STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

June 30, 2006

Division of Coastal Management
N.C. Dept. of Environment and Natural Resources
1638 Mail Service Center
Raleigh, NC 27699-1638

ATTENTION: Mr. Steve Sollod
NCDOT Coordinator

Dear Sir:

Subject: **CAMA Major Development Permit Application** for the Replacement of Bridge No. 60 (Alfred Cunningham Bridge) over the Trent River on US 70 Business (East Front Street); Craven County; TIP Project B-2532; Federal Aid Project No. BRSTP-070B(4); State Project No.8.1172401;
Debit $400 from WBS Element 32649.1.1.

Please find enclosed the CAMA Major Development Permit Application, permit drawings, half-size plans, and the Categorical Exclusion (CE) for the above-mentioned project. The North Carolina Department of Transportation proposes to replace existing Bridge No. 60 over the Trent River on US 70 Business in Craven County. The project involves replacement of the existing swingspan bridge, related approaches, and traffic control devices with a bascule bridge, new approach structures, and new traffic control devices. The new bridge will feature two 11-foot lanes with a 4-foot shoulder along the northbound lane and a two-foot gutter along the southbound lane. A sidewalk (5.5 feet in width on the bridge and 5 feet in width on the roadway approaches) will be provided adjacent to the southbound lane for the entire project length. Total project length is 2,480 feet with the bridge comprising 1,762 feet. The project schedule calls for a January 16, 2007 let with a review date of December 12, 2006. Proposed permanent impacts include 6,049 sq. feet of surface water impacts for drilled piers and Bascule footings. Proposed temporary impacts to surface water will be 630 sq. feet for cofferdams to construct the piers and 3500 sq. feet for the work bridge piers.

Impacts to Water of the United States

General Description: The Trent River is located in the 03020204 CU of the Neuse River Basin. The Division of Water Quality (DWQ) has assigned the Trent River a Stream Index Number of 27-101-(39). DWQ has assigned a best usage classification of **SB Sw NSW**.

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS
1548 MAIL SERVICE CENTER
RALEIGH NC 27699-1548

TELEPHONE: 919-733-3141
FAX: 919-733-9794
WEBSITE: WWW.NCDOT.ORG

LOCATION:
TRANSPORTATION BUILDING
1 SOUTH WILMINGTON STREET
RALEIGH NC

The Trent River is not designated as a North Carolina Natural or Scenic River, or as a national Wild and Scenic River, nor is it listed as a 303(d) stream. No designated Outstanding Resource Waters (ORW), High Quality Waters (HQW), Water Supply I (WS-I), or Water Supply II (WS-II) waters occur within 3.0 miles of the project study area.

Permanent Impacts: As stated above, permanent impacts consist of drilled shaft piers and Bascule bridge footings. The total amount of surface water impacts is 0.139 acre.

Temporary Impacts: Temporary impacts to surface waters for this project is 0.014 acre for coffer dams needed to construct the footings for the bridge. There will be temporary impacts for the workbridge in the amount of 3500 sq. feet. The size and shape of the workbridge is generally left to the contractor.

Utility Impacts: There will be no impacts to jurisdictional waters due to utilities. The only utilities associated with this project will serve the Bascule bridge and the Bridge Tender's house.

Neuse Buffer Rules: This project lies within the Neuse River Basin; therefore, the regulations pertaining to the Neuse River Buffer Rules will apply. Because the bridge is located within an urban area, most of the buffer zones have pre-existing bulkheads and/or riprap. To comply with the Neuse River Riparian Buffer requirements, all improvements associated with B-2532 will remain inside the limits of the existing transportation facility and, therefore, this project is considered exempt from the buffer rules.

Bridge Demolition

The superstructure for Bridge No. 60 will allow removal without dropping components into the water. Likewise, it should be possible to remove the timber piles without dropping them into the water. The concrete piers may result in as much as 10 cubic yards of fill depending on the method of removal to be determined after a contractor is selected. Best Management Practices for Bridge Demolition and Removal will be implemented. Any component of the bridge dropped into the water shall be immediately removed.

Avoidance and Minimization

To avoid impacts, NCDOT is replacing Bridge No. 60 in place and utilizing an off-site detour. NCDOT is also minimizing impacts to surface waters by utilizing longer spans with less bents than the existing bridge.

NCDOT will observe an in-stream construction moratorium from February 15 to June 30 and utilize Stream Crossing Guidelines for Anadromous Fish Passage.

To avoid temporary impacts due to a workbridge, NCDOT will utilize a barge for demolition and bridge construction where feasible.

To minimize impacts to submerged aquatic vegetation (SAVs), efforts will be made to avoid barge contact with the substrate and minimize shading during the growing season (May – September). Logistics associated with minimizing shading include maintaining an elevation of at least three feet above normal high tide (+0.7 feet) for work bridges and avoiding or minimizing long term mooring of construction barges during the growing season. Reasonable efforts will also be made to avoid bottom disturbances in areas of SAV beds during the growing season.

Mitigation

Mitigation is not proposed for the permanent impacts due to piers or the temporary impacts due to the workbridge and coffer dams. There are no impacts to the Neuse River Riparian Buffers since the project is staying within the existing transportation facility.

Federally Protected Species

As of March 8, 2006, the US Fish and Wildlife Service (USFWS) lists six federally protected species for Craven County. The following table lists these species. The biological conclusions listed below remain valid.

Common Name	Scientific Name	Status	Habitat	Conclusion
Leatherback Sea Turtle	*Dermochelys coriacea*	E	Y	No Effect
American Alligator	*Alligator mississippiensis*	T(S/A)	Y	N/A
Bald Eagle	*Haliaeetus leucocephalus*	T	Y	MANLTAA
Red-cockaded Woodpecker	*Picoides borealis*	E	N	No Effect
West Indian Manatee	*Trichechus manatus*	E	Y	MANLTAA
Sensitive Joint-vetch	*Aeschynomene virginica*	T	Y	No Effect

Notes: E Endangered
T Threatened
T(S/A) Threatened (Similarity of Appearance)

Regulatory Approvals

CAMA Permit: NCDOT requests that the proposed work be authorized under a Coastal Area Management Act Major Development Permit. The landowner receipts are attached.

Section 404 Permit: The Section 404 permit has been submitted under separate cover to the United States Army Corps of Engineers.

Section 401 Permit: The Section 401 permit has been submitted under separate cover to the North Carolina Division of Water Quality.

Neuse River Riparian Buffer Authorization: This project lies within the Neuse River Basin; therefore, the regulations pertaining to the Neuse River Buffer Rules will apply. However, all improvements associated with B-2532 will remain inside the limits of the existing transportation facility and, therefore, this project is considered exempt from the buffer rules.

United States Coast Guard Permit: A USCG permit application has been submitted under separate cover to the U.S. Coast Guard.

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

If you have any questions or need additional information, please contact Chris Underwood at (919) 715-1451.

Sincerely,

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

w/attachment:

Mr. John Hennessy, NCDWQ
Mr. Travis Wilson, NCWRC
Mr. Gary Jordan, USFWS
Mr. Ron Sechler, NMFS
Mr. Michael Street, NCDMF
Dr. David Chang, P.E., Hydraulics
Mr. Greg Perfetti, P.E., Structure Design
Mr. Mark Staley, Roadside Environmental
Mr. C. E. Lassiter, P.E., Division 2 Engineer
Mr. Jay Johnson, Division 2 Environmental Officer

w/o attachment

Mr. Scott McLendon, USACE, Wilmington
Mr. William Wescott, USACE, Washington
Mr. Jay Bennett, P.E., Roadway Design
Mr. Majed Alghandour, P. E., Programming and TIP
Mr. Art McMillan, P.E., Highway Design
Mr. Vince Rhea, P.E., Planning Engineer

DCM-MP-1

APPLICATION

(To be completed by all applicants)

PPLICANT

andowner: -

ame NC Department of Transportation

ddress 1548 Mail Service Center

ity Raleigh State NC

ip 27699-1548 Day Phone (919) 733-3141

ax (919) 733-9794

uthorized Agent:

ame Gregory J. Thorpe, PhD.

ddress Same

ity _____ State _____

ip _____ Day Phone _____

ax _____

roject name (if any) NCDOT Project 32649.1.1 (B-2532) Bridge no. 60 over Trent River

OTE: ***Permit will be issued in name of landowner(s), and/or project name.***

OCATION OF PROPOSED ROJECT

ounty Craven

b. City, town, community or landmark New Bern

c. Street address or secondary road number US 70 Bus.

d. Is proposed work within city limits or planning jurisdiction? X Yes _____ No

e. Name of body of water nearest project (e.g. river, creek, sound, bay) Trent River / Neuse River

3. DESCRIPTION AND PLANNED USE OF PROPOSED PROJECT

a. List all development activities you propose (e.g. building a home, motel, marina, bulkhead, pier, and excavation and/or filling activities.
Removal of existing bridge.
Construction of replacement bridge
Tie-in to existing roadway approaches.
Add sidewalk, curb and gutter on S.W. approach.

b. Is the proposed activity maintenance of an existing project, new work, or both? both

c. Will the project be for public, private or commercial use? public transportation

d. Give a brief description of purpose, use, methods of construction and daily operations of proposed project. If more space is needed, please attach additional pages. The project is needed to replace an aging bridge. Heavy equipment will be used to remove the existing bridge and construct the new bridge.

4. LAND AND WATER CHARACTERISTICS

a. Size of entire tract 3.12 ac land area

b. Size of individual lot(s) N/A

c. Approximate elevation of tract above MHW or NWL 10' NAVD

d. Soil type(s) and texture(s) of tract Alluvium, sand, organic silt

e. Vegetation on tract roadside grasses and shrubs; specimen trees along north end at park.

f. Man-made features now on tract roadway fill, bridge, bulkheads

g. What is the CAMA Land Use Plan land classification of the site? *(Consult the local land use plan.)*

____ Conservation	____ Transitional
_X_ Developed	____ Community
____ Rural	____ Other

h. How is the tract zoned by local government? N/A - public highway right of way

i. Is the proposed project consistent with the applicable zoning? _X_ Yes ____ No
(Attach zoning compliance certificate, if applicable)

j. Has a professional archaeological assessment been done for the tract? _X_ Yes ____ No
If yes, by whom? State Historic Pres. Office

k. Is the project located in a National Registered Historic District or does it involve a National Register listed or eligible property?
_X_ Yes ____ No

l. Are there wetlands on the site? _X_ Yes ___ No
Coastal (marsh) _X_ Other ____
If yes, has a delineation been conducted? no
(Attach documentation, if available)
note CE: wetlands outside construction limits.

m. Describe existing wastewater treatment facilities. N/A

n. Describe location and type of discharges to waters of the state. (For example, surface runoff, sanitary wastewater, industrial/commercial effluent, "wash down" and residential discharges.) Surface runoff on approach roadways. Deck drains on main spans of bridge

o. Describe existing drinking water supply source. N/A

5. ADDITIONAL INFORMATION

In addition to the completed application form, the following items must be submitted:

- **A copy of the deed** (with state application only) or other instrument under which the applicant claims title to the affected properties. If the applicant is not claiming to be the owner of said property, then forward a copy of the deed or other instrument under which the owner claims title, plus written permission from the owner to carry out the project.

- **An accurate, dated work plat** (including plan view and cross-sectional drawings) drawn to scale in black ink on an 8 1/2" by 11" white paper. (Refer to Coastal Resources Commission Rule 7J.0203 for a detailed description.)

  Please note that original drawings are preferred and only high quality copies will be accepted. Blue-line prints or other larger plats are acceptable only if an adequate number of quality copies are provided by applicant. (Contact the U.S. Army Corps of Engineers regarding that agency's use of larger drawings.) A site or location map is a part of plat requirements and it must be sufficiently detailed to guide agency personnel unfamiliar with the area to the

site. Include highway or secondary road (SR) numbers, landmarks, and the like.

- **A Stormwater Certification**, if one is necessary.

- A list of the **names and complete addresses of the adjacent waterfront (riparian) landowners and signed return receipts as proof that such owners have received a copy of the application and plats by certified mail.** Such landowners must be advised that they have 30 days in which to submit comments on the proposed project to the Division of Coastal Management. Upon signing this form, the applicant further certifies that such notice has been provided.

  Name See Attached Lists
  Address _____
  Phone _____

  Name _____
  Address _____
  Phone _____

  Name _____
  Address _____
  Phone _____

- **A list of previous state or federal permits** issued for work on the project tract. Include permit numbers, permittee, and issuing dates.

  _____

  _____

- **A check for $250** made payable to the Department of Environment, Health, and Natural Resources (DEHNR) to cover the costs of processing the application.

- **A signed AEC hazard notice** for projects in oceanfront and inlet areas.

- **A statement of compliance with the N.C. Environmental Policy Act (N.C.G.S. 113A - 1 to 10)** If the project involves the expenditure of public funds or use of public lands, attach a statement documenting compliance with the North Carolina Environmental Policy Act.

6. CERTIFICATION AND PERMISSION TO ENTER ON LAND

I understand that any permit issued in response to this application will allow only the development described in the application. The project will be subject to conditions and restrictions contained in the permit.

I certify that to the best of my knowledge, the proposed activity complies with the State of North Carolina's approved Coastal Management Program and will be conducted in a manner consistent with such program.

I certify that I am authorized to grant, and do in fact, grant permission to representatives of state and federal review agencies to enter on the aforementioned lands in connection with evaluating information related to this permit application and follow-up monitoring of the project.

I further certify that the information provided in this application is truthful to the best of my knowledge.

This is the 29 day of June, ~~19~~ 2006.

Print Name Philip S. Harris III

Signature _____

Landowner or Authorized Agent

Please indicate attachments pertaining to your proposed project.

___ DCM MP-2 Excavation and Fill Information
___ DCM MP-3 Upland Development
___ DCM MP-4 Structures Information
_X_ DCM MP-5 Bridges and Culverts
___ DCM MP-6 Marina Development

NOTE: Please sign and date each attachment in the space provided at the bottom of each form.

Form DCM-MP-5

BRIDGES AND CULVERTS

Attach this form to Joint Application for CAMA Major Permit, Form DCM-MP-1. Be sure to complete all other sections of the Joint Application that relate to this proposed project.

1. BRIDGES

a. Public X Private _____

b. Type of bridge (construction material)
Concrete girders

c. Water body to be crossed by bridge
Trent River

d. Water depth at the proposed crossing at MLW or NWL 13'

e. Will proposed bridge replace an existing bridge?
X Yes _____ No
If yes,
(1) Length of existing bridge 1760'
(2) Width of existing bridge 36'4"
(3) Navigation clearance underneath existing bridge 13.5' (closed swing span)
(4) Will all, or a part of, the existing bridge be removed? (Explain) All of the existing bridge will be removed

f. Will proposed bridge replace an existing culvert(s)?
_____ Yes X No
If yes,
(1) Length of existing culvert _____
(2) Width of existing culvert _____
(3) Height of the top of the existing culvert above the MHW or NWL _____
(4) Will all, or a part of, the existing culvert be removed? (Explain) _____

g. Length of proposed bridge 1762'

h. Width of proposed bridge 36'1"

i. Height of proposed bridge above wetlands
N/A

j. Will the proposed bridge affect existing water flow?
_____ Yes X No
If yes, explain _____

k. Navigation clearance underneath proposed bridge
16' (closed bascule span)

l. Will the proposed bridge affect navigation by reducing or increasing the existing navigable opening? X Yes _____ No
If yes, explain Nav. height clearance increased 2.5' from 13.5' to 16' in closed position. Horizontal clearance increases from 76' to 130'.

m. Will the proposed bridge cross wetlands containing no navigable waters? _____ Yes X No
If yes, explain _____

n. Have you contacted the U.S. Coast Guard concerning their approval?
X Yes _____ No
If yes, please provide record of their action.
pending permit application

2. CULVERTS

a. Water body in which culvert is to be placed _____

b. Number of culverts proposed _____

c. Type of culvert (construction material, style) _____

d. Will proposed culvert replace an existing bridge?
_____ Yes _____ No
If yes,
(1) Length of existing bridge _____
(2) Width of existing bridge _____
(3) Navigation clearance underneath existing bridge _____
(4) Will all, or a part of, the existing bridge be removed? (Explain) _____

e. Will proposed culvert replace an existing culvert?
_____ Yes _____ No
If yes,
(1) Length of existing culvert _____
(2) Width of existing culvert _____
(3) Height of the top of the existing culvert above the MHW or NWL _____
(4) Will all, or a part of, the existing culvert be removed? (Explain) _____

f. Length of proposed culvert _____

g. Width of proposed culvert _____

h. Height of the top of the proposed culvert above the MHW or NWL _____

i. Will the proposed culvert affect existing water flow?
_____ Yes _____ No
If yes, explain _____

j. Will the proposed culvert affect existing navigation potential? _____ Yes _____ No
If yes, explain _____

3. EXCAVATION AND FILL

a. Will the placement of the proposed bridge or culvert require any excavation below the MHW or NWL?
_____ Yes __X__ No
If yes,
(1) Length of area to be excavated _____
(2) Width of area to be excavated _____
(3) Depth of area to be excavated _____
(4) Amount of material to be excavated in cubic yards _____

b. Will the placement of the proposed bridge or culvert require any excavation within: NO
___ Coastal Wetlands ___ SAVs ___ Other Wetlands
If yes,
(1) Length of area to be excavated _____
(2) Width of area to be excavated _____
(3) Amount of material to be excavated in cubic yards _____

c. Will the placement of the proposed bridge or culvert require any highground excavation?
_____ Yes __X__ No
If yes,
(1) Length of area to be excavated _____
(2) Width of area to be excavated _____
(3) Amount of material to be excavated in cubic yards _____

d. If the placement of the bridge or culvert involves any excavation, please complete the following:
(1) Location of the spoil disposal area
To be determined by contractor.
(2) Dimensions of spoil disposal area
N/A
(3) Do you claim title to the disposal area?
_____ Yes __X__ No
If no, attach a letter granting permission from the owner.

(4) Will the disposal area be available for future maintenance? _____ Yes __X__ No

(5) Does the disposal area include any coastal wetlands (marsh), SAVs, or other wetlands? _____ Yes __X__ No
If yes, give dimensions if different from (2) above. _____

(6) Does the disposal area include any area below the MHW or NWL? _____ Yes __X__ No
If yes, give dimension if different from No. 2 above. _____

e. Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d. above) to be placed below MHW or NWL? _____ Yes __X__ No
If yes,
(1) Length of area to be filled _____
(2) Width of area to be filled _____
(3) Purpose of fill _____

f. Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d. above) to be placed within: NO
___ Coastal Wetlands ___ SAVs ___ Other Wetlands
If yes,
(1) Length of area to be filled _____
(2) Width of area to be filled _____
(3) Purpose of fill _____

g. Will the placement of the proposed bridge or culvert result in any fill (other than excavated material described in Item d. above) to be placed on highground? __X__ Yes _____ No
If yes,
(1) Length of area to be filled 460'south 300'north
(2) Width of area to be filled 100'south 50'north
(3) Purpose of fill Roadway embankment

4. GENERAL

a. Will the proposed project involve any mitigation?
_____ Yes __X__ No
If yes, explain in detail _____

b. Will the proposed project require the relocation of any existing utility lines? __X__ Yes _____ No
If yes, explain in detail _____
For Bridge House only.

c. Will the proposed project require the construction of any temporary detour structures?
_____ Yes __X__ No
If yes, explain in detail _____

d. Will the proposed project require any work channels? _____ Yes __X__ No
If yes, complete Form DCM-MP-2

e. How will excavated or fill material be kept on site and erosion controlled? Fill will be placed and compacted as part of roadway fill. Erosion will be controlled by NCDOT's best management pratices for Sed. & eros. control.

f. What type of construction equipment will be used (for example, dragline, backhoe or hydraulic dredge)? crane, possibly barge for deep water access, grading and paving equipment

