



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

July 14, 2015

U.S. Army Corps of Engineers
Regulatory Field Office
2407 West 5th Street
Washington, NC 27889

ATTN: Ms. Tracey Wheeler
NCDOT Coordinator

SUBJECT: **Application for Section 10 and Section 404 Nationwide Permit 6** for Field Investigations for a Proposed Bridge for the Phase II B portion of the NC 12 long term improvements in Dare County; TIP Project B-2500 (Phase II B); Federal Aid Project BRNH-0012 (56)

Dear Madam,

As part of the NEPA process for the Phase II B section of the project, the North Carolina Department of Transportation (NCDOT) is planning a limited subsurface investigation to gather information for the foundation design of the above-referenced structure. The investigation will take place along the preferred alternatives -2014A- and -2014B- (Sound Alignments), as depicted on the attached figures.

A private engineering firm will be selected to conduct the investigation with up to 25 Standard Penetration Test (SPT) borings and 20 Cone Penetration Tests (CPT) to be performed. These 45 borings will be performed in the corridor shown on the attached site map. Forty borings will be located in Pamlico Sound. The remaining 5 borings are located in uplands. The Department has shifted the boring locations so that no borings will occur in wetlands.

The borings in the sound will be advanced from a jack-up barge, and will consist of turning or driving 3-inch to 8-inch diameter steel casing into the sound bottom creating minimal disturbance. Other drilling tools will be used to sample the sediments and advance the hole within the steel casing. The steel casing will be removed upon completing the boring.

Any borings drilled on land or in shallow water in the sound will be performed with a rubber tired drill rig or low ground pressure tracked drill rig, respectively. These borings will also be 3-inch to 8-inch in diameter. Any disturbance from the borings should be limited to within a 2-foot radius of the boring location.

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

TELEPHONE: 919-707-6000
FAX: 919-212-5785
WEBSITE:NCDOT.GOV

LOCATION:
CENTURY CENTER, BUILDING B
1020 BIRCH RIDGE DRIVE
RALEIGH NC 27610

All borings are scheduled to be drilled by October 16, 2015.

Regulatory Approvals:

We are hereby requesting a Nationwide Permit No. 6 for borings occurring in the sound for the above mentioned activities.

The NCDOT has also submitted a modification/renewal of a Special Use Permit from the Pea Island National Wildlife Refuge for these activities.

If you have any questions or would like additional information, please contact Michael Turchy at maturchy@ncdot.gov or (919) 707-6157. A copy of this request will be posted at: <https://connect.ncdot.gov/resources/Environmental/Pages>

Sincerely,



for

Richard W. Hancock, P.E., Manager
Project Development and Environmental Analysis Unit

cc:

John L. Pilipchuk, LG, PE, NCDOT-Geotechnical Engineering Unit

Greg Daisey, NCDCEM-Elizabeth City

Garcy Ward, NCDWR-Washington



Office Use Only:
 Corps action ID no. _____
 DWQ project no. _____
 Form Version 1.4 January 2009

Pre-Construction Notification (PCN) Form

A. Applicant Information

1. Processing

1a. Type(s) of approval sought from the Corps: Section 404 Permit Section 10 Permit

1b. Specify Nationwide Permit (NWP) number: 6 or General Permit (GP) number:

1c. Has the NWP or GP number been verified by the Corps? Yes No

1d. Type(s) of approval sought from the DWQ (check all that apply):
 401 Water Quality Certification – Regular Non-404 Jurisdictional General Permit
 401 Water Quality Certification – Express 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: For the record only for Corps Permit:
 Yes No Yes 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. Yes No

1g. Is the project located in any of NC's twenty coastal counties. If yes, answer 1h below. Yes No

1h. Is the project located within a NC DCM Area of Environmental Concern (AEC)? Yes No

2. Project Information

2a. Name of project: B-2500 (Phase II B) - Geotechnical Investigations for the Long Term Improvements to NC 12.

2b. County: Dare

2c. Nearest municipality / town: Rodanthe

2d. Subdivision name: n/a

2e. NCDOT only, T.I.P. or state project no: B-2500 (Phase II B)

3. Owner Information

3a. Name(s) on Recorded Deed: North Carolina Department of Transportation

3b. Deed Book and Page No.

