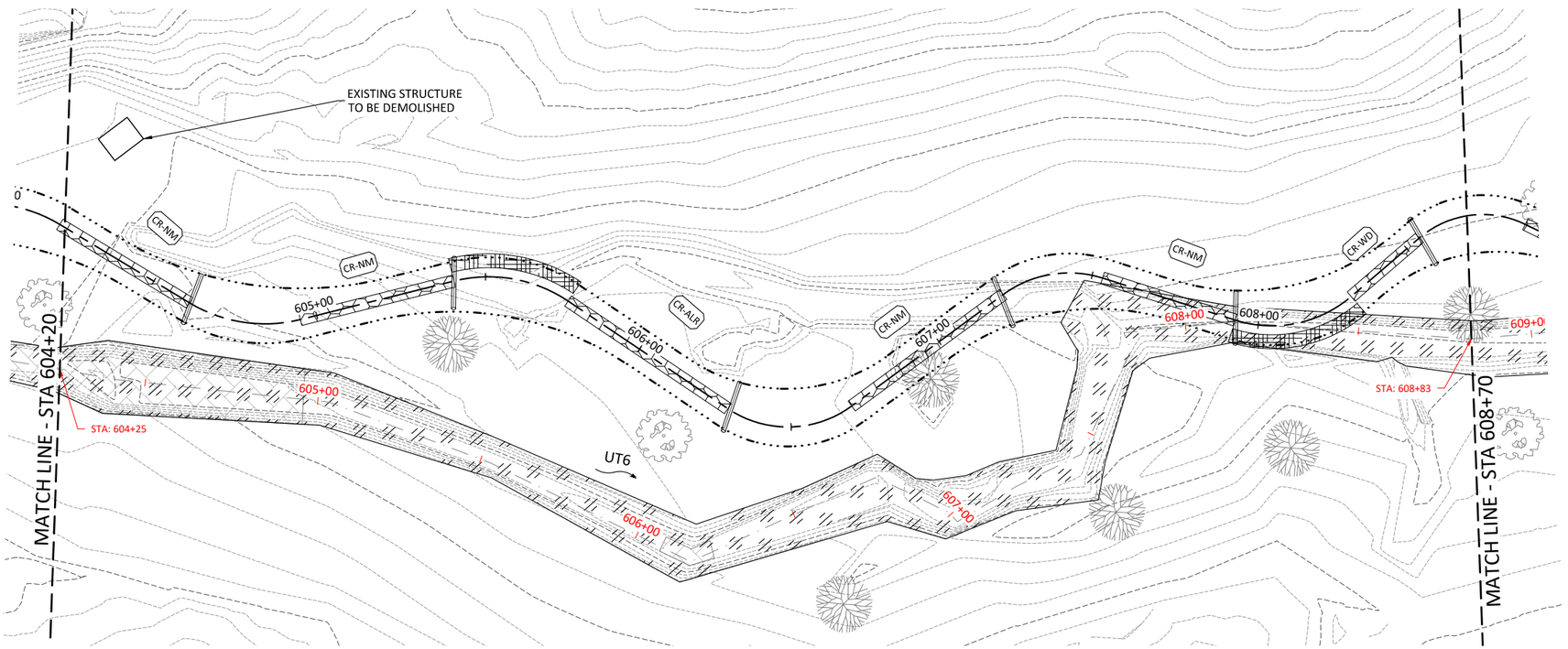
Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

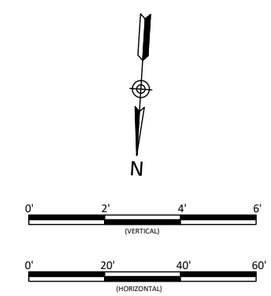
Sheet 2.1.23

May 20, 2020




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 458 | 0.95 | 435 CY |

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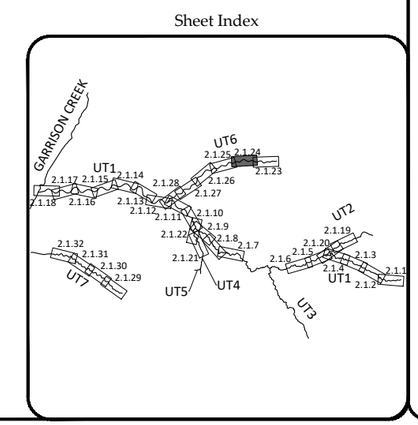


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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT6
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHI |

Sheet 2.1.24

April 22, 2020

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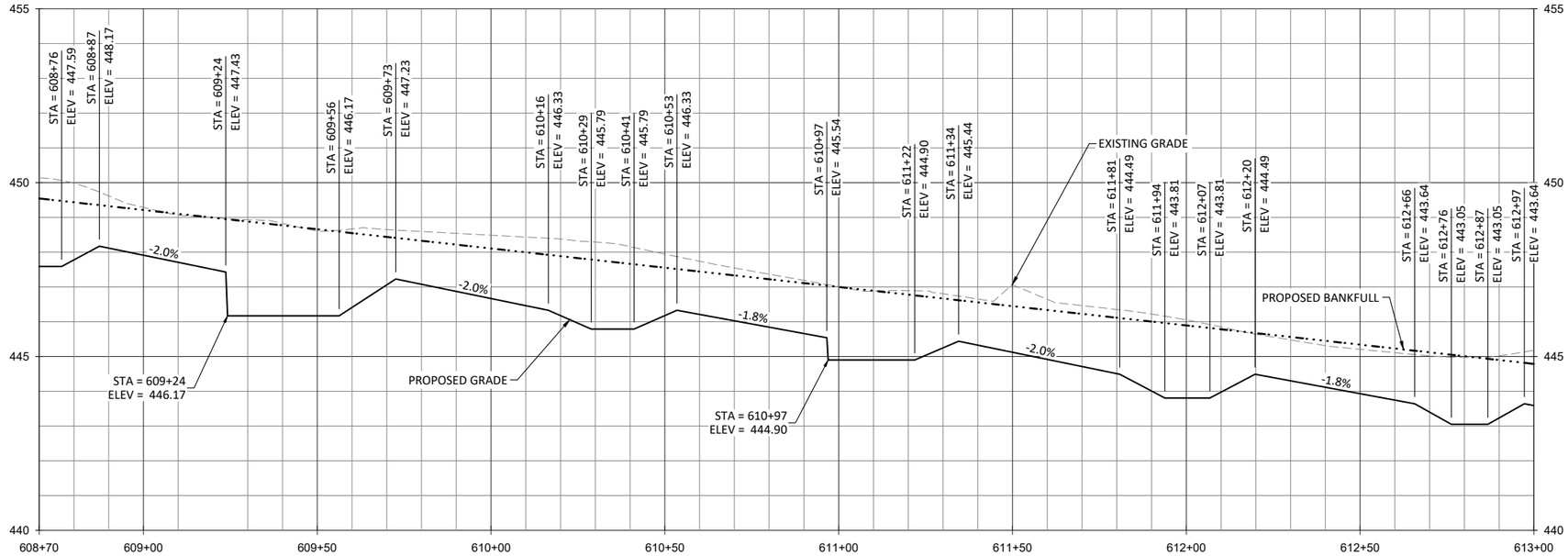
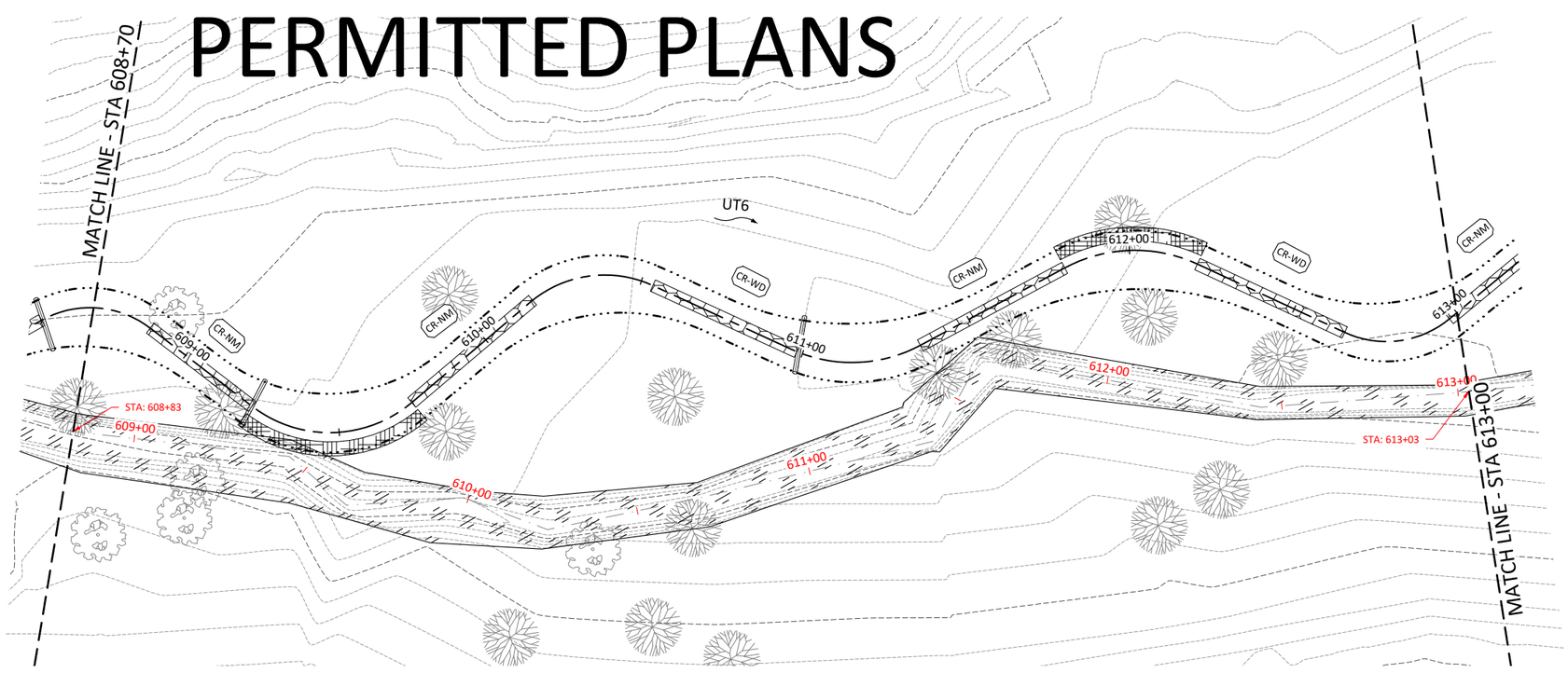
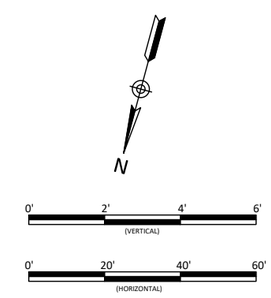



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 420 | 0.95 | 399 CY |

# PERMITTED PLANS

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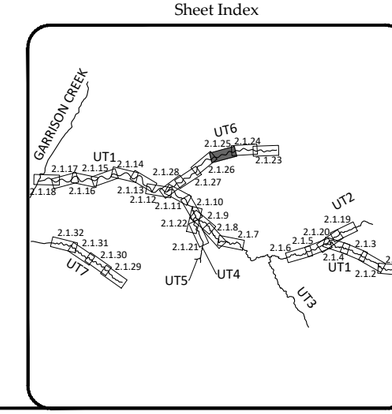



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT6
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.25

April 22, 2020

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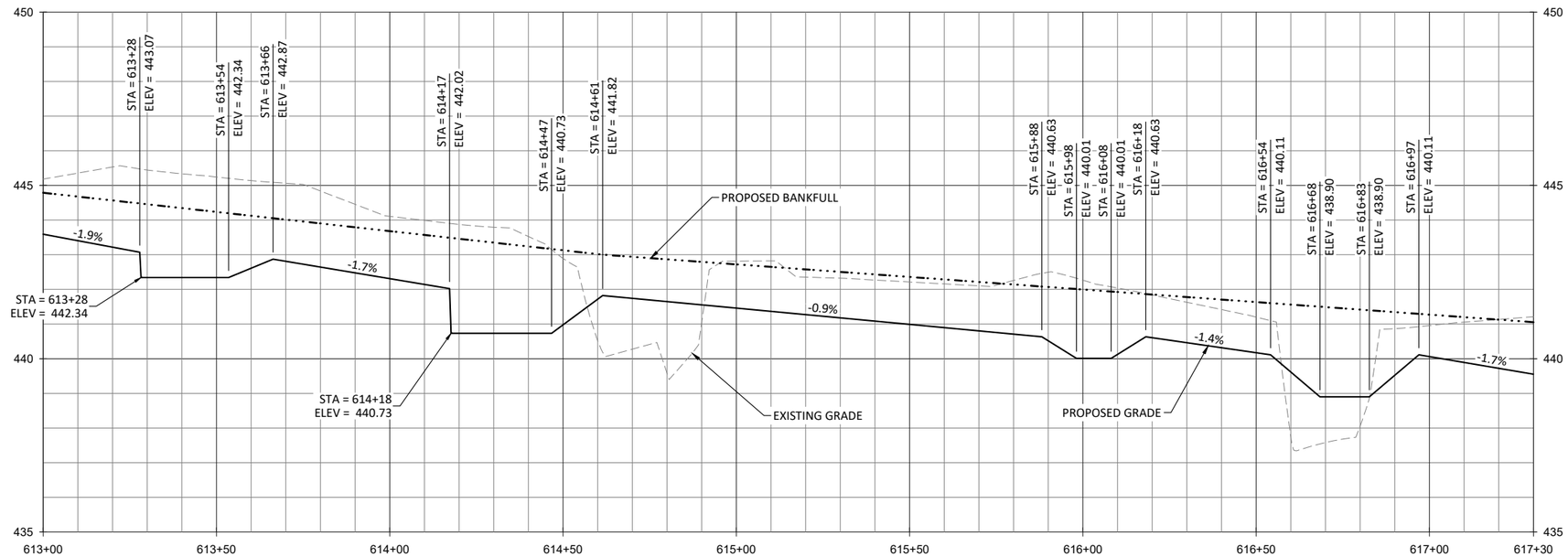
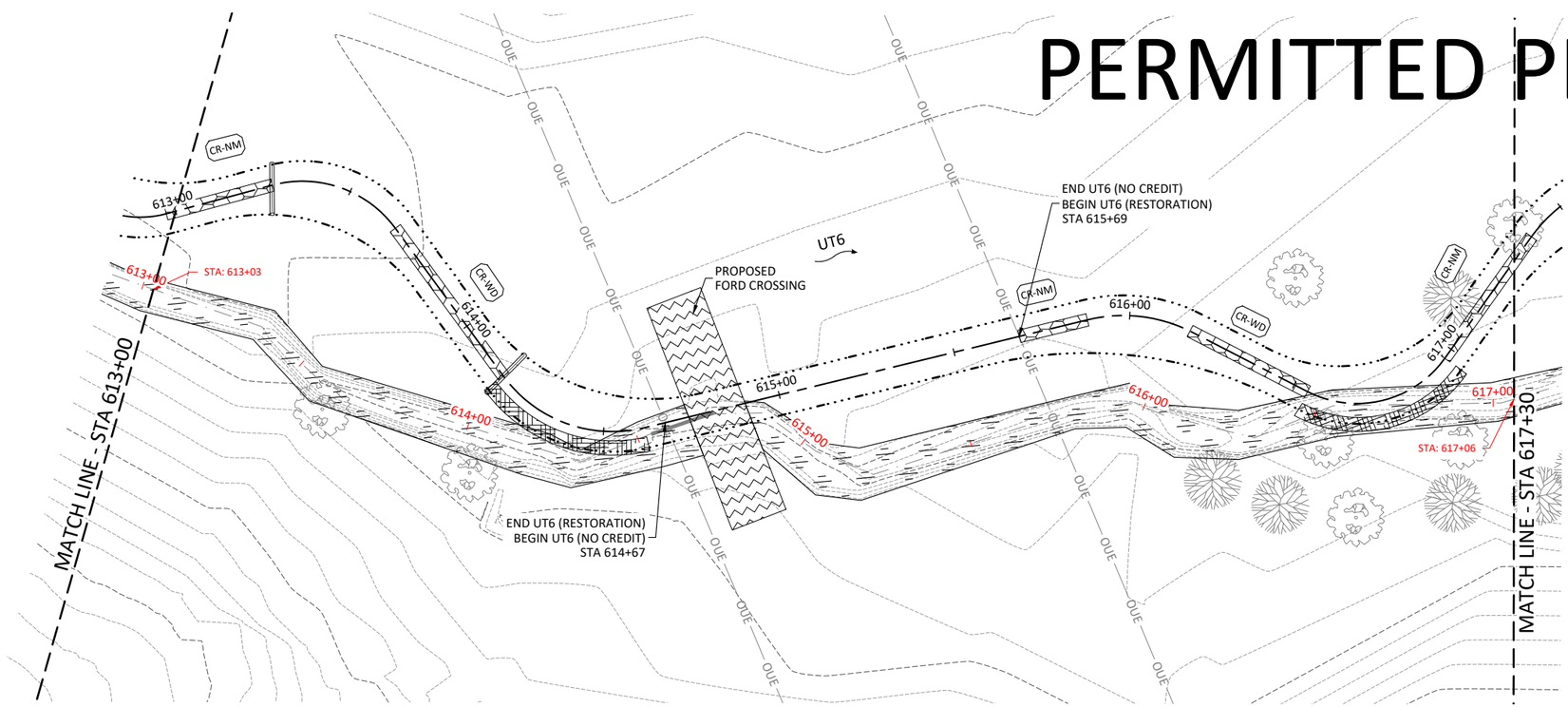
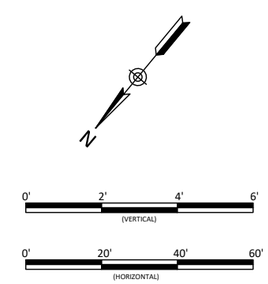



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 403 | 0.95 | 383 CY |

# PERMITTED PLANS

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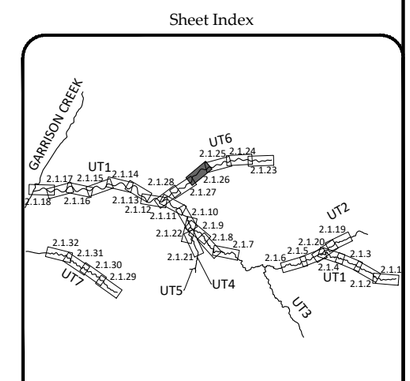



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT6
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.26


April 22, 2020
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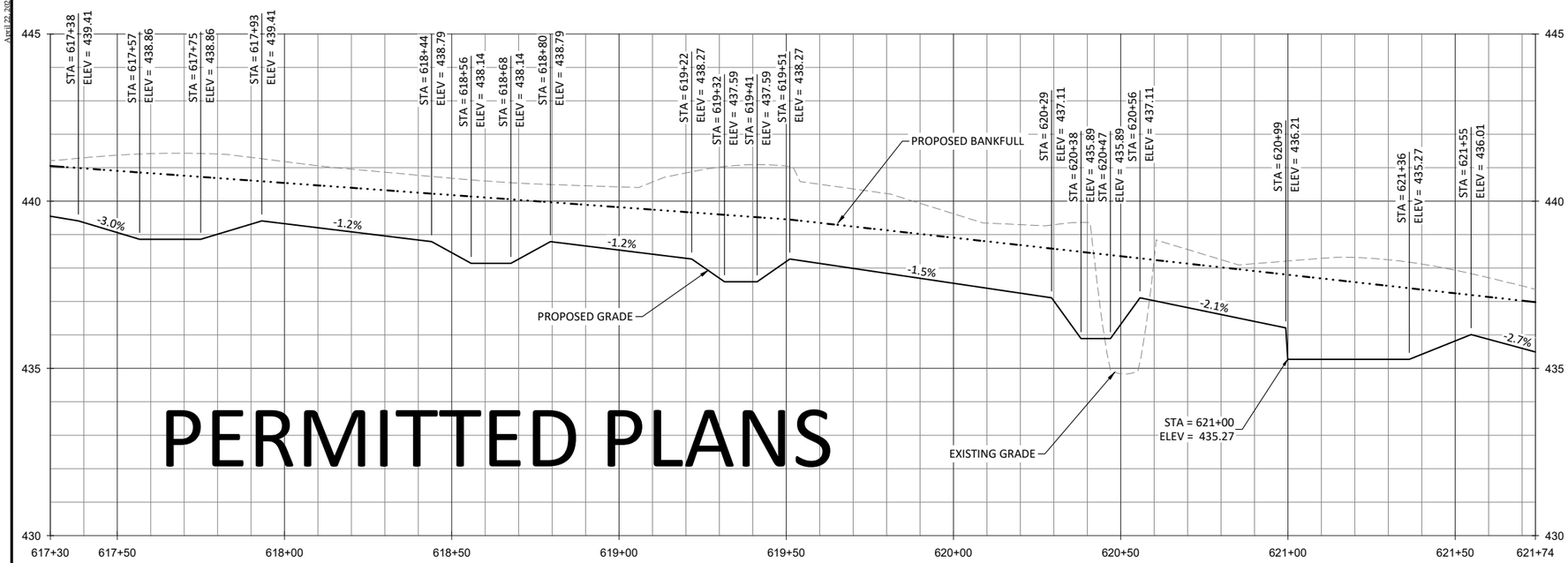
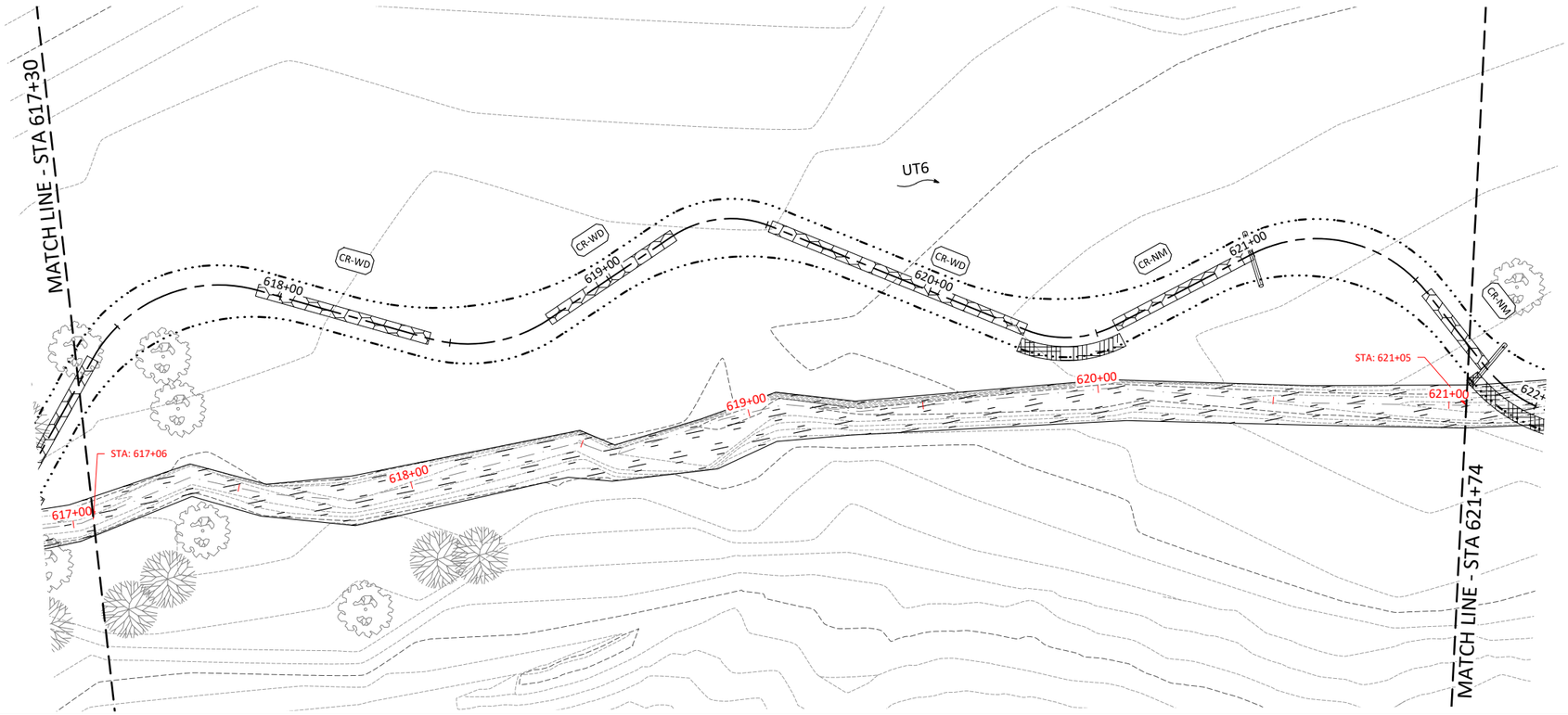
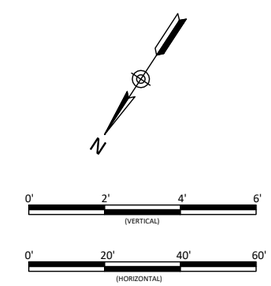



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 399 | 0.95 | 379 CY |

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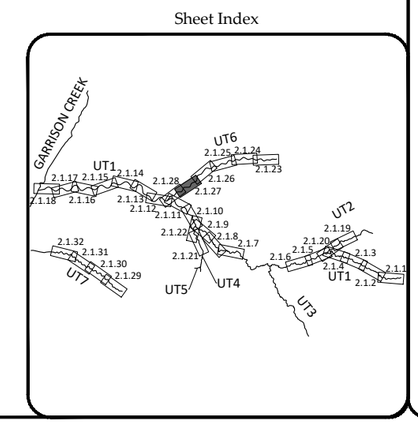


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Fax: 843.212.2101

PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT6
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHI |

Sheet 2.1.27

April 22, 2020

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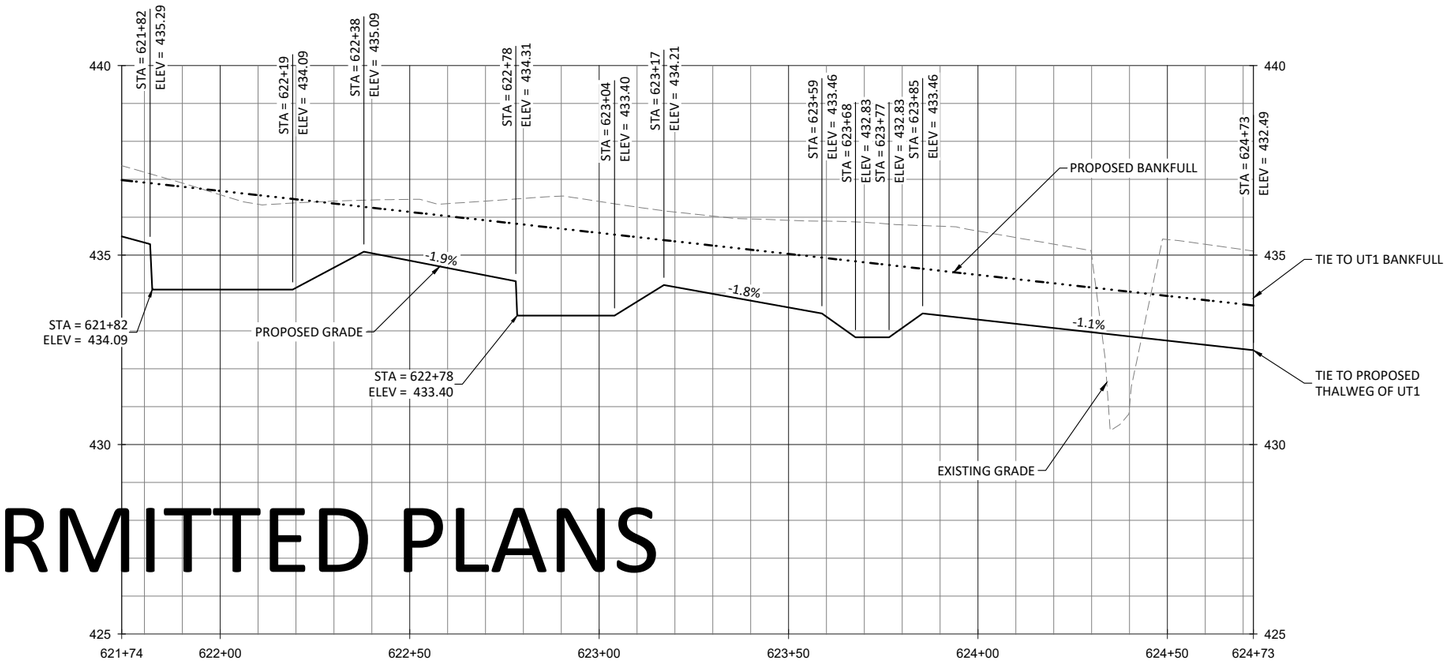
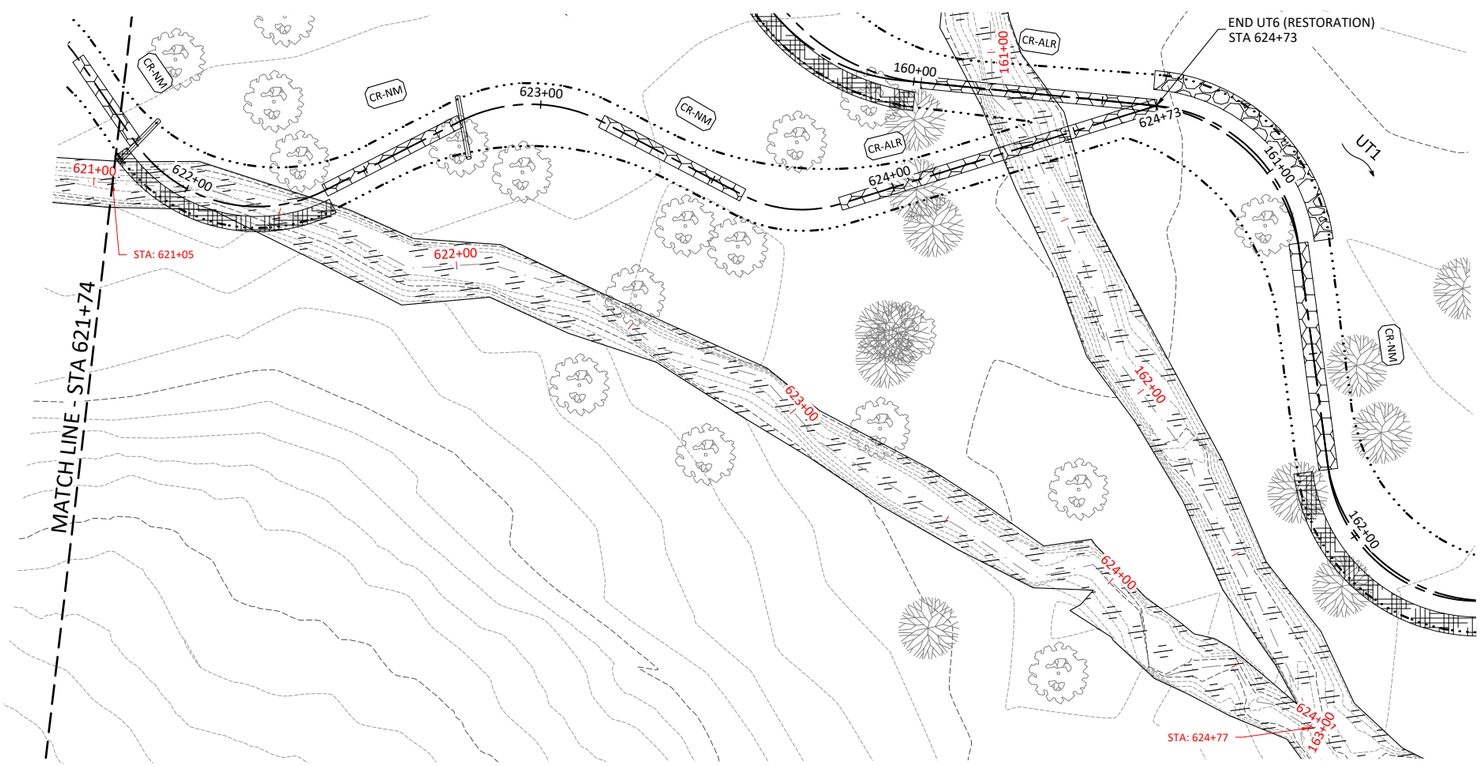
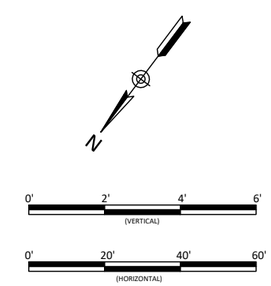


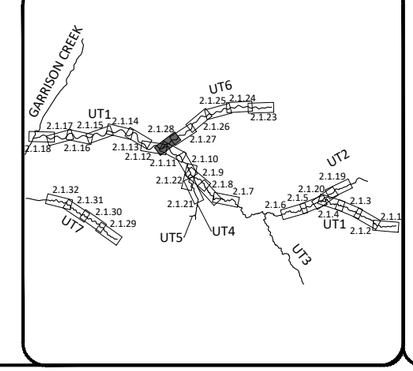

# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 372 | 0.95 | 353 CY |




Sheet Index

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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT6
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHI |

Sheet 2.1.28

April 22, 2020

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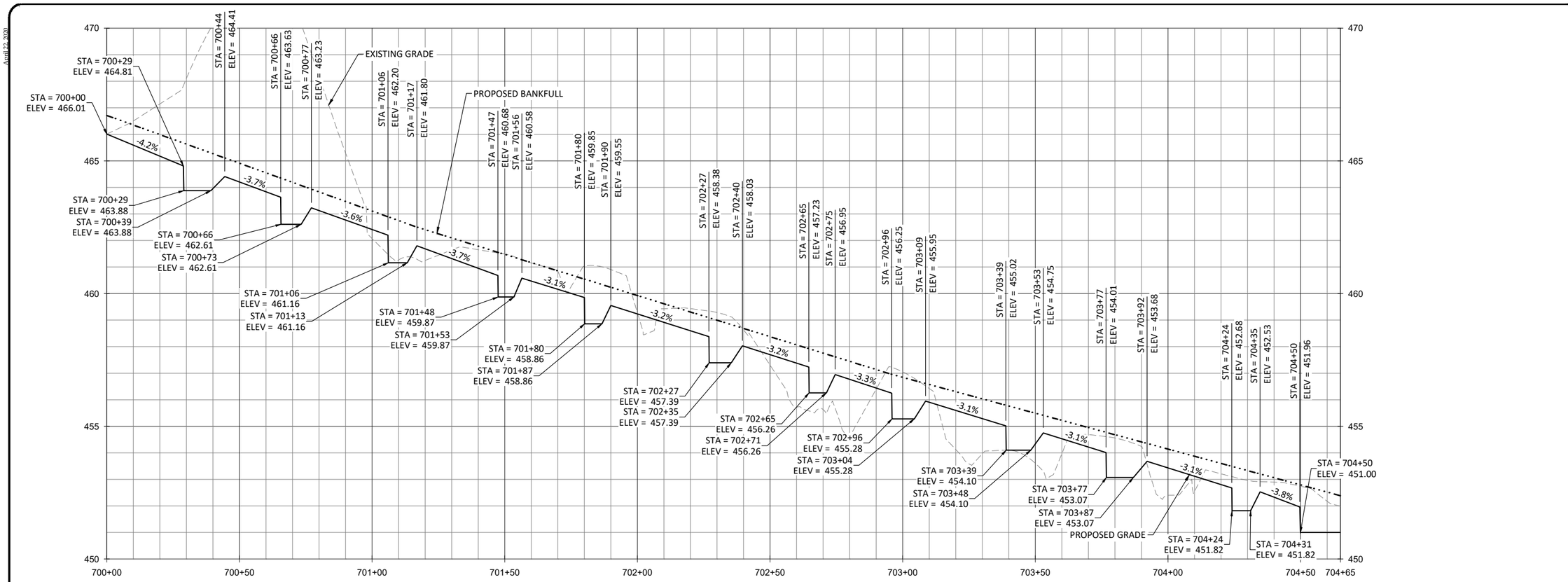
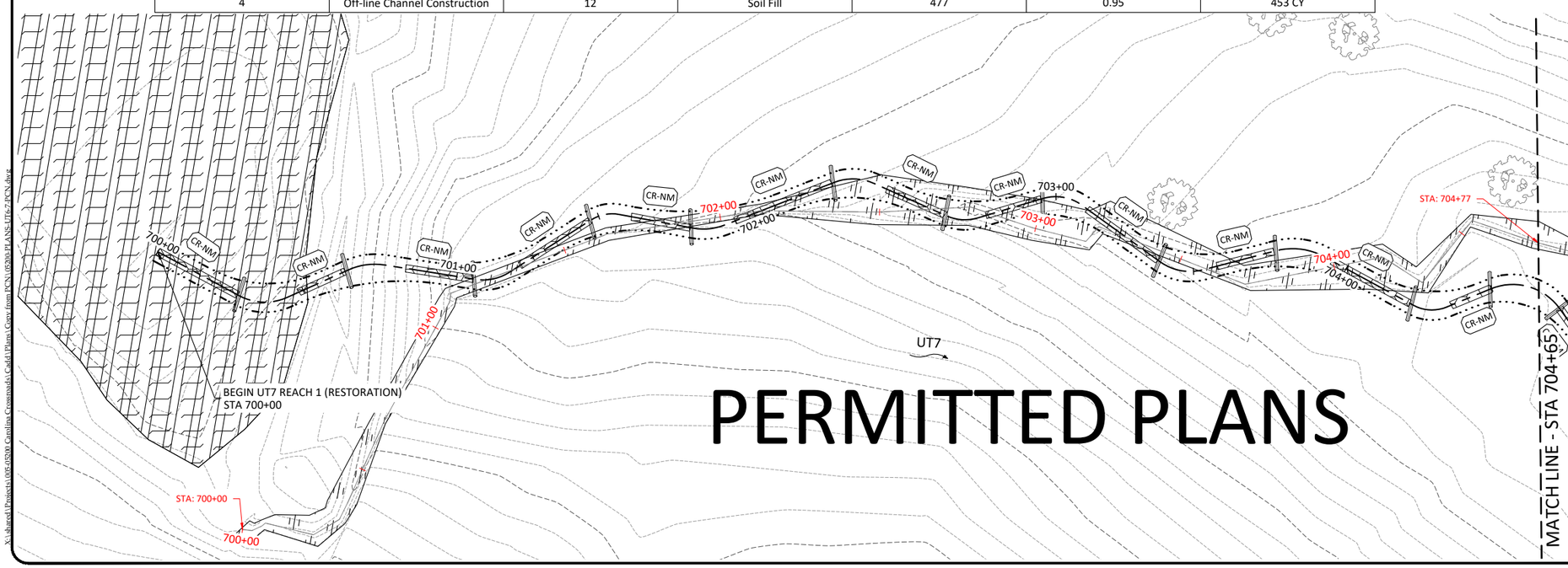
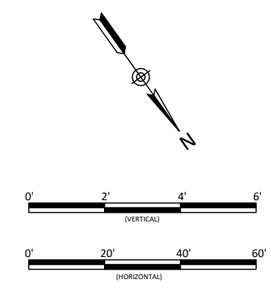



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 1 | Manmade Pond Removal | N/A | Dewatering | N/A | N/A | 0.390 ACRES |
| 4 | Off-line Channel Construction | 12 | Soil Fill | 477 | 0.95 | 453 CY |




PERMITTED PLANS

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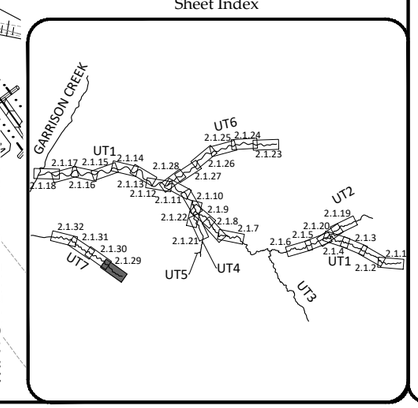


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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT7 Reach 1
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHT

Sheet 2.1.29

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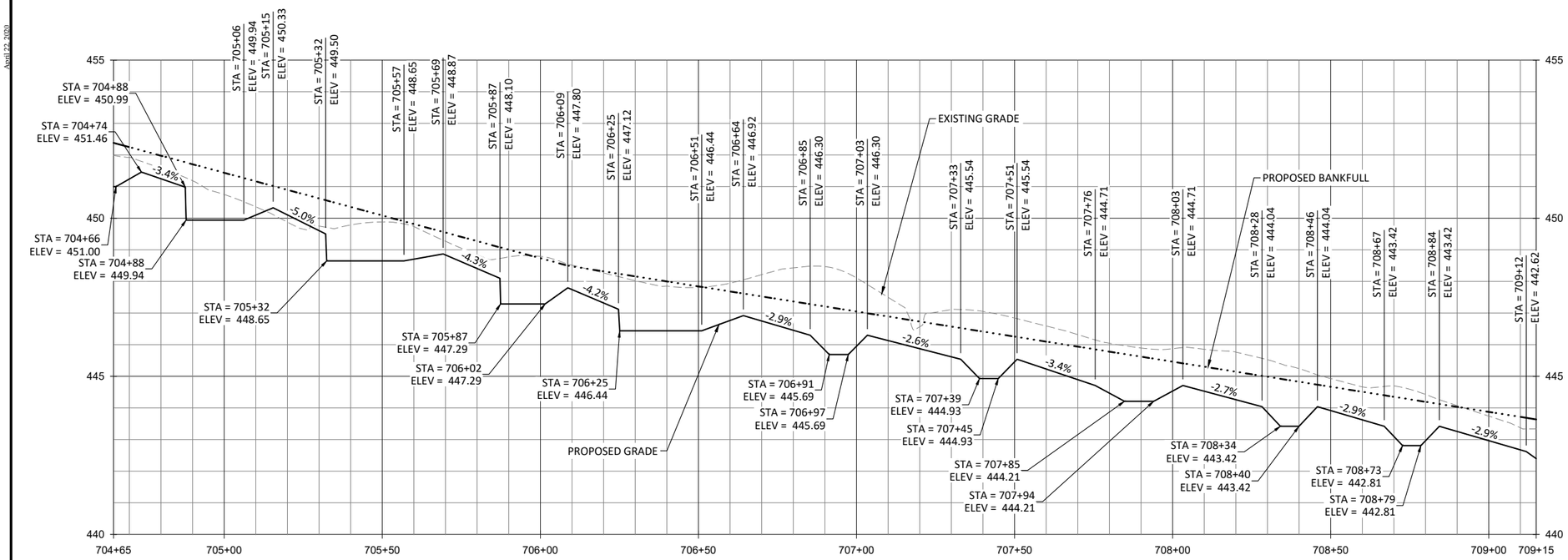
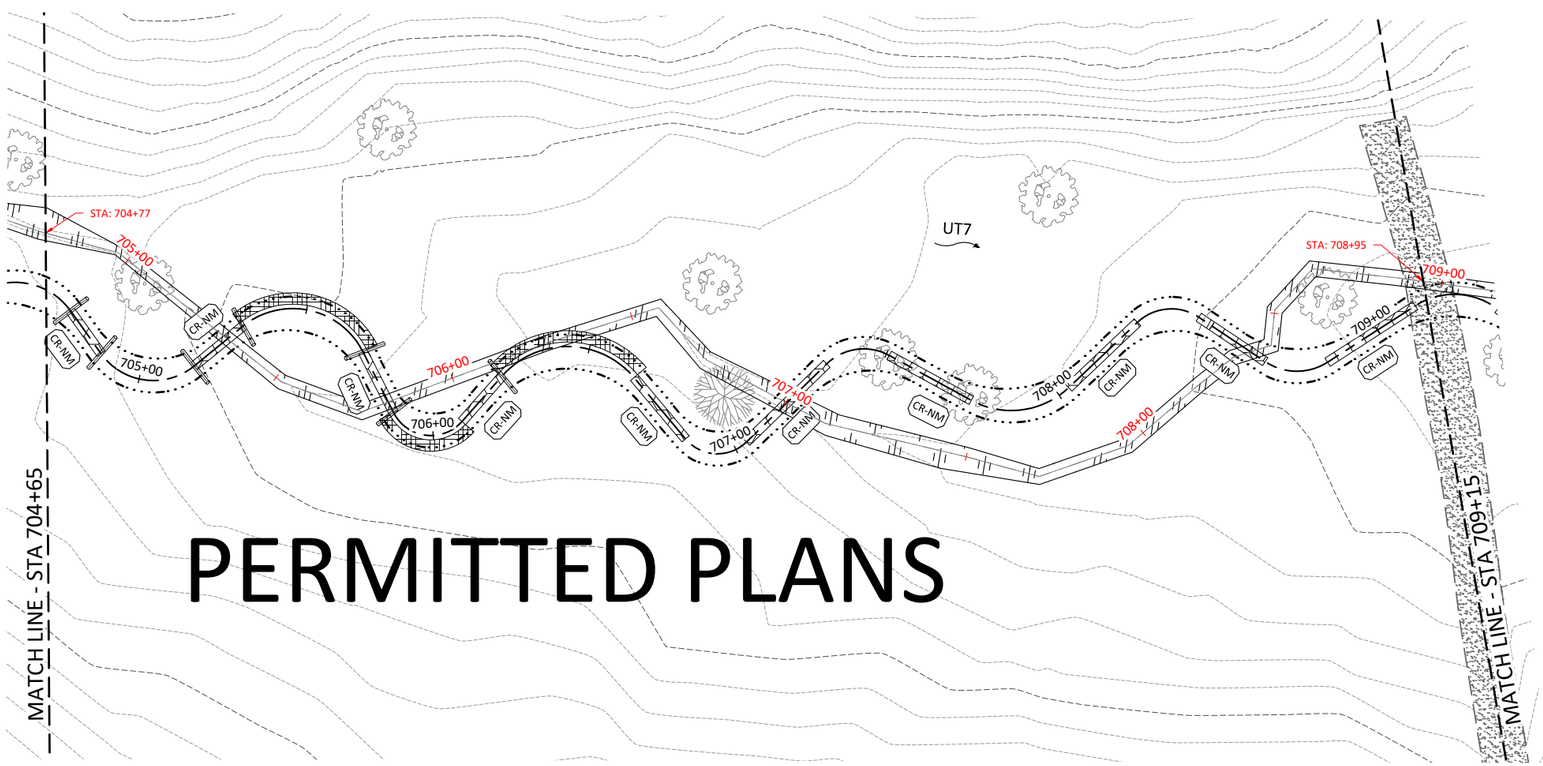
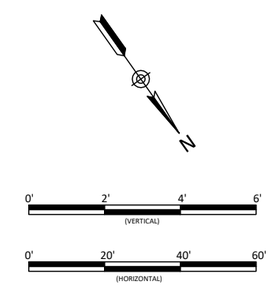
April 22, 2020




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 418 | 0.95 | 397 CY |




PERMITTED PLANS

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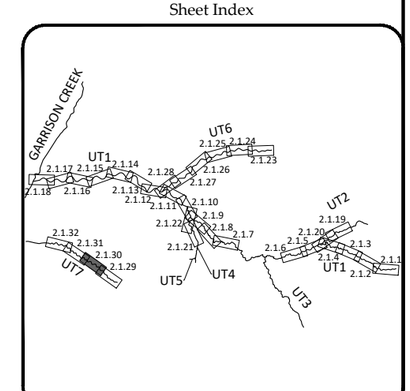



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT7 Reach 1
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.30


April 22, 2020
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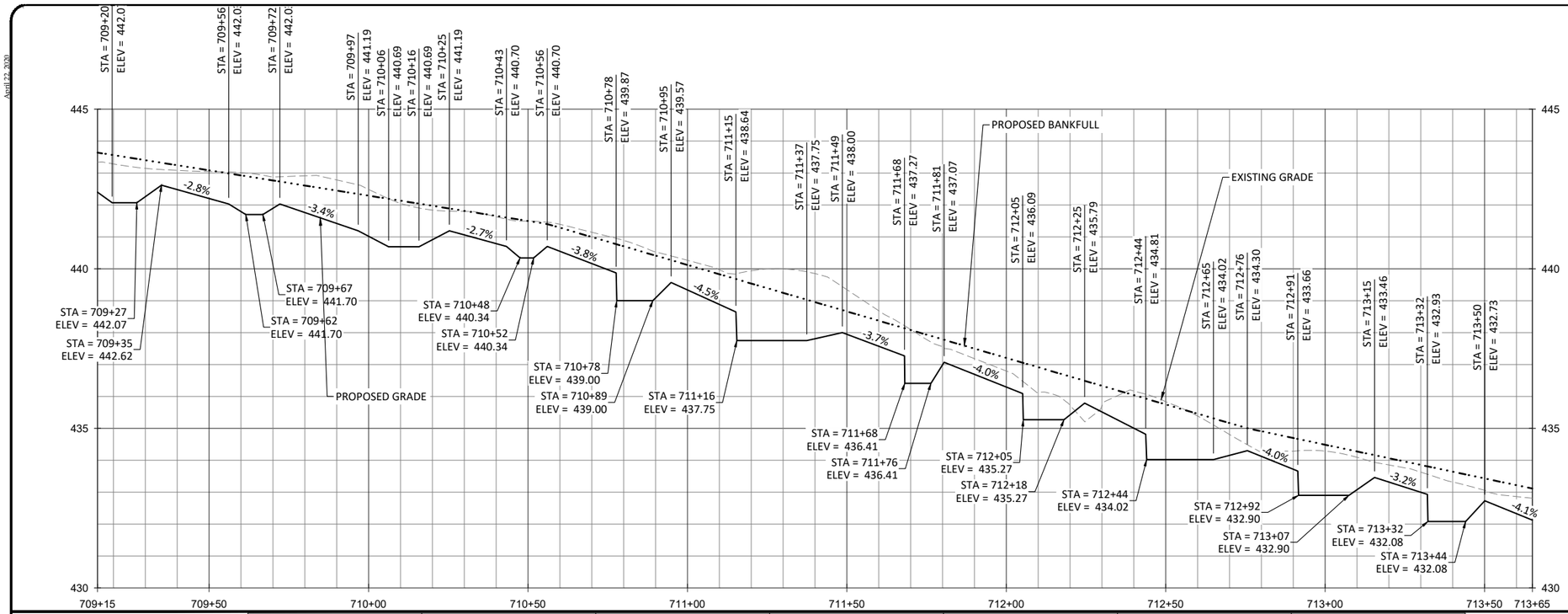
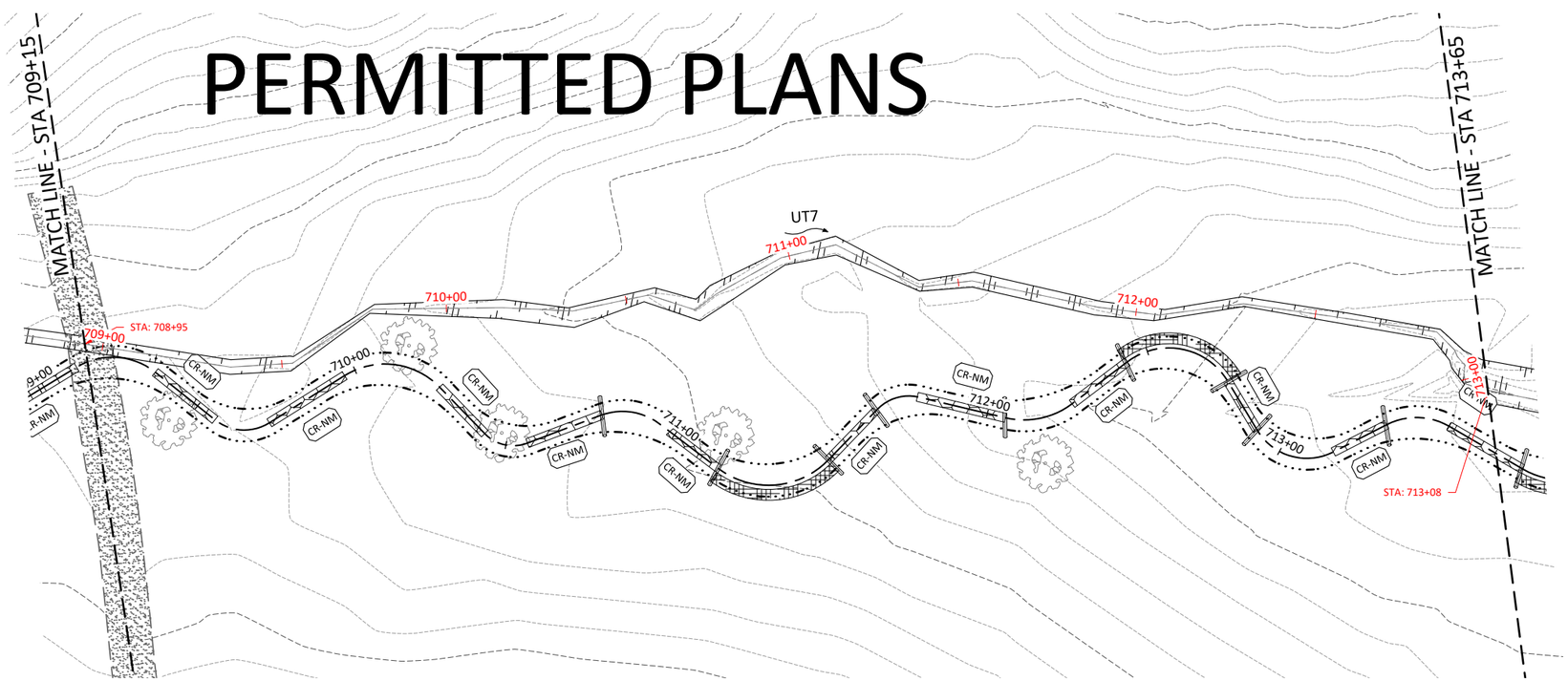
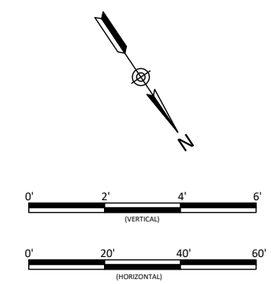


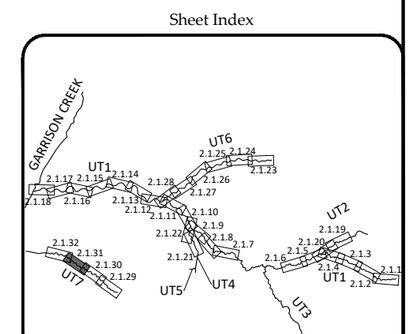

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 413 | 0.95 | 392 CY |

# PERMITTED PLANS




Sheet Index





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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT7 Reach 1
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.1.31


April 22, 2020
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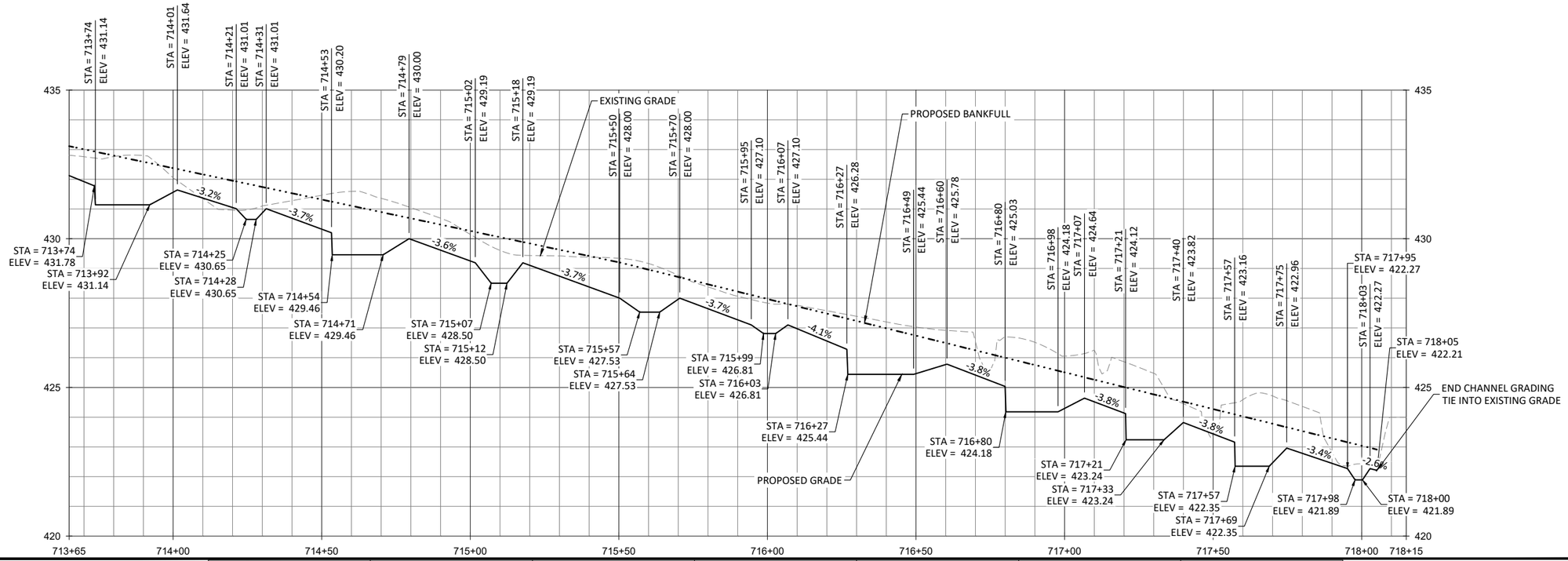
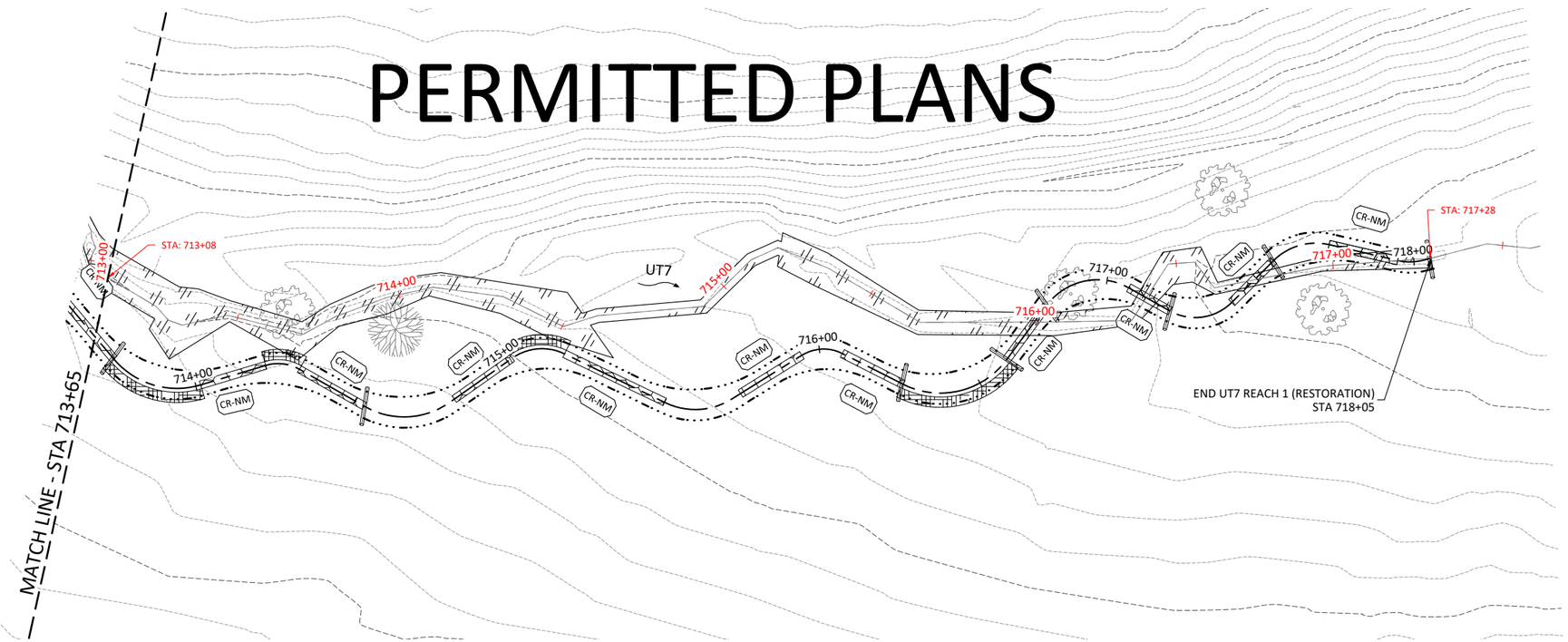
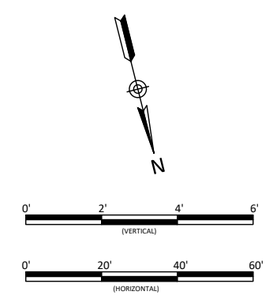


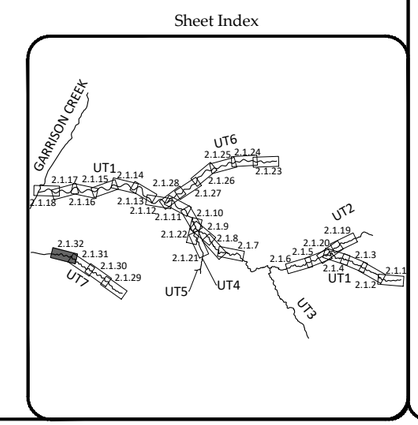

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 420 | 0.95 | 399 CY |

# PERMITTED PLANS




Sheet Index

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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT7 Reach 1
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHI |

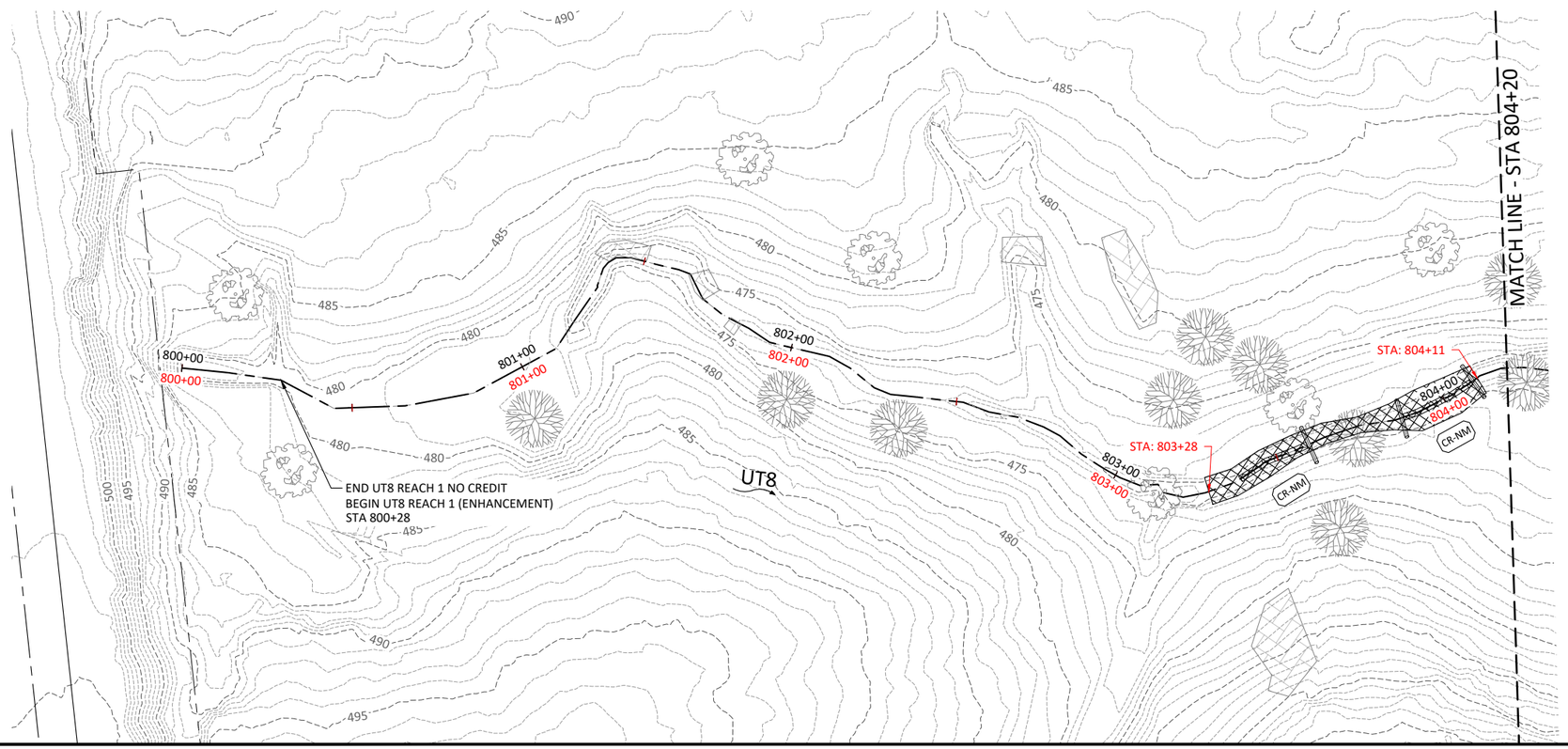
Sheet 2.1.32

April 22, 2020

X:\shared\Projects\005-05200 Carolina Crossroads Gold\Plans\Grov from PCN\05200-PLANS-UT6-7-PCN.dwg

PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 83 | 0.73 | 61 CY |

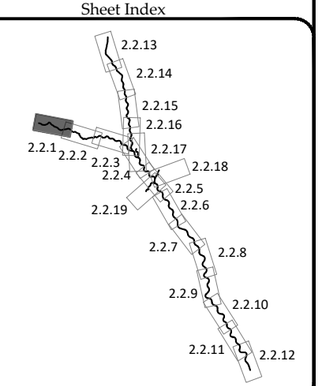



0' 2' 4' 6'
(VERTICAL)

0' 20' 40' 60'
(HORIZONTAL)

N

Sheet Index

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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT8 Reach 1
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.1

May 20, 2020

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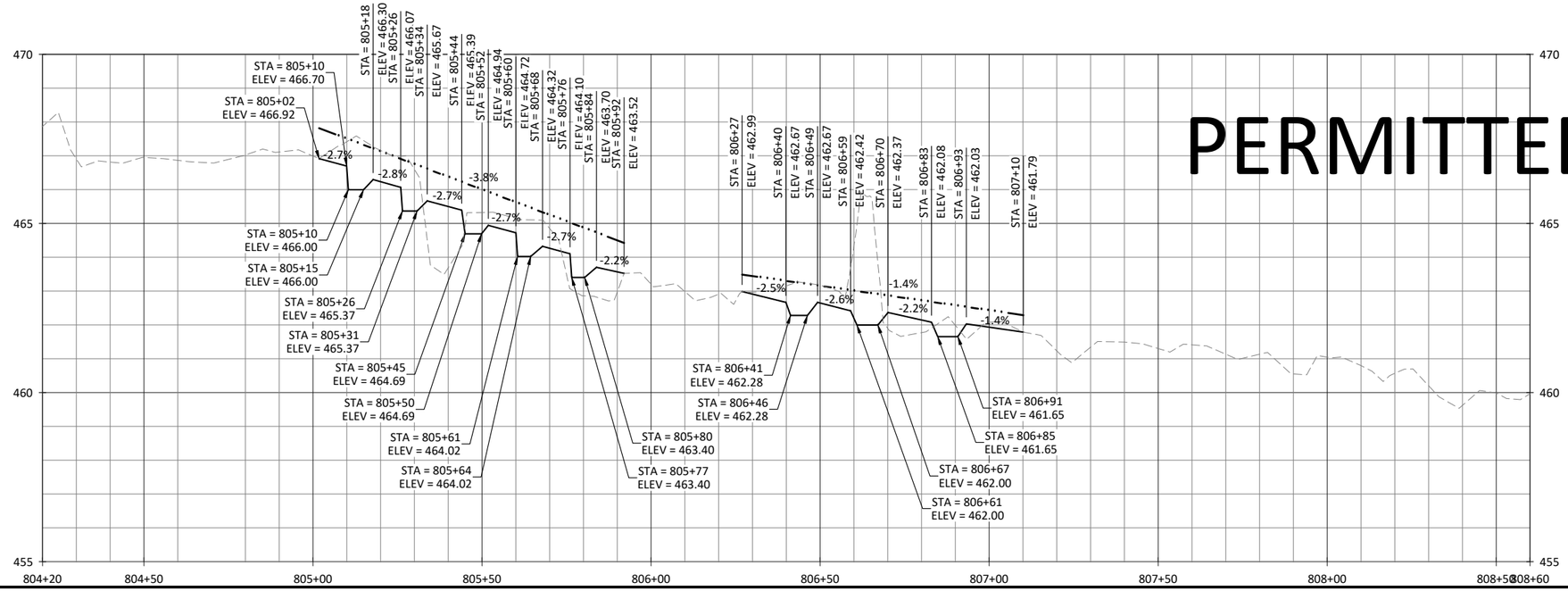
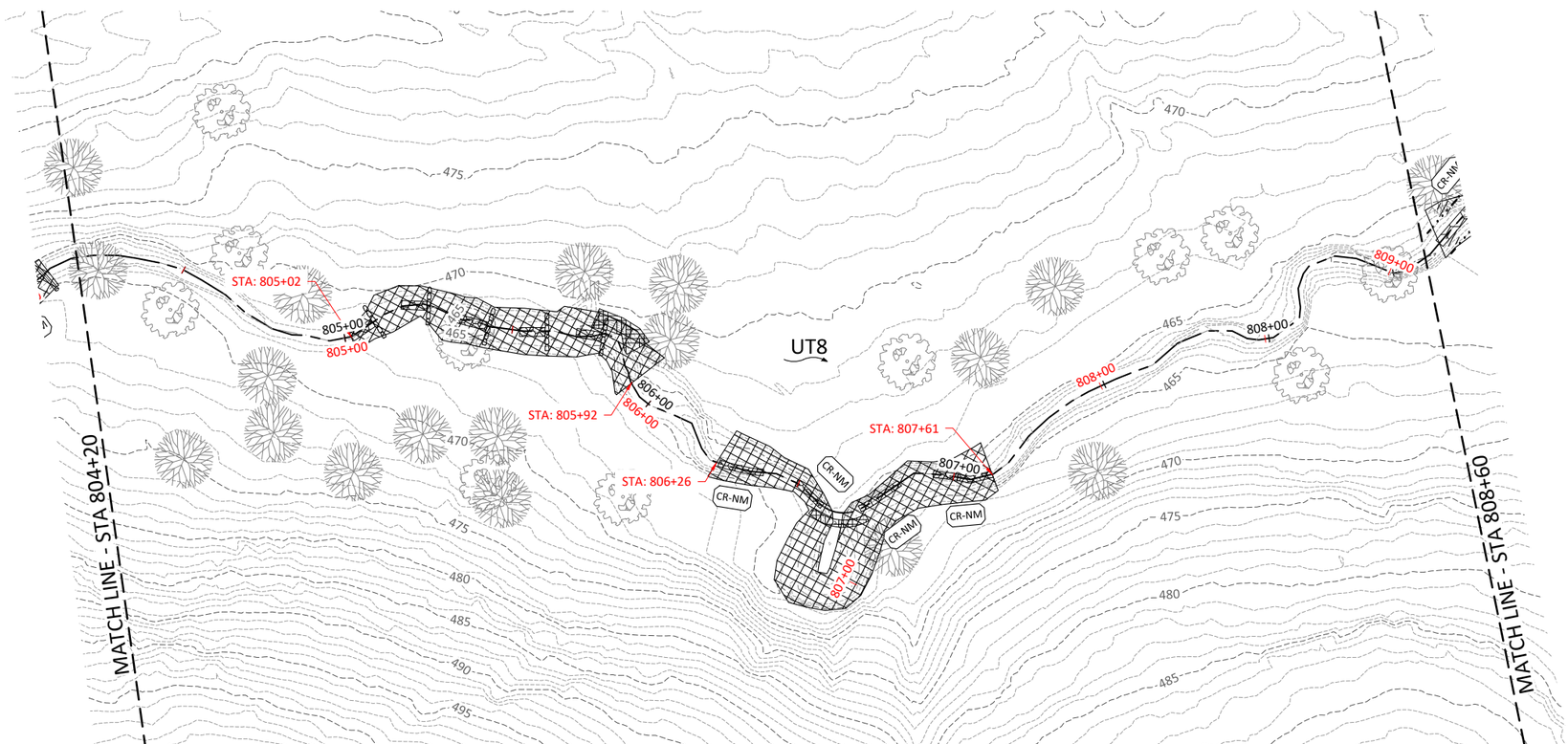
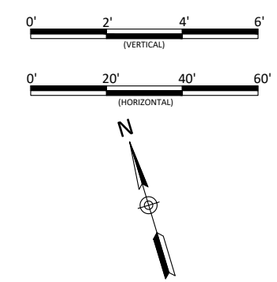


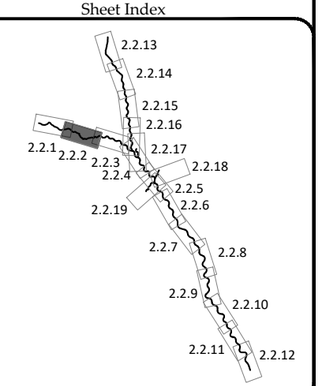

# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 225 | 0.73 | 164 CY |




Sheet Index





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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT8 Reach 1
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHI

Sheet 2.2.2

May 20, 2020

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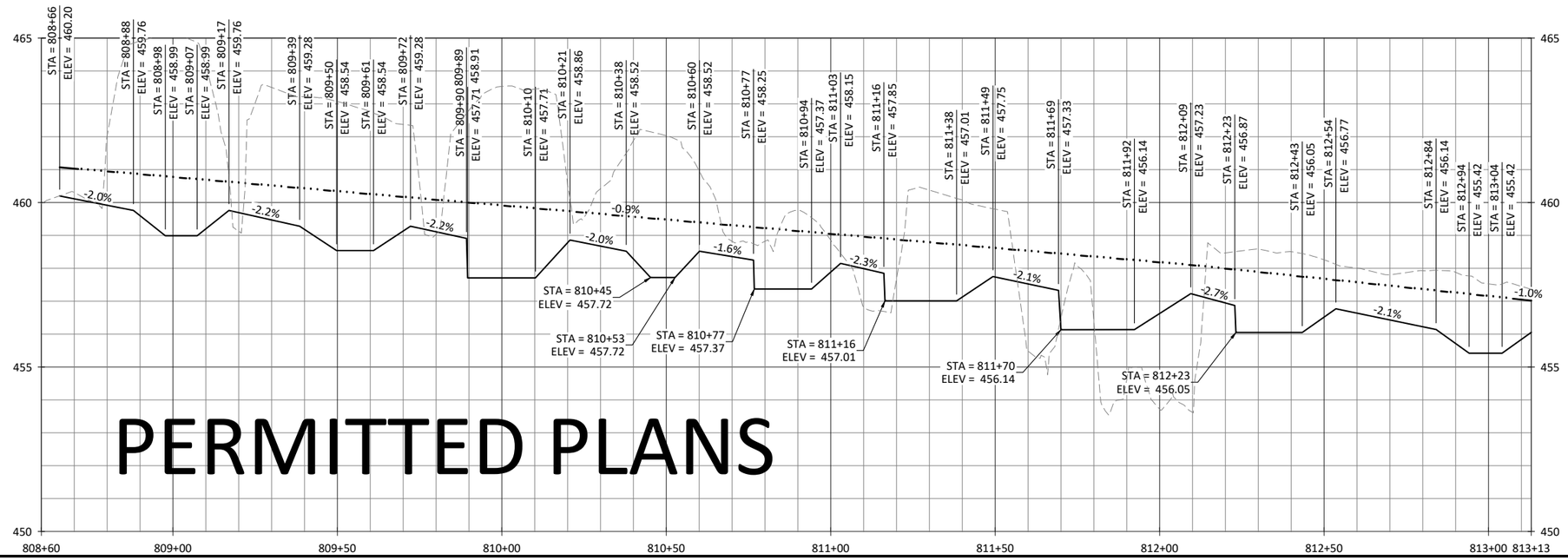
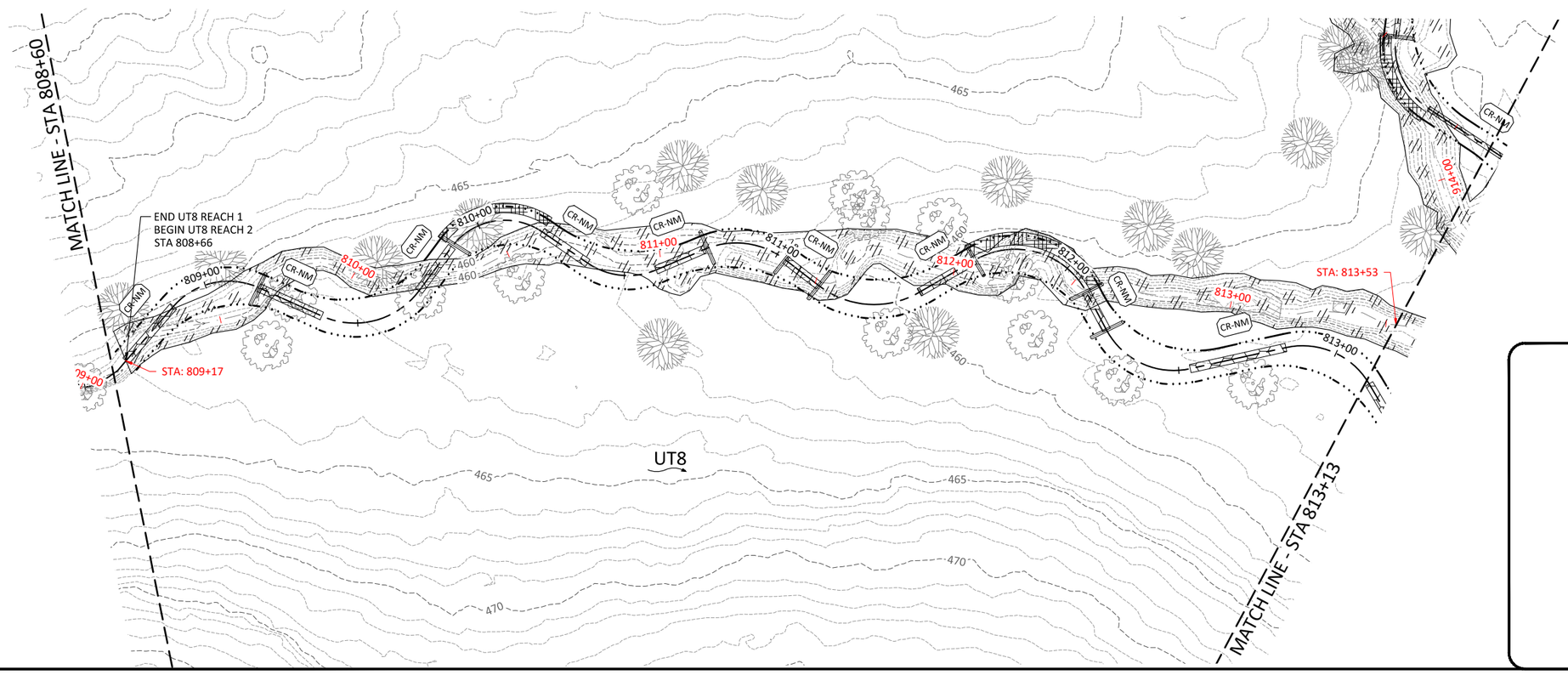



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 436 | 0.95 | 414 CY |

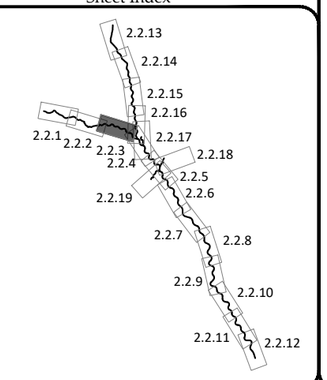



0' 2' 4' 6' (VERTICAL)

0' 20' 40' 60' (HORIZONTAL)

N

Sheet Index

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Tel: 843.277.6221
Fax: 843.212.2101

PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT8 Reach 1 & 2
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.2.3