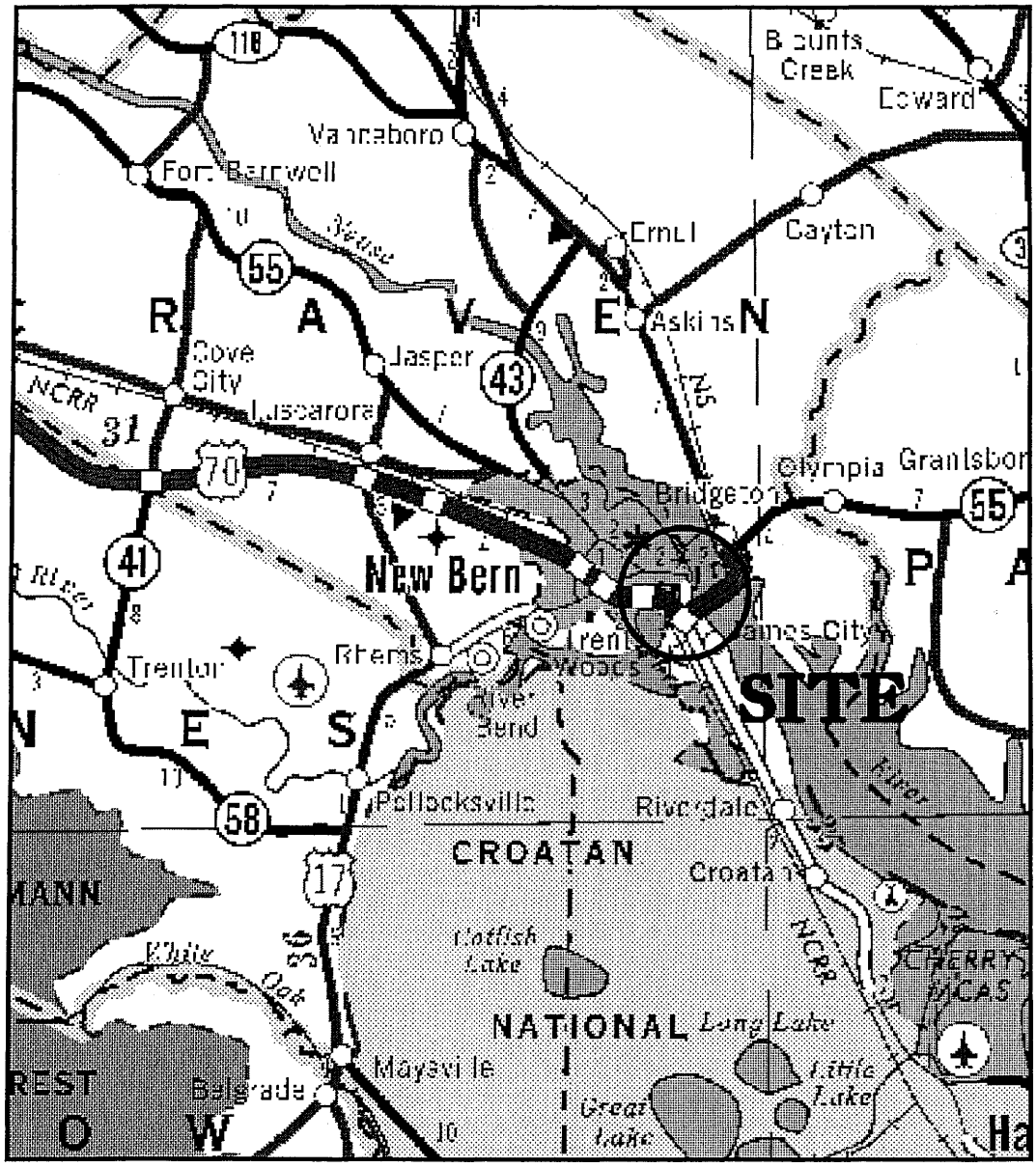
g. Will wetlands be crossed in transporting equipment to project site? _____ Yes __X__ No
If yes, explain steps that will be taken to lessen environmental impacts. _____

h. Will the placement of the proposed bridge or culvert require any shoreline stabilization?
_____ Yes __X__ No
If yes, explain in detail _____

NCDOT
Applicant or Project Name

Signature

6/29/06
Date

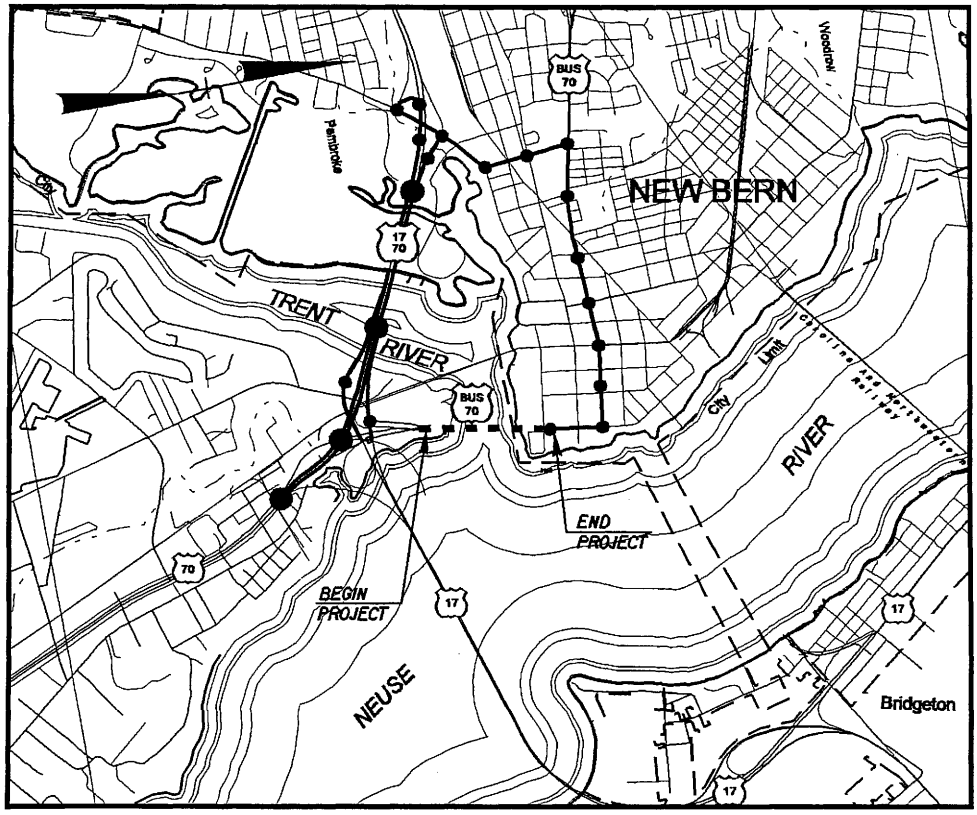


VICINITY MAP

NCDOT

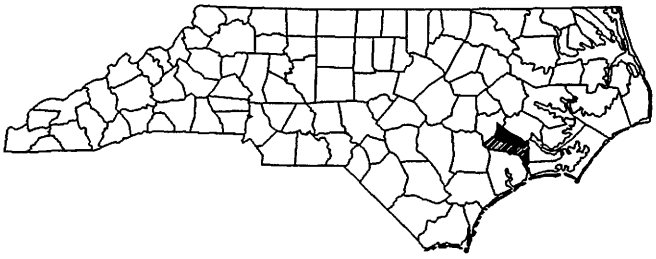
DIVISION OF HIGHWAYS
CRAVEN COUNTY
PROJECT: 32649.1.1 (B-2532)
BRIDGE NO. 60 OVER
TRENT RIVER ON US 70 BUS.

SHEET 1 **OF** 8 **02/08/06**



DETOUR ●——●——●

VICINITY MAP



NCDOT

DIVISION OF HIGHWAYS
CRAVEN COUNTY
PROJECT: 32649.1.1 (B-2532)
BRIDGE NO. 60 OVER
TRENT RIVER ON US 70 BUS.

SHEET 2 **OF** 8 **02 / 08 / 06**

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	12+50/40+00	1762' BRIDGE						0.139	0.014			
TOTALS:								0.139	0.014			

Note: Permanent impacts are for drilled piers and Bascule pier footings.

Temporary impacts are for the cofferdams needed to construct the Bascule pier footings.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CRAVEN COUNTY
PROJ - 32649.1.1 (B-2532)

SHEET 3 of 8 5/3/2006

ATN Revised 3/31/05

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

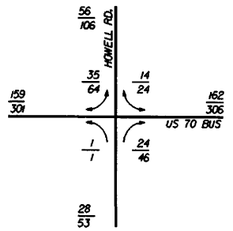
GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-2532	4
R/W SHEET NO.	8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L- US 70 BUS.
HOWELL RD.
TRAFFIC VOLUMES



2004/2030 ADT IN HUNDREDS

NAD 83

DB 1758 - PG 587

DB 1766 - PG 758
PC G - SLIDE 104H

1SMBUS

4SMBUS
BRIDGEPOINT HOTEL

CONC POOL 48' CHL

W.E. 31
RETENTION POND

BST PA

BST

BEGIN 5' SIDEWALK & 2'-6" CURB & GUTTER
-L- STA. 12+76.00

BEGIN PROJECT
-L- STA. 12+50.00

15' PLASTIC APPROACH

15' CMP APPROXIMATE

80' BST DR

18' BST DR

POT Sta. 10+00.00

SR 1004 HOWELL RD.

60' CHL

CONC. ISLAND

EXIST R/W MON
EL STA 11+93.25
100.00' LT

14' CONC DITCH

BEGIN GRADE
BEGIN 4' PAVED SHOULDER RT
-L- STA. 14+50.00

15+00

DB 1758 - PG 587

DB 2045 - PG 541
PC G - PG 38A

8' WD

TRANSPORTATION FACILITY LIMITS

EXISTING R/W

300' TAPER

Level Spreader
See Detail

Retain Existing Bulkhead

Class I Rip Rap

CB

18"

36" D2

EXIST.

(AATUR)

US 70 BUS EBL

N 10°13' 30.0" E

US 70 BUS WIDTH VARIES

TC

4' P.S.

GRAU 350

SC TYPE II

200'

RIP RAP

BEGIN BRIDGE
-L- STA. 18+22±

BEGIN APPROACH SLAB
-L- STA. 17+95±

TEMPORARY WORKBRIDGE

US 70 BUS WBL

18" PLASTIC

18" CMP

NOTE: FOR R/W CLARIFICATION IN THIS AREA SEE STATE PROJECT B-BTORDR B-2536

BEGIN RESURFACING
-L- STA. 13+60.00

WETLANDS

8"

REMOVE & REPLACE EXIST. MONO. ISLAND

15" PVC

EXIST R/W MON
SRPA - STA. 8+37.94
55.68 LT

DB 1423 - PG 967

MATCHLINE -L- STA. 20+00.00 SEE SHEET NO. 5

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B2532-1" WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 496657.7781(1) EASTING: 2586916.795(1)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998814730
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B2532-1" TO -L- STATION 10+00.00 IS S 12° 01' 41.62" W 780.8339 (1)
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTE:
FOR -L- PROFILE, SEE SHEET No. 7.

03-MAY-2006 10:29
r:\Hydraulics\b2532_r_dy_psh_04.dgn
mmclean

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-2532	5
R/W SHEET NO.	5 OF 8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

NAD 83

MATCHLINE -L- STA. 20+00.00 SEE SHEET NO. 4

MATCHLINE -L- STA. 32+00.00 SEE SHEET NO. 6

12' FLOATING DOCKS

8" (AATUR)

25+00

30+00

TRENT RIVER

℄ DEDICATED TRENT RIVER CHANNEL

NEW BERN CITY LIMIT

ELEV= 8.33'

Remove

90'-0" NAVIGABLE CHANNEL

5'-6" SIDEWALK

SIG POLE

SIG ARM

IN 10°13'30" E

BRIDGE # 60
CONC. WITH STEEL DRUM

S 81°53'45" E

PARKING SPACES (SEE STRUCTURAL PLANS FOR DETAIL)

ELEV= 8.27'

℄ OF PROP. TRUNNION -L- STA. 30+56.29

℄ OF PROP. TRUNNION -L- STA. 31+86.29

TEMPORARY WORKBRIDGE

NEUSE RIVER

COFFER DAMS REQ'D FOR BASCULE PIER CONSTRUCTION

NEW BERN CITY LIMIT

NOTE:
FOR -L- PROFILE, SEE SHEET No. 7.

03-MAY-2006 10:28
P:\Hydraulics\b2532_rdy_psh_05.dgn
smorgan

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

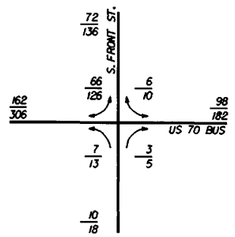
GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-2532	6
R/W SHEET NO.	OF 8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L- US 70 BUS.
S. FRONT ST.
TRAFFIC VOLUMES



2004/2030 ADT IN HUNDREDS

NOTE: THE CONTRACTOR SHALL PROTECT THE EXISTING FOOTBRIDGE FROM DAMAGE DURING CONSTRUCTION. THE CONTRACTOR MAY REMOVE THE FOOTBRIDGE TEMPORARILY AND REPLACE IN ITS EXISTING LOCATION.

NAD 83

MATCHLINE -L- STA. 32+00.00 SEE SHEET NO. 5

TEMPORARY WORKBRIDGE

Retain Existing Bulkhead

Remove

Retain and Clean out CB

Class I Rip Rap

STORM WATER RETENTION

2SBK
NEW BERN CONVENTION CENTER

CRAVEN COUNTY

CITY OF NEW BERN

CITY OF NEW BERN (UNION POINT PARK)

ISFBUS

ISFD

BST PA

BK CANOPY

ISFBK PARK RESTROOMS

LFT STATION

DIO

SOUTH FRONT ST

APPROXIMATE

-L- POT Sta. 40+13.66

-L-
PI Sta 38+71.70
Δ = 2°10'17.8" (LT)
D = 5°43'46.5"
L = 37.90'
T = 18.95'
R = 1,000.00'

PROPERTY LINE IS MEAN HIGH WATER MARK

NOTE:
FOR -L- PROFILE, SEE SHEET No. 7.

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
B-2532	7 of 8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

BM "A"
RAILROAD SPIKE IN NE CORNER OF PAVED PARKING AREA OF OUTBACK STEAKHOUSE
284' LT. OF -L- STA. 5+84.00, EL.= 7.14

FEATHER TO EXIST.
STA. 13+60.00
EL 9.92

BEGIN GRADE STA. 14+50.00
(INCLUDES 1.5" RESURFACING)
EL 10.13

PI = 15+40.00
EL = 10.42'
VC = 150'
K = 184

(+)0.2333%

(+)0.3207%

(+)1.1373%

Begin Bridge 18+22 +/-

EXISTING

1.5:1 w/Class I Rip Rap

PI = 20+00.00
EL = 15.65'
VC = 600'
K = 1187

PROPOSED

(+)0.6318%

100yr W.S. El. 8.0

20 10 0 -10 -20 -30

13 14 15 16 17 18 19 20 21 22 23 24 25 26

Station 31+21.39
Center of Navigation Channel and 166' Bascule span
South Approach: 12 Spans @ 93.6' and 1 @ 93.3'
North Approach: 1 span @ 93.3' and 4 @ 71.1'
Approach spans are 54" R/C girders
Overall Length is 1762.4'; Skew is 90 degrees

STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= N/A	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 7.2	FT
BASE DISCHARGE	= N/A	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 8.0	FT
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING FREQUENCY	= 5+	YRS
OVERTOPPING ELEVATION	= 4.5	FT

BM "B"
RAILROAD SPIKE IN SW CORNER OF PAVED PARKING AREA IN NW QUADRANT OF FRONT STREET & TRYON PALACE DR. INTERSECTION
142.52' LT. OF -L- STA. 38+16.00, EL.= 5.82

BEGIN DRAW BRIDGE
STA. 30+56.29

END DRAW BRIDGE
STA. 31+86.29

PROPOSED

(+)0.6318%

PI = 33+40.00
EL = 24.12'
VC = 600'
K = 128

EXISTING SWING SPAN

500yr W.S. El. 9.8

50yr W.S. El. 7.2

5yr W.S. El. 4.2

Normal High Water elev. 0.5

Normal Low Water elev. (-)0.5

Existing Headroom 7.25'

End Bridge 35+82

PI = 38+00.00
EL = 5.42'
VC = 160'
K = 66

(-)4.065%

(-)11.647%

EXISTING
1.5:1 w/Class I Rip Rap

END GRADE EL 4.07'
STA 38+80.00
TIE TO EXIST.

USACOE Navigable Channel Project Depth
(No dredging req'd for this project)

Bascule piers

NOTE:
FOR PLAN VIEWS, SEE SHEET No. 4, 5 & 6.

20 10 0 -10 -20 -30

26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

$$$$$$$$$$SYSTIME$$$$$$$$$$
$$$$$$$$$$SYSDATE$$$$$$$$$$
$$$$$$$$$$DRAWING$$$$$$$$$$
$$$$$$$$$$USER$$$$$$$$$$

Adjacent Property Owners

Owner/ Business	Address
City of New Bern	PO Box 1129 New Bern NC 28563
Craven County	406 Craven Street New Bern NC 28560
Outback Steakhouse	2202 N. West Shore Blvd. Tampa FL 33607
Shipyard Marina	PO Box ? Jacksonville NC 28540 (101 Howell Rd. New Bern)
Shipyard Properties, Inc.	101 Howell Rd. New Bern NC 28562

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

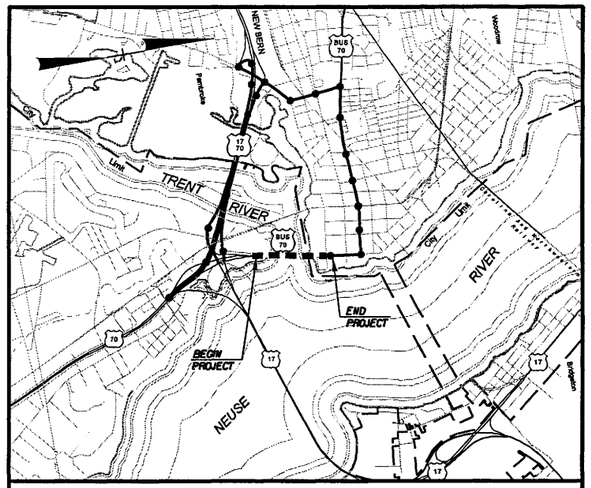
CRAVEN COUNTY
PROJ - 32649.1.1 (B-2532)

SHEET 8 OF 8 5/12/2006

09/08/99

CONTRACT: **TIP PROJECT: B-2532**

See Sheet 1-A For Index of Sheets



VICINITY MAP
DETOUR

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CRAVEN COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-2532	1	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
32649.1.1	BRSTP-070B(4)	PE	

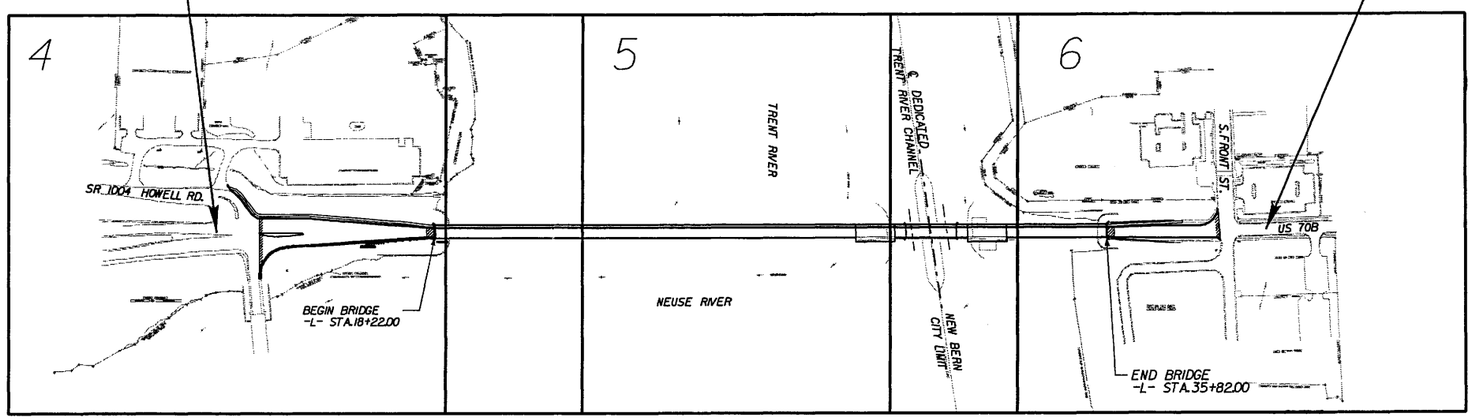
LOCATION: *Bridge No. 60 Over Trent River on US 70 BUSINESS*

TYPE OF WORK: *Grading, Drainage, Paving, Structures & Signals.*

NCGRID
NAD 83

BEGIN TIP PROJECT B-2532
-L- STA. 12+50.00

END TIP PROJECT B-2532
-L- STA. 40+00.00



TO JAMES CITY

TO NEW BERN

METHOD OF CLEARING: METHOD III

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

GRAPHIC SCALES

PLANS: 50 25 0 50 100

PROFILE (HORIZONTAL): 50 25 0 50 100

PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2004 = 16,200
ADT 2030 = 30,600
DHV = 10 %
D = 65 %
T = 3 % *
V = 40 MPH
FUNCTIONAL CLASS: LOCAL URBAN
* TTST 1% DUAL 2%

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-2532 = .19 MI.

LENGTH STRUCTURE TIP PROJECT B-2532 = .33 MI.

TOTAL LENGTH TIP PROJECT B-2532 = .52 MI.

Prepared in the Office of:

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

2002 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:

ENRICO A. ROQUE, P.E.
PROJECT ENGINEER

SCOTT YARLEY, P.E.
PROJECT DESIGN ENGINEER

NCDOT CONTACT
B. DOUG TAYLOR, P.E.
PROJECT ENGINEER ROADWAY DESIGN

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STATE DESIGN ENGINEER P.E.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

APPROVED
DIVISION ADMINISTRATOR DATE

$$$$USERNAME$$$$ $$$$SYSTIME$$$$ $$$$DGN$$$$

Note: Not to Scale

**S.U.E. = Subsurface Utility Engineering*

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

PROJECT REFERENCE NO.	SHEET NO.
B-2532	1-B

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 23
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing High Quality Wetland Boundary — HQ WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- River Basin Buffer — RBB
- Flow Arrow
- Disappearing Stream
- Spring
- Swamp Marsh
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Guage — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite Marker — RW
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Utility Easement — PUE

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Wheel Chair Ramp — WCR
- Curb Cut for Future Wheel Chair Ramp — CCFR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equaility Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole — HH
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line
- Designated U/G Water Line (S.U.E.*)
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

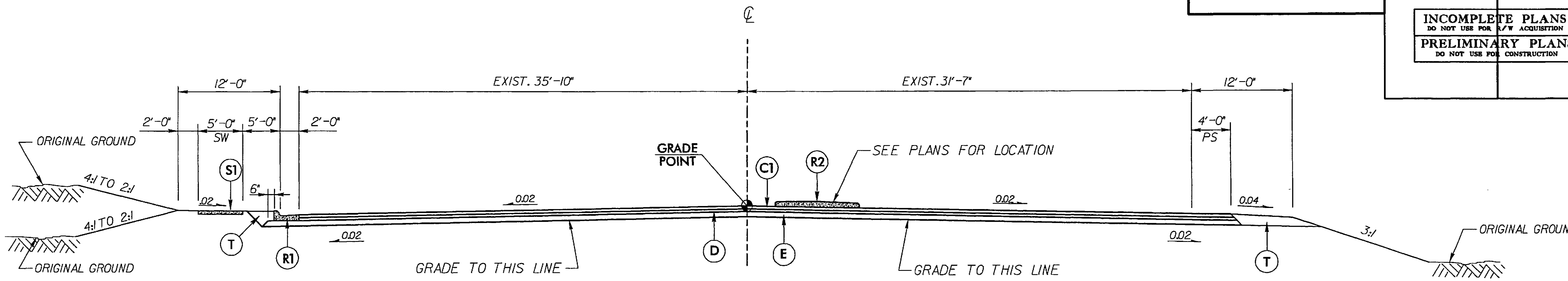
- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil — FSS
- A/G Tank; Water, Gas, Oil
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

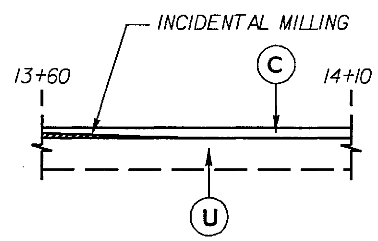
N.T.S.

