



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

October 13, 2003

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

ATTENTION: Mr. Steve Lund
NCDOT Coordinator

SUBJECT: **Nationwide Permit Application 14** and section 401 Water Quality Certification Application for the proposed widening of NC 146 (Long Shoals Road) from East of I-26 to US 25 (Hendersonville Road) crossing Lake Julian and associated wetlands south of Asheville in Buncombe County; NCDOT Division 13. Federal Project No. STP-146(1), State Project No. 8.1843601; TIP No. R-2813C. \$475.00 Debit work order 8.1843601, WBS Element 34505.1.1

Dear Sir:

The NCDOT proposes to widen NC 146 from East of I-26 to US 25 (Hendersonville Road). The proposed project will consist of widening the existing two lane facility to a five lane 68-foot face to face curb and gutter facility. The total length is approximately 1.8 miles and will require approximately 100 feet of right of way.

Summary of Impacts:

Wetland impacts associated with this project total 0.197 acres of two wetland areas as depicted on Sheet 4 and 5. There is also 0.794 acres of impact to ponds (Lake Julian) as shown on Sheet 4. There are no stream impacts associated with this project.

Summary of Mitigation:

EEP will be providing wetland mitigation for this project.

NEPA DOCUMENT STATUS

An Environmental Assessment (EA) was submitted by the NCDOT in compliance with the National Environmental Policy Act. The EA was approved on November 26, 1997. A Finding of No Significant Impact (FONSI) was approved on August 18, 1999. The EA explains the purpose and need for the project; provides a complete description of the alternatives, considered; and characterizes the social, economic, and environmental effects. After the EA was approved it was circulated to the federal and local agencies. Copies of the EA and FONSI have been provided to regulatory review agencies involved in the approval process. Additional copies will be provided upon request.

R-2813 C is in compliance with 23 CFR Part 771.111(f) which lists the FHWA characteristics of independent utility of a project:

1. The project connects logical termini and is of sufficient length to address environmental matters on a broad scope;
2. The project is usable and is a reasonable expenditure, even if no additional transportation improvements are made in the area;
3. The project does not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

RESOURCE STATUS

Wetland delineations: Potential wetland communities were investigated pursuant to the 1987 Corps of Engineers Wetland Delineation Manual. All wetlands were verified by Steve Lund of the U.S. Army Corps of Engineers on June 16, 2003. Impacts are reported in Table 1. There are two jurisdictional wetlands located on the project and one jurisdictional surface water.

There are two crossings of Lake Julian on this project which are in a water supply watershed protected area classified as WS-IV and are in the French Broad River basin (06010105). At the first crossing the structure is submerged and as yet not located. The second site has a 7x10' RCBC and is being extended 60.9' upstream. The extension will be placed in a pond and will have both surface water and wetland impacts. The third site is a wetland with no associated stream.

Buncombe County is currently a participant in the National Flood Insurance Regular Program. The crossing of Lake Julian is in a designated flood hazard zone. The crossing at Lake Julian is not included in a detailed flood study. The remaining stream crossings are not in designated flood hazard zones.

This project is in a region of the state where trout waters are prevalent; however, none of the streams crossed by this project are designated trout waters by NC Wildlife Resources Commission.

There are no wild or scenic rivers within the project area.

Table 1. Jurisdictional Impacts for TIP Project R-2813C. Buncombe County.

Site	Station No. (from/to)	Wetland Impacts (acres)	Pond Impacts (acres)	DWQ Index	Type of Community
1	27+80	0	0.334	Class C	Pond
2	29+40	0.17	0.46	N/A	Palustrine emergent
3	32+85	0.027	0	N/A	Palustrine emergent
	Total	0.197	0.749		

THREATENED AND ENDANGERED SPECIES

Plants and animals with federal classifications of Endangered, Threatened, Proposed Endangered, and Proposed Threatened are protected under provisions of Section 7 and Section 9 of the Endangered Species Act of 1973, as amended. As of January 29, 2003, the United States Fish and Wildlife Service lists twelve federally protected species for Buncombe County (Table 2). Species characteristics, distribution and habitat details along with survey and biological conclusion information were reported in the previously referenced EA.

Table 2. Federally Protected Species for Buncombe County

Common Name	Scientific Name	Status	Biological Conclusion
Vertebrates			
Bog turtle	<i>Clemmys muhlenbergii</i>	T(S/A) ¹	1
Carolina northern flying squirrel	<i>Glaucomys sabrinus coloratus</i>	Endangered	No Effect
Eastern cougar	<i>Puma concolor cougar</i>	Endangered	No Effect
Gray bat	<i>Myotis grisescens</i>	Endangered***	No Effect
Spotfin chub	<i>Hybopsis monacha</i>	Threatened*	No Effect
Invertebrates			
Appalachian elktoe	<i>Alasmidonta raveneliana</i>	Endangered	No Effect
Oyster mussel	<i>Epioblasma capsaeformis</i>	Endangered	No Effect
Vascular Plants			
Bunched arrowhead	<i>Sagittaria fasciculata</i>	Endangered*	No Effect
Mountain sweet pitcher plant	<i>Sarracenia jonesii</i>	Endangered*	No Effect
Spreading avens	<i>Geum radiatum</i>	Endangered	No Effect
Virginia spiraea	<i>Spiraea virginiana</i>	Threatened	No Effect
Nonvascular Plants			
Rock Gnome Lichen	<i>Gymnoderma lineare</i>	Endangered	No Effect

KEY:

- | | |
|---------------------|---|
| Status | Definition |
| Endangered - | A taxon "in danger of extinction throughout all or a significant portion of its range." |
| Threatened - | A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range." |
| T(S/A) - | Threatened due to similarity of appearance (e.g., American alligator)--a species that is |

threatened due to similarity of appearance with other rare species and is listed for its protection. These species are not biologically endangered or threatened and are not subject to Section 7 consultation.

*Historic record - the species was last observed in the county more than 50 years ago.

***Incidental/migrant record - the species was observed outside of its normal range or habitat.

¹In the November 4, 1997, Federal Register (55822-55825), the northern population of the bog turtle (from New York south to Maryland) was listed as T (threatened), and the southern population (from Virginia south to Georgia) was listed as T(S/A) (threatened due to similarity of appearance). The T(S/A) designation bans the collection and interstate and international commercial trade of bog turtles from the southern population. The T(S/A) designation has no effect on land-management activities by private landowners in North Carolina, part of the southern population of the species.

CULTURAL RESOURCES

Archaeology & Historical Structures: Archaeological resource survey work was conducted to determine if significant archaeological resources might be disturbed. In a letter dated December 5, 1996, five recorded archaeological sites were studied and were all determined to be not eligible for the National Register by NCDOT archaeologists with concurrence from the SHPO. This document is found in Appendix B in the EA. In a letter dated September 20, 1995, also found in the Appendix B section of the EA, no historical structures were located. SHPO commented that we concur with the findings and recommend no further archaeological investigations associated with this project unless additional alternative routes are proposed."

MITIGATION OPTIONS

The Corps of Engineers has adopted, through the Council on Environmental Quality (CEQ), a wetland mitigation policy that embraces the concept of "no net loss of wetlands" and sequencing. The purpose of this policy is to restore and maintain the chemical, biological, and physical integrity of the Waters of the United States. Mitigation of wetland and surface water impacts has been defined by the CEQ to include: avoiding impacts, minimizing impacts, rectifying impacts, reducing impacts over time and compensating for impacts (40 CFR 1508.20). Executive Order 11990 (Protection of Wetlands) and Department of Transportation Order 5660.1A (Preservation of the Nations Wetlands), emphasize protection of the functions and values provided by wetlands. These directives require that new construction in wetlands be avoided as much as possible and that all-practicable measures are taken to minimize or mitigate impacts to wetlands.

AVOIDANCE

Widening of existing Y lines were kept to a minimum to avoid increased impacts.

No staging of construction equipment or storage of construction supplies will be allowed in wetlands.

