



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

December 17, 2012

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

ATTN: Ms. Sarah Elizabeth Hair
NCDOT Coordinator

Subject: **Application for Section 404 Nationwide Permit 23 and 33** for the proposed I-77 interchange improvements at SR 5544 (Catawba Ave.) in Mecklenburg County, Federal Aid Project No. IMF-77-1(161)29, WBS Element 38063.1.1, Division 10, TIP No. I-4733.

Dear Madam:

The North Carolina Department of Transportation (NCDOT) proposes to improve the I-77 interchange at SR 5544 (Catawba Avenue) by retrofitting the existing diamond interchange with a diverging diamond interchange (DDI). There will be 12 linear feet of permanent stream impacts and <0.01 acre (32 linear feet) of temporary stream impacts due to rip rap protection adjacent to a hazardous spill basin.

Please see enclosed copies of the Pre-Construction Notification (PCN), Jurisdictional Determination (JD), permit drawings, stormwater management plan and design plans for the above-referenced project. The Categorical Exclusion (CE) was completed in September 2011 and distributed shortly thereafter. Additional copies are available upon request.

This project calls for a letting date of August 20, 2013 and a review date of July 2, 2013; however, the let date may advance as additional funding becomes available.

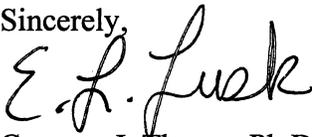
MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1598 MAIL SERVICE CENTER
RALEIGH NC 27699-1598

TELEPHONE: 919-707-6100
FAX: 919-212-5785
WEBSITE: WWW.NCDOT.ORG

LOCATION:
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610-4328

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

Sincerely,



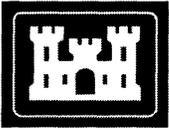
for

Gregory J. Thorpe, Ph.D., Manager

Project Development and Environmental Analysis Unit

cc:

NCDOT Permit Application Standard Distribution List



Office Use Only:
 Corps action ID no. _____
 DWQ project no. _____
 Form Version 1.3 Dec 10 2008

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps:	<input checked="" type="checkbox"/> Section 404 Permit	<input type="checkbox"/> Section 10 Permit
1b. Specify Nationwide Permit (NWP) number: 23 33 or General Permit (GP) number:		
1c. Has the NWP or GP number been verified by the Corps?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1d. Type(s) of approval sought from the DWQ (check all that apply):		
<input checked="" type="checkbox"/> 401 Water Quality Certification – Regular <input type="checkbox"/> Non-404 Jurisdictional General Permit <input type="checkbox"/> 401 Water Quality Certification – Express <input type="checkbox"/> Riparian Buffer Authorization		
1e. Is this notification solely for the record because written approval is not required?	For the record only for DWQ 401 Certification: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	For the record only for Corps Permit: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1f. Is payment into a mitigation bank or in-lieu fee program proposed for mitigation of impacts? If so, attach the acceptance letter from mitigation bank or in-lieu fee program.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

2. Project Information

2a. Name of project:	I-77 Interchange Improvements at SR 5544 (W Catawba Avenue)
2b. County:	Mecklenburg
2c. Nearest municipality / town:	Cornelius
2d. Subdivision name:	<i>not applicable</i>
2e. NCDOT only, T.I.P. or state project no.:	I-4733

3. Owner Information

3a. Name(s) on Recorded Deed:	North Carolina Department of Transportation
3b. Deed Book and Page No.	<i>not applicable</i>
3c. Responsible Party (for LLC if applicable):	<i>not applicable</i>
3d. Street address:	1598 Mail Service Center
3e. City, state, zip:	Raleigh, NC 27699-1598
3f. Telephone no.:	(919) 707-6108
3g. Fax no.:	(919) 212-5785
3h. Email address:	ekcheely@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	<i>not applicable</i>
4c. Business name (if applicable):	
4d. Street address:	
4e. City, state, zip:	
4f. Telephone no.:	
4g. Fax no.:	
4h. Email address:	
5. Agent/Consultant Information (if applicable)	
5a. Name:	<i>not applicable</i>
5b. Business name (if applicable):	
5c. Street address:	
5d. City, state, zip:	
5e. Telephone no.:	
5f. Fax no.:	
5g. Email address:	

B. Project Information and Prior Project History	
1. Property Identification	
1a. Property identification no. (tax PIN or parcel ID):	<i>not applicable</i>
1b. Site coordinates (in decimal degrees):	Latitude: 35.48352 (DD.DDDDDD) Longitude: - 80.87484 (-DD.DDDDDD)
1c. Property size:	~40 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Lake Norman (Catawba River)
2b. Water Quality Classification of nearest receiving water:	WS-IV, B; CA
2c. River basin:	Catawba
3. Project Description	
3a. Describe the existing conditions on the site and the general land use in the vicinity of the project at the time of this application: The land use within the vicinity of the project consists of about 75% developed or disturbed lands (roadsides and commercial development with some residential), 15% water bodies (Lake Norman is adjacent to the intersection) and 10% forest land (including mixed hardwood forests).	
3b. List the total estimated acreage of all existing wetlands on the property: 0.04 acre within limits of design plansheets	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: 961 linear feet within limits of design plansheets	
3d. Explain the purpose of the proposed project: To improve the efficiency of the I-77 and SR 5544 Interchange and reduce congestion.	
3e. Describe the overall project in detail, including the type of equipment to be used: The project involves retrofitting the existing diamond interchange with a diverging diamond interchange utilizing the existing SR 5544 bridge over I-77. Traffic will be maintained on-site during construction. Standard road building equipment, such as trucks, dozers, and cranes will be used.	
4. Jurisdictional Determinations	
4a. Have jurisdictional wetland or stream determinations by the Corps or State been requested or obtained for this property / project (including all prior phases) in the past? Comments: Action ID: SAW-2008-0477	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
4b. If the Corps made the jurisdictional determination, what type of determination was made?	<input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> Final
4c. If yes, who delineated the jurisdictional areas? Name (if known): Erin Cheely	Agency/Consultant Company: NCDOT Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. December 16, 2009 by Steve Lund. 401 verification letter issued by Polly Lespinasse May 27, 2008 after a field visit.	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, explain.	

C. Proposed Impacts Inventory						
1. Impacts Summary						
1a. Which sections were completed below for your project (check all that apply):						
<input type="checkbox"/> Wetlands		<input checked="" type="checkbox"/> Streams - tributaries		<input type="checkbox"/> Buffers		
<input type="checkbox"/> Open Waters		<input type="checkbox"/> Pond Construction				
2. Wetland Impacts						
If there are wetland impacts proposed on the site, then complete this question for each wetland area impacted.						
2a. Wetland impact number – Permanent (P) or Temporary (T)	2b. Type of impact	2c. Type of wetland (if known)	2d. Forested	2e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	2f. Area of impact (acres)	
Site 1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
2g. Total wetland impacts					0 Permanent 0 Temporary	
2h. Comments: No wetland impacts						
3. Stream Impacts						
If there are perennial or intermittent stream impacts (including temporary impacts) proposed on the site, then complete this question for all stream sites impacted.						
3a. Stream impact number - Permanent (P) or Temporary (T)	3b. Type of impact	3c. Stream name	3d. Perennial (PER) or intermittent (INT)?	3e. Type of jurisdiction (Corps - 404, 10 DWQ – non-404, other)	3f. Average stream width (feet)	3g. Impact length (linear feet)
Site 1 <input checked="" type="checkbox"/> P <input type="checkbox"/> T	Rip Rap	SF - UT5 to Lake Norman (Catawba River)	<input type="checkbox"/> PER <input checked="" type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	2	12
Site 2 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Temporary	SF - UT5 to Lake Norman (Catawba River)	<input type="checkbox"/> PER <input checked="" type="checkbox"/> INT	<input checked="" type="checkbox"/> Corps <input type="checkbox"/> DWQ	2	32
Site 3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
Site 5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
3h. Total stream and tributary impacts						12 Perm 32 Temp
3i. Comments: 12 linear feet of permanent impacts to stream SF due to rip rap lining to stabilize channel due to the installation of an adjacent hazardous spill basin. 32 linear feet (<0.01 ac) of temporary impacts to stream SF associated with the installation of the rip rap.						