PROJECT REFERENCE NO.	SHEET NO.
B-2532	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

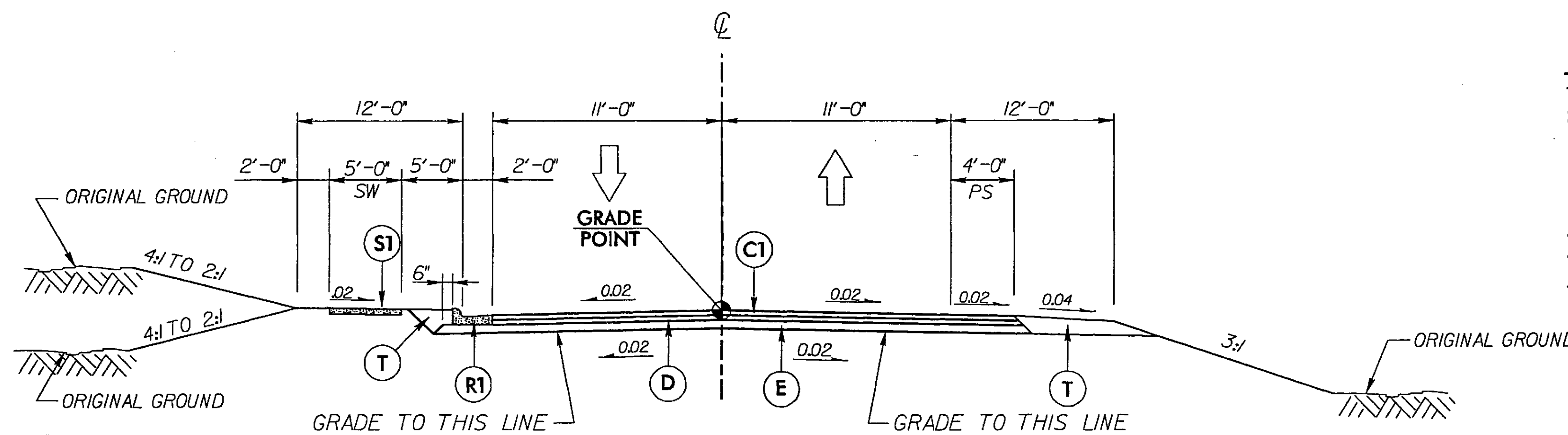


TYPICAL SECTION NO. 1

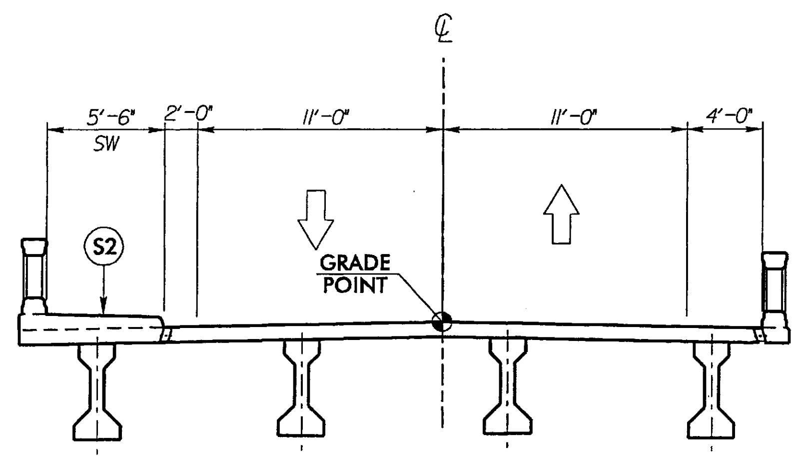


RESURFACING DETAIL

-L- STA 13+60 TO -L- STA 14+50
NOTE: USE 1½" TYPE S9.5B FOR RESURFACING



TYPICAL SECTION NO. 2



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 1 :

TIE EXIST. PAVEMENT TO TYPICAL SECTION NO. 1

TRANSITION TYPICAL SECTION NO. 1 TO TYPICAL SECTION NO. 2 FROM -L- STA 14+50 ± TO -L- STA 18+22 ±

USE TYPICAL SECTION NO. 2 :

TRANSITION TYPICAL NO. 2 TO -L- STA. 18+22 ± BEGIN BRIDGE

USE TYPICAL SECTION NO. 3 :

-L- STA 18+22 ± BEGIN BRIDGE TO
-L- STA 35+82 ± END BRIDGE

PAVEMENT SCHEDULE	
C	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
D	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
R1	2'-6" CONCRETE CURB & GUTTER
R2	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
S1	4" MONOLITHIC CONCRETE SIDEWALK
S2	6" MONOLITHIC CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT

ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

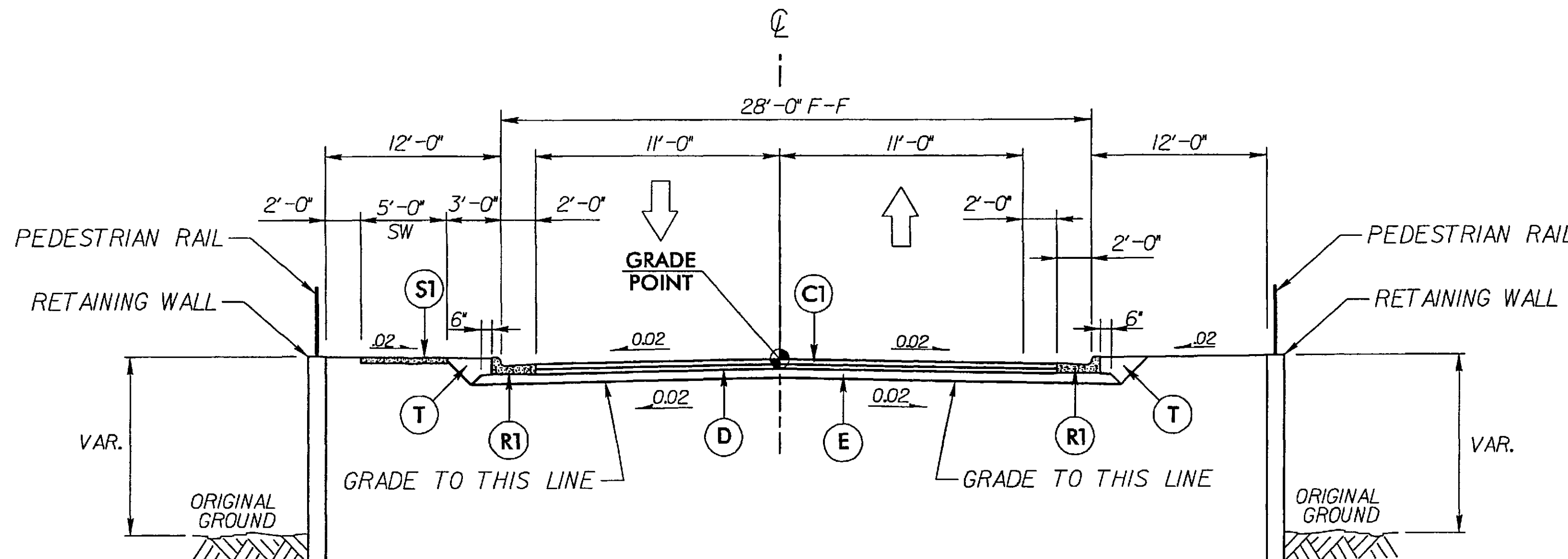
6/2/9

N.T.S.

PROJECT REFERENCE NO.	SHEET NO.
B-2532	2-A
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



TYPICAL SECTION NO. 4

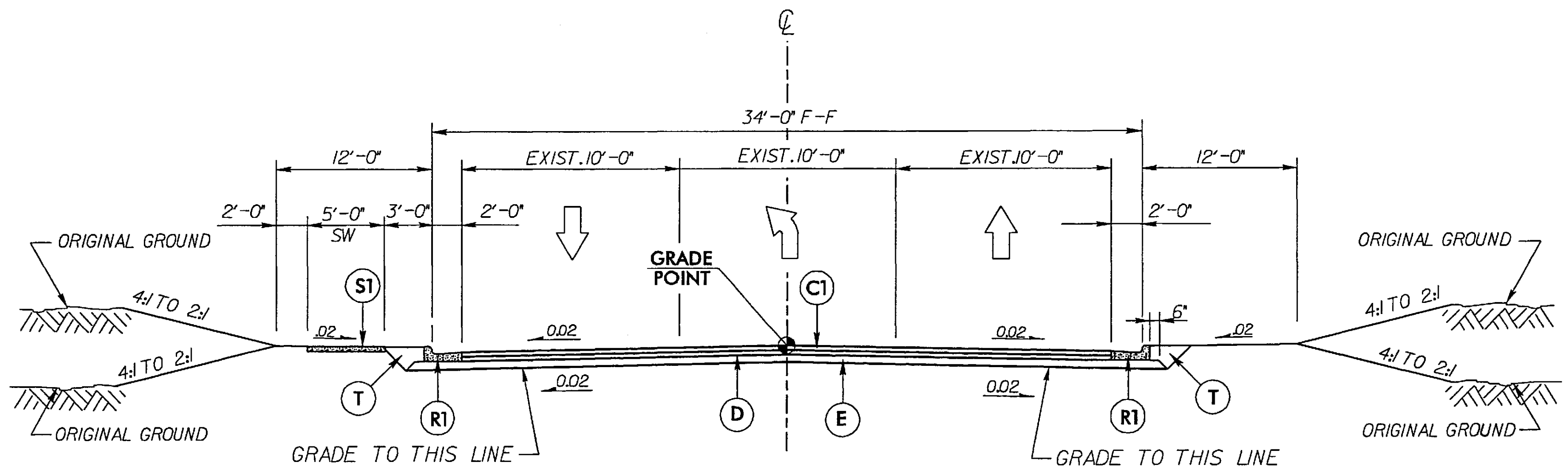
HAND RAILING WILL BE INSTALLED, IF RETAINING WALL WILL BE REQUIRED.

NOTE: SIDEWALK ON LEFT SIDE ONLY

USE TYPICAL SECTION NO. 4 :

-L- STA 35+82 ± END BRIDGE
TO -L- STA 37+22 ±

TRANSITION TYPICAL SECTION NO. 4 TO TYPICAL SECTION NO. 5



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5 :

-L- STA 37+22 ± TO -L- STA 38+80 ±

C1	3" ACSC TYPE S9.5B
D	4" ASIC TYPE I19.0B
E	4" ACBC TYPE B25.0B
R1	2-6" CONC. C&G
S1	4" MONO. CONC. SIDEWALK
T	EARTH MATERIAL

ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-2532	2-B

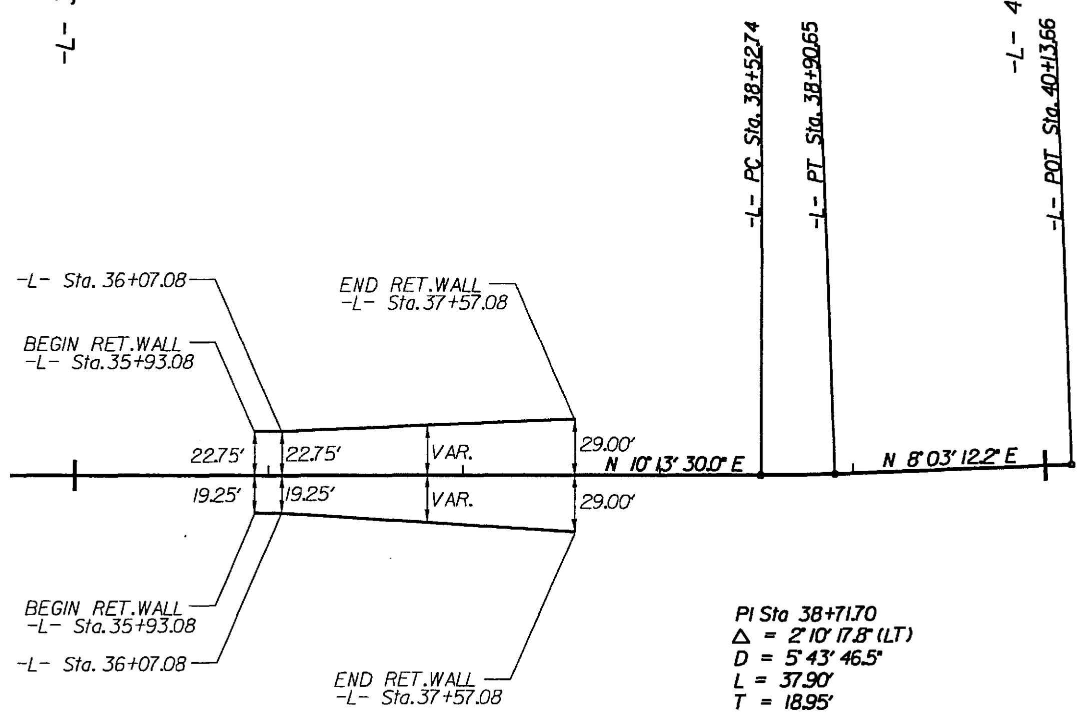
R/W SHEET NO.

ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

RETAINING WALL DETAIL



PI Sta 38+71.70
Δ = 2°10' 17.8" (LT)
D = 5°43' 46.5"
L = 37.90'
T = 18.95'
R = 1,000.00'

SEE SHEET 6 FOR PLAN
SEE PREVIOUS SHEET 2-A FOR TYPICAL SECTION

RETAINING WALL ELEVATIONS - LEFT

-L- STA.	OFFSET FROM ℄	ELEV @ TOP OF WALL	ELEV @ BOTTOM OF WALL	WALL HEIGHT
35+93.08	22.75	14.09	9.47	4.62
36+00.00	22.75	13.82	9.37	4.45
36+50.00	24.54	11.84	8.25	3.59
37+00.00	26.62	9.80	7.03	2.77
37+50.00	28.71	7.86	5.82	2.04
37+57.08	29.00	7.62	5.67	1.95

RETAINING WALL ELEVATIONS - RIGHT

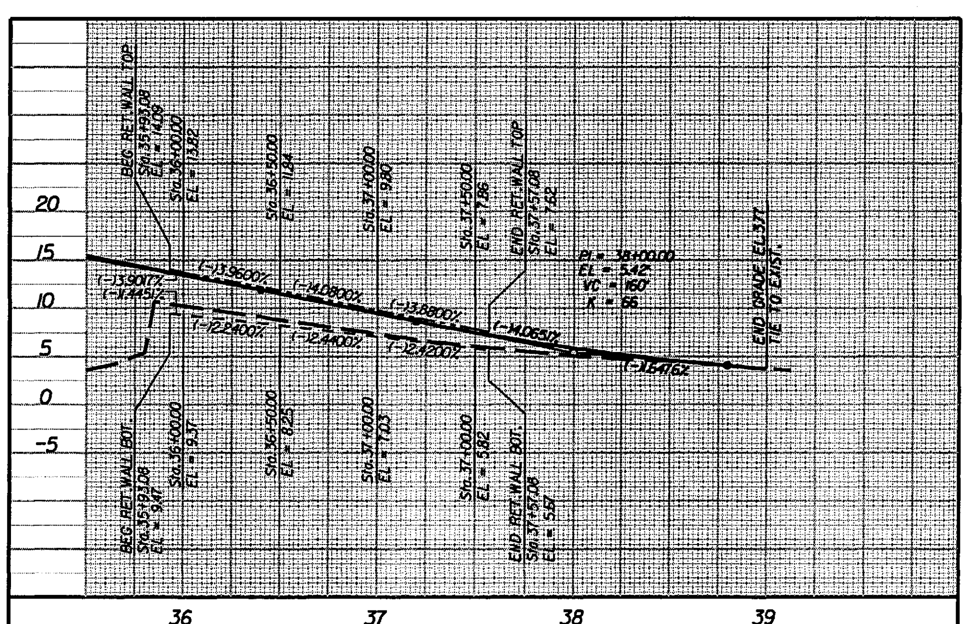
-L- STA.	OFFSET FROM ℄	ELEV @ TOP OF WALL	ELEV @ BOTTOM OF WALL	WALL HEIGHT
35+93.08	19.25	13.89	10.13	3.76
36+00.00	19.25	13.67	10.02	3.65
36+50.00	22.04	11.71	8.39	3.32
37+00.00	25.29	9.70	7.10	2.60
37+50.00	28.54	7.80	5.88	1.92
37+57.08	29.00	7.56	5.85	1.71

NOTES:

1. APPROX. WALL LENGTH = 164' (LT.& RT.)
2. TOP OF WALL ELEVATION DOES NOT INCLUDE COPING
3. BOTTOM OF WALL ELEVATION IS TO BERM OR EXISTING GROUND
4. ALL HEIGHTS/STATIONS DESIGNATED ABOVE ARE SHOWN IN FEET

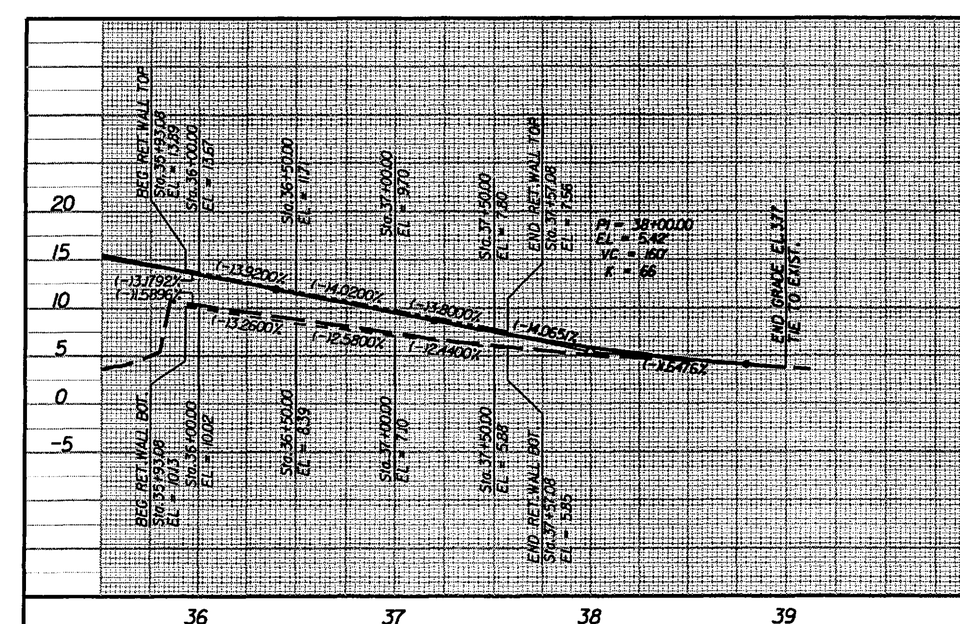
LEFT RETAINING WALL PROFILE

(SHOWN IN FEET)



RIGHT RETAINING WALL PROFILE

(SHOWN IN FEET)



$$$$$$SYSTIME$$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

GRAPHIC SCALE
50 25 0 50 100
PLANS

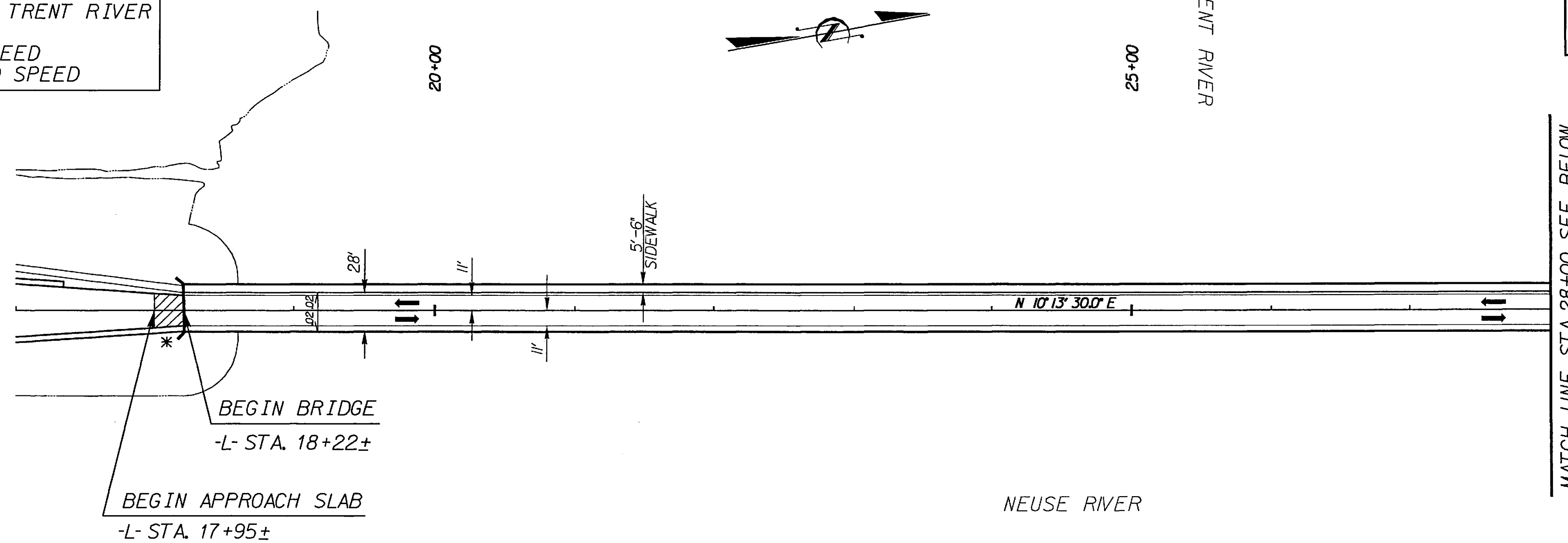
PROJECT REFERENCE NO.	SHEET NO.
B-2532	2-C
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