MINIMIZATION: The construction of this project has minimized the extent of the built-upon area by using the existing alignment for the widening. We have

also diverted stormwater away from surface water supplies as much as possible, and employ best management practices (BMP's) to minimize water quality impacts. No portion of the project is located in the critical area of the watershed. In compliance with 15A NCAC 02B.0104(m) we have incorporated the use of BMP's in the design of the project. The attached Stormwater Management Plan describes in detail the measures taken to minimize impacts on the WS-IV watershed and to demonstrate compliance with the referenced regulations.

COMPENSATION: The primary emphasis of the compensatory mitigation is to reestablish a condition that would have existed if the project were not built. As previously stated, mitigation is limited to reasonable expenditures and practicable considerations related to highway operation. Mitigation is generally accomplished through a combination of methods designed to replace wetland functions and values lost as a result of construction of the project. These methods consist of creation of new wetlands from uplands, borrow pits, and other non-wetland areas; restoration of wetlands; and enhancement of existing wetlands. Where such options may not be available, or when existing wetlands and wetland-surface water complexes are considered to be important resources worthy of preservation, consideration is given to preservation as at least one component of a compensatory mitigation proposal.

FHWA Step Down Compliance

All compensatory mitigation must be in compliance with 23 CFR Part 777.9, "Mitigation of Impacts" that describes the actions that should be followed to qualify for Federal-aid highway funding. This process is known as the FHWA "Step Down" procedures:

1. Consideration must be given to mitigation within the right-of-way and should include the enhancement of existing wetlands and the creation of new wetlands in the highway median, borrow pit areas, interchange areas and along the roadside.
2. Where mitigation within the right-of-way does not fully offset wetland losses, compensatory mitigation may be conducted outside the right-of-way including enhancement, creation, and preservation.

Based upon the agreements stipulated in the "Memorandum of Agreement Among the North Carolina Department of Environment and Natural Resources, the North Carolina Department of Transportation, and the U.S. Army Corps of Engineers, Wilmington District" (MOA), it is understood that the North Carolina Department of Environment and Natural Resources Ecosystem Enhancement Program (EEP), will assume responsibility for satisfying the federal Clean Water Act compensatory mitigation requirements for NCDOT projects that are listed in Exhibit 1 of the subject MOA during the EEP transition period which ends on June 30, 2005.

Since the subject project is listed in Exhibit 1, the necessary compensatory mitigation to offset unavoidable impacts to waters that are jurisdictional under the federal Clean Water Act will be provided by the EEP. The offsetting mitigation will derive from an inventory

of assets already in existence within the same 8-digit cataloging unit. The Department has avoided and minimized impacts to jurisdictional resources to the greatest extent possible as described above. The remaining, unavoidable impacts to 0.197 acres of jurisdictional wetlands will be offset by compensatory mitigation provided by the EEP program.

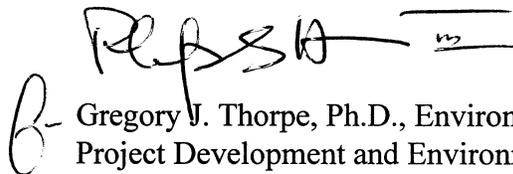
REGULATORY APPROVALS

Attached for your information is a copy of the Preconstruction Notification (PCN), roadway design plans, and permit drawings for the subject project. Application is hereby made for Department of the Army Section 404 Nationwide permit 14 for the above-described activities. In compliance with Section 143-215.3D(e) of the NCAC we will provide \$475.00 to act as payment for processing the Section 401 permit application previously noted in this application (see Subject line). We are providing seven copies of this application to the North Carolina Department of Environment and Natural Resources, Division of Water Quality, for their review.

We also anticipate that comments from the North Carolina Wildlife Resources Commission (NCWRC) will be required prior to authorization by the Corps of Engineers. By copy of this letter and attachment, NCDOT hereby requests NCWRC review. NCDOT requests that NCWRC forward their comments to the Corps of Engineers.

Thank you for your assistance with this project. If you have any questions or need additional information, please contact Mr. Michael Turchy at maturchy@dot.state.nc.us or (919) 715-1468.

Sincerely,



Gregory J. Thorpe, Ph.D., Environmental Management Director
Project Development and Environmental Analysis Branch

Cc:

Mr. John Dorney, Division of Water Quality (7 copies)
Ms. Marella Buncick, USFWS
Ms. Marla Chambers, NCWRC
Mr. Harold Draper, TVA
Mr. Jay Bennett, P.E., Roadway Design
Mr. Omar Sultan, Programming and TIP
Ms. Debbie Barbour, P.E., Highway Design
Mr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. John Sullivan, FHWA
Mr. F. D. Martin, Division Engineer
Mr. Roger Bryan, DEO
Mr. David Franklin, USACE, Wilmington (Cover Letter only)

Office Use Only:

Form Version May 2002

USACE Action ID No. _____ **DWQ No.** _____

(If any particular item is not applicable to this project, please enter "Not Applicable" or "N/A".)

I. Processing

1. Check all of the approval(s) requested for this project:

- Section 404 Permit Riparian or Watershed Buffer Rules
- Section 10 Permit Isolated Wetland Permit from DWQ
- 401 Water Quality Certification

2. Nationwide, Regional or General Permit Number(s) Requested: NWP 14

3. If this notification is solely a courtesy copy because written approval for the 401 Certification is not required, check here:

4. If payment into the North Carolina Wetlands Restoration Program (NCWRP) is proposed for mitigation of impacts (verify availability with NCWRP prior to submittal of PCN), complete section VIII and check here:

5. If your project is located in any of North Carolina's twenty coastal counties (listed on page 4), and the project is within a North Carolina Division of Coastal Management Area of Environmental Concern (see the top of page 2 for further details), check here:

II. Applicant Information

1. Owner/Applicant Information

Name: Gregory J. Thorpe, Ph.D., Environmental Management Director
 Mailing Address: 1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Telephone Number: (919) 733-3141 Fax Number: (919) 733-9794

E-mail Address: maturchy@dot.state.nc.us

2. Agent/Consultant Information (A signed and dated copy of the Agent Authorization letter must be attached if the Agent has signatory authority for the owner/applicant.)

Name: _____

Company Affiliation: _____

Mailing Address: _____

Telephone Number: _____ Fax Number: _____

E-mail Address: _____

III. Project Information

Attach a **vicinity map** clearly showing the location of the property with respect to local landmarks such as towns, rivers, and roads. Also provide a detailed **site plan** showing property boundaries and development plans in relation to surrounding properties. Both the vicinity map and site plan must include a scale and north arrow. The specific footprints of all buildings, impervious surfaces, or other facilities must be included. If possible, the maps and plans should include the appropriate USGS Topographic Quad Map and NRCS Soil Survey with the property boundaries outlined. Plan drawings, or other maps may be included at the applicant's discretion, so long as the property is clearly defined. For administrative and distribution purposes, the USACE requires information to be submitted on sheets no larger than 11 by 17-inch format; however, DWQ may accept paperwork of any size. DWQ prefers full-size construction drawings rather than a sequential sheet version of the full-size plans. If full-size plans are reduced to a small scale such that the final version is illegible, the applicant will be informed that the project has been placed on hold until decipherable maps are provided.

1. Name of project: Widening of NC 146 from E. of I-26 to US 25 (Hendersonville Road)
2. T.I.P. Project Number or State Project Number (NCDOT Only): R-2813C
3. Property Identification Number (Tax PIN): _____
4. Location
County: Buncombe Nearest Town: Asheville
Subdivision name (include phase/lot number): _____
Directions to site (include road numbers, landmarks, etc.): See attached map

5. Site coordinates, if available (UTM or Lat/Long): 35°28'54"N, 82°32'28"W
(Note – If project is linear, such as a road or utility line, attach a sheet that separately lists the coordinates for each crossing of a distinct waterbody.)
6. Property size (acres): _____
7. Nearest body of water (stream/river/sound/ocean/lake): Lake Julian
8. River Basin: French Broad
(Note – this must be one of North Carolina's seventeen designated major river basins. The River Basin map is available at <http://h2o.enr.state.nc.us/admin/maps/>.)
9. Describe the existing conditions on the site and general land use in the vicinity of the project at the time of this application: Residential, Maintained communities

10. Describe the overall project in detail, including the type of equipment to be used: Large earth moving equipment including bulldozers, motor graders, pavers, etc.

