



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY PERDUE  
GOVERNOR

EUGENE CONTI  
SECRETARY

March 28, 2011

MEMORANDUM TO: Mr. Jerry Jennings, PE  
Division 1 Engineer

FROM: Philip S. Harris, III, P.E., Unit Head  
Natural Environment Unit  
Project Development and Environmental Analysis Branch

SUBJECT: Hyde County, replacement of Bridge No. 45 over Outfall Canal on  
US 264. State Project No. 8.1081001; Federal Aid Project Number  
BRSTP-0264(23); WBS 33764.1.1; TIP No. B-4551.

A handwritten signature in black ink, appearing to read "E. L. Fuchs".

Attached is the N.C. Division of Coastal Management CAMA General Permit for the above-referenced project. All environmental permits have been received for the construction of this project.

A copy of this permit package will be posted on the NCDOT website at:  
<http://www.ncdot.gov/doh/preconstruct/pe/neu/permit.html>

Cc W/o attachment (see website for attachments):

Mr. Randy Garris, P.E. State Contract Officer  
Mr. Clay Willis, Division 1 Environmental Officer  
Mr. Majed Alghandour, P. E., Program and TIP  
Mr. Jay Bennett, P.E., Roadway Design  
Dr. David Chang, P.E., Hydraulics  
Mr. Art McMillan, P.E., Highway Design  
Mr. Tom Koch, P.E., Structure Design  
Mr. Mark Staley, Roadside Environmental  
Mr. John F. Sullivan, FHWA  
Mr. Ron Hancock, P.E., State Roadway Construction Engineer  
Mr. Mike Robinson, P.E., State Bridge Construction Engineer  
Ms. Christie Huff, PDEA Project Planning Engineer  
Mr. Bill Goodwin, P.E., PDEA Bridge Unit

# PROJECT COMMITMENTS

HYDE COUNTY  
BRIDGE NO. 45 ON US 264  
OVER OUTFALL CANAL  
FEDERAL-AID PROJECT NO. BRSTP-264(23)  
W.B.S. NO. 33764.1.1  
STATE PROJECT NO. 8.1081001  
T.I.P. NO. B-4551

## COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

### All Design Groups

Follow all Stream Crossing Guidelines for Anadromous Fish Passage Including an in-water work moratorium from February 15 to June 30 to minimize impacts to anadromous fish.

Ensure that “*Guidelines for Avoiding Impacts to the West Indian Manatee: Precautionary Measures for Construction Activities in North Carolina Waters*” are implemented.

### Division 1

US 264 is a designated bike route (NC Bicycle Highway Route 2, Mountains to Sea). AASHTO standard bicycle-safe bridge rails 54 inches in height and 4-foot paved shoulders will be included as recommended by the N. C. Division of Bicycle and Pedestrian Transportation.

Coordinate and provide adequate notice to Hyde County Schools and Hyde County Emergency Services prior to bridge construction. NCDOT will coordinate with Hyde County to ensure that impacts to seasonal transportation needs including school buses, farming equipment and vacationing motorists are minimized during construction. NCDOT will set the minimum reasonable contract time to reduce the duration of bridge construction.

This project involves construction activities on or adjacent to a FEMA-regulated stream. Therefore, the division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

*NOTE: This project is tidal. No as-built plans will be necessary.*

### Hydraulics Unit

The Hydraulics Unit will coordinate with the N. C. Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA’s National Flood Insurance Program, to determine the status of the project with regard to applicability of NCDOT’s Memorandum of Agreement with FMP (dated 6/5/09), or approval of a Conditional Letter of Map Revision (CLOMR), or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

*This project is tidal and was not subject to CLOMR or LOMR, nor did it fall under MOA guidelines.*

## **COMMITMENTS FROM PERMITTING**

### **Division Construction and Roadside Environmental Unit**

Turbidity curtains shall be used during all in-water work.

The existing bridge and pilings (including any relic pilings) shall be removed in their entirety.

### **Utilities Unit**

All subaqueous lines must be installed at a minimum depth of two feet below the stream bottom.