4. Open Water Impacts

If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.

4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact	4d. Waterbody type	4e. Area of impact (acres)
O1 <input type="checkbox"/> P <input type="checkbox"/> T				
O2 <input type="checkbox"/> P <input type="checkbox"/> T				
O3 <input type="checkbox"/> P <input type="checkbox"/> T				
O4 <input type="checkbox"/> P <input type="checkbox"/> T				
4f. Total open water impacts				0 Permanent 0 Temporary

4g. Comments: No open water impacts

5. Pond or Lake Construction

If pond or lake construction proposed, then complete the chart below.

5a. Pond ID number	5b. Proposed use or purpose of pond	5c. Wetland Impacts (acres)			5d. Stream Impacts (feet)			5e. Upland (acres)
		Flooded	Filled	Excavated	Flooded	Filled	Excavated	Flooded
P1								
P2								
5f. Total								

5g. Comments:

5h. Is a dam high hazard permit required?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, permit ID no:
5i. Expected pond surface area (acres):			
5j. Size of pond watershed (acres):			
5k. Method of construction:			

6. Buffer Impacts (for DWQ)

If project will impact a protected riparian buffer, then complete the chart below. If yes, then individually list all buffer impacts below. If any impacts require mitigation, then you **MUST** fill out Section D of this form.

6a. Project is in which protected basin?	<input type="checkbox"/> Neuse <input type="checkbox"/> Tar-Pamlico <input type="checkbox"/> Other: <input checked="" type="checkbox"/> Catawba <input type="checkbox"/> Randleman
---------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

6b. Buffer impact number – Permanent (P) or Temporary (T)	6c. Reason for impact	6d. Stream name	6e. Buffer mitigation required?	6f. Zone 1 impact (square feet)	6g. Zone 2 impact (square feet)
B1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		
B3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No		

6h. Total buffer impacts		
---------------------------------	--	--

6i. Comments: Project area is above the full pond elevation for Lake Norman (760ft), therefore no buffers apply.

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. The chosen design for this project was to retrofit the existing diamond interchange with a diverging diamond interchange (DDI) in the existing location. The DDI design will be able to utilize the existing bridge over I-77 and has a smaller construction footprint than other types of intersections that were considered (namely, a single point urban interchange (SPUI)). The small footprint of the DDI minimizes impacts to surrounding jurisdictional resources and does not require widening of the existing bridge. Traffic will be able to remain on-site during construction. There will be no impacts from utility relocations.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. The drainage systems in the gore areas of I-77 will be discharged to grassed swales where it is possible and existing grass swales will be maintained wherever possible. A hazardous spill basin will be provided in the northeast quadrant near stream SF.		
2. Compensatory Mitigation for Impacts to Waters of the U.S. or Waters of the State		
2a. Does the project require Compensatory Mitigation for impacts to Waters of the U.S. or Waters of the State?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If no, explain: 12 lf of permanent impacts is below the threshold for mitigation. Remaining impacts are temporary.	
2b. If yes, mitigation is required by (check all that apply):	<input type="checkbox"/> DWQ <input type="checkbox"/> Corps	
2c. If yes, which mitigation option will be used for this project?	<input type="checkbox"/> Mitigation bank <input type="checkbox"/> Payment to in-lieu fee program <input type="checkbox"/> Permittee Responsible Mitigation	
3. Complete if Using a Mitigation Bank		
3a. Name of Mitigation Bank: not applicable		
3b. Credits Purchased (attach receipt and letter)	Type	Quantity
3c. Comments:		
4. Complete if Making a Payment to In-lieu Fee Program		
4a. Approval letter from in-lieu fee program is attached.	<input type="checkbox"/> Yes	
4b. Stream mitigation requested:	linear feet	
4c. If using stream mitigation, stream temperature:	<input type="checkbox"/> warm <input type="checkbox"/> cool <input type="checkbox"/> cold	
4d. Buffer mitigation requested (DWQ only):	square feet	
4e. Riparian wetland mitigation requested:	acres	
4f. Non-riparian wetland mitigation requested:	acres	
4g. Coastal (tidal) wetland mitigation requested:	acres	
4h. Comments:		
5. Complete if Using a Permittee Responsible Mitigation Plan		
5a. If using a permittee responsible mitigation plan, provide a description of the proposed mitigation plan. The NCDOT does not propose mitigation for the 12 linear feet of permanent impacts and the <0.01ac of temporary impacts from rip rap to the intermittent tributary, SF. These impacts do not require significant permanent fill in the stream bed and, therefore, under Section 404 of the Clean Water Act, do not constitute Loss of Waters of the U.S. and are not subject to compensatory mitigation.		

6. Buffer Mitigation (State Regulated Riparian Buffer Rules) – required by DWQ				
6a. Will the project result in an impact within a protected riparian buffer that requires buffer mitigation?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6b. If yes, then identify the square feet of impact to each zone of the riparian buffer that requires mitigation. Calculate the amount of mitigation required.				
Zone	6c. Reason for impact	6d. Total impact (square feet)	Multiplier	6e. Required mitigation (square feet)
Zone 1			3 (2 for Catawba)	
Zone 2			1.5	
6f. Total buffer mitigation required:				
6g. If buffer mitigation is required, discuss what type of mitigation is proposed (e.g., payment to private mitigation bank, permittee responsible riparian buffer restoration, payment into an approved in-lieu fee fund).				
6h. Comments:				

E. Stormwater Management and Diffuse Flow Plan (required by DWQ)	
1. Diffuse Flow Plan	
1a. Does the project include or is it adjacent to protected riparian buffers identified within one of the NC Riparian Buffer Protection Rules?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
1b. If yes, then is a diffuse flow plan included? If not, explain why. Comments: If required from 1a, see attached buffer permit drawings.	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. Stormwater Management Plan	
2a. What is the overall percent imperviousness of this project?	N/A
2b. Does this project require a Stormwater Management Plan?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why:	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: See attached permit drawings.	
2e. Who will be responsible for the review of the Stormwater Management Plan?	<input type="checkbox"/> Certified Local Government <input type="checkbox"/> DWQ Stormwater Program <input checked="" type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	not applicable
3b. Which of the following locally-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Phase II <input type="checkbox"/> NSW <input type="checkbox"/> USMP <input type="checkbox"/> Water Supply Watershed <input type="checkbox"/> Other:
3c. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4. DWQ Stormwater Program Review	
4a. Which of the following state-implemented stormwater management programs apply (check all that apply):	<input type="checkbox"/> Coastal counties <input type="checkbox"/> HQW <input type="checkbox"/> ORW <input type="checkbox"/> Session Law 2006-246 <input type="checkbox"/> Other:
4b. Has the approved Stormwater Management Plan with proof of approval been attached?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5. DWQ 401 Unit Stormwater Review	
5a. Does the Stormwater Management Plan meet the appropriate requirements?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No N/A

F. Supplementary Information	
1. Environmental Documentation (DWQ Requirement)	
1a. Does the project involve an expenditure of public (federal/state/local) funds or the use of public (federal/state) land?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1b. If you answered "yes" to the above, does the project require preparation of an environmental document pursuant to the requirements of the National or State (North Carolina) Environmental Policy Act (NEPA/SEPA)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1c. If you answered "yes" to the above, has the document review been finalized by the State Clearing House? (If so, attach a copy of the NEPA or SEPA final approval letter.) Comments: Categorical Exclusion (CE) approved 9/1/11	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Violations (DWQ Requirement)	
2a. Is the site in violation of DWQ Wetland Rules (15A NCAC 2H .0500), Isolated Wetland Rules (15A NCAC 2H .1300), DWQ Surface Water or Wetland Standards, or Riparian Buffer Rules (15A NCAC 2B .0200)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2b. Is this an after-the-fact permit application?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If you answered "yes" to one or both of the above questions, provide an explanation of the violation(s):	
3. Cumulative Impacts (DWQ Requirement)	
3a. Will this project (based on past and reasonably anticipated future impacts) result in additional development, which could impact nearby downstream water quality?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3b. If you answered "yes" to the above, submit a qualitative or quantitative cumulative impact analysis in accordance with the most recent DWQ policy. If you answered "no," provide a short narrative description. Due to the minimal transportation impact resulting from this bridge replacement, this project will neither influence nearby land uses nor stimulate growth. Therefore, a detailed indirect or cumulative effects study will not be necessary.	
4. Sewage Disposal (DWQ Requirement)	
4a. 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. not applicable	