11. Explain the purpose of the proposed work: Public Transportation

IV. Prior Project History

If jurisdictional determinations and/or permits have been requested and/or obtained for this project (including all prior phases of the same subdivision) in the past, please explain. Include the USACE Action ID Number, DWQ Project Number, application date, and date permits and certifications were issued or withdrawn. Provide photocopies of previously issued permits, certifications or other useful information. Describe previously approved wetland, stream and buffer impacts, along with associated mitigation (where applicable). If this is a NCDOT project, list and describe permits issued for prior segments of the same T.I.P. project, along with construction schedules.

No Previous History

V. Future Project Plans

Are any future permit requests anticipated for this project? If so, describe the anticipated work, and provide justification for the exclusion of this work from the current application.

None

VI. Proposed Impacts to Waters of the United States/Waters of the State

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to wetlands, open water, and stream channels associated with the project. The applicant must also provide justification for these impacts in Section VII below. All proposed impacts, permanent and temporary, must be listed herein, and must be clearly identifiable on an accompanying site plan. All wetlands and waters, and all streams (intermittent and perennial) must be shown on a delineation map, whether or not impacts are proposed to these systems. Wetland and stream evaluation and delineation forms should be included as appropriate. Photographs may be included at the applicant's discretion. If this proposed impact is strictly for wetland or stream mitigation, list and describe the impact in Section VIII below. If additional space is needed for listing or description, please attach a separate sheet.

1. Provide a written description of the proposed impacts: Excavation to create culvert extensions.

2. Individually list wetland impacts below:

Wetland Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Located within 100-year Floodplain** (yes/no)	Distance to Nearest Stream (linear feet)	Type of Wetland***
29+40	7x10 ft RCBC Extension	0.17	No	Lake Julian	wetland adjacent to lake
32+85	Clearing Method II	0.027	No	Lake Julian	seep

- * List each impact separately and identify temporary impacts. Impacts include, but are not limited to: mechanized clearing, grading, fill, excavation, flooding, ditching/drainage, etc. For dams, separately list impacts due to both structure and flooding.
- ** 100-Year floodplains are identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM), or FEMA-approved local floodplain maps. Maps are available through the FEMA Map Service Center at 1-800-358-9616, or online at <http://www.fema.gov>.
- *** List a wetland type that best describes wetland to be impacted (e.g., freshwater/saltwater marsh, forested wetland, beaver pond, Carolina Bay, bog, etc.) Indicate if wetland is isolated (determination of isolation to be made by USACE only).

List the total acreage (estimated) of all existing wetlands on the property: N/A
 Total area of wetland impact proposed: 0.197

3. Individually list all intermittent and perennial stream impacts below:

Stream Impact Site Number (indicate on map)	Type of Impact*	Length of Impact (linear feet)	Stream Name**	Average Width of Stream Before Impact	Perennial or Intermittent? (please specify)
N/A					

- * List each impact separately and identify temporary impacts. Impacts include, but are not limited to: culverts and associated rip-rap, dams (separately list impacts due to both structure and flooding), relocation (include linear feet before and after, and net loss/gain), stabilization activities (cement wall, rip-rap, crib wall, gabions, etc.), excavation, ditching/straightening, etc. If stream relocation is proposed, plans and profiles showing the linear footprint for both the original and relocated streams must be included.
- ** Stream names can be found on USGS topographic maps. If a stream has no name, list as UT (unnamed tributary) to the nearest downstream named stream into which it flows. USGS maps are available through the USGS at 1-800-358-9616, or online at www.usgs.gov. Several internet sites also allow direct download and printing of USGS maps (e.g., www.topozone.com, www.mapquest.com, etc.).

Cumulative impacts (linear distance in feet) to all streams on site: 0

4. Individually list all open water impacts (including lakes, ponds, estuaries, sounds, Atlantic Ocean and any other water of the U.S.) below:

Open Water Impact Site Number (indicate on map)	Type of Impact*	Area of Impact (acres)	Name of Waterbody (if applicable)	Type of Waterbody (lake, pond, estuary, sound, bay, ocean, etc.)
27+80	Fill in Lake Julian	0.8	Lake Julian	Pond

* List each impact separately and identify temporary impacts. Impacts include, but are not limited to: fill, excavation, dredging, flooding, drainage, bulkheads, etc.

5. Pond Creation

If construction of a pond is proposed, associated wetland and stream impacts should be included above in the wetland and stream impact sections. Also, the proposed pond should be described here and illustrated on any maps included with this application.

Pond to be created in (check all that apply): uplands stream wetlands
Describe the method of construction (e.g., dam/embankment, excavation, installation of draw-down valve or spillway, etc.): N/A

Proposed use or purpose of pond (e.g., livestock watering, irrigation, aesthetic, trout pond, local stormwater requirement, etc.): N/A

Size of watershed draining to pond: N/A Expected pond surface area: N/A

VII. Impact Justification (Avoidance and Minimization)

Specifically describe measures taken to avoid the proposed impacts. It may be useful to provide information related to site constraints such as topography, building ordinances, accessibility, and financial viability of the project. The applicant may attach drawings of alternative, lower-impact site layouts, and explain why these design options were not feasible. Also discuss how impacts were minimized once the desired site plan was developed. If applicable, discuss construction techniques to be followed during construction to reduce impacts.

Project has been aligned along existing corridor. Where practicable, stormwater was diverted to buffer areas before discharging into Lake Julian.

VIII. Mitigation

DWQ - In accordance with 15A NCAC 2H .0500, mitigation may be required by the NC Division of Water Quality for projects involving greater than or equal to one acre of impacts to freshwater wetlands or greater than or equal to 150 linear feet of total impacts to perennial streams.

USACE – In accordance with the Final Notice of Issuance and Modification of Nationwide Permits, published in the Federal Register on March 9, 2000, mitigation will be required when

necessary to ensure that adverse effects to the aquatic environment are minimal. Factors including size and type of proposed impact and function and relative value of the impacted aquatic resource will be considered in determining acceptability of appropriate and practicable mitigation as proposed. Examples of mitigation that may be appropriate and practicable include, but are not limited to: reducing the size of the project; establishing and maintaining wetland and/or upland vegetated buffers to protect open waters such as streams; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferable in the same watershed.

If mitigation is required for this project, a copy of the mitigation plan must be attached in order for USACE or DWQ to consider the application complete for processing. Any application lacking a required mitigation plan or NCWRP concurrence shall be placed on hold as incomplete. An applicant may also choose to review the current guidelines for stream restoration in DWQ's Draft Technical Guide for Stream Work in North Carolina, available at <http://h2o.enr.state.nc.us/ncwetlands/strmgide.html>.

1. Provide a brief description of the proposed mitigation plan. The description should provide as much information as possible, including, but not limited to: site location (attach directions and/or map, if offsite), affected stream and river basin, type and amount (acreage/linear feet) of mitigation proposed (restoration, enhancement, creation, or preservation), a plan view, preservation mechanism (e.g., deed restrictions, conservation easement, etc.), and a description of the current site conditions and proposed method of construction. Please attach a separate sheet if more space is needed.

NCDOT has requested acceptance for mitigation from EEP.

2. Mitigation may also be made by payment into the North Carolina Wetlands Restoration Program (NCWRP). Please note it is the applicant's responsibility to contact the NCWRP at (919) 733-5208 to determine availability and to request written approval of mitigation prior to submittal of a PCN. For additional information regarding the application process for the NCWRP, check the NCWRP website at <http://h2o.enr.state.nc.us/wrp/index.htm>. If use of the NCWRP is proposed, please check the appropriate box on page three and provide the following information:

Amount of stream mitigation requested (linear feet): N/A
Amount of buffer mitigation requested (square feet): N/A
Amount of Riparian wetland mitigation requested (acres): N/A
Amount of Non-riparian wetland mitigation requested (acres): 0.197
Amount of Coastal wetland mitigation requested (acres): N/A

IX. Environmental Documentation (required by DWQ)

Does the project involve an expenditure of public (federal/state) funds or the use of public (federal/state) land?