May 20, 2020

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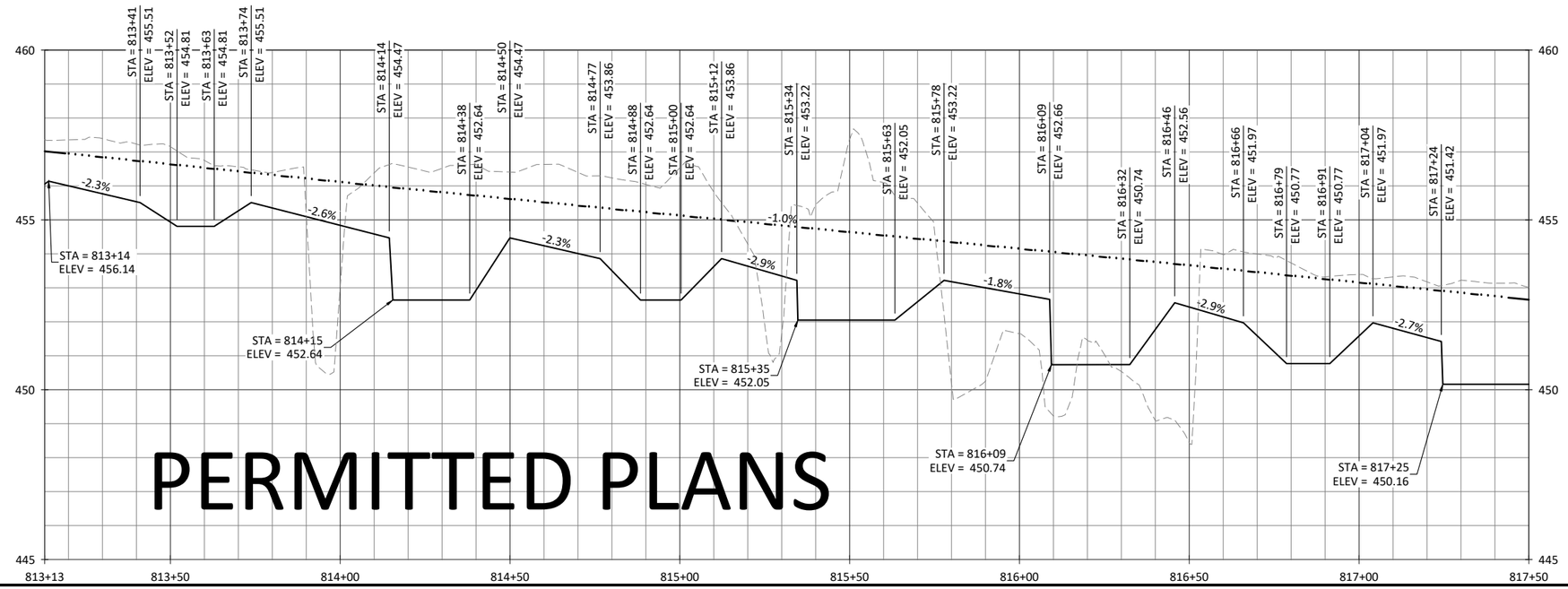
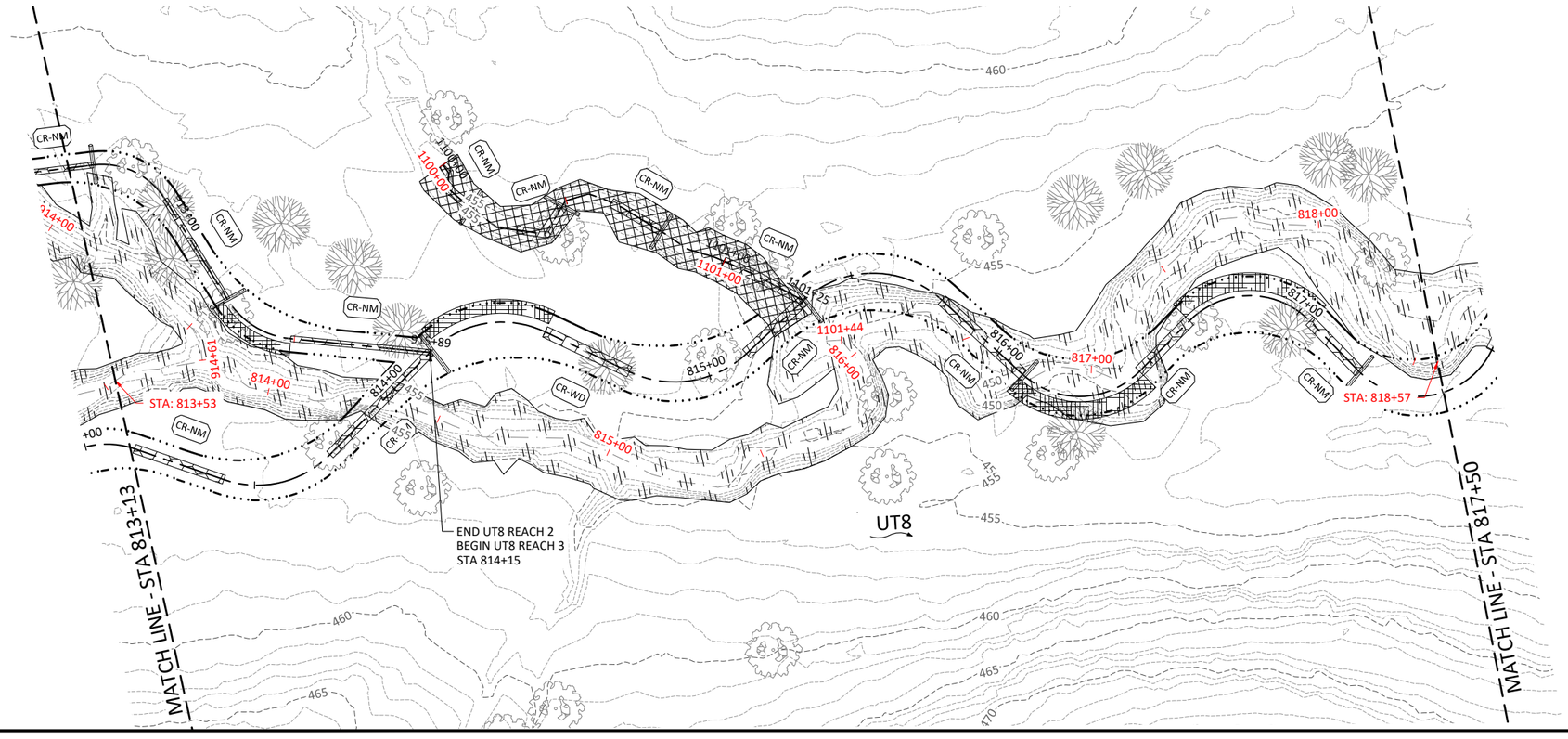
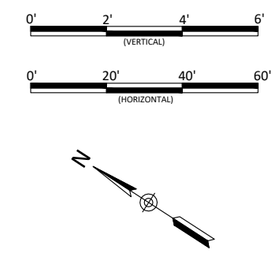
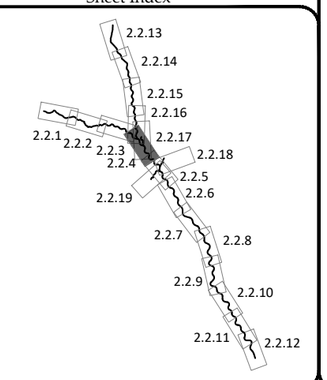



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 504 | 0.95 | 479 CY |




Sheet Index

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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina
### UT8 Reach 2 & 3
### PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.4

May 20, 2020

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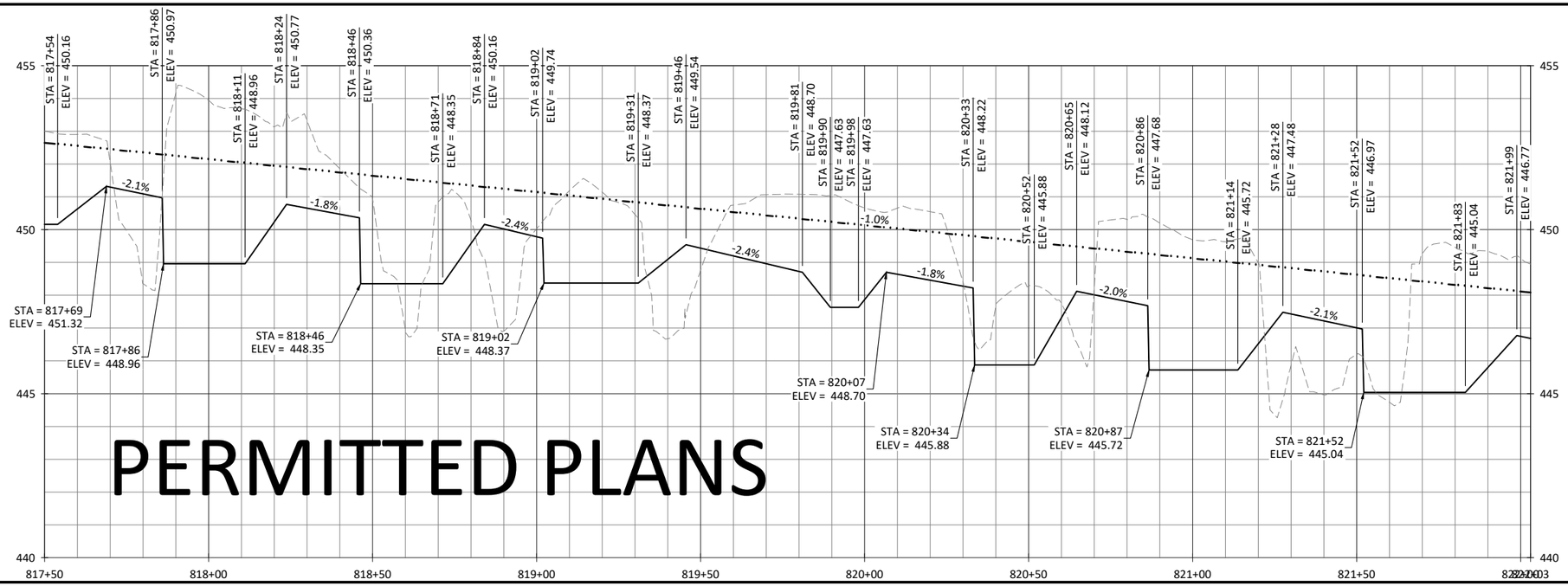
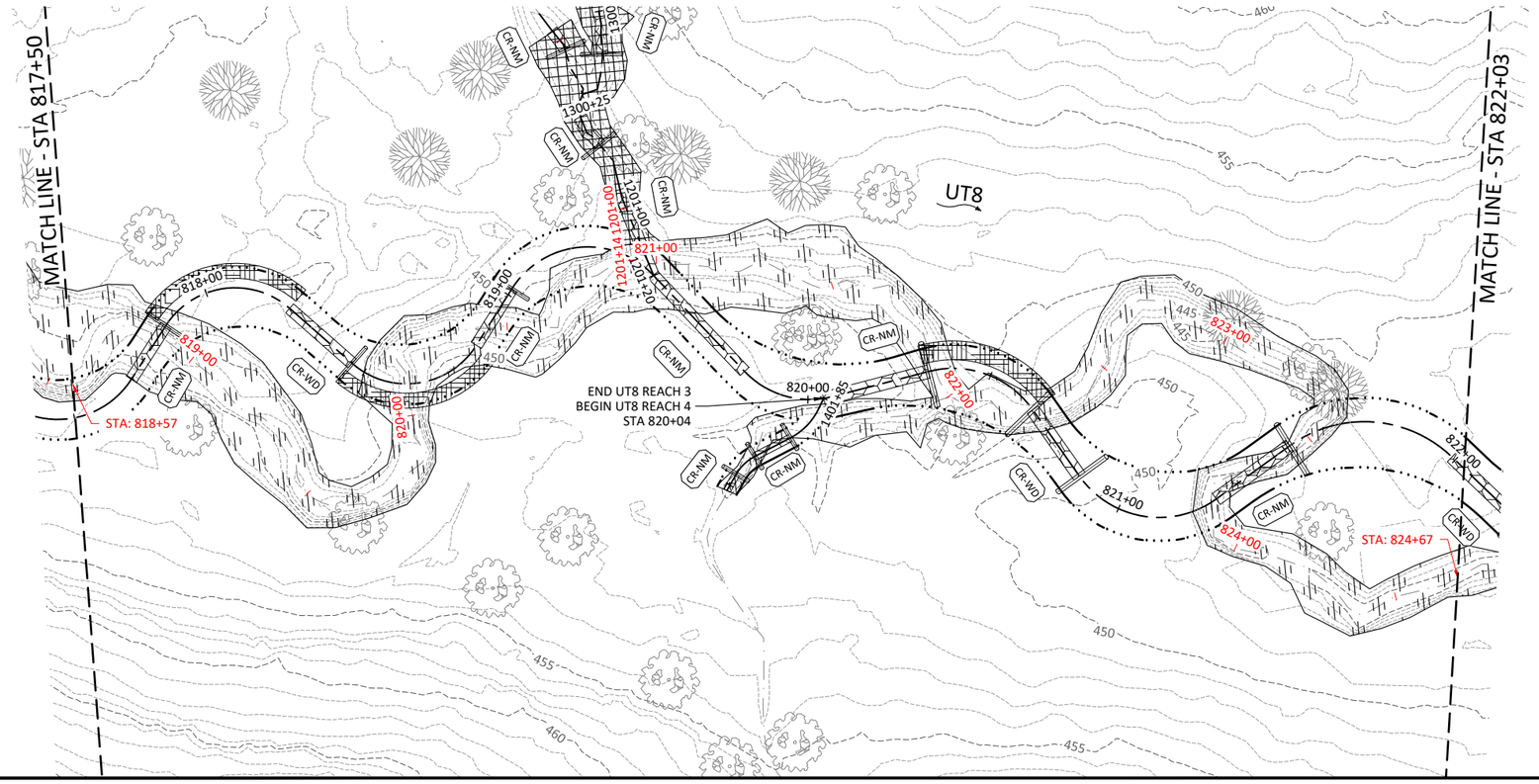
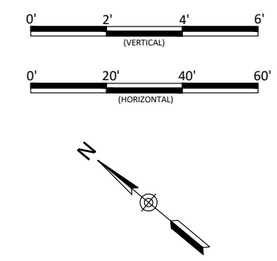



PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 610 | 0.95 | 580 CY |

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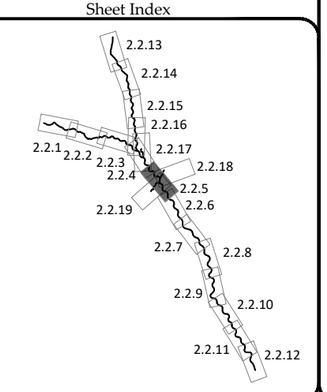


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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT8 Reach 3 & 4
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.5

May 20, 2020

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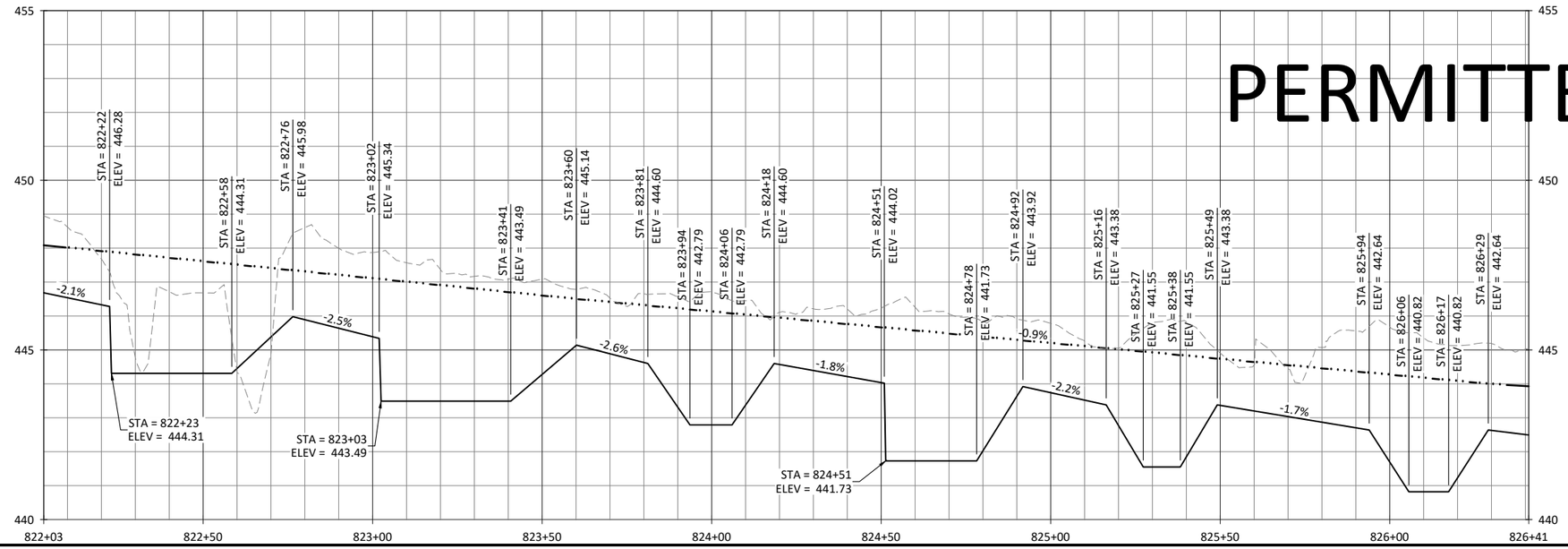
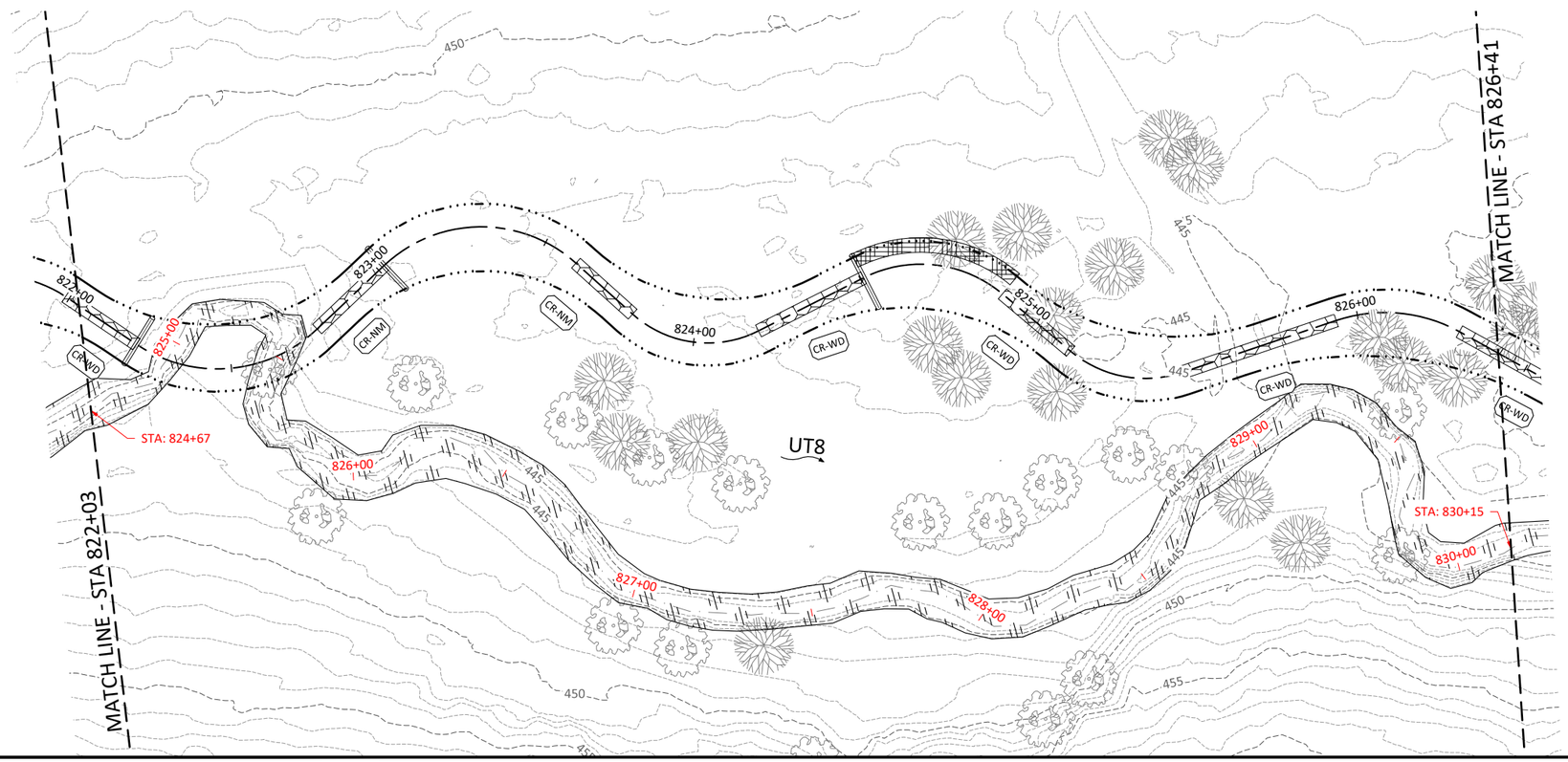
# PERMITTED PLANS




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 548 | 0.95 | 521 CY |

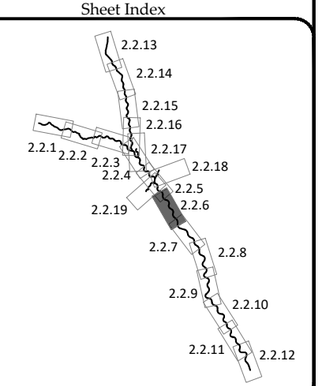



0' 2' 4' 6'
(VERTICAL)

0' 20' 40' 60'
(HORIZONTAL)

N

Sheet Index





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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT8 Reach 4
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.6

May 20, 2020

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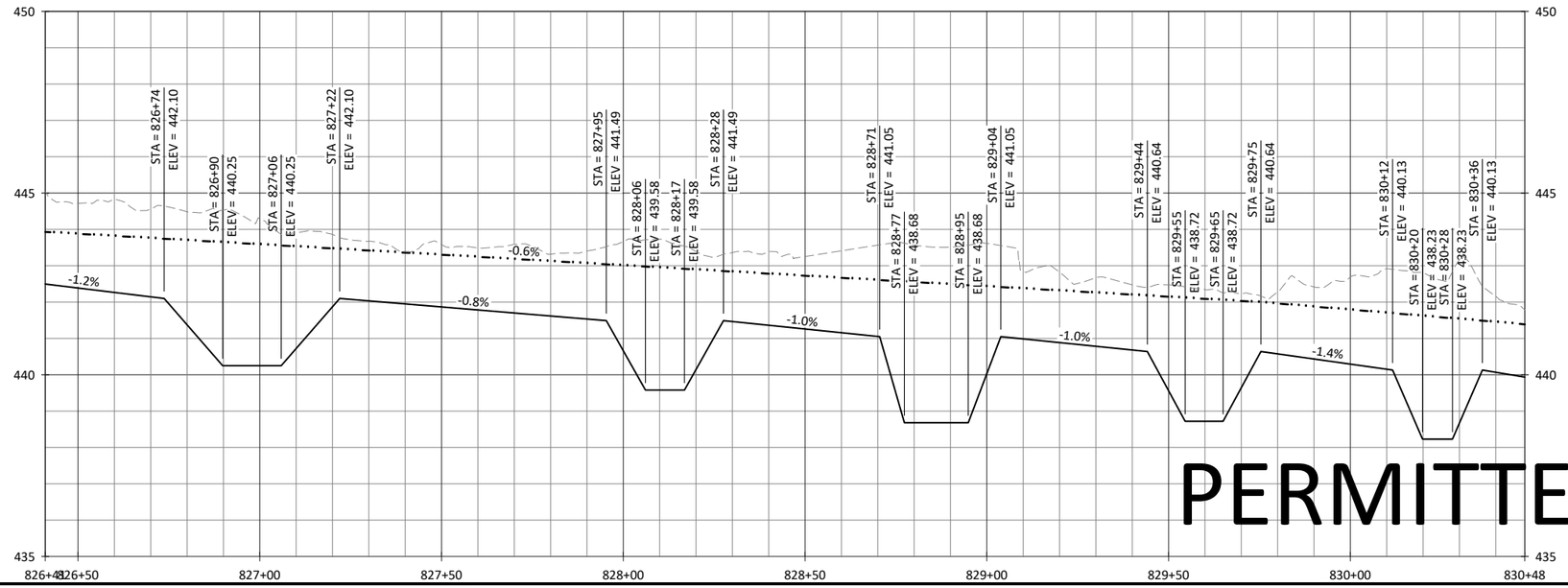
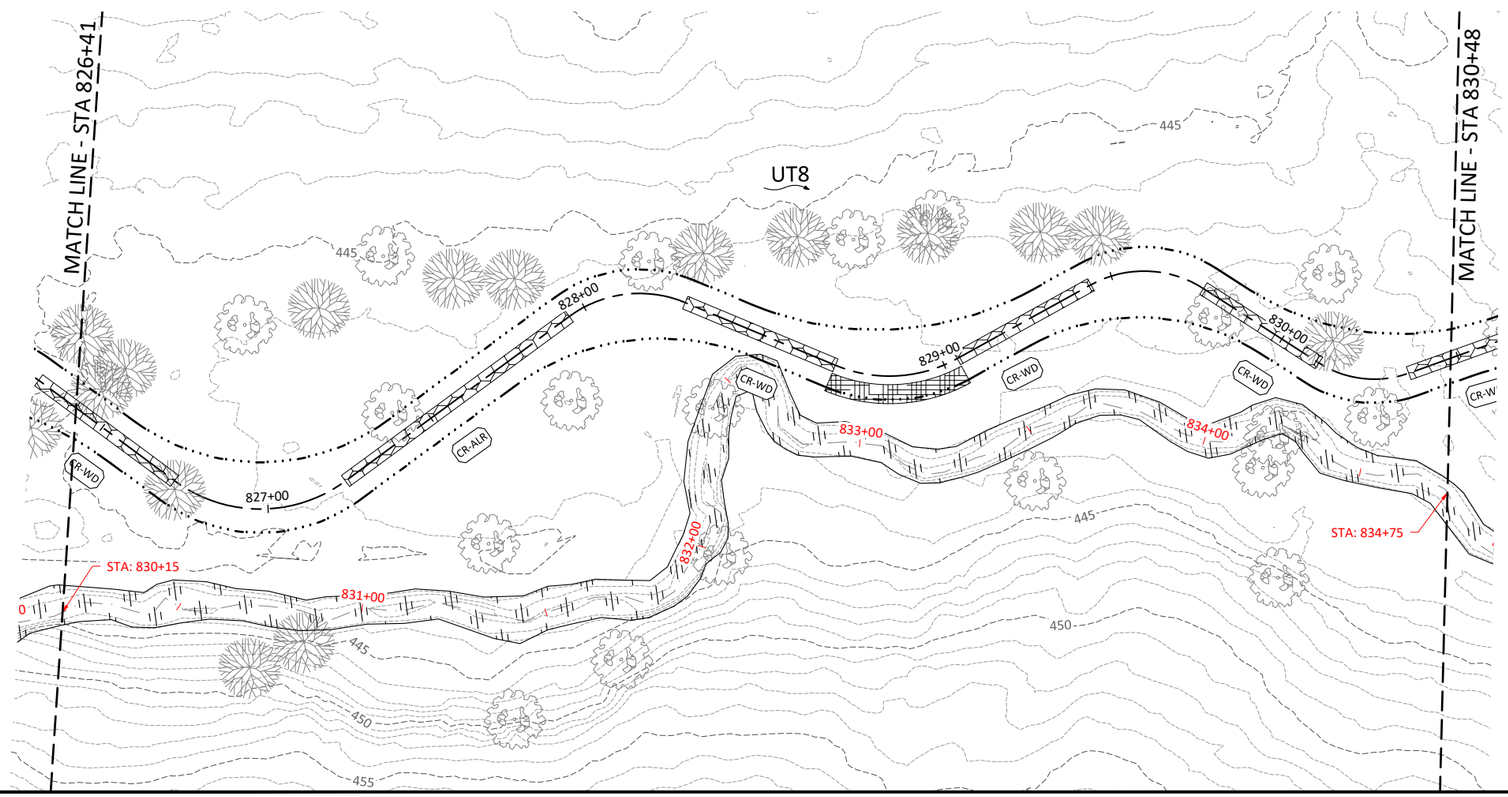



PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 460 | 0.95 | 437 CY |

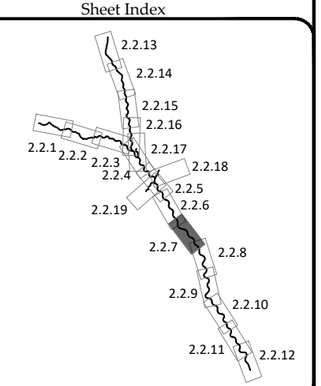



0' 2' 4' 6'
(VERTICAL)

0' 20' 40' 60'
(HORIZONTAL)

N

Sheet Index





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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT8 Reach 4
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.7

May 20, 2020

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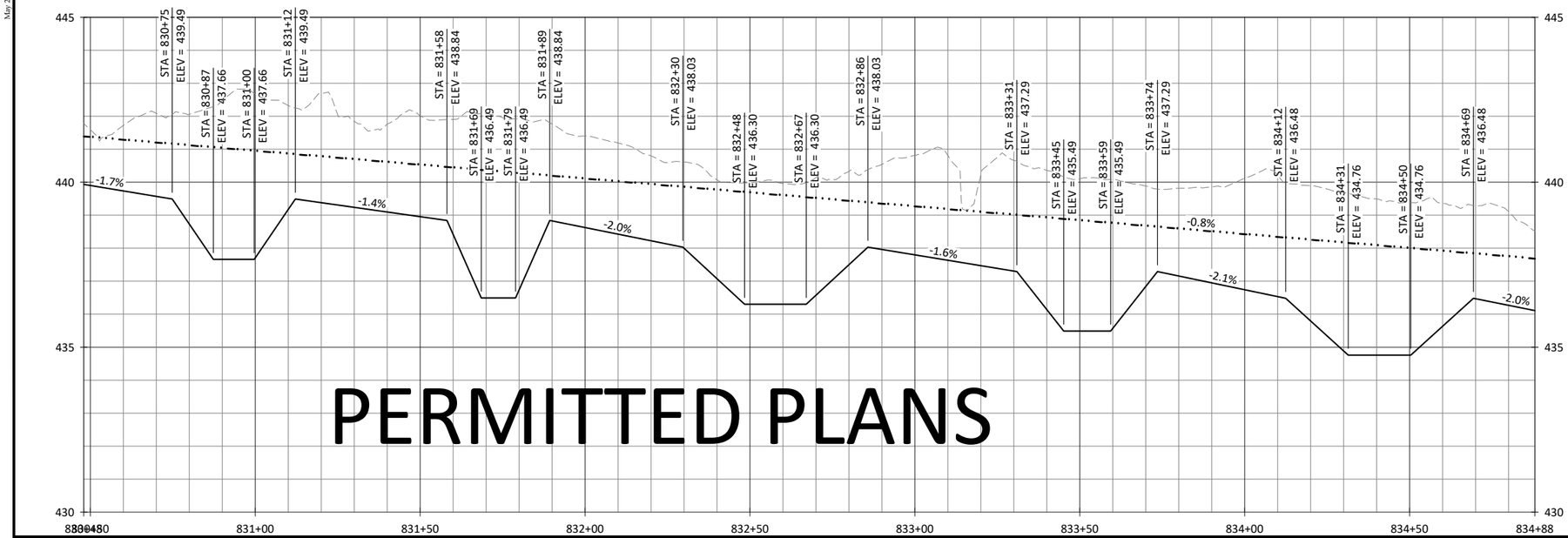
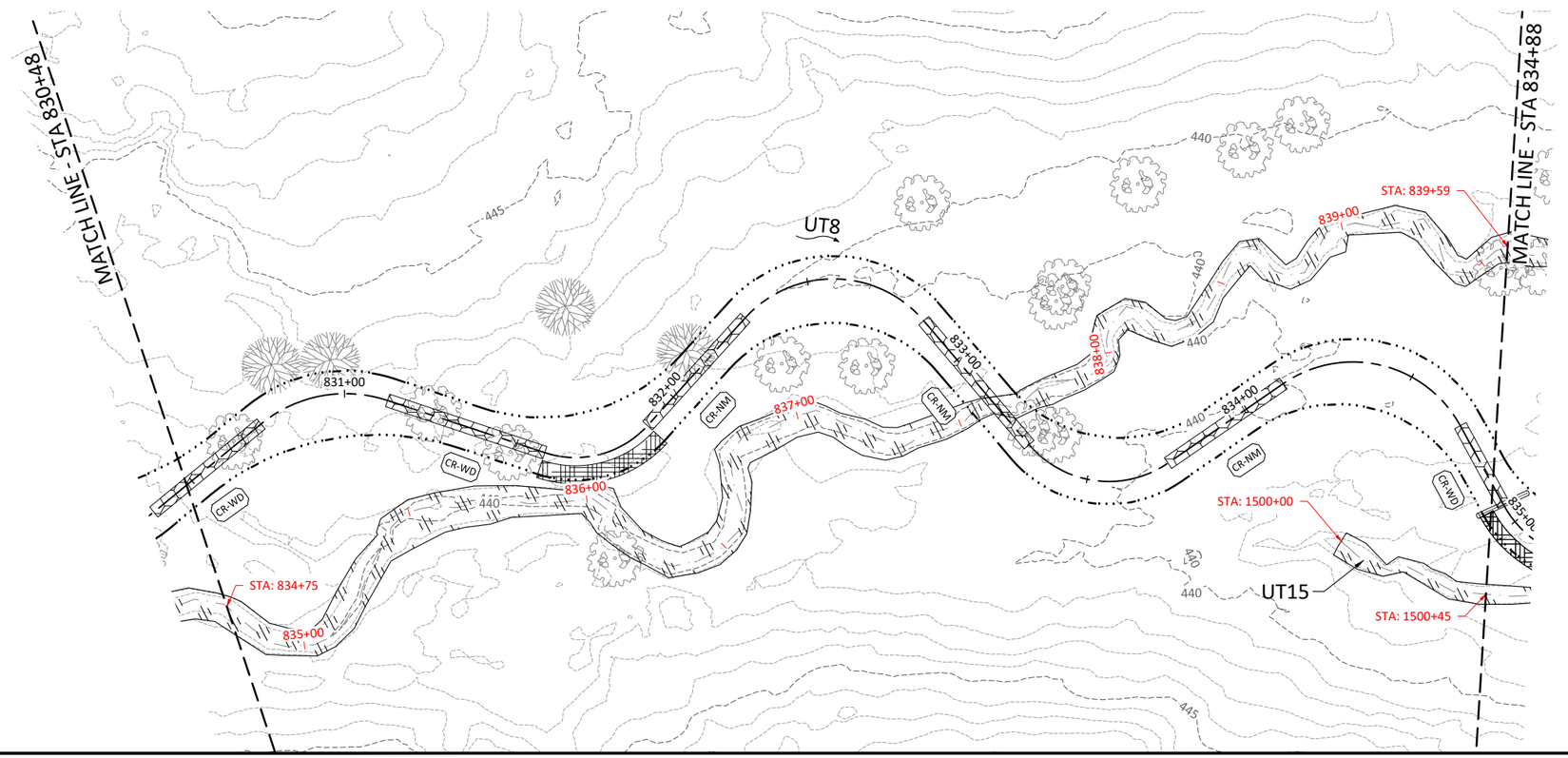
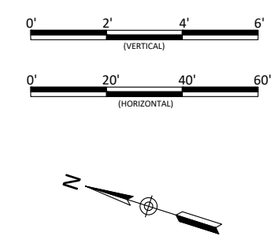



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 529 | 0.95 | 503 CY |

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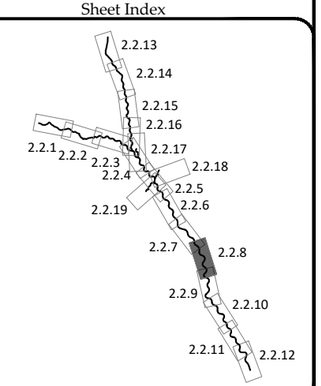



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# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT8 Reach 4
PCN

Revisions:

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|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.8

May 20, 2020

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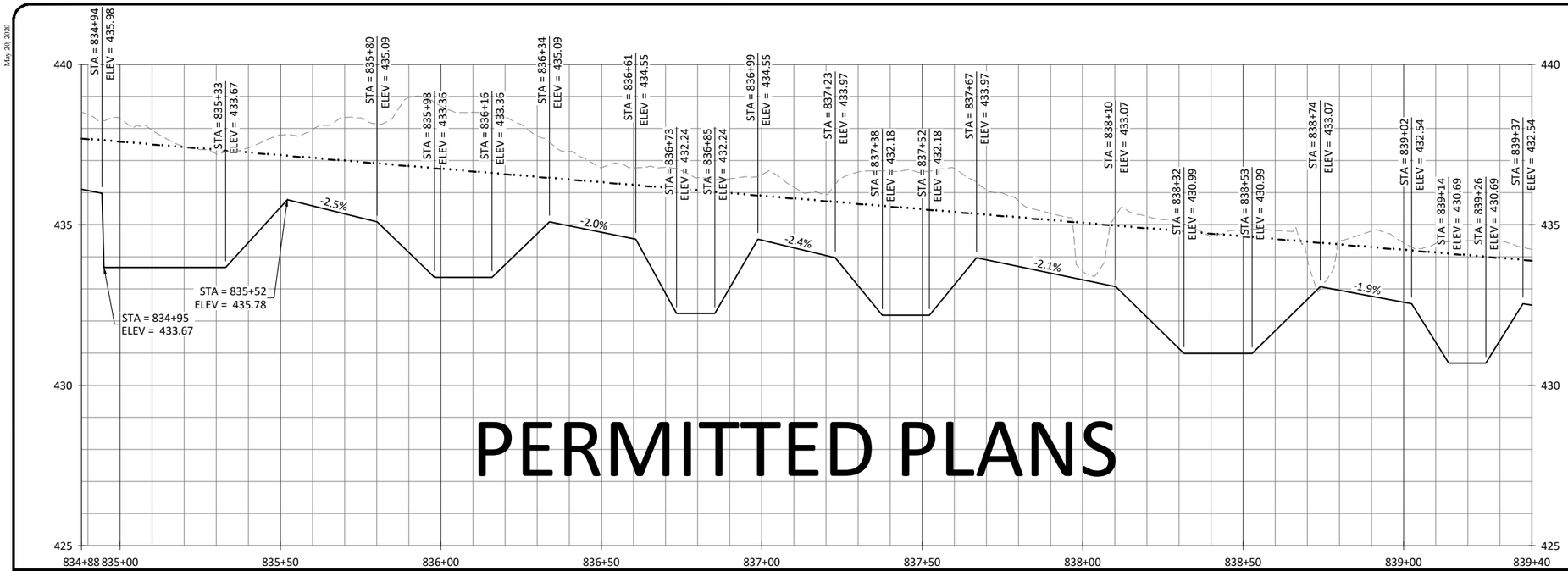
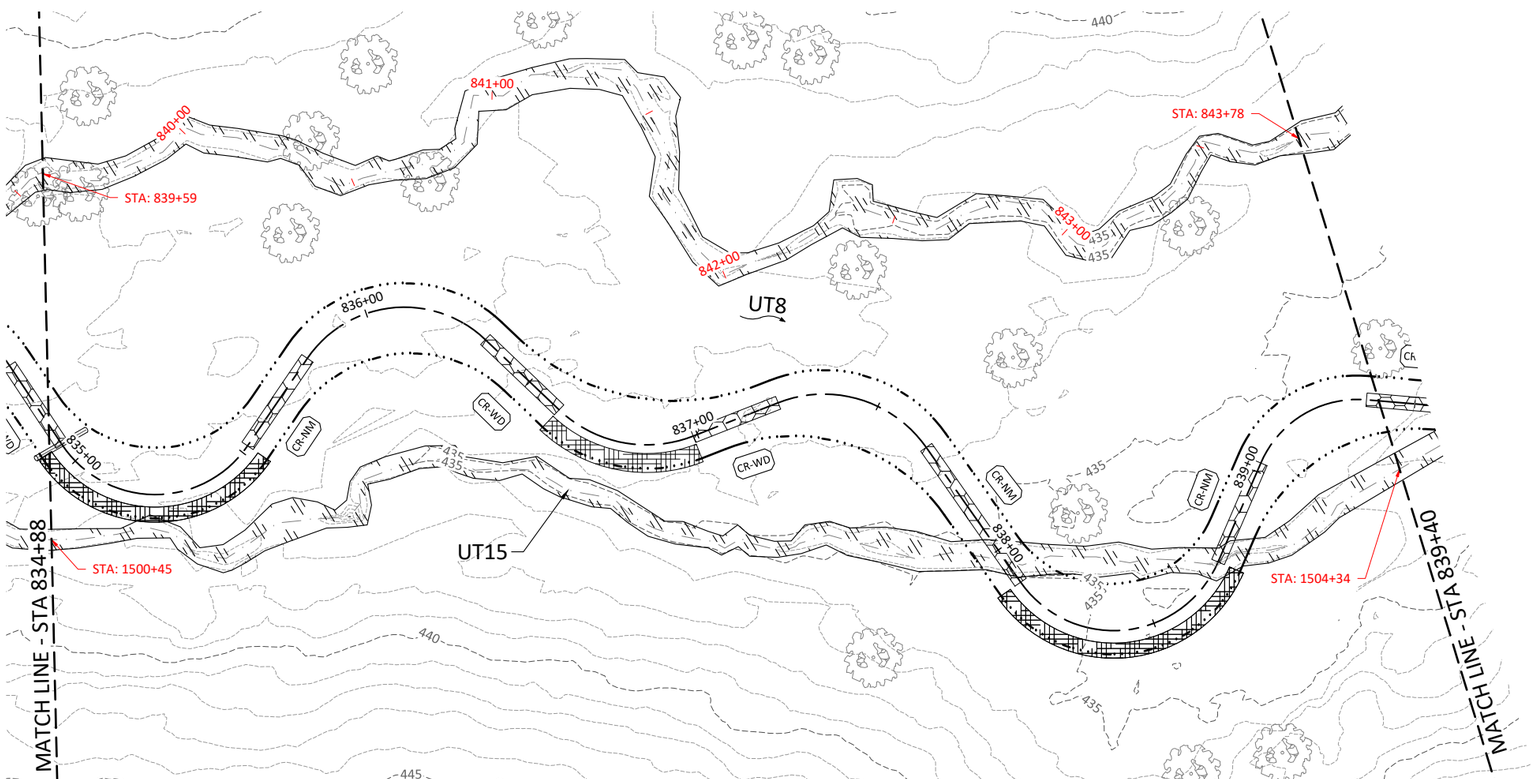
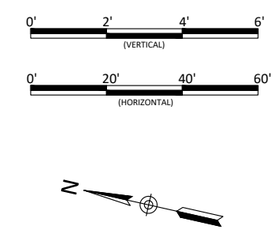



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 808 | 0.95 | 768 CY |

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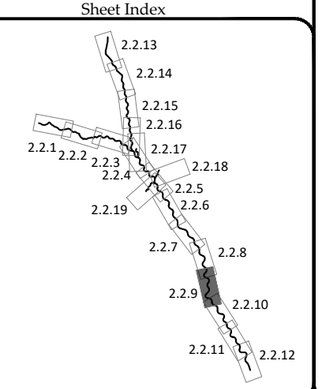


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# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT8 Reach 4
PCN

Revisions:

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|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.9