**CAMA / DREDGE & FILL**  
**GENERAL PERMIT**

Nº 56368

New  Modification  Complete Reissue  Partial Reissue

Previous permit # \_\_\_\_\_  
 Date previous permit issued \_\_\_\_\_

As authorized by the State of North Carolina, Department of Environment and Natural Resources and the Coastal Resources Commission in an area of environmental concern pursuant to 15A NCAC

07H.1600.2300

Rules attached.

Applicant Name N. D. ...  
 Address 1275 ...  
 City Raleigh, NC State NC ZIP 27611-598  
 Phone # (707) 707-6000 Fax # ( )  
 Authorized Agent Gregory ...

Project Location: County Hyde  
 Street Address/ State Road/ Lot #(s) Bridge # 45  
on US 264 (3-4551)  
 Subdivision \_\_\_\_\_  
 City Swan Quarter, NC ZIP 27885  
 Phone # ( ) \_\_\_\_\_ River Basin Tar-Pamlico  
 Adj. Wtr. Body Outfall Canal (nat  man  unkn)  
 Closest Maj. Wtr. Body Pamlico Sound

Affected  CW  EW  PTA  YES  PTS  
 AEC(s):  OEA  HHF  IH  UBA  N/A  
 PWS: \_\_\_\_\_  FC: \_\_\_\_\_  
 ORW: yes /  no PNA: yes /  no Crit.Hab. yes / no

Type of Project/ Activity Construct a 45' X 125' bridge to replace the existing 33' X 104' bridge and relocate power, telephone, and water lines. (Scale: N/A)

Pier (dock) length \_\_\_\_\_  
 Platform(s) \_\_\_\_\_  
 Finger pier(s) \_\_\_\_\_  
 Groin length \_\_\_\_\_  
 number \_\_\_\_\_  
 Bulkhead/ Riprap length \_\_\_\_\_  
 avg distance offshore \_\_\_\_\_  
 max distance offshore \_\_\_\_\_  
 Basin, channel \_\_\_\_\_  
 cubic yards \_\_\_\_\_  
 Boat ramp \_\_\_\_\_  
 Boathouse/ Boatlift \_\_\_\_\_  
 Beach Bulldozing \_\_\_\_\_  
 Other 45' X 125' long bridge  
Relocate power, telephone,  
and water lines.

New Bridge Plans Attached  
and Incorporated into Permit

Shoreline Length 765  
 SAV: not sure yes  no   
 Sandbags: not sure yes  no   
 Moratorium: N/A yes  no   
 Photos: yes  no   
 Waiver Attached: yes  no

Note: Revised bridge plans received on 5-11-11  
to allow additional driveway relocation are  
attached and incorporated into this permit. 5-13-11

A building permit may be required by: Hyde County  See note on back regarding River Basin rules.

Notes/ Special Conditions ① The existing bridge and pilings (including any relic pilings) shall be removed in their entirety. ② All subaqueous lines must be installed at a minimum depth of two feet below the stream bottom. ③ No in-water work is allowed from February 15

to June 30 of any year. ④ Incubity curators shall be used during all in-water work.

Agent or Applicant Printed Name E. L. Dusk  
 Signature E. L. Dusk  
 Application Fee(s) \_\_\_\_\_ Check# \_\_\_\_\_

Permit Officer's Signature Stephen ...  
 Issuing Date 2-18-11  
 Local Planning Jurisdiction Hyde Co  
 Expiration Date No Expiration Date pursuant to 07H.1600.44-70  
 River File Name X010702A



**Statement of Compliance and Consistency**

This permit is subject to compliance with this application, site drawing and attached general and specific conditions. Any violation of these terms may subject the permittee to a fine or criminal or civil action; and may cause the permit to become null and void.

This permit must be on the project site and accessible to the permit officer when the project is inspected for compliance. The applicant certifies by signing this permit that 1) prior to undertaking any activities authorized by this permit, the applicant will confer with appropriate local authorities to confirm that this project is consistent with the local land use plan and all local ordinances, and 2) a written statement or certified mail return receipt has been obtained from the adjacent riparian landowner(s).