Yes No

If yes, does the project require preparation of an environmental document pursuant to the requirements of the National or North Carolina Environmental Policy Act (NEPA/SEPA)?
 Note: If you are not sure whether a NEPA/SEPA document is required, call the SEPA coordinator at (919) 733-5083 to review current thresholds for environmental documentation.

Yes No

If yes, has the document review been finalized by the State Clearinghouse? If so, please attach a copy of the NEPA or SEPA final approval letter.

Yes No

X. Proposed Impacts on Riparian and Watershed Buffers (required by DWQ)

It is the applicant's (or agent's) responsibility to determine, delineate and map all impacts to required state and local buffers associated with the project. The applicant must also provide justification for these impacts in Section VII above. All proposed impacts must be listed herein, and must be clearly identifiable on the accompanying site plan. All buffers must be shown on a map, whether or not impacts are proposed to the buffers. Correspondence from the DWQ Regional Office may be included as appropriate. Photographs may also be included at the applicant's discretion.

Will the project impact protected riparian buffers identified within 15A NCAC 2B .0233 (Neuse), 15A NCAC 2B .0259 (Tar-Pamlico), 15A NCAC 2B .0250 (Randleman Rules and Water Supply Buffer Requirements), or other (please identify _____)?

Yes No If you answered "yes", provide the following information:

Identify the square feet and acreage of impact to each zone of the riparian buffers. If buffer mitigation is required calculate the required amount of mitigation by applying the buffer multipliers.

Zone*	Impact (square feet)	Multiplier	Required Mitigation
1		3	
2		1.5	
Total			

* Zone 1 extends out 30 feet perpendicular from near bank of channel; Zone 2 extends an additional 20 feet from the edge of Zone 1.

If buffer mitigation is required, please discuss what type of mitigation is proposed (i.e., Donation of Property, Conservation Easement, Riparian Buffer Restoration / Enhancement, Preservation or

Payment into the Riparian Buffer Restoration Fund). Please attach all appropriate information as identified within 15A NCAC 2B .0242 or .0260.

XI. Stormwater (required by DWQ)

Describe impervious acreage (both existing and proposed) versus total acreage on the site. Discuss stormwater controls proposed in order to protect surface waters and wetlands downstream from the property.

Stormwater management plan attached.

XII. Sewage Disposal (required by DWQ)

Clearly detail the ultimate treatment methods and disposition (non-discharge or discharge) of wastewater generated from the proposed project, or available capacity of the subject facility.

N/A

XIII. Violations (required by DWQ)

Is this site in violation of DWQ Wetland Rules (15A NCAC 2H .0500) or any Buffer Rules?

Yes No

Is this an after-the-fact permit application?

Yes No

XIV. Other Circumstances (Optional):

It is the applicant's responsibility to submit the application sufficiently in advance of desired construction dates to allow processing time for these permits. However, an applicant may choose to list constraints associated with construction or sequencing that may impose limits on work schedules (e.g., draw-down schedules for lakes, dates associated with Endangered and Threatened Species, accessibility problems, or other issues outside of the applicant's control).

N/A

Applicant/Agent's Signature

Date

(Agent's signature is valid only if an authorization letter from the applicant is provided.)

STORMWATER MANAGEMENT PLAN

State Project 8.1843601 (R-2813C)

Date: 7/10/03

Buncombe County

Hydraulics Project Manager: Andrew Nottingham, PE

ROADWAY DESCRIPTION

The project involves the widening of Long Shoals Road (NC 146) to a multi-lane facility in Buncombe county. The 2.9 km (1.8 mi) project will consist of five lanes, 20.4 meter (68 foot) face to face of curb, curb and gutter section from just east of I-26 to US 25.

ENVIRONMENTAL DESCRIPTION

There are two crossings of Lake Julian on this project which are in a water supply watershed protected area classified as WS-IV and are in the French Broad River basin. At the first crossing the structure is submerged and is as yet not located. The second site has a 2.13m X 3.05m (7'X10') RCBC and is being extended 18.56m (60.9') upstream. The extension is into a pond and will have both surface water (.188 ha) and wetland (.071 ha) impacts. The third site has a wetland impact of .009 ha and has no associated stream.

BEST MANAGEMENT PRACTICES AND MAJOR STRUCTURES

The following best management practices and measures were taken during the design of the project to reduce the stormwater impacts:

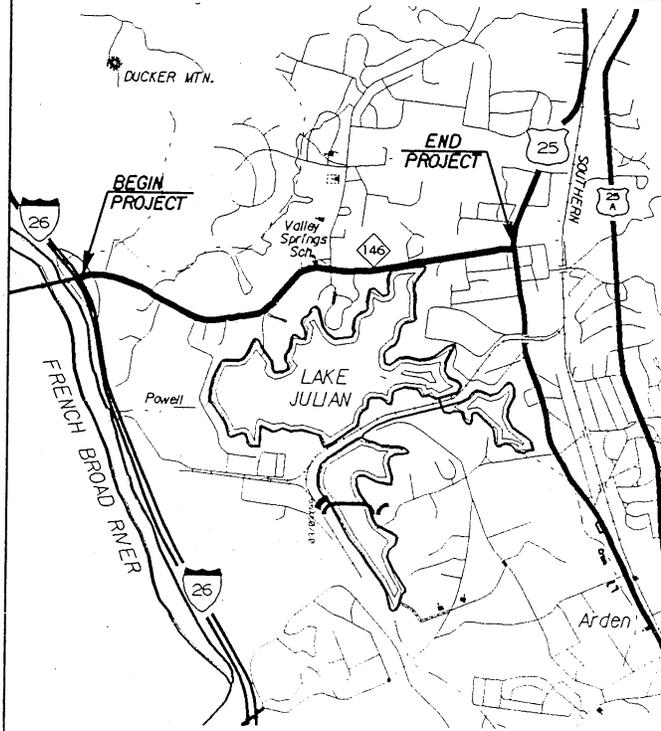
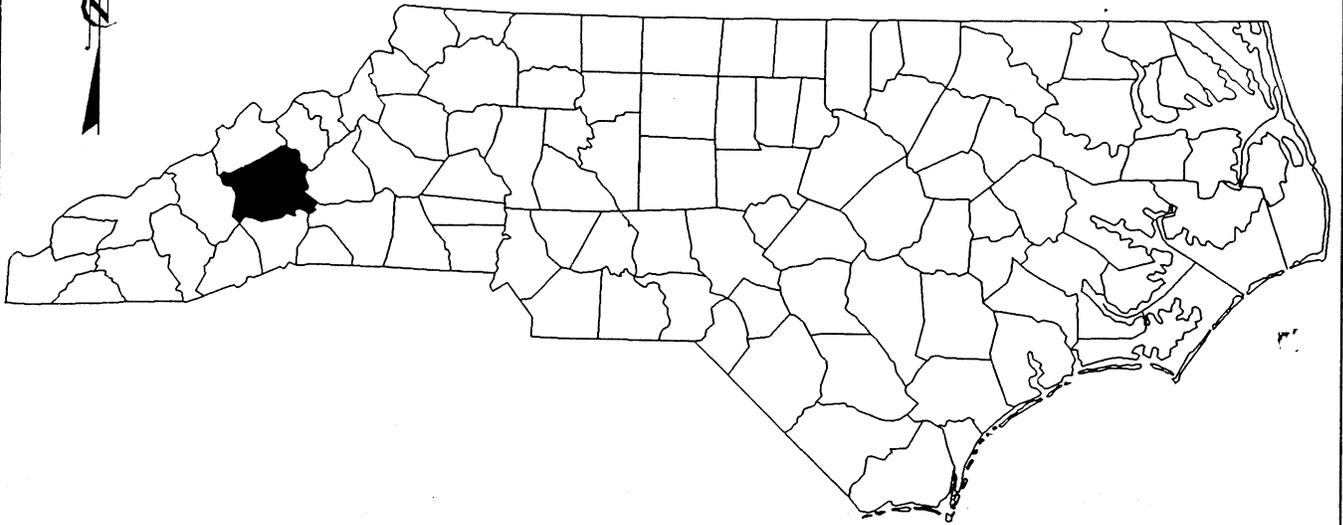
1. Storm drainage that is being collected on the south of Long Shoals Road between station 37+00 and 41+57 -L- is being discharged along the ramp to I-26.
2. Storm drainage that is collected on the north side of Long shoals road between station 36+40 and 41+57 -L- is being discharged along the northbound ramp to I-26.
3. Storm drainage that is collected from station 41+57 to 43+00 -L- outlets into a drainage ditch on the north side of the project.
4. Storm drainage from the proposed roadway from station 43+00 to 45+78 -L- is being discharged into an existing system on the north side of the project which discharges into the same drainage ditch as above.
5. Storm drainage collected offsite from the southside of the roadway from station 43+00 to 45+45 -L- is being discharged along CP&L Drive.
6. Storm drainage collected between station 45+78 and 48+55 -L- is being discharged into a preformed scour hole left of station 47+80 -L-. This drainage then enters a system that drains through the adjacent apartment complex.
7. Storm drainage collected between station 48+55 and 49+15 -L- on the left is being discharged into a ditch adjacent to a school driveway.