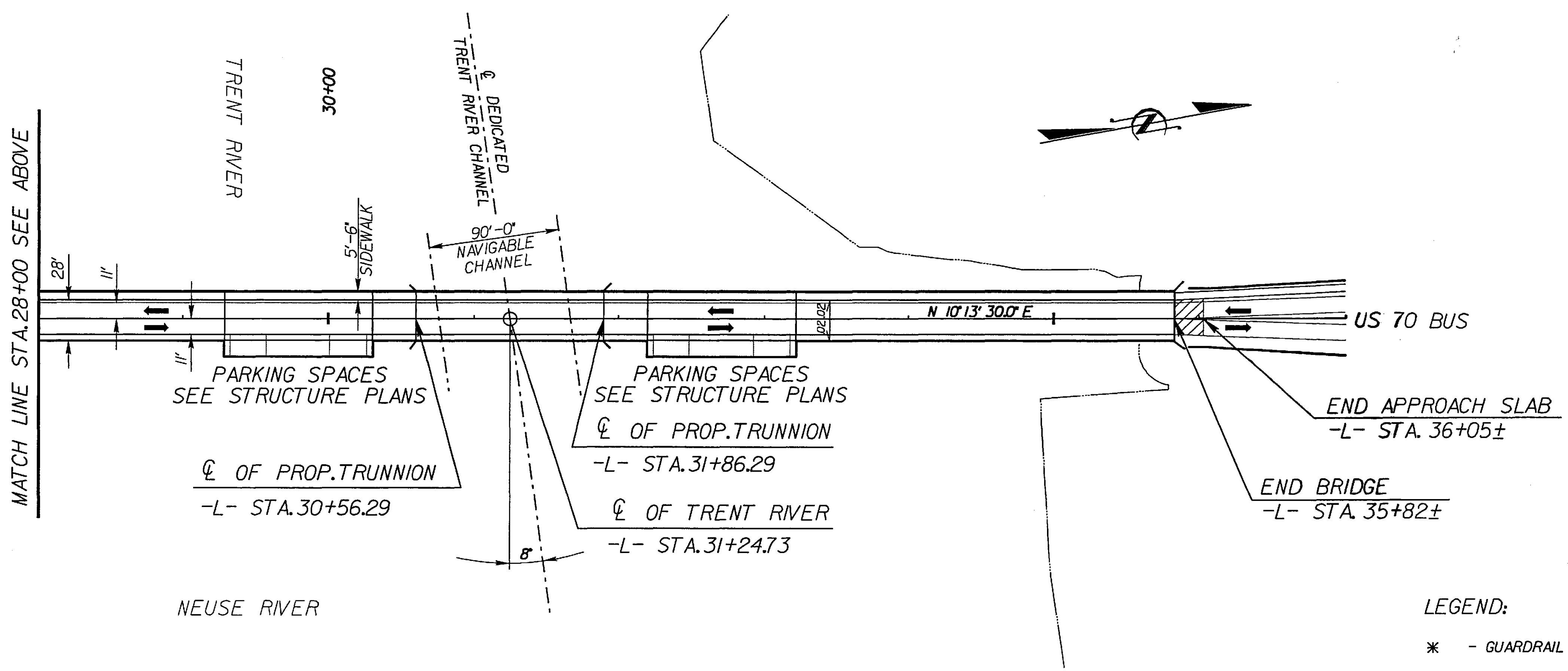
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

SKETCHES SHOWING PAVEMENT-BRIDGE RELATIONSHIPS

-L- US 70 BUS. OVER TRENT RIVER
(LOCAL SYSTEM)
40 MPH DESIGN SPEED
35/25 MPH POSTED SPEED





LEGEND:

* - GUARDRAIL ANCHORS REQ'D.

(hatched box) - BRIDGE APPROACH SLAB REQUIRED

$$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

COMPUTED BY: PER DATE: 12-02-05
CHECKED BY: EAR DATE: 12-02-05

6/21/00

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

PROJECT REFERENCE NO.	SHEET NO.
B-2532	3

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
-L- STA. 14+00.00 TO 18+22.00	554		2071	1517	
-L- STA. 35+82.00 TO 38+80.00	11		672	661	
GRAND TOTAL	565		2743	2178	
SAY	570		2750	2200	

SUMMARY OF QUANTITIES

SUMMARY					SUMMARY				
DESC.NO.	SECT.NO.	QUANTITY	UNIT	ITEM DESCRIPTION	DESC.NO.	SECT.NO.	QUANTITY	UNIT	ITEM DESCRIPTION

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 12"	15"	18"	24"	30"	36"	42"	48"	BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHRWISE) 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. *FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	18" FLARED END SECTION STD. 310.05	REMARKS
13+55	LT	1		9.1																									1			1			1		
13+55	LT	1	2		6.3	5.3			144																												
15+00	LT	2		9.6																									1			1	1				
15+00	LT	2	OUT		3.8	3.7				30																										1	
TOTAL									144	30																			2			2	1		1	1	

ABBREVIATIONS

C.B. CATCH BASIN
N.D.I. NARROW DROP INLET
D.I. DROP INLET
M.D.I. MEDIAN DROP INLET
M.D.I. (N.S.) MEDIAN DROP INLET (NARROW SLOT)
J.B. JUNCTION BOX
M.H. MANHOLE
T.B.D.I. TRAFFIC BEARING DROP INLET
T.B.J.B. TRAFFIC BEARING JUCTION BOX

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 54" & OVER)

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 54"	60"	66"	72"	78"	84"	BITUMINOUS COATED C.S. PIPE TYPE B 54" .109	54" .138	54" .168	54" SHOP ELON-GATED .138	54" SHOP ELON-GATED .168	60" .138	60" .168	66" .138	66" .168	72" .138	72" .168	STRUCTURAL PLATE PIPE 60" 12	60" 10	66" 12	66" 10	72" 12	72" 10	REINFORCED ENDWALLS WITH R.C. - C.Y.	WITH C.S. - C.Y.	MASONARY DRAINAGE STRUCTURES CUBIC YARDS	REMARKS

ABBREVIATIONS

C.B. CATCH BASIN
N.D.I. NARROW DROP INLET
D.I. DROP INLET
M.D.I. MEDIAN DROP INLET
M.D.I. (N.S.) MEDIAN DROP INLET (NARROW SLOT)
J.B. JUNCTION BOX
M.H. MANHOLE
T.B.D.I. TRAFFIC BEARING DROP INLET
T.B.J.B. TRAFFIC BEARING JUCTION BOX

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

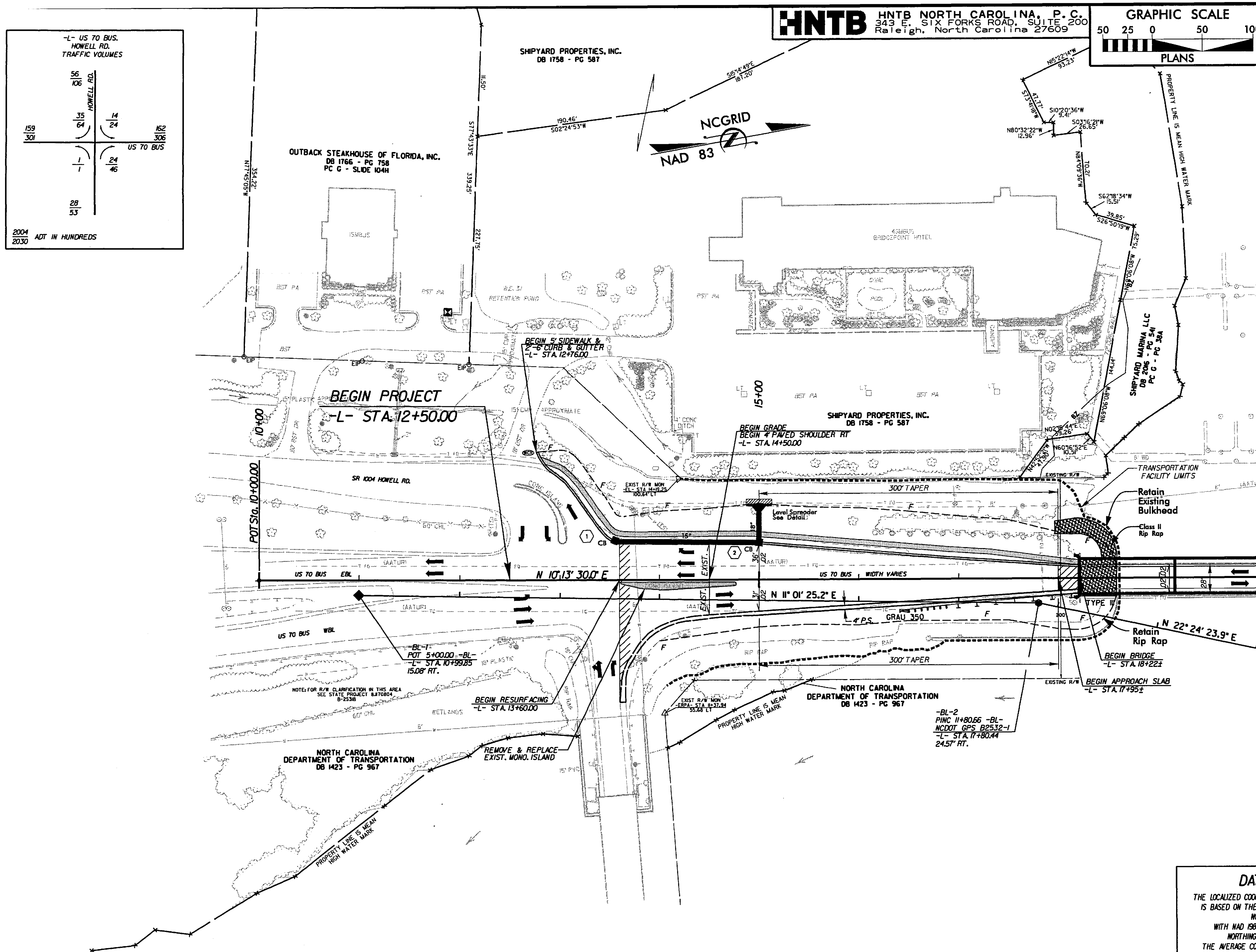
SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	SHOP CURVED	DOUBLE FACED	WARRANT POINT APPROACH END	TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	TRAILING END	W APPROACH END	TRAILING END	ANCHORS XI MOD	XI	GRAU 350	M-350	XIII	CAT-1	VI MOD	TYPE III	AT-1	IMPACT ATTENUATOR TYPE 350 EA	G	NG	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
-L-	16+40.75	18+22.00	RT	181.25				18+22.00	4.0	4.0	50.0		1.0				1					1								
		LESS ANCHOR DEDUCTIONS																												
		GRAU-350	1 @ 50.00' =	50.00																										
		TYPE III	1 @ 18.75' =	18.75																										
TOTAL				112.50													1					1								

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

PROJECT REFERENCE NO.	SHEET NO.
B-2532	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



NOTE:
FOR -L- PROFILE, SEE SHEET No. 7.

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B2532-1" WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 496657.776(ft) EASTING: 2586916.795(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99988147 30
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B2532-1" TO -L- STATION 10+00.00 IS S 12° 01' 41.62" W 780.8339 (ft)
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

$$$$$$SYSTIME$$$$$
$$$$$$USERNAME$$$$
$$$$$$DGN$$$$$$$$$$$$

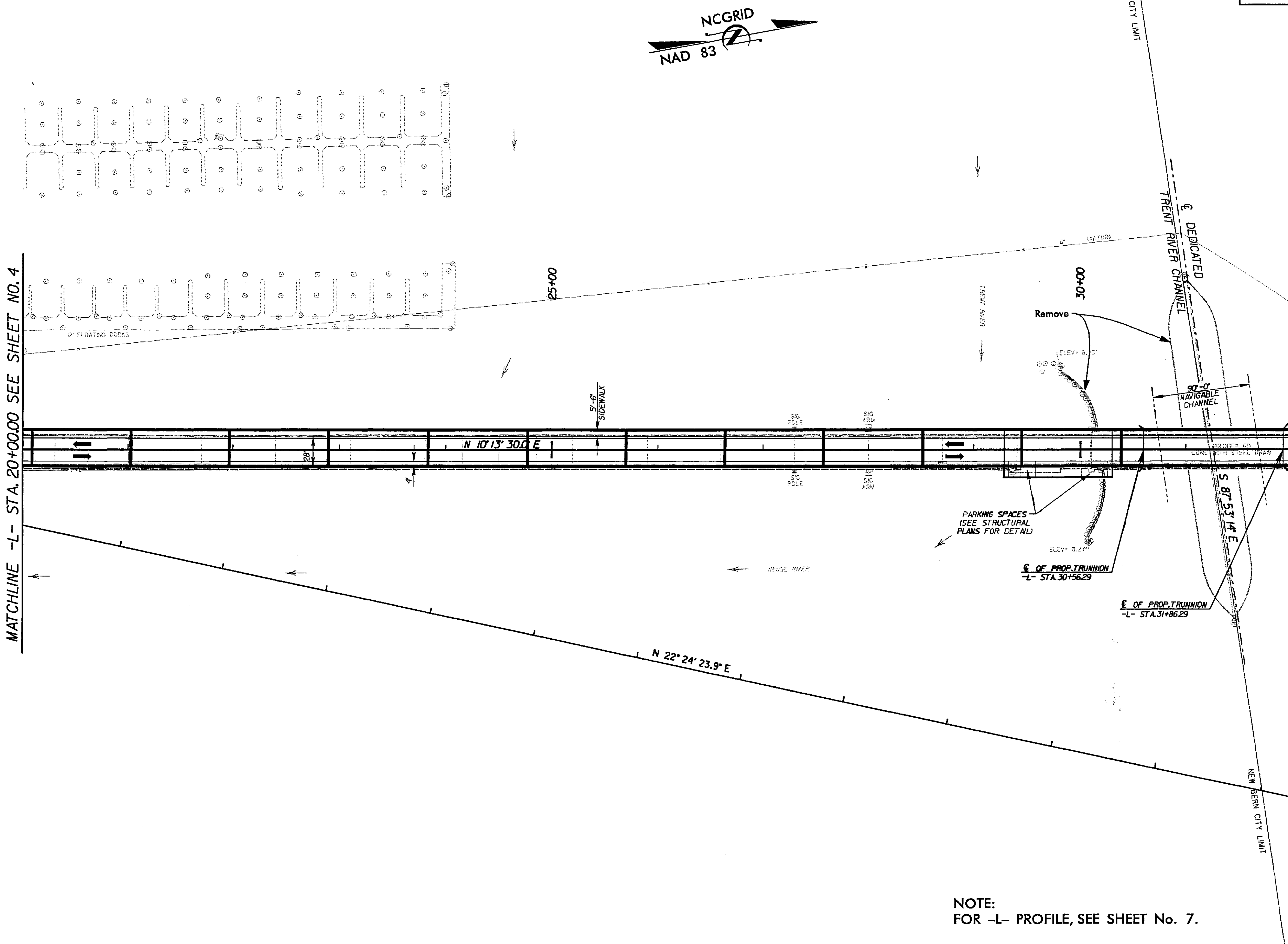
HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-2532	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



NOTE:
FOR –L– PROFILE, SEE SHEET No. 7.

$$$$$SYSTIME$$$$
$$$$$$$$DGN$$$$$$$$$$$$$$
$$$$USERNAME$$$$

HNTB HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

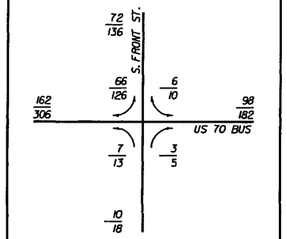
GRAPHIC SCALE
50 25 0 50 100
PLANS

PROJECT REFERENCE NO.	SHEET NO.
B-2532	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

-L- US 70 BUS.
S. FRONT ST.
TRAFFIC VOLUMES



2004/2030 ADT IN HUNDREDS

NOTE: THE CONTRACTOR SHALL PROTECT THE EXISTING FOOTBRIDGE FROM DAMAGE DURING CONSTRUCTION. THE CONTRACTOR MAY REMOVE THE FOOTBRIDGE TEMPORARILY AND REPLACE IN ITS EXISTING LOCATION.

NCGRID
NAD 83

MATCHLINE -L- STA. 32+00.00 SEE SHEET NO. 5

N88°51'W 358.8'
N88°51'W 370.60'
S07°53'06"W 135.22'
EIPG
DEIP
S82°07'20"E 58.69'
S07°52'40"W 150.43'
S08°49'22"E 28.93'
S41°32'18"E 134.8'
S43°02'18"E 134.10'
S88°41'51"E 155.59'
N46°44'36"E 125.49'
N09°12'52"E 194.63'
BZ
CITY OF NEW BERN
DB 1079 - PG 845
Remove
PARKING SPACES (SEE STRUCTURAL PLANS FOR DETAIL)
Retain Existing Bulkhead
Remove
-BL-4
PINC 33+61.67 -BL-
-L- STA. 35+22.73
68.83' RT.
END BRIDGE
-L- STA. 35+82±
END APPROACH SLAB
-L- STA. 36+05±
NEW BERN CONVENTION CENTER
2.29K
35+00 CRAVEN COUNTY
DB 1588 - PG 79
DB 1588 - PG 185
PC G - SLIDE 73E
TRANSPORTATION FACILITY LIMITS
STORM WATER RETENTION
LIMITS OF RETAINING WALL W/ PED. RAIL (SEE CROSS SECTIONS)
N09°33'30"E 294.12'
120' TAPER LT & RT
EXISTING R/W
N 10°13' 30.0" E
US 70 BUS 35' BST
N 8°30' 25.4" W
EXISTING R/W
LIMITS OF RETAINING WALL W/ PED. RAIL (SEE CROSS SECTIONS)
BZ
RETAIN & CLEAN OUT CB
END PROP. SIDEWALK TIE TO EXISTING -L- STA. 37+82.20
REMOVE EXIST. SIDEWALK
END GRADE
-L- STA. 38+80.00
CITY OF NEW BERN
(UNION POINT PARK)
NO REFERENCE
N 88° 12' 38.8" W
PROPERTY LINE IS MEAN HIGH WATER MARK
N 22° 24' 23.9" E
-BL-3
PINC 30+15.09 -BL-
NCDOT GPS B25.32-2
-L- STA. 35+73.57
411.66' RT.
-L-
PI Sta 38+71.70
Δ = 2° 10' 17.8" (LT)
D = 5° 43' 46.5"
L = 37.90'
T = 18.95'
R = 1,000.00'
SOUTH FRONT ST
EXISTING R/W
60'
4' BST
FROM -BL- STA 38+15.93
S89°13'43"W 142.5'
ELEV=5.82'
N07°52'40"E 215.41'
EIP
ECM
40+00 POT Sta. 40+13.66
DEIP
S89°02'35"E 169.40'
END PROP. C & G TIE TO EXISTING -L- STA. 38+77.94 (LEFT)
CRAVEN COUNTY
DB 1648 - PG 471
DB 1604 - PG 14
PC G - SLIDE 73E
N 8°03'12.2" E
-BL-5
POT 38+15.93 -BL-
-L- STA. 39+68.32
19.89' LT.
END PROJECT
-L- STA. 40+00.00
END PROP. C & G TIE TO EXISTING -L- STA. 38+81.11 (RIGHT)
CITY OF NEW BERN
DB 1102 - PG 794
S08°03'12"W 251.50'
CITY OF NEW BERN
DB 1029 - PG 165
N82°47'W 286.25'
EXISTING R/W
60'
PROPERTY LINE IS MEAN HIGH WATER MARK