The State of North Carolina and the Division of Coastal Management, in issuing this permit under the best available information and belief, certify that this project is consistent with the North Carolina Coastal Management Program.

**River Basin Rules Applicable To Your Project:**

Tar - Pamlico River Basin Buffer Rules

Other: \_\_\_\_\_

Neuse River Basin Buffer Rules

If indicated on front of permit, your project is subject to the Environmental Management Commission's Buffer Rules for the River Basin checked above due to its location within that River Basin. These buffer rules are enforced by the NC Division of Water Quality. Contact the Division of Water Quality at the Washington Regional Office (252-946-6481) or the Wilmington Regional Office (910-796-7215) for more information on how to comply with these buffer rules.

**Division of Coastal Management Offices**

**Raleigh Office**

Mailing Address:  
1638 Mail Service Center  
Raleigh, NC 27699-1638

Location:  
2728 Capital Blvd.  
Raleigh, NC 27604  
919-733-2293  
Fax: 919-733-1495

**Morehead City Headquarters**

400 Commerce Ave  
Morehead City, NC 28557  
252-808-2808/ 1-888-4RCOAST  
Fax: 252-247-3330  
(Serves: Carteret, Craven, Onslow -above  
New River Inlet- and Pamlico Counties)

**Elizabeth City District**

1367 U.S. 17 South  
Elizabeth City, NC 27909  
252-264-3901  
Fax: 252-264-3723  
(Serves: Camden, Chowan, Currituck,  
Dare, Gates, Pasquotank and Perquimans  
Counties)

**Washington District**

943 Washington Square Mall  
Washington, NC 27889  
252-946-6481  
Fax: 252-948-0478  
(Serves: Beaufort, Bertie, Hertford, Hyde,  
Tyrrell and Washington Counties)

**Wilmington District**

127 Cardinal Drive Ext.  
Wilmington, NC 28405-3845  
910-796-7215  
Fax: 910-395-3964  
(Serves: Brunswick, New Hanover,  
Onslow -below New River Inlet- and  
Pender Counties)



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726

### **GUIDELINES FOR AVOIDING IMPACTS TO THE WEST INDIAN MANATEE Precautionary Measures for Construction Activities in North Carolina Waters**

The West Indian manatee (*Trichechus manatus*), also known as the Florida manatee, is a Federally-listed endangered aquatic mammal protected under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) and the Marine Mammal Protection Act of 1972, as amended (16 U.S.C 1461 *et seq.*). The manatee is also listed as endangered under the North Carolina Endangered Species Act of 1987 (Article 25 of Chapter 113 of the General Statutes). The U.S. Fish and Wildlife Service (Service) is the lead Federal agency responsible for the protection and recovery of the West Indian manatee under the provisions of the Endangered Species Act.

Adult manatees average 10 feet long and weigh about 2,200 pounds, although some individuals have been recorded at lengths greater than 13 feet and weighing as much as 3,500 pounds. Manatees are commonly found in fresh, brackish, or marine water habitats, including shallow coastal bays, lagoons, estuaries, and inland rivers of varying salinity extremes. Manatees spend much of their time underwater or partly submerged, making them difficult to detect even in shallow water. While the manatee's principal stronghold in the United States is Florida, the species is considered a seasonal inhabitant of North Carolina with most occurrences reported from June through October.

To protect manatees in North Carolina, the Service's Raleigh Field Office has prepared precautionary measures for general construction activities in waters used by the species. Implementation of these measure will allow in-water projects which do not require blasting to proceed without adverse impacts to manatees. In addition, inclusion of these guidelines as conservation measures in a Biological Assessment or Biological Evaluation, or as part of the determination of impacts on the manatee in an environmental document prepared pursuant to the National Environmental Policy Act, will expedite the Service's review of the document for the fulfillment of requirements under Section 7 of the Endangered Species Act. These measures include:

1. The project manager and/or contractor will inform all personnel associated with the project that manatees may be present in the project area, and the need to avoid any harm to these endangered mammals. The project manager will ensure that all construction personnel know the general appearance of the species and their habit of moving about completely or partially submerged in shallow water. All construction personnel will be informed that they are responsible for observing water-related activities for the presence of manatees.
2. The project manager and/or the contractor will advise all construction personnel that

there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act and the Endangered Species Act.