3c. Responsible Party (for LLC if applicable):

3d. Street address: 1598 Mail Service Center

3e. City, state, zip: Raleigh, NC 27699-1598

3f. Telephone no.: 919-707-6157

3g. Fax no.: 919-212-5785

3h. Email address: maturchy@ncdot.gov

4. Applicant Information (if different from owner)	
4a. Applicant is:	<input type="checkbox"/> Agent <input type="checkbox"/> Other, specify:
4b. Name:	
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:	
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):	
1b. Site coordinates (in decimal degrees):	Latitude: 35.61171 (DD.DDDDDD) Longitude: - 75.46664 (-DD.DDDDDD)
1c. Property size:	Approximately 30 acres
2. Surface Waters	
2a. Name of nearest body of water (stream, river, etc.) to proposed project:	Pamlico Sound
2b. Water Quality Classification of nearest receiving water:	SA HQW
2c. River basin:	Pasquotank
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: Natural barrier island system, with recreation in Pea Island National Wildlife Refuge and Cape Hatteras National Seashore.	
3b. List the total estimated acreage of all existing wetlands on the property: Approximately 0.52 acre	
3c. List the total estimated linear feet of all existing streams (intermittent and perennial) on the property: n/a	
3d. Explain the purpose of the proposed project: To perform subsurface investigations to determine for foundation design for the above mentioned project.	
3e. Describe the overall project in detail, including the type of equipment to be used: Equipment to be used will include rubber tired drill rigs or low ground pressure tracked rigs.	
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:	<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): Sam Cooper	Agency/Consultant Company: CZR Inc. Other:
4d. If yes, list the dates of the Corps jurisdictional determinations or State determinations and attach documentation. May 4, 2012, Action ID SAW-2012-00715. The Division of Coastal Management concurred with CAMA mapping on May 30, 2012	
5. Project History	
5a. Have permits or certifications been requested or obtained for this project (including all prior phases) in the past?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
5b. If yes, explain in detail according to "help file" instructions. Please see attached cover letter. A NWP 6 (Action ID: SAW-2013-02353) on 12/10/2013.	
6. Future Project Plans	
6a. Is this a phased project?	<input type="checkbox"/> Yes <input type="checkbox"/> No See Attached Cover Letter
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 type="checkbox"/> Streams - tributaries <input type="checkbox"/> Buffers <input checked="" 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)	
W1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
W2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
W3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
W4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
W5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
W6 <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						
2h. Comments:						
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)
S1 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S2 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S3 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S4 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S5 <input type="checkbox"/> P <input type="checkbox"/> T			<input type="checkbox"/> PER <input type="checkbox"/> INT	<input type="checkbox"/> Corps <input type="checkbox"/> DWQ		
S6 <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						
3i. Comments:						

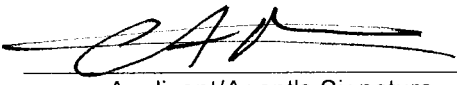
4. Open Water Impacts									
If there are proposed impacts to lakes, ponds, estuaries, tributaries, sounds, the Atlantic Ocean, or any other open water of the U.S. then individually list all open water impacts below.									
4a. Open water impact number – Permanent (P) or Temporary (T)	4b. Name of waterbody (if applicable)	4c. Type of impact			4d. Waterbody type	4e. Area of impact (acres)			
O1 <input type="checkbox"/> P <input checked="" type="checkbox"/> T	Pamlico Sound	8" maximum borings x 40 borings			Open Water	0.05			
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						0.05 (temporary)			
4g. Comments: Actual amount per boring is 50 square inches. 50 square inches x 40 borings = 2,000 square inches or 0.046 acre.									
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 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:									

D. Impact Justification and Mitigation		
1. Avoidance and Minimization		
1a. Specifically describe measures taken to avoid or minimize the proposed impacts in designing project. Any borings drilled on land or in shallow water in the sound will be performed with a rubber tired drill rig or low ground pressure tracked drill rig respectively. All borings will be 3-inch to 8-inch in diameter. Borings were originally located in wetlands, but accommodations were made to shift borings outside of wetlands.		
1b. Specifically describe measures taken to avoid or minimize the proposed impacts through construction techniques. NCDOT will implement "Guidelines for Avoiding Impacts to the West Indian Manatee, Precautionary Measures for Construction Activities in North Carolina Waters," during work for this project.		
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	
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:		
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.		