5. Endangered Species and Designated Critical Habitat (Corps Requirement)		
5a. Will this project occur in or near an area with federally protected species or habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5b. Have you checked with the USFWS concerning Endangered Species Act impacts?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input type="checkbox"/> Raleigh <input type="checkbox"/> Asheville	
5d. What data sources did you use to determine whether your site would impact Endangered Species or Designated Critical Habitat? Of the four federally listed species for Mecklenburg County, only three species, Michaux's sumac, Schweinitz's sunflower and smooth coneflower, have potential habitat located within the construction limits of this project. The project area was surveyed by NCDOT biologists in 2007, 2009 and 2011 for all three species, and no individuals of any were found. This project will have no effect on any Federally Threatened or Endangered species listed for Mecklenburg County.		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS County Index		
7. Historic or Prehistoric Cultural Resources (Corps Requirement)		
7a. Will this project occur in or near an area that the state, federal or tribal governments have designated as having historic or cultural preservation status (e.g., National Historic Trust designation or properties significant in North Carolina history and archaeology)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA Documentation		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: NCDOT Hydraulics Unit coordination with FEMA		
8c. What source(s) did you use to make the floodplain determination? FEMA Maps		
<u>Dr. Gregory J. Thorpe, Ph D</u> Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	12-17-12 Date

**U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT**

Action Id. SAW-2008-0477

County: Mecklenburg

U.S.G.S. Quad: Cornelius

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Agent: NC Department of Transportation, Attn: Gregory J. Thorpe

Address: Project Development and Environmental Analysis
1598 Mail Service Center
Raleigh, NC 27699-1548

Telephone No.: 919-715-1334

Property description:

Size (acres) 200 approx.

Nearest Town Cornelius

Nearest Waterway Lake Norman

River Basin Catawba

USGS HUC 03050101

Coordinates N 35.48133 W 80.8730

Location description Interchange Improvements at I-77 and SR 5544 (Catawba Avenue), TIP I-4733

Indicate Which of the Following Apply:

A. Preliminary Determination

- Based on preliminary information, there may be wetlands on the above described property. We strongly suggest you have this property inspected to determine the extent of Department of the Army (DA) jurisdiction. To be considered final, a jurisdictional determination must be verified by the Corps. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).

B. Approved Determination

- There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- There are waters on the above described property subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

We strongly suggest you have the wetlands on your property delineated. Due to the size of your property and/or our present workload, the Corps may not be able to accomplish this wetland delineation in a timely manner. For a more timely delineation, you may wish to obtain a consultant. To be considered final, any delineation must be verified by the Corps.

The waters and wetlands on your property have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed (GPS). Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.

The surface waters and/or wetlands have been delineated and surveyed and are accurately depicted on the maps and GPS surveys from Erin Cheely, NCDOT Natural Environment Unit dated 5 February 2008. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- There are no waters of the U.S., to include wetlands, present on the above described property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.

- The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMA). You should contact the Division of Coastal Management in Washington, NC, at (252) 946-6481 to determine their requirements.

Action ID: _____

SAW-2008-0477

Placement of dredged or fill material within waters of the US and/or wetlands without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). If you have any questions regarding this determination and/or the Corps regulatory program, please contact Steven Lund at 828-271-7980.

C. Basis For Determination

Stream Quality Assessment/Identification Forms, Wetland Determination Forms and Jurisdictional Determination Forms included with the submittal of 5 February 2008 from NCDOT, Natural Environment Unit.

D. Remarks

Unnamed tributaries to Lake Norman and McDowell Creek are relatively permanent waters (RPWs) flowing to Lake Norman, a traditionally navigable water (TNW).

E. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

District Engineer, Wilmington Regulatory Division
Attn: Steven Lund, Project Manager,
Asheville Regulatory Field Office
151 Patton Avenue, Room 208
Asheville, North Carolina 28801-5006

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the District Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address within 60 days of the date of this verification.

****It is not necessary to submit an RFA form to the District Office if you do not object to the determination in this correspondence.****