3. If a manatee is seen within 100 yards of the active construction and/or dredging operation or vessel movement, all appropriate precautions will be implemented to ensure protection of the manatee. These precautions will include the immediate shutdown of moving equipment if a manatee comes within 50 feet of the operational area of the equipment. Activities will not resume until the manatee has departed the project area on its own volition (i.e., it may not be herded or harassed from the area).

4. Any collision with and/or injury to a manatee will be reported immediately. The report must be made to the U.S. Fish and Wildlife Service (ph. 919.856.4520 ext. 16), the National Marine Fisheries Service (ph. 252.728.8762), and the North Carolina Wildlife Resources Commission (ph. 252.448.1546).

5. A sign will be posted in all vessels associated with the project where it is clearly visible to the vessel operator. The sign should state:

**CAUTION:** The endangered manatee may occur in these waters during the warmer months, primarily from June through October. Idle speed is required if operating this vessel in shallow water during these months. All equipment must be shut down if a manatee comes within 50 feet of the vessel or operating equipment. A collision with and/or injury to the manatee must be reported immediately to the U.S. Fish and Wildlife Service (919-856-4520 ext. 16), the National Marine Fisheries Service (252.728.8762), and the North Carolina Wildlife Resources Commission (252.448.1546).

6. The contractor will maintain a log detailing sightings, collisions, and/or injuries to manatees during project activities. Upon completion of the action, the project manager will prepare a report which summarizes all information on manatees encountered and submit the report to the Service's Raleigh Field Office.

7. All vessels associated with the construction project will operate at "no wake/idle" speeds at all times while in water where the draft of the vessel provides less than a four foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

8. If siltation barriers must be placed in shallow water, these barriers will be: (a) made of material in which manatees cannot become entangled; (b) secured in a manner that they cannot break free and entangle manatees; and, (c) regularly monitored to ensure that manatees have not become entangled. Barriers will be placed in a manner to allow manatees entry to or exit from essential habitat.

Prepared by (rev. 06/2003):  
U.S. Fish and Wildlife Service  
Raleigh Field Office  
Post Office Box 33726  
Raleigh, North Carolina 27636-3726  
919/856-4520

Figure 1 The whole body of the West Indian manatee may be visible in clear water; but in the dark and muddy waters of coastal North Carolina, one normally sees only a small part of the head when the manatee raises its nose to breathe.