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 no, explain why. Comments: Temporary subsurface activity only.	<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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2c. If this project DOES NOT require a Stormwater Management Plan, explain why: subsurface exploration only	
2d. If this project DOES require a Stormwater Management Plan, then provide a brief, narrative description of the plan: n/a	
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 type="checkbox"/> DWQ 401 Unit
3. Certified Local Government Stormwater Review	
3a. In which local government's jurisdiction is this project?	n/a
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: N/A
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
5b. Have all of the 401 Unit submittal requirements been met?	<input type="checkbox"/> Yes <input type="checkbox"/> No

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: NEPA FEIS/EA/ROD for TIP B-2500	<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. This is a temporary subsurface geotechnical and design investigation. Cumulative effects of the overall project (B-2500) were thoroughly addressed in the EIS/EA/ROD.	
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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
5c. If yes, indicate the USFWS Field Office you have contacted.	<input checked="" 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? USFWS website and agency consultation; FEIS/ROD Pursuant to communication with Eric Hawk from NOAA Fisheries from the previous NW 6 verification for this project, "I don't foresee any route of potential adverse effects from the driving of approximately twenty small-diameter (3-inch to 8-inch) steel casings into Pamlico Sound during the February 1-July 31 sturgeon moratorium. The noise disturbance and turbidity effects should be very minimal and the possibility of driving a casing onto a mobile listed species is implausible." Due to the above statement, no moratorium is anticipated for this project.		
6. Essential Fish Habitat (Corps Requirement)		
6a. Will this project occur in or near an area designated as essential fish habitat?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
6b. What data sources did you use to determine whether your site would impact Essential Fish Habitat? NMFS county index; FEIS/ROD		
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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
7b. What data sources did you use to determine whether your site would impact historic or archeological resources? NEPA documentation; FEIS/ROD		
8. Flood Zone Designation (Corps Requirement)		
8a. Will this project occur in a FEMA-designated 100-year floodplain?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
8b. If yes, explain how project meets FEMA requirements: This temporary activity will not result in changes in permanent flood elevations.		
8c. What source(s) did you use to make the floodplain determination? approved NEPA documents		
For Richard W. Hancock, P.E. Applicant/Agent's Printed Name	 Applicant/Agent's Signature (Agent's signature is valid only if an authorization letter from the applicant is provided.)	07-14-2015 Date


VICINITY MAP

0 1200 2400



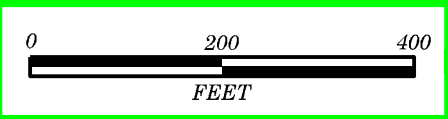
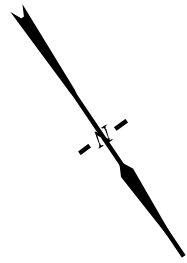
FEET