8. All other drainage collected between station 48+55 and 56+00 -L- is being discharged into a 2.0m base grass lined ditch adjacent to Lake Julian. The ditch runs for 100m +/- before discharging into lake.
9. Storm drainage collected between station 56+00 and 56+60 -L- on the right is being discharged into same ditch as above.
10. Storm drainage collected from station 56+00 to 58+70 -L- on the left and 56+60 to 58+70 -L- on the right is being discharged left of station 58+00 -L- where it runs along the toe of fill before entering Lake Julian.
11. Storm drainage collected from station 58+70 to 59+85 -L- is being discharged onto natural ground 30m +/- from Lake Julian.
12. A 750mm crosspipe is being proposed at station 59+84 -L- to pass offsite drainage across roadway.
13. Storm drainage collected from station 59+85 to 62+40 -L- is discharged into a performed scour hole left of station 60+20 -L-. This is 25m +/- from the lake.
14. Storm drainage collected from station 62+40 to 64+40 -L- is being discharged into a preformed scour hole left of station 62+40 -L-. This is 10m +/- away from a tributary to Lake Julian.
15. Storm drainage from US 25 is being discharged adjacent to a RCBC at station 10+37 -Y9-.

CULVERTS

Station 58+91.6 -L- the existing 2.13m X 3.05m RCBC is being extended on the upstream end

NORTH CAROLINA



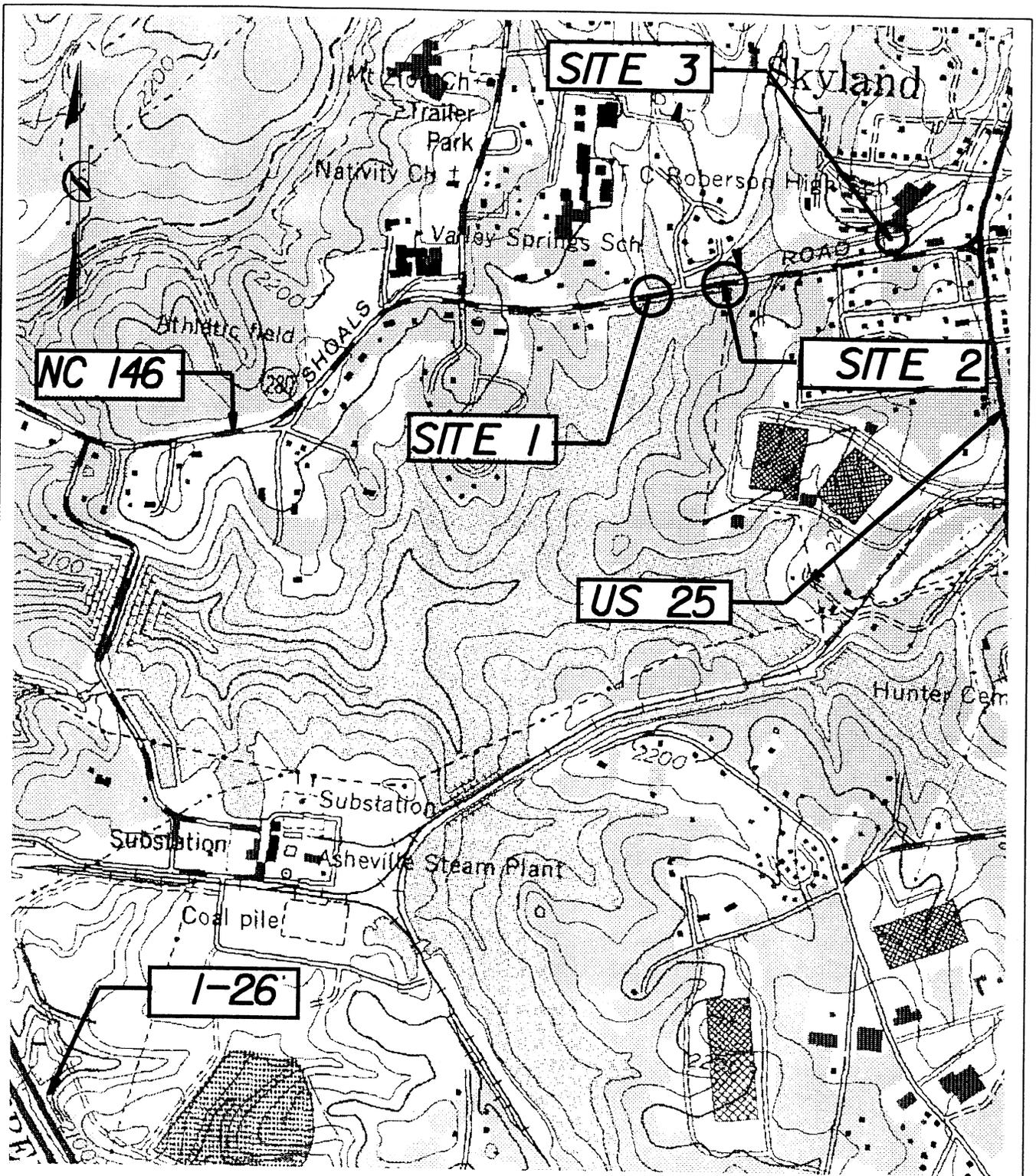
VICINITY MAPS

N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUNCOMBE COUNTY

PROJECT: 8.1843601 (R-2813C)
NC 146 (LONG SHOALS RD) FROM
EAST OF I-26 TO US 25
(HENDERSONVILLE ROAD)

SHEET 1 OF 11

8/19/03



SITE MAPS

N. C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 BUNCOMBE COUNTY

PROJECT: 8.1843601 (R-2813C)
 NC 146 (LONG SHOALS RD) FROM
 EAST OF I-26 TO US 25
 (HENDERSONVILLE ROAD)