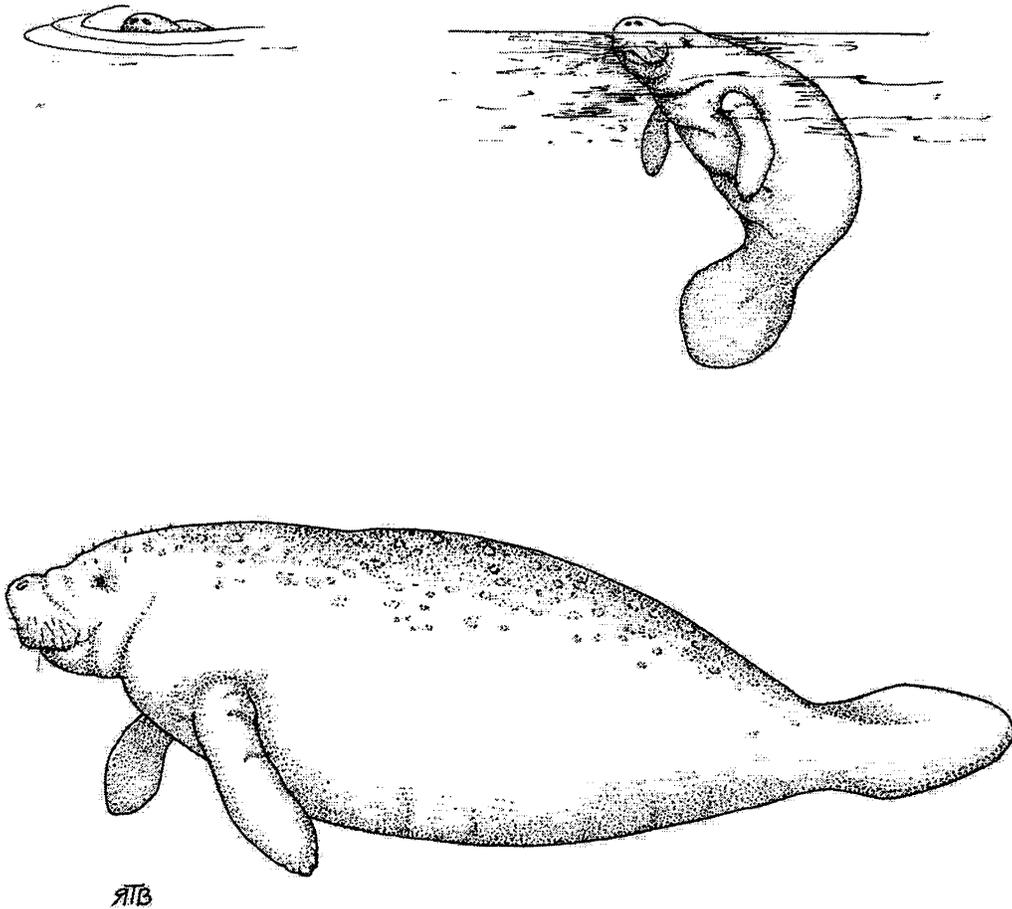
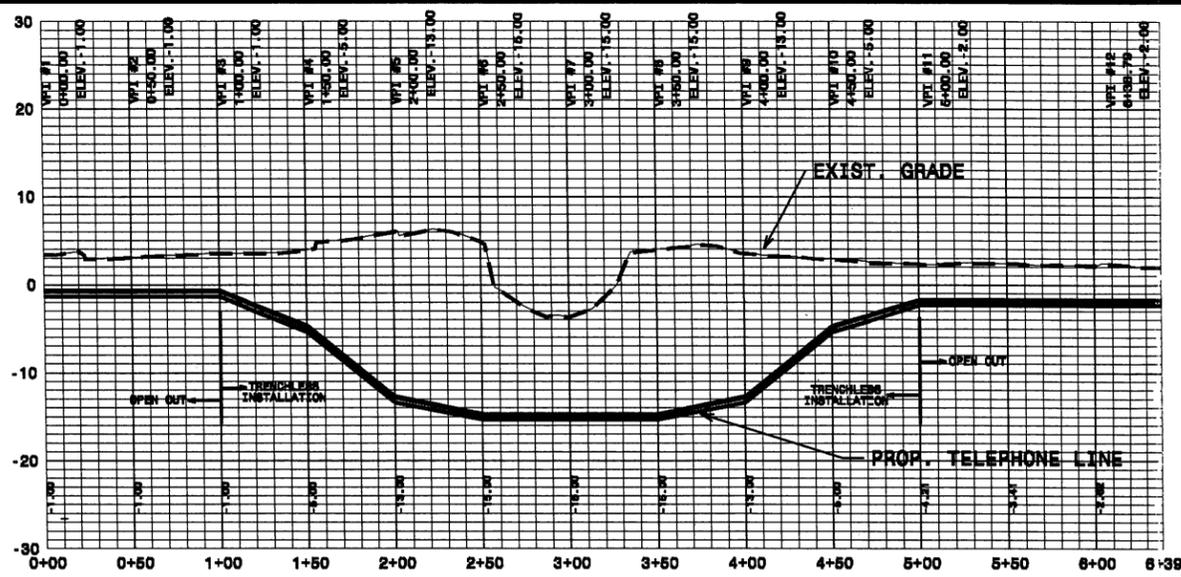


Illustration used with the permission of the North Carolina State Museum of Natural Sciences.  
Source: Clark, M. K. 1987 Endangered, Threatened, and Rare Fauna of North Carolina: Part I.  
A re-evaluation of the mammals. Occasional Papers of the North Carolina Biological Survey 1987-  
3. North Carolina State Museum of Natural Sciences. Raleigh, NC. pp. 52.

