



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

April 18, 2022

U. S. Army Corps of Engineers
Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, NC 28801-5006

ATTN: Ms. Lori Beckwith
NCDOT Coordinator

Subject: **Request for Modification to the Section 404 Individual Permit and Section 401 Water Quality Certification** for the proposed US 221 Widening from US 421 to US 221 Business/NC 88 in Jefferson in Watauga and Ashe Counties. Federal Aid Project No. STP-0221(13), Division 11, TIP No. R-2915. Debit \$570 from WBS 34518.1.FR6.

Reference: USACE Individual Permit Action ID SAW-2012-00882, January 7, 2015.
USACE Individual Permit Modification ID SAW-2012-00882, August 31, 2016
USACE Individual Permit Modification ID SAW-2012-00882, December 7, 2017
USACE Individual Permit Modification ID SAW-2012-00882, December 27, 2019
Request for 404 Modification, September 24, 2021
NCDWR Project No. 20140762, Certification No. 4001, September 8, 2014.
NCDWR Project No. 20140762_v2, Certification No. 4001, August 23, 2016
NCDWR Project No. 20140762_v3, Certification No. 4001, April 28, 2017
NCDWR Project No. 20140762, e-mail authorization, November 27, 2017
NCDWR Project No. 20140762_v4, Certification No. 4001, June 26, 2018
NCDWR Project No. 20140762_v5, Certification No. 4001, May 22, 2019
NCDWR Project No. 20140762_v6, Certification No. 4001, November 4, 2021

Dear Madam:

The purpose of this letter is to request a modification of the United States Army Corps of Engineers (USACE) Section 404 Individual Permit and North Carolina Division of Water Resources Section 401 Certification for the above referenced project. This modification presents a new permit site in the D

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
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Website: www.ncdot.gov

Location:
1000 BIRCH RIDGE DRIVE
RALEIGH NC 27610

Section, Site 18A, added to address a slope failure adjacent to stream S113 (US to Beaver Creek). To prevent further erosion, the installation of a new pipe to carry a portion of S113 will result in additional permanent and temporary impacts.

All changes in impacts due to the new pipe and the associated temporary dewatering impacts at Site 18A in the D Section are in *red italics*. Please see the enclosed revised DMS acceptance letter and revised permit drawings for Section D.

Summary of R-2915 Jurisdictional Impacts:

Impacts for the overall (Sections A-E) project will include 3.05 acres of permanent wetland impacts, 0.28 acre of temporary wetland impacts, and 0.05 acre of hand clearing in wetlands. There will also be *9,467* linear feet of permanent stream impacts (*7,805* linear feet of fill and 1,662 linear feet of bank stabilization), and *0.46* acre of temporary stream impacts (see Tables 1 and 2 for a breakdown of impacts by Section).

Table 1 – Summary of Wetland Impacts for R-2915 (*no change*)

| Section | Design Stage | Wetland Impact Type | Wetland Impact Area (ac) | Wetland Impacts Requiring Mitigation (ac)* |
|---------|--------------|---------------------------------|--------------------------|--|
| R-2915A | Final | Perm. Wetland Fill | 0.48 | 0.57 |
| | | Excavation in Wetlands | 0.01 | |
| | | Mechanized Clearing in Wetlands | 0.08 | |
| | | Hand Clearing in Wetlands | 0.05† | |
| R-2915B | Final | Perm. Wetland Fill | 0.32 | 0.43 |
| | | Excavation in Wetlands | 0.04 | |
| | | Mechanized Clearing in Wetlands | 0.06 | |
| | | Temporary Fill in Wetlands | 0.15 | |
| R-2915C | Final | Perm. Wetland Fill | 0.22 | 0.27 |
| | | Excavation in Wetlands | -- | |
| | | Mechanized Clearing in Wetlands | 0.05 | |
| R-2915D | Final | Perm. Wetland Fill | 1.01 | 1.32 |
| | | Excavation in Wetlands | 0.01 | |
| | | Mechanized Clearing in Wetlands | 0.30 | |
| R-2915E | Final | Perm. Wetland Fill | 0.28 | 0.46 |
| | | Excavation in Wetlands | 0.05 | |
| | | Mechanized Clearing in Wetlands | 0.13 | |
| | | Temporary Fill in Wetlands | 0.13 | |
| Total | | | | 3.05 |

†Additionally, 0.01 acre of temporary fill in wetlands will occur in the hand clearing areas for erosion control measures

* Values are based on rounding, due to calculating totals with actual numbers to the thousandths

Table 2 – Summary of Stream Impacts for R-2915

| Section | Design Stage | Stream Impact Type | Impact Length (lf) | Temporary Impacts (ac) | Stream Impacts Requiring Mitigation (lf) |
|---------|--------------|--------------------|--------------------|------------------------|--|
| R-2915A | Final | Permanent Fill | 1,119 | -- | 1,119 |
| | | Bank Stabilization | 402 | -- | |
| | | Temporary | -- | 0.05 | |
| R-2915B | Final | Permanent Fill | 493 | -- | 493 |
| | | Bank Stabilization | 431 | -- | |
| | | Temporary | -- | 0.15 | |
| R-2915C | Final | Permanent Fill | 2,339 | -- | 2,339 |
| | | Bank Stabilization | 234 | -- | |
| | | Temporary | -- | 0.09 | |
| R-2915D | Final | Permanent Fill | 2,947 | -- | 2,947 |
| | | Bank Stabilization | 126 | -- | |
| | | Temporary | -- | 0.09 | |
| R-2915E | Final | Permanent Fill | 907 | -- | 907 |
| | | Bank Stabilization | 469 | -- | |
| | | Temporary | -- | 0.08 | |
| Total | | | 9,467 | 0.46 | 7,805 |

Tables 3 and 4 summarize the impacts to jurisdictional water resources for the final design of R-2915D. Site numbers correspond with the permit (hydraulic) drawings included in this application. A description of the new impact site 18A will follow the tables.

Table 3 – R-2915D Wetland Impacts* (no change)

| Site | Wetland Number | Wetland Size (ac) | Permanent Fill in Wetlands (ac) | Excavation (ac) | Mechanized Clearing (ac) | Impacts Requiring Mitigation (ac) |
|------|----------------|-------------------|---------------------------------|-----------------|--------------------------|-----------------------------------|
| 2 | W53 | 0.02 | <0.01 | -- | -- | <0.01 |
| 3B | W58 | 0.05 | <0.01 | <0.01 | 0.02 | 0.03 |
| 4 | W59** | 0.14 | 0.10 | -- | 0.04 | 0.14 |
| 7 | W63 | 0.39 | 0.25 | -- | 0.05 | 0.30 |
| 13 | W72 | 0.02 | <0.01 | <0.01 | -- | 0.01 |
| 14 | W78 | 0.74 | 0.03 | <0.01 | 0.01 | 0.05 |
| 15 | W76 | 0.30 | <0.01 | -- | 0.02 | 0.02 |
| 16 | W77 | 1.86 | -- | -- | <0.01 | <0.01 |
| 17A | W79 | 0.25 | 0.06 | -- | 0.01 | 0.07 |
| 19 | W81**/W82** | 0.01/0.06 | 0.07 | -- | <0.01 | 0.07 |
| 20B | W85 | 0.03 | <0.01 | -- | <0.01 | 0.01 |
| 21 | W86** | 0.18 | 0.17 | <0.01 | -- | 0.18 |
| 22 | W88 | 0.06 | <0.01 | -- | <0.01 | <0.01 |
| 24 | W89 | 0.09 | <0.01 | -- | 0.01 | 0.02 |
| 25 | W93 | 0.54 | 0.11 | -- | 0.05 | 0.15 |
| 27 | W94 | 0.04 | 0.04 | -- | <0.01 | 0.04 |
| 28 | W95 | 0.52 | <0.01 | -- | 0.02 | 0.02 |
| 30 | W95 | 0.52 | 0.04 | -- | 0.06 | 0.10 |

