

Channel Mitigation Monitoring Sheets I, II, III, AND IV  
Monitoring Data Record

Project Title: U-2579B COE Action ID: SAW-2008-03183  
Stream Name: Permit Sites 3A and 3B DWR Number: 2014-0090v2  
City, County and other Location Information: Temporary impact Sites 3A and 3B are located at the intersection of the Winston-Salem Northern Beltway and US 158 (Reidsville Road)  
Date Construction Completed: Streambank reforestation completed in March 2019  
Monitoring Year: ( 2 ) of 2  
Ecoregion: Southern Outer Piedmont 8-digit HUC unit 03040101  
USGS Quad Name and Coordinates: Walkertown 36.148420°, -80.153487°  
**Rosgen Classification: E4 and E4b**  
Length of Project: Site 3A: 424 linear ft. and Site 3B: 194 linear ft.  
Urban or Rural: Urban Watershed Size: 0.26 sq. miles  
Monitoring DATA collected by: M. Green and M. Ingram Date: 8-25-20  
Applicant Information:  
Name: NCDOT Roadside Environmental Unit  
Address: 1425 Rock Quarry Road Raleigh, NC 27610  
Telephone Number: (919) 615-6733 Email address: [mlgreen@ncdot.gov](mailto:mlgreen@ncdot.gov)  
Consultant Information:  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_ Email address: \_\_\_\_\_  
**Project Status: Complete**

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**Monitoring Level required by COE and DWR (404 permit/ 401 Cert.): Level II**  
**Restoration Plan States:**

NCDOT will visually monitor using Level II monitoring (i.e. vegetation success and stability). We will initiate twice yearly visual monitoring for stability and percent vegetative cover for one year after the water is released into the newly restored channels.

Section 1. PHOTO REFERENCE SITES

*(Monitoring at all levels must complete this section)*

**Total number of reference photo locations at this site: A total of 10 photos were taken from 5 photo point locations and 1 additional overview photo of the site.**

**Dates reference photos have been taken at this site: 8-29-19, 8-25-20**

**Individual from whom additional photos can be obtained (name, address, phone): \_\_\_\_\_**

Other Information relative to site photo reference: A site map is included with this report showing the photo point locations.

**Section 2. PLANT SURVIVAL**

**Attach plan sheet indicating reference photos.**

Identify specific problem areas (missing, stressed, damaged or dead plantings):

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Estimated causes, and proposed/required remedial action: \_\_\_\_\_

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ADDITIONAL COMMENTS: \_\_\_\_\_

March 2019: Streambank reforestation was completed

August 2019: Year 1 Monitoring noted Black Willow and Silky Dogwood live stakes were surviving along the streambank and Green Ash, Sycamore, Willow Oak, Water Oak and River Birch trees were surviving within the planted buffer.

**August 2020: Year 2 Monitoring noted Black Willow and Silky Dogwood live stakes were surviving along the streambank and Green Ash, Sycamore, Willow Oak, Water Oak and River Birch trees were surviving within the planted buffer. Other vegetation noted included lespedeza, jewelweed, cattails, soft rush, red maple, goldenrod, fennel, briars, elderberry, woolgrass, tulip poplar, and various grasses.**

**NCDOT proposes to discontinue monitoring the planted vegetation.**

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

**Section 3. CHANNEL STABILITY**

**Visual Inspection:** The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

Sites 3A and 3B temporary impact streams are stable for the Year 2 evaluation. No instability was noted along the streams. A wrack line was visible within the floodplain indicating a bankfull event had occurred. NCDOT proposes to discontinue monitoring channel stability at the Sites 3A and 3B temporary impact streams.

Date Inspected	Station Number	Station Number	Station Number	Station Number	Station Number
Structure Type					
Is water piping through or around structure?					
Head cut or down cut present?					
Bank or scour erosion present?					
Other problems noted?					
Bankfull event	8-25-20				

**Section 4. DEBIT LEDGER**

The restoration of Sites 3A and 3B was used entirely to compensate for temporary impacts on the U-2579B project. There were no stream mitigation credits generated from the restoration of the impacted area.