5/14/99

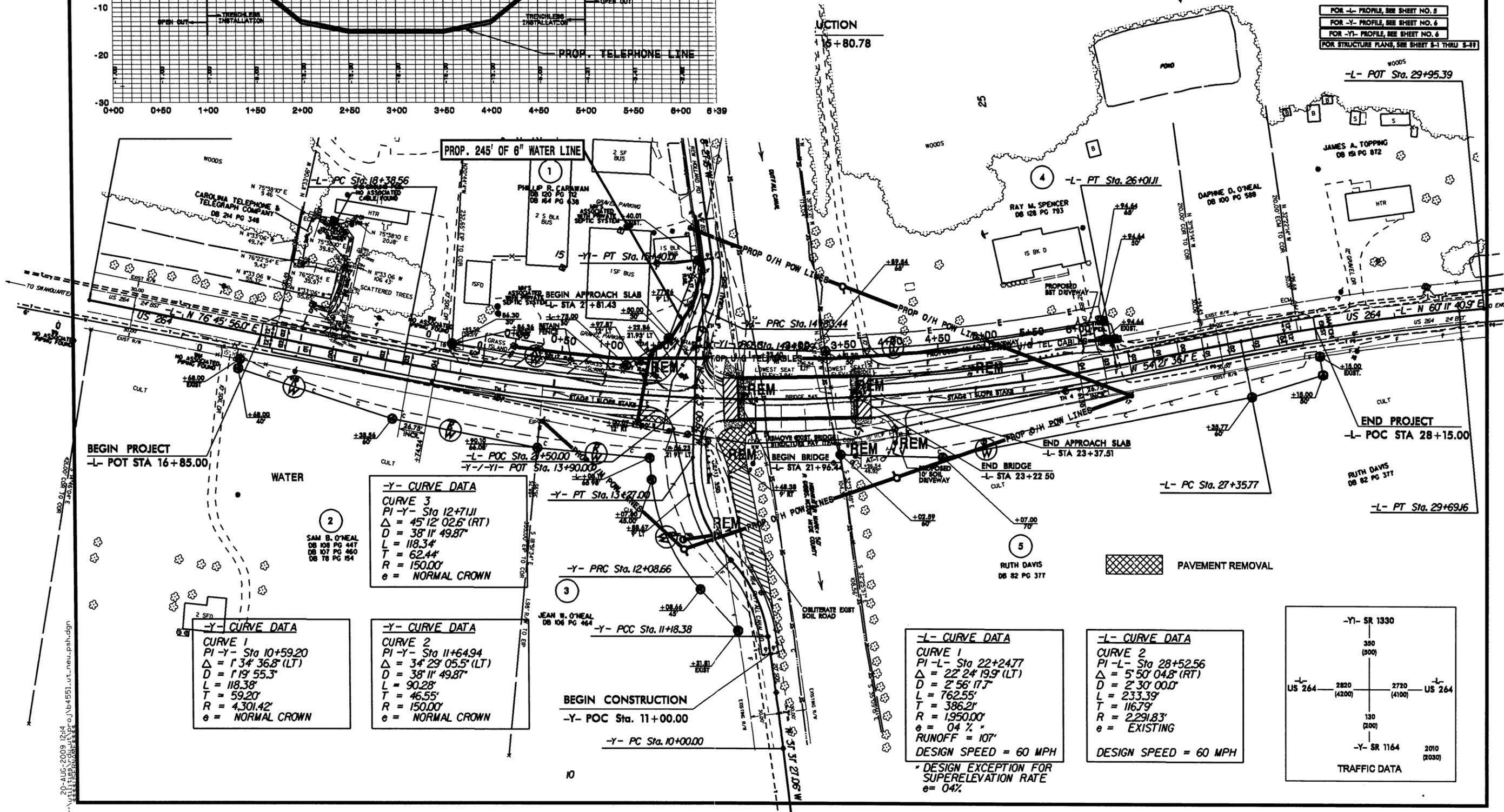


**-YI- CURVE DATA**  
**CURVE 1**  
 PI -YI- Sta 14+63.93  
 $\Delta = 22^\circ 39' 32.5''$  (RT)  
 $D = 57^\circ 17' 44.8''$   
 $L = 39.55'$   
 $T = 20.04'$   
 $R = 100.00'$   
 $e = \text{NORMAL CROWN}$

