Monitoring Data Record

Project Title: U-4026B (Davis Drive) COE Action ID: 200120448
Stream Name: Tributary to Burdens Creek (Site 9) DWQ Number: 051972
City, County and other Location Information: Durham Co., Davis Drive (Sta. 284+50-L-RT.)
Date Construction Completed: 12/5/07 Monitoring Year: (5) of 5
Ecoregion: 8 digit HUC unit 03030002
USGS Quad Name and Coordinates:
Rosgen Classification:
Length of Project: 261' Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: M. Green and J. Young Date: 6/21/12
Applicant Information:
Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Rd, Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@ncdot.gov
Consultant Information:
Name:
Address:
Telephone Number: Email address:
Project Status:

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level **1**

Permit States: The permittee shall perform the following components of Level I monitoring each year for the 5-year monitoring period: Reference photos; plant survival (i.e. identify specific problem areas (missing, stressed, damaged or dead plantings), estimated causes, and proposed/required remedial action); visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. The permittee shall submit the monitoring reports to the USACE, Raleigh Regulatory Field Office Project Manager, within sixty days after completing the monitoring. If less than two bankfull events occur during the first 5 years, the permittee shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the five-year monitoring period, the USACE, in consultation with the resource agencies, may determine that further monitoring is not required. It is suggested that all bankfull occurrences be monitored and reported through the required monitoring period. The permittee shall perform and submit photo documentation twice each year (summer and winter) for the 5-year monitoring period, and for any subsequently required monitoring period.

Section 1. PHOTO REFERENCE SITES

(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: 6 photos were taken from 3 photo point locations looking up and down stream and 1 overview photo

Dates reference photos have been taken at this site: 2/19/08, 6/11/08, 1/28/09, 7/6/09, 1/15/10, 7/28/10, 1/13/11, 7/7/11, 1/18/12, 6/21/12

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.

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

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

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

Estimated causes, and proposed/required remedial action:

ADDITIONAL COMMENTS: Planted vegetation noted along the streambank consisted of black willow and silky dogwood live stakes. Tulip poplar, sycamore, willow oak, green ash, and river birch bareroot seedlings were noted in the floodplain. Other vegetation noted consisted of lespedeza, briars, wax myrtle, black eyed susan, fennel, *Juncus* sp., pine, mimosa, sweetgum, baccharis, milkweed and various grasses. The streambank and buffer are highly vegetated for the 5th year of monitoring. NCDOT proposes to discontinue plant survival monitoring at this stream relocation.

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.

The Tributary to Burdens Creek is stable for Year 5 Summer evaluation. A rock sill at Sta. 285+60-L- RT. (just downstream of photo point #3) had water piping under the structure but there was very little flow in the channel at the time of the monitoring evaluation. A total of four bankfull events were visually documented over the 5 year monitoring period. NCDOT proposes to discontinue the channel stability monitoring at this stream relocation.

Date Inspected 6/21/12	Station 285+60 –L- RT. (additional photo)	Station Number	Station Number	Station Number	Station Number
Structure Type	Rock sill				
Is water piping through or around structure?	Water piping under rock sill				
Head cut or down cut present?					
Bank or scour erosion present?					
Other problems noted?					

Section 4. DEBIT LEDGER

The entire Tributary to Burdens Creek stream mitigation site was used for the U-4026B project to compensate for unavoidable stream impacts.