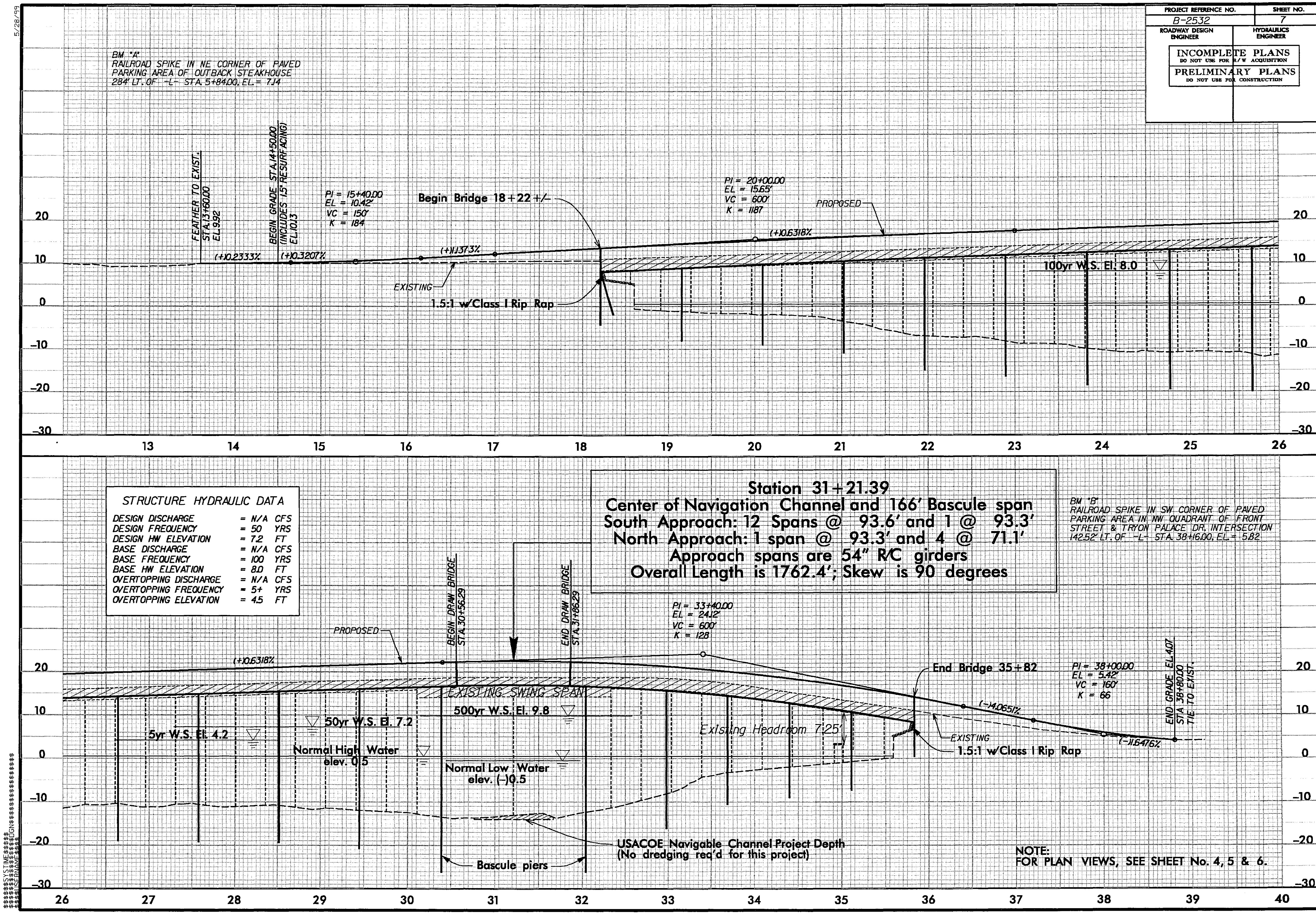
NOTE:
FOR -L- PROFILE, SEE SHEET No. 7.
FOR WALL ENVELOPE, SEE SHEET No. 2-B

PROJECT REFERENCE NO.	SHEET NO.
B-2532	7

ROADWAY DESIGN ENGINEER — HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

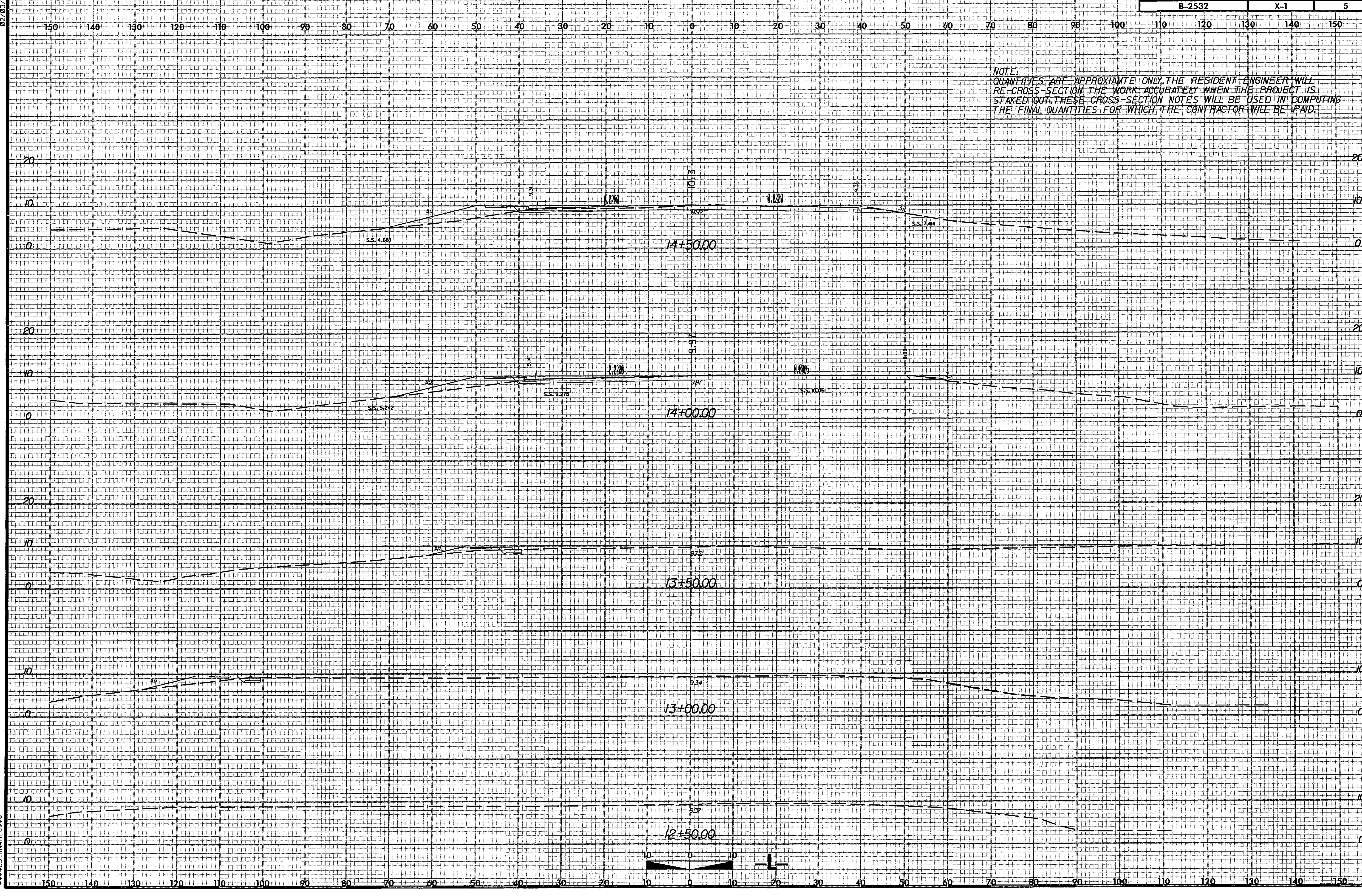


STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= N/A	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 7.2	FT
BASE DISCHARGE	= N/A	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 8.0	FT
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING FREQUENCY	= 5+	YRS
OVERTOPPING ELEVATION	= 4.5	FT

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
B-2532	X-1	5

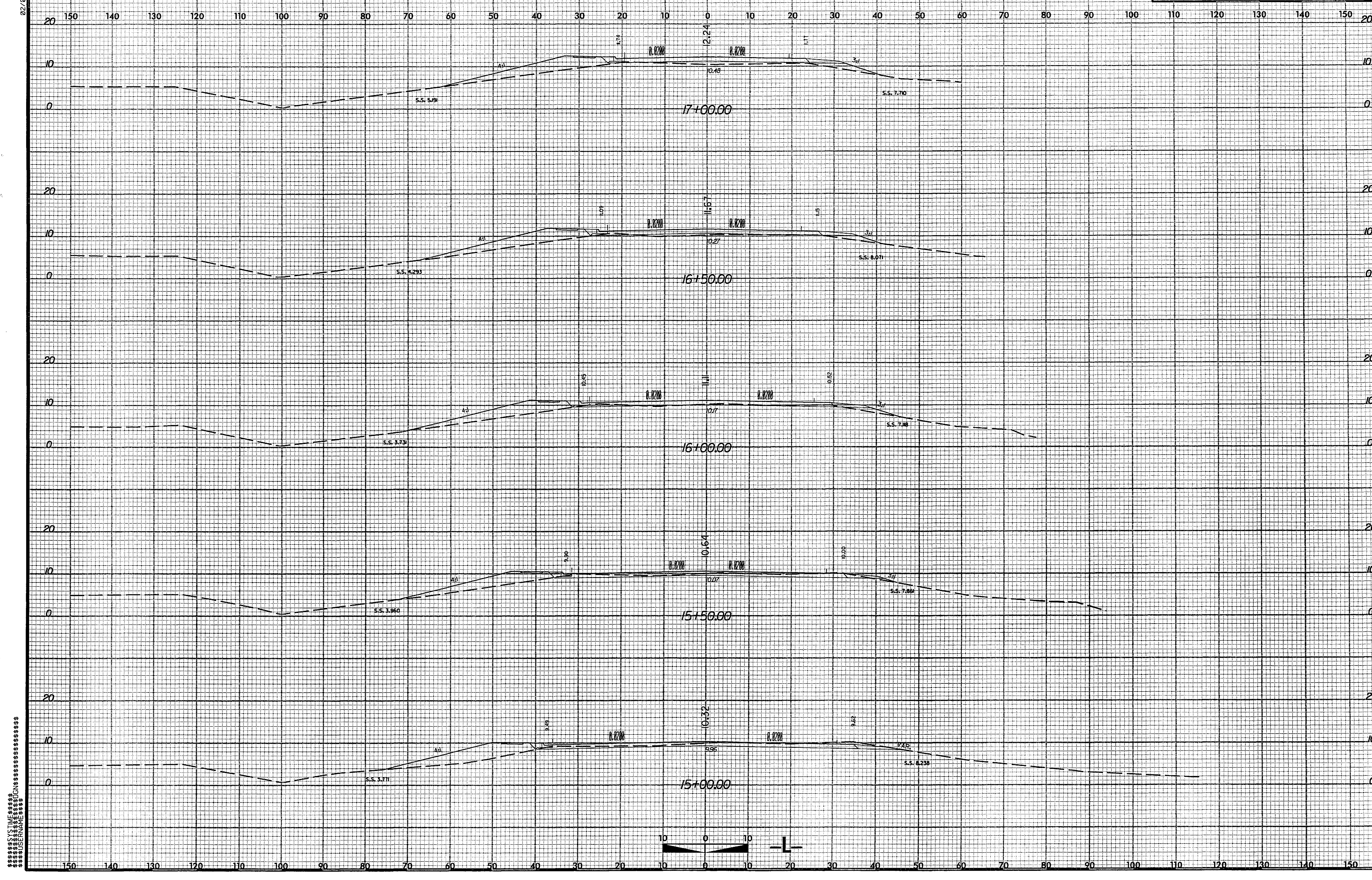
NOTE:
QUANTITIES ARE APPROXIAMTE ONLY.THE RESIDENT ENGINEER WILL RE-CROSS-SECTION THE WORK ACCURATELY WHEN THE PROJECT IS STAKED OUT.THESE CROSS-SECTION NOTES WILL BE USED IN COMPUTING THE FINAL QUANTITIES FOR WHICH THE CONTRACTOR WILL BE PAID.



02/03/98

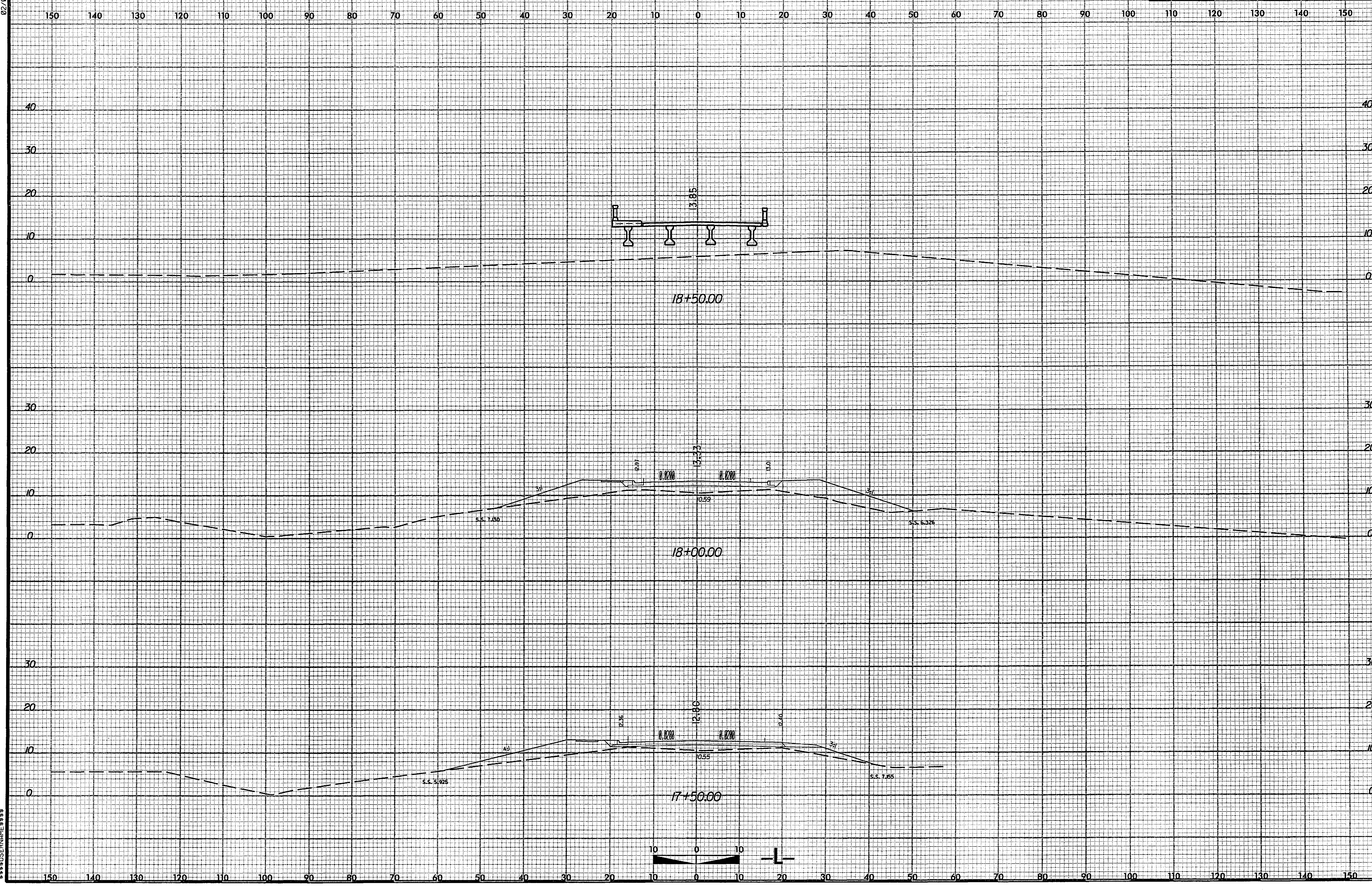
$$$$$SYSTIME$$$$$
$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
B-2532	X-2	5



PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
B-2532	X-3	5

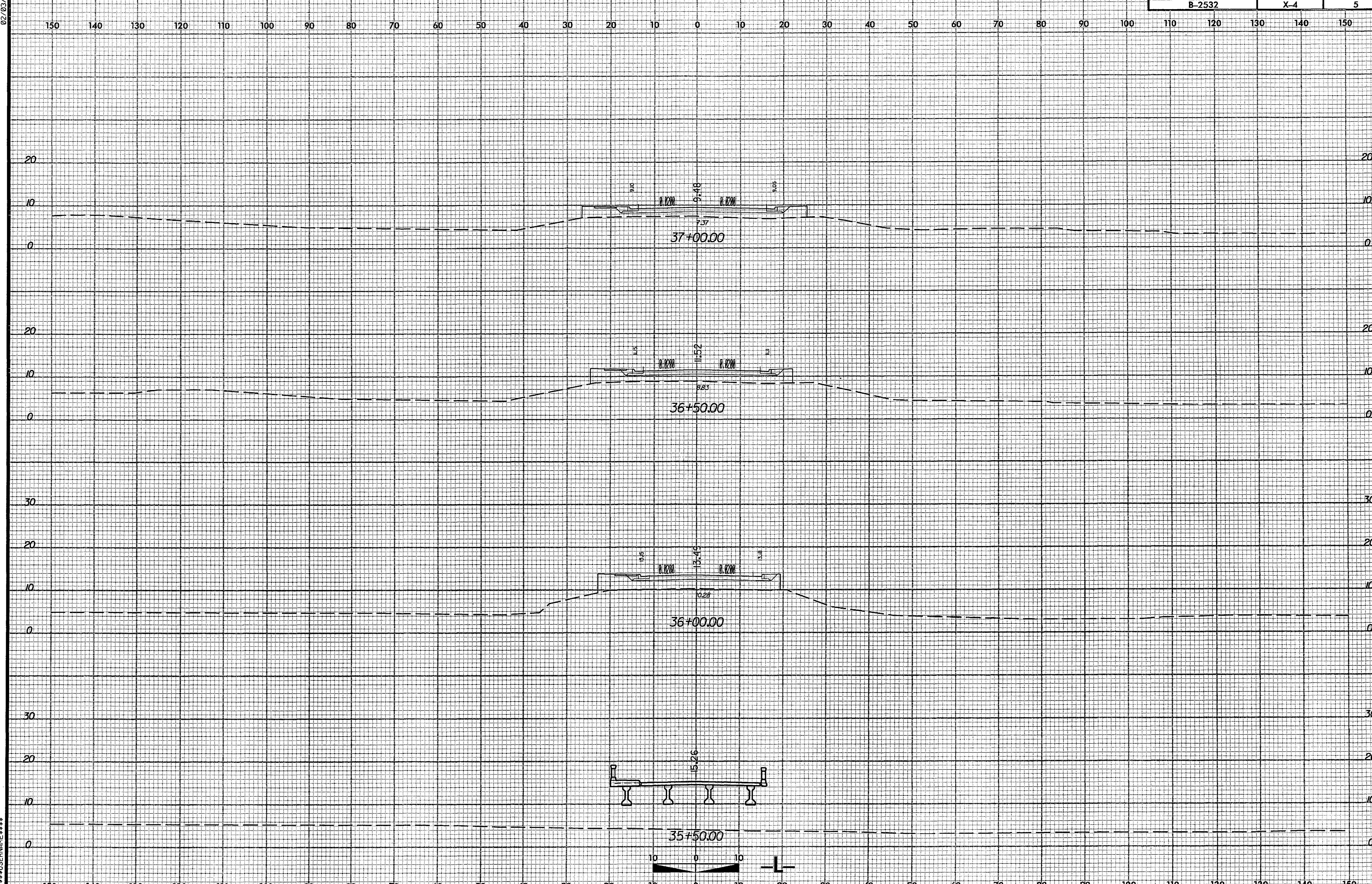
02/03/98



$$$$$SYSTIME$$$$$
$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

02/03/98

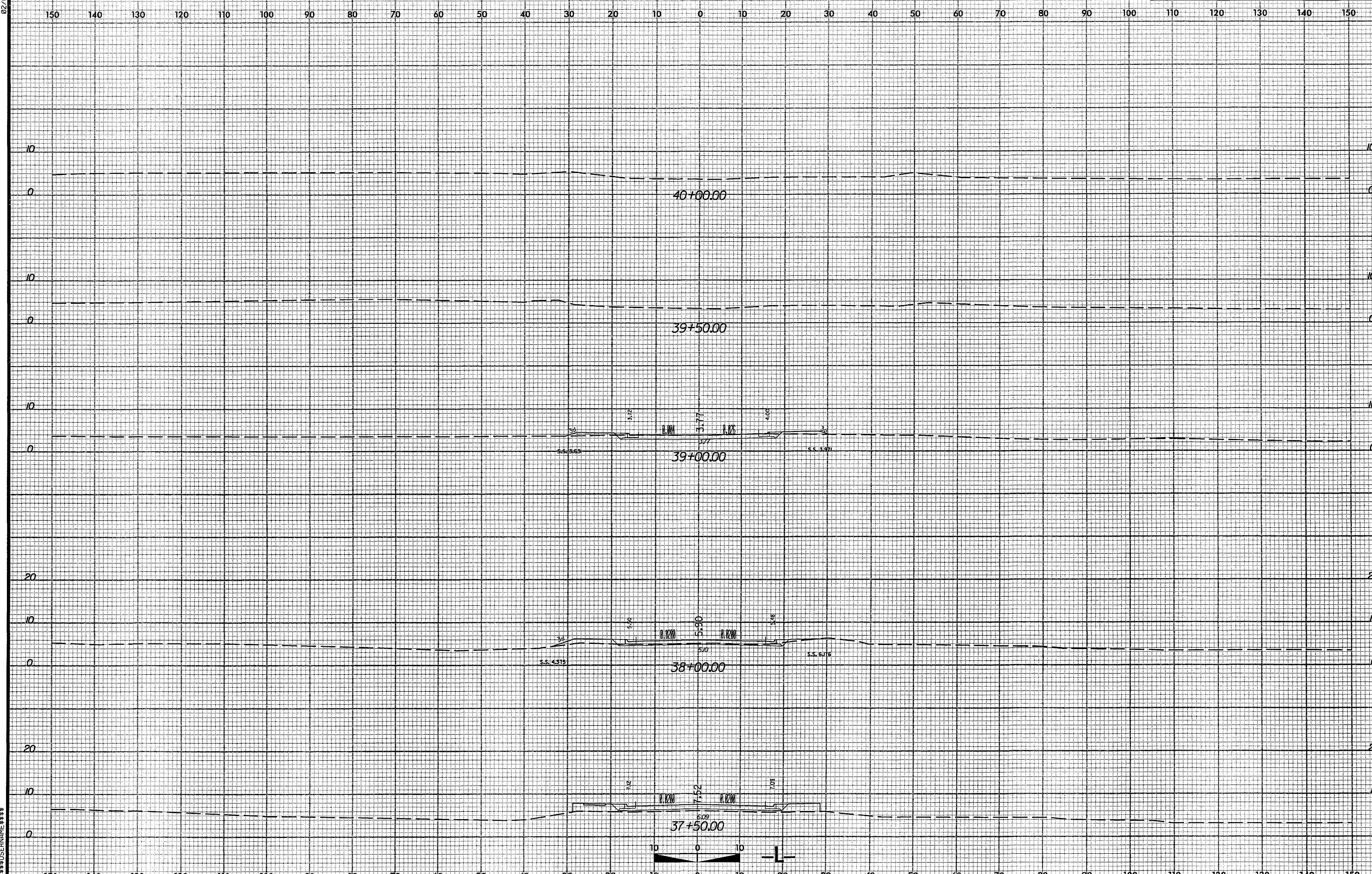
PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
B-2532	X-4	5



$$$$$SYSTIME$$$$
$$$$$$$$$DGN$$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
B-2532	X-5	5

02/03/98



$$$$$SYSTIME$$$$$
$$$$$$$$$DGN$$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

CRAVEN COUNTY
ALFRED CUNNINGHAM BRIDGE (BRIDGE NO. 60) ON U.S. 70 B (E. FRONT STREET)
OVER THE TRENT RIVER

FEDERAL AID PROJECT NO. BRSTP-070B(4)
STATE PROJECT NO. 8.1172401
T.I.P. PROJECT NO. B-2532

CATEGORICAL EXCLUSION
AND
PROGRAMMATIC SECTION 4(F) EVALUATION AND APPROVAL

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

N.C. DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

APPROVED:

1/23/06 for _____
DATE GREGORY J. THORPE, PH.D.
ENVIRONMENTAL MANAGEMENT DIRECTOR
PROJECT DEVELOPMENT AND ENVIRONMENTAL ANALYSIS BRANCH
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

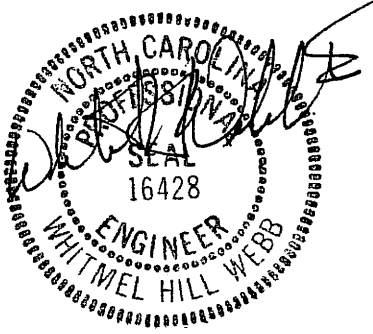
1/23/06 _____
DATE JOHN F. SULLIVAN, III, P.E.
DIVISION ADMINISTRATOR
FEDERAL HIGHWAY ADMINISTRATION

CRAVEN COUNTY
ALFRED CUNNINGHAM BRIDGE (BRIDGE NO. 60) ON U.S. 70 B (E. FRONT STREET)
OVER THE TRENT RIVER

FEDERAL AID PROJECT NO. BRSTP-070B(4)
STATE PROJECT NO. 8.1172401
T.I.P. PROJECT NO. B-2532

CATEGORICAL EXCLUSION
AND
PROGRAMMATIC SECTION 4(F) EVALUATION AND APPROVAL

Document Prepared by
HNTB North Carolina, P.C.
343 E. Six Forks Road
Suite 200
Raleigh, North Carolina, 27609



Whitmel H. Webb, P.E.
HNTB North Carolina, P.C.