May 20, 2020

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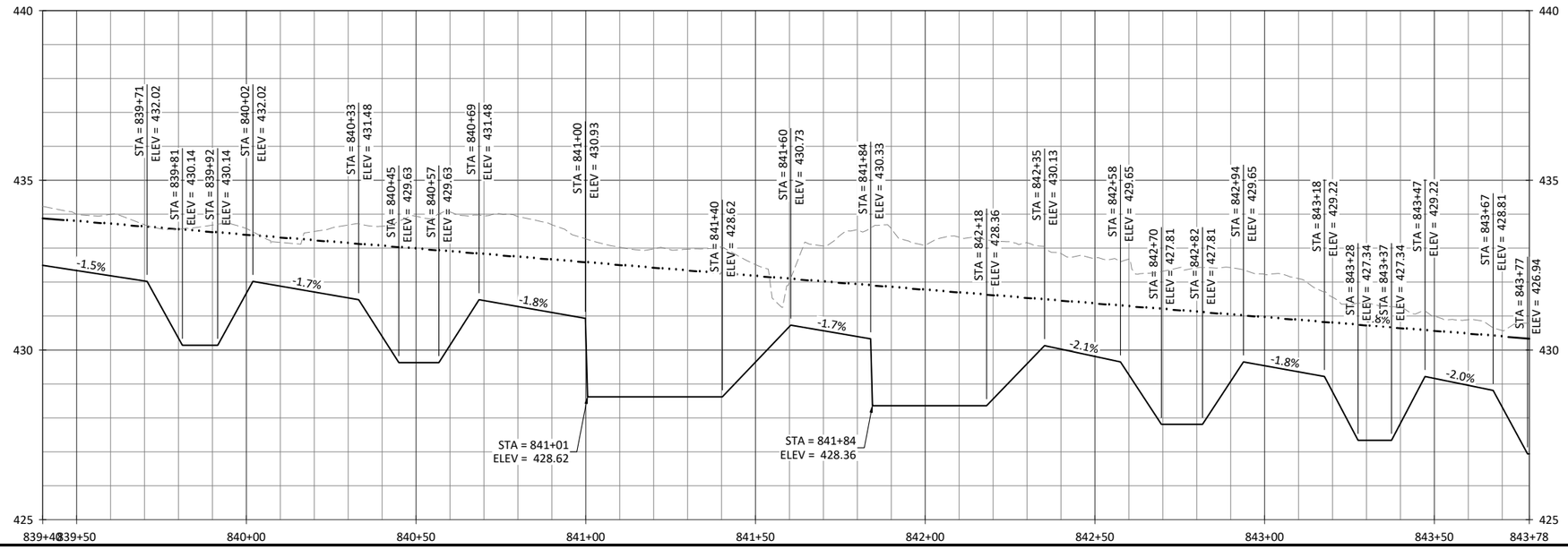
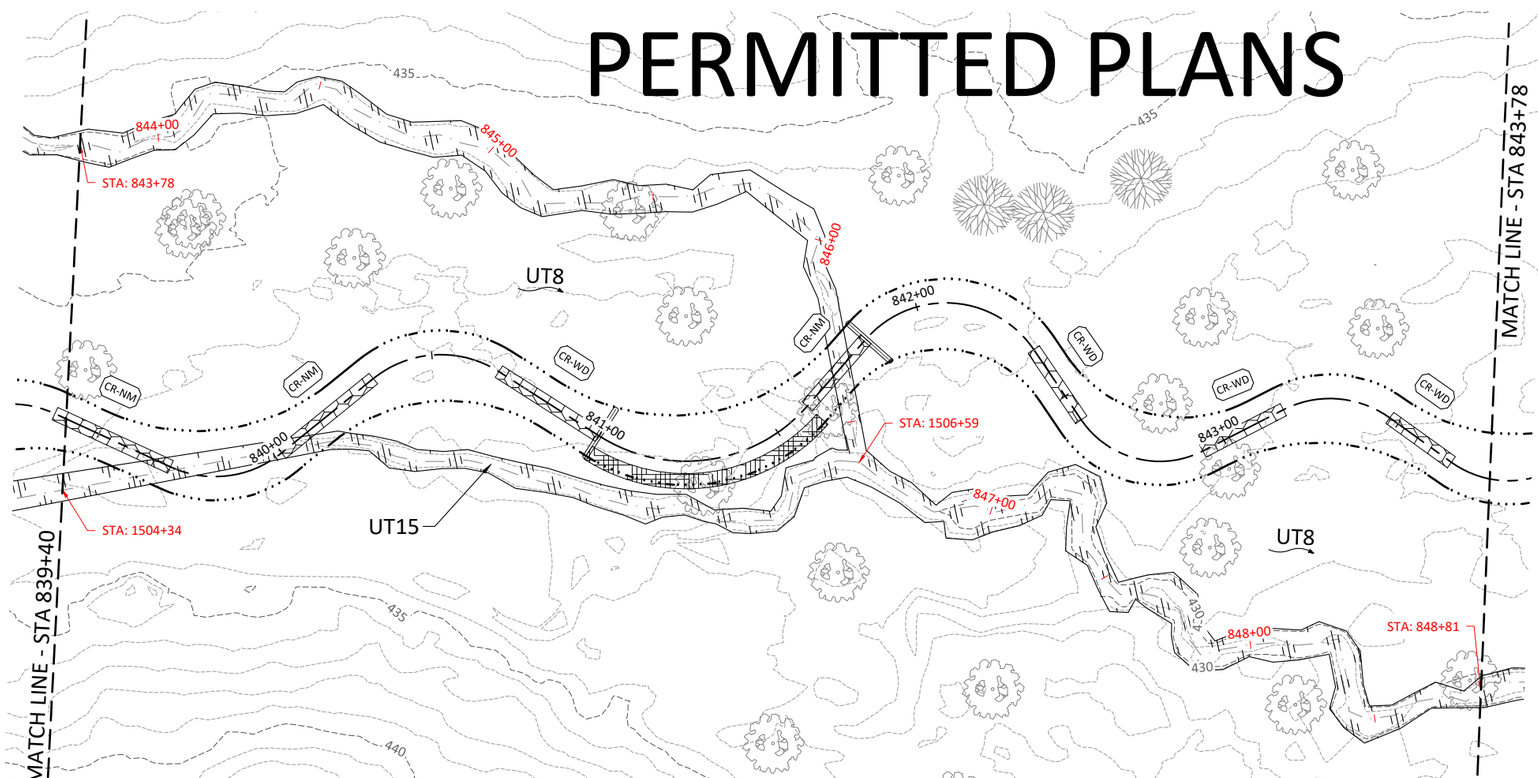
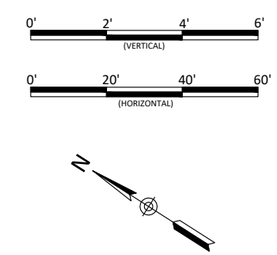



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 728 | 0.95 | 692 CY |

# PERMITTED PLANS

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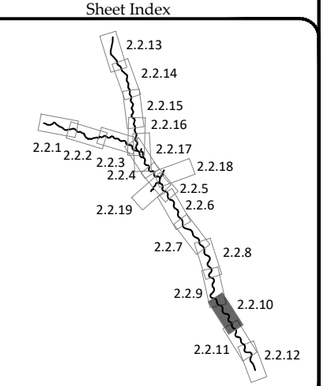



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT8 Reach 4
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.10

May 20, 2020

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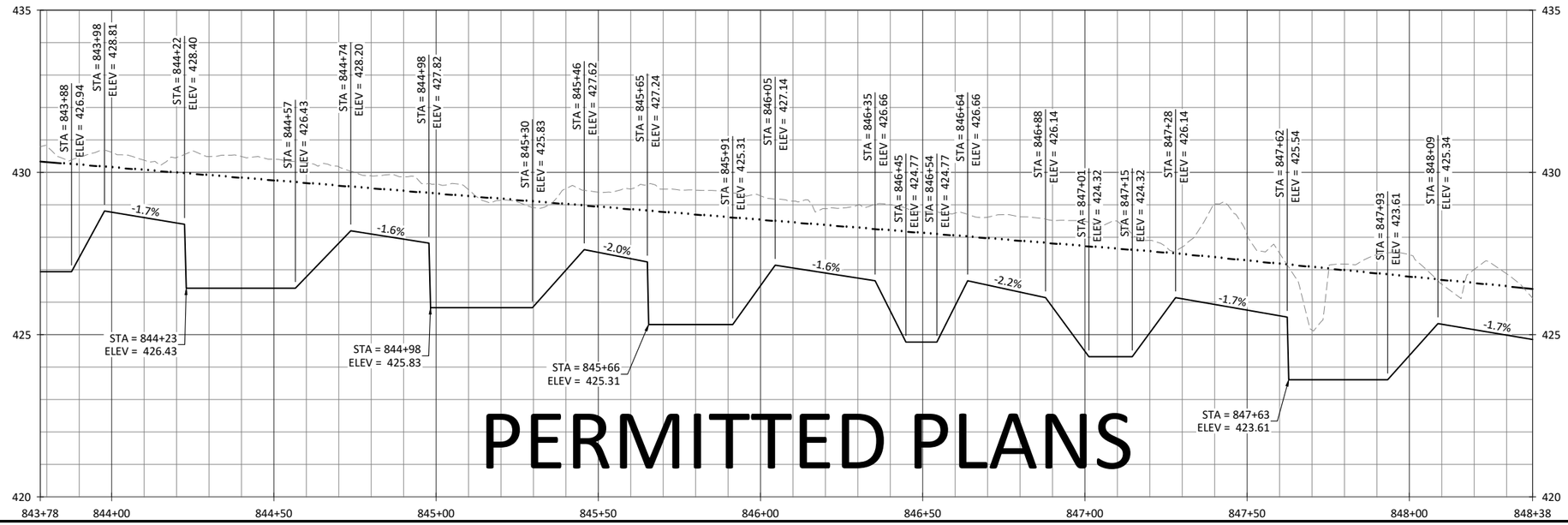
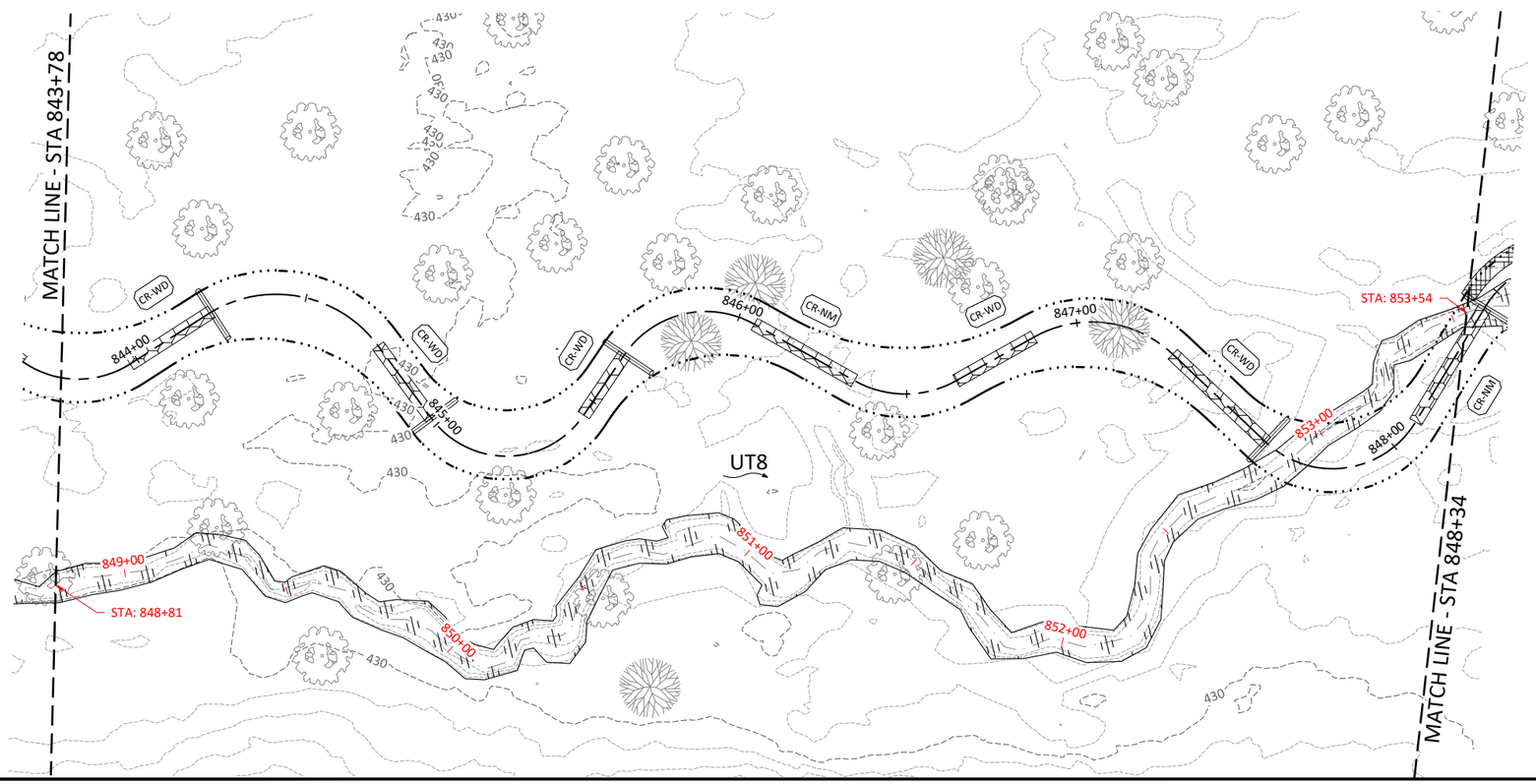
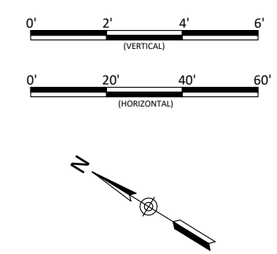



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 473 | 0.95 | 449 CY |

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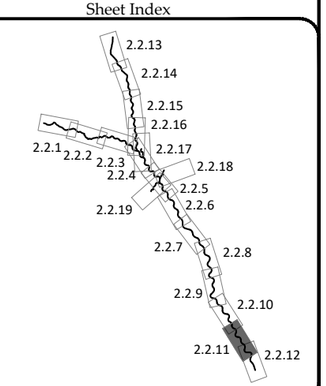



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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT8 Reach 4
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.11

May 20, 2020

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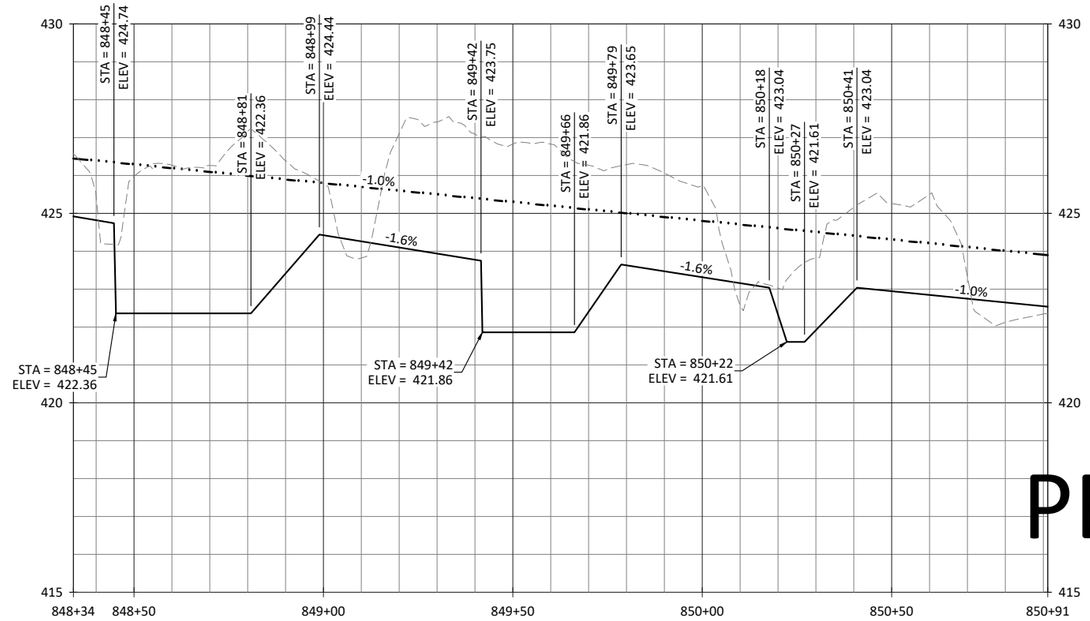
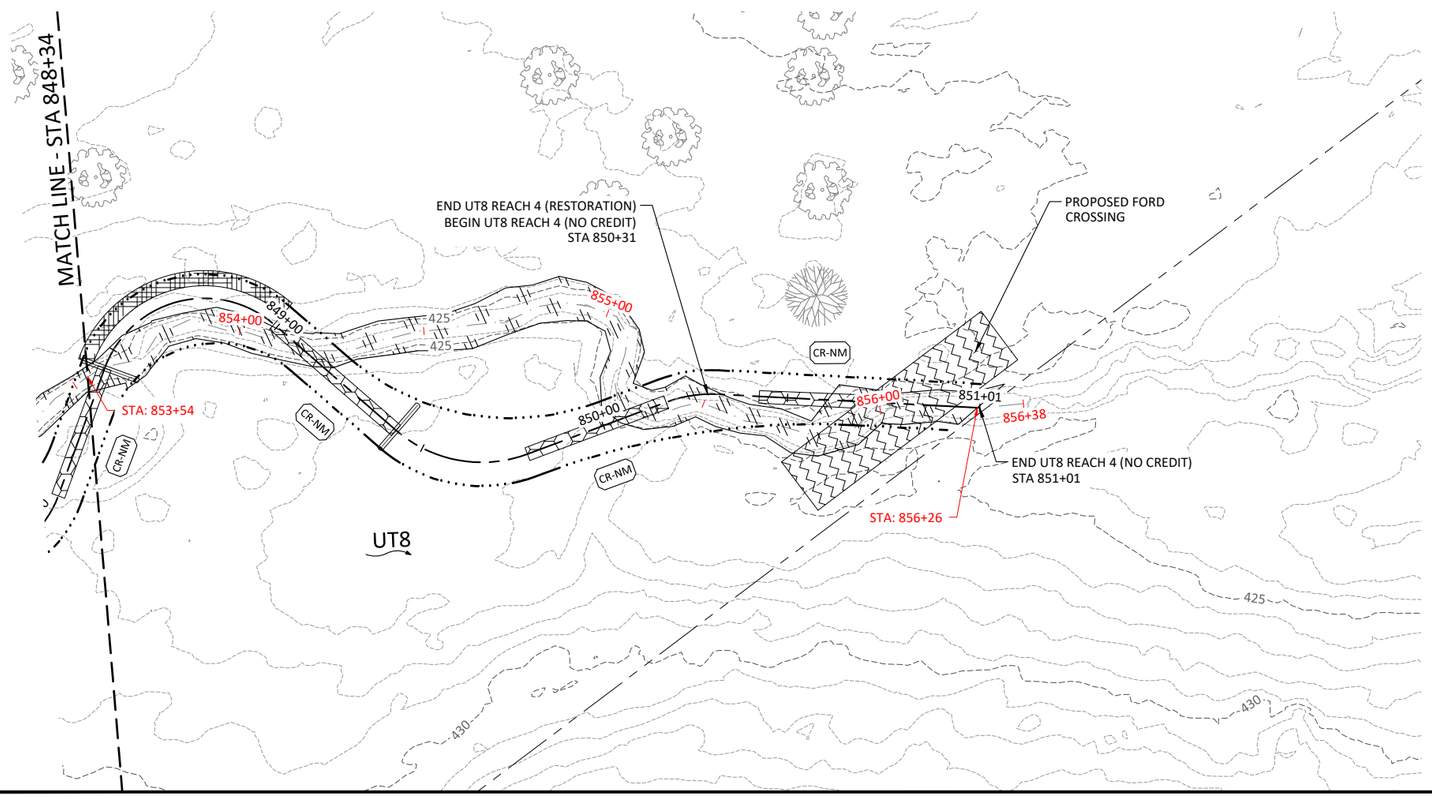
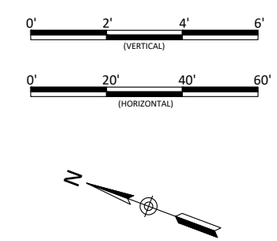



# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 272 | 0.95 | 258 CY |

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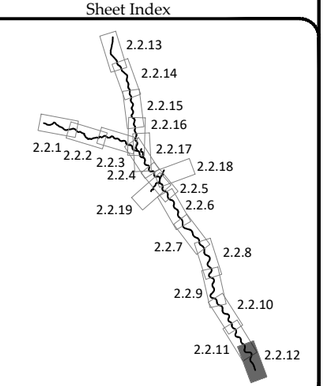


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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT8 Reach 4
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.2.12

May 20, 2020
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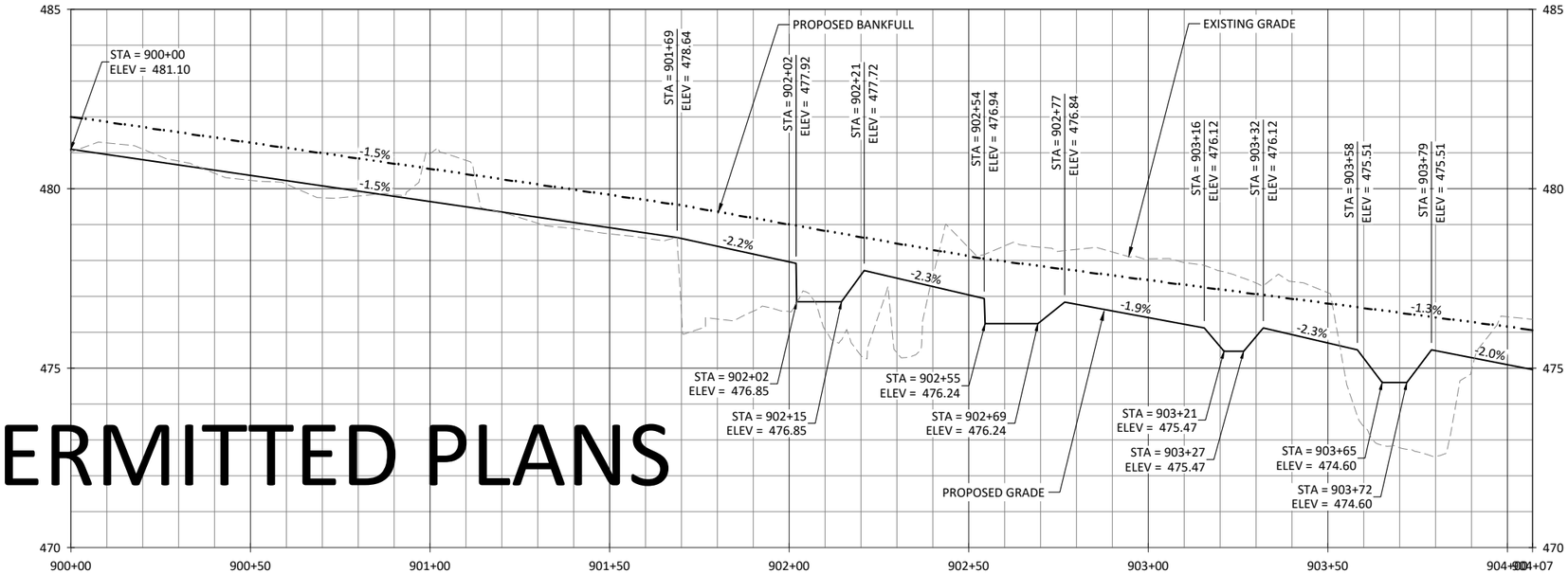
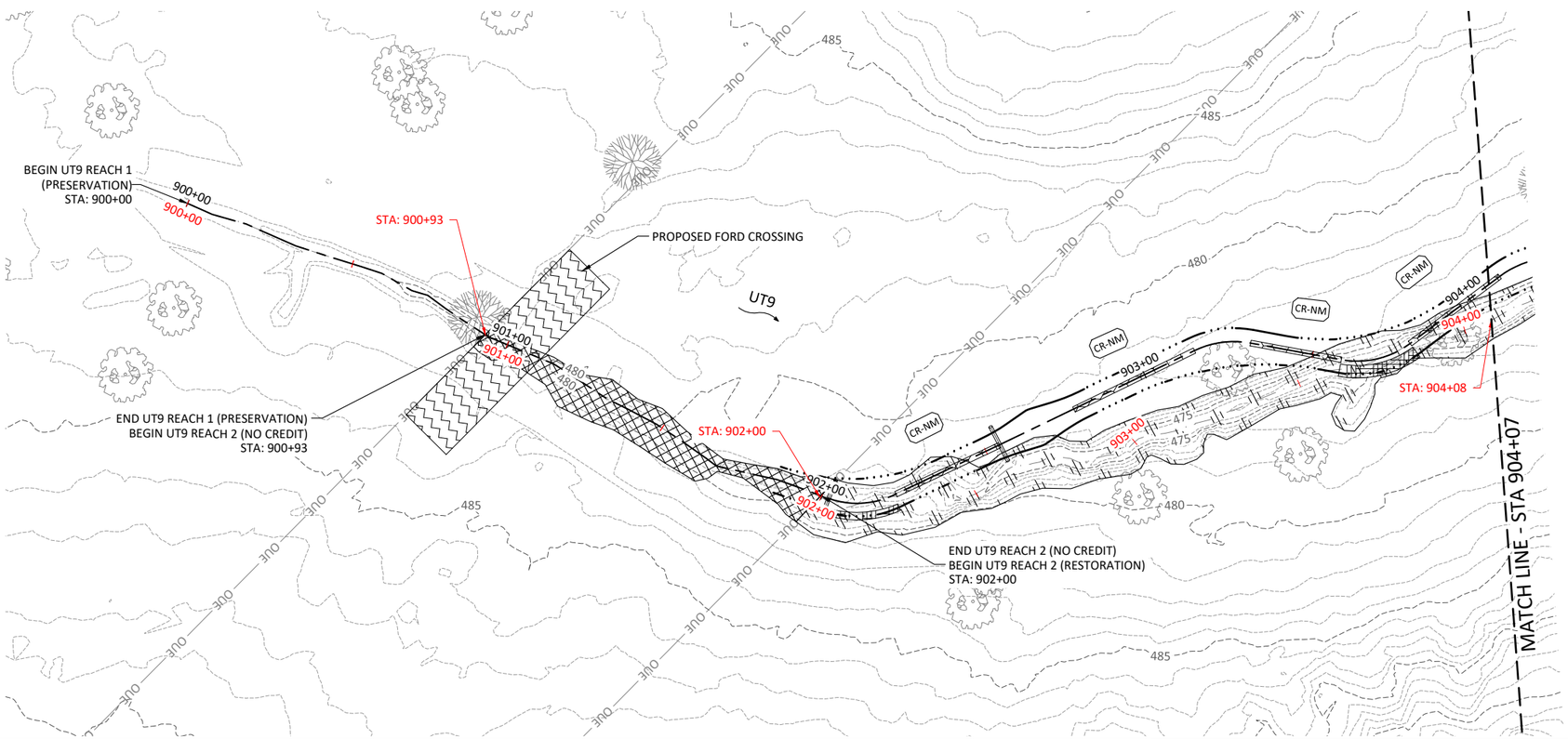
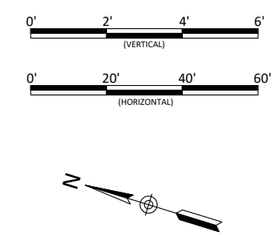



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Stone or Rock Fill | 107 | 0.73 | 78 CY |
| 4 | Off-line Channel Construction | 12 | Soil Fill | 208 | 0.95 | 198 CY |

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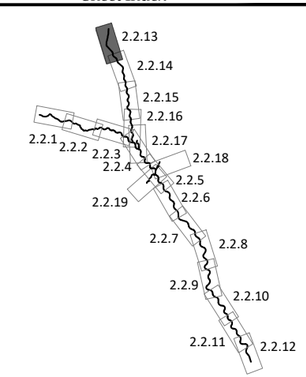


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Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT9 Reach 1 & 2
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.13

May 20, 2020
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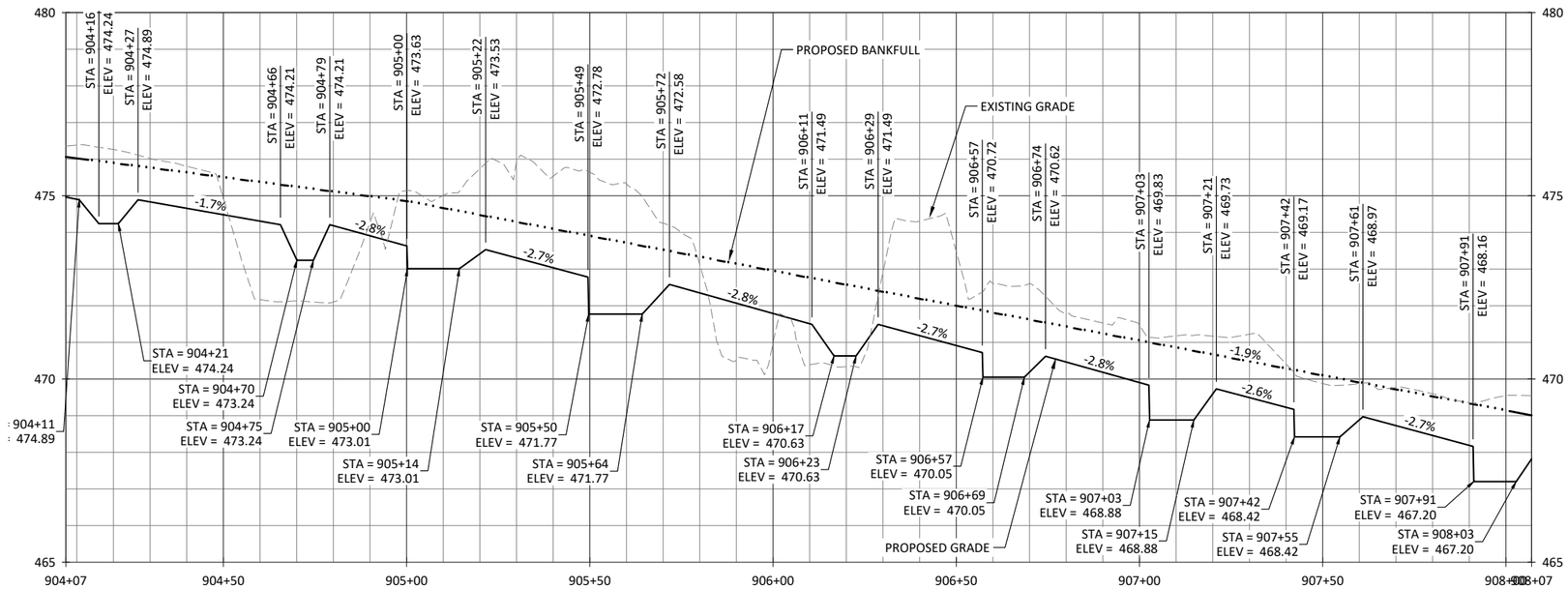
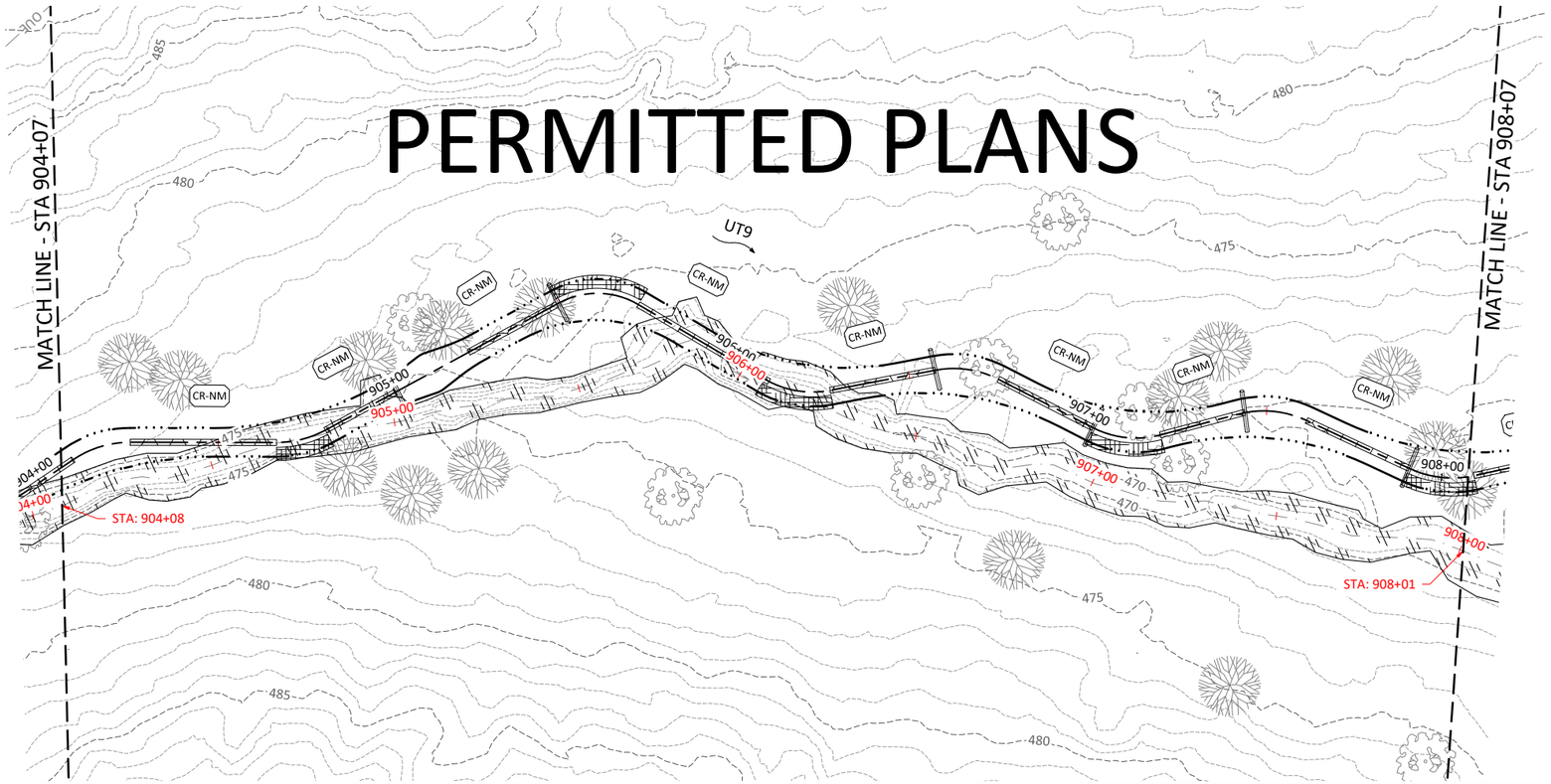



| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 393 | 0.95 | 373 CY |




0' 2' 4' 6' (VERTICAL)

0' 20' 40' 60' (HORIZONTAL)

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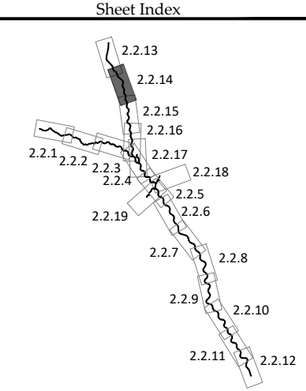
Sheet Index





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PRELIMINARY DO NOT USE FOR CONSTRUCTION

# Carolina Crossroads Mitigation Site - PH Timber Tract
## Newberry County, South Carolina

UT9 Reach 2
PCN

Revisions:

| | |
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Sheet 2.2.14

May 20, 2020

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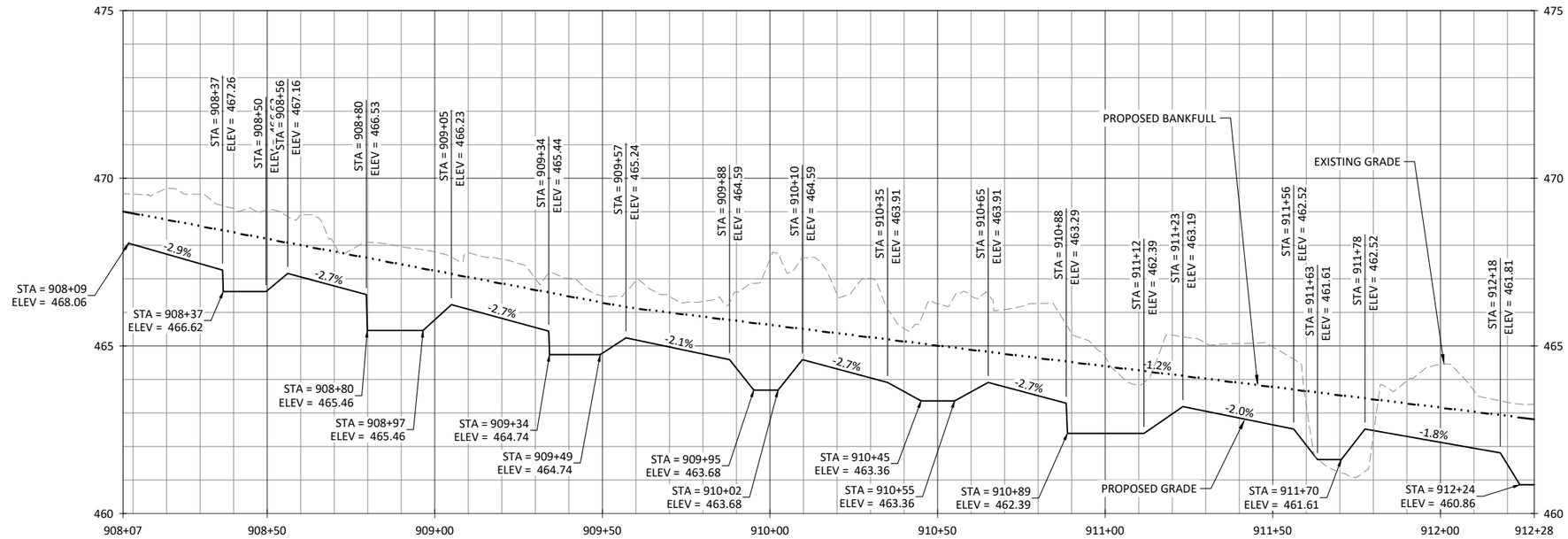
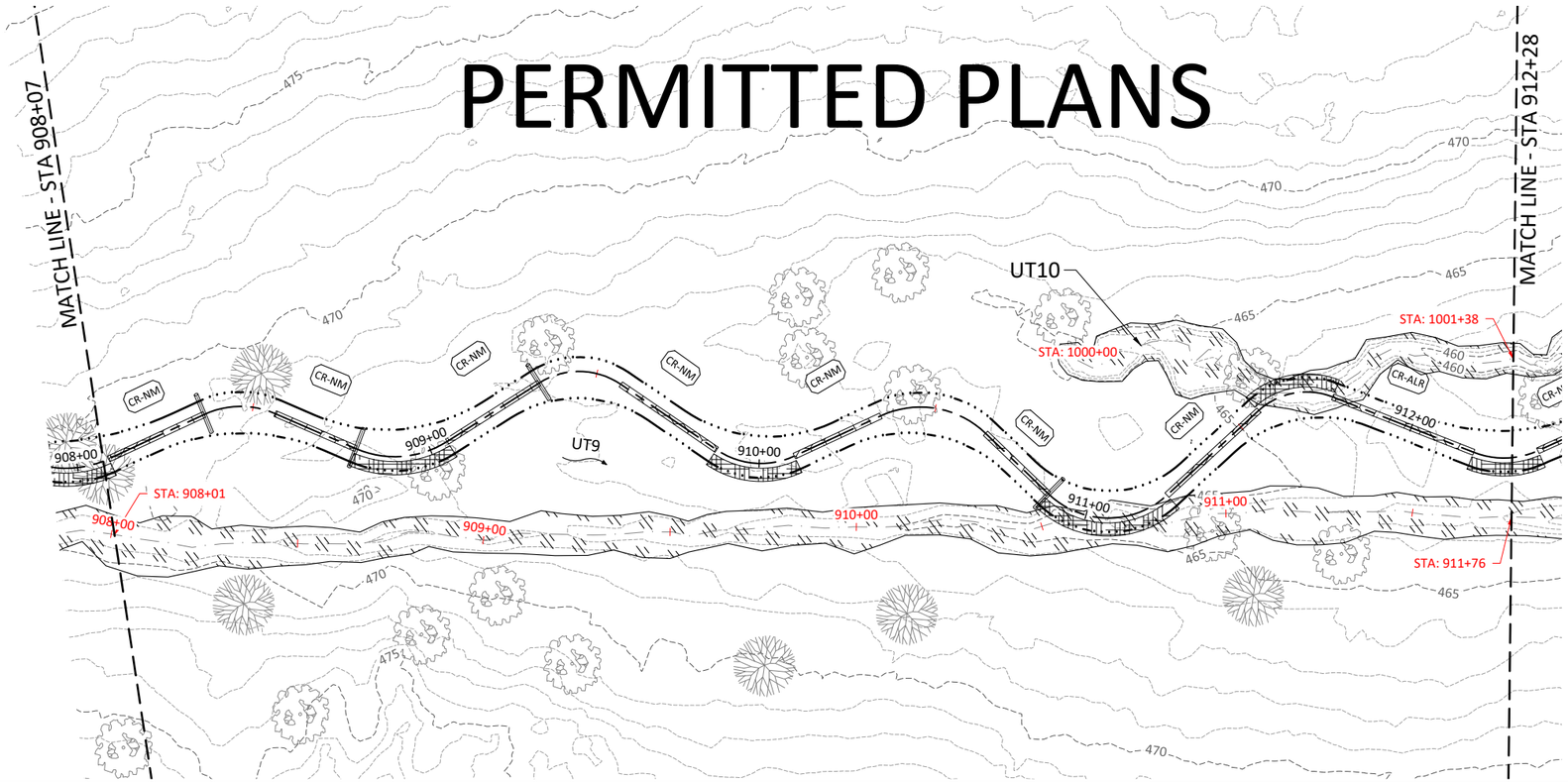
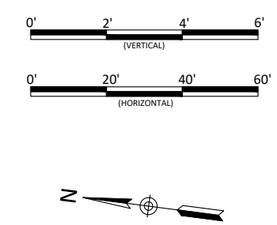


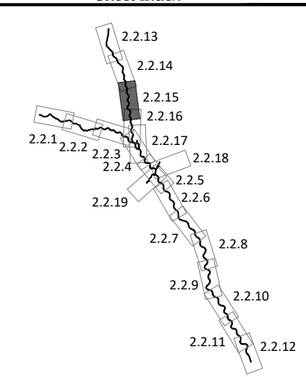

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 513 | 0.95 | 487 CY |

# PERMITTED PLANS




Sheet Index





WILDLANDS ENGINEERING
497 Bramson Ct. Suite 104
Mount Pleasant, SC 29464
Tel: 843.277.6221
Fax: 843.212.2101


PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT9 Reach 2
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.15