Table 3 continued – R-2915D Wetland Impacts* (no change)

| Site | Wetland Number | Wetland Size (ac) | Permanent Fill in Wetlands (ac) | Excavation (ac) | Mechanized Clearing (ac) | Impacts Requiring Mitigation (ac) |
|----------------------|----------------|-------------------|---------------------------------|-----------------|--------------------------|-----------------------------------|
| 31 | W96 | 0.3 | 0.06 | -- | <0.01 | 0.07 |
| 32 | W98 | 0.07 | 0.02 | -- | <0.01 | 0.02 |
| Total Impacts | | | 1.01 | 0.01 | 0.3 | 1.32*** |

* All wetlands impacted are riparian ** Total take of wetland

*** Values are based on rounding, due to calculating totals with actual numbers to the thousandths

Table 4 – R-2915D Stream Impacts

| Site | Stream Name & Intermittent (I) or Perennial (P) ¹ | Stream Number | Impact Type | Impact Length (linear feet) | Temporary Impacts (acres) | Mitigation Requirement ² (linear feet) |
|------|--|---------------|--------------------|-----------------------------|---------------------------|---|
| 1 | UT to Old Field Creek (I) | S87 | Perm. fill | 312 | -- | USACE & DWR |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. fill | -- | <0.01 | -- |
| 2 | N/A (wetland only) | -- | -- | -- | -- | -- |
| 3A | UT to Old Field Creek (P) | S90 | Perm. Fill | 60 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp Fill | -- | -- | -- |
| 3B | UT to Old Field Creek (P) | S92a | Perm. Fill | 56 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp Fill | -- | <0.01 | -- |
| 4 | UT to Old Field Creek (P) | S92a | Perm. Fill | -- | -- | -- |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp Fill | -- | <0.01 | -- |
| 5 | UT to Old Field Creek (P) | S92b | Perm. Fill | 57 | -- | USACE |
| | | | Bank Stabilization | 19 | -- | -- |
| | | | Temp Fill | -- | -- | -- |
| 6 | Old Field Creek (P) | S56 | Perm. Fill | 120 | -- | USACE & DWR |
| | | | Bank Stabilization | 48 | -- | DWR |
| | | | Temp. Fill | -- | <0.01 | -- |
| 7 | N/A (wetland only) | -- | -- | -- | -- | -- |
| 8 | UT to Old Field Creek (P) | S95 | Perm. Fill | -- | -- | -- |
| | | | Bank Stabilization | 15 | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 9 | UT to Old Field Creek (P) | S102 | Perm. Fill | 126 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 10 | UT to Old Field Creek (P) | S104 | Perm. Fill | 396 | -- | USACE & DWR |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 11 | UT to Old Field Creek (P) | S95 | Perm. Fill | -- | -- | -- |
| | | | Bank Stabilization | 11 | -- | -- |
| | | | Temp. Fill | -- | -- | -- |

Table 4 continued – R-2915D Stream Impacts

| Site | Stream Name & Intermittent (I) or Perennial (P) ¹ | Stream Number | Impact Type | Impact Length (linear feet) | Temporary Impacts (acres) | Mitigation Requirement ² (linear feet) |
|------------|--|---------------|---------------------------|-----------------------------|---------------------------|---|
| 12 | UT to Beaver Creek (P) | S106 | Perm. Fill | 51 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 13 | N/A (wetland only) | -- | -- | -- | -- | -- |
| 14 | UT to South Beaver Creek (P) | S111 | Perm. Fill | 162 | -- | USACE & DWR |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 15 | UT to South Beaver Creek (P) | S111 | Perm. Fill | 12 | -- | USACE & DWR |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 16 | N/A (wetland only) | -- | -- | -- | -- | -- |
| 17A | UT to South Beaver Creek (P) | S112 | Perm. Fill | 28 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 17B | UT to South Beaver Creek (P) | S112 | Perm. Fill | 12 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 18 | UT to Beaver Creek (P) | S115 | Perm. Fill | 491 | -- | USACE & DWR |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 18A | UT to Beaver Creek (P) | S113 | Perm. Fill | 320 | -- | USACE & DWR |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | 0.04 | -- |
| 19 | UT to Beaver Creek (P) | S116 | Perm. Fill | 100 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 20A | UT to Beaver Creek (P) | S117 | Perm. Fill | 55 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 20B | UT to Beaver Creek (P) | S118 | Perm. Fill | 57 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 21 | UT to Beaver Creek (P) | S119 | Perm. Fill | 49 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 22 | UT to Beaver Creek (P) | S120 | Perm. Fill | 61 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 23A | UT to Beaver Creek (P) | S122 | Perm. Fill | 19 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |

Table 4 continued – R-2915D Stream Impacts

| Site | Stream Name & Intermittent (I) or Perennial (P) ¹ | Stream Number | Impact Type | Impact Length (linear feet) | Temporary Impacts (acres) | Mitigation Requirement ² (linear feet) |
|--|--|---------------|--------------------|-----------------------------|---------------------------|---|
| 23B | UT to Beaver Creek (P) | S123 | Perm. Fill | 66 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 24 | UT to Beaver Creek (I) | S125 | Perm. Fill | 22 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| 25 | UT to Beaver Creek (P) | S127 | Perm. Fill | 12 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 26 | Beaver Creek | S124 | Perm. Fill | 75 | -- | USACE |
| | | | Bank Stabilization | 33 | -- | -- |
| | | | Temp. Fill | -- | 0.01 | -- |
| 27 | UT to Beaver Creek (P) | S126 | Perm. Fill | 134 | -- | USACE & DWR |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 28 | N/A (wetland only) | -- | -- | -- | -- | -- |
| 29 | UT to Beaver Creek (P) | S126 | Perm. Fill | 69 | -- | USACE & DWR |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | -- | -- |
| 30 | N/A (wetland only) | -- | -- | -- | -- | -- |
| 31 | N/A (wetland only) | -- | -- | -- | -- | -- |
| 32 | UT to Beaver Creek (P) | S128 | Perm. Fill | 25 | -- | USACE |
| | | | Bank Stabilization | -- | -- | -- |
| | | | Temp. Fill | -- | <0.01 | -- |
| Total Temporary Impacts: | | | | -- | 0.09 ³ | -- |
| Total Perm. Impacts (Perm. Fill + Bank Stabilization): | | | | 3,073 | -- | -- |
| Permanent Impacts Requiring DWR Mitigation: | | | | 2,064 | -- | -- |
| Permanent Impacts Requiring USACE Mitigation: | | | | 2,947 | -- | -- |
| Total Impacts Requiring Mitigation: | | | | 2,947 | -- | † |

1 – All streams are Class C; Tr+ waters

2 – Mitigation for bank stabilization impacts required by DWR – not required by USACE

3 – Values are based on rounding, due to some of the individual impacts being <0.01 acre

† – Final mitigation requirement will be up to the USACE and DWR

Permit Site 18A:

In 2021, a landowner alerted NCDOT maintenance staff of an issue adjacent/left of approximate Sta. 610+00 within Section D of R-2915 in Ashe County. Maintenance staff visited the site and reported a long section of deeply incised and actively eroding stream bed. In addition, a large “island” of mature trees on the slope was starting to slide because of the eroding stream. If this continues, the road shoulder may collapse and cause a partial loss of the roadway. The area containing the issue is entirely within NCDOT right of way, but is heavily wooded and did not receive any ground disturbance during

construction of the D Section. Furthermore, the area of concern is below the roadway, so is completely out of view to regular NCDOT maintenance activities. As a result, it may have occurred many years ago. In contrast, the upper portion of the stream that is visible beside R-2915D is in good shape.