1/18/06
Date

For the North Carolina Department of Transportation

Vincent J. Rhea, P.E. Project Development Engineer
Project Development and Environmental Analysis Branch

1/20/06
Date

PROJECT COMMITMENTS

US 70 Business (East Front Street)
Alfred Cunningham Bridge (Bridge No. 60) over the Trent River in New Bern
Craven County
Federal Aid Project No. BRSTP-070B(4)
State Project No. 8.1172401
T.I.P. Project No. B-2532

Division Construction
All in-water work for this site will be completed outside an in-water work moratorium from February 15 through June 30.

To minimize impacts to submerged aquatic vegetation (SAVs), efforts will be made to avoid barge contact with the substrate and minimize shading during the growing season (May through September). Logistics associated with minimizing shading include maintaining an elevation of at least 3 feet above normal high tide (+0.7 feet) for work bridges and avoiding or minimizing long-term mooring of construction barges during the growing season. Reasonable efforts will also be made to avoid bottom disturbances in areas of SAV beds during the growing season. For location of SAV beds, reference Figure 9.

The pedestrian footbridge (located near the northern bridge abutment) will remain open for public access as long as practical and until such time that construction activities warrant its closure. Adequate signage will be provided that informs the public of the footbridge's temporary closure and of an alternate detour route. An adequate pedestrian crossing will be provided in the vicinity of the E. Front Street / S. Front Street intersection. If the pedestrian footbridge is removed during construction, a replacement footbridge will be available for public use prior to, or simultaneous with, completion of the project.

US Fish & Wildlife Service 2003 **Guidelines For Avoiding Impacts to the West Indian Manatee** will be followed (Appendix A).

Division Construction, Traffic Engineering and Safety Systems Branch
The existing 45 mph speed limit will be reduced to 35 mph.

Division Construction, Roadway Design Unit
There will be no dredging in the Trent River.

There will be no encroachment into Union Point Park.

Roadway Design Unit, Structure Design Unit
All improvements within the 50 foot Neuse River Riparian Buffer will occur within the boundaries of the existing transportation facility, as previously defined by the North Carolina Division of Water Quality and NCDOT.

The retaining wall and associated landscaping along E. Front Street will be constructed in accordance with Figures 6 and 7. The brick used on the retaining wall shall be "Ironspot Coventry – Closure Size – Red" to match the brick on the New Bern Riverfront Convention Center. The color, material and design of the pedestrian railing on top of the retaining wall shall match the existing pedestrian railing used in Union Point Park.

A sidewalk will be provided adjacent to the southbound lane and will extend along US 70B (E. Front Street) from S. Front Street to Howell Road. The sidewalk width on the bridge will be 5.5 feet while the sidewalk width along the roadway approaches will be 5 feet. The sidewalk pattern along E. Front Street, between the northern bridge abutment and the S. Front Street intersection, shall match the pattern used on the existing E. Front Street sidewalk (called London walkway). There will be no sidewalk along the northbound lane.

Roadway Design Unit, Division Construction, and Project Development & Environmental Analysis Branch
During the design phase, the following options will be investigated for providing alternative transportation services during construction:

1) To coordinate with FHWA, NCDOT Pubic Transportation Division and Craven County's CARTS (Craven Area Rural Transportation Program) and other appropriate agencies. CARTS contact is Phyllis Toler (Director) at (252) 636-4917 and George Bailey (Craven County Assistant Manager) at (252) 636-6600.
2) To conduct an origin / destination survey of pedestrians and bicyclists who utilize the Alfred Cunningham Bridge. This will aid in determining the need and operational logistics of any transportation service.

Roadway Design Unit, Structure Design Unit
The impervious surface of the proposed bridge will not exceed the impervious surface of the existing bridge.

Bridge railing will be Texas Classic with arched cutouts.

The bridge will be constructed in accordance with the "Findings of Adverse Effect Documentation" prepared by NCDOT and the Certificate of Appropriateness issued by the New Bern Historic Preservation Commission (Appendix E), including architectural treatment of the control house and other features (Figure 5).

Geotechnical Unit, Division Construction
To minimize noise, and to the extent practical, a vibratory hammer will be used during pile installation. However, it is acknowledged that an impact hammer will be needed at certain pile penetration depths to complete pile installation.

To minimize vibration effects on buildings in the vicinity of the bridge, a vibration monitoring and enforcement program will be implemented during construction. Vibration monitoring equipment will be installed prior to bridge construction. Potential vibration effects at especially significant historic buildings in the New Bern NRHD – the Harvey Mansion on S. Front Street, the Thomas Sparrow House and the Justice House on E. Front Street – are to be monitored throughout bridge foundation construction. The New Bern Riverfront Convention Center

(NBRCC) will also be monitored. After completion of pile driving, vibration monitoring equipment may be discontinued. If vibration levels rise to a level that may cause structural damage to any building, or if structural damages are discovered during this period, work must immediately cease, and NCDOT will contact the North Carolina Historic Preservation Office (NC-HPO) and the property owner(s) immediately. In the case of the NBRCC, only the property owner would need to be contacted.

Traffic Engineering and Safety Systems Branch
Detour signage will include a reference to "downtown New Bern" or "historic New Bern." Detour signage will also notify the public of upcoming bridge closure in advance of construction.

Traffic signals and support posts as well as warning gates/barrier gates will be consistent with the "Findings of Adverse Effect Documentation" prepared by NCDOT and the Certificate of Appropriateness issued by the New Bern Historic Preservation Commission.

Project Development and Environmental Analysis Branch, Roadway Design Unit, Structure Design Unit
FHWA and NCDOT will develop a Memorandum of Agreement (MOA) with the NC-HPO to address the finding of adverse effect resulting from the removal of Bridge No. 60. The MOA will be completed prior to right of way acquisition or the beginning of construction (whichever comes first) and will address the following items: 1) Recordation of existing bridge; 2) Relocation/reuse of existing bridge; 3) On-going consultation efforts with NC-HPO regarding the replacement bridge design; 4) Vibration monitoring; and 5) Dispute resolution. Recordation of the existing bridge conditions and relocation/reuse of the existing bridge will be handled by the NCDOT Human Environment Unit (Historic Architecture) Ongoing consultation efforts with NC-HPO for the Replacement Bridge Design will be the responsibility of the Human Environment Unit, Roadway Design Unit and Structure Design Unit.

Completion of the MOA is pending ongoing discussions between FHWA, NCDOT and NC-HPO regarding the relocation/reuse of the existing bridge. An outstanding issue remains with respect to the length of time the existing bridge must be stored until a new owner can be located. Once this issue is settled, FHWA and NCDOT will conclude preparation of the MOA with a consultation.

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Categorical Exclusion

Prepared by the Project Development and Environmental Analysis Branch of the Division of Highways

North Carolina Department of Transportation

In Consultation with the Federal Highway Administration

SUMMARY

Description of Action – The North Carolina Department of Transportation (NCDOT) proposes to replace the Alfred Cunningham Bridge (Bridge No. 60) over the Trent River in New Bern (Figure 1). The project will consist of replacing the existing swingspan bridge, related approaches and traffic control devices with a bascule bridge, new approach structures and new traffic control devices. The new bridge will feature two 11 foot lanes with a 4 foot shoulder along the northbound lane and a two foot gutter along the southbound lane (Figure 3). A sidewalk (5.5 feet in width on the bridge and 5 feet in width on the roadway approaches) will be provided adjacent to the southbound lane for the entire length of the project, which extends along US 70 B (E. Front Street) from S. Front Street to Howell Road. The total project length is 2,480 feet, of which the bridge will comprise 1,763 feet. The bridge is eligible for listing on the National Register of Historic Places. The replacement of the Alfred Cunningham Bridge is included in the North Carolina Department of Transportation (NCDOT) 2006-2012 Transportation Improvement Program (TIP). The project is also included in the Federal-Aid Bridge Replacement Program (BRSTP-070B(4)). The project is scheduled for construction in 2007 with an anticipated completion date of December 2009. The estimated project cost in the 2006-2012 TIP is $25,700,000[1], including $24,600,000 for construction, $100,000 for right of way and $1,000,000 spent in prior years.

[1]The construction cost estimate was updated in 2005 to $25,600,000, resulting in a revised total cost of $26, 700,000.

Summary of Environmental Impacts – No long term adverse impacts to the human or natural environment are anticipated. There will be no residential or business relocations and there will be no encroachment into Union Point Park. To minimize water quality impacts, NCDOT will adhere to its Best Management Practices for Protection of Surface Waters. Although the project will have an adverse impact on properties on, or eligible for listing on, the National Register of Historic Places, a Memorandum of Agreement is being prepared that includes mitigation to address project impacts.

The project is expected to have short term impacts associated with the 3 year construction period, during which time the bridge will be out of service and traffic routed along a detour route. Traffic congestion within downtown New Bern and along the detour route could increase. Noise and vibration will result during construction. Since the detour route will alter existing travel

patterns, some downtown businesses could experience a temporary decline in commercial activity. Emergency service response times could also increase. Bicycle and pedestrian access from James City to downtown New Bern will no longer be possible across the bridge. The existing pedestrian bridge underneath the northern end of the bridge will be temporarily removed during construction.

Purpose and Need – The Alfred Cunningham Bridge is structurally deficient and functionally obsolete. With a sufficiency rating of 8 out of 100, and less than 10 years service remaining, action must be taken to ensure the continued existence of a safe and efficient multimodal transportation facility between James City and downtown New Bern.

Alternatives Considered – The alternatives identified for this project are as follows:

1) Remove the existing bridge with no replacement;
2) Rehabilitate the existing bridge;
3) Replace the existing bridge with a bascule bridge;
4) Replace the existing bridge with a vertical lift bridge;
5) Replace the existing bridge with a tunnel;
6) Replace the existing bridge with a high rise bridge that follows the existing alignment; and
7) Replace the existing bridge with a high rise bridge that curves into the Neuse River and rejoins the New Bern mainland.

Alternative 3 was selected as the preferred alternative due to its ability to meet the project's purpose & need, lower environmental / community impacts, and strong agency and community support. A "No Build" alternative was also considered. However, due to the vital multi-modal connection to downtown New Bern provided by the bridge, closure without replacement would fail to meet purpose & need and would be unacceptable to the New Bern community.

Coordination – Several federal, state and local agencies were consulted during the preparation of this Categorical Exclusion.

- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Fish & Wildlife Service
- National Oceanic & Atmospheric Administration, National Marine Fisheries Service
- N.C. Department of Administration, N.C. State Clearinghouse
- N.C. Department of Cultural Resources
- N.C. Department of Environment and Natural Resources
  - -Division of Coastal Management
  - -Division of Marine Fisheries
  - -Division of Water Quality
  - -Natural Heritage Program
  - -Wildlife Resources Commission
- Eastern Carolina Council of Governments
- City of New Bern
- Craven County

Actions Required by Other Agencies – Clearances at the navigational channel will need to be approved by the US Coast Guard and US Army Corps of Engineers during the next phase of the project. The US Coast Guard will begin its preliminary public notice process following completion of the Categorical Exclusion. The following permits will also be needed:

- US Coast Guard Bridge Permit
- Section 404 Permit
- Section 401 Water Quality Certification
- Soil Erosion and Sedimentation Control Permit
- State Stormwater Permit
- Coastal Area Management Act Permit
- Riparian Buffer Certificate

NCDOT Division 2 and the City of New Bern will cooperate to reduce the existing 45 mph speed limit to 35 mph.

Additional Information – Additional information concerning this project can be obtained by contacting either of the following:

John F. Sullivan, III, P.E. Division Administrator
Federal Highway Administration
310 New Bern Avenue, Suite 410
Raleigh, North Carolina 27601
Telephone: (919) 856-4346

Gregory J. Thorpe, Ph.D., Environmental Management Director
Project Development & Environmental Analysis Branch
N.C. Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548
Telephone: (919) 733-3141

1.0 DESCRIPTION OF THE PROPOSED ACTION

1.1 General Description

The North Carolina Department of Transportation (NCDOT) proposes to replace the existing Alfred Cunningham Bridge (Bridge No. 60) over the Trent River in New Bern (Figure 1). The project will consist of replacing the existing swingspan bridge, related approaches and traffic control devices with a bascule bridge, new approach structures and new traffic control devices (Figure 2). The new bridge will feature two 11 foot lanes with a 4 foot shoulder along the northbound lane and a two foot gutter along the southbound lane (Figure 3). A sidewalk (5.5 feet in width on the bridge and 5 feet in width on the roadway approaches) will be provided adjacent to the southbound lane for the entire project length, which extends along US 70B (E. Front Street) from S. Front Street to Howell Road. The total project length is 2,480 feet, of which the bridge will comprise 1,763 feet. The bridge is eligible for listing on the National Register of Historic Places. The replacement of the Alfred Cunningham Bridge is included in the North Carolina Department of Transportation (NCDOT) 2006-2012 Transportation Improvement Program (TIP). The project is also included in the Federal-Aid Bridge Replacement Program (BRSTP-070B(4)). The project is scheduled for construction to begin in 2007 with an anticipated completion date of December 2009. The estimated project cost in the 2006-2012 TIP is $25,700,000[1], including $24,600,000 for construction, $100,000 for right of way and $1,000,000 spent in prior years.

[1]The construction cost estimate was updated in 2005 to $25, 600,000, resulting in a revised total cost of $26, 700,000.

1.2 Recommended Improvements

The existing swingspan and related structural and roadway approaches will be removed and a new bridge on the same horizontal and similar low rise vertical alignment will be constructed with a movable span (double-leaf bascule) and new approaches. The bascule bridge will provide a span or "leaf" which rotates about a point located at a substructure unit. The leaf is balanced by a large counterweight located behind the balance point much like a seesaw operates and permits the leaf to swing upward when required to provide navigational clearance.

Existing traffic control devices will also be replaced with new traffic signals, warning and barrier gates and navigational lighting.

The project will provide a 90 foot horizontal clearance at the navigational channel with unlimited vertical clearance in the open position. Approximately 16 feet of vertical clearance will be provided in the closed position.

The bridge's typical section will feature two 11 foot travel lanes with a raised 5 .5 foot sidewalk adjacent to the southbound lane (roadway approaches will provide a 5 foot sidewalk). The sidewalk will extend along US 70B from S. Front Street to Howell Road. There will be no sidewalk adjacent to the northbound lane. The southbound direction will provide a 2 foot gutter while the northbound direction will provide a 4 foot shoulder section. The total bridge width will be 36 feet 1 inch from outside of rail to outside of rail. The design speed will be 40 mph and the

posted speed will be 35 mph. The total bridge length of 1,763 feet will be the same as the existing bridge. No additional right of way is anticipated.

1.3 Maintenance of Traffic

The proposed detour route during the three year construction time will take users along the US 70/17/NC 55 Bypass to the Pembroke Avenue exit, to First Street and then onto Broad Street (Figure 1). The detour route will add approximately 2 miles to the journey.

1.4 Estimate of Cost

Construction	$24,600,000
Right-of-Way	$ 100,000
Prior Years Cost	$ 1,000,000
Total Years Cost	$25,700,000[1]

*Based on 2006-2012 NCDOT TIP

[1]The construction cost estimate was updated in 2005 to $25,600,000, bringing the new total years cost to $26,700,000. The project scope was adjusted such that the estimated cost would more closely align with the 2006-2012 NCDOT TIP target budget.

2.0 PURPOSE AND NEED FOR THE PROPOSED ACTION

2.1 Existing Bridge Characteristics

The Alfred Cunningham Bridge is located on US 70 Business (E. Front Street) in the City of New Bern, North Carolina (Figure 4). The bridge crosses the Trent River at its confluence with the Neuse River and is located on the north side of the US 70/ US 17/ NC 55 Interchange. The bridge provides a multi-modal (pedestrian, bicycle and motor vehicle) connection between James City and historic downtown New Bern.

The bridge was built in 1955 and is estimated to have less than 10 years life expectancy. The bridge is currently posted for a 30 ton single vehicle and a legal gross weight tractor trailer. The posted speed limit is 45 miles per hour.

The bridge is 1,763 feet long with a 350 foot New Bern approach, a 220 foot truss swing span, and a 1,190 foot James City approach. The swingspan is situated in the middle of a 300 foot federally dedicated navigational channel.

The bridge typical section supports a 28 foot clear roadway width (two 12 foot lanes with 2 foot shoulders) with 3 foot wide sidewalks elevated 10 inches above the roadway surface. Total bridge width from outside of rail to outside of rail is 36 feet 4 inches.

The bridge section connects with curb and gutter approach at the New Bern side and widens to provide a left turn lane at South Front Street. The James City side provides a normal shoulder section where entrance and exit interchange ramp lanes taper.

Approach spans are of beam and slab construction providing unlimited vertical clearance for vehicular traffic on the bridge. However, the swing span is a through truss span with portal framing above the deck limiting the vehicle height to 14 feet 10 inches.

The bridge provides approximately 13 feet of vertical clearance in the closed position for marine traffic. The swingspan section provides two 78 foot navigation channels with unlimited vertical clearance in the open position.

A pedestrian walkway passes underneath the northern end of the bridge and provides a connection between Union Point Park and the New Bern Riverfront Convention Center. There is a signalized pedestrian crosswalk at the E. Front Street / S. Front Street intersection. Although sidewalk exists along the bridge's northern roadway approach, there is no sidewalk along the southern roadway approach.

Existing traffic control devices consist of traffic signals, warning gates and barrier gates.

Although navigational lighting exists for marine vessels, there is no other lighting on the bridge.

There are no overhead electrical or telephone services in the vicinity of the bridge. However, there are electric and telephone lines suspended from the bridge. Water and sewer lines extend to the bridge tender's office only. There is an abandoned underground water line along the west side of the bridge.

US 70 Business is classified as an Urban Principle Arterial. The 2004 Average Annual Daily Traffic (AADT) was 16,200 vehicles per day (vpd). The percentages of truck traffic are 1% TTST vehicles and 2% dual vehicles. The projected 2030 AADT is 30,600 vpd.

According to Craven County Schools, no school buses currently use the bridge.

The bridge is on a state-designated bicycle route – the NC-7 Ocracoke Option.

The bridge is eligible for listing on the National Register of Historic Places.

2.2 Purpose and Need

Built in 1955, the Alfred Cunningham Bridge has provided over 50 years of service to the New Bern community. Corrosion, rust, vehicle collision, and general deterioration of superstructure and substructure components have rendered the Bridge structurally deficient. According to the bridge tender, the swingspan is warped due to an accident and will not lock down properly in the closed position. Further, inadequate sidewalk widths, insufficient railing height and substandard vertical clearance make the bridge functionally obsolete. The *Findings Technical Memorandum*, dated September 13, 2004, provides a more detailed description of the bridge's condition and is incorporated by reference. A poor sufficiency rating of 8 out of a possible 100 points, combined with the bridge's estimated 10 years of life expectancy, signify that action needs to be taken to ensure the presence of a safe and efficient transportation facility.