# Sites 3A and 3B



PP #1 Upstream



PP#1 Downstream



PP #2 Upstream



PP #2 Downstream



PP #3 Upstream



PP #3 Downstream

August 2020

# Sites 3A and 3B



PP #4 Upstream



PP#4 Downstream



PP #5 Upstream



PP#5 Downstream

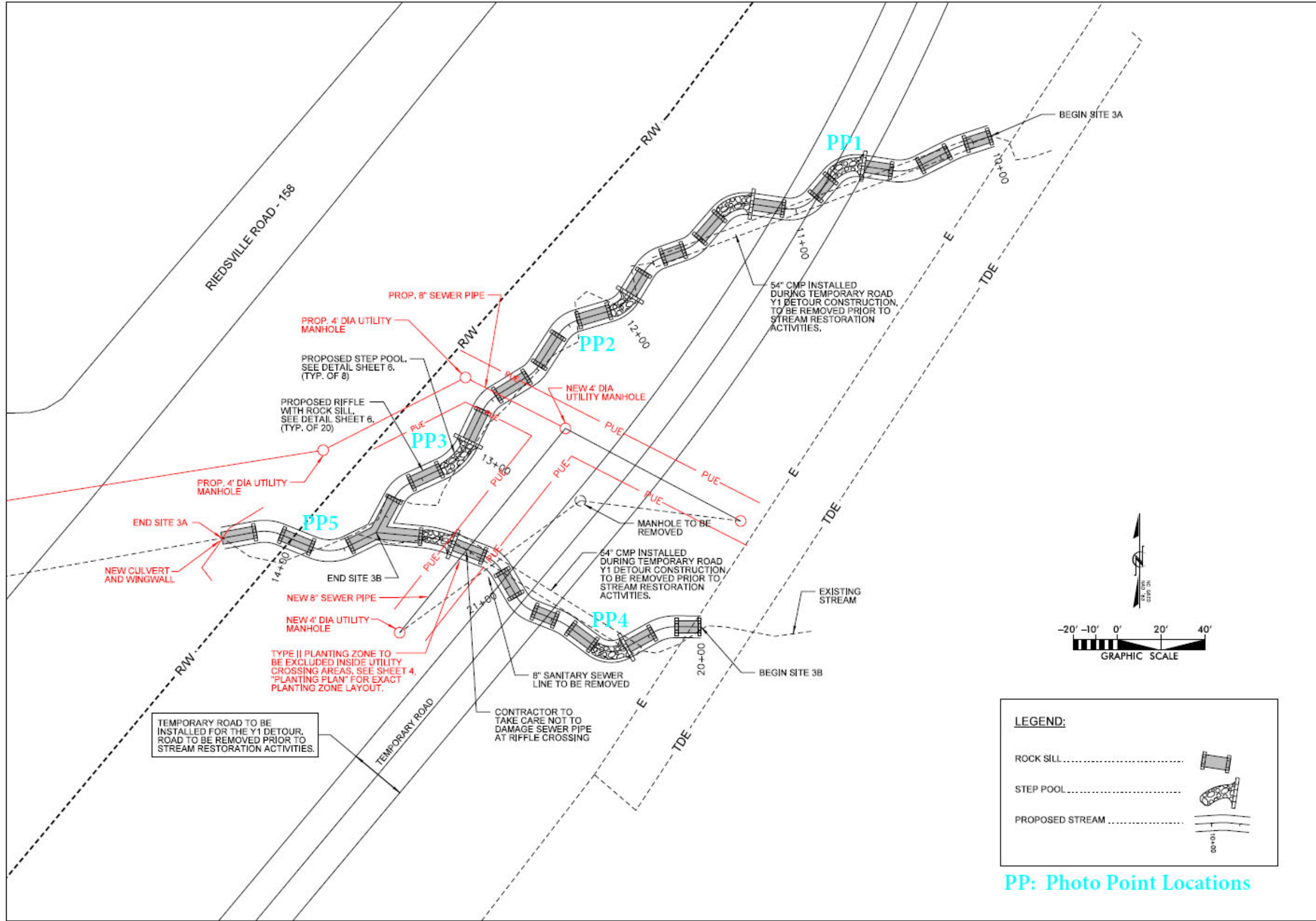


Bankfull event - Wrack line evidence





Overview taken from US 158


August 2020



**LEGEND:**

ROCK SILL ..... 