It was determined that the stream used to flow into a system of 12" corrugated metal pipes (CMPs) that measured 113' in length (date of installation unknown, but pre-R-2519D), that carried the UT down a steep rocky slope into the wooded ravine below, where the stream was once again free flowing. Pieces of this pipe system are now separated and washed downstream, and the stream now flows down the rocky slope. However, the area flowing over the steep hillside is in good shape/stable and has naturalized with mosses, ferns, etc. As a result, NCDOT will leave this previously piped area unpiped, to remain as daylighted stream reach. The erosion issue begins where this stream hits the valley floor. There is a deeply incised stream section (20' deep in some places) that extends for approximately 320'. This reach becomes less incised, and contains less erodible riparian area as you progress downstream. As mentioned, a section of the adjacent hillside including trees is starting to slide.

To address this issue, NCDOT will install a temporary dewatering pipe that will start at the top of the hillside beside R-2915D, and carry the stream along the right of way fence and back into the existing stream channel directly below the proposed reach to be piped. This will result in 450 linear feet of temporary dewatering. The 320' long incised portion of stream channel will then be filled with rock and soil, and a series of four 36" high density polyethylene (HDPE) pipes will be buried near the surface of this new fill. While the proposed pipes are all at a 10% grade, three drop inlets (spaced every 100' along the pipe system) will be installed to reduce velocity, and convey runoff from the wooded hillside along R-2915D and the large grassy field on the other side of the project into the pipe system. Along with the proposed drop inlets, existing instream rock at the proposed outlet of the pipe system will further help reduce the chances of scour. As mentioned, a previous pipe system (estimated to be a 113' x 12" CMP) used to carry water down the steep slope to where this new pipe system will begin. We will leave this area unpiped, and install an open throat catch basin at the start of the new pipe system, which will collect the stream flowing down the steep slope and convey it into the new HDPE pipe. Once complete, the stream will be turned into the new system and the temporary dewatering pipe will be removed. All disturbed ground will be seeded and stabilized.

While piping a stream is not typically environmentally favorable, the existing stream condition is in very poor shape (with a low NCSAM rating) and actively eroding. Furthermore, while we can't say the R-2915D project, or historical work on HWY 221, didn't in some way cause all or part of this issue, discussions with past staff have suggested that this stream section has been in poor shape for > 20 years. As mentioned, one entire side of the UT is a large pasture with a couple houses and little to no riparian area, and washouts on that side of the stream suggest high levels of runoff into the stream from that direction. As such, it is plausible that historical issues (logging/clearing/development) not entirely related to NCDOT may have in some ways resulted in the current situation.

The proposed work should drastically improve downstream conditions by removing additional sediment from the stream, and should fix a hazardous situation regarding the potential loss of the roadway to a future storm event. Furthermore, given the limitations within our right of way and possible solutions, a better fix to the problem is not readily available.

Total impacts at this new site due to this modification are 320 linear feet of permanent stream impacts due to the new pipe and 0.04 acre (450 lf) of temporary impacts to stream S113 (UT to Beaver Creek Creek). *Of note, 320 linear feet of the temporary impacts to S113 overlap with the permanent impacts, meaning that the dewatering activities only add 130 linear feet of impacts to the cumulative total.

MITIGATION

At this time, DMS is providing compensatory mitigation for all impacts. *An additional 320 linear feet of mitigation within the D Section is required due to the new pipe installation at Site 18A (described above). Please see the revised DMS acceptance letter for the D Section dated April 7, 2022.* Table 5 summarizes the total mitigation needs as 3.05 acres of wetland impacts and **7,805** linear feet of stream impacts.

Table 5 – Summary of Mitigation Requested from DMS

| Section | Design Stage | Wetland Impacts Requiring Mitigation (ac) | Stream Impacts Requiring Mitigation (ac) |
|--------------|--------------|---|--|
| R-2915A | Final | 0.57 | 1,119 |
| R-2915B | Final | 0.43 | 493 |
| R-2915C | Final | 0.27 | 2,339 |
| R-2915D | Final | 1.32 | 2,947 |
| R-2915E | Final | 0.46 | 907 |
| Total | | 3.05 | 7,805 |


REGULATORY APPROVALS

Section 404: Application is hereby made for a modification to the USACE Individual 404 Permit as required for the above-described activities, in addition to the activities described in the modification request sent September 24, 2021 (identified in the reference list in this application).

Section 401: We are hereby requesting a modification to the 401 Water Quality Certification from the N. C. Division of Water Resources for the above-described activities.

A copy of this application and distribution list will also be posted on the NCDOT website at: <http://connect.ncdot.gov/resources/Environmental>. If you have any questions or need additional information, please contact Erin Cheely at ekcheely@ncdot.gov or (919) 707-6108.

Sincerely,


for Philip S. Harris III, P.E., C.P.M.
Environmental Analysis Unit Head

ec:
NCDOT Permit Application Standard Distribution List

Project Submittal Interim Form

Updated September 4, 2020



*Please note: fields marked with a red asterisk * below are required. You will not be able to submit the form until all mandatory questions are answered.*

Project Type: *

- ☐ For the Record Only (Courtesy Copy)
- ☐ New Project
- ☒ Modification/New Project with Existing ID
- ☐ More Information Response
- ☐ Other Agency Comments
- ☐ Pre-Application Submittal
- ☐ Re-Issuance/Renewal Request
- ☐ Stream or Buffer Appeal

Pre-Filing Meeting Date Request was submitted on:

Project Contact Information

Name: Erin Cheely
Who is submitting the information?

Email Address: * ekcheely@ncdot.gov

Project Information

Existing ID #: *

20140762
20170001 (no dashes)

Existing Version: *

6
1

Project Name: * R-2915: US 221 Widening from US 421 to US 221 Business/NC 88 in Jefferson in Watauga and Ashe Counties

Is this a public transportation project? *

- ☒ Yes
- ☐ No

Is this a DOT project? *

- ☒ Yes
- ☐ No

Is the project located within a NC DCM Area of Environmental Concern (AEC)? *

- ☐ Yes ☒ No ☐ Unknown

TIP#:

R-2915

WBS#:

34518.1.FR6
(Applies to DOT projects only)

County (ies) *

Ashe

Watauga

Please upload all files that need to be submitted.

[Click the upload button or drag and drop files here to attach document](#)

R-2915 Modification Ashe-Watauga April 18 2022.pdf 3.25MB

[Only pdf or kmz files are accepted.](#)

Describe the attachments or add comments:

* ☒ By checking the box and signing box below, I certify that:

- I, the project proponent, hereby certifies that all information contained herein is true, accurate, and complete to the best of my knowledge and belief.
- I, the project proponent, hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.
- I agree that submission of this online form is a "transaction" subject to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I agree to conduct this transaction by electronic means pursuant to Chapter 66, Article 40 of the NC General Statutes (the "Uniform Electronic Transactions Act");
- I understand that an electronic signature has the same legal effect and can be enforced in the same way as a written signature; AND
- I intend to electronically sign and submit the online form.

Signature: *

A rectangular box containing a handwritten signature in black ink that reads "Michael Turchy".