May 20, 2020

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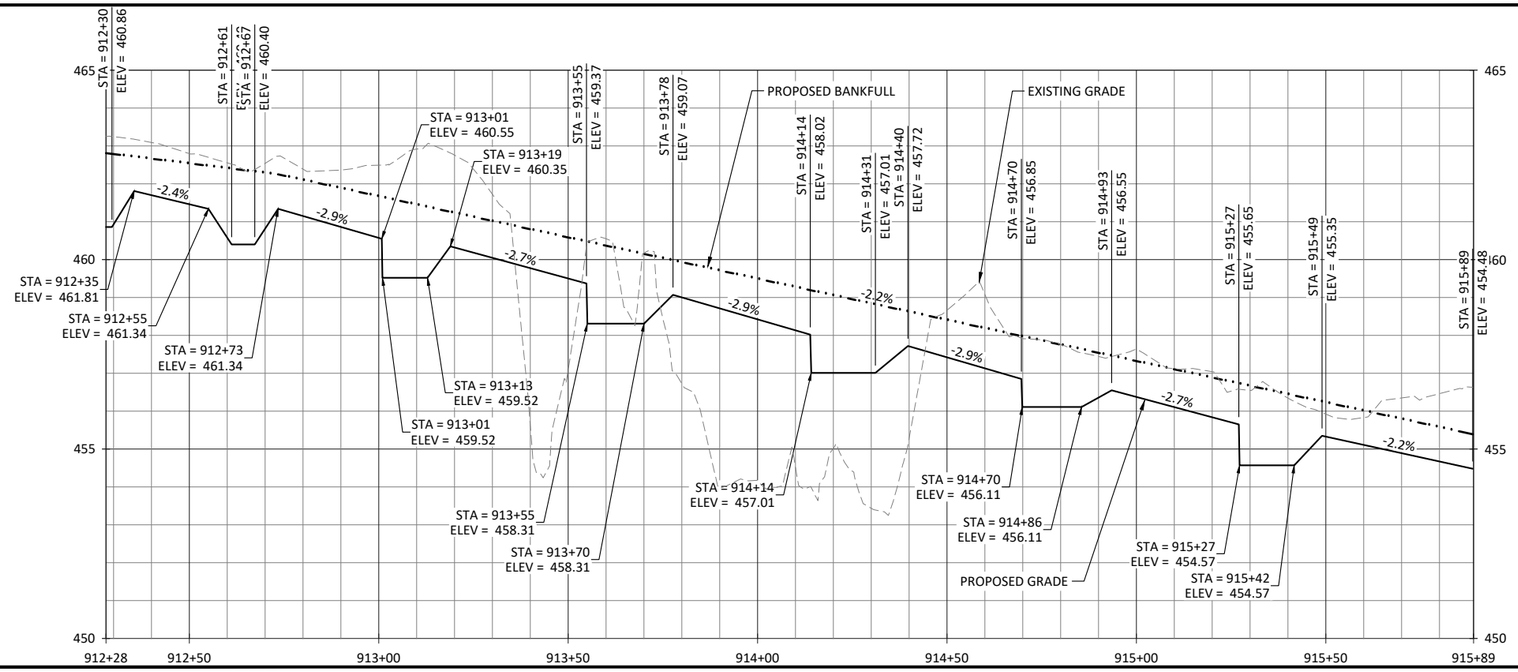
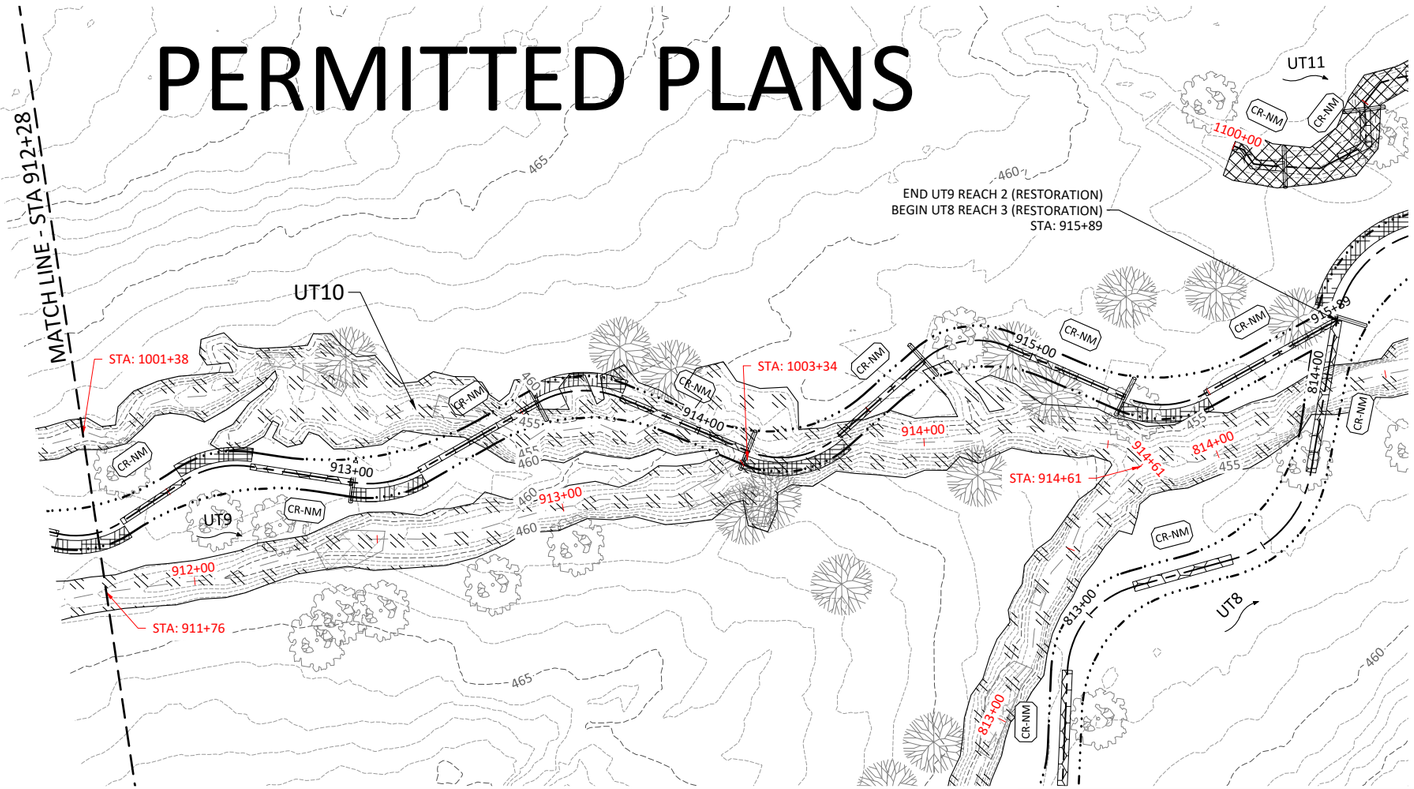
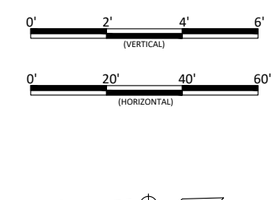


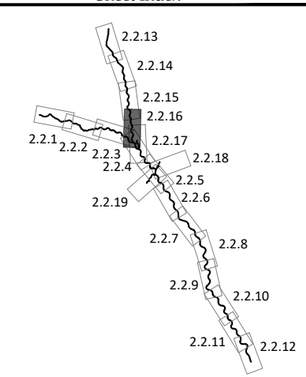

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 481 | 0.95 | 457 CY |

# PERMITTED PLANS




Sheet Index

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Fax: 843.212.2101

PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT9 Reach 2
PCN

Revisions:

| | |
|---|---|
| Date: | 05.20.2020 |
| Job Number: | 005-05200 |
| Project Engineer: | GLS |
| Drawn By: | MJC |
| Checked By: | DHJ |

Sheet 2.2.16

May 20, 2020

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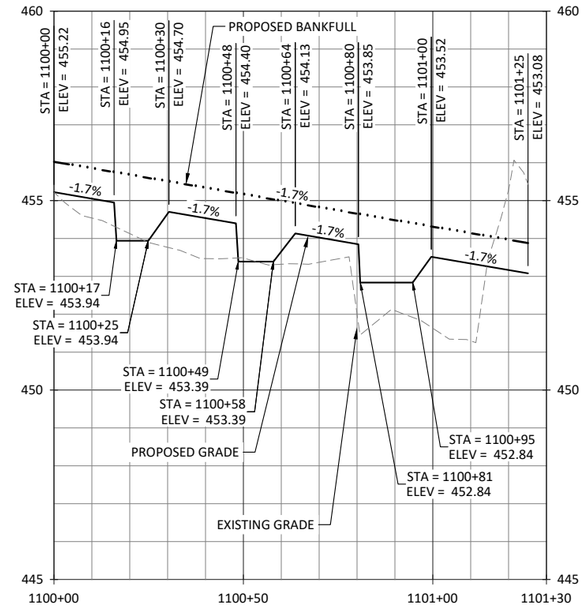
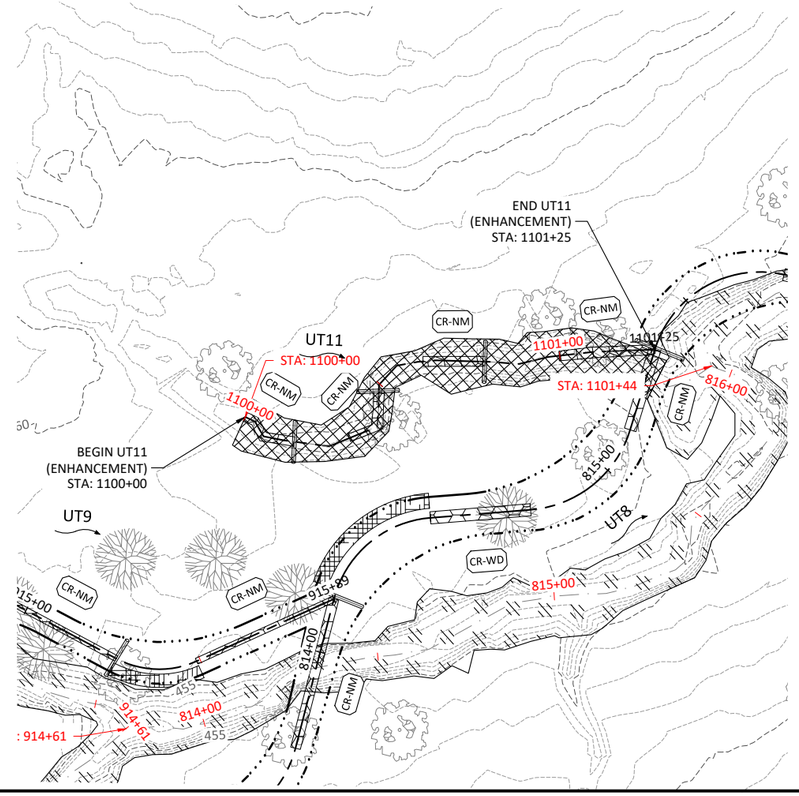



# PERMITTED PLANS

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 144 | 0.73 | 105 CY |

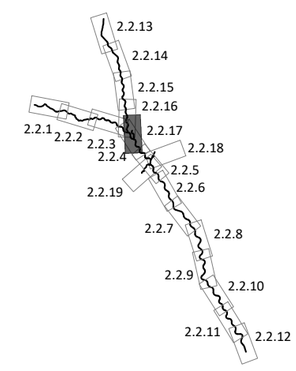



0' 2' 4' 6' (VERTICAL)

0' 20' 40' 60' (HORIZONTAL)

N

Sheet Index

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Mount Pleasant, SC 29464
Tel: 843.277.6221
Fax: 843.212.2101

PRELIMINARY DO NOT USE FOR CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT11
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.2.17

May 20, 2020

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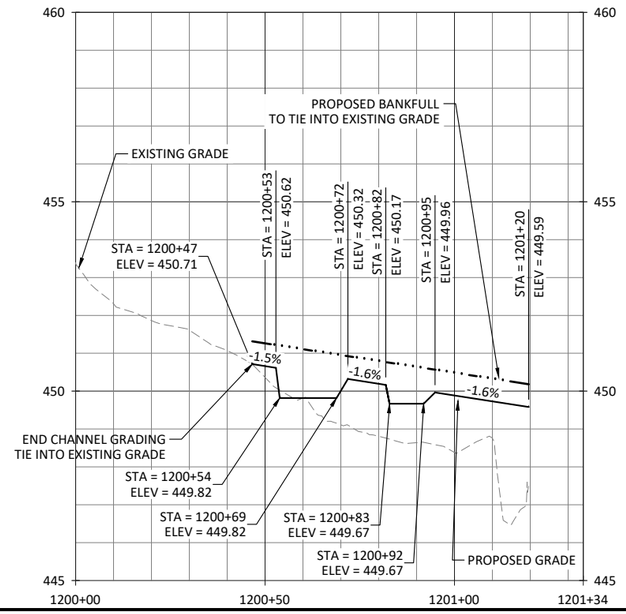
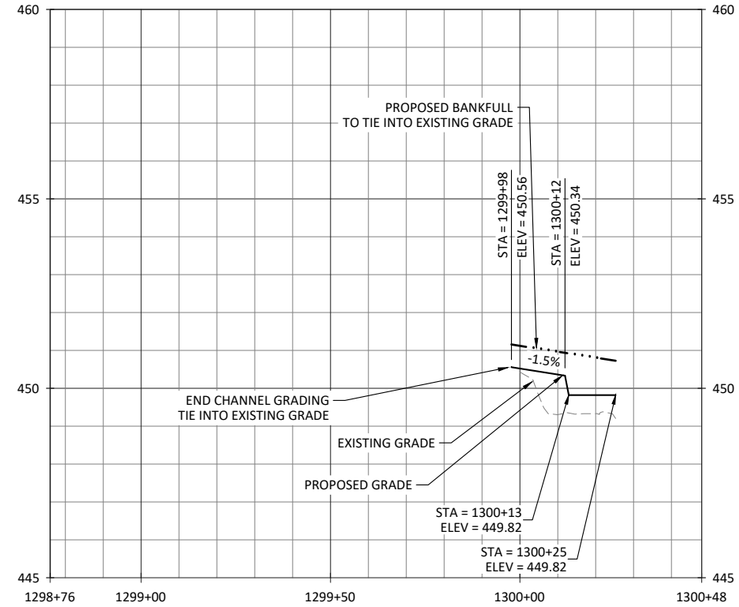
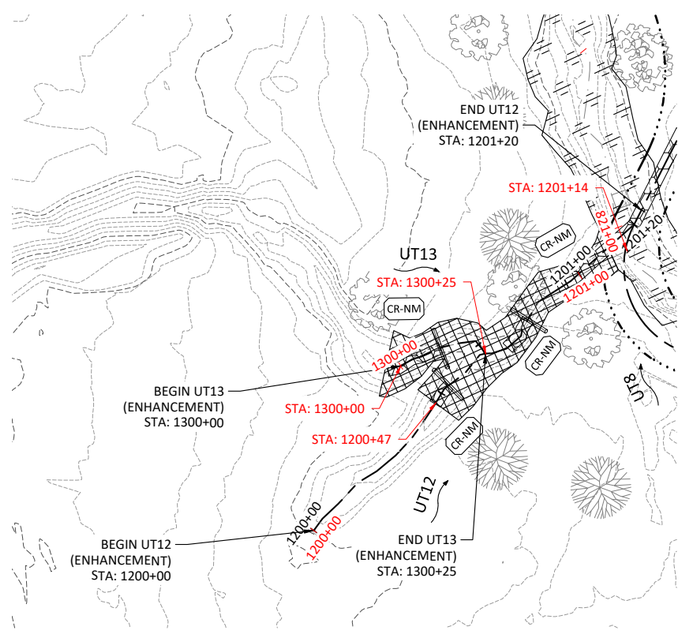
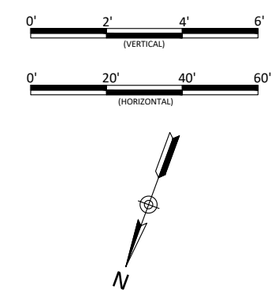


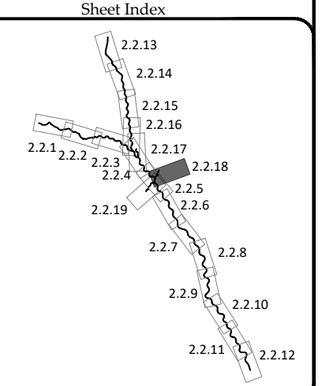

| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 3 | In-line Channel Construction | 9 | Gravel, Rock or Stone Fill | 92 | 0.73 | 67 CY |

# PERMITTED PLANS




Sheet Index

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Mount Pleasant, SC 29464
Tel: 843.277.6221
Fax: 843.212.2101

PRELIMINARY
DO NOT
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CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT12 and UT13
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MIC
Checked By: DH

Sheet 2.2.18

May 20, 2020

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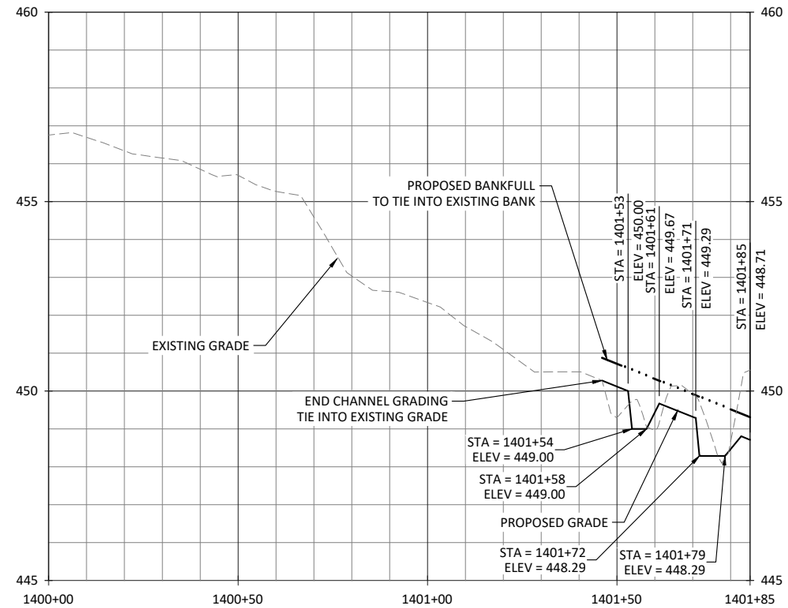
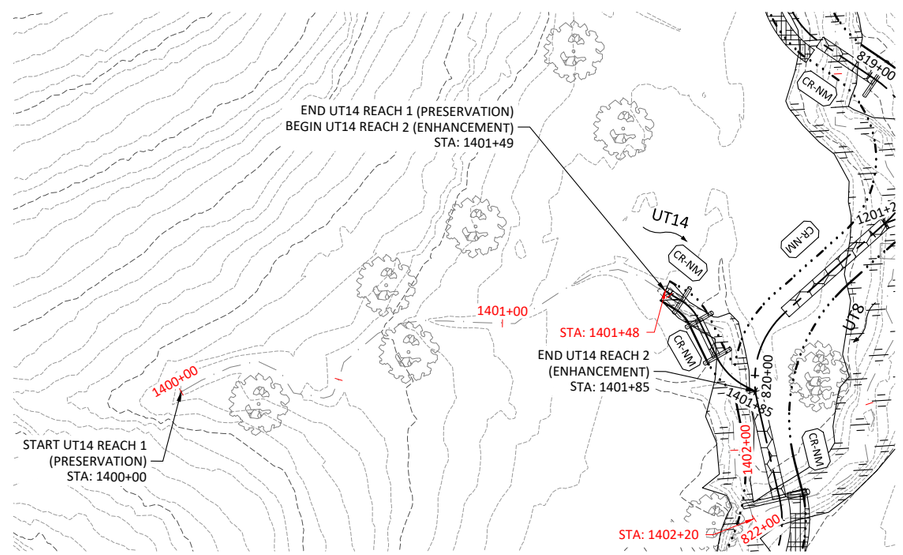
# PERMITTED PLANS




| Impact # | Description | Average Stream Width (FT) | Impact Type | Impact Length (FT) | Unit Quantity of Material Discharged (CY/FT) | Total Impact |
|---|---|---|---|---|---|---|
| 4 | Off-line Channel Construction | 12 | Soil Fill | 72 | 0.95 | 68 CY |

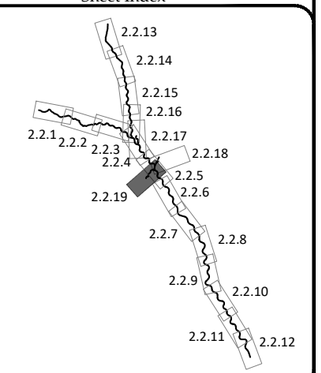



0' 2' 4' 6'
(VERTICAL)

0' 20' 40' 60'
(HORIZONTAL)

N

Sheet Index





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Tel: 843.277.6221
Fax: 843.212.2101


PRELIMINARY
DO NOT
USE FOR
CONSTRUCTION

Carolina Crossroads Mitigation Site - PH Timber Tract
Newberry County, South Carolina

UT14 Reach 2
PCN

Revisions:

Date: 05.20.2020
Job Number: 005-05200
Project Engineer: GLS
Drawn By: MJC
Checked By: DHJ

Sheet 2.2.19


May 20, 2020
X:\shared\Projects\005-05200 Carolina Crossroads\Cadd\Plans\Copy from PCN\05200 Plans West Tribs-PCN.dwg

Permit Number: _____

Name of Permittee: _____

Date of Issuance: _____

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Regulatory Division
Northwest Branch
1835 Assembly Street, Room 865
Columbia, South Carolina 29201

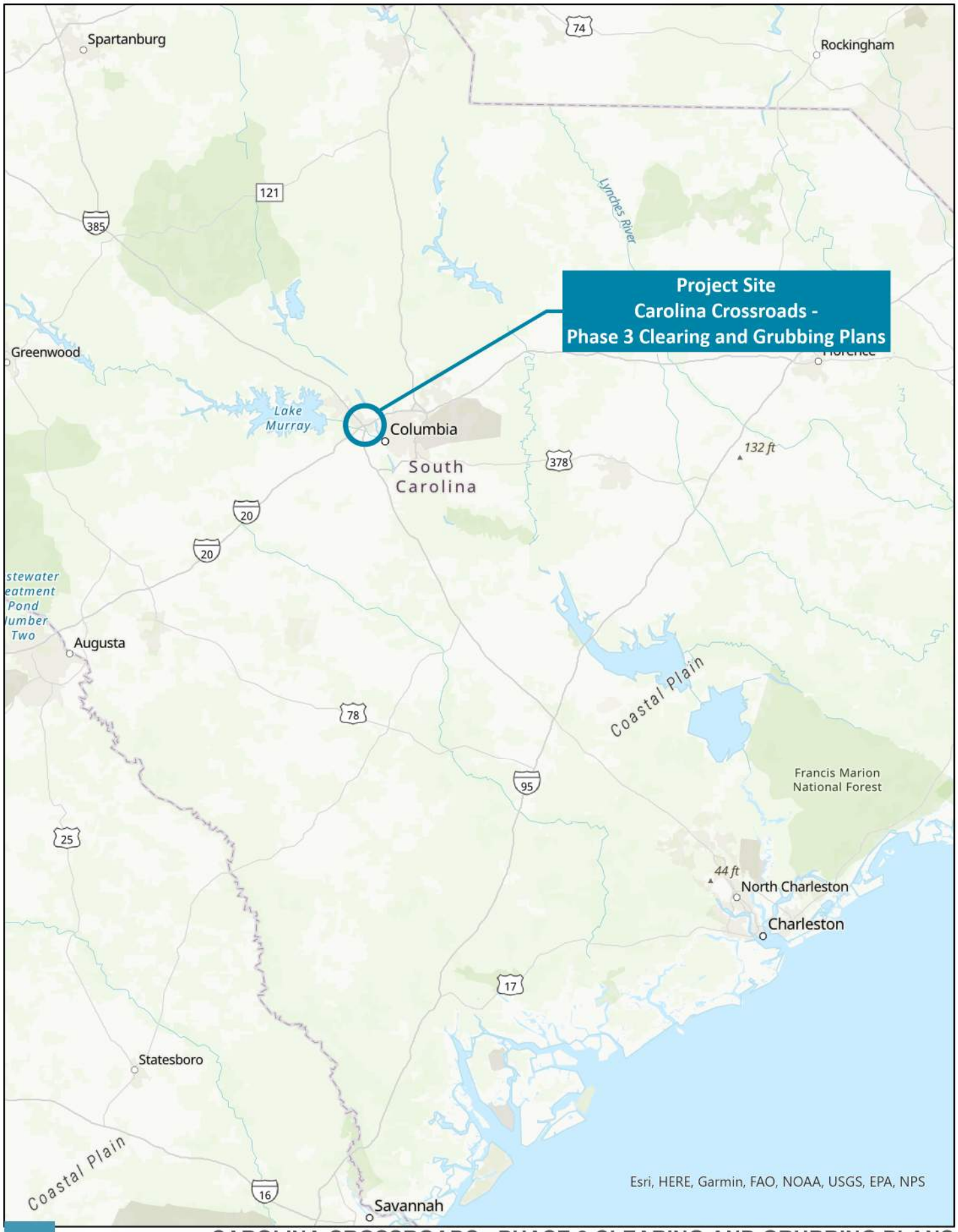
Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

==========

***I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions***.

_____
Signature of Permittee

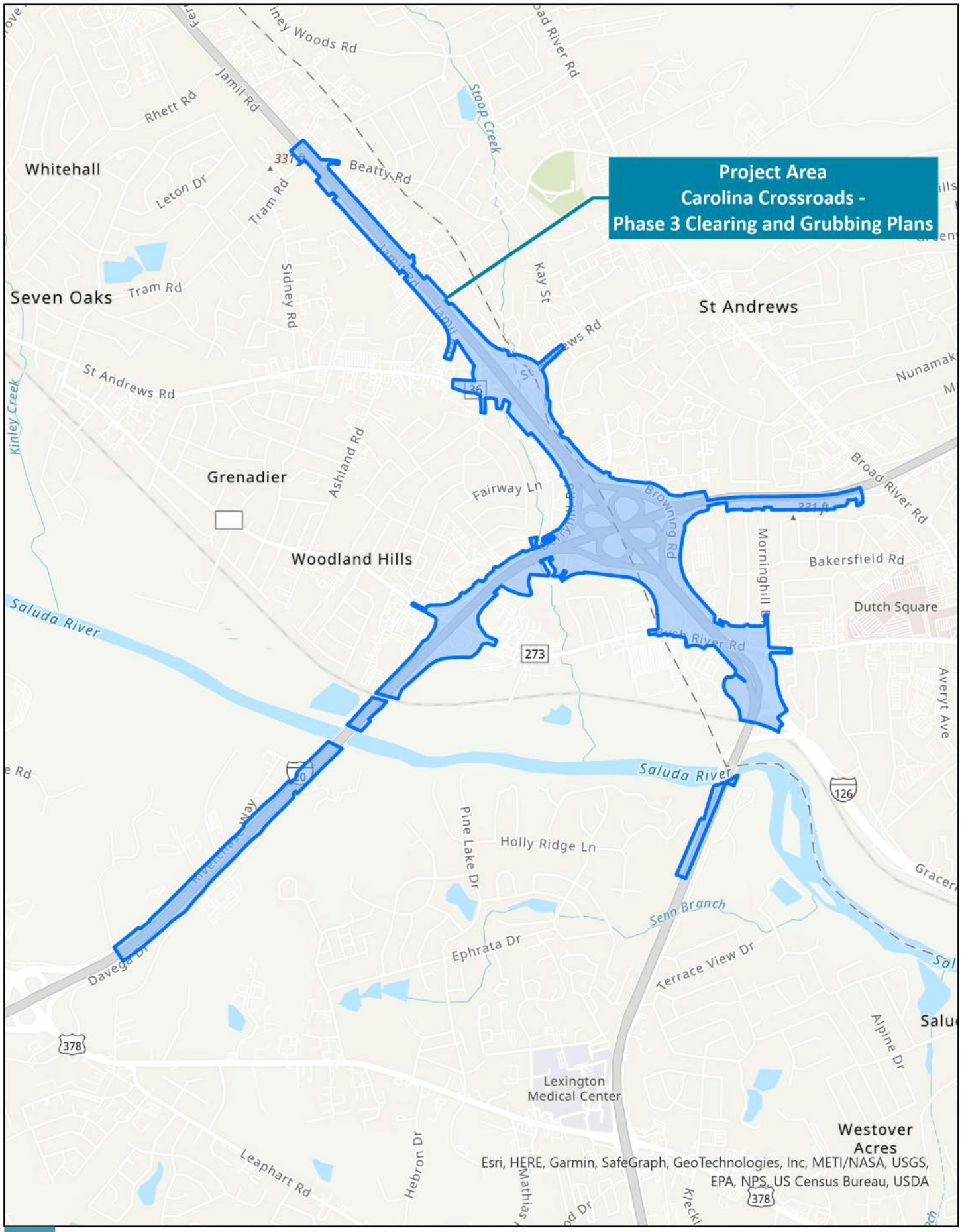
# 2 Project Location Maps




**CAROLINA CROSSROADS - PHASE 3 CLEARING AND GRUBBING PLANS**

**PROJECT OVERVIEW MAP - LEXINGTON / RICHLAND COUNTY, SOUTH CAROLINA**

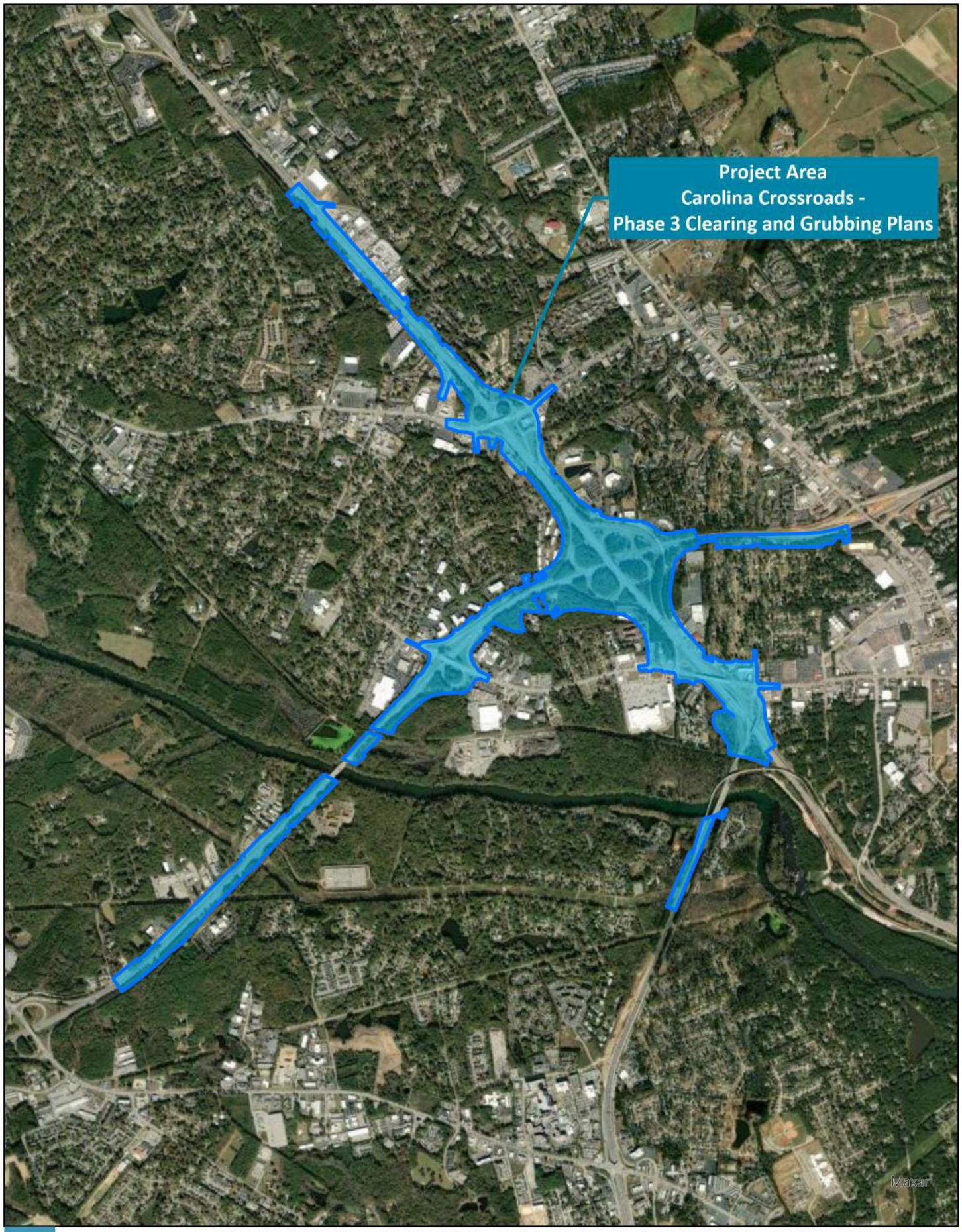
**FIGURE 2.1 - NOT TO SCALE**




**CAROLINA CROSSROADS - PHASE 3 CLEARING AND GRUBBING PLANS**

**PROJECT AREA - LEXINGTON / RICHLAND COUNTY, SOUTH CAROLINA**

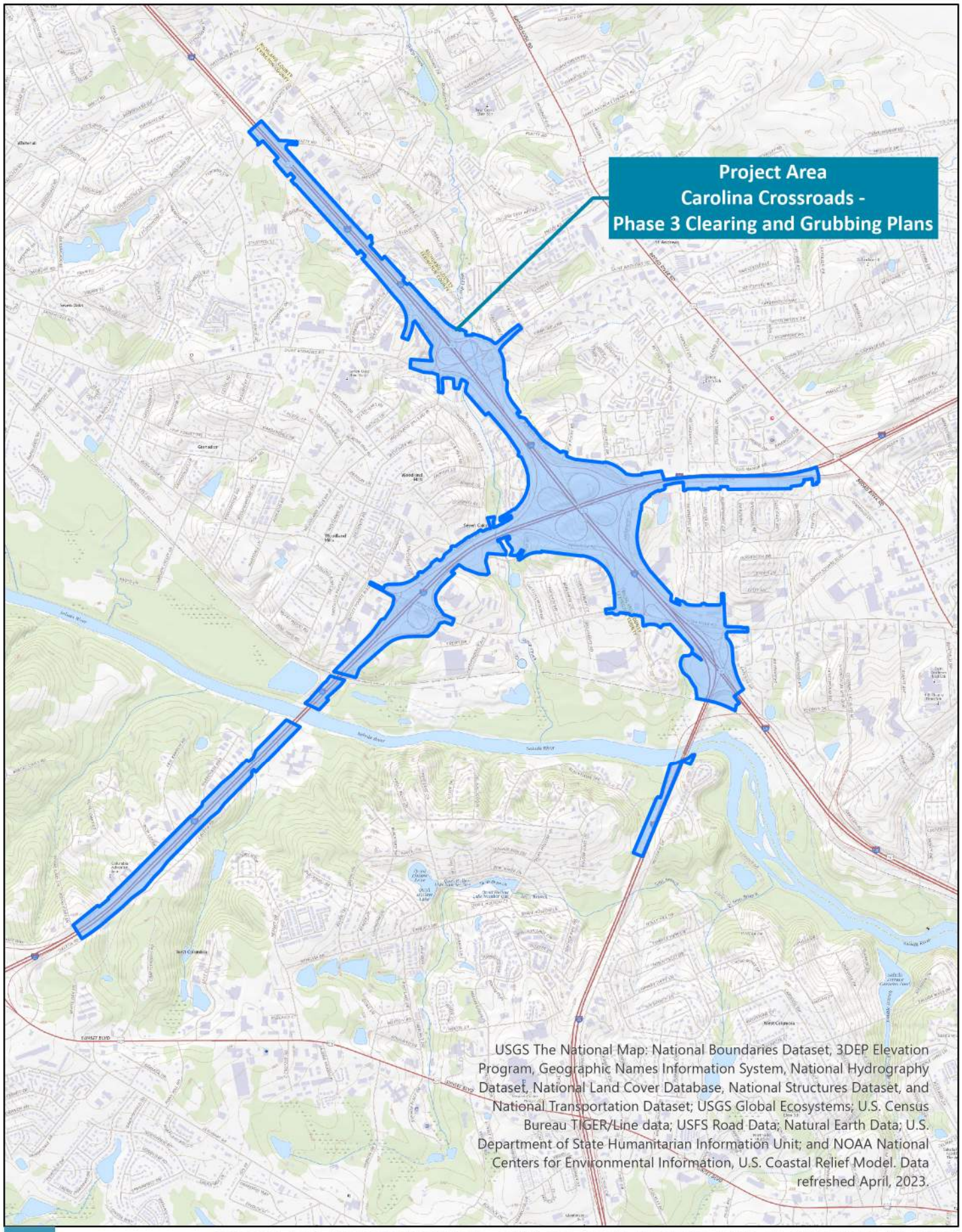
**FIGURE 2.2 - NOT TO SCALE**




**CAROLINA CROSSROADS - PHASE 3 CLEARING AND GRUBBING PLANS**

**PROJECT AREA (AERIAL) - LEXINGTON / RICHLAND COUNTY, SOUTH CAROLINA**

**FIGURE 2.3 - NOT TO SCALE**




**CAROLINA CROSSROADS - PHASE 3 CLEARING AND GRUBBING PLANS**

**PROJECT AREA (USGS TOPO) - LEXINGTON / RICHLAND COUNTY, SOUTH CAROLINA**

**FIGURE 2.4- NOT TO SCALE**

# NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Lambert Conformal Conic State Plane South Carolina FIPS 3900. The **horizontal datum** was NAD83 HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242** or visit its website at http://www.ngs.noaa.gov/.

**Base map** information shown on this FIRM was provided in digital format by Lexington County, South Carolina.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

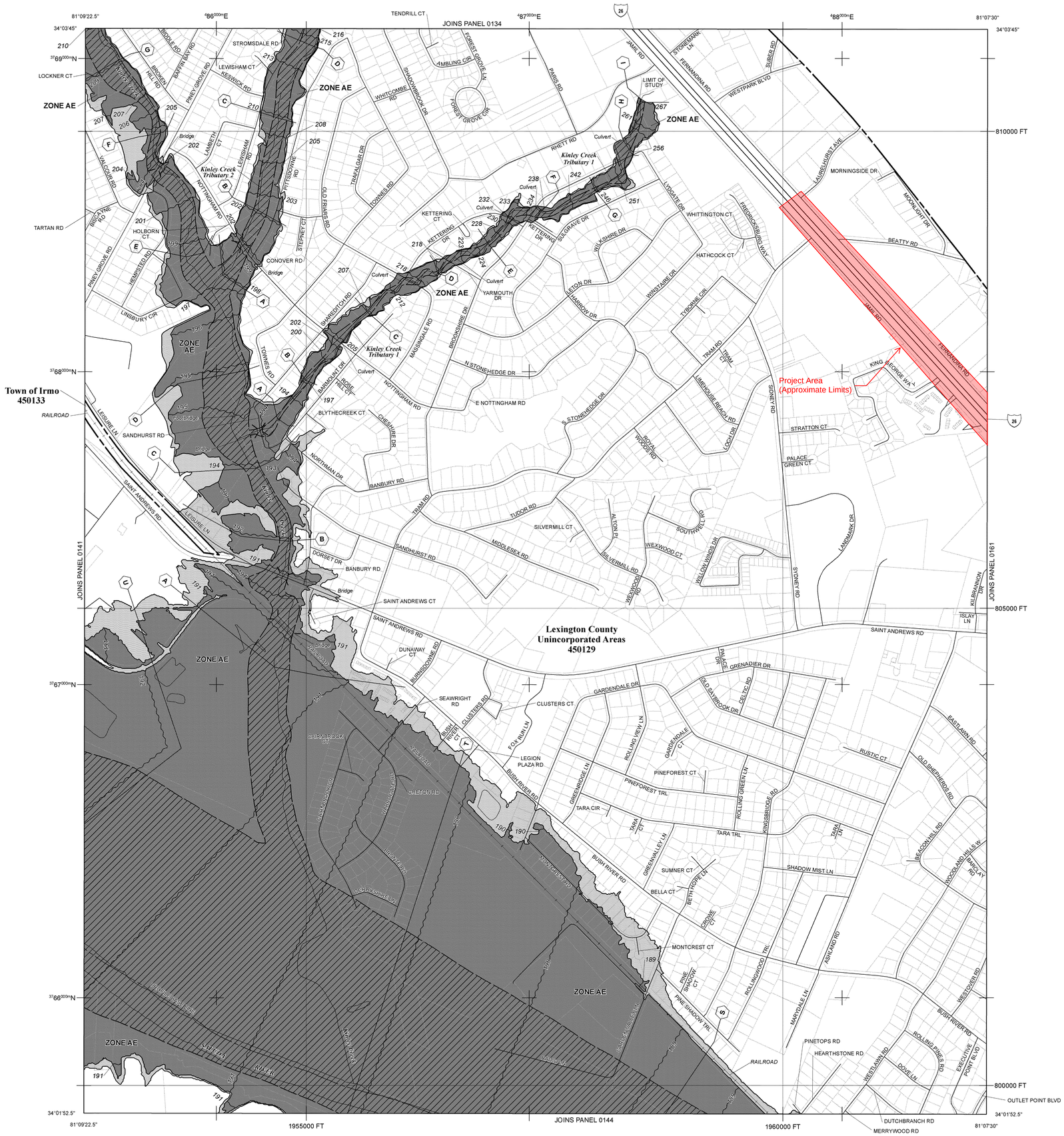
For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange** at 1-877-FEMA-MAP (1-877-336-2627) or visit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

The "profile base lines" depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the "profile base line", in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

DNR

This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of South Carolina and the Federal Emergency Management Agency (FEMA). The State of South Carolina has implemented a long term approach of floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As a part of this effort, the state of South Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

**http://www.dnr.state.sc.us/**




# LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

| | |
|---|---|
| ZONE A | No Base Flood Elevations determined. |
| ZONE AE | Base Flood Elevations determined. |
| ZONE AH | Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined. |
| ZONE AO | Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined. |
| ZONE AR | Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| ZONE A99 | Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined. |
| ZONE V | Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined. |
| ZONE VE | Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined. |

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

| | |
|---|---|
| ZONE X | Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. |

OTHER AREAS

| | |
|---|---|
| ZONE X | Areas determined to be outside the 0.2% annual chance floodplain. |
| ZONE D | Areas in which flood hazards are undetermined, but possible. |

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

| | |
|---|---|
| | Floodplain boundary |
| | Floodway boundary |
| | Zone D boundary |
| | CBRS and OPA boundary |
| | Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities |
| 513 | Base Flood Elevation line and value; elevation in feet* |
| (EL 987) | Base Flood Elevation value where uniform within zone; elevation in feet* |

* Referenced to the North American Vertical Datum of 1988

| | |
|---|---|
| A — A | Cross section line |
| 23 - - - 23 | Transect line |
| 97°07'30", 32°22'30" | Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) HARN, Western Hemisphere |
| 4275000mE | 1000-meter Universal Transverse Mercator grid ticks, zone 17 |
| 6000000 FT | 5000-foot grid values: South Carolina State Plane coordinate system (FIPSZONE = 3900), Lambert projection |
| DX5510X | Bench mark (see explanation in Notes to Users section of this FIRM panel) |
| ● M1.5 | River Mile |

MAP REPOSITORIES
Refer to Map Repositories List on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 17, 1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
February 9, 2000 - to change Base Flood Elevations, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to change zone designations, to add roads and road names, to incorporate previously issued Letters of Map Revision, and to reflect updated topographic information.