Tributary to Burdens Creek

Photo Point #1 (Upstream)

Photo Point #1 (Downstream)

Photo Point #2 (Upstream)

Photo Point #2 (Downstream)

Photo Point #3 (Upstream)

Photo Point #3 (Downstream)

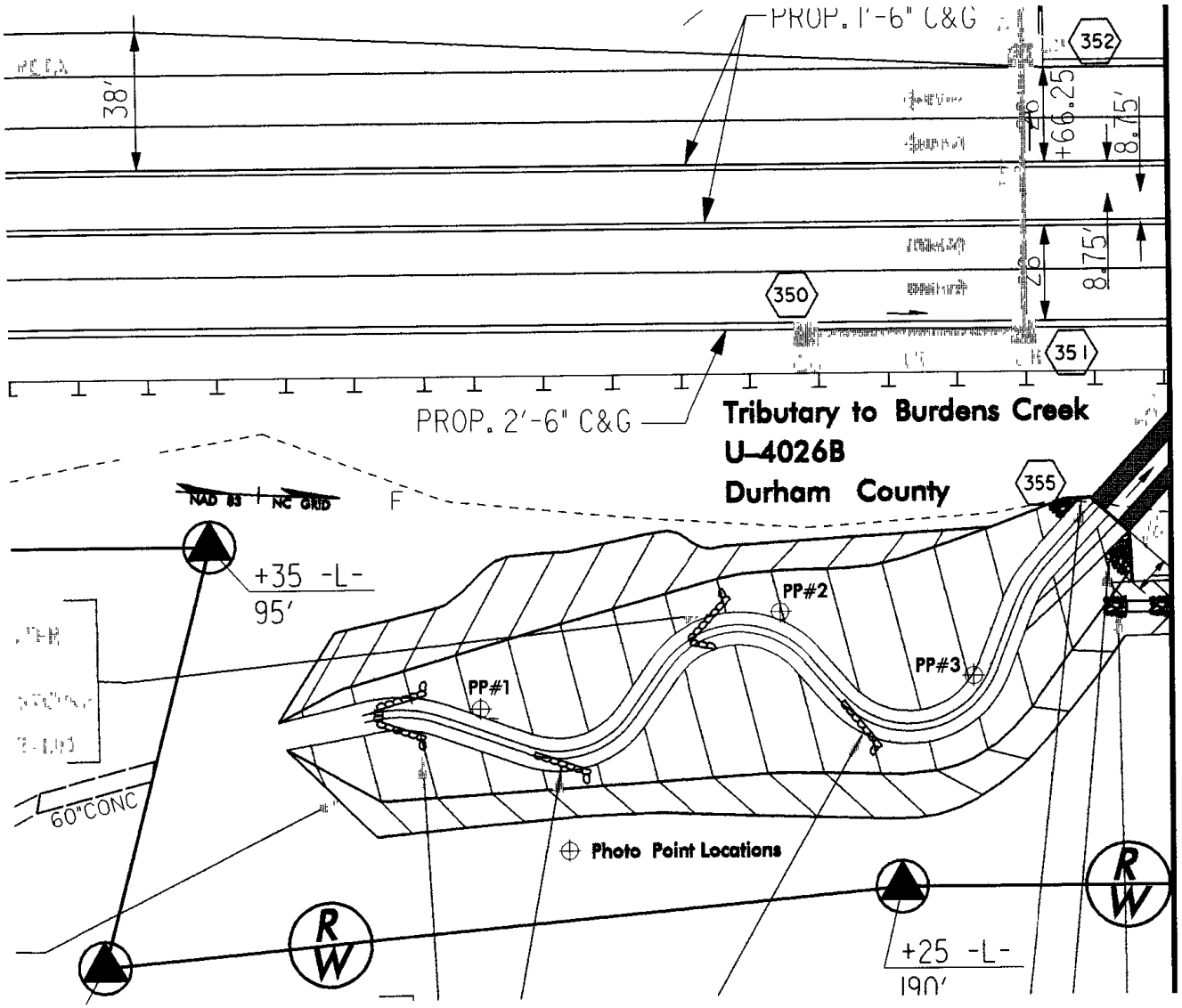
Year 5 Summer – June 2012

Tributary to Burdens Creek

Rock Sill @ Sta. 285+60-L- RT. (downstream of PP#3)

Overview photo of site

Year 5 Summer – June 2012



MATCHLINE- STA. 286+00.00