Submittal Date:

[Is filled in automatically once submitted.](#)

ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
MARC RECKTENWALD
Director



April 7, 2022

Mr. Philip S. Harris, P.E., CPM
Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: DMS Mitigation Acceptance Letter:

R-2915D, US 221 Widening from South of NC 194 to US 211 Bypass, Ashe County

References: USACE 404 Individual Permit issued January 7, 2015 (USACE Action ID 2012-00882)

NCDWR 401 Water Quality Certification issued September 8, 2014 (NCDWR ID 2014-0762)

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the additional compensatory wetland mitigation for the subject project. Based on the information supplied by you on April 6, 2022, the impacts are located in CU 05050001 of the New River basin in the Northern Mountains (NM) Eco-Region, and are as follows:

Table 1 – Additional Impacts (feet / acres)

| New 05050001 NM | Stream | | | Wetlands | | | Buffer (Sq. Ft.) | |
|-----------------------|----------------|------|------|----------|--------------|---------------|------------------|--------|
| | Cold | Cool | Warm | Riparian | Non-Riparian | Coastal Marsh | Zone 1 | Zone 2 |
| Impacts (feet/acres) | 320.000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

*NOTE: Some of the stream impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details.

This additional impact and associated mitigation needs were not projected by the NCDOT in the 2022 impact data. DMS is currently providing stream and wetland mitigation for the impacts associated with this project located in cataloging unit 05050001 of the New River basin as required by the 404 and 401 permits issued in January 2015 and September 2014, as shown in the below table (in mitigation credits)



North Carolina Department of Environmental Quality | Division of Mitigation Services
217 West Jones Street | 1652 Mail Service Center | Raleigh, North Carolina 27699-1652
919.707.8976

Table 2 – Current Permitted Impacts and Associated Mitigation Requirements provided by DMS (based on issued permits) and Revised Anticipated Impacts (based on mitigation request)

| Impact Type | Total Permitted Impacts (feet / acre / sq ft) | Mitigation Provided by DMS per Issued Permits (Credits) | Additional Impact (for approval) | Revised Total Impacts* |
|------------------|--|---|--|---------------------------|
| Stream (cold) | 2,627.000 | 5,254.000 | 320.000 | 2,947.000 |
| Riparian Wetland | 1.320 | 2.640 | 0 | 1.320 |

*Some of the additional stream impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details. DMS will provide the amount of mitigation as determined by the regulatory agencies.

DMS commits to implementing additional sufficient compensatory stream mitigation credits to offset the impacts associated with this project as determined by the regulatory agencies using the delivery timeline listed in Section F.3.c.iii of the In-Lieu Fee Instrument dated July 28, 2010. If the above referenced impact amounts are revised, then this mitigation acceptance letter will no longer be valid and a new mitigation acceptance letter will be required from DMS.

If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-707-8420.

Sincerely,

Elizabeth Harmon

for James B. Stanfill
Asset Management Supervisor

cc: Mr. Monte Matthews, USACE – Raleigh Regulatory Field Office
Ms. Amy Chapman, Division of Water Resources, Wetlands/401 Unit
File: R-2915D

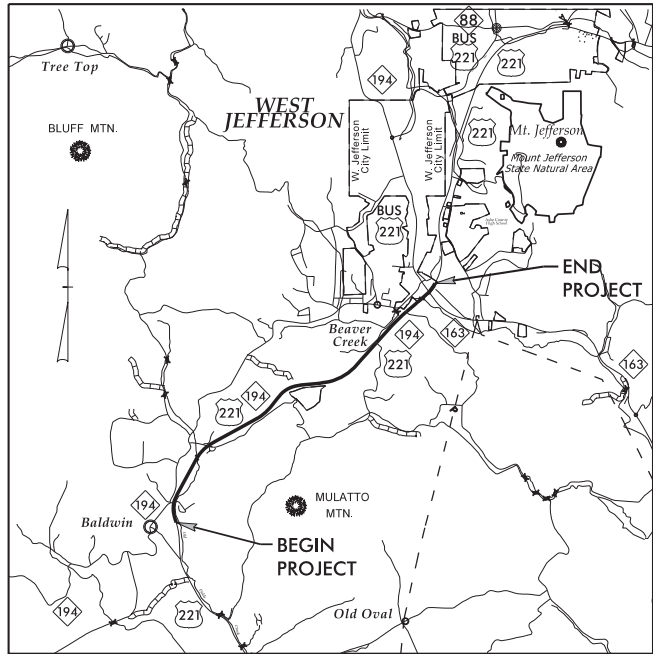


1/15/2014 R2915D-Hyd-prm_wet_psh_01(tsh) jharvey 09/08/99

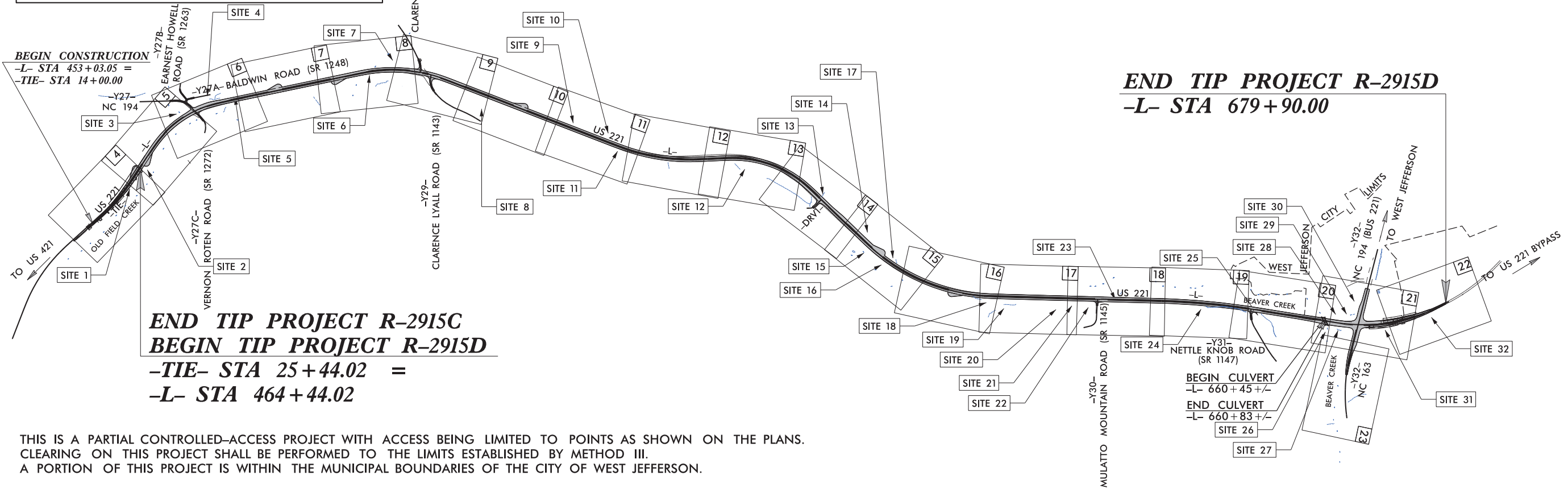
TIP PROJECT: R-2915D

CONTRACT:

See Sheet 1-A For Index of Sheets
See Sheet 1-B For Conventional Symbols

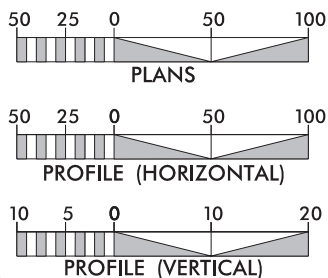


VICINITY MAP



THIS IS A PARTIAL CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.
A PORTION OF THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF WEST JEFFERSON.