July 5, 2018 - to update corporate limits, to change Base Flood Elevations, to add Base Flood Elevations, to change Special Flood Hazard Areas, to change zone designations, to update roads and road names, to incorporate previously issued Letters of Map Revision, to reflect updated topographic information, to change floodway, and to advance suffix.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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

**MAP SCALE 1" = 500'**

250 0 250 500 750 1,000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

**PANEL 0142J**

# FIRM

## FLOOD INSURANCE RATE MAP

## LEXINGTON COUNTY, SOUTH CAROLINA

### AND INCORPORATED AREAS

**PANEL 142 OF 555**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| IRMO, TOWN OF | 450133 | 0142 | J |
| LEXINGTON COUNTY | 450129 | 0142 | J |

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**45063C0142J**

**MAP REVISED**
**JULY 5, 2018**

Federal Emergency Management Agency

# NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Lambert Conformal Conic State Plane South Carolina FIPS 3900. The **horizontal datum** was NAD83 HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
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National Geodetic Survey
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1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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**Base map** information shown on this FIRM was provided in digital format by Lexington County, South Carolina.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

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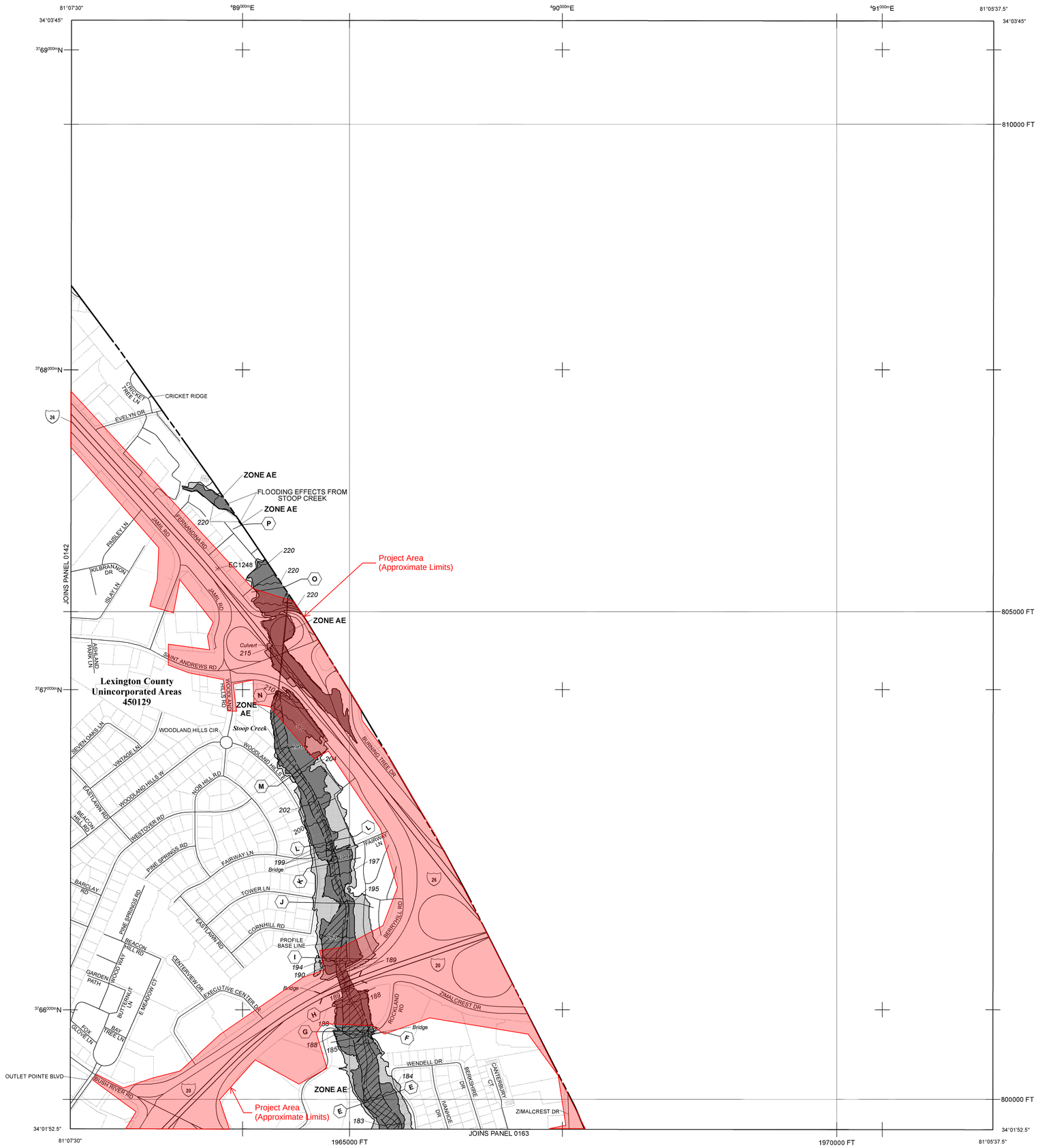
The "profile base lines" depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the "profile base line", in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

DNR

This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of South Carolina and the Federal Emergency Management Agency (FEMA). The State of South Carolina has implemented a long term approach of floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As a part of this effort, the state of South Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

**http://www.dnr.state.sc.us/**




# LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

| | |
|---|---|
| **ZONE A** | No Base Flood Elevations determined. |
| **ZONE AE** | Base Flood Elevations determined. |
| **ZONE AH** | Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined. |
| **ZONE AO** | Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined. |
| **ZONE AR** | Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| **ZONE A99** | Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined. |
| **ZONE V** | Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined. |
| **ZONE VE** | Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined. |

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

| | |
|---|---|
| **ZONE X** | Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. |

OTHER AREAS

| | |
|---|---|
| **ZONE X** | Areas determined to be outside the 0.2% annual chance floodplain. |
| **ZONE D** | Areas in which flood hazards are undetermined, but possible. |

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

| | |
|---|---|
| | Floodplain boundary |
| | Floodway boundary |
| | Zone D boundary |
| | CBRS and OPA boundary |
| | Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities |
| 513 | Base Flood Elevation line and value; elevation in feet* |
| (EL 987) | Base Flood Elevation value where uniform within zone; elevation in feet* |

* Referenced to the North American Vertical Datum of 1988

| | |
|---|---|
| A — A | Cross section line |
| 23 - - - - 23 | Transect line |
| 97°07'30", 32°22'30" | Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) HARN, Western Hemisphere |
| $^{42}$75$^{000m}$E | 1000-meter Universal Transverse Mercator grid ticks, zone 17 |
| 6000000 FT | 5000-foot grid values: South Carolina State Plane coordinate system (FIPSZONE = 3900), Lambert projection |
| DX5510$_{\times}$ | Bench mark (see explanation in Notes to Users section of this FIRM panel) |
| ● M1.5 | River Mile |

MAP REPOSITORIES
Refer to Map Repositories List on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 17, 1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
February 9, 2000 - to change Base Flood Elevations, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to change zone designations, to add roads and road names, to incorporate previously issued Letters of Map Revision, and to reflect updated topographic information.

July 5, 2018 - to update corporate limits, to change Base Flood Elevations, to add Base Flood Elevations, to change Special Flood Hazard Areas, to change zone designations, to update roads and road names, to incorporate previously issued Letters of Map Revision, to reflect updated topographic information, to change floodway, and to advance suffix.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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

**MAP SCALE 1" = 500'**

250 0 250 500 750 1,000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

**PANEL 0161J**

# FIRM

## FLOOD INSURANCE RATE MAP

## LEXINGTON COUNTY, SOUTH CAROLINA

### AND INCORPORATED AREAS

**PANEL 161 OF 555**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| LEXINGTON COUNTY | 450129 | 0161 | J |

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**MAP NUMBER**
**45063C0161J**

**MAP REVISED**
**JULY 5, 2018**

Federal Emergency Management Agency

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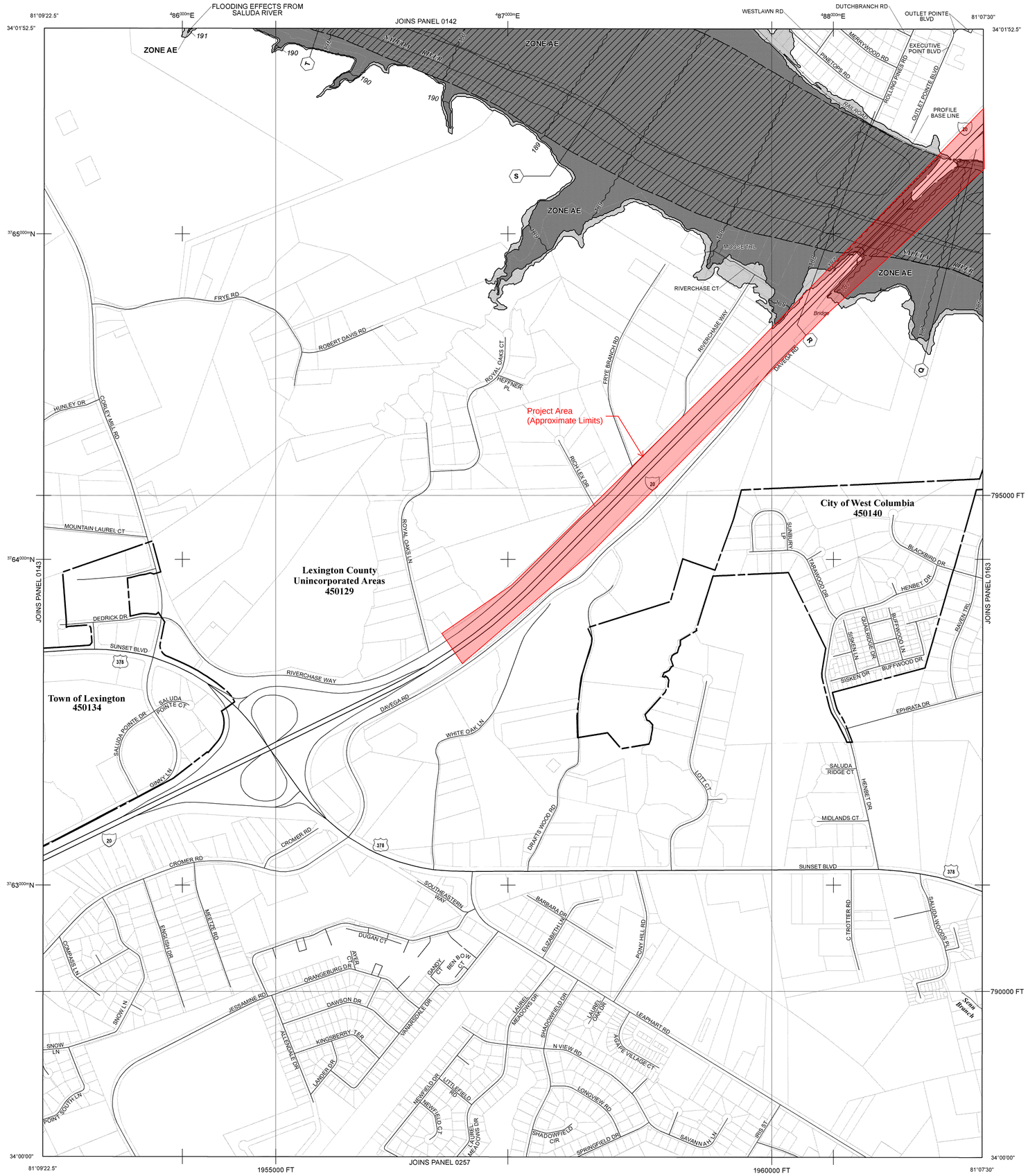


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FLOODWAY AREAS IN ZONE AE

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OTHER FLOOD AREAS

| | |
|---|---|
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EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 17, 1995

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250 0 250 500 750 1,000 FEET
150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

**PANEL 0144J**

# FIRM

## FLOOD INSURANCE RATE MAP

## LEXINGTON COUNTY, SOUTH CAROLINA

### AND INCORPORATED AREAS

**PANEL 144 OF 555**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| LEXINGTON COUNTY | 450129 | 0144 | J |
| LEXINGTON, TOWN OF | 450134 | 0144 | J |
| WEST COLUMBIA, CITY OF | 450140 | 0144 | J |

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**MAP NUMBER**
**45063C0144J**

**MAP REVISED**
**JULY 5, 2018**

Federal Emergency Management Agency

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| | |
|---|---|
| ZONE X | Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. |

OTHER AREAS

| | |
|---|---|
| ZONE X | Areas determined to be outside the 0.2% annual chance floodplain. |
| ZONE D | Areas in which flood hazards are undetermined, but possible. |

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

| | |
|---|---|
| | Floodplain boundary |
| | Floodway boundary |
| | Zone D boundary |
| | CBRS and OPA boundary |
| | Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities |
| 513 | Base Flood Elevation line and value; elevation in feet* |
| (EL 987) | Base Flood Elevation value where uniform within zone; elevation in feet* |

* Referenced to the North American Vertical Datum of 1988

| | |
|---|---|
| A — A | Cross section line |
| 23 - - - - 23 | Transect line |
| 97°07'30", 32°22'30" | Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) HARN, Western Hemisphere |
| 4275000mE | 1000-meter Universal Transverse Mercator grid ticks, zone 17 |
| 6000000 FT | 5000-foot grid values: South Carolina State Plane coordinate system (FIPSZONE = 3900), Lambert projection |
| DX5510 × | Bench mark (see explanation in Notes to Users section of this FIRM panel) |
| ● M1.5 | River Mile |

MAP REPOSITORIES
Refer to Map Repositories List on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
July 17, 1995

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
February 9, 2000 - to change Base Flood Elevations, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to change zone designations, to add roads and road names, to incorporate previously issued Letters of Map Revision, and to reflect updated topographic information.

July 5, 2018 - to update corporate limits, to change Base Flood Elevations, to add Base Flood Elevations, to change Special Flood Hazard Areas, to change zone designations, to update roads and road names, to incorporate previously issued Letters of Map Revision, to reflect updated topographic information, to change floodway, and to advance suffix.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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

N

**MAP SCALE 1" = 500'**

250 0 250 500 750 1,000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

**PANEL 0163J**

# FIRM

## FLOOD INSURANCE RATE MAP

## LEXINGTON COUNTY, SOUTH CAROLINA

### AND INCORPORATED AREAS

**PANEL 163 OF 555**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| COLUMBIA, CITY OF | 450172 | 0163 | J |
| LEXINGTON COUNTY | 450129 | 0163 | J |
| WEST COLUMBIA, CITY OF | 450140 | 0163 | J |

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**45063C0163J**

**MAP REVISED**
**JULY 5, 2018**

Federal Emergency Management Agency

# NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations (BFEs)** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Lambert Conformal Conic State Plane South Carolina FIPS 3900. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242** or visit its website at http://www.ngs.noaa.gov/.

**Base map** information shown on this FIRM was provided in digital format by Richland County, South Carolina.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

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

The **profile base lines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the profile base line, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

DNR

This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of South Carolina and the Federal Emergency Management Agency (FEMA). The State of South Carolina has implemented a long term approach of floodplain management to decrease the costs associated with flooding. This is demonstrated by the State's commitment to map floodplain areas at the local level. As a part of this effort, the state of South Carolina has joined in a Cooperating Technical State agreement with FEMA to produce and maintain this digital FIRM.

**http://www.dnr.state.sc.us/**

# LEGEND

**SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

| | |
|---|---|
| **ZONE A** | No Base Flood Elevations determined. |
| **ZONE AE** | Base Flood Elevations determined. |
| **ZONE AH** | Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined. |
| **ZONE AO** | Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined. |
| **ZONE AR** | Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| **ZONE A99** | Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined. |
| **ZONE V** | Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined. |
| **ZONE VE** | Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined. |

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

| | |
|---|---|
| **ZONE X** | Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. |

**OTHER AREAS**

| | |
|---|---|
| **ZONE X** | Areas determined to be outside the 0.2% annual chance floodplain. |
| **ZONE D** | Areas in which flood hazards are undetermined, but possible. |

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

| | |
|---|---|
| | Floodplain boundary |
| | Floodway boundary |
| | Zone D boundary |
| | CBRS and OPA boundary |
| | Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities |
| 513 | Base Flood Elevation line and value; elevation in feet* |
| (EL 987) | Base Flood Elevation value where uniform within zone; elevation in feet* |

* Referenced to the North American Vertical Datum of 1988

| | |
|---|---|
| A — A | Cross section line |
| 23 - - - 23 | Transect line |
| 97°07'30", 32°22'30" | Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere |
| $^{42}75^{000m}$E | 1000-meter Universal Transverse Mercator grid ticks, zone 17 |
| 6000000 FT | 5000-foot grid values: South Carolina State Plane coordinate system (FIPSZONE = 3900), Lambert projection |
| DX5510$_\times$ | Bench mark (see explanation in Notes to Users section of this FIRM panel) |

MAP REPOSITORIES
Refer to Map Repositories List on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
January 19, 1994

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
February 20, 2002
September 29, 2010

December 21, 2017 - to update corporate limits, to change Base Flood Elevations, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to update map format, to add roads and road names, to reflect updated topographic information, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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

**MAP SCALE 1" = 500'**

250 0 250 500 750 1,000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

**PANEL 0236L**

# FIRM

## FLOOD INSURANCE RATE MAP

## RICHLAND COUNTY, SOUTH CAROLINA

### AND INCORPORATED AREAS

**PANEL 236 OF 650**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| COLUMBIA, CITY OF | 450172 | 0236 | L |
| RICHLAND COUNTY | 450170 | 0236 | L |

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**45079C0236L**

**MAP REVISED**
**DECEMBER 21, 2017**

Federal Emergency Management Agency

# NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Lambert Conformal Conic State Plane South Carolina FIPS 3900. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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1315 East-West Highway
Silver Spring, Maryland 20910-3282
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DNR

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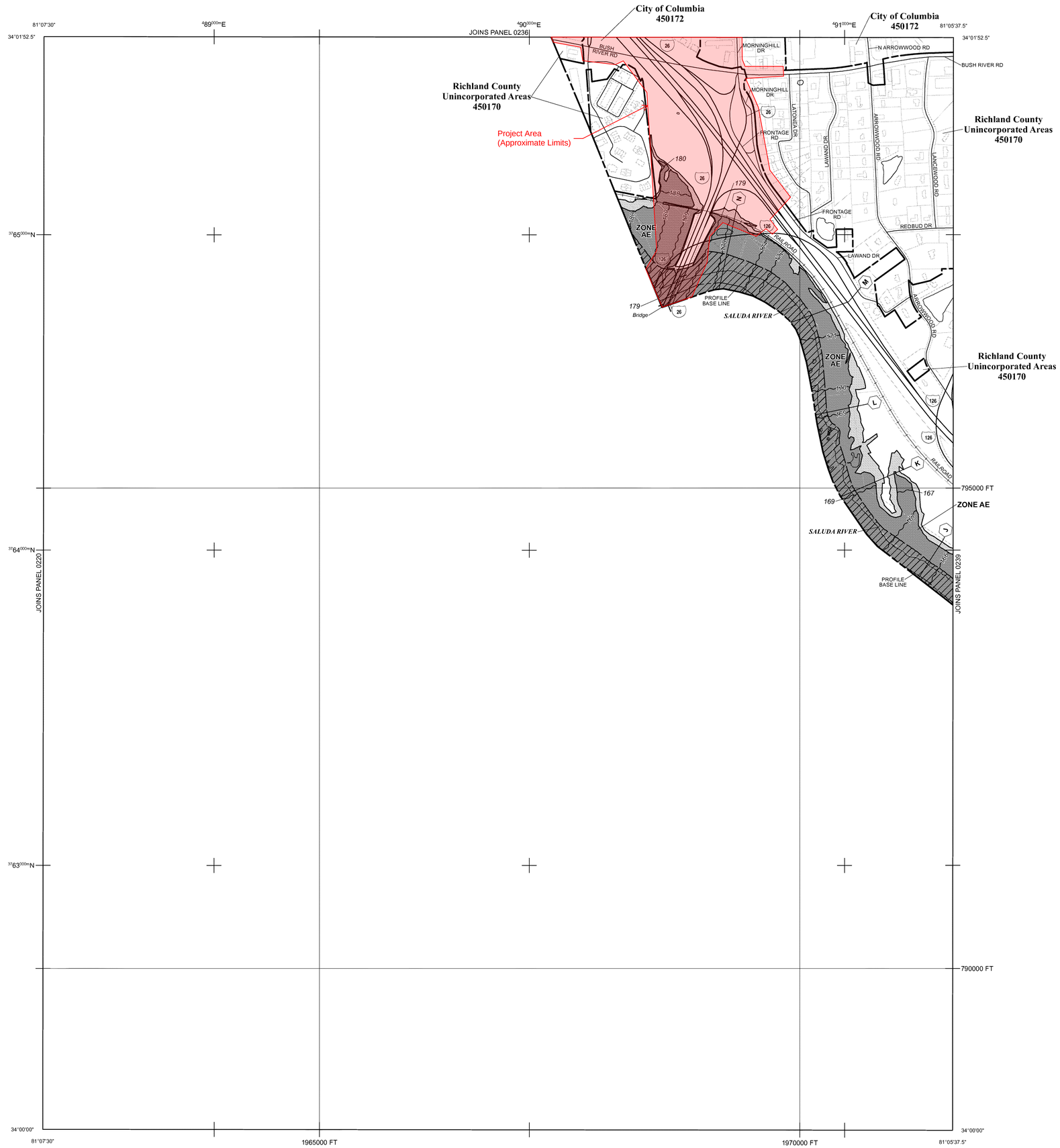
**http://www.dnr.state.sc.us/**




# LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

| | |
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| **ZONE AE** | Base Flood Elevations determined. |
| **ZONE AH** | Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined. |
| **ZONE AO** | Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined. |
| **ZONE AR** | Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood. |
| **ZONE A99** | Areas to be protected from 1% annual chance flood event by a Federal flood protection system under construction; no Base Flood Elevations determined. |
| **ZONE V** | Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined. |
| **ZONE VE** | Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined. |

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

| | |
|---|---|
| **ZONE X** | Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. |

OTHER AREAS

| | |
|---|---|
| **ZONE X** | Areas determined to be outside the 0.2% annual chance floodplain. |
| **ZONE D** | Areas in which flood hazards are undetermined, but possible. |

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

| | |
|---|---|
| | Floodplain boundary |
| | Floodway boundary |
| | Zone D boundary |
| | CBRS and OPA boundary |
| | Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities |
| 513 | Base Flood Elevation line and value; elevation in feet* |
| (EL 987) | Base Flood Elevation value where uniform within zone; elevation in feet* |

* Referenced to the North American Vertical Datum of 1988

| | |
|---|---|
| A — A | Cross section line |
| 23 - - - 23 | Transect line |
| 97°07'30", 32°22'30" | Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere |
| 4275000mE | 1000-meter Universal Transverse Mercator grid ticks, zone 17 |
| 6000000 FT | 5000-foot grid values: South Carolina State Plane coordinate system (FIPSZONE = 3900), Lambert projection |
| DX5510 × | Bench mark (see explanation in Notes to Users section of this FIRM panel) |

MAP REPOSITORIES
Refer to Map Repositories List on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
January 19, 1994

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
February 20, 2002
September 29, 2010

December 21, 2017 - to update corporate limits, to change Base Flood Elevations, to add Base Flood Elevations, to add Special Flood Hazard Areas, to change Special Flood Hazard Areas, to update map format, to add roads and road names, to reflect updated topographic information, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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

**MAP SCALE 1" = 500'**

250 0 250 500 750 1,000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

**PANEL 0238L**

# FIRM

## FLOOD INSURANCE RATE MAP

## RICHLAND COUNTY, SOUTH CAROLINA

### AND INCORPORATED AREAS

**PANEL 238 OF 650**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| COLUMBIA, CITY OF | 450172 | 0238 | L |
| RICHLAND COUNTY | 450170 | 0238 | L |

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**45079C0238L**

**MAP REVISED**
**DECEMBER 21, 2017**

Federal Emergency Management Agency

# 3 Soils Information

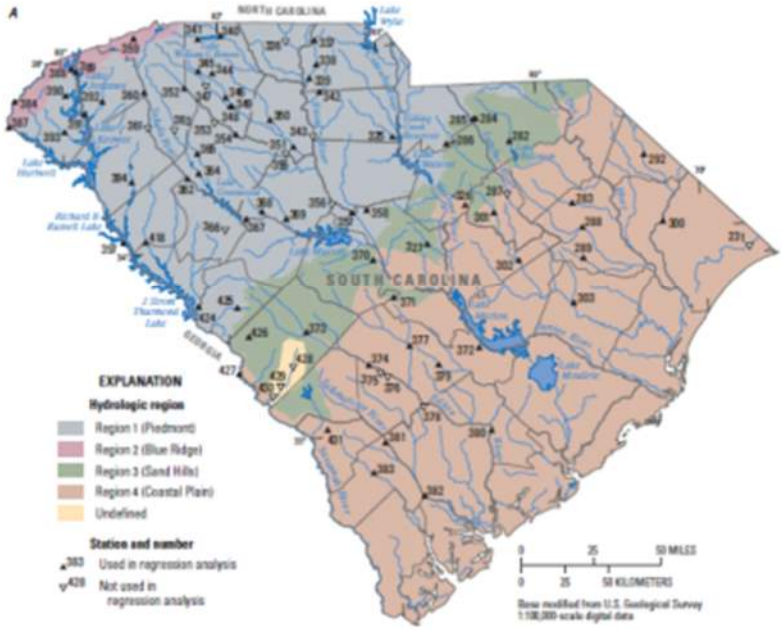
The Carolina Crossroads project is located on the border of the Sand Hills and Blue Ridge hydrologic regions in South Carolina. The project area for the Phase 3 Clearing and Grubbing Plans includes work areas within Lexington County and Richland County. The project includes vegetation clearing, stump removal, and minor grading to prepare the project area for major grading and interstate reconstruction.

For the project area within Lexington County, the Soil Survey of Lexington County published by the Natural Resources Conservation Service (NRCS) indicates the presence of four predominant soil types within the project work areas, Cecil Sandy Loam, Georgeville Sandy Loam, Nanford Silt Loam and Tarrus Silt Loam. Both soil types are typically well drained with the water table greater than 80 inches in depth. Cecil and Georgeville soils are considered Hydrologic Soil Group B. Nanford and Tarrus soils are considered Hydrologic Soil Group C.

For the project area within Richland County, the Soil Survey of Richland County published by the NRCS indicates the presence of two primary soil types, Georgeville Silt Loam and State Sandy Loam. Both soil types are typically well drained with the water table greater than 80 inches in depth and considered Hydrologic Soil Group B.

Much of the project area is located in areas of previous land disturbance from the existing roadways or adjacent development. Some of these areas may not have native soils at the surface as the result of the previous development in the area. The work associated with the Clearing and Grubbing phase will be limited to land disturbance to the upper layers of the existing terrain.

**Figure 3-1. Hydrologic Regions of South Carolina**



General descriptions of the Hydrologic Soil Groups are provided in this section and shall be used to obtain a general understanding of the soil conditions within the project area.

Group A Soils have a high infiltration rate when thoroughly wet and consist chiefly of deep, well drained to excessively drained sands or gravelly sands.

Group B soils have a moderate infiltration rate when thoroughly wet and consist chiefly of moderately deep or deep, moderately well drained, or well drained soils that have moderately fine texture to moderately coarse texture.

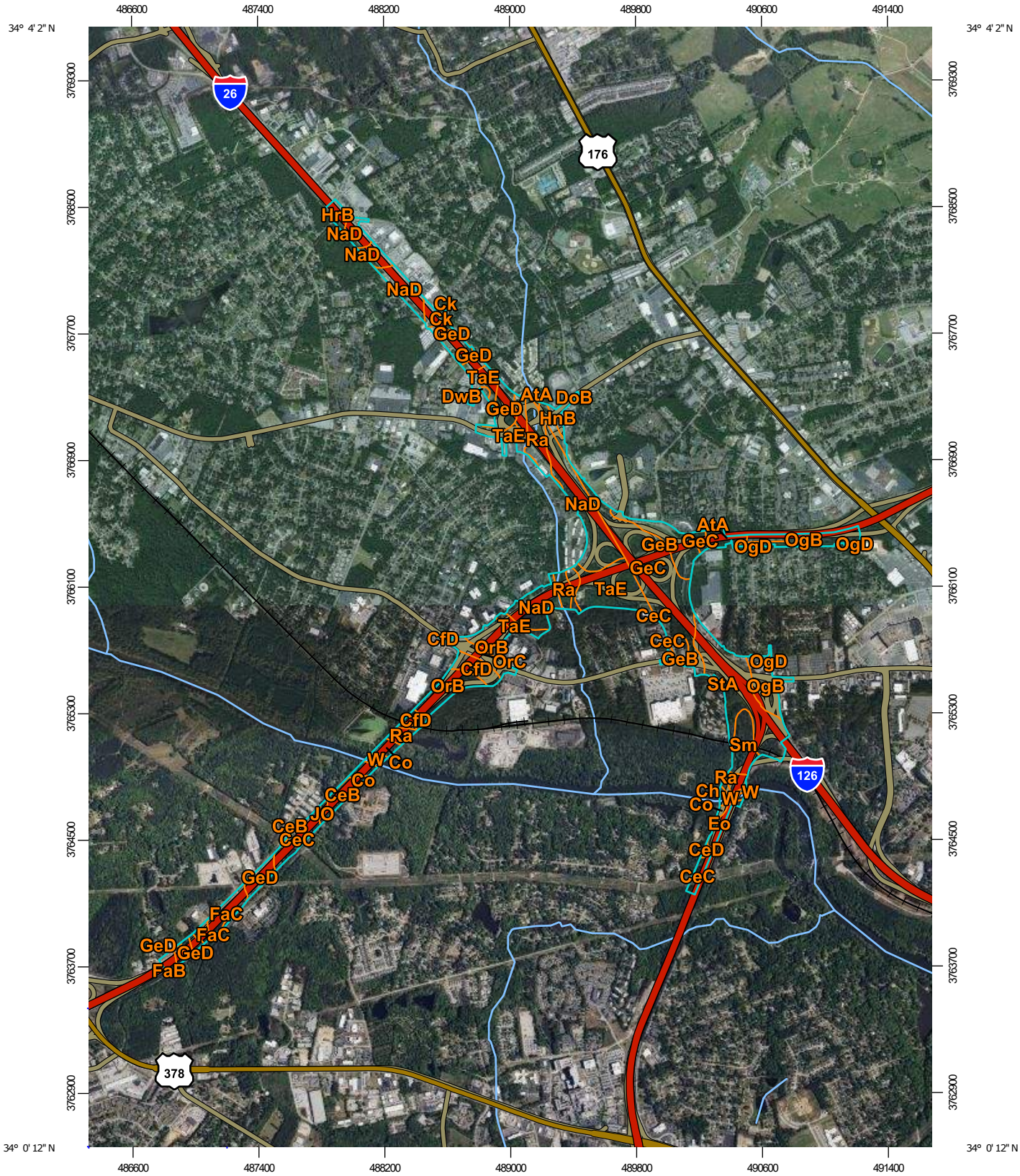
Group C Soils have a slow infiltration rate when thoroughly wet and consist chiefly of soils having a layer that impedes the downward movement of water or soils of fine texture.

Group D Soils have a very slow infiltration rate when thoroughly wet and consist chiefly of clays that have a high shrink-swell potential, soils that have a high-water table, soils that have a clay layer at or near the surface, and soils that are shallow over nearly impervious material.

When soils are assigned to dual hydrologic groups (A/D, B/D, or C/D) the first letter represents drained areas and the second letter represents undrained areas.

The project should only include excavation within the first 12 inches of the existing terrain. The proposed construction will not significantly impact the existing drainage pattern within the construction area.

Soil Map—Lexington County, South Carolina, and Richland County, South Carolina
(Carolina Crossroads - Phase 3 C&G Plans)




Map Scale: 1:34,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 500 1000 2000 3000

Feet: 0 1500 3000 6000 9000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

## MAP LEGEND

**Area of Interest (AOI)**

Area of Interest (AOI)

**Soils**

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

**Special Point Features**

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

**Water Features**

Streams and Canals

**Transportation**

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

**Background**

Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lexington County, South Carolina
Survey Area Data: Version 22, Sep 7, 2022

Soil Survey Area: Richland County, South Carolina
Survey Area Data: Version 25, Sep 7, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 28, 2020—May 10, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| CeB | Cecil fine sandy loam, 2 to 6 percent slopes | 11.7 | 2.6% |
| CeC | Cecil fine sandy loam, 6 to 10 percent slopes | 13.2 | 2.9% |
| CeD | Cecil fine sandy loam, 10 to 15 percent slopes | 0.7 | 0.2% |
| CfD | Cecil-Urban land complex, 8 to 15 percent slopes | 10.7 | 2.4% |
| Ch | Chenneby silty clay loam | 1.1 | 0.2% |
| Ck | Chenneby soils | 1.9 | 0.4% |
| Co | Congaree silt loam | 6.3 | 1.4% |
| CvA | Craven fine sandy loam, 0 to 2 percent slopes | 3.8 | 0.9% |
| DoB | Dothan loamy sand, 2 to 6 percent slopes | 5.4 | 1.2% |
| DwB | Dothan-Urban land complex, 0 to 6 percent slopes | 1.1 | 0.2% |
| EnB | Enon silt loam, 2 to 6 percent slopes | 3.8 | 0.9% |
| Eo | Enoree silt loam, 0 to 2 percent slopes, frequently flooded | 3.7 | 0.8% |
| FaB | Fuquay loamy sand, 0 to 6 percent slopes | 2.4 | 0.5% |
| FaC | Fuquay loamy sand, 6 to 10 percent slopes | 1.9 | 0.4% |
| GeB | Georgeville very fine sandy loam, 2 to 6 percent slopes | 6.9 | 1.5% |
| GeC | Georgeville very fine sandy loam, 6 to 10 percent slopes | 13.5 | 3.0% |
| GeD | Georgeville very fine sandy loam, 10 to 15 percent slopes | 19.8 | 4.4% |
| HrB | Herndon silt loam, 2 to 6 percent slopes | 4.1 | 0.9% |
| JO | Johnston soils | 2.9 | 0.6% |
| NaD | Nanford silt loam, 6 to 15 percent slopes | 57.3 | 12.7% |
| OrB | Orangeburg loamy sand, 2 to 6 percent slopes | 21.3 | 4.7% |
| OrC | Orangeburg loamy sand, 6 to 10 percent slopes | 8.3 | 1.8% |
| Ra | Rains sandy loam | 20.6 | 4.6% |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| TaE | Tarrus silt loam, 15 to 25 percent slopes | 44.0 | 9.7% |
| W | Water | 4.2 | 0.9% |
| **Subtotals for Soil Survey Area** | | **270.7** | **59.9%** |
| **Totals for Area of Interest** | | **451.7** | **100.0%** |

| Map Unit Symbol | Map Unit Name | Acres in AOI | Percent of AOI |
|---|---|---|---|
| AtA | Altavista silt loam, 0 to 2 percent slopes | 5.5 | 1.2% |
| DoB | Dothan loamy sand, 2 to 6 percent slopes | 0.6 | 0.1% |
| GeB | Georgeville silt loam, 2 to 6 percent slopes | 20.3 | 4.5% |
| GeC | Georgeville silt loam, 6 to 10 percent slopes | 63.9 | 14.1% |
| HnB | Herndon-Urban land complex, 2 to 6 percent slopes | 2.9 | 0.6% |
| OgB | Orangeburg-Urban land complex, 2 to 6 percent slopes | 25.7 | 5.7% |
| OgD | Orangeburg-Urban land complex, 6 to 15 percent slopes | 2.8 | 0.6% |
| Sm | Smithboro loam | 12.6 | 2.8% |
| StA | State sandy loam, 0 to 2 percent slopes | 43.1 | 9.5% |
| To | Toccoa loam | 3.1 | 0.7% |
| W | Water | 0.5 | 0.1% |
| **Subtotals for Soil Survey Area** | | **181.0** | **40.1%** |
| **Totals for Area of Interest** | | **451.7** | **100.0%** |

# 4 Stormwater Analysis

The stormwater management and roadway drainage design and analysis for this project have been completed according to the SCDOT *Requirements for Hydraulic Design Studies*, published May 26, 2009. Specific design standards and analysis techniques are discussed below.

### Pre- versus Post-Construction (Watershed) Analysis:

The land disturbance permit and Notice of Intent submittals for the Phase 3 project will include a phased approach to permitting an construction. Full outfall analysis and pre-development versus post-development flow studies will be included with the final phase submittal for the land disturbance permit. The outfall analysis for the final phase permitting will reflect the proposed grading and land use changes.

The proposed clearing and grubbing project will only include the removal of trees, shrubs, and bushes with some minor grading to fill in removed stumps and provide a smooth terrain. The construction area will be seeded with permanent grassing at the completion of clearing and grubbing activities. The project will not include any new impervious area and will have no significant change to land uses or flow patterns. Based on limited change in land use, detailed stormwater calculations were not performed for the project. The proposed clearing and grubbing project will have no significant impact on stormwater flows downstream of the project.

The SCDOT does not intend to clear and grub the entire 276-acre project at one time or have 276 acres of disturbance active at any point during this phase. The purpose of the early permit request is to provide the selected contractor an opportunity to move forward with clearing and grubbing to prepare for future work on the project. As the permit owner, the SCDOT will coordinate which areas of the project will be considered for clearing and grubbing. Managing potential stormwater issues downstream of the project will be included in the consideration of which areas will be considered for clearing and grubbing.

Many of the outfall locations are located along streams and tributaries including Senn Branch, Stoop Creek, Saluda River, and Unnamed Tributaries to Stoop Creek and the Saluda River. The Clearing and Grubbing plans were developed to pass offsite flow through the project area with work avoided to major waterways. When compared to the overall flow in the receiving waterbodies, the anticipated impacts from land use changes within the project area will be negligible.

### Temporary Pipe Outfall Protection (Riprap):

The project will include clearing and grubbing within the I-26 and I-20 Interchange area. Within the interchange there are multiple storm drainage outfalls conveying runoff across the interstate mainlines and ramps. In locations in which the existing pipe outfall is disturbed, temporary riprap will be placed to provide outfall protection until storm drainage construction begins for the project. The temporary riprap is considered a maintenance item and will minimize erosion during the clearing and grubbing phase of the project.

# 5 Sediment and Erosion Control Design

The proposed construction for the Phase 3 Clearing and Grubbing Project will be performed under the NPDES General Permit for Stormwater Discharges from SCDOT Construction Areas. The NPDES permit addresses the quantity and quality of stormwater discharge from the project. The conclusions discussed in Section 4.0 indicate the proposed construction will not significantly impact the existing flow conditions downstream of the project. As part of the project design, an erosion and sediment control plan was developed to minimize water quality impacts downstream of the project area during construction activities.

The proposed construction was examined from an erosion / sedimentation standpoint using the SCDOT Standard Drawings and the Standard Specifications for Highway Construction, 2007 Edition and the South Carolina Department of Health and Environmental Control (SCDHEC) Storm Water Management BMP Handbook. The plans show specific locations for erosion and sediment control best management practices. The plans include erosion control features such as silt fence, inlet structure filters, ditch checks, sediment tubes, and sediment dams. Major grading activities will not be performed as part of the project limiting the need for large best management practices. All sediment and erosion control features shall remain until the next phase of construction. Specific design standards and analysis techniques are discussed below.

### Permanent and Temporary Seeding:

Temporary stabilization shall be applied to portions of the site where construction activities have ceased or where construction will not take place within 14 days. Temporary stabilization shall be achieved using a fast-germinating grass, straw/hay mulch product as described in the SCDOT Specification SC-M-810-4 or rolled erosion control product as described in the SCDOT Specification SC-M-815-11.

Permanent stabilization shall be applied within 14 days in portions of the site where final grading is complete. Permanent stabilization shall comply with SCDOT Specification SC-M-810-4.

### Silt Fence:

The erosion control plans require the placement of silt fence for typical applications specifically for areas in which runoff will leave the project area through sheet flow. In most areas, a 50-ft buffer has been provided between the limits of the land disturbance and jurisdictional streams and wetlands. If the 50-ft was not feasible, a double row of silt shall be placed at the limits of disturbance. The double row of silt fence is required in locations within 50 feet of Jurisdictional Waters of the U.S. (streams, rivers, and wetlands).

### Stabilized Construction Entrances:

All access points from paved roads shall include a stabilized construction entrance as detailed in the SCDOT Standard Specifications and Drawings to minimize tracking of mud to public roads.

### Inlet Protection:

Inlet structure filters shall be used for all existing and proposed catch basins and drop inlets that receive runoff from disturbed areas. The following Inlet Structure Filters will be used on the project:

Inlet Structure Filter Type B: Type B Inlet Structure Filters should be used as shown in the construction plans to provide protection for existing catch basins. Type B Inlet Structure Filters shall be placed in accordance with SCDOT Standard Drawing No. 815-001-01. The maximum flow rate for Type A inlets is 1 cfs.