SHEET 2 OF 11

8/19/03

REVISIONS

R/W REV - PARCEL 58 ADDED, EXIST. R/W REVISED, ETC.
 OF -L- ON PARCELS 39, 40 & 58, B.M. 8/29/02



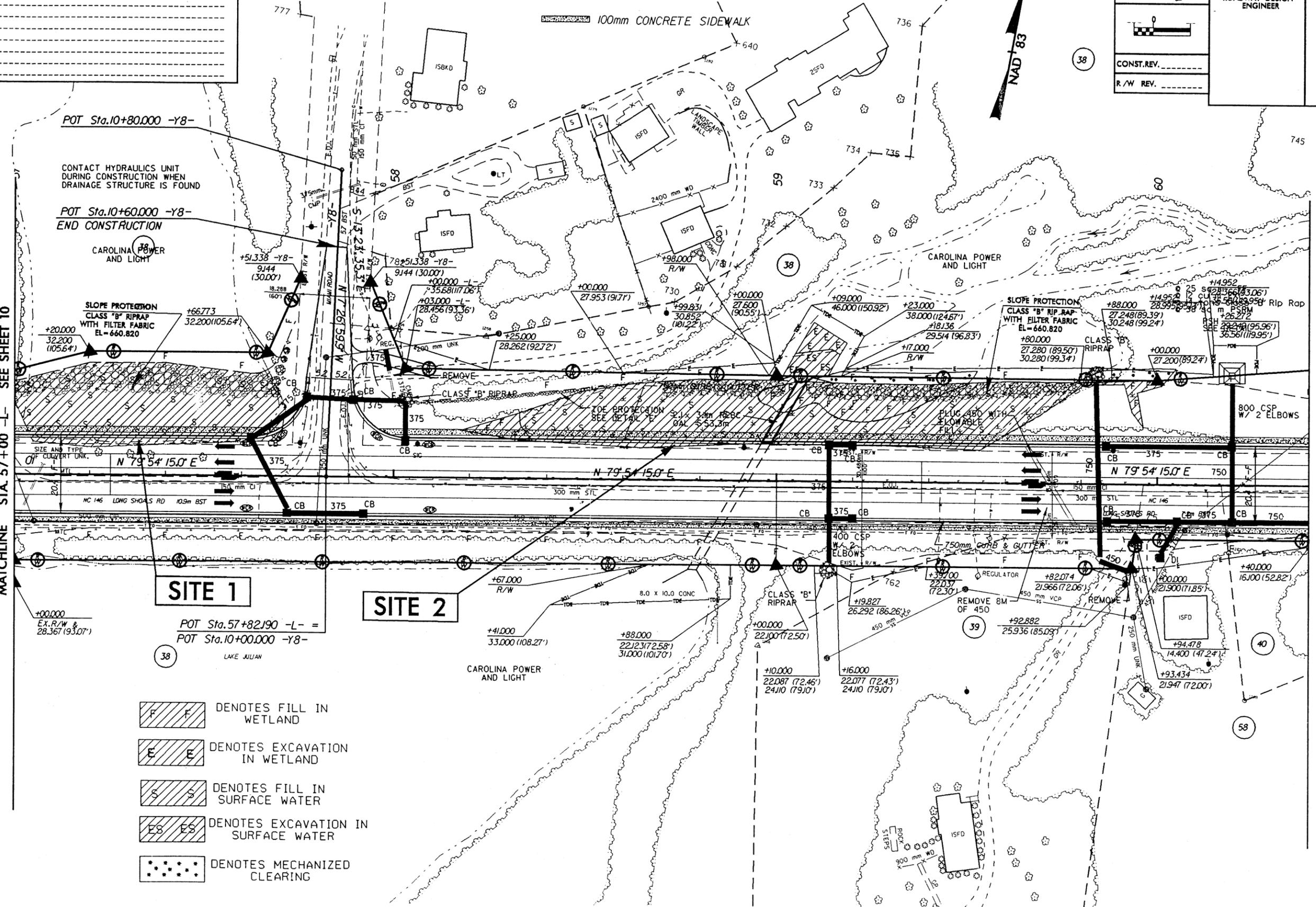
PROJECT REFERENCE NO.	SHEET NO.
R-2813C	11
PERMIT SHEET NO.	3
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CONST. REV. _____

R/W REV. _____

MATCHLINE STA. 57+00 -L- SEE SHEET 10

MATCHLINE STA. 60+40 -L- SEE SHEET 12



- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES FILL IN SURFACE WATER
- DENOTES EXCAVATION IN SURFACE WATER
- DENOTES MECHANIZED CLEARING

SITE 1

SITE 2

POT Sta. 57+82.90 -L- =
 POT Sta. 10+00.00 -Y8-

38

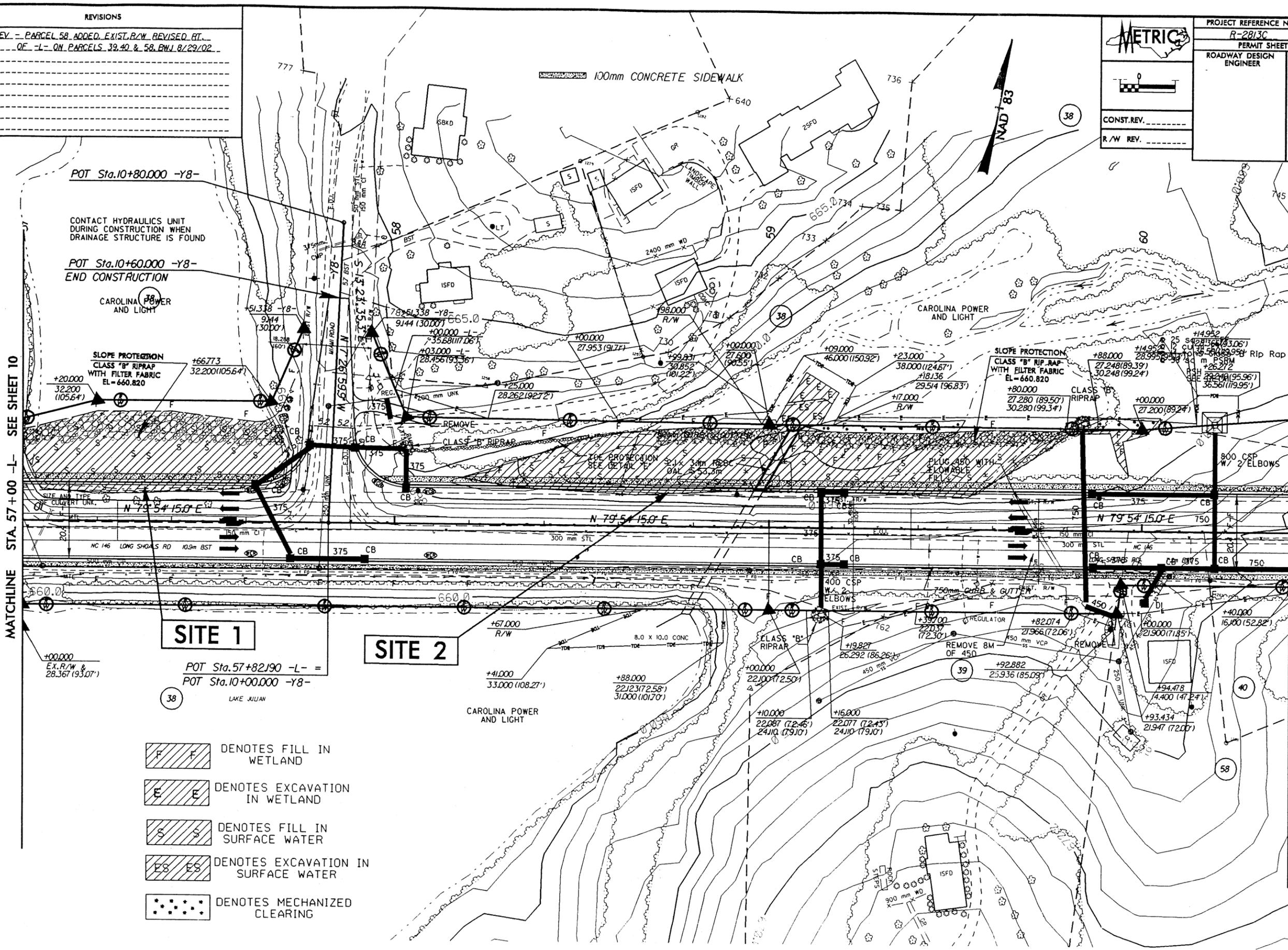
39

40

58

REVISIONS	
R/W REV. - PARCEL 58 ADDED, EXIST. R/W REVISED, ET...	
OF -L- ON PARCELS 39, 40 & 58, B.W. 8/29/02	

	PROJECT REFERENCE NO.	SHEET NO.
	R-2813C	11
	PERMIT SHEET NO.	4
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV. _____		
R/W REV. _____		