Corps Regulatory Official: Steven W. Lund

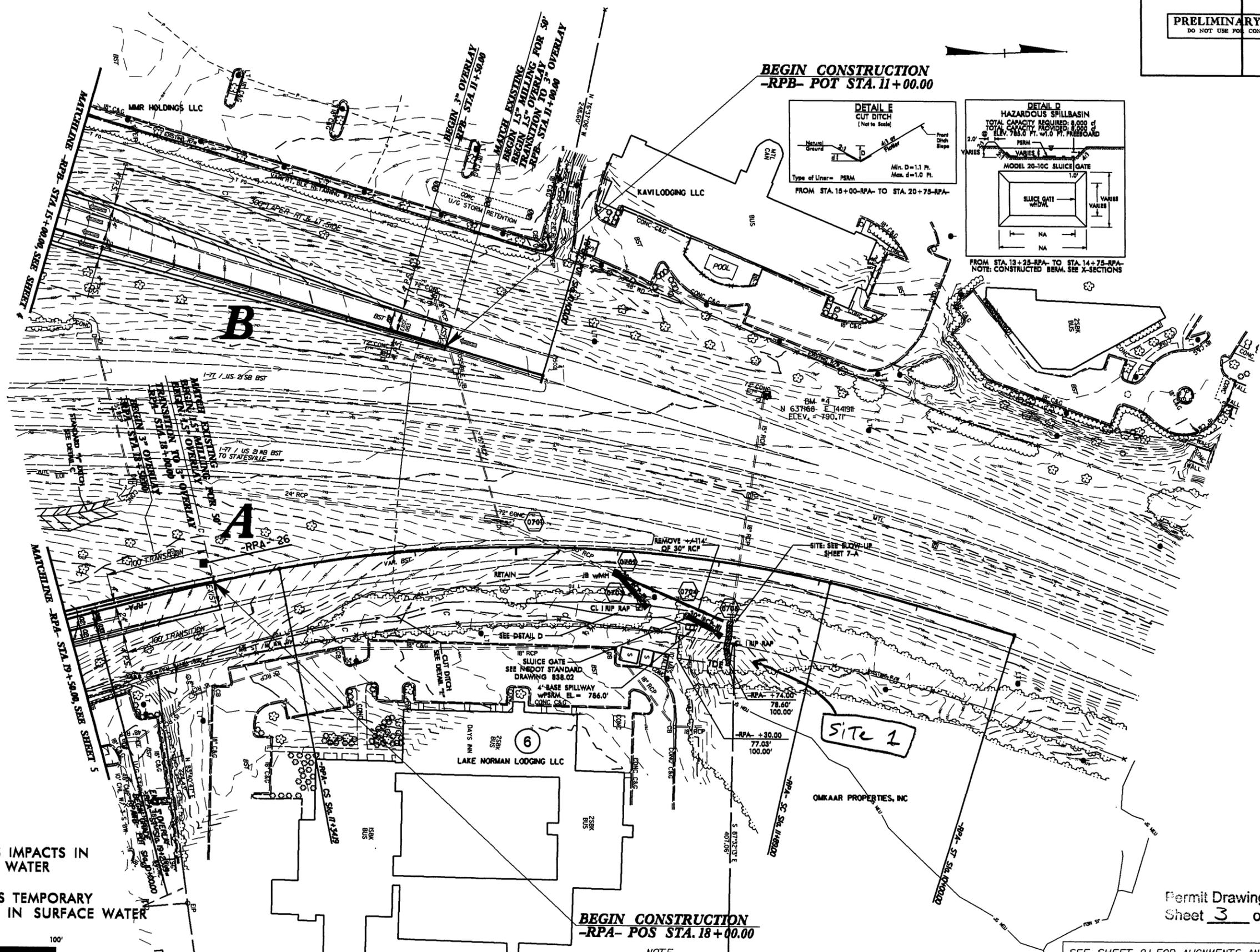
Date: December 16, 2009

Expiration Date: December 16, 2014

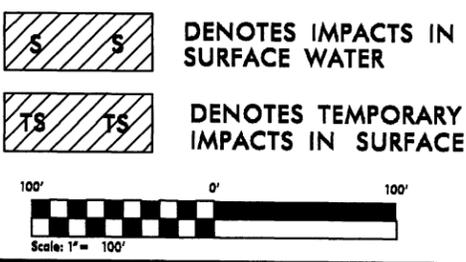
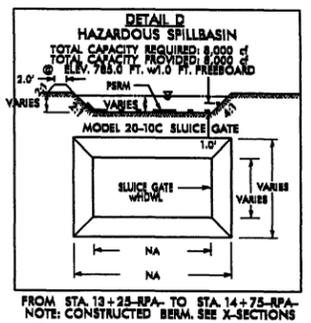
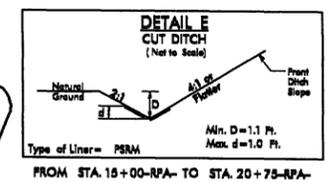
The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the attached customer Satisfaction Survey or visit <http://www.saw.usace.army.mil/WETLANDS/index.html> to complete the survey online.

Copy furnished:

PROJECT REFERENCE NO. 1-4733	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



BEGIN CONSTRUCTION
-RPB- POT STA. 11+00.00



BEGIN CONSTRUCTION
-RPA- POS STA. 18+00.00

NOTE:
1. EXISTING 4 RAIL WHITE VINYL FENCE TO BE REMOVED AND RESET AS NEEDED PER THE CONSTRUCTION ENGINEER

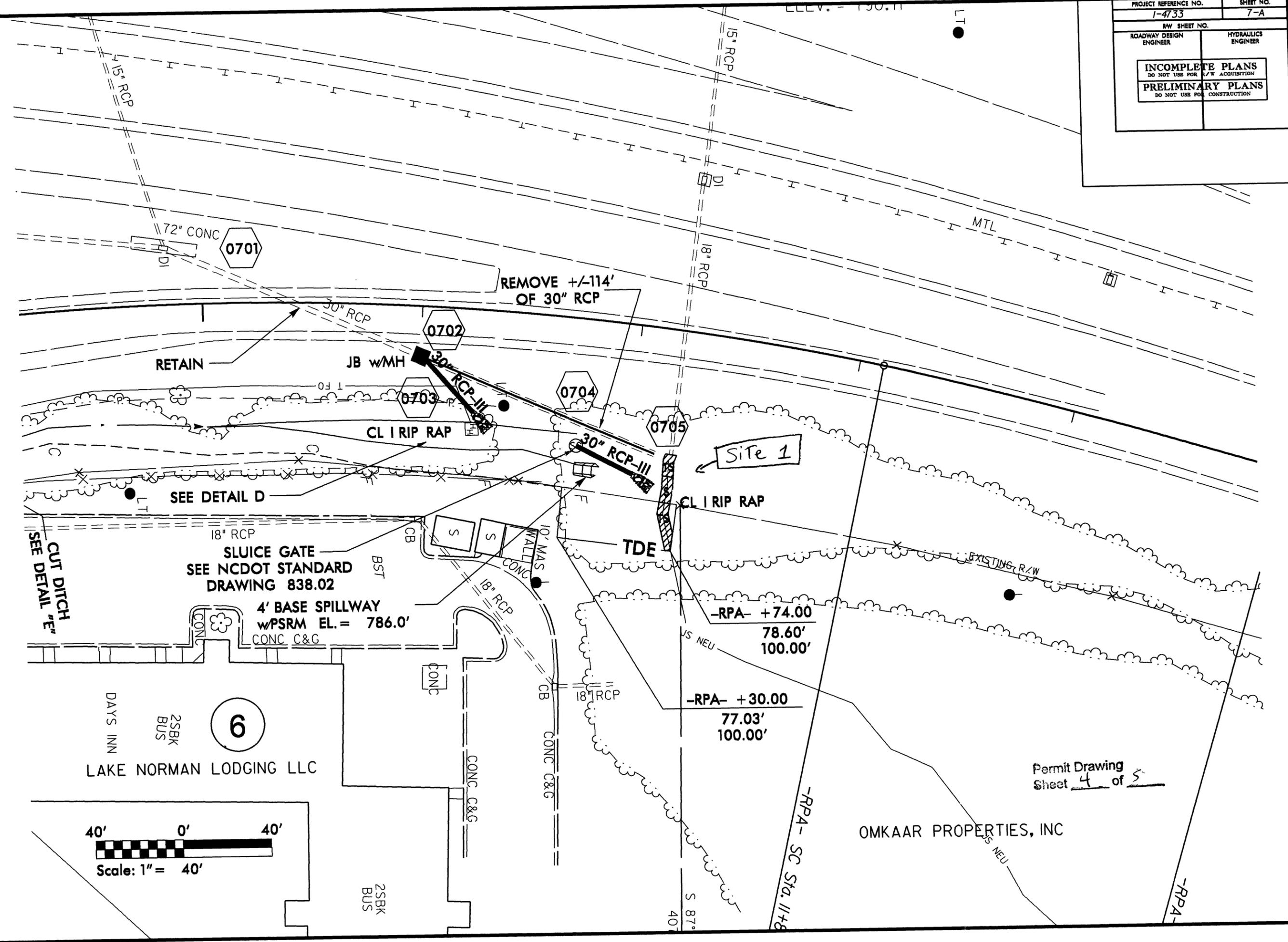
SEE SHEET 2J FOR ALIGNMENTS AND CURVE DATA
SEE SHEET 9 FOR -RPA- PROFILE
SEE SHEET 10 FOR -RPB- PROFILE

Permit Drawing
Sheet 3 of 5

5/14/99
 07/14/07
 AL:\Projects\PERMITS_Environment\Drawings\4733_Hyd_perm_wat_per07C.dwg
 *****SYSTEMS*****
 *****USER*****

PROJECT REFERENCE NO. 1-4733	SHEET NO. 7-A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

8/17/99
 REVISIONS
 8/28/2012
 mkelley
 R:\Hydraulics\PERMITS_Environmental\Drawings\4733 Hyd_prm_wet_BlowUpSht7A.dgn





North Carolina Department of Transportation
 Highway Stormwater Program
STORMWATER MANAGEMENT PLAN
 FOR LINEAR ROADWAY PROJECTS



(Version 1.2; Released July 2012)

General Project Information

Project No.:	I-4733 (38063.1.1)	Project Type:	Roadway Widening	Date:	8/1/2012
NCDOT Contact:	Galen Call	Contractor / Designer:	Michael Kelly		
Address:	1020 Birch Ridge Dr. Raleigh, NC 27610	Address:	1020 Birch Ridge Dr. Raleigh, NC 27610		
Phone:	919.707.6711	Phone:	919.707.6731		
Email:	gcall@ncdot.gov	Email:	mkelly@ncdot.gov		
City/Town:	Cornelius, NC	County(ies):	Mecklenburg		
River Basin(s):	Catawba	CAMA County?	No		
Primary Receiving Water:	Gambers Creek(Cathey Creek), Lake Norman	NCDWQ Stream Index No.:	WS-IV,CA		
NCDWQ Surface Water Classification for Primary Receiving Water	Primary: Supplemental:	Water Supply IV (WS-IV)			
Other Stream Classification:		Critical Area			
303(d) Impairments:					
Buffer Rules in Effect	Catawba				