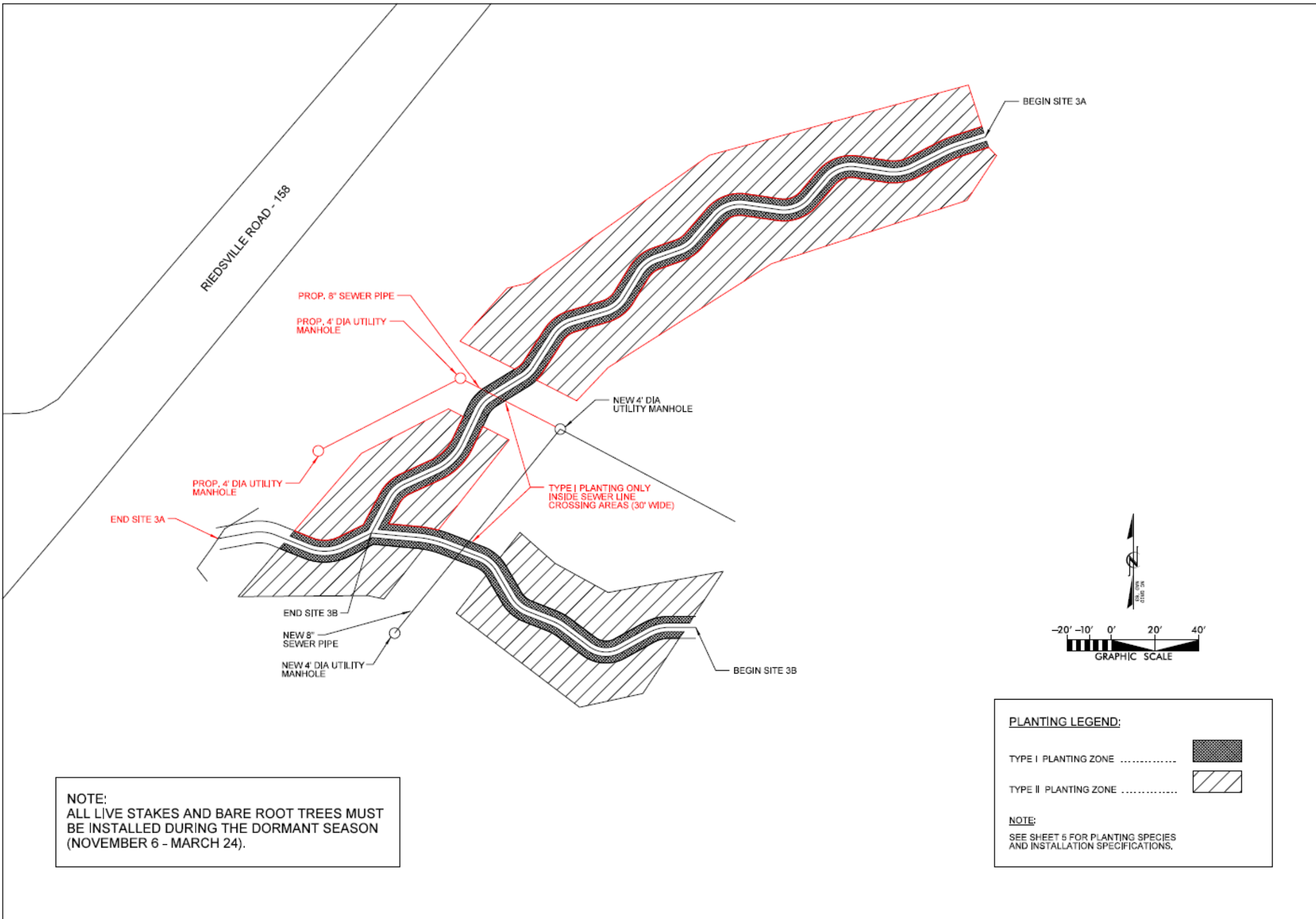
STEP POOL ..... 

PROPOSED STREAM ..... 

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**PP: Photo Point Locations**

REVISED TO SHOW NEW SEWER LINE AND CULVERT LOCATIONS	FEB 2019	
<b>DRAGADOS USA</b>	 <small>ENGINEERS - PLANNERS - SCIENTISTS 4601 SIX FORKS ROAD, SUITE 200 RALEIGH, NORTH CAROLINA 27609</small>	
WINSTON-SALEM NORTHERN BELTWAY (NC DOT PROJECT # U-2579B) STREAM RESTORATION SITE #3 FORSYTH COUNTY, NORTH CAROLINA		DATE: MAY 2015 DRAWING: GRAPHIC
SITE PLAN		SHEET 2 OF 2