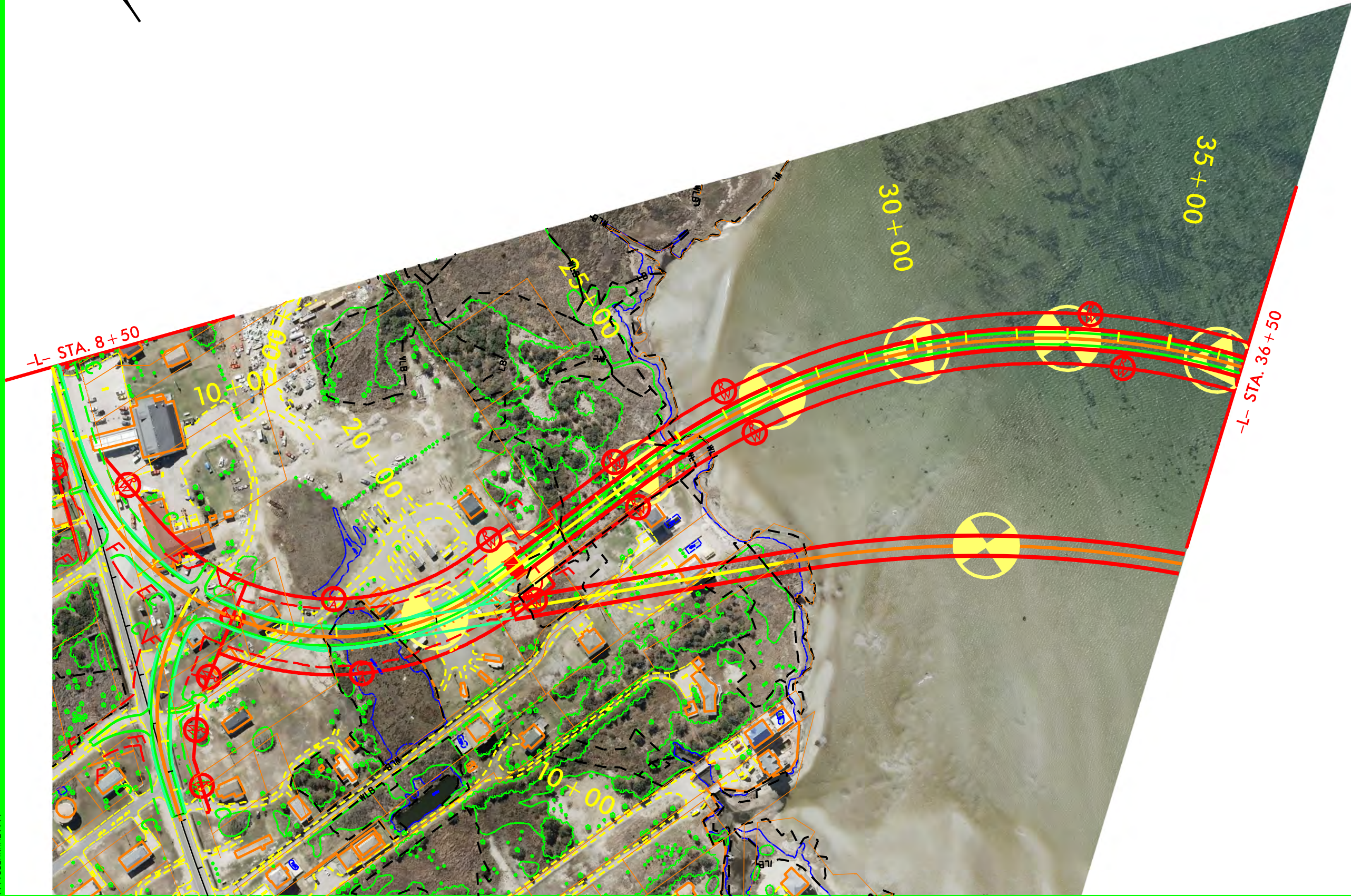
-  PROPOSED BORING LOCATIONS
-  PROPOSED BORING CORRIDOR



8/17/99

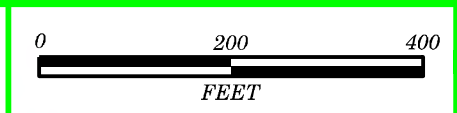


PROJECT REFERENCE NO. B-2500B	SHEET NO. 1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ADJUSTION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