Project Description

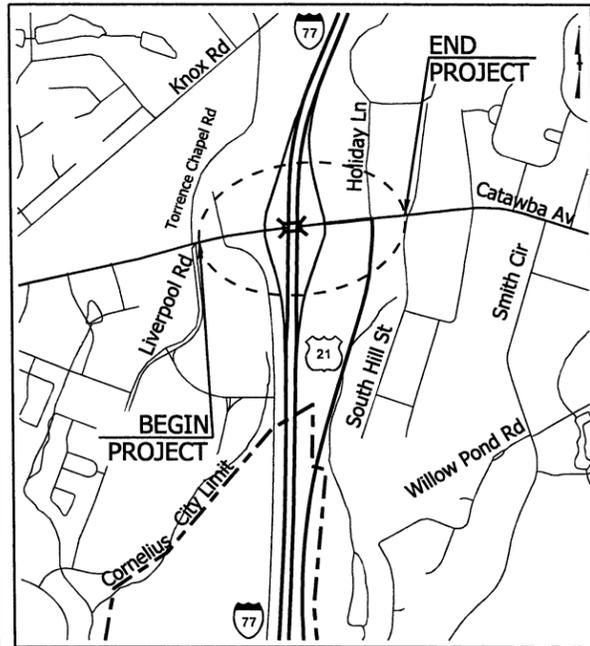
Project Length (lin. Miles or feet):	0.347mi.	Surrounding Land Use:	Urban, Commercial
Project Built-Upon Area (ac.)	5.25	Proposed Project	4.32
Typical Cross Section Description:	Variable number of lanes, lane widths with curb/gutter and sidewalks. Grass side slopes.	Existing Site	45.218
Average Daily Traffic (veh/hr/day):	Design/Future: 58,087		

General Project Narrative:
 "DIVERGING DIAMOND INTERCHANGE" with resurfacing, widening, signals, sidewalks, drainage and signing.
 UT feeds to Gambers Creek Sta. +/-13+25-RPA-LT.
 Discharged proposed drainage systems in quadrants A,B,C,D to grassed swales where possible.
 Maintained existing grass swales where possible.
 Hazardous Spill Basin provided in northeast quadrant at UT to Gambers Creek. See attached information.

References

09/08/09

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



VICINITY MAP SHOWING LOCATION OF PROJECT I-4733

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MECKLENBURG COUNTY

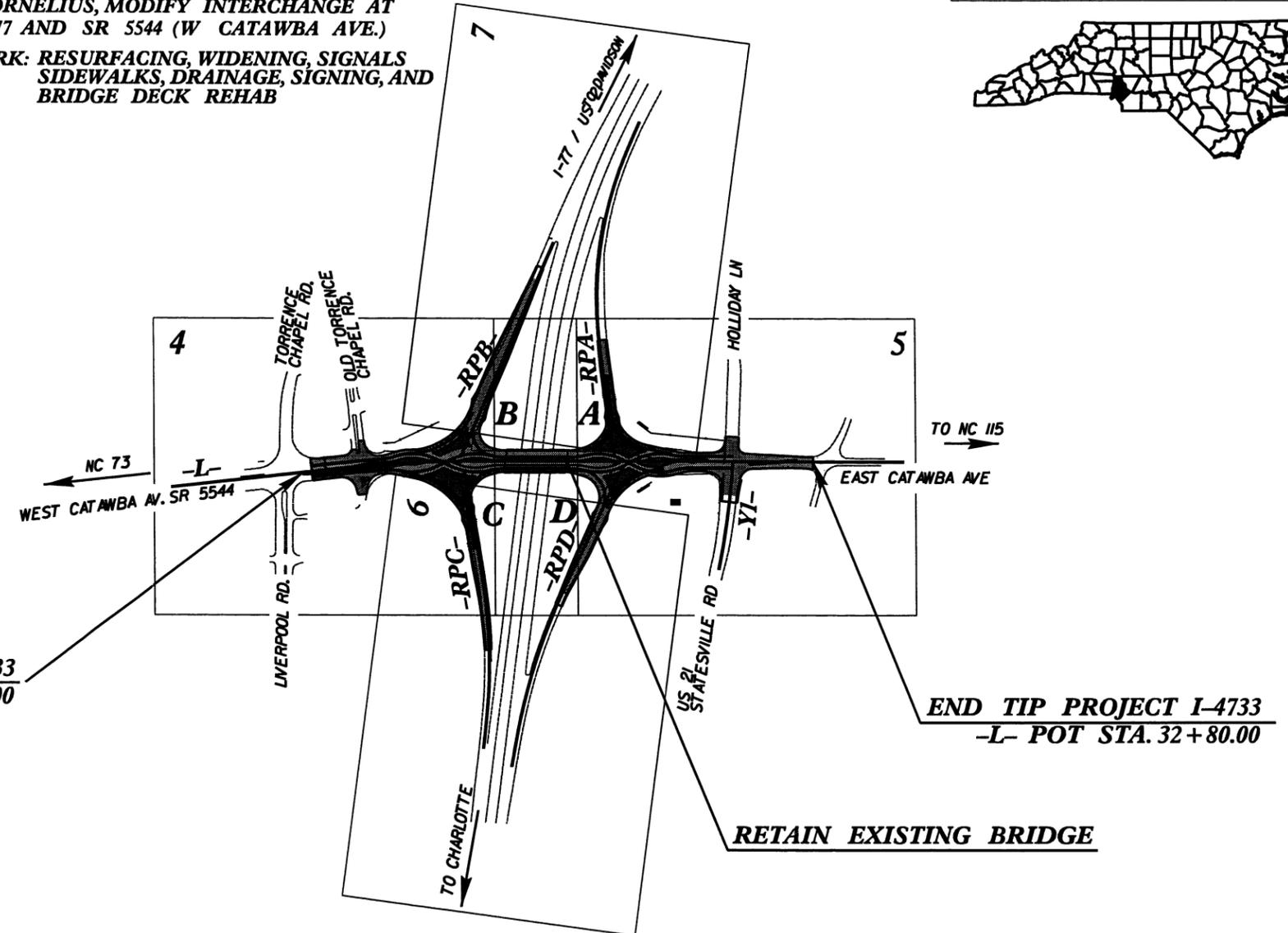
LOCATION: CORNELIUS, MODIFY INTERCHANGE AT
I-77 AND SR 5544 (W CATAWBA AVE.)

TYPE OF WORK: RESURFACING, WIDENING, SIGNALS
SIDEWALKS, DRAINAGE, SIGNING, AND
BRIDGE DECK REHAB

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-4733	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38063.1.1	MULTIPLE	PE	
38063.2.1	MULTIPLE	ROW & UTIL	



TIP PROJECT: I-4733



BEGIN TIP PROJECT I-4733
-L- POT STA. 14+69.00

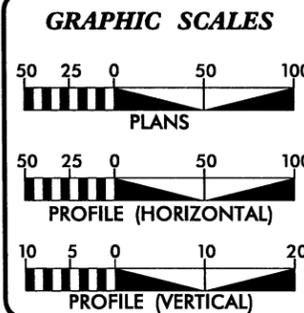
END TIP PROJECT I-4733
-L- POT STA. 32+80.00

RETAIN EXISTING BRIDGE

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF CORNELIUS
THERE IS AN EXISTING FULL CONTROL OF ACCESS FROM OLD TORRENCE CHAPEL ROAD TO US 21 ON THIS PROJECT
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

CONTRACT:



DESIGN DATA

ADT 2012 =	45,218
ADT 2032 =	58,087
DHV =	9 %
D =	55 %
T =	3 % *
V =	40 MPH
* TTST 1	DUAL 2
FUNC CLASS =	PRINCIPAL ARTERIAL

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT I-4733 =	0.343 MILES
LENGTH OF STRUCTURE TIP PROJECT I-4733 =	0.000 MILES
TOTAL LENGTH OF TIP PROJECT I-4733 =	0.343 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JULY 20, 2012

LETTING DATE:
AUGUST 20, 2013

TONY HOUSER, P.E.
PROJECT ENGINEER

LEE ANN MOORE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: _____ P.E.