GRAPHIC SCALES



DESIGN DATA

ADT 2015 = 14715
ADT 2035 = 25000
DHV = 9 %
D = 55 %
T = 9 % *
V = 60 MPH
* TTST = 2 DUAL 7
FUNC CLASS =
Major Collector
Statewide Tier

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT R-2915D = 4.290 MI
LENGTH OF STRUCTURE PROJECT R-2915D = 0.007 MI
TOTAL LENGTH OF PROJECT R-2915D = 4.297 MI

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ASHE COUNTY

LOCATION: US 221 FROM SOUTH OF NC 194 TO US 221 BYPASS

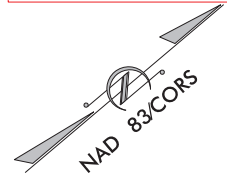
TYPE OF WORK: GRADING, PAVING, DRAINAGE, CURB AND GUTTER,
SIGNALS, AND CULVERT

WETLAND AND SURFACE WATER IMPACTS PERMIT

| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
|-----------------|-----------------------------|-------------|--------------|
| N.C. | R-2915D | 1 | |
| STATE PROJ. NO. | F.A. PROJ. NO. | DESCRIPTION | |
| 34518.1.1 | STP-0221(42) | P.E. | |
| 34518.2.4 | STP-0221(42) | R/W, UTIL. | |
| | | | |
| | | | |
| | | | |
| | | | |

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PERMIT DRAWING
SHEET 1 OF 52



END TIP PROJECT R-2915D
-L- STA 679 + 90.00

Prepared in the Office of:
KCI Associates of N.C., P.A.
4601 Six Forks Road
Landmark Center II, Suite 220
Raleigh, NC 27609
Phone (919) 783-9214
Fax (919) 783-9266

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JULY 30, 2013

LETTING DATE:
FEBRUARY 17, 2015

NCDOT CONTACT:

Plans Prepared For:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr.
Raleigh NC, 27610

CHARLES L. FLOWE, P.E.
PROJECT ENGINEER

BARRY C. SMITH, P.E.
PROJECT DESIGN ENGINEER

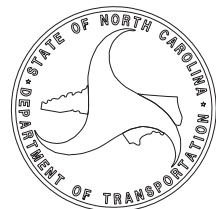
BRENDA MOORE, PE
PROJECT ENGINEER - ROADWAY DESIGN

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.





8/17/99

1/3/2014
R-2915D Hyd.prm.wet.psh_16
donavan



-L-
PI Sta 598+87.47
 $\Delta = 36^{\circ} 59' 04.8''$ (LT)
 $D = 1^{\circ} 58' 32.6''$
 $L = 1,871.96'$
 $T = 969.90'$
 $R = 2,900.00'$
 $SE = .05$
RUNOFF = 275'
PIs Sta 608+81.22
 $\Theta s = 2^{\circ} 42' 59.8''$
 $Ls = 275.00'$
 $LT = 183.35'$
 $ST = 91.69'$

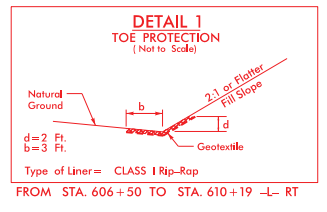
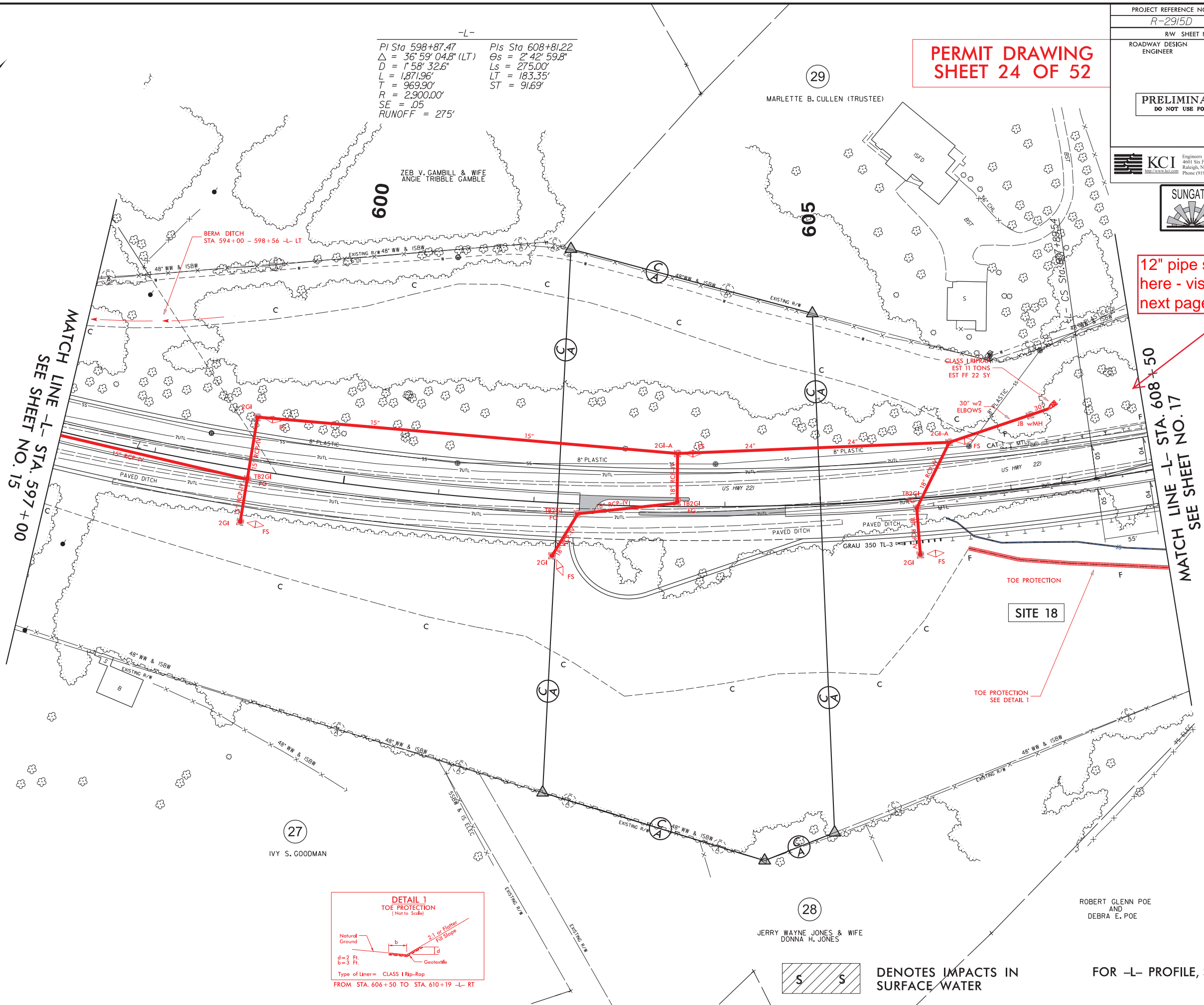
**PERMIT DRAWING
SHEET 24 OF 52**

| | | | |
|---|--|------------------------|--|
| PROJECT REFERENCE NO. R-2915D | | SHEET NO. 16 | |
| RW SHEET NO. | | HYDRAULICS ENGINEER | |
| ROADWAY DESIGN ENGINEER | | HYDRAULICS ENGINEER | |
| PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION | | | |
|  KCI Engineers • Planners • Scientists • Construction Managers 4601 Six Forks Road, Landmark Center II, Suite 220 Raleigh, NC 27609-5210 TEL (919) 650-2243 • FAX (919) 650-2559 Phone (919) 783-9214 • Fax (919) 783-9266 | | | |
|  SUNGATE DESIGN GROUP, P.A. 915 JONES FRANKLIN ROAD RALEIGH, NORTH CAROLINA 27608 TEL (919) 650-2243 • FAX (919) 650-2559 ENG FRM LICENSE NO. C-880 | | | |