- DENOTES FILL IN WETLAND
- DENOTES EXCAVATION IN WETLAND
- DENOTES FILL IN SURFACE WATER
- DENOTES EXCAVATION IN SURFACE WATER
- DENOTES MECHANIZED CLEARING

MATCHLINE STA. 57+00 -L- SEE SHEET 10

MATCHLINE STA. 60+40 -L- SEE SHEET 12

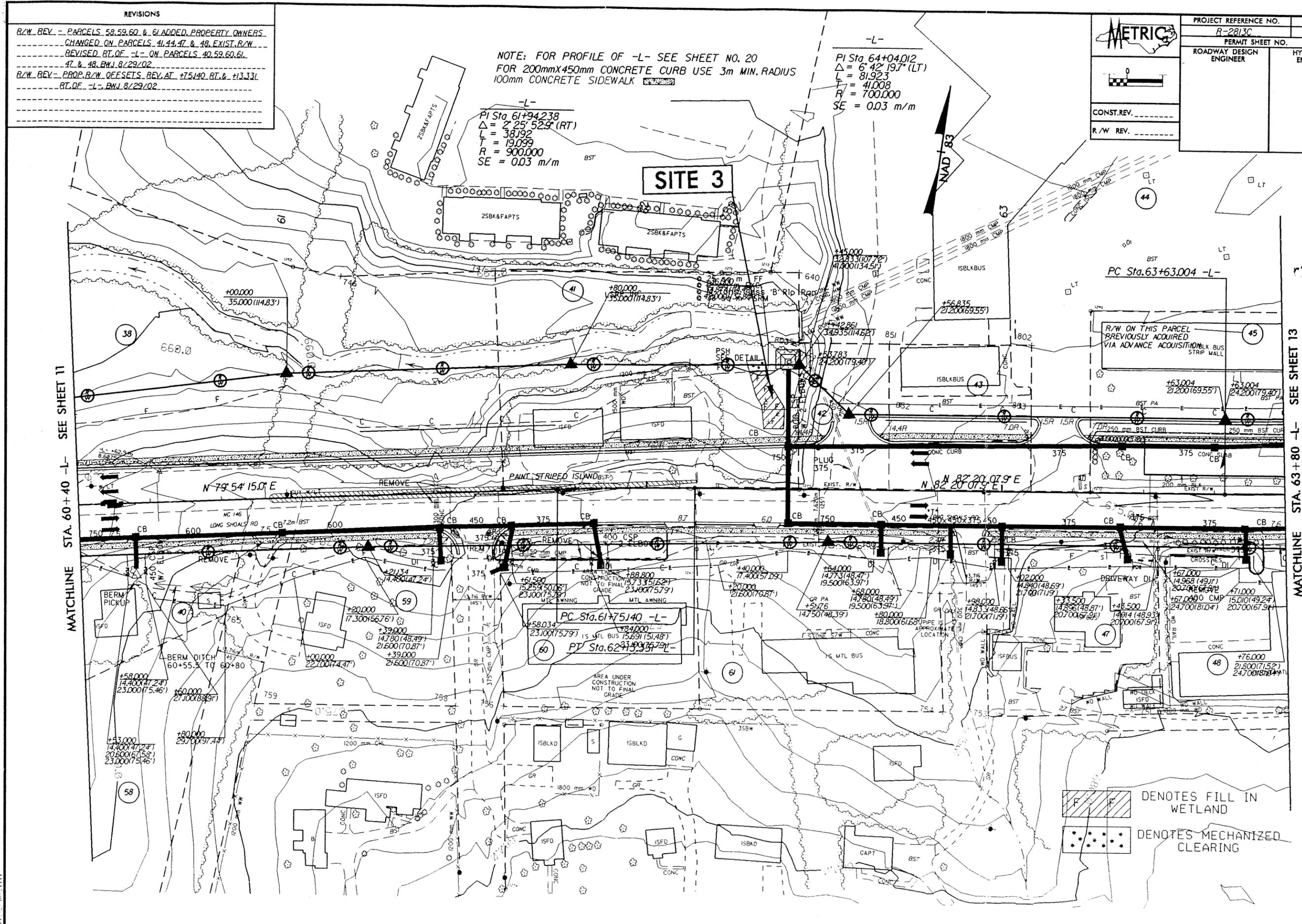
REVISIONS	
R/W REV - PARCELS 58, 59, 60 & 61 ADDED, PROPERTY OWNERS	
CHANGED ON PARCELS 41, 44, 47 & 48, EXIST. R/W	
REVISED RT. OF -L- ON PARCELS 40, 59, 60, 61	
47 & 48, RWL 8/29/02	
R/W REV - PROP. R/W OFFSETS, REV. AT +75140 RT. & +13331	
RT. OF -L- RWL 8/29/02	

	PROJECT REFERENCE NO.	SHEET NO.
	R-28130	12
	PERMIT SHEET NO.	6
	ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
CONST. REV.		
R/W REV.		

NOTE: FOR PROFILE OF -L- SEE SHEET NO. 20
 FOR 200mmX450mm CONCRETE CURB USE 3m MIN. RADIUS
 100mm CONCRETE SIDEWALK

-L-
 PI Sta 64+04.012
 $\Delta = 6' 42" 19.7" (LT)$
 $L = 81.923$
 $T = 41.008$
 $R = 700.000$
 $SE = 0.03 \text{ m/m}$

-L-
 PI Sta 61+94.238
 $\Delta = 2' 25" 52.9" (RT)$
 $L = 38.192$
 $T = 19.099$
 $R = 900.000$
 $SE = 0.03 \text{ m/m}$