Inlet Structure Filter Type B: Type B Inlet Structure Filters should be used as shown in the construction plans to provide protection for existing catch basins. Type B Inlet Structure Filters shall be placed in accordance with SCDOT Standard Drawing No. 815-002-00. The maximum flow rate for Type B inlets is 3 cfs.

Inlet Structure Filter Types D1 and D2: Type D1 and D2 Inlet Structure Filters should be used as shown in the construction plans to provide protection for existing catch basins. Type D1 and D2 filters are used for areas with increased drainage areas and high flows. Type D1 and D2 filters are prefabricated and should be installed in accordance with manufacturer recommendations. Type D1 filters are used in ditch areas and allow for bypass flow. Type D2 filters are used in sump / sag locations along ditches. Type D1 and D2 should comply with SCDOT Standard Drawing No. 815-002-00. Specific products must be selected from the SCDOT Qualified Product Lists.

Curb style inlet structure filters are not required for the Clearing and Grubbing Phase. The existing roadways will be retained until the next phase of construction.

**Sediment Dams:**

Sediment dams were specified on the erosion control plans where concentrated flow leaves the project limits or enters a drainage system. Sediment dams shall be used for sediment control for drainage areas up to and including 10 acres in size. Dams were sized based on SCDOT Standard Drawings 815-405-01, 815-405-02, and 815-406-00.

Table 5-1 includes the drainage areas corresponding to the sediment dams shown in the plans. Drainage areas maps are provided in this section for each sediment dam.

**Table 5-1: Sediment Dam Design Details**

| Sediment Dam No. | Location | Drainage Area (Acres) |
|---|---|---|
| 24A | I-26 Rt. Station 275+90 | 2.7 |
| 26A | I-26 Lt. Station 300+50 | 3.2 |
| 27A | I-26 Lt. Station 319+75 | 1.2 |
| 29A | I-26 Lt. Station 356+00 | 3.5 |
| 30A | I-26 Rt. Station 373+25 | 1.2 |
| 33A | I-26 Rt. Station 408+00 | 7.7 |
| 39A | I-20 Lt. Station 36+00 | 1.3 |
| 39B | I-20 Rt. Station 35+50 | 2.2 |
| 39C | I-20 Rt. Station 36+25 | 1.4 |
| 40A | I-20 Rt. Station 57+75 | 7.5 |
| 41A | I-20 Rt. Station 69+25 | 1.6 |
| 42A | I-20 Lt. Station 78+00 | 2.8 |
| 42B | I-20 Rt. Station 76+25 | 1.3 |
| 42C | I-20 Rt. Station 76+75 | 1.4 |
| 42D | I-20 Lt. Station 86+50 | 1.5 |

| Sediment Dam No. | Work Area | Drainage Area (Acres) |
|---|---|---|
| 43A | I-20 Rt. Station 89+50 | 2.9 |
| 43B | I-20 Lt. Station 102+75 | 1.2 |
| 43C | I-20 Rt. Station 103+75 | 1.4 |
| 44A | I-20 Lt. Station 112+25 | 1.6 |
| 45A | I-20 Rt. Station 132+00 | 1.1 |
| 45B | I-20 Lt. Station 131+50 | 0.7 |
| 46A | I-20 Rt. Station 143+75 | 3.0 |
| 46B | I-20 Rt. Station 145+00 | 6.6 |
| 46C | I-20 Rt. Station 148+50 | 3.3 |
| 48A | I-20 Rt. Station 178+25 | 1.7 |
| 50A | I-20 Rt. Station 205+50 | 6.4 |

**Sediment Dam for Pipe Inlets:**

Sediment Tubes for Pipe Inlets shall be used as shown in the construction plans at the upstream end of pipe inlets. Sediment Dams for pipe inlets shall be installed based on SCDOT Standard Drawing No. 815-406-00.

**Sediment Tubes:**

Sediment Tubes shall be used in existing ditches based on the project phasing and development. Sediment Tubes shall be located based on the construction plans and SCDOT Standard Drawing 815-205-00. Sediment tubes will reduce flow velocities in existing ditches reducing the potential for erosion.

**Ditch Checks:**

Ditch Checks are shown in the construction plans at the locations where concentrated flow leaves the project or enters a drainage system if the contributing drainage area is less than 2.0 areas. Ditch Checks will be constructed based on SCDOT Standard Drawing 815-105-00. The SCDOT standard for Ditch Checks includes a layer of filtering aggregate on the upstream side to remove sediment from the stormwater runoff. Ditch Checks are only used for sediment removal for drainage areas less than 2.0 acres in accordance with the SCDOT requirements.

**Qualitative Assessment (Anti-Degradation Rules):**

The project design utilizes SCDOT standard erosion control and sediment control methods to minimize sediment loss from the project. A description of the erosion control measures proposed for the project are included in this section. In addition to the specific erosion control practices, the SCDOT will implement SCDOT typical inspection and environmental compliance procedures to ensure the project performs in accordance with SCDOT standards and requirements. Standard SCDOT erosion control management practices include:

- Installation of Temporary Barrier Fence at the construction limits near Jurisdictional Waters of the U.S. This temporary barrier fence is in addition to the double row of silt fence required near jurisdictional waters.
- The SCDOT will perform weekly inspections with a designated erosion control inspector. The weekly inspections are typically performed with a representative

of the roadway contractor. The inspections will include a condition assessment of all erosion control features on the project. Deficiencies will be noted on the inspection and provided to the roadway contractor. Deficient items will be required to be addressed within specific timeframes depending on their condition and sensitivity to performance. The SCDOT will have the option to issue "stop-work orders" if the deficiencies are not addressed. In addition to the weekly inspections, the SCDOT will provide oversight for erosion control inspections on the project.

- The SCDOT also maintains an environmental compliance program. The environmental compliance program includes specific inspections for sensitive environmental features along the project. These inspections will identify potential issues to downstream waterbodies and document any impacts which extend outside of the project limits. The environmental compliance inspections will ensure there are sufficient erosion control best management practices in place on the project.

**Quantitative Assessment (Anti-Degradation Rules):**

As shown in Section 5.0 and the construction plans, the project design utilizes SCDOT standard erosion control and sediment control methods to minimize sediment loss from the project. A description of the erosion control measures proposed for the project are included in Section 5.0.

The quantitative assessment is based on the use of SCDOT standard best management practices throughout the project area. All SCDOT standard best management practices have been designed and verified to satisfy 80% sediment trapping efficiency and / or filtering through modeling or an ASTM standard testing procedure. The SCDOT standard specifications reflect the best sediment and erosion control best management practices currently available to ensure sediment transport and environmental impacts from the construction project are minimized. The best management practices utilized for the project have been verified to be within their allowable design criteria to meet the necessary trapping efficiency. Design parameters for specific best management practices are included in Section 6.0:

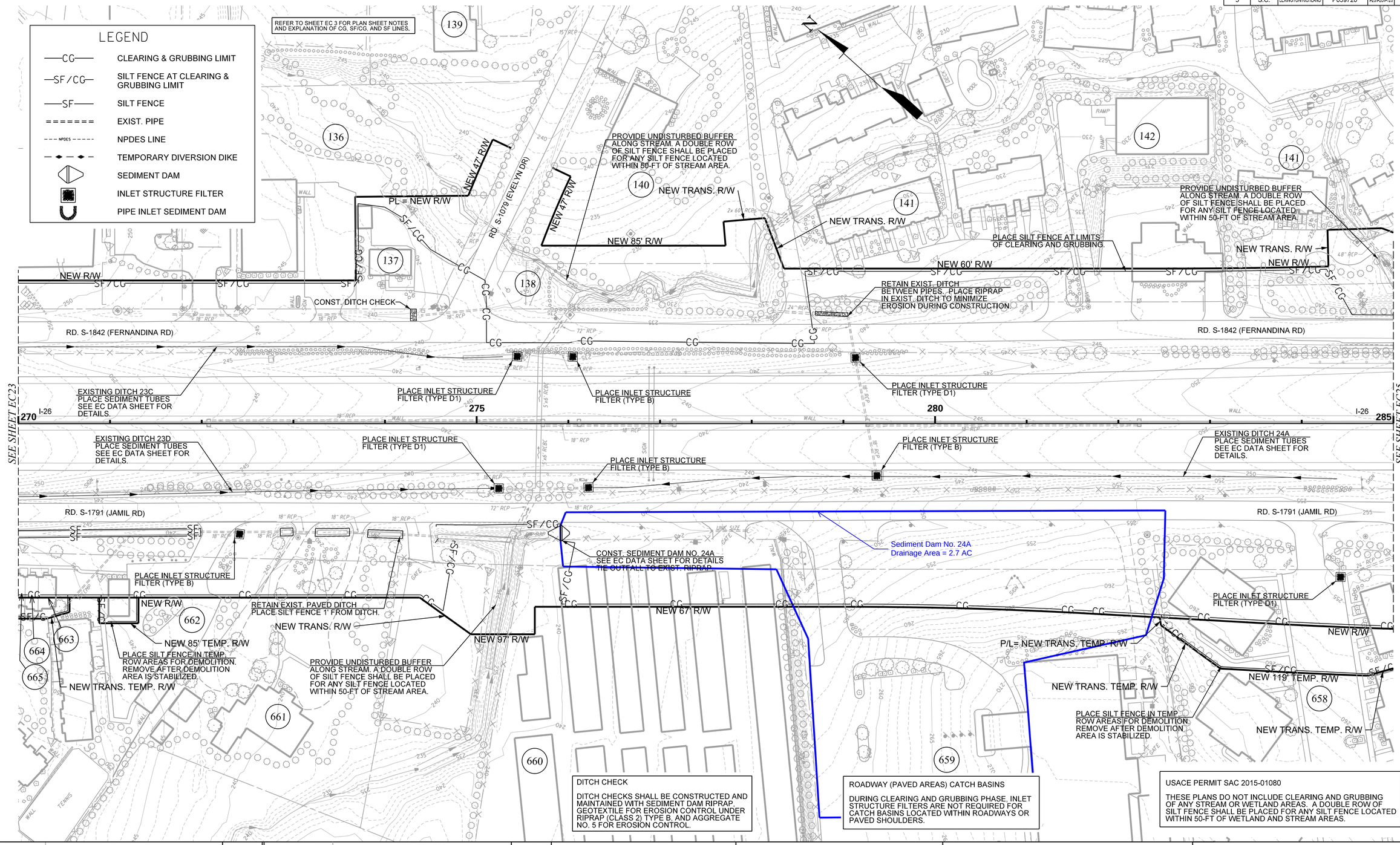
- Sediment Dams - Sediment dams are used in areas where the drainage area is less than 10 acres. Dams were sized based on SCDOT Standard Drawings 815-405-01, 815-405-02, and 815-406-00. Specific sediment dam design data is provided in Section 6.0.
- Inlet Structure Filter Type A: Type A Inlet Structure Filters shall be placed in accordance with SCDOT Standard Drawing No. 815-001-01.
- Inlet Structure Filter Type B: Type B Inlet Structure Filters shall be placed in accordance with SCDOT Standard Drawing No. 815-002-00.
- Inlet Structure Filter Type D1 and D2: Type D1 and D2 Inlet Structure Filters shall be placed in accordance with SCDOT Standard Drawing No. 815-002-00 and manufacturer recommendations. Type D1 and D2 Inlet Structure Filters are prefabricated products. Specific products meeting SCDOT requirements are included on Qualified Product Lists.
- Silt Fence: The installation of Silt Fence shall comply with SCDOT Standard Drawing 815-605-00.
- Ditch Checks & Sediment Tubes: Ditch Checks and Sediment Tubes are specific throughout the project in existing and proposed ditches to reduce velocities and provide filtering for stormwater runoff. Ditch Checks shall be constructed in

accordance with SCDOT Standard Drawing No. 815-105-00. Sediment Tubes shall be located based on SCDOT Standard Drawing 815-205-00.

As sediment removal devices, all standard SCDOT best management practices have been verified to have a trapping efficiency above 80% as stand-a-lone features. In most locations within the project area, erosion control practices are located in-series with construction runoff flowing through more than one best management practice.

Based on the information provided in this section, the erosion control plan for the project has been prepared to address and comply with the anti-degradation rules in accordance with the SCDOT Construction General Permit.

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC24 |




DITCH CHECK

DITCH CHECKS SHALL BE CONSTRUCTED AND MAINTAINED WITH SEDIMENT DAM RIPRAP, GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP (CLASS 2) TYPE B, AND AGGREGATE NO. 5 FOR EROSION CONTROL.

ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
|---|---|---|---|---|---|
| | | | | | |

PLANS PREPARED FOR

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South Carolina Department of Transportation

0 25 50 100

CAROLINA CROSSROADS

PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
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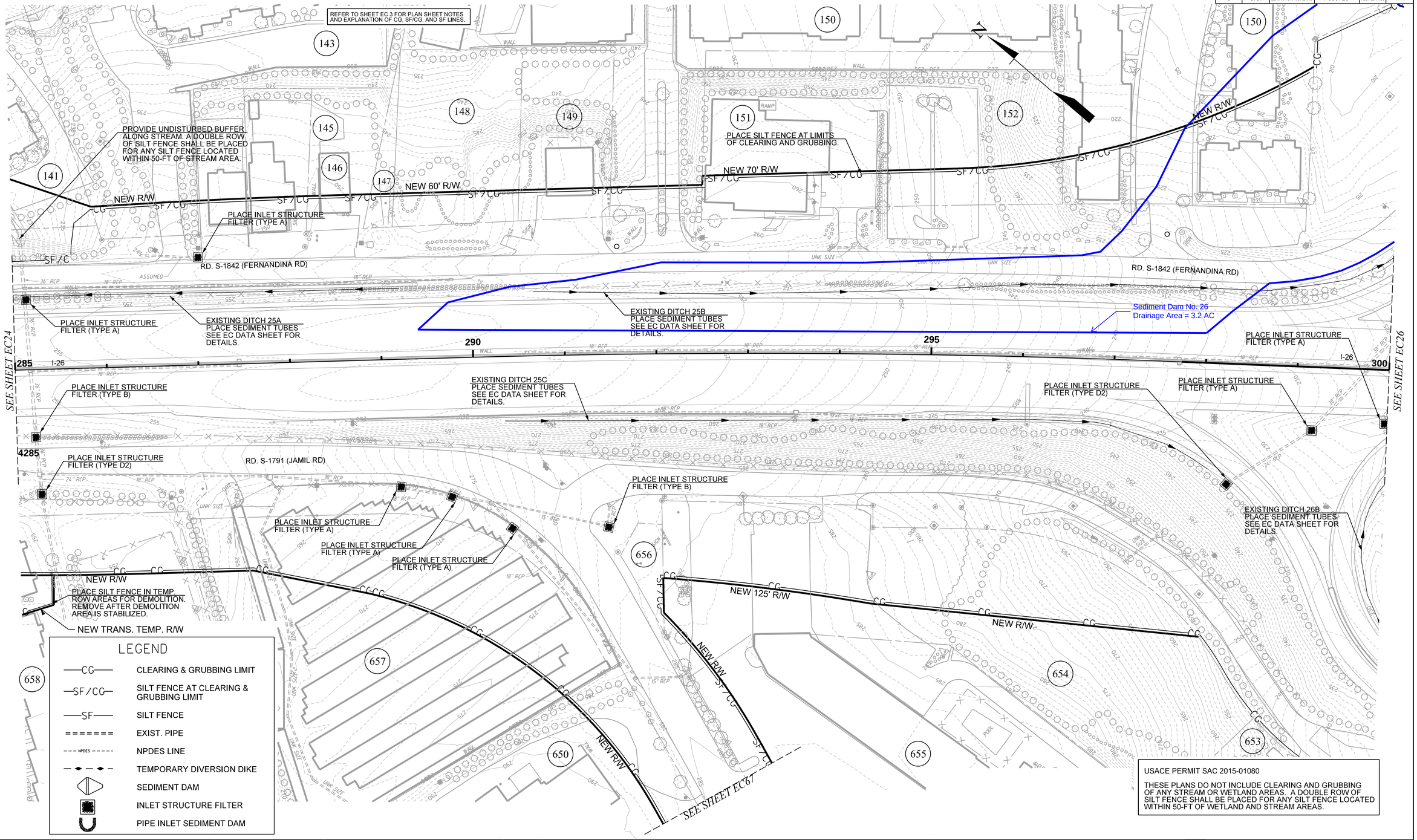
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC25 |




USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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CAROLINA CROSSROADS

PHASE 3

EROSION CONTROL

CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
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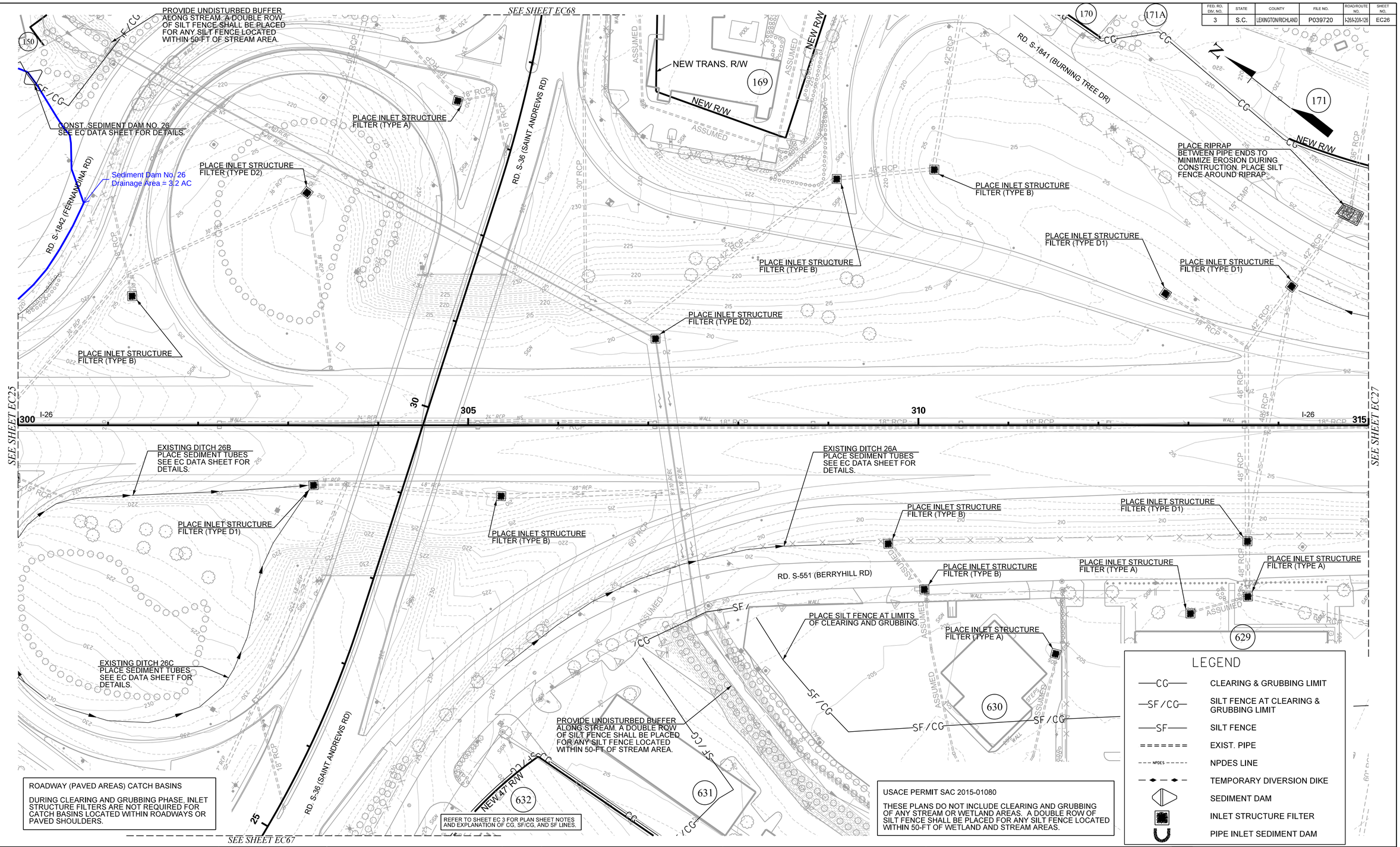


ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

REFER TO SHEET EC 3 FOR PLAN SHEET NOTES AND EXPLANATION OF CG, SF/CG, AND SF LINES.

USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

## LEGEND

| | |
|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| - - - NPDES - - - | NPDES LINE |
| —◆—◆— | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
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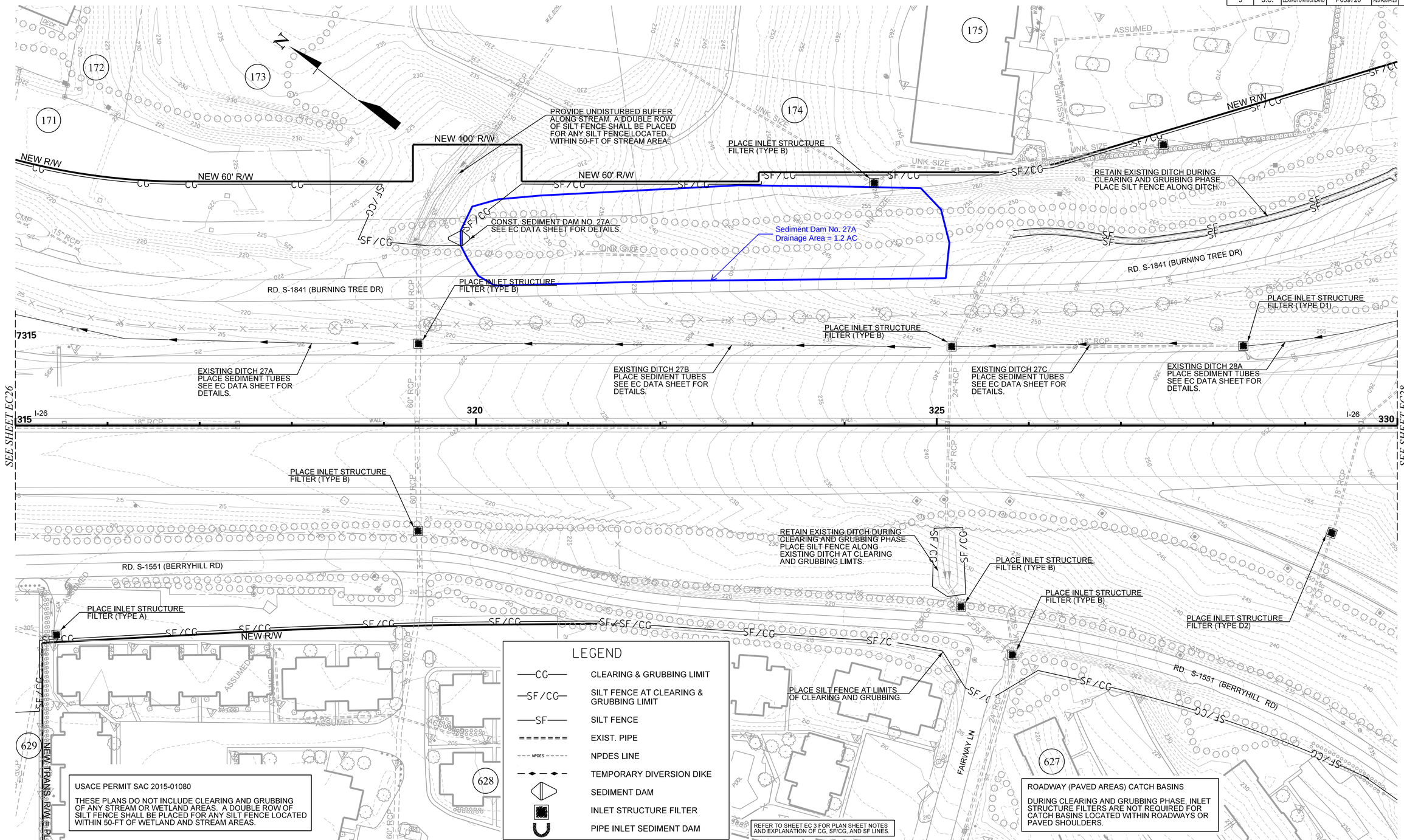


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CAROLINA CROSSROADS

PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
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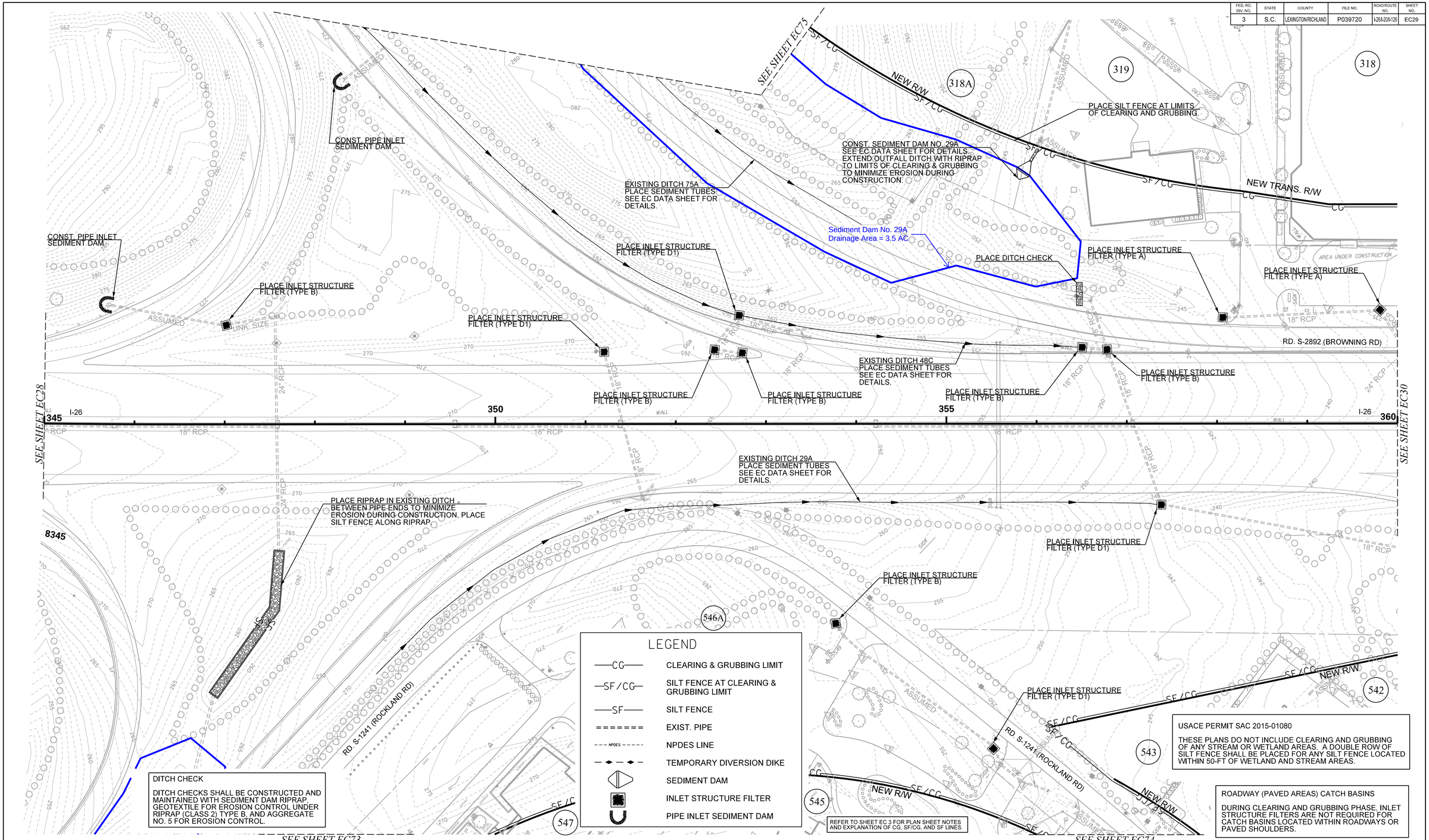


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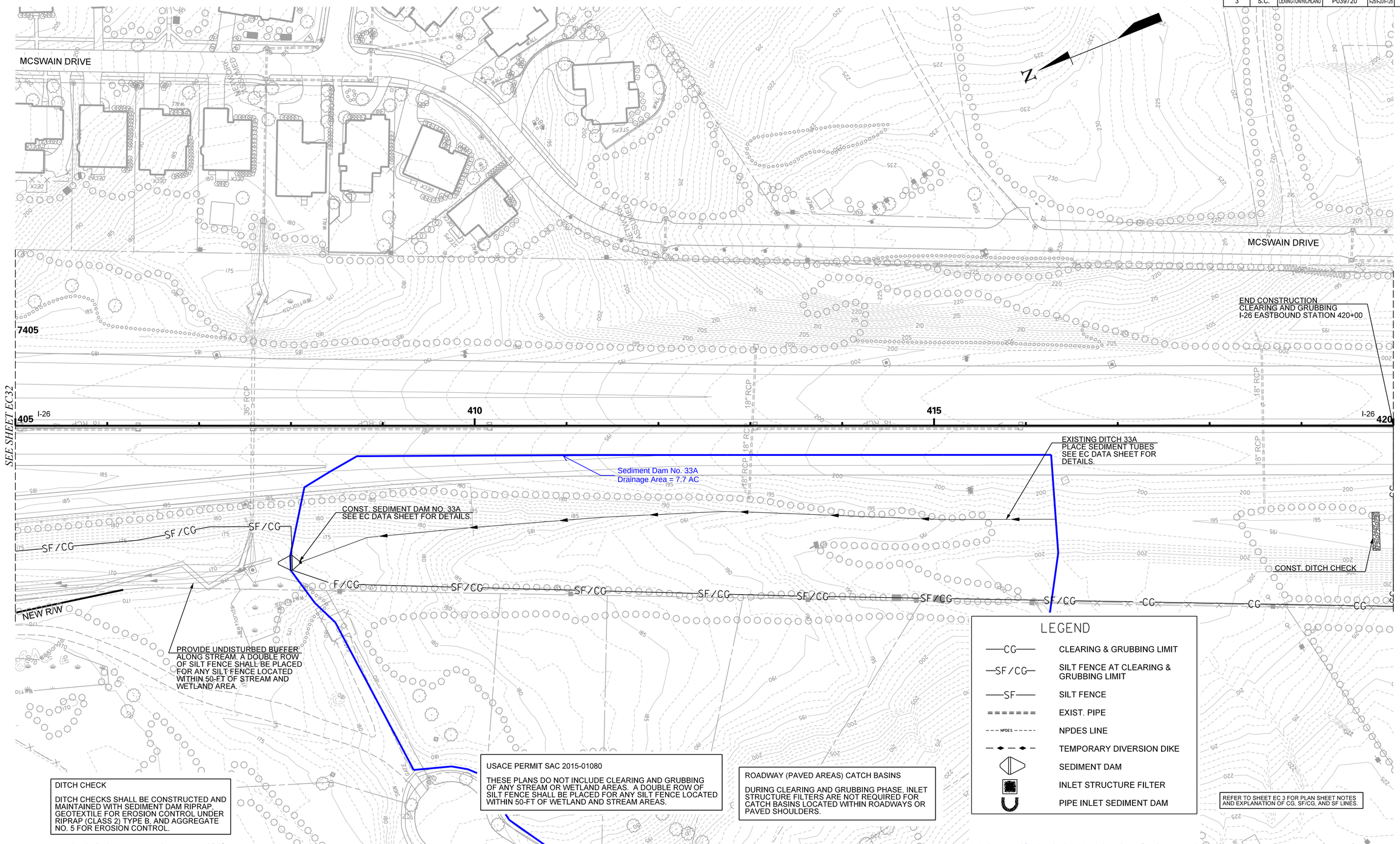
CAROLINA CROSSROADS

PHASE 3

EROSION CONTROL

CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC33 |




DITCH CHECK

DITCH CHECKS SHALL BE CONSTRUCTED AND MAINTAINED WITH SEDIMENT DAM RIPRAP. GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP (CLASS 2) TYPE B, AND AGGREGATE NO. 5 FOR EROSION CONTROL.

USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
|---|---|---|---|---|---|
| | | | | | |

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EROSION CONTROL
CLEARING & GRUBBING PLANS

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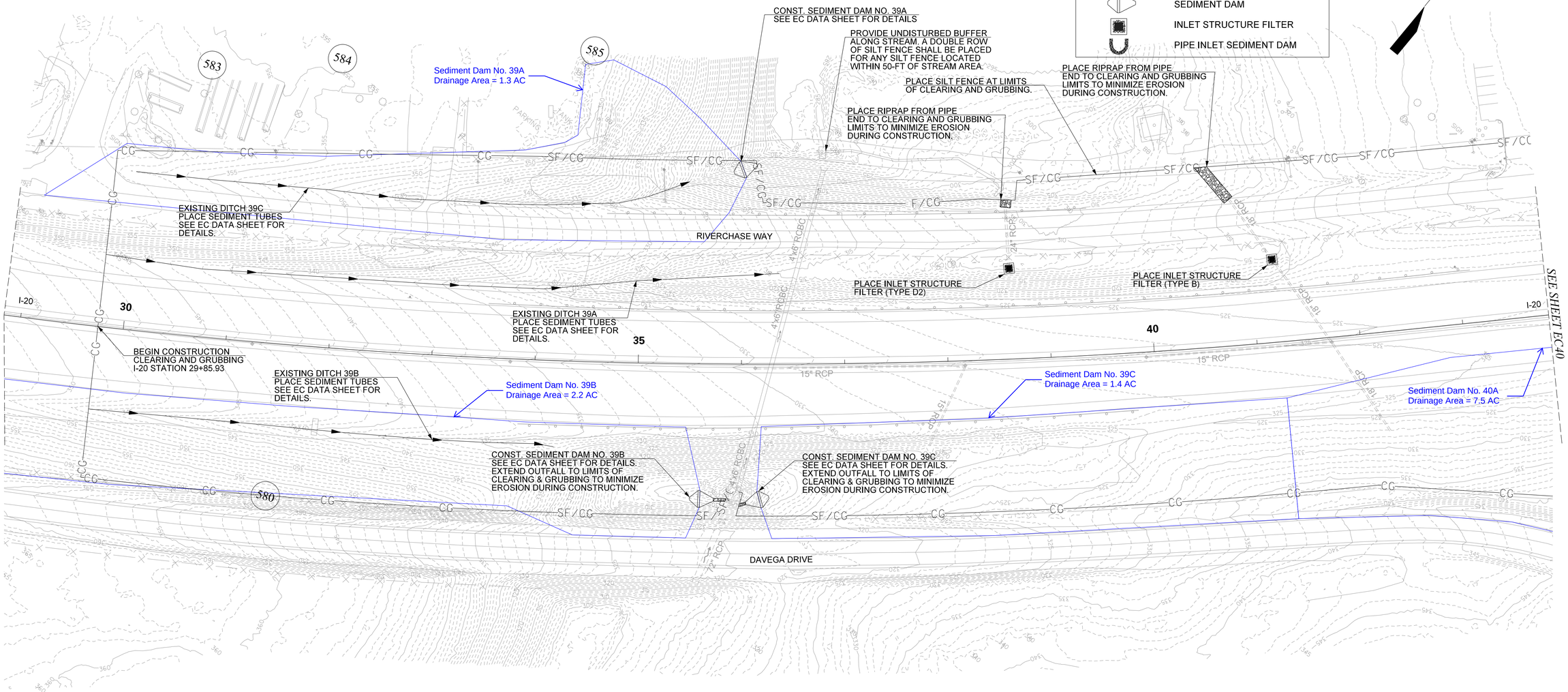
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC39 |

REFER TO SHEET EC 3 FOR PLAN SHEET NOTES AND EXPLANATION OF CG, SF/CG, AND SF LINES.

## LEGEND

| | |
|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| - - - NPDES - - - - - | NPDES LINE |
| — ◆ — ◆ — | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |




DITCH CHECK

DITCH CHECKS SHALL BE CONSTRUCTED AND MAINTAINED WITH SEDIMENT DAM RIPRAP, GEOTEXTILE FOR EROSION CONTROL UNDER RIPRAP (CLASS 2) TYPE B, AND AGGREGATE NO. 5 FOR EROSION CONTROL.

ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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PLANS PREPARED FOR

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South Carolina Department of Transportation

0 25 50 100

CAROLINA CROSSROADS

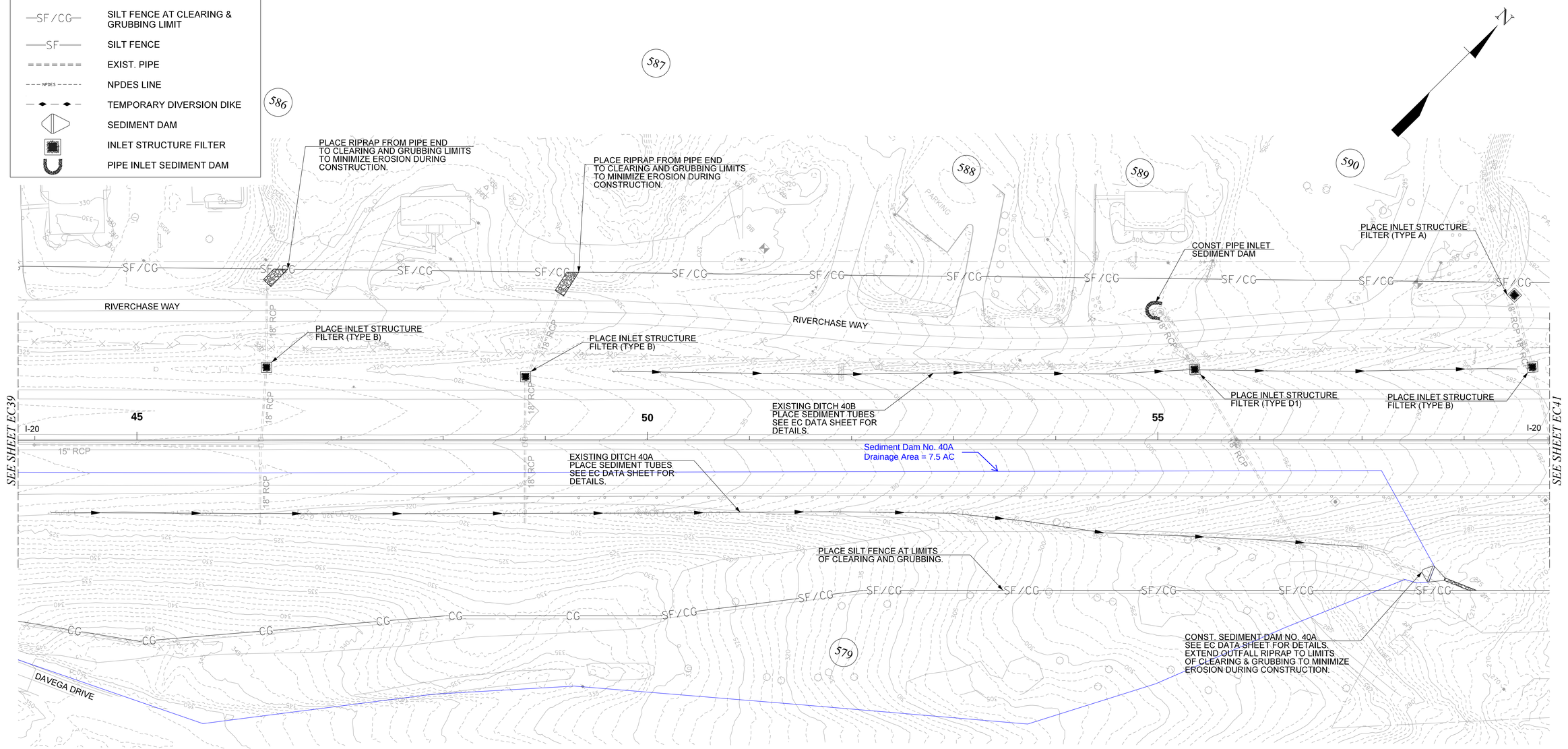
PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC40 |

REFER TO SHEET EC 3 FOR PLAN SHEET NOTES AND EXPLANATION OF CG, SF/CG, AND SF LINES.