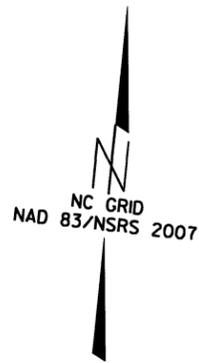
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER

17-JUL-2012 13:55
R:\Roadway\Projects\I-4733-Rdy_tsh.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

SURVEY CONTROL SHEET I-4733

PROJECT REFERENCE NO.	SHEET NO.
I-4733	1C
Location and Surveys	



BM#4
N = 637168
E = 1441911
ELEV. = 790.71'

BEGIN TIP PROJECT I-4733
-L- POT STA. 14+48.00

END TIP PROJECT I-4733
-L- POT STA. 32+80.00

NCDOT GPS STATION "I-4733-1"
N = 635992.2910
E = 1440674.4240
ELEV = 813.26'

NCDOT GPS STATION "I-4733-2"
N = 636060.3680
E = 1441393.2800
ELEV = 814.21'

BM#5
N = 635598
E = 1442128
ELEV. = 807.81'

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "I4733-1" WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF NORTHING: 635992.2910(ft) EASTING: 1440674.4240(ft) ELEVATION: 813.26'(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99984676

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "I4733-1" TO -L- STATION 10+00.00 IS S 37°26'33.0" W 71.14'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/doh/preconstruct/highway/location/project/)
THE FILES TO BE FOUND ARE AS FOLLOWS:
I-4733_LS_CONTROL.TXT

SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.



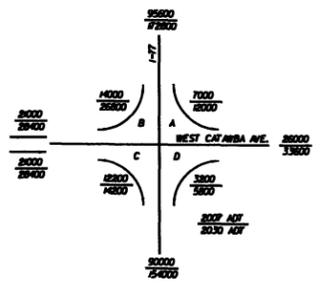
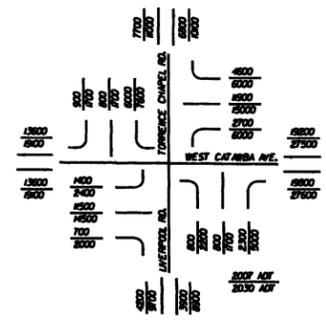
INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.

NOTE: DRAWING NOT TO SCALE

I-4733-2012-13-55
R:\GIS\Projects\I-4733-LS\I-4733-LS.dgn

5/14/99
 17-JUL-2012 12:26
 R:\PROJECTS\1-4733_Pdly_psh_4.dgn

PROJECT REFERENCE NO.	SHEET NO.
1-4733	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS	
DO NOT USE FOR CONSTRUCTION	

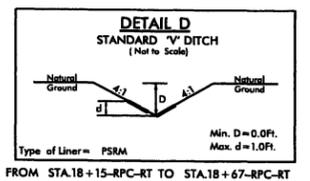
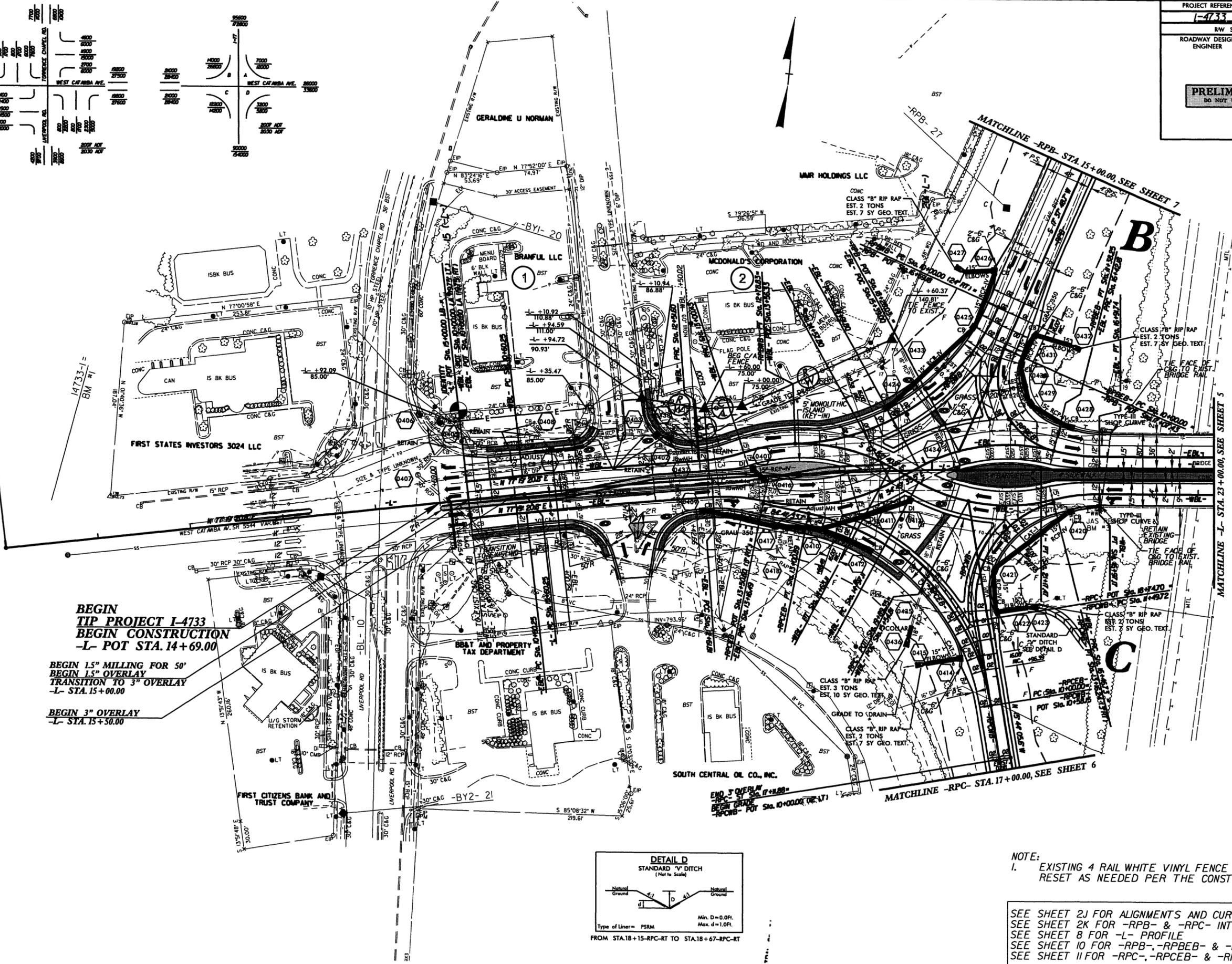