The Alfred Cunningham Bridge provides a vital multimodal connection between James City and downtown New Bern. Conversations with local residents and officials have revealed that a substantial number of pedestrians and bicyclists use the Bridge to access jobs, visit relatives, tour the historic district, stay in area hotels, and attend numerous community events. As evidenced by the 2030 AADT (Average Annual Daily Traffic) of 30,600 vehicles, the bridge is projected to experience substantial vehicle use as well. Therefore, maintaining connectivity between James City and downtown New Bern is essential to sustained economic development and maintenance of community cohesion.

3.0 Traffic Volumes and Capacity

Roads are designed to handle a certain number of vehicles per hour. Volume to capacity ratio (V/C) is a measurement of a facility's demand compared to its capacity to safely carry vehicles. The facility is at its theoretical safe capacity when the V/C ratio is equal to 1. V/C ratios below 1 represent lower levels of congestion while V/C ratios above 1 represent higher levels of congestion. Average Annual Daily Traffic (AADT) along the Alfred Cunningham Bridge in 2030 is projected to reach 30, 600 vehicles, including 2% duals and 1% trucks, tractors and semi trailers. The V/C ratio will be 1.07 along the bridge segment assuming no bridge openings. The number of bridge openings would further reduce capacity and increase delay along the bridge. Today, the bridge is estimated to be closed to vehicular traffic 17 % of the time in the peak hour, which would effectively increase the V/C ratio to 1.25. The vehicular delay could be greater if the future number of bridge openings increases.

3.1.1 Accident History

A crash analysis was provided by NCDOT (dated September 19, 2005). The crash analysis consisted of a 0.72-mile section, which constitutes approximately 1,000 feet from either end of the bridge. Sixteen crashes were reported at this location between February 1, 2002 and January 31, 2005. There were no fatal crashes. All crashes were either injury only or property damage only crashes. The total crash rate was 184.33 crashes per 100 million vehicle miles of travel (mvmt). For North Carolina Urban US Routes with two lanes undivided, the comparative rate is 323.56 accidents per 100 mvmt.

3.2 Benefits to the Region and Community

The new bridge will provide a structurally safe and efficient multi-modal transportation facility for its users. The bridge will provide a vital connection between downtown New Bern and James City, contributing to the area's livability and economic vitality. The bridge will be designed to be architecturally compatible with historic downtown New Bern.

4.0 ALTERNATIVES

4.1 Project Description

The existing swingspan bridge and related approaches will be replaced with a new bridge. The proposed bridge will be located in the same general location as the existing bridge and will offer two travel lanes with sidewalk adjacent to the southbound lane. Adequate horizontal and vertical clearances at the federally dedicated navigational channel will also be provided.

4.2 Build Alternatives

Alternative 3 (Preferred) proposes the replacement of the existing bridge with a bascule type movable bridge. The existing bridge will be removed and a new bridge on the same horizontal and similar low rise vertical alignment will be constructed with a movable span for navigation. The bascule bridge will provide a span or "leaf" which rotates about a point located at a substructure unit. The leaf is balanced by a large counterweight located behind the balance point much like a seesaw operates and permits the leaf to swing upward when required to provide navigational clearance.

Alternative 4 proposed to replace the existing bridge with a lift type movable bridge. The existing bridge would be removed and a new bridge on the same horizontal and similar low rise vertical alignment would be constructed with a movable span for navigation. The lift span would provide a single span which rises vertically to the required navigational clearance in the open position. The lift span employs tall vertical towers at each end of the span and pulley systems with counter weights similar to electric traction passenger elevator systems utilized in tall buildings.

Replacement of the existing bridge with a lift bridge would require the use of large towers exceeding 100 feet in height which would have visual impacts on the New Bern Historic District, a National Register of Historic Places resource. Alternative 4 would also restrict vertical clearance in the open position and could prevent certain vessels (such as sailboats) from clearing the bottom of the deck during periods of strong northeasterly winds, which tend to raise river levels. After conducting detailed analysis, this alternative was eliminated from further study due to the visual impact on downtown New Bern and vertical clearance limitations.

4.3 Alternatives Eliminated from Further Study

Alternative 1 proposed to permanently remove the existing bridge. Crossing the Trent River would no longer be possible at this location. Traffic would access downtown New Bern via alternate routes, such as the Pembroke Avenue and Martin Luther King, Jr. Interchanges along the US 70/17 Bypass.

Removing the existing bridge would eliminate pedestrian, bicycle and motor vehicle access between James City and downtown New Bern, an important component of the need for the project. This alternative would also conflict with the City of New Bern's 2002 Urban Design Plan in which the Alfred Cunningham Bridge is identified as a gateway entrance into downtown. Due

to its failure to meet the project's purpose and need, conflict with local plans and weak community support, this alternative was eliminated from further study.

Alternative 2 proposed to rehabilitate the existing bridge. The existing bridge would be repaired and strengthened to the original design capacity. The movable swingspan would require the following modifications: replacement of the mechanical system; replacement of the electrical system; replacement of the movable span concrete/steel deck; deck repairs to the approach spans; structural repair/strengthening of the impacted portals of the through truss; and repainting of the steel truss and approach beams. Existing functional deficiencies would also be addressed, such as replacing the existing substandard railing and correcting the inadequate vertical clearance of the through truss.

If the bridge were rehabilitated, full replacement would be required within 30 years. The cost for rehabilitation was estimated at $12.2M. NCDOT considered rehabilitation financially unfeasible. Correcting the vertical clearance of the through truss to meet current standards would require dismantling and reconstruction of the truss span, which would be impractical. The bridge is not a good candidate for rehabilitation due to its age, deteriorated condition and low load capacity. Due to the difficulty in rehabilitating the bridge to current standards, the relatively low life expectancy and increased long-term cost, this alternative was eliminated from further study.

Alternative 5 proposed to replace the existing bridge with a tunnel beneath the bottom of the navigational channel. The tunnel alignment would begin at grade south of the Howell Road intersection and continue on the existing bridge alignment in an open top, three sided section ("boat" section) until becoming a four sided tunnel section through the S. Front Street intersection. At this location, a boat section is again utilized until existing grade is achieved at the New Street intersection. The tunnel section would be constructed using a combination of cut and cover in shallow depth lengths and then an immersed tube tunnel in substantial depth areas.

Construction of a tunnel would require reconfiguration of a portion of the US 70/17/NC 55 Interchange and substantial excavation in the Trent River. Several properties would lose access to E. Front Street. Existing service levels for pedestrians and bicyclists would also deteriorate as distance traveled would be increased over existing conditions. Due to an estimated cost of $159M and environmental and community impacts, this alternative was eliminated from further study.

Alternative 6 proposed to replace the existing bridge with a high rise fixed span bridge on existing alignment. To provide adequate vertical clearance of 65 feet at the navigational channel while maintaining acceptable grades for handicap accessibility, an alternative was developed which would alter the existing vertical profile from beyond the Howell Road intersection with the Neuse River access ramp north to downtown New Bern to approximately New Street. This alternative would require some rework at the south terminus and extensive reconfiguration of the intersections with S. Front Street and Union Point Park, Pollock Street and Broad Streets.

Due to its 65 foot height and nearly 3,800 foot length, pedestrian and bicycle access between James City and downtown New Bern would be much more difficult and would discourage many from walking or biking across the bridge. Several properties along E. Front Street would lose their access and the exit ramp of the US 70/17/NC 55 Interchange would require reconfiguration. The dimensions of a high-rise bridge would also have major intrusions into the New Bern Historic District. Emergency services have concerns with using high-rise bridges during periods of snow and ice. This alternative also conflicts with the City of New Bern's 2002 Urban Design Plan which calls for E. Front Street to be a main bike and pedestrian route. Due to the generally

high impacts associated with a high-rise bridge, and weak community support, this alternative was eliminated from further study.

Alternative 7 proposed to replace the existing bridge with a high rise fixed span bridge on new alignment. This alternative alignment for a high-rise fixed span bridge would provide 65 feet of vertical clearance to the navigational channels while maintaining acceptable grades for handicap accessibility. The alignment would begin south of the Howell Road intersection and curve east to traverse the Neuse River navigational channel and then curve west across the Neuse navigational channel a second time and terminating on Broad Street near the intersection with Craven Street. The northern terminus is consistent with the removed John Lawson Bridge which was replaced with the US70 Bypass project on new alignment in James City.

The high rise bridge would result in visual impacts to the New Bern Historic District and Union Point Park due to the Bridge's height and proximity to the New Bern mainland. The high-rise bridge would also intrude several blocks into Broad Street (including the New Bern Historic District) and alter existing access points. This alternative would conflict with the City of New Bern's plans to enhance Broad Street and transform it into a major gateway into the downtown. Due to an estimated cost of $50M and environmental impacts, this alternative was eliminated from further study.

A **"No Build" alternative** was also considered, but was considered unfeasible since the existing swingspan structure is approaching the end of its life cycle and will require closure within 10 years. Bridge closure would fail to meet the project's purpose & need and would be unacceptable to the New Bern community.

4.4 Preferred Alternative

Alternative 3, replacing the existing bridge with a bascule bridge, was selected as the preferred alternative due to its ability to meet the purpose & need, strong agency and community support, minimal environmental/community impacts, competitive cost and unlimited vertical clearance at the navigational channel.

This alternative will provide a 90 foot horizontal clearance at the navigational channel with unlimited vertical clearance in the open position. Approximately 16 feet of vertical clearance will be provided in the closed position. The bridge's typical section will feature two 11 foot travel lanes with a raised 5.5 foot sidewalk adjacent to the southbound lane. The southbound direction will provide a 2 foot curb and gutter while the northbound direction will provide a 4 foot shoulder section. The total bridge width will be 36 feet 1 inch from outside of rail to outside of rail. The design speed will be 40 mph and the posted speed will be 35 miles per hour.

5.0 SOCIAL, ECONOMIC AND ENVIRONMENTAL EFFECTS

5.1 Land Use

5.1.1 Land Use Planning

The northern end of the bridge is located within the planning & zoning jurisdiction of the City of New Bern. The south end of the bridge is located in Craven County, which does not exercise land use planning in this area. New Bern is currently revising its 2020 Comprehensive Plan and the estimated completion date is sometime in 2006. The 2020 Comprehensive Plan is intended to serve as a guide for the City's government and it's appointed bodies in the development and management of growth and related public services infrastructure. New Bern also has a Land Use Ordinance (last updated in May 2004), which includes zoning and subdivision regulations and a flood damage prevention ordinance. New Bern has a 1990 and 2002 Urban Design Plan to help guide development in the downtown. The Greater Duffyfield Community Development Strategic Plan was adopted in January 2001 to help create a "safe, healthy, clean and self-sustaining community..." for the Duffyfield area.

The northern end of the bridge is adjacent to the New Bern Historic District, which features over 150 historic landmarks. New Bern has a special overlay zoning district called the New Bern Local Historic District Ordinance, which is intended to protect and conserve the City's historic architectural, archaeological and cultural environment. The New Bern Historic Preservation Commission must issue a Certificate of Appropriateness (COA) for alterations and new development within the overlay district.

The bridge is included in the 1993 New Bern Urban Area Thoroughfare Plan and listed as a major thoroughfare. However, the Plan states that the entire facility is projected to be over capacity by 2015, and suggests that the bridge be widened to four lanes. According to the Thoroughfare Plan, initial assumptions were that traffic would drop substantially on the Trent River Bridge when the Neuse River Bridge was relocated. However, the trip distribution model (according to the Thoroughfare Plan) indicated that a large number of trips were originating within and had destinations to the New Bern Central Business District from the Bridgeton and Pamlico County areas. This Thoroughfare Plan for the New Bern-Bridgeton-Trent Woods-River Bend area was mutually adopted by the municipalities and the North Carolina Department of Transportation (NCDOT) in 1992. Based on cost/scope limitations, community desires and environmental constraints, the proposed bridge replacement does not involve widening to four lanes. A Thoroughfare Plan for Craven County currently does not exist.

The project is not in conflict with any existing land use plan, urban design plan or zoning regulation.

5.1.2 Existing Land Use

Land use within the project study area is urban, with a mix of residential, commercial, institutional, office and recreational uses. The north side of the bridge includes historic downtown New Bern with Union Point Park and the New Bern Riverfront Convention Center located immediately adjacent to the bridge. There are also two marinas adjacent to the west side of the bridge which provide mooring for recreational boats. The south side of the bridge leads to

a hotel, restaurant and the US 70/US 17/ NC 55 Interchange (also known as the Neuse River Bridge). The historic African American community of James City is located south of the Neuse River Bridge interchange.

5.1.3 Future Development

There is a variety of development activity in the vicinity of the bridge. A new mixed use development is under construction on E. Front Street that will feature a restaurant, grocery store and boat slips. A new 27 unit condominium development is under construction just west of Bridge Pointe Hotel. A proposed 102 unit condominium building located just west of the Sheraton Hotel is scheduled to start construction in 2006 and will also offer a marina. Tryon Palace is planning to add a $40 million educational center with construction scheduled to be completed by 2010; fundraising efforts for the expansion are currently underway. Finally, numerous enhancements to Broad Street and First Street are scheduled to begin construction by mid 2007 with completion by 2010. Enhancements include reducing Broad Street to two travel lanes with onstreet parking, installation of a median, landscaping, consolidation of utilities and new street lights.

5.2 Neighborhood Characteristics

5.2.1 Population, Race, Ethnicity and Age

According to the 2000 US Census, the City of New Bern grew by over 33% during the 1990s while Craven County grew by 12%. According to local officials, the main factors in population growth are those looking for second homes and the general appeal of the area for retirees. Table 1 shows population totals and growth rates for New Bern, Craven County and North Carolina.

Table 1. Population Growth, 1990-2000

Area	Population		Growth	
	1990	2000	Difference	% Change
New Bern	17,363	23,128	5,765	33.2%
Craven County	81,613	91,436	9,823	12.0%
North Carolina	6,628,637	8,049,313	1,420,676	21.4%

Source: US Census Bureau

New Bern has a larger population of African Americans than Craven County and North Carolina. According to local planners, the large presence of African Americans is due to several predominately minority communities located within the project area, including James City, Duffyfield, Pembroke and the New Bern Housing Authority communities of Trent Court and Craven Terrace. Table 2 shows the racial and ethnic composition of New Bern, Craven County and North Carolina.

Table 2. Population by Race/Ethnicity, 2000						
	New Bern		**Craven County**		**North Carolina**	
Race	**Pop.**	**% Pop.**	**Pop.**	**% Pop.**	**Pop.**	**% Pop.**
White	12,685	54.8%	62,435	68.3%	5,647,155	70.2%
White Hispanic	258	1.1%	1,517	1.7%	157,501	2.0%
Black or African American	9,260	40.0%	22,729	24.9%	1,723,301	21.4%
Black Hispanic	65	0.3%	237	0.3%	14,244	0.2%
American Indian / Alaska Native	72	0.3%	357	0.4%	95,333	1.2%
American Indian / Alaska Native Hispanic	3	0.0%	31	0.0%	4,218	0.1%
Asian	145	0.6%	881	1.0%	112,416	1.4%
Asian Hispanic	3	0.0%	27	0.0%	1,273	0.0%
Native Hawaiian / Pacific Islander	9	0.0%	51	0.1%	3,165	0.0%
Native Hawaiian / Pacific Islander Hispanic	0	0.0%	5	0.0%	818	0.0%
Other Race	28	0.1%	119	0.1%	9,015	0.1%
Other Race Hispanic	304	1.3%	1,508	1.6%	177,614	2.2%
Two or More Races	237	1.0%	1,187	1.3%	79,965	1.0%
Two or More Races Hispanic	59	0.3%	352	0.4%	23,295	0.3%
Total	23,128	100 %	91,436	100 %	8,049,313	100 %
Total Hispanic	692	3.0%	3,677	4.0%	378,963	4.7%

Source: US Census Bureau

The City of New Bern is a popular location for retirees. The 2000 US Census indicates that approximately 18 % of the population in New Bern is 65 years of age and older (Table 3), higher than Craven County and North Carolina. New Bern's median age of 38.9 is also higher than the County and State, supporting the view that New Bern is attractive to retirees.

Table 3. Population by Age and Median Age, 2000						
	New Bern		**Craven County**		**North Carolina**	
Age	**Pop.**	**% Pop.**	**Pop.**	**% Pop.**	**Pop.**	**% Pop.**
19 years and under	6,052	26.2%	25,114	27.5%	2,193,360	27.2%
20-64 years	12,928	55.9%	54,059	59.1%	4,886,905	60.7%
65 or more years	4,148	17.9%	12,263	13.4%	969,048	12.0%
Total	**23,128**	**100.0%**	**91,436**	**100.0%**	**8,049,313**	**100.0%**
Median Age	38.9		34.4		35.3	

Source: US Census Bureau

New Bern, Craven County, and North Carolina all experienced similar increases in median household incomes during the period of 1989-1999 (Table 4).

Table 4. Median Household Income, 1989-1999

	Median Household Income		Growth, 1989-1999	
Area	**1989**	**1999**	**$ Difference**	**% Change**
New Bern	$19,894	$29,139	$9,245	46.5%
Craven County	$25,619	$35,966	$10,347	40.4%
North Carolina	$26,647	$39,184	$12,537	47.0%

Source: US Census Bureau

Although the trend during the 1990s was decreasing numbers of those living below the poverty level, New Bern continues to have a disproportionate share of low income persons. According to local officials, this is largely due to the presence of the New Bern Housing Authority complexes of Trent Court, Craven Terrace and New Bern Towers (elderly housing) within the downtown area.

Table 5. Percentage Below Poverty Level, 1989-1999

Area	Percent Below Poverty		Growth, 1989-1999	
	1989	**1999**	**Difference**	**% Change**
New Bern	23.2%	19.4%	-3.8%	-16.4%
Craven County	13.6%	13.1%	-0.5%	-3.7%
North Carolina	13.0%	12.3%	-0.7%	-5.4%

Source: US Census Bureau

As Table 6 shows, there are no notable differences in educational status between New Bern, Craven County, and the State.

Table 6. Educational Status, 2000

Educational Status	**New Bern (% of Population)**	**Craven County (% of Population)**	**North Carolina (% of Population)**
< High School	20.5%	17.9%	21.9%
High School Graduate	26.7%	30.0%	28.4%
Some College	22.4%	25.1%	20.5%
Associates Degree	7.4%	7.8%	6.8%
Bachelors Degree	15.7%	13.5%	15.3%
Graduate or Professional Degree	7.3%	5.8%	7.2%
Total	**100.0%**	**100.0%**	**100.0%**

Source: US Census Bureau

New Bern has a lower median home value and a slightly older housing stock when compared to Craven County and the State, as indicated in Table 7.

Table 7. Median Home Value & Median Year Structure Built, 2000

Area	Value	Year Built
New Bern	$79,200	1975
Craven County	$86,100	1979
North Carolina	$95,800	1978

Source: US Census Bureau

Table 8 contains sample unemployment data from the US Census. Sample data is collected from a 1-in-6 sample and is weighted to represent the total population. As shown in the table, between 1990 and 2000 unemployment within the County declined by 17.2% , while the unemployment rate for New Bern and the State increased by 12.5 % and 10.4 %, respectively.

Table 8. Unemployment Rate, 1990-2000

Area	Unemployment Rate		Growth, '90-'00	
	1990	2000	Difference	% Change
City of New Bern	5.6%	6.3%	0.7%	12.5%
Craven County	6.4%	5.3%	-1.1%	-17.2%
North Carolina	4.8%	5.3%	0.5%	10.4%

Source: US Census Bureau

According to the North Carolina Employment Security Commission, the 2004 unemployment rates for Craven County and North Carolina were similar, with the County having a 5.1 % unemployment rate and the State having a 5.5 % unemployment rate.

5.3 Social Impacts

5.3.1 Community Stability, Neighborhood Cohesion and Connectivity

Since the project involves replacing a bridge on existing location, no neighborhoods will be permanently split or divided as a result of the project. However, community cohesion could be temporarily disrupted during construction as direct access will no longer be possible between James City and downtown New Bern.

The Alfred Cunningham Bridge provides a vital connection between James City and downtown New Bern. Conversations with local residents and officials have revealed that a substantial number of pedestrians and bicyclists use the bridge to access jobs, visit relatives, tour the historic district, stay in area hotels, and attend numerous community events such as the annual Neuse River Festival and Mumfest. According to interviews with the local marinas, many visiting mariners use bicycles to access various services in James City and downtown New Bern. As evidenced by the 2004 estimated AADT (Average Annual Daily Traffic) of 16,200 vehicles, the bridge experiences substantial vehicle use as well. Therefore, maintaining connectivity between James City and downtown New Bern is essential to sustained economic development and maintenance of community cohesion.

During the three year construction period, the bridge will be out of service and traffic will be directed along a detour route. This will temporarily eliminate pedestrian and bicycle access between James City and downtown New Bern and will require motor vehicles to travel an additional two miles. The existing pedestrian bridge underneath the northern portion of the bridge will be temporarily removed during construction, therefore temporarily severing a pedestrian connection between Union Point Park and the New Bern Riverfront Convention Center.

5.3.2 Relocation Impacts

The proposed project will not result in residential or business relocations.

5.3.3 Environmental Justice

Hayes Planning Associates conducted an environmental justice assessment to ensure that traditionally underserved populations were informed throughout the study process. Although several minority and low income communities were identified, James City and the Trent Court public housing complex are the only minority and low income communities likely to be affected by the project during the construction stage (no long-term permanent impacts are expected). These two communities are located within .6 to 1.4 miles from the bridge and the proposed detour route is a much longer route from these sites. The other identified minority communities of Duffyfield and Pembroke as well as the Craven Terrace and New Bern Towers public housing complexes are situated further away from the bridge and the lack of pedestrian and bicycle access during bridge construction should not pose a hardship for these neighborhoods. Moreover, through interviews with local taxi cab companies and several Pembroke and Duffyfield residents, motorists tend to use the proposed detour route when traveling from these locations rather than using the bridge. Once built, the new bridge will have an overall beneficial effect for minority and low income communities due to improvements in pedestrian accommodations over existing conditions and continued bicycle and motor vehicle access.