12" pipe started here - visible on next page

MATCH LINE -L- STA. 597+00
SEE SHEET NO. 15

MATCH LINE -L- STA. 608+50
SEE SHEET NO. 17



**DENOTES IMPACTS IN
SURFACE WATER**

ROBERT GLENN POE
AND
DEBRA E. POE

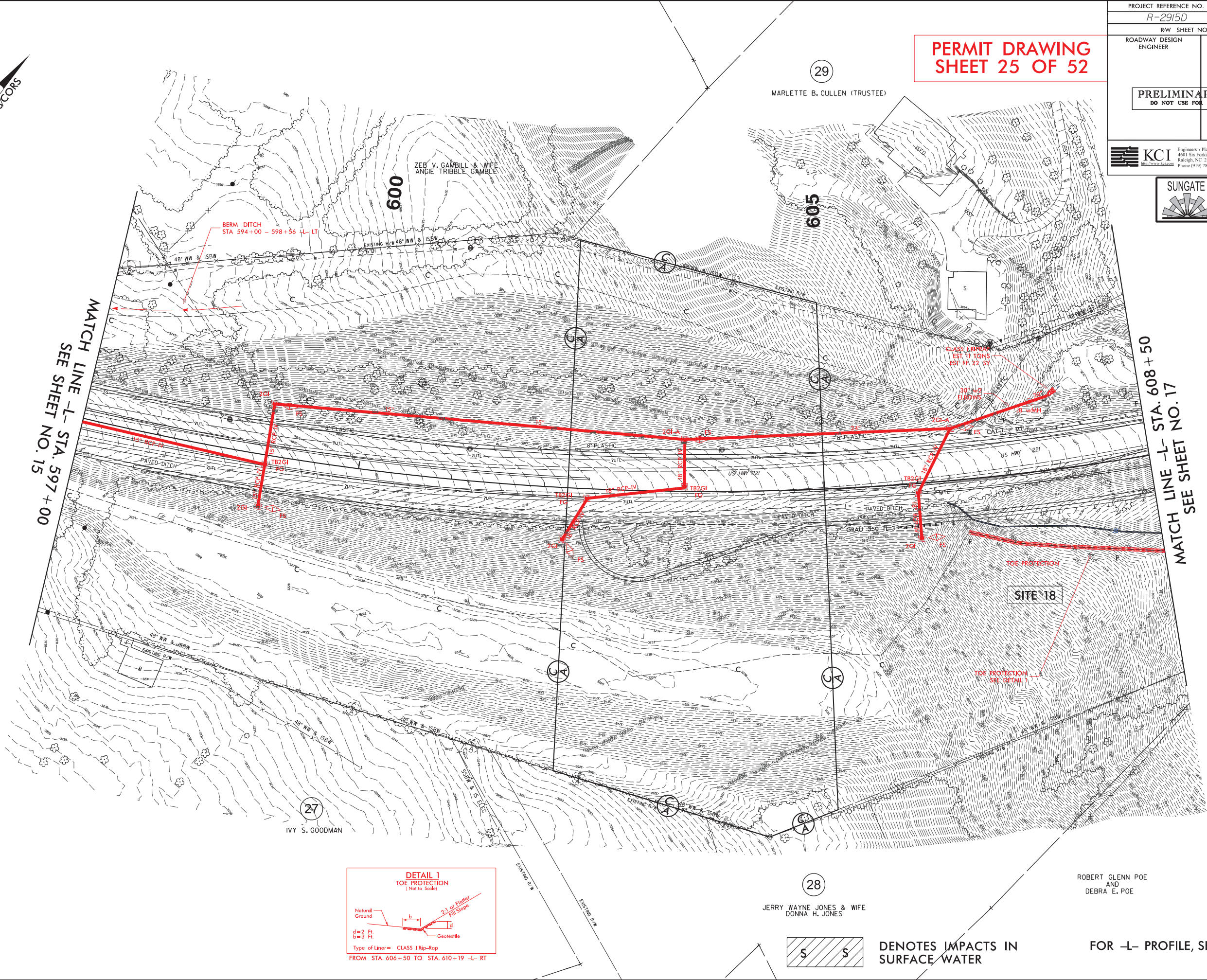
FOR -L- PROFILE, SEE SHEET 30

8/17/99

1/3/2014 R-2915D Hyd.prm.wet.psh_16.con



MATCH LINE -L- STA. 597+00
SEE SHEET NO. 15



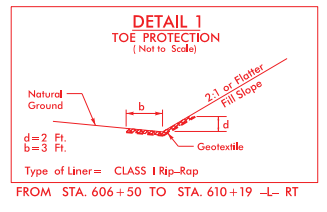
PERMIT DRAWING
SHEET 25 OF 52

| | | | |
|---|--|------------------------|--|
| PROJECT REFERENCE NO. <i>R-2915D</i> | | SHEET NO. <i>16</i> | |
| RW SHEET NO. | | | |
| ROADWAY DESIGN ENGINEER | | HYDRAULICS ENGINEER | |
| <div>PRELIMINARY PLANS</div> <div>DO NOT USE FOR CONSTRUCTION</div> | | | |

KCI
Engineers • Planners • Scientists • Construction Managers
4401 Six Forks Road, Landmark Center II, Suite 220
Raleigh, NC 27609-5210
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SUNGATE DESIGN GROUP, P.A.
915 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27608
TEL (919) 696-2243 FAX (919) 696-2599
ENG FIRM LICENSE NO. C-880