-L- POT Sta. 10+00.00 10

**BEGIN TIP PROJECT 1-4733
 BEGIN CONSTRUCTION
 -L- POT STA. 14+69.00**

**BEGIN 1.5" MILLING FOR 50'
 BEGIN 1.5" OVERLAY
 TRANSITION TO 3" OVERLAY
 -L- STA. 15+00.00**

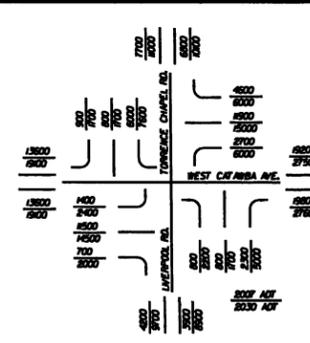
**BEGIN 3" OVERLAY
 -L- STA. 15+50.00**



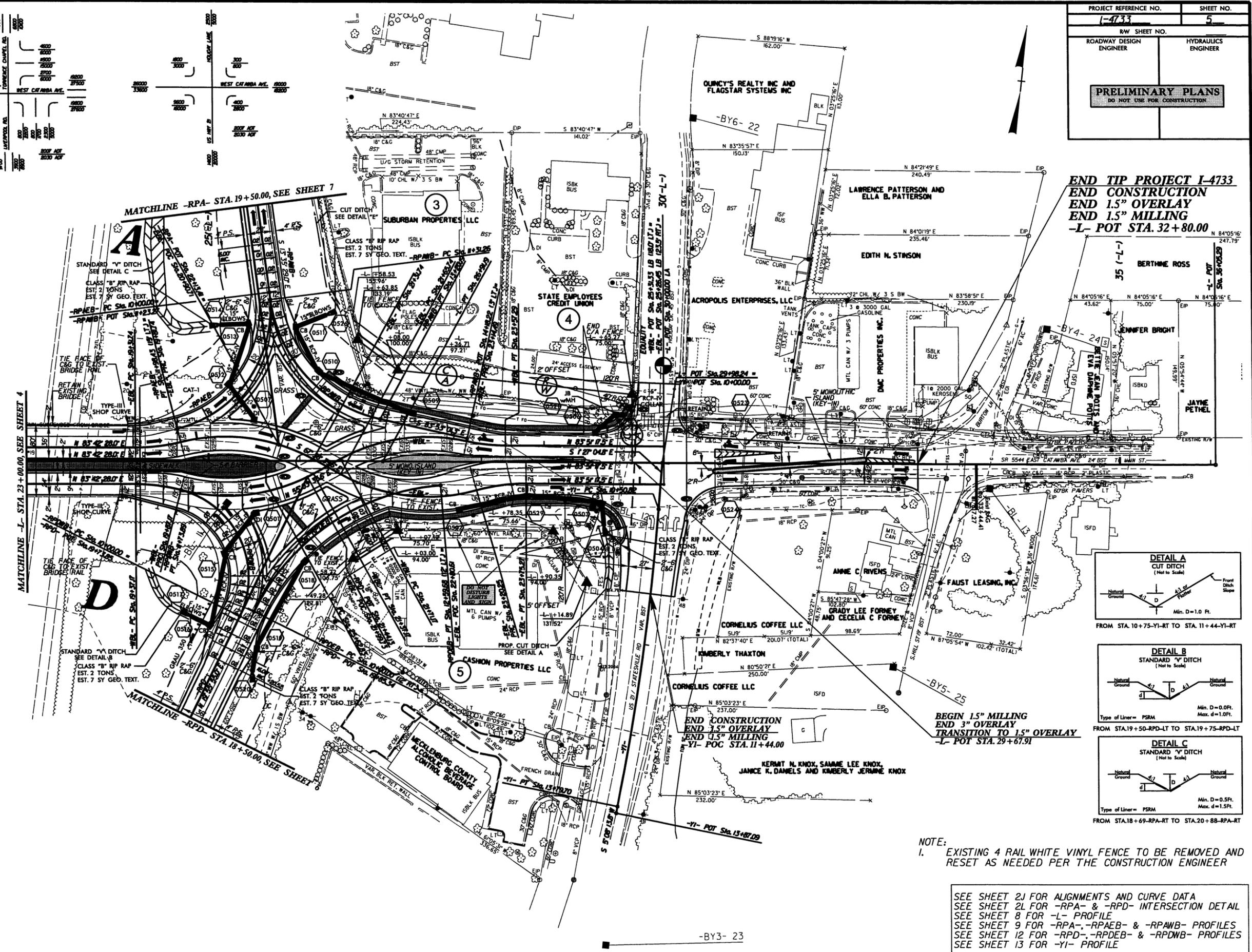
NOTE:
 1. EXISTING 4 RAIL WHITE VINYL FENCE TO BE REMOVED AND RESET AS NEEDED PER THE CONSTRUCTION ENGINEER

SEE SHEET 2J FOR ALIGNMENTS AND CURVE DATA
 SEE SHEET 2K FOR -RPB- & -RPC- INTERSECTION DETAIL
 SEE SHEET 8 FOR -L- PROFILE
 SEE SHEET 10 FOR -RPB-, -RPBEB- & -RPBWB- PROFILES
 SEE SHEET 11 FOR -RPC-, -RPCB- & -RPCWB- PROFILES

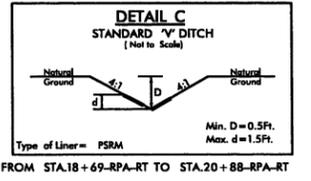
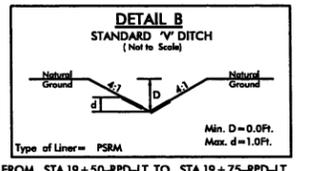
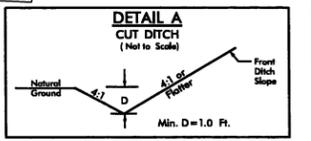
5/14/99
 18-JUL-2012 14:17
 P:\PROJECTS\1-4733-Relay-psh-5.dgn
 5/14/99



PROJECT REFERENCE NO. 1-4733	SHEET NO. 5
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