## LEGEND

| | |
|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| --- NPDES --- | NPDES LINE |
| —◆—◆— | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |




USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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CAROLINA CROSSROADS

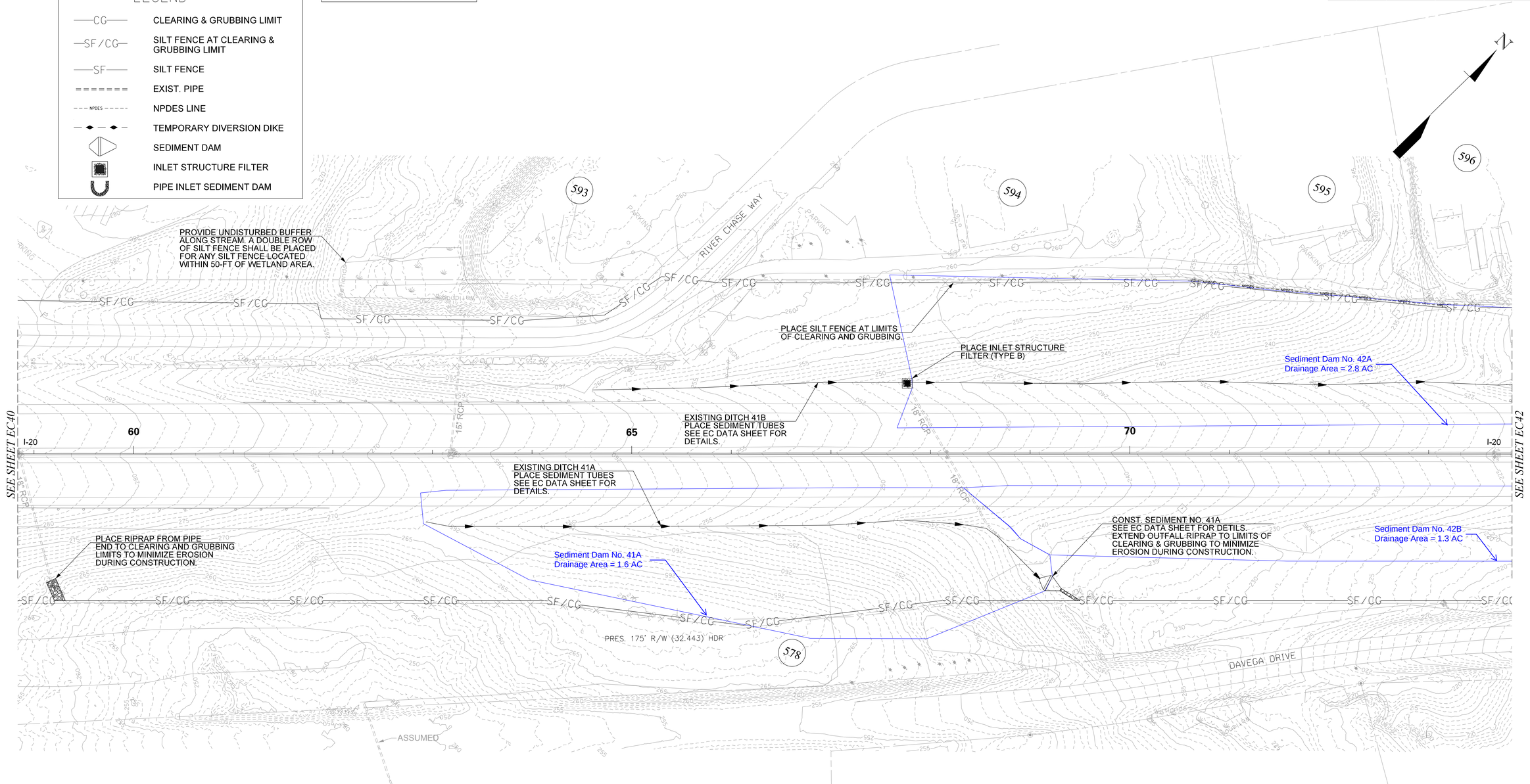
PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-20/I-20/I-126 | EC41 |

## LEGEND

| | |
|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| - - - NPDES - - - - - | NPDES LINE |
| — ◆ — ◆ — | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |

REFER TO SHEET EC 3 FOR PLAN SHEET NOTES AND EXPLANATION OF CG, SF/CG, AND SF LINES.




USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

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CAROLINA CROSSROADS

PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
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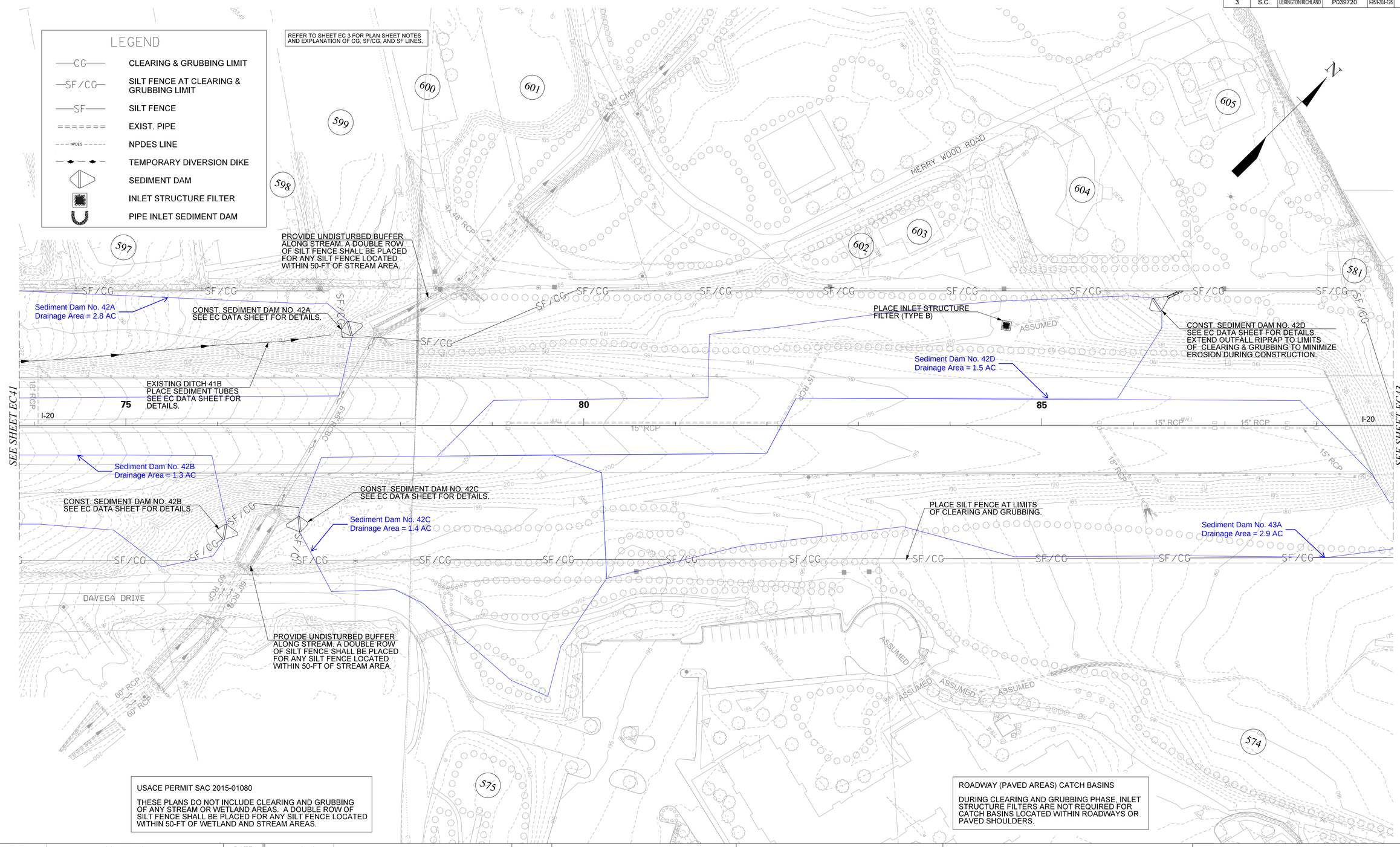
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC42 |




USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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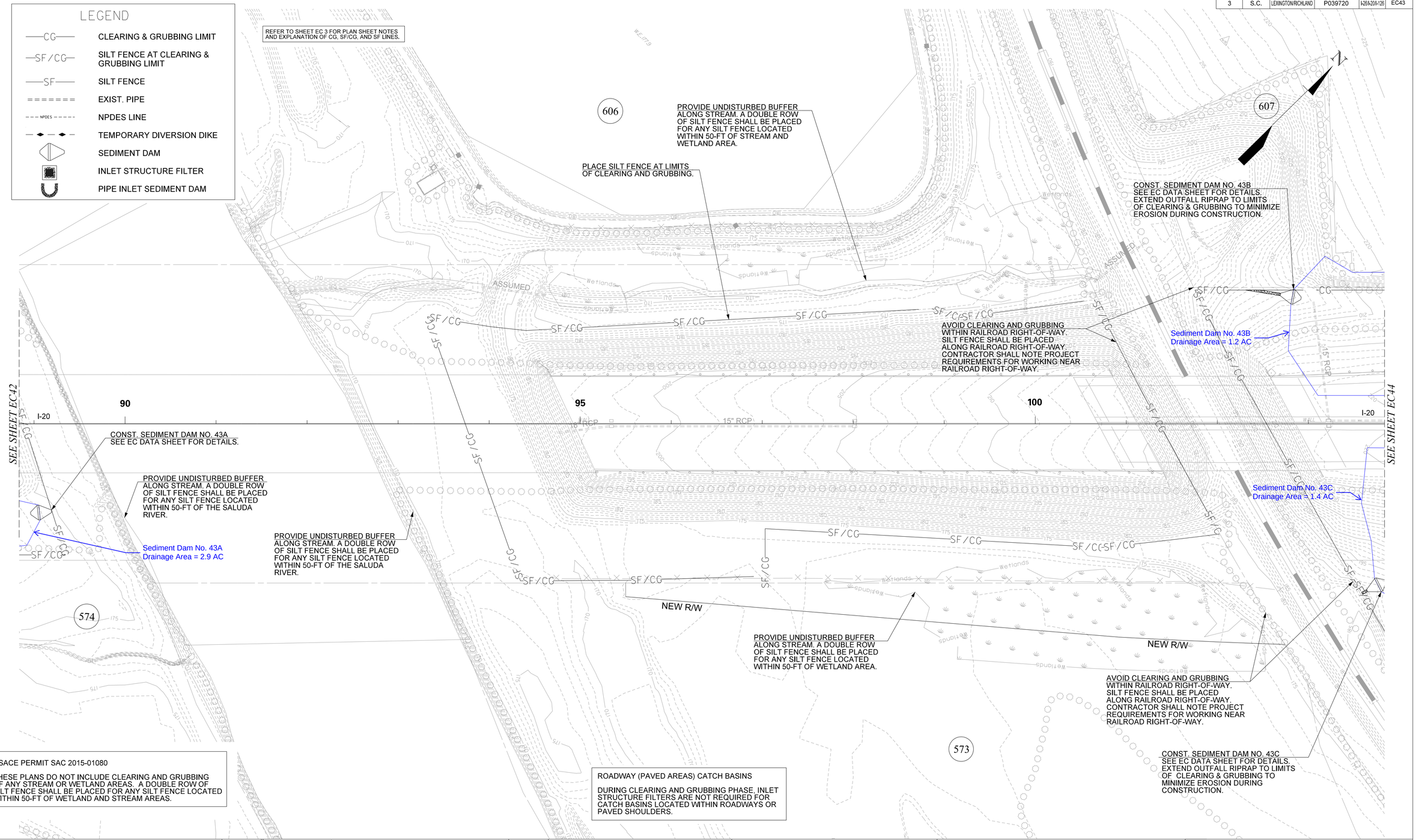
PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC43 |

## LEGEND

| | |
|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| --- NPDES --- | NPDES LINE |
| —◆—◆— | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |

REFER TO SHEET EC 3 FOR PLAN SHEET NOTES AND EXPLANATION OF CG, SF/CG, AND SF LINES.




USACE PERMIT SAC 2015-01080

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ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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CAROLINA CROSSROADS

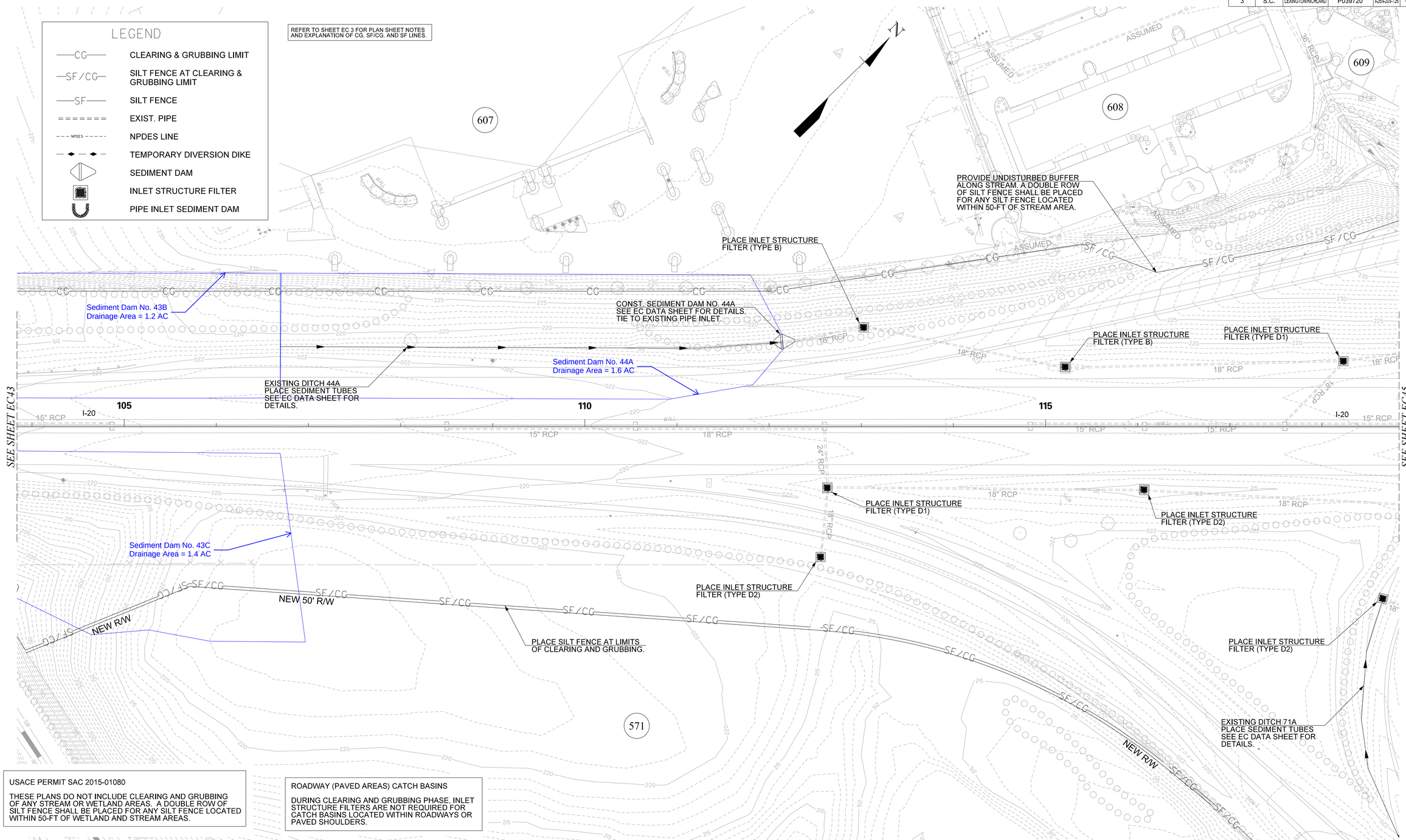
PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC44 |

## LEGEND

| | |
|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| --- NPDES ----- | NPDES LINE |
| —◆—◆— | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |

REFER TO SHEET EC 3 FOR PLAN SHEET NOTES AND EXPLANATION OF CG, SF/CG, AND SF LINES.




USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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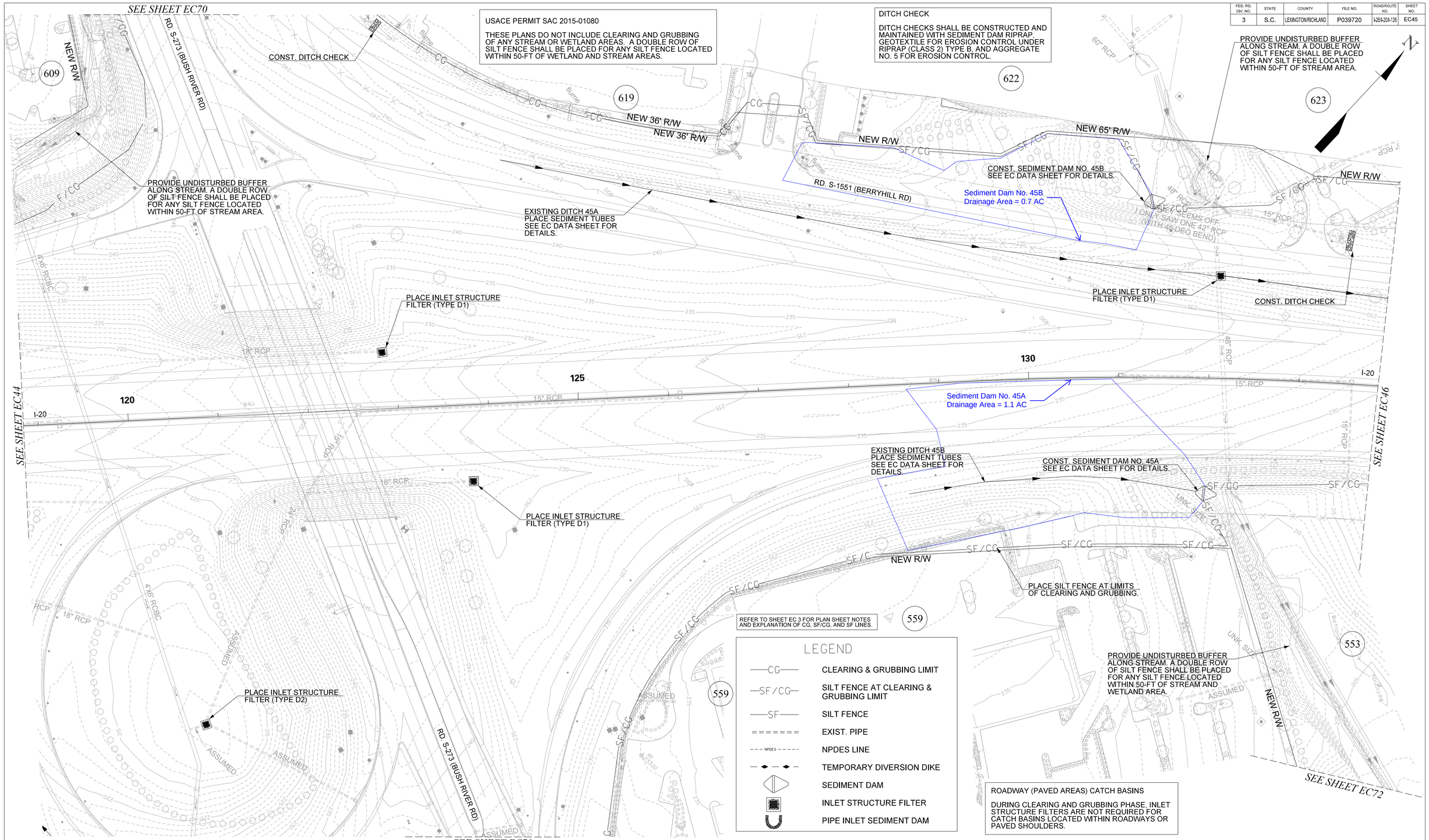
CAROLINA CROSSROADS

PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-20/I-20/I-126 | EC45 |




| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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CAROLINA CROSSROADS

PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-20/I-20/I-126 | EC46 |

SEE SHEET EC69

USACE PERMIT SAC 2015-01080

THESE PLANS DO NOT INCLUDE CLEARING AND GRUBBING OF ANY STREAM OR WETLAND AREAS. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF WETLAND AND STREAM AREAS.

PROVIDE UNDISTURBED BUFFER ALONG STREAM. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF STREAM AREA.

PLACE SILT FENCE IN TEMP. ROW AREAS FOR DEMOLITION. REMOVE AFTER DEMOLITION AREA IS STABILIZED.

PLACE SILT FENCE AT LIMITS OF CLEARING AND GRUBBING.

PROVIDE UNDISTURBED BUFFER ALONG STREAM. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF STREAM AREA.

NEW TRANS. R/W

NEW R/W

NEW 36' R/W

NEW 55' R/W

NEW TRANS. R/W

EXECUTIVE CENTER DR

PLACE INLET STRUCTURE FILTER (TYPE B)

PLACE INLET STRUCTURE FILTER (TYPE B)

PLACE INLET STRUCTURE FILTER (TYPE B)

PLACE INLET STRUCTURE FILTER (TYPE D1)

RD. S-1551 (BERRYHILL RD)

INTERSTATE 20 WB

EXISTING DITCH 45A PLACE SEDIMENT TUBES SEE EC DATA SHEET FOR DETAILS.

EXISTING DITCH 47C PLACE SEDIMENT TUBES SEE EC DATA SHEET FOR DETAILS.

Sediment Dam No. 46A
Drainage Area = 3.0 AC

EXISTING DITCH 46A PLACE SEDIMENT TUBES SEE EC DATA SHEET FOR DETAILS.

PROVIDE UNDISTURBED BUFFER ALONG STREAM. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF STREAM AREA.

EXISTING DITCH 73A PLACE SEDIMENT TUBES SEE EC DATA SHEET FOR DETAILS.

EXISTING DITCH 46B PLACE SEDIMENT TUBES SEE EC DATA SHEET FOR DETAILS.

CONST. SEDIMENT DAM NO. 46A SEE EC DATA SHEET FOR DETAILS.

Sediment Dam No. 46B
Drainage Area = 6.6 AC

CONST. SEDIMENT DAM NO. 46B SEE EC DATA SHEET FOR DETAILS.

NEW TRANS. R/W = P/L

NEW TRANS. R/W = P/L

PROVIDE UNDISTURBED BUFFER ALONG STREAM. A DOUBLE ROW OF SILT FENCE SHALL BE PLACED FOR ANY SILT FENCE LOCATED WITHIN 50-FT OF STREAM AREA.

CONST. SEDIMENT DAM NO. 46C SEE EC DATA SHEET FOR DETAILS

PLACE RIPRAP FROM SEDIMENT DAM TO DOWNSTREAM PIPE TO MINIMIZE EROSION DURING CONSTRUCTION.

RD. S-1241 (ROCKLAND RD)

Sediment Dam No. 46C
Drainage Area = 3.3 AC

ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

## LEGEND

| | |
|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| --- NPDES --- | NPDES LINE |
| —◆—◆— | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |

REFER TO SHEET EC 3 FOR PLAN SHEET NOTES AND EXPLANATION OF CG, SF/CG, AND SF LINES.

SEE SHEET EC45

SEE SHEET EC47

SEE SHEET EC72

SEE SHEET EC72

SEE SHEET EC73

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CAROLINA CROSSROADS

PHASE 3

EROSION CONTROL

CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
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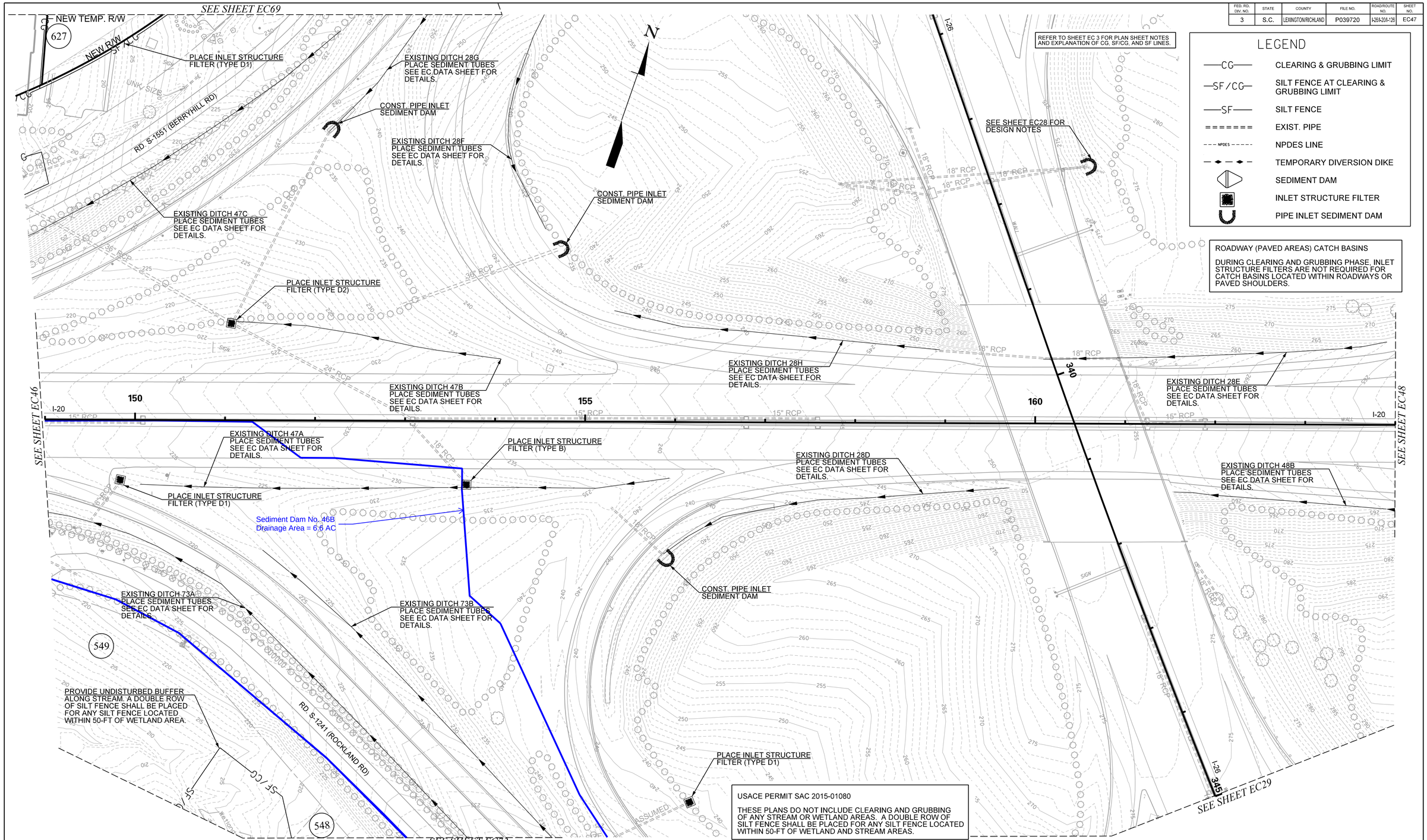
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-20/I-20/I-126 | EC47 |




| TRACT(S) | ISSUED FOR | DATE | TRACT(S) | ISSUED FOR | DATE |
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CAROLINA CROSSROADS

PHASE 3
EROSION CONTROL
CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
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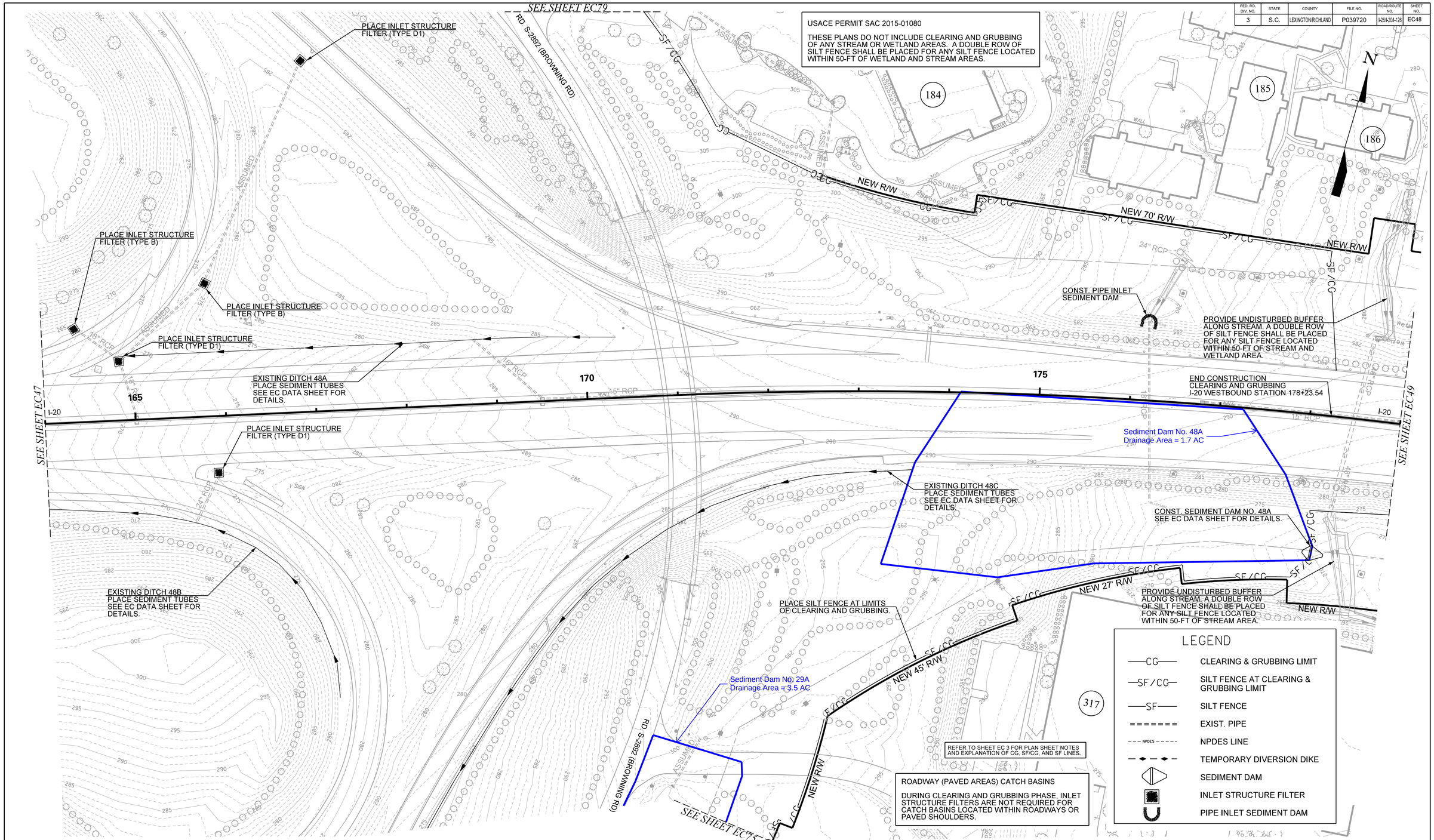
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC48 |

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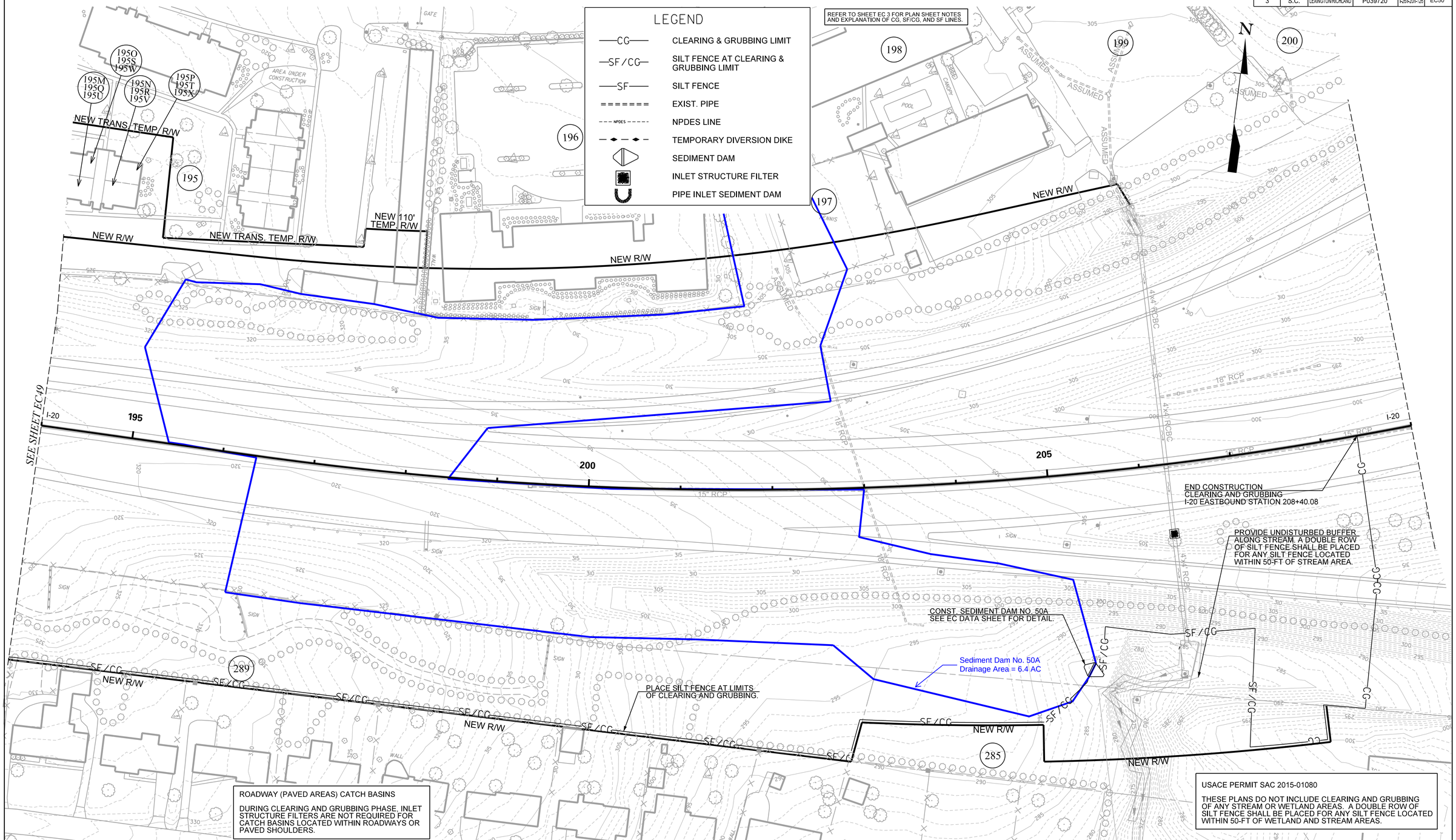
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC50 |

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CAROLINA CROSSROADS

PHASE 3

EROSION CONTROL

CLEARING & GRUBBING PLANS

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|---|---|---|---|---|---|
| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC73 |

USACE PERMIT SAC 2015-01080

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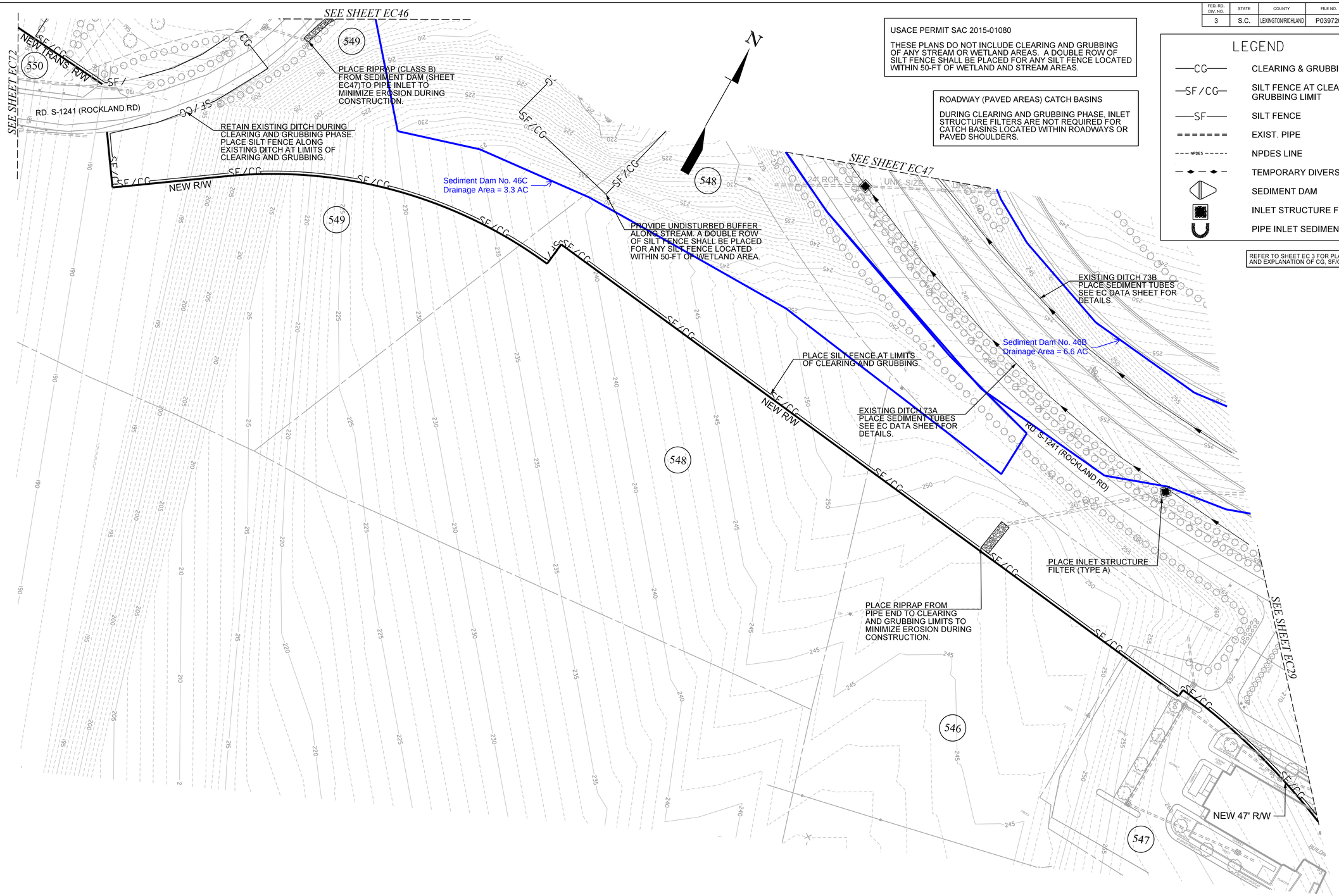
ROADWAY (PAVED AREAS) CATCH BASINS

DURING CLEARING AND GRUBBING PHASE, INLET STRUCTURE FILTERS ARE NOT REQUIRED FOR CATCH BASINS LOCATED WITHIN ROADWAYS OR PAVED SHOULDERS.

## LEGEND

| | |
|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| - - - NPDES - - - | NPDES LINE |
| —◆—◆— | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |

REFER TO SHEET EC 3 FOR PLAN SHEET NOTES AND EXPLANATION OF CG, SF/CG, AND SF LINES.

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CLEARING & GRUBBING PLANS

| FED. RD. DIV. NO. | STATE | COUNTY | FILE NO. | ROAD/ROUTE NO. | SHEET NO. |
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| 3 | S.C. | LEXINGTON/RICHLAND | P039720 | I-26/I-20/I-126 | EC75 |

## LEGEND

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|---|---|
| —CG— | CLEARING & GRUBBING LIMIT |
| —SF/CG— | SILT FENCE AT CLEARING & GRUBBING LIMIT |
| —SF— | SILT FENCE |
| ======= | EXIST. PIPE |
| --- NPDES --- | NPDES LINE |
| —◆—◆— | TEMPORARY DIVERSION DIKE |
| | SEDIMENT DAM |
| | INLET STRUCTURE FILTER |
| | PIPE INLET SEDIMENT DAM |

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USACE PERMIT SAC 2015-01080

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ROADWAY (PAVED AREAS) CATCH BASINS

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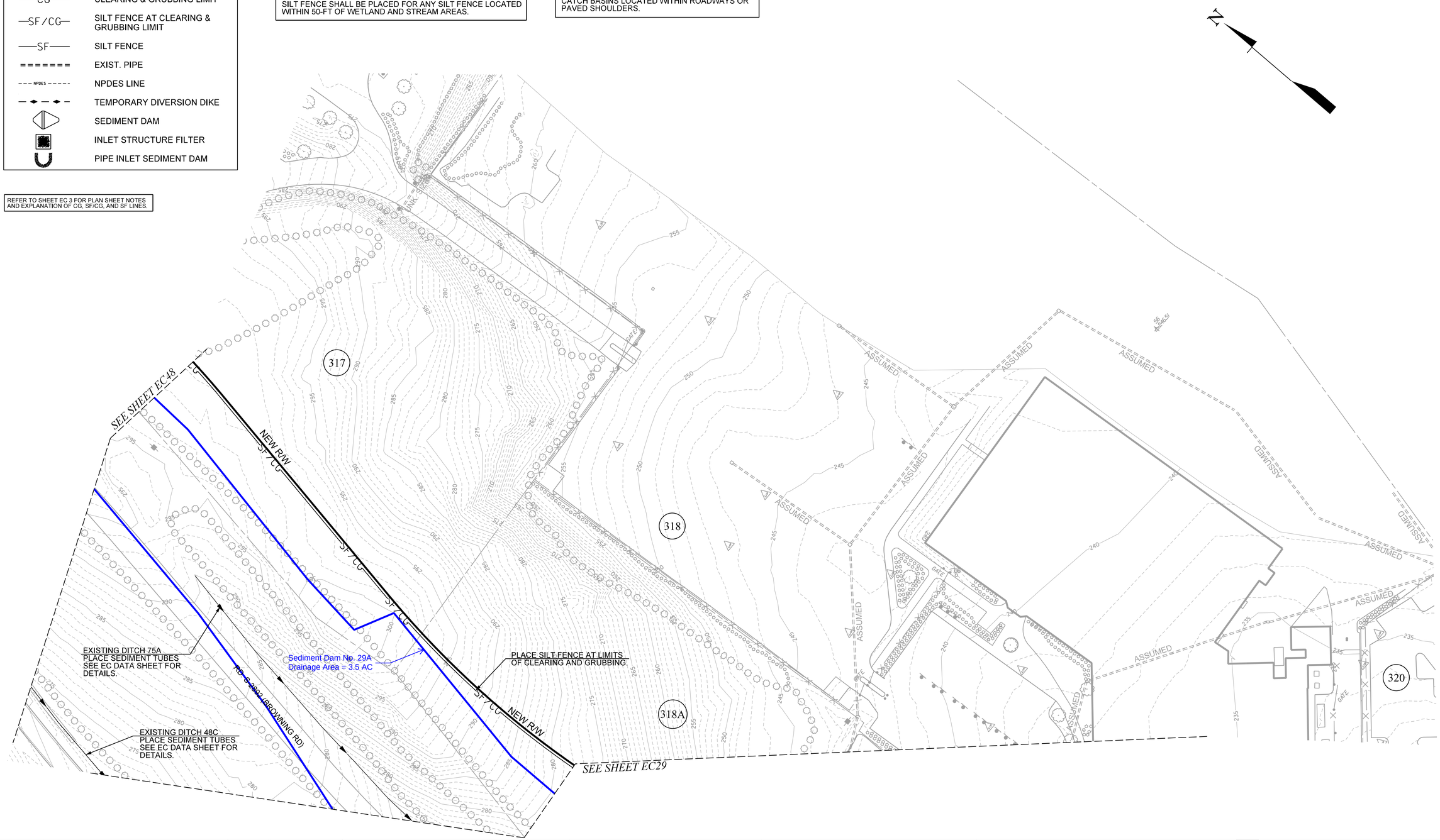


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