**-YI- CURVE DATA**  
**CURVE 2**  
 PI -YI- Sta 15+12.51  
 $\Delta = 32^\circ 24' 53.5''$  (LT)  
 $D = 57^\circ 17' 44.8''$   
 $L = 56.57'$   
 $T = 29.07'$   
 $R = 100.00'$   
 $e = \text{NORMAL CROWN}$

PROJECT REFERENCE NO. B-4551	SHEET NO. 4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>PRELIMINARY PLANS</b> DO NOT USE FOR CONSTRUCTION	
<b>Permit Drawing Sheet 1 of 1</b>	
<b>DRMP</b> DRMP ENGINEERING 1700 EAST WILSON AVENUE, SUITE 100 CHARLOTTE, NORTH CAROLINA 28207 PHONE 336-292-2200 FAX 336-292-2201 NC LICENSE NO. C-283	

FOR -L- PROFILE, SEE SHEET NO. 8  
 FOR -YI- PROFILE, SEE SHEET NO. 6  
 FOR -YI- PROFILE, SEE SHEET NO. 6  
 FOR STRUCTURE PLANS, SEE SHEET S-1 THRU S-17



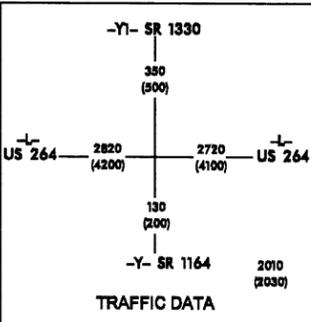
**-Y- CURVE DATA**  
**CURVE 3**  
 PI -Y- Sta 12+71.11  
 $\Delta = 45^\circ 12' 02.6''$  (RT)  
 $D = 38^\circ 11' 49.8''$   
 $L = 118.34'$   
 $T = 62.44'$   
 $R = 150.00'$   
 $e = \text{NORMAL CROWN}$

**-Y- CURVE DATA**  
**CURVE 1**  
 PI -Y- Sta 10+59.20  
 $\Delta = 1^\circ 34' 36.8''$  (LT)  
 $D = 1^\circ 19' 55.3''$   
 $L = 118.38'$   
 $T = 59.20'$   
 $R = 4,301.42'$   
 $e = \text{NORMAL CROWN}$

**-Y- CURVE DATA**  
**CURVE 2**  
 PI -Y- Sta 11+64.94  
 $\Delta = 34^\circ 29' 05.5''$  (LT)  
 $D = 38^\circ 11' 49.8''$   
 $L = 90.28'$   
 $T = 46.55'$   
 $R = 150.00'$   
 $e = \text{NORMAL CROWN}$

**-L- CURVE DATA**  
**CURVE 1**  
 PI -L- Sta 22+24.77  
 $\Delta = 22^\circ 24' 19.9''$  (LT)  
 $D = 2^\circ 56' 17.7''$   
 $L = 762.55'$   
 $T = 386.2'$   
 $R = 1,950.00'$   
 $e = 0.4\%$   
 $\text{RUNOFF} = 107'$   
**DESIGN SPEED = 60 MPH**

**-L- CURVE DATA**  
**CURVE 2**  
 PI -L- Sta 28+52.56  
 $\Delta = 5^\circ 50' 04.8''$  (RT)  
 $D = 2^\circ 30' 00.0''$   
 $L = 233.39'$   
 $T = 116.79'$   
 $R = 2,291.83'$   
 $e = \text{EXISTING}$   
**DESIGN SPEED = 60 MPH**



20-AUG-2009 12:14  
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