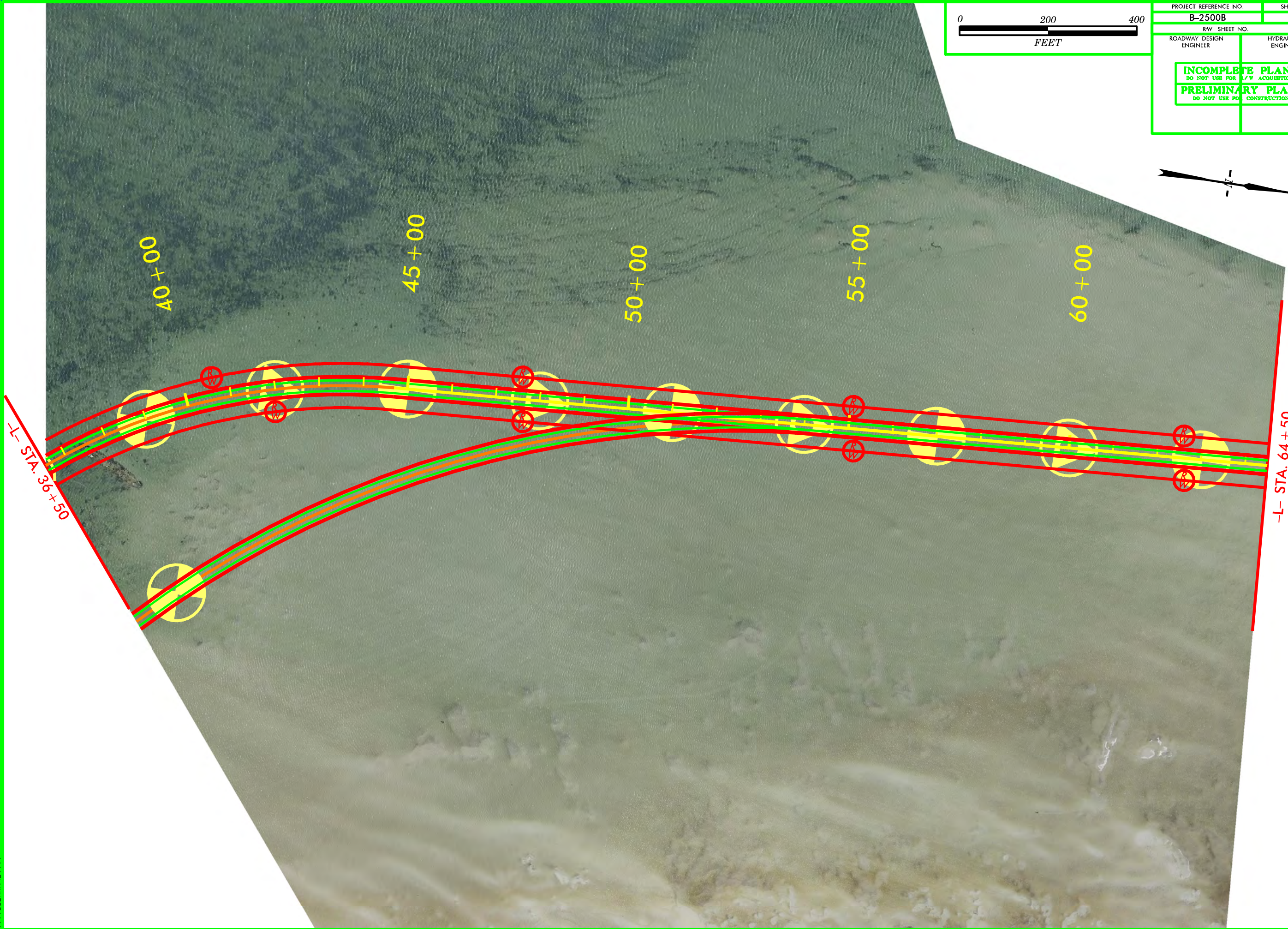


*****SYTIME*****
 *****USERNAME*****

8/17/99

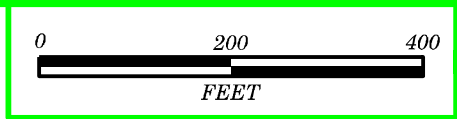


PROJECT REFERENCE NO. B-2500B	SHEET NO. 2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ADOPTION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