END TIP PROJECT 1-4733
END CONSTRUCTION
END 1.5" OVERLAY
END 1.5" MILLING
-L- POT STA. 32+80.00

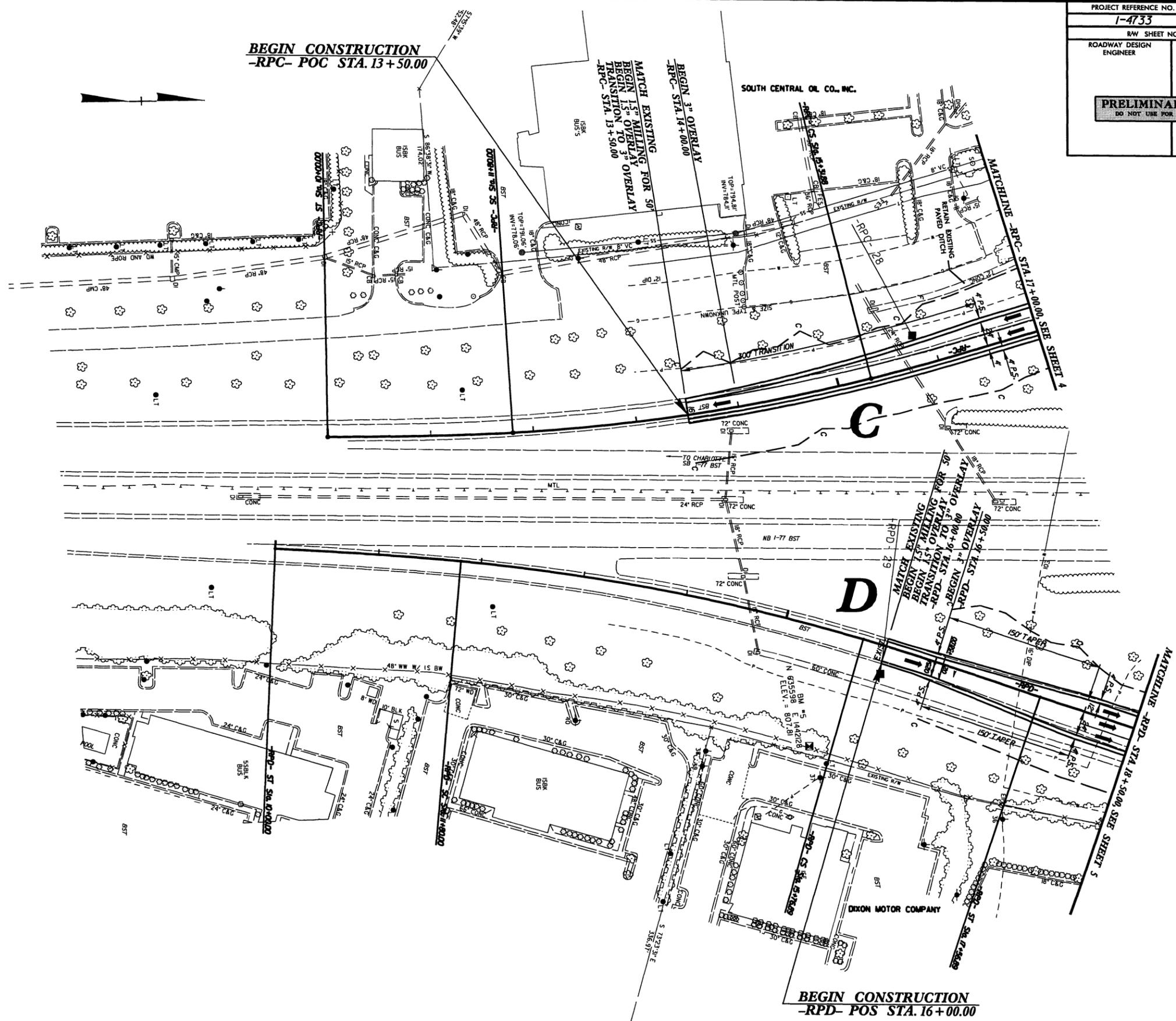


NOTE:
 1. EXISTING 4 RAIL WHITE VINYL FENCE TO BE REMOVED AND RESET AS NEEDED PER THE CONSTRUCTION ENGINEER

SEE SHEET 2J FOR ALIGNMENTS AND CURVE DATA
 SEE SHEET 2L FOR -RPA- & -RPD- INTERSECTION DETAIL
 SEE SHEET 8 FOR -L- PROFILE
 SEE SHEET 9 FOR -RPA-, -RPAEB- & -RPAWB- PROFILES
 SEE SHEET 12 FOR -RPD-, -RPDEB- & -RPDWB- PROFILES
 SEE SHEET 13 FOR -YI- PROFILE

5/14/99
 c:\ul-201\p226\1-4733.Rdw-psht-6.dgn
 4:53:43 PM 5/14/99

PROJECT REFERENCE NO. 1-4733	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



BEGIN CONSTRUCTION
-RPC- POC STA. 13+50.00

MATCH EXISTING
BEGIN 1ST MILING
TRANSITION TO 3RD OVERLAY
-RPC- STA. 13+50.00

BEGIN 3RD OVERLAY
-RPC- STA. 14+00.00

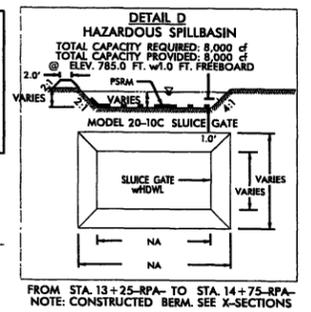
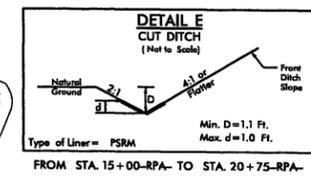
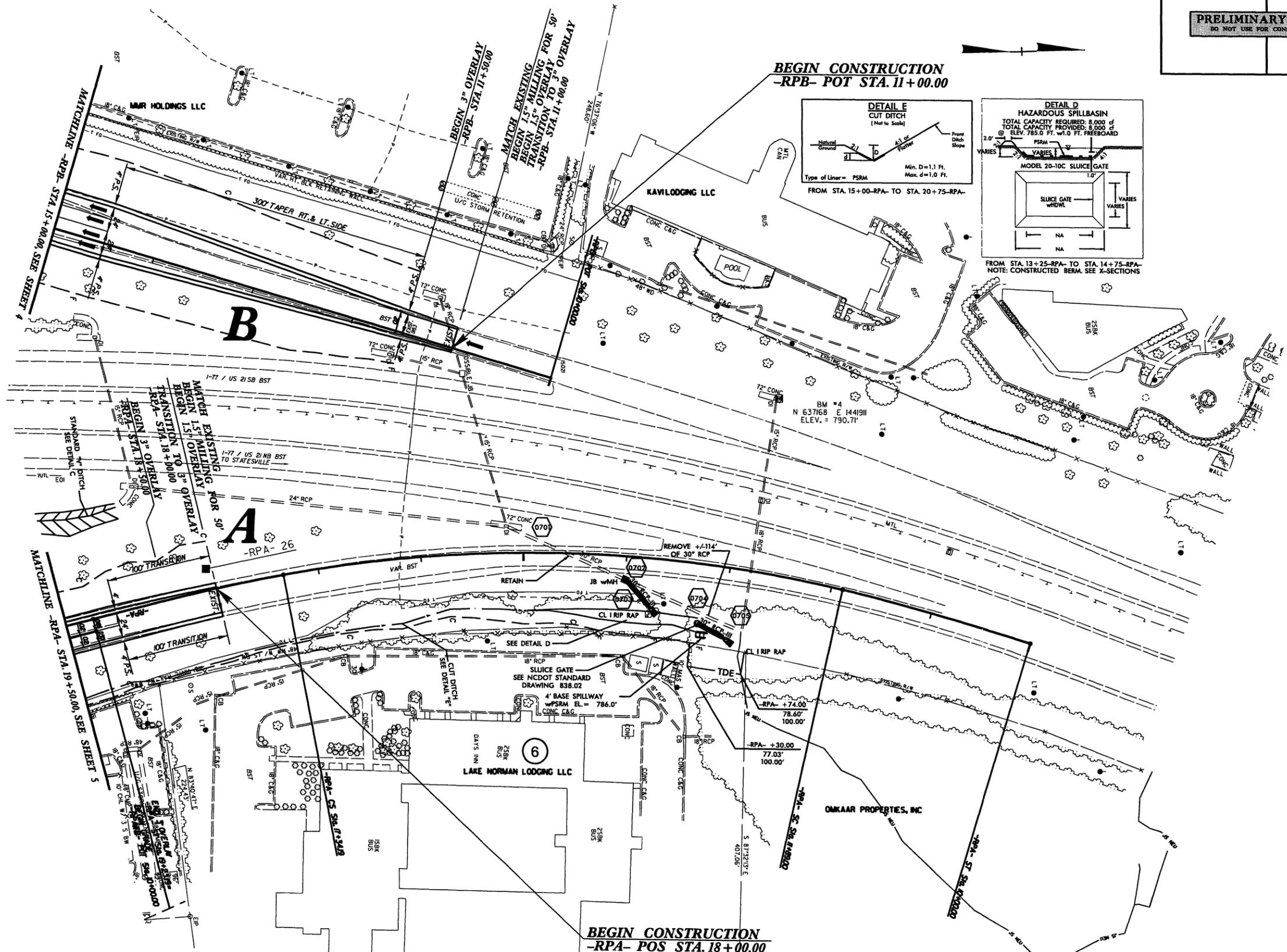
MATCH EXISTING
BEGIN 1ST MILING
TRANSITION TO 3RD OVERLAY
-RPD- STA. 16+00.00

BEGIN CONSTRUCTION
-RPD- POS STA. 16+00.00

NOTE:
 1. EXISTING 4 RAIL WHITE VINYL FENCE TO BE REMOVED AND RESET AS NEEDED PER THE CONSTRUCTION ENGINEER

SEE SHEET 2J FOR ALIGNMENTS AND CURVE DATA
 SEE SHEET 11 FOR -RPC- PROFILE
 SEE SHEET 12 FOR -RPD- PROFILE

PROJECT REFERENCE NO. 1-4733	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



BEGIN CONSTRUCTION
-RPA- POS STA. 18+00.00

NOTE:
1. EXISTING 4 RAIL WHITE VINYL FENCE TO BE REMOVED AND RESET AS NEEDED PER THE CONSTRUCTION ENGINEER

SEE SHEET 2J FOR ALIGNMENTS AND CURVE DATA
SEE SHEET 9 FOR -RPA- PROFILE
SEE SHEET 10 FOR -RPB- PROFILE

5/14/99
p:\2012-2013\1-4733\Fdu-psh_7.dgn
4/11/2012 12:24
4733.DWG