MATCH LINE -L- STA. 608+50
SEE SHEET NO. 17



28
JERRY WAYNE JONES & WIFE
DONNA H. JONES

ROBERT GLENN POE
AND
DEBRA E. POE



DENOTES IMPACTS IN
SURFACE WATER

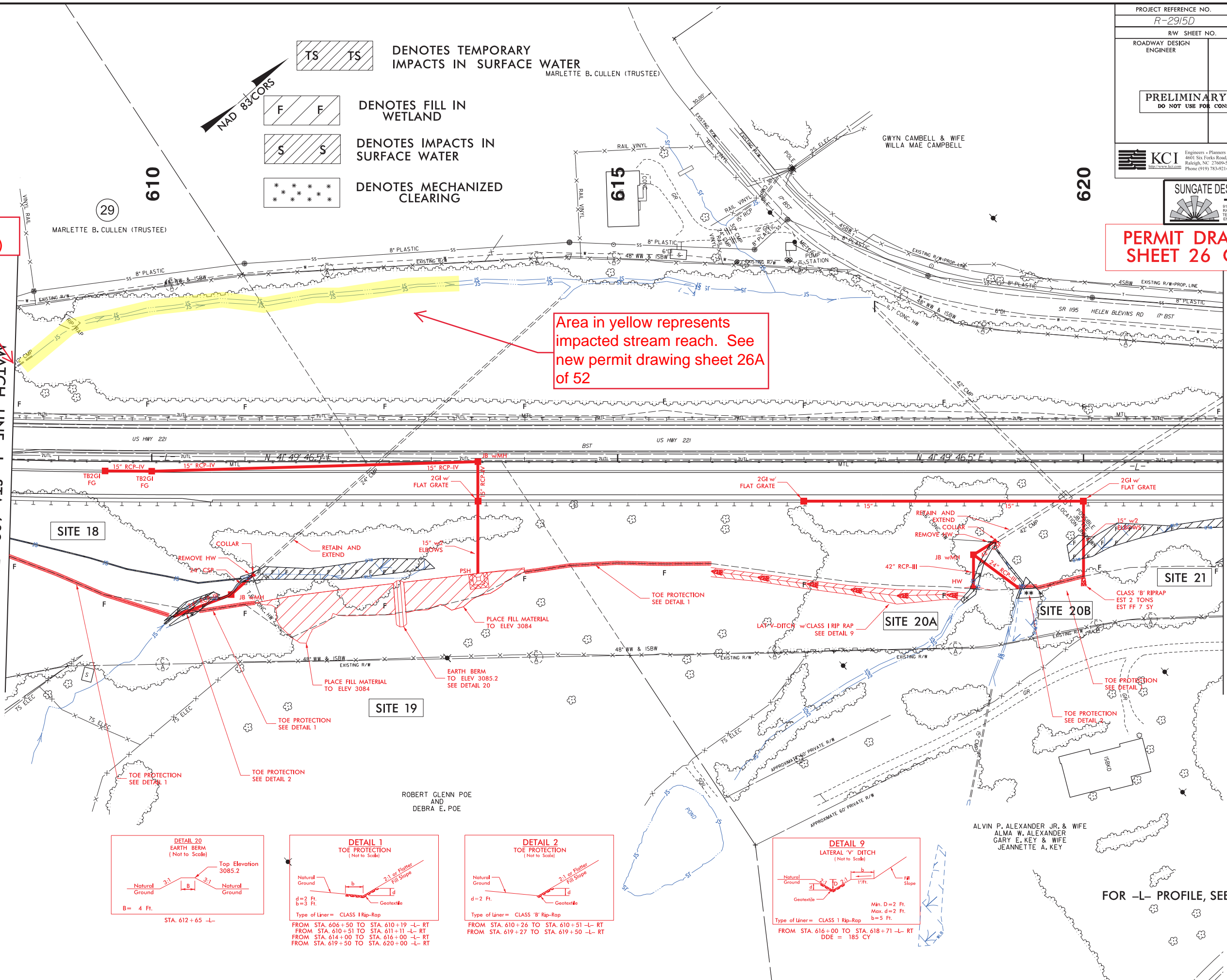
FOR -L- PROFILE, SEE SHEET 30

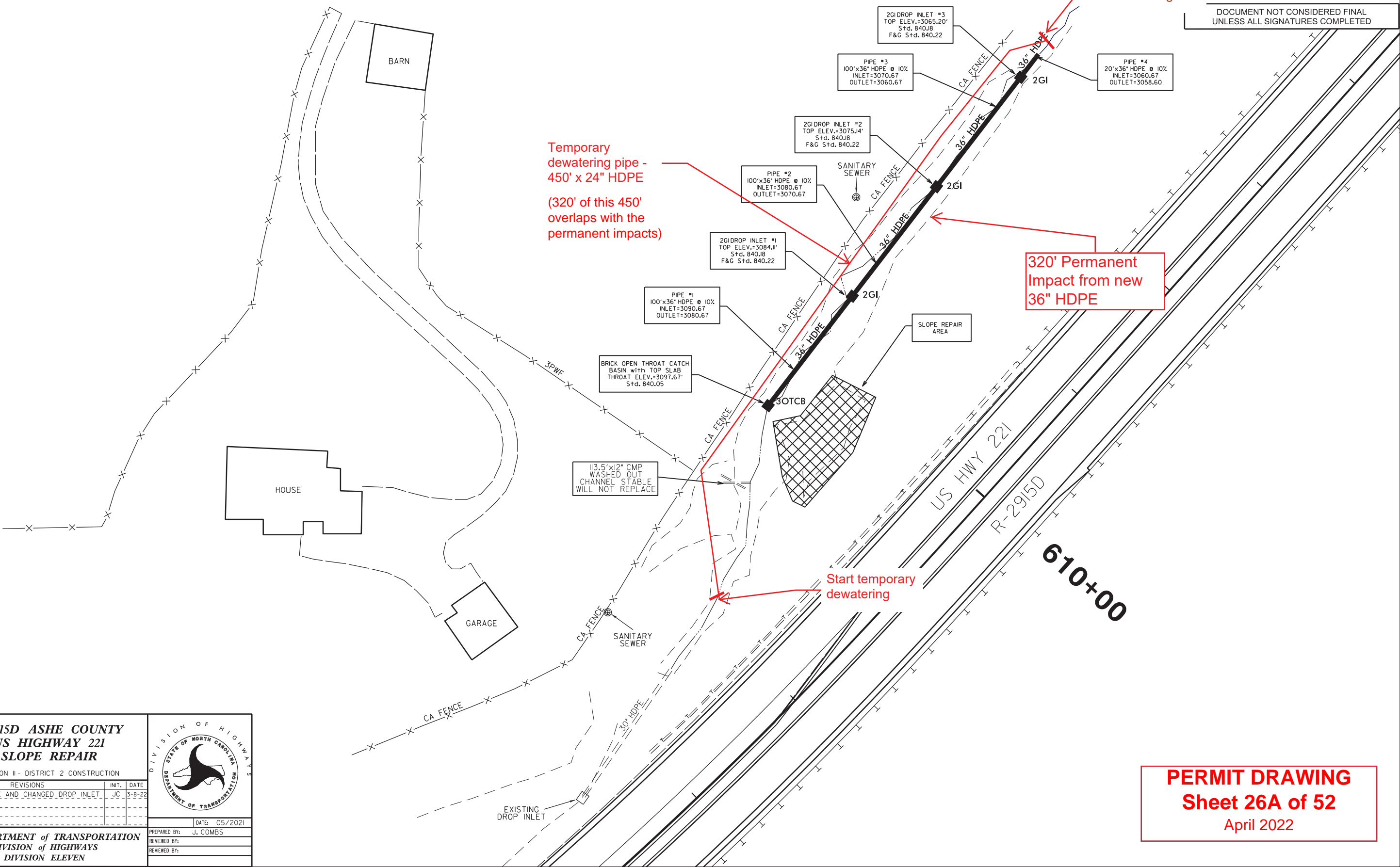
12" pipe (existed prior to R-2915D)

~~WATCH~~ LINE -L- STA. 608+50
SEE SHEET NO. 16

MATCH LINE -L- STA. 621+50
SEE SHEET NO. 18

FOR -L- PROFILE, SEE SHEET 30





**R-2915D ASHE COUNTY
US HIGHWAY 221
SLOPE REPAIR**

DIVISION II - DISTRICT 2 CONSTRUCTION

| REVISIONS | INT. | DATE |
|-------------------------------------|------|--------|
| REMOVED PIPE AND CHANGED DROP INLET | JC | 3-8-22 |

N.C. DEPARTMENT of TRANSPORTATION
DIVISION of HIGHWAYS
DIVISION ELEVEN

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

DATE: 05/2021

PREPARED BY: J. COMBS
REVIEWED BY:
REVIEWED BY:

3036
45BW EXISTING R/W=PROP. LINE 3034



1

1

| | |
|--|--|
| | |
| | |

1

| WETLAND PERMIT IMPACT SUMMARY | | | | | | | | | | | | |
|-------------------------------|---------------------|--------------------------|---------------------------------|-----------------------------|-----------------------------|--------------------------------------|--------------------------------|---------------------------|-----------------------|---|-------------------------------------|----------------------------|
| | | | WETLAND IMPACTS | | | | | SURFACE WATER IMPACTS | | | | |
| Site | Station | Structure | Permanent Fill In Wetlands (ac) | Temp. Fill In Wetlands (ac) | Excavation in Wetlands (ac) | Mechanized Clearing in Wetlands (ac) | Hand Clearing in Wetlands (ac) | Permanent SW impacts (ac) | Temp. SW impacts (ac) | Existing Channel Impacts Permanent (ft) | Existing Channel Impacts Temp. (ft) | Natural Stream Design (ft) |
| No. | (From/To) | Size / Type | | | | | | | | | | |
| 1 | 21+40-23+21-TIE-L-R | ROAD FILL | | | | | | 0.02 | < 0.01 | 312 | 46 | |
| 2 | 25+56 -TIE- R | ROAD FILL | < 0.01 | | | | | | | | | |
| 3A | 474+48-474+65 -L- L | ROAD FILL | | | | | | < 0.01 | | 60 | | |
| 3B | 474+65-475+42 -L- L | ROAD FILL | < 0.01 | | < 0.01 | 0.02 | | < 0.01 | < 0.01 | 56 | 73 | |
| 4 | 477+62-480+95 -L- L | ROAD FILL | 0.10 | | | 0.04 | | | < 0.01 | | 19 | |
| 5 | 482+68-483+36 -L- L | ROAD FILL | | | | | | 0.01 | | 57 | | |
| | | STREAMBANK STABILIZATION | | | | | | < 0.01 | | 19 | | |
| 6 | 504+48 -L- | ROAD FILL | | | | | | 0.05 | | 120 | | |
| | | STREAMBANK STABILIZATION | | | | | | < 0.01 | < 0.01 | 48 | 25 | |
| 7 | 505+57-508+66 -L- L | ROAD FILL | 0.25 | | | 0.05 | | | | | | |
| 8 | 522+90-L- R | STREAMBANK STABILIZATION | | | | | | < 0.01 | | 15 | | |
| 9 | 536+74-538+06 -L- L | ROAD FILL | | | | | | 0.03 | < 0.01 | 126 | 22 | |
| 10 | 540+58-544+48 -L- L | ROAD FILL | | | | | | 0.18 | | 396 | | |
| 11 | 544+82 -L- R | STREAMBANK STABILIZATION | | | | | | < 0.01 | | 11 | | |
| 12 | 564+82 -L- R | ROAD FILL | | | | | | < 0.01 | < 0.01 | 51 | 11 | |
| 13 | 577+76 -L- L | ROAD FILL | < 0.01 | | < 0.01 | | | | | | | |
| 14 | 587+50 -L- | ROAD FILL | 0.03 | | < 0.01 | 0.01 | | < 0.01 | < 0.01 | 162 | 14 | |
| 15 | 588+39-589+14 -L- R | ROAD FILL | < 0.01 | | | 0.02 | | < 0.01 | | 12 | | |
| 16 | 591+57 -L- R | ROAD FILL | | | | < 0.01 | | | | | | |
| 17A | 591+38-594+35 -L- L | ROAD FILL | 0.06 | | | 0.01 | | < 0.01 | < 0.01 | 28 | 23 | |
| 17B | 594+07 -L- R | RIP RAP | | | | | | < 0.01 | | 12 | | |
| 18 | 606+30-610+13 -L- R | ROAD FILL | | | | | | 0.01 | | 491 | | |
| 18A | 610+00 -L- | FILL (36" HDPE) | | | | | | 0.03 | 0.04 | 320 | 130 | |
| 19 | 610+14-613+04 -L- R | ROAD FILL | 0.07 | | | < 0.01 | | < 0.01 | < 0.01 | 100 | 12 | |
| SUBTOTALS*: | | | 0.55 | | < 0.01 | 0.15 | | 0.38 | 0.06 | 2396 | 375 | |

*Rounded totals are sum of actual impacts

- NOTES:
- * SITE 4 - ADDITIONAL 0.04 ACRE ACCOUNTED FOR AS FILL IS ADDED DUE TO TOTAL TAKE OF WETLAND
 - * SITE 18A - Temporary impacts total 450 linear feet, but 320 linear feet overlap with the permanent impacts

Revised April 2022

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
5-6-2014
R-2915D ASHE COUNTY
ON US 221 FROM SOUTH OF NC 194
TO US 221 BYPASS
SHEET 51 OF 52

| WETLAND PERMIT IMPACT SUMMARY | | | | | | | | | | | | |
|-------------------------------|---------------------|--------------------------|---------------------------------|-----------------------------|-----------------------------|--------------------------------------|--------------------------------|---------------------------|-----------------------|---|-------------------------------------|----------------------------|
| | | | WETLAND IMPACTS | | | | | SURFACE WATER IMPACTS | | | | |
| Site | Station | Structure | Permanent Fill In Wetlands (ac) | Temp. Fill In Wetlands (ac) | Excavation in Wetlands (ac) | Mechanized Clearing in Wetlands (ac) | Hand Clearing in Wetlands (ac) | Permanent SW impacts (ac) | Temp. SW impacts (ac) | Existing Channel Impacts Permanent (ft) | Existing Channel Impacts Temp. (ft) | Natural Stream Design (ft) |
| No. | (From/To) | Size / Type | | | | | | | | | | |
| 20A | 618+68-619+57 -L- R | ROAD FILL | | | | | | < 0.01 | < 0.01 | 55 | 18 | |
| 20B | 618+68-619+57 -L- R | ROAD FILL | < 0.01 | | | < 0.01 | | < 0.01 | < 0.01 | 57 | 11 | |
| 21 | 619+82-622+86 -L- R | ROAD FILL | 0.17 | | < 0.01 | | | < 0.01 | < 0.01 | 49 | 17 | |
| 22 | 624+24 -L- R | ROAD FILL | < 0.01 | | | < 0.01 | | < 0.01 | | 61 | | |
| 23A | 628+44-628+98 -L- | ROAD FILL | | | | | | < 0.01 | | 19 | | |
| 23B | 628+44-628+98 -L- | ROAD FILL | | | | | | < 0.01 | < 0.01 | 66 | 15 | |
| 24 | 641+42-642+18-L- R | ROAD FILL | < 0.01 | | | 0.01 | | < 0.01 | < 0.01 | 22 | 10 | |
| 25 | 650+46-652+40-L- R | ROAD FILL | 0.11 | | | 0.05 | | < 0.01 | | 12 | | |
| 26 | 659+63-661+42 -L- | CULVERT | | | | | | 0.03 | 0.01 | 75 | 22 | |
| | | STREAMBANK STABILIZATION | | | | | | < 0.01 | < 0.01 | 33 | 26 | |
| 27 | 651+61-653+98 -L- R | ROAD FILL | 0.04 | | | < 0.01 | | 0.01 | | 134 | | |
| 28 | 652+08-653+11-L- L | ROAD FILL | < 0.01 | | | 0.02 | | | | | | |
| 29 | 653+75-654+35-L- L | CHANNEL | | | | | | 0.01 | | 69 | | |
| 30 | 17+86-2085-Y32- R | ROAD FILL | 0.04 | | | 0.06 | | | | | | |
| 31 | 667+52-670+07-L- R | ROAD FILL | 0.06 | | | < 0.01 | | | | | | |
| 32 | 676+39-676+92-L- R | ROAD FILL | 0.02 | | | < 0.01 | | < 0.01 | < 0.01 | 25 | 19 | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| SUBTOTALS*: | | | 0.46 | | < 0.01 | 0.15 | | 0.08 | 0.03 | 677 | 138 | |
| SUBTOTALS FROM PAGE 1*: | | | 0.55 | | < 0.01 | 0.15 | | 0.38 | 0.06 | 2396 | 375 | |
| TOTALS*: | | | 1.01 | | < 0.01 | 0.30 | | 0.46 | 0.09 | 3073 | 513 | |

*Rounded totals are sum of actual impacts

NOTES:
* SITE 21 TOTAL TAKE OF WETLAND = 0.18 Acre

Revised April 2022

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
5-6-2014
R-2915D ASHE COUNTY
ON US 221 FROM SOUTH OF NC 194
TO US 221 BYPASS
SHEET 52 OF 52