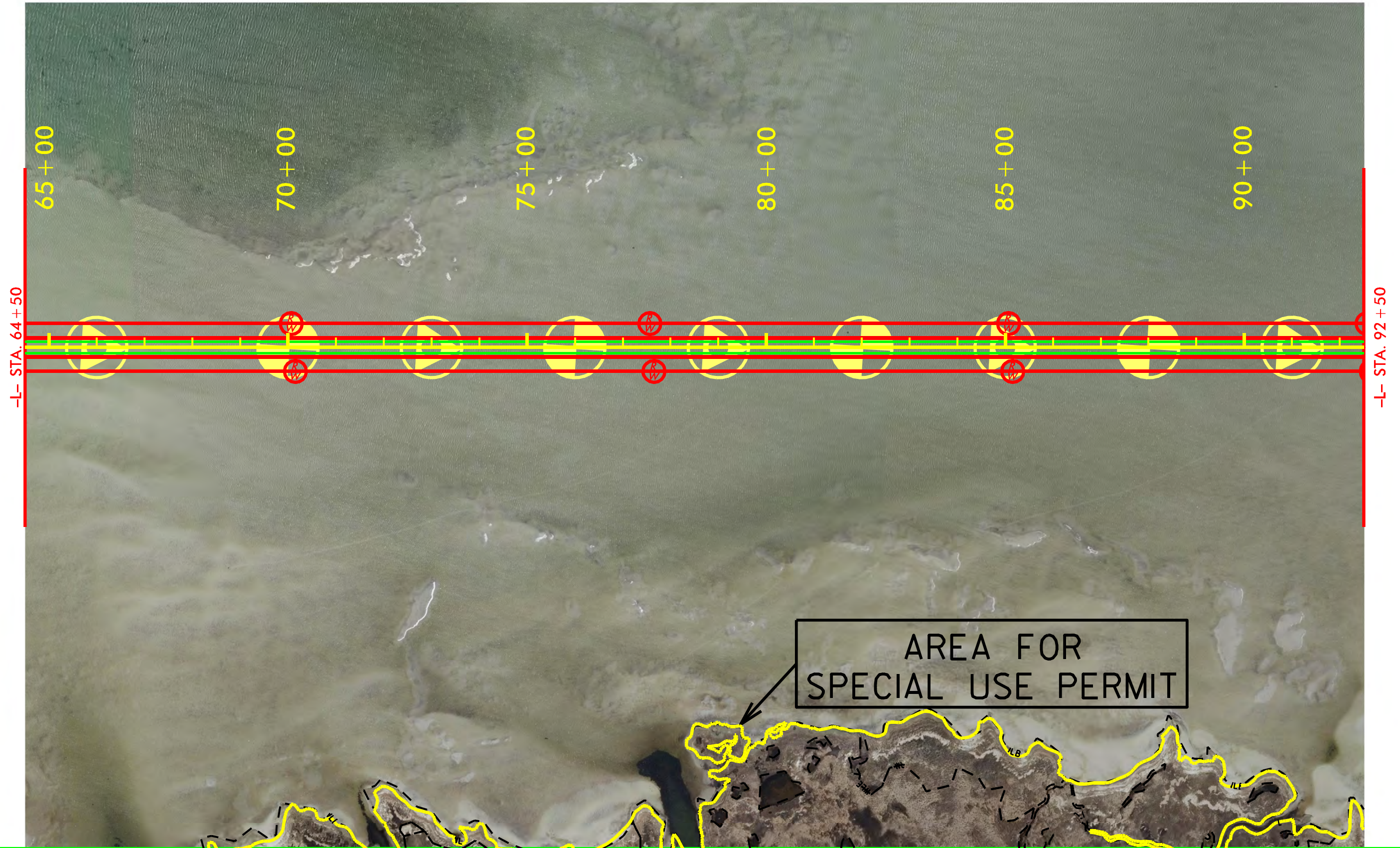


 \$SYTIME\$
 \$USERNAME\$

8/17/99

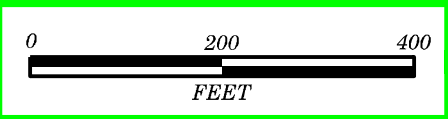


PROJECT REFERENCE NO. B-2500B	SHEET NO. 3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS <small>DO NOT USE FOR ADOPTION</small>	
PRELIMINARY PLANS <small>DO NOT USE FOR CONSTRUCTION</small>	