**DRAGADOS USA**

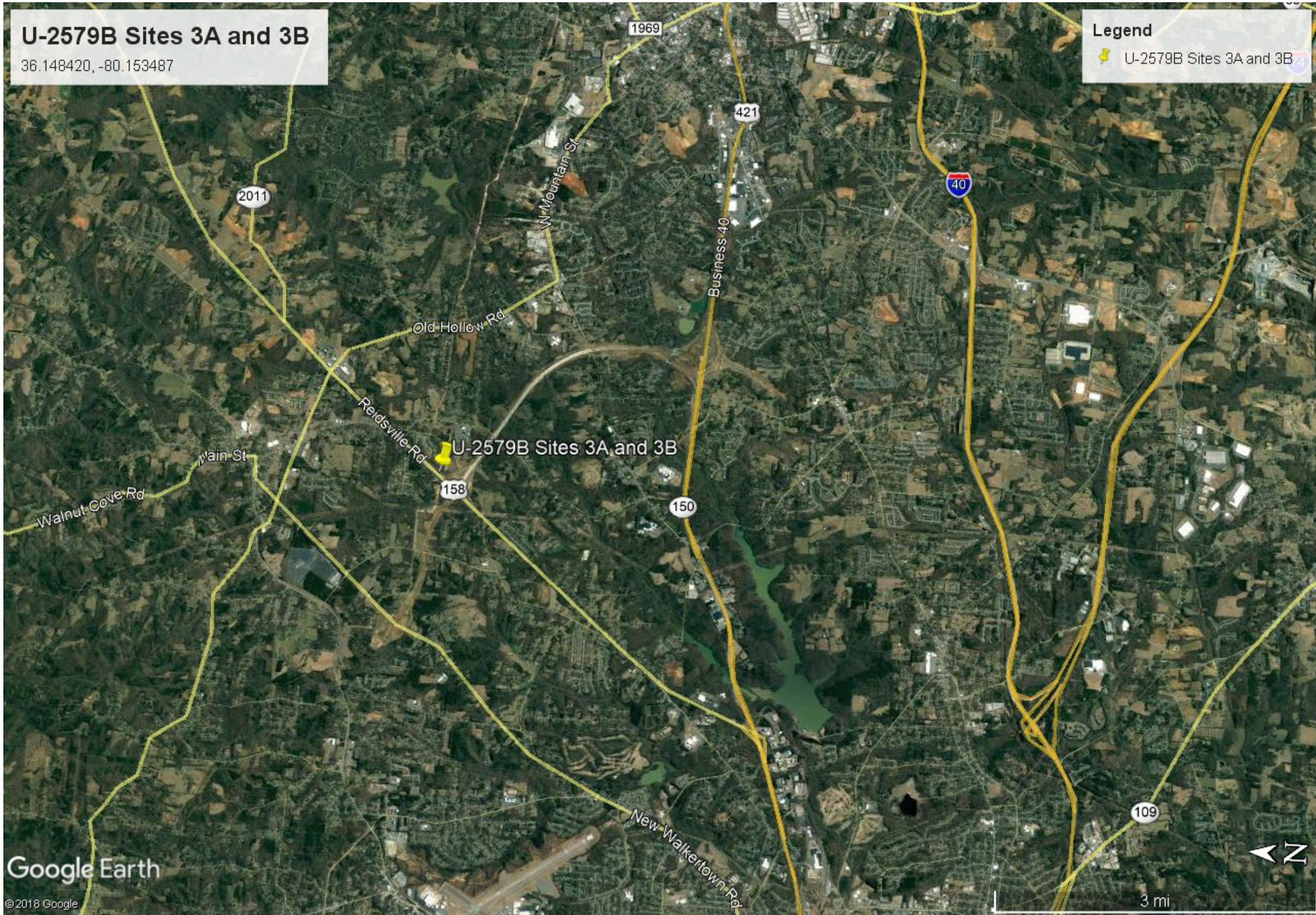
**KCI**  
ASSOCIATES, INC.  
ENGINEERS • PLANNERS • SCIENTISTS  
4601 SIX FORKS ROAD, SUITE 220  
RALEIGH, NORTH CAROLINA 27609

WINSTON-SALEM NORTHERN BELTWAY  
(NC DOT PROJECT # U-2579B)  
STREAM RESTORATION SITE #3  
FORSYTH COUNTY, NORTH CAROLINA

DATE: MAY 2015  
SCALE: GRAPHIC

**PLANTING PLAN**

SHEET 4 OF 6



**U-2579B Sites 3A and 3B**  
36.148420, -80.153487

**Legend**  
U-2579B Sites 3A and 3B

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