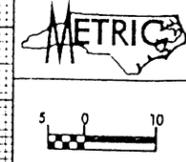
MATCHLINE STA. 60+40 -L- SEE SHEET 11

MATCHLINE STA. 63+80 -L- SEE SHEET 13

DENOTES FILL IN WETLAND
 DENOTES MECHANIZED CLEARING

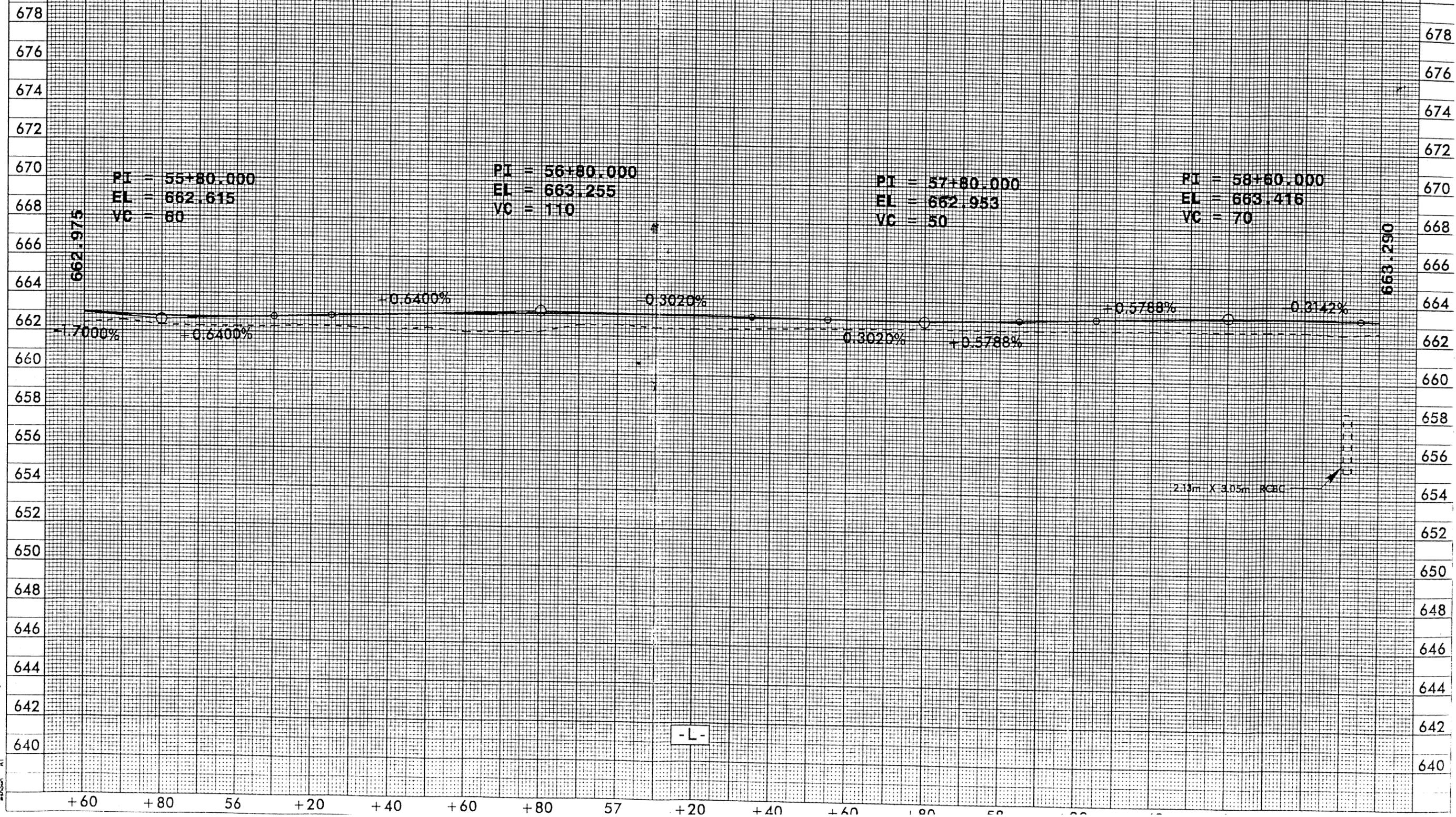
BM NO. 206, IP & CAP
-LBL- STA. 28+40.975 EL = 662.3830

BM NO. 215, IP & CAP
-Y3BL- STA. 5+00.000 EL = 665.1340



PROJECT REFERENCE NO. R-2813C
ROADWAY DESIGN ENGINEER
SHEET NO. 7
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

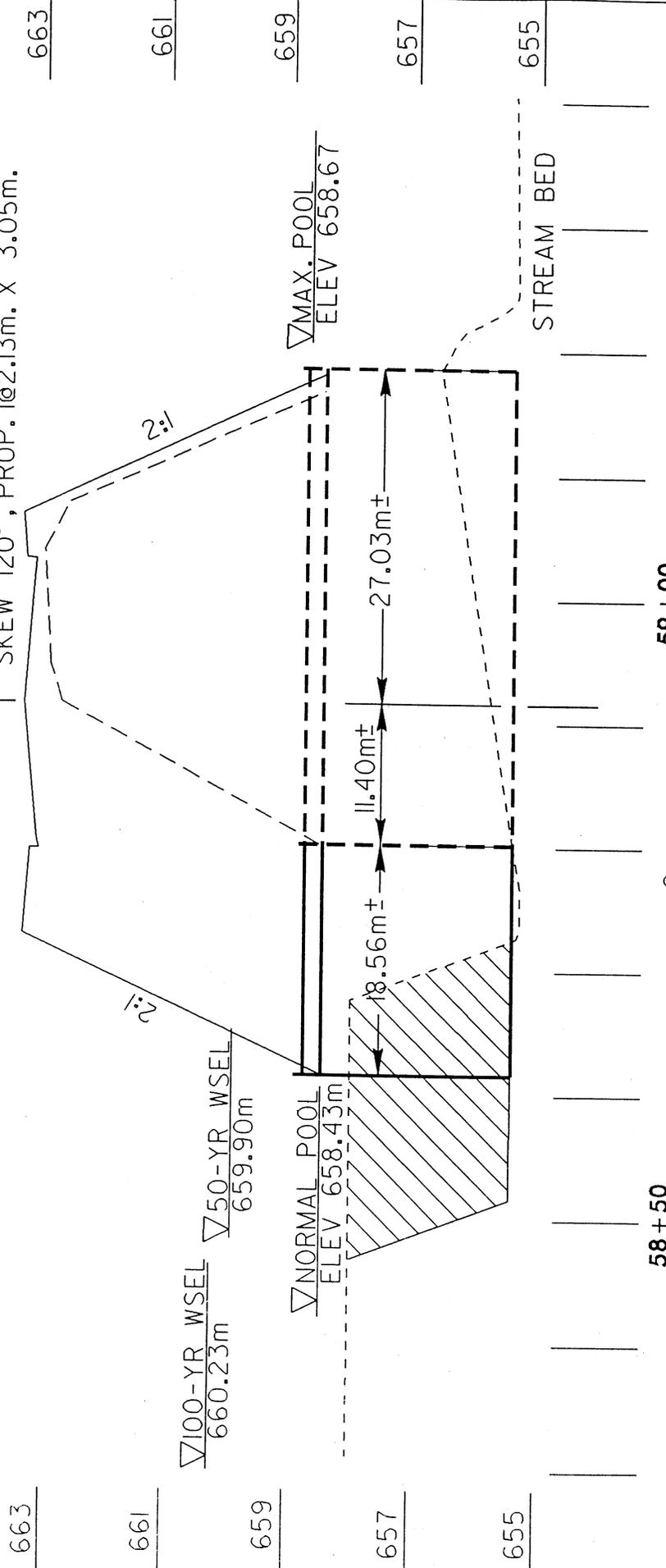
CONST. REV.
R/W REV.



2/14/2003 09:00 AM R/W REV. 1/1/03

-L-

STA. 58+91.63 -L-
 ELEV 663.32 m
 SKEW 120°, PROP. @ 2.13m. X 3.05m.



663

661

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N.C. DEPT. OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 BUNCOMBE COUNTY
 PROJECT: 8.1845601 (R-2813C)
 NC 146 (LONG SHOALS ROAD) FROM
 EAST OF I-26 TO US 25
 (HENDERSONVILLE ROAD)
 SHEET 9 OF 11 8/19/03

STREAM PROFILE


 DENOTES CULVERT
 EXCAVATION @ 270 cu m

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS				SURFACE WATER IMPACTS				Natural Stream Design (m)	
			Fill In Wetlands (ha)	Temp. Fill In Wetlands (ha)	Excavation In Wetlands (ha)	Mechanized Clearing (Method III) (ha)	Excavation In SW (Natural) (ha)	Fill In SW (Pond) (ha)	Temp. Fill In SW (ha)	Existing Channel Impacted (m)		
1	27+80 -L- (LT)	N/A								0.135		
2	29+40 -L- (LT)	2.1x3.1 RCBC EXTENSION	0.047		0.006	0.018	0.009		0.180			
3	32+85 -L- (LT)	N/A	0.009			0.002						
TOTALS:			0.056		0.006	0.020	0.009		0.315			

NCDOT
 DIVISION OF HIGHWAYS
 BUNCOME COUNTY
 PROJECT 8.1843601 (R-2813C)
 NC 146 FLAT SHOALS RD
 FROM I-26 TO US 25

PROPERTY OWNERS

NAMES AND ADDRESSES

PARCEL NO.	NAMES	ADDRESSES
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38	CAROLINA POWER AND LIGHT	38
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41	LSRP, INC.	38
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N. C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
BUNCOMBE COUNTY

PROJECT: 8.1843601 (R-2813C)
NC 146 (LONG SHOALS RD) FROM
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(HENDERSONVILLE ROAD)

SHEET 11 OF 11 8/19/03