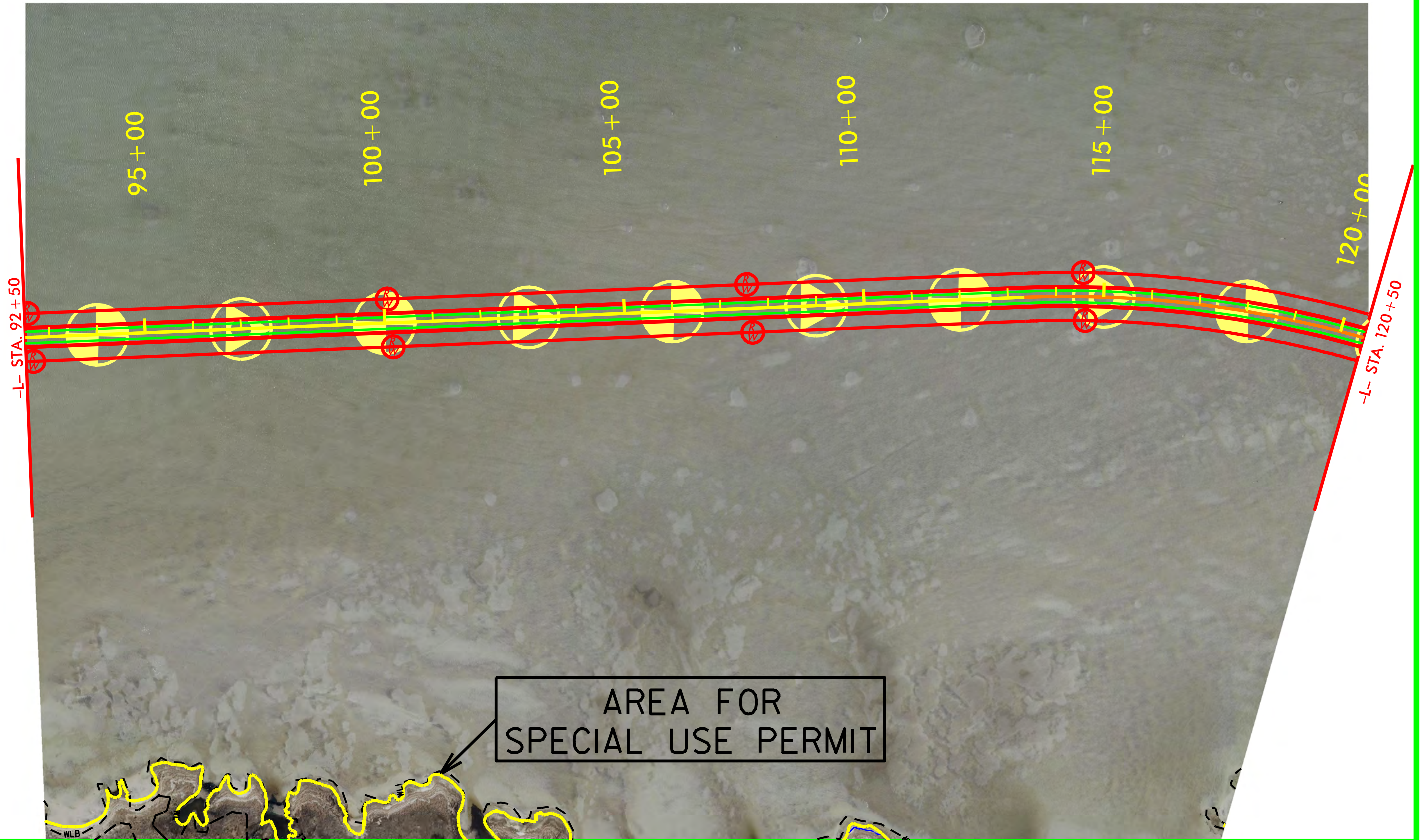


 SYSTEMS DESIGN *****
 USER NAME *****

8/17/99

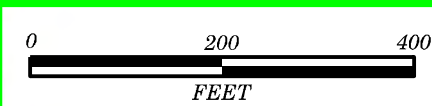


PROJECT REFERENCE NO. B-2500B	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR ADOPTION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



*****SYTIME*****
*****USERNAME*****

8/17/99



PROJECT REFERENCE NO. B-2500B	SHEET NO. 5
RW SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	CONSTRUCTION
INCOMPLETE PLANS DO NOT USE FOR ADOPTION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

AREA FOR SPECIAL USE PERMIT

MITIGATION SITE

AREA OF BORING LOCATIONS FOR SPECIAL USE PERMIT

-L- STA. 120+50

-L- STA. 148+50

125+00

130+00

N 27° 48' 07.5" E

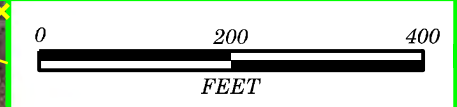
B-2
X=3049272
Y=701203

B-1
X=3049172
Y=701202

B-3
X=3049677
Y=701230

SYTIME
SDON
USERNAME

8/17/99



PROJECT REFERENCE NO. B-2500B	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR W/ADJUSTION	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



MITIGATION SITE

END TIP PROJECT B-2500B
-L- NC 12 POT STA 2988+45.59

-L- STA. 148+50

-L- STA. 158+05 Ext. 1845.38

BB-4
N=3048924
E=704052

-L- POT STA 158+04.62 BK =
-L- NC 12 POT STA 2982+44.55 AH



*****SYTIME*****
*****USERNAME*****