Meetings were held within the James City community in December 2004 and September 2005. Residents expressed support for the project and understood the need for bridge closure.

Low-income households may be affected during the three year construction period. The three year closing of the bridge will sever transportation access between downtown New Bern and the James City area. Low-income households who now use the bridge on a regular basis could be affected by higher motor vehicle costs and/or the inability to have convenient pedestrian or bicycle access across the Trent River.

For additional information, reference the *Environmental Justice Technical Memorandum* prepared by Hayes Planning Associates (October 18, 2005).

5.4 Economic Conditions

5.4.1 Business Activity/Employment Centers

According to data obtained from the Employment Security Commission of North Carolina (ESCNC), the largest private employers in Craven County are as follows: Moen Inc

(manufacturing); Brunswick Corp (manufacturing); BSH Home Appliances Corp (manufacturing); Weyerhaeuser Co (manufacturing); Adecco USA, Inc (professional and business services); McDonalds; Wal-Mart Associates, Inc; Vertex Aerospace LLC (trade, transportation, and utilities); Food Lion LLC and Howells Child Care Center Inc (education and health services).

The largest employers in downtown New Bern include city and county offices, law firms and the many hotels, retailers and restaurants, many of which cater to the tourist industry.

5.4.2 Economic Impacts

Downtown New Bern supports a vibrant mix of employers, and is experiencing development and redevelopment in several locations. Tourist activity plays a major role in the economic health of the area. The connectivity provided by the bridge offers a major gateway into downtown. Although the bridge replacement will result in no travel time savings or provide access to previously inaccessible properties, the bridge will continue to provide an important transportation link that will facilitate sustained economic activity in the area.

Some downtown businesses (hotels, retail establishments and restaurants) could temporarily experience a decline in commercial activity during construction. This is due to the alteration of traffic patterns that will occur because of the need for an off-site detour. Additionally, some events that normally would occur in downtown (such as the MS 150 Bike Tour) may decide to hold their functions in other places due to the detour and the presence of construction noise and vibration. Taxi cab companies could experience higher operating costs and an accompanying decline in revenue due to their reluctance to raise pre-established fares with several downtown hotels. Also, some patrons may choose not to ride taxis due to the higher cost associated with the detour route.

5.5 Cultural Resources

This project is subject to compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, implemented by the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106, codified at 36 CFR Part 800. Section 106 requires federal agencies to take into account the effect of their undertakings (including funded, licensed, or permitted projects) on properties listed on or eligible for the National Register of Historic Places, and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking. This project is also subject to compliance with Section 4(f) of the Department of Transportation Act of 1966, as amended.

5.5.1 Historic Architecture

In a Memorandum dated May 13, 2005, the State Historic Preservation Office (NC-HPO) concurred with NCDOT's *Historic Architectural Resources Survey Report: Replace Bridge No. 60 (Alfred Cunningham Bridge) On US 70 Business Over The Trent River, New Bern, Craven County* dated March 2005, that the Alfred Cunningham Bridge is eligible for listing on the National Register of Historic Places under Criterion A: Transportation, for its association with the development of North Carolina's coastal military bases. The bridge facilitated a major corridor for Cherry Point and Camp Lejeune. The bridge also enabled the reconstruction and restoration

of Tryon Palace and Gardens in New Bern. NC-HPO also agreed with the Area of Potential Effects (APE) identified in the report. NC-HPO further agreed that the bridge has been altered and no longer retains sufficient integrity to be eligible for the National Register under Criterion C: Architecture. Furthermore, building demolition and recent in-fill have compromised the bridge's immediate setting, eliminating the consideration of the bridge as a contributing structure to the New Bern National Register Historic District (New Bern NRHD).

On August 31, 2005, FHWA, NC-HPO and NCDOT concurred that the project will have an adverse effect on the New Bern NRHD and on the bridge itself. This is due to modifications that will be made to the northern roadway approach (E. Front Street), which is located within the boundaries of the New Bern NRHD. This portion of roadway will be raised approximately 4 feet above existing grade and will be supported by a retaining wall which varies between 6 feet and 2 feet in height. Should driven piles be used, the resulting vibration could also negatively impact several historic buildings. Since the existing bridge is eligible for listing on the National Register, its removal will result in an adverse effect.

Due to the bridge's eligibility for the National Register and its proximity to the New Bern Historic District, NCDOT consulted with the Advisory Council on Historic Preservation, NC-HPO and the New Bern Historic Preservation Commission (HPC) throughout the project. A main concern of NC-HPO and the New Bern community was the aesthetics of the new bridge. Consequently, two Bridge Aesthetics Forums (BAF) were held in New Bern (March 10th and June 10th, 2005) to assist NCDOT with developing the architectural treatment of the bridge. The BAF was composed of local planners, architects, landscape architects, artists, historians and others having special knowledge or skills related to New Bern's architecture and history. Ideas received from BAF participants, including representatives from the New Bern Historical Society and James City Historical Society, assisted the design team in developing architectural renderings for the project. Particular attention was paid to bridge type, mass, scale, materials, colors as well as overall treatment of bridge railing and pedestrian railing, the bridge operator's house, sidewalk design and detailing of the retaining wall at the northern bridge abutment.

On August 23rd, 2005, NC-HPO, NCDOT and the New Bern HPC held a joint public meeting to review the proposed architectural treatment of the new bridge. After receipt of public comment and discussion amongst NC-HPO, HPC and NCDOT, the New Bern HPC issued a Certificate of Appropriateness (COA). Additionally, a Finding of Adverse Effect was prepared by NCDOT in October 2005 which further defined mitigation measures, including recordation of the existing bridge and its surroundings prior to removal, bridge design consultations, vibration monitoring and bridge relocation/reuse. Architectural visualizations of the proposed bridge were also included in the Finding of Adverse Effect. An architectural rendering of the proposed bridge is shown in Figure 5. Figures 6 and 7 show the aesthetic treatment of the proposed retaining wall on E. Front Street and associated landscaping (Note: The retaining wall treatment and landscaping were approved by the New Bern HPC on October 19th, 2005 and an amended COA was issued). The August 23rd and October 19th COA's can be found in Appendix E.

FHWA and NCDOT will develop a Memorandum of Agreement (MOA) with the NC-HPO to address the finding of adverse effect resulting from the removal of Bridge No. 60. The MOA will be completed prior to right of way acquisition or the beginning of construction (whichever comes first) and will address the following items: 1) Recordation of existing bridge; 2) Relocation/reuse of existing bridge; 3) On-going consultation efforts with NC-HPO regarding the replacement bridge design; 4) Vibration monitoring; and 5) Dispute resolution. Recordation of the existing bridge conditions and relocation/reuse of the existing bridge will be handled by the NCDOT Human Environment Unit (Historic Architecture) Ongoing consultation efforts with NC-HPO for

the Replacement Bridge Design will be the responsibility of the Human Environment Unit, Roadway Design Unit and Structure Design Unit.

Completion of the MOA is pending ongoing discussions between FHWA, NCDOT and NC-HPO regarding the relocation/reuse of the existing bridge. An outstanding issue remains with respect to the length of time the existing bridge must be stored until a new owner can be located. Once this issue is settled, FHWA and NCDOT will conclude preparation of the MOA with a consultation.

5.5.2 Archaeology

In a Memorandum dated September 23, 2004, NC-HPO stated that it is unlikely that any archaeological resources that may be eligible for inclusion on the National Register of Historic Places will be affected by the project. Thus, NC-HPO recommended that no archaeological investigation be conducted. A copy of this Memorandum may be found in Appendix B.

5.6 Air Quality, Noise and Vibration

5.6.1 Air Quality

The project is located in Craven County, which has been determined to be in compliance with the National Ambient Air Quality Standards. 40 CFR Parts 51 and 93 are not applicable because the project is located in an attainment area. This project is not anticipated to create any adverse effects on the air quality of the attainment area.

This project is an air quality "neutral" project, so it is not required to be included in the regional emission analysis (if applicable) and a project level CO analysis is not required.

If vegetation is disposed of by burning, all burning shall be done in accordance with applicable local laws and regulations of the North Carolina SIP for air quality in conformance with 15 NCAC 2D.0520.

5.6.2 Highway Traffic Noise / Construction Noise Analysis

Traffic volumes will not increase or decrease because of this project. No additional through lanes or increases in speed limit are planned. Vertical alignment of the proposed bridge will only slightly increase over existing conditions. For these reasons, the project it is not anticipated to significantly alter existing noise levels.

Noise levels will increase during construction but will be temporary. General construction noise impacts, such as temporary speech interference for passers-by and those individuals living or working near the project, can be expected particularly during substructure and girder installation and during paving and earth moving operations. At the current time, it is not known whether a pile or pier substructure will be used. Installation of piles will result in higher noise levels as compared to piers. To minimize noise, NCDOT agrees to utilize a vibratory hammer during pile installation (should pilings be used). However, it is acknowledged that an impact hammer will be needed at certain pile penetration depths to complete pile installation.

5.6.3 Vibration

The bridge's substructure will consist of drilled piers or driven piles. The determination of substructure type is dependant on completion of geotechnical investigations and a vessel impact study. There will be vibration impacts during construction, particularly if a pile substructure is utilized. Vibration could have effects on structures in the adjacent New Bern NRHD and could be disruptive to activities occurring in the project vicinity, including the many events held at the New Bern Riverfront Convention Center and Union Point Park. NCDOT agrees to establish a vibration monitoring and enforcement program during pile installation to ensure construction activity does not exceed acceptable thresholds.

5.6.3.1. Summary of Air Quality, Noise and Vibration Impacts

Based on past project experience, the project's impact on noise and air quality will be insignificant. This evaluation completes the assessment requirements for highway traffic noise (23 CFR Part 772) and for air quality (1990 CAAA and NEPA).

To minimize noise, NCDOT will utilize a vibratory hammer during pile installation to the extent practical. NCDOT will also monitor vibration levels during pile installation to ensure compliance with acceptable guidelines.

5.7 Farmland

The Farmland Protection Policy Act requires all federal agencies or their representatives to consider the potential impacts to prime or important farmland soils by all land acquisition and construction projects. North Carolina Executive Order 96, Preservation of Prime Agricultural and Forest Lands, requires all state agencies to consider the impact of land acquisition and construction projects on prime farmland soils. Prime and important farmland soils are defined by the Natural Resources Conservation Service based on criteria such as crop yield and level of input of economic resources. Land which is planned or zoned for urban development is not subject to the same level of preservation afforded other rural agricultural uses.

The proposed project will occur within a built-up area that consists of urban development and where no agricultural uses exist. All improvements will occur within the existing right-of-way limits. Therefore, the project should have no impact on farming operations or prime and important farmland.

5.8 Indirect and Cumulative Effects

The NCDOT's *Guidance for Assessing Indirect and Cumulative Impacts of Transportation Projects in North Carolina* outlines a set of factors that need to be evaluated to determine whether or not a detailed indirect and cumulative impact analysis (ICI) is required for specific projects. In reviewing the pre-screening criteria for applying indirect/cumulative impact assessment, this project does not meet those criteria and thus does not warrant an indirect and cumulative effects analysis. The proposed replacement structure would not alter the existing traffic patterns along the roadway or change the functional level of service of the roadway system. Therefore the project is not anticipated to affect existing land uses or increase accessibility to adjacent parcels of land. For these reasons, indirect and cumulative effects on the existing resources, including downstream water quality, should be minimal.

6.0 NATURAL RESOURCES

6.1 Methodology

Materials and research data in support of the natural resources investigation were derived before field investigations from a number of sources including the Natural Resource Conservation Service (NRCS) Craven County (NRCS 1989) soil survey, U.S. Geological Survey (USGS) topographic mapping (New Bern [1983], NC 7.5-minute quadrangles), U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping, N.C. Natural Heritage Program (NCNHP) database, N.C. Division of Water Quality (NCDWQ) documents, N.C. Wildlife Resources Commission (NCWRC) proposed Significant Aquatic Endangered Species Habitats, and 2003 aerial photography furnished by the North Carolina Center for Geographic Information and Analysis (NCCGIA). Water quality information for area streams and tributaries was derived from available sources (NCDWQ 2002a-b, NCDWQ 2004, NCDWQ 2005a-b). Quantitative sampling was not undertaken to support existing data.

The project study area was visited on July 7, 2004 and June 8 and 16, 2005. The project study area was walked and visually evaluated for significant environmental features. Stream, wetland, and AEC determinations were made and jurisdictional boundaries were mapped.

Plant community descriptions are based on a classification system utilized by the N.C. Natural Heritage Program (NCNHP) (Schafale and Weakley 1990). When appropriate, community classifications were modified to better reflect field observations. Aquatic and terrestrial wildlife distribution and habitat requirements were determined through field observations, evaluation of habitat type distributions, and supportive documentation. Jurisdictional areas were evaluated using the three-parameter approach following U.S. Army Corps of Engineers (USACE) delineation guidelines (Environmental Laboratory 1987). Jurisdictional areas were characterized according to a classification scheme established by Cowardin et al. (1979) and/or the N.C. Division of Environmental Management (DEM) Field Guide to North Carolina Wetlands (1996). USACE forms were utilized to document evidence of jurisdictional status and jurisdictional area characteristics. Areas of Environmental Concern (AEC) under the jurisdiction of the North Carolina Division of Coastal Management (NCDCM) were determined based upon the Coastal Area Management Act (CAMA).

A list of federally protected species whose ranges extend into Craven County (February 11, 2003 listing) was obtained from the USFWS. In addition, files maintained by NCNHP were reviewed for documented sightings of state or federally listed species. Field surveys for protected species focused on identification of potential habitat areas and detailed searches of those areas.

6.2 Physical Resources

6.2.1 Physiography, Topography, and Land Use

The project study area is situated in the Mid-Atlantic Coastal Plain. Within this ecoregion, the project study area lies within the Mid-Atlantic Floodplains and Low Terraces sub-region. The Mid-Atlantic Coastal Plain ecoregion has low elevations and little relief. Slow, sluggish rivers, low-gradient sandy bottom streams, deepwater swamps, oxbow lakes, and alluvial deposits characterize the region. The region is known for its waterways and extensive wetlands (Griffith et al. 2002).

Elevations within the project study area range from a low of about sea level near the Trent River to 10 feet at the ends of the project study area (New Bern, NC 7.5-minute quadrangle). Land use within the project region is characterized by forestry, mining, low-density residential, and industrial development, with urban development concentrated in and near the City of New Bern. Forestland occurs in large patches and corridors along watercourses and low, swampy lands. The project study area includes areas dominated by maintained highway rights-of-way and heavily disturbed plant communities, as well as high density development.

Geology and Soils: The Mid-Atlantic Floodplains and Low Terraces is a region composed primarily of marine sands and molluscan-mold limestone deposited over calcarenite. The project study area extends through two mapped soil series (NRCS 1989). Soil characteristics are described in detail below.

The detailed soil map units in which the project study area is situated includes Seabrook-urban land complex near the north abutment and loamy Udorthents near the south abutment. Seabrook-urban complex are nearly level soils that are moderately well drained, permeability is rapid, and the seasonal high water table is 2 to 4 feet. Udorthents are nearly level to gently sloping borrow areas and landfills. Permeability is moderate and surface run-off is slow. Neither soil unit is considered hydric in Craven County (NRCS 1997).

6.2.2 Water Resources

The NCDWQ has initiated a whole-basin approach to water quality management for the 17 river basins within the state. Water quality for the proposed project study area is summarized in the Neuse River Basinwide Water Quality Plan (NCDWQ 2002b). The Neuse River Basin incorporates 14 sub-basins and some 3.9 million acres within the State of North Carolina. There are a total of 3497 freshwater stream miles, 16,414 acres of lake waters, 369,997 acres of estuarine areas, and 21 miles of Atlantic coastline in the basin. The average population density is 211 people per square mile (NCDWQ 2002b).

6.2.2.1. Water Quality

The project study area is located within NCDWQ subbasin 03-04-10 of the Neuse River Basin (USGS Hydrologic Unit 03020204). Sub-basin 03-04-10 of the Neuse River Basin supports 16 permitted, point source discharges with a total discharge of over 13.8 million gallons per day. Four of the permitted dischargers are classified as major, discharging 12 million gallons per day. The 12 remaining permitted dischargers are minor with five having no limits set on discharges

(NCDWQ 2005b). Major non-point sources of pollution within the Neuse River Basin include runoff from construction activities, agriculture, forestry practices, mining, hydrologic modification, and stormwater runoff from roads, parking lots, and roof tops. Sedimentation and nutrient inputs are major problems associated with non-point source discharges (NCDWQ 2002b).

The Trent River (NCDWQ Index 27-101-(39)) and the Neuse River (NCDWQ Index 27-(96)) are the only surface waters located within the project study area. The Neuse River has a best usage classification of **SC Sw NSW**, and the Trent River has a best usage classification of **SB Sw NSW**. The **SC** designation includes all tidal salt waters protected for secondary recreation such as fishing, boating and other activities involving minimal skin contact; aquatic life propagation and survival; and wildlife. The **SB** classification includes surface waters that are used for primary recreation, including frequent or organized swimming and all SC uses. For both designations (SC and SB), stormwater controls are required under CAMA and there are no categorical restrictions on discharges. The supplemental classification **Sw**, Swamp Waters, characterizes the stream as having naturally occurring very low velocities, low pH, and low dissolved oxygen. No specific restrictions on discharge types or development are involved. The supplemental classification **NSW**, Nutrient Sensitive Waters, is intended for waters needing additional nutrient management due to vulnerability to excessive growth of microscopic or macroscopic vegetation. In general, management strategies for point and non-point source pollution control require no increase in nutrients over background levels. Both the Neuse River and Trent River are **Impaired**. No benthic macroinvertebrate monitoring stations occur within one mile of the project study area (NCDWQ 2002b).

The NCDWQ has assembled a list of impaired waterbodies according to the Clean Water Act Section 303(d) and 40 CFR 130.7. The list is a comprehensive public accounting of all impaired waterbodies. The Neuse River is on the NC 2002 and the 2004 303(d) list of impaired streams in the Neuse River Basin. The cause of impairment is high concentrations of chlorophyll-a. The Trent River is not on the NC 2002 list of impaired streams, but it is on the 2004 Section 303(d) list of impaired streams in the Neuse River Basin. Like the Neuse River, the Trent River also suffers from high concentrations of chlorophyll-a.

The NCWRC has developed a Significant Aquatic Endangered Species Habitat database to enhance planning and impact analysis in areas proposed by NCWRC as being critical due to the presence of Endangered or Threatened aquatic species. No Significant Aquatic Endangered Species Habitat occurs within the project study area. The nearest Significant Aquatic Endangered Species Habitat within the Neuse River Basin occurs approximately 74 miles northwest on the Little River (SIN 27-57-(8.5)) and its associated tributaries (NCWRC 1998).

Temporary construction impacts due to erosion and sedimentation will be minimized through implementation of a stringent erosion-control schedule and the use of Best Management Practices (BMPs). The contractor will follow contract specifications pertaining to erosion control measures as outlined in 23 CFR 650 Subpart B and Article 107-13 entitled Control of Erosion, Siltation, and Pollution (NCDOT, Specifications for Roads and Structures). These measures include the use of dikes, berms, silt basins, and other containment measures to control runoff; elimination of construction staging areas in floodplains and adjacent to waterways; re-seeding of herbaceous cover on disturbed sites; management of chemicals (herbicides, pesticides, de-icing compounds) with potential negative impacts on water quality; and avoidance of direct discharges into steams by catch basins and roadside vegetation.

6.2.2.2. Stream Characteristics

Project study area streams consist of the Trent and Neuse Rivers (Table 9) and are considered riverine and estuarine systems, respectively, as defined by Cowardin et al. (1979). The Trent River is approximately 1700 feet wide at the crossing of Bridge No. 60. The water depth is generally 1 to 12 feet with the navigable channel located near the northern shoreline. The southern portion of the Trent River bed is shallow, generally 1 to 7 feet, and composed mainly of sand and mud. The Trent River is classified as a tidal riverine system with an unconsolidated bottom (R1UBV). The main force behind tides in this area is wind. During several field visits (July 7, 2004 and June 8 and 16, 2005), flow was always sluggish. However, the clarity appeared to depend on prevailing wind tides and ranged from poor (high tide) to good (low tide).

The Neuse River is approximately 5000 feet wide at its confluence with the Trent River. During the field visits, the flow and clarity were similar to the Trent River (see above). However, the clarity was generally worse in the Neuse River. The water depth ranges from 1 to 16 feet. The Neuse River is classified as subtidal estuarine system with an unconsolidated bottom (E1UBL). Both rivers are classified as warm water streams.

Table 9: Stream Characteristics

Name	Cowardin Classification	Drainage Area (square miles)	On Quad	Substrate	Avg. Width (feet)	Avg. Water Depth (feet)
Trent River	R1UBV	547	Yes	sand	1500	4
Neuse River	E1UBL	4492	Yes	mud	5000	18

Source: Natural Resources Technical Report (October 2005)

6.2.2.3. Anticipated Impacts to Water Resources

Impacts to water resources in the project study area may result from activities associated with project construction. Activities that would result in impacts are clearing and grubbing on stream banks, in-stream construction, fertilizers and pesticides used in revegetation, and pavement/culvert installation. The following impacts to surface water resources could result from the construction activities mentioned above.

- Increased sedimentation and siltation downstream of road crossings and increased erosion in the project study area
- Alteration of stream discharge due to silt loading and changes in surface and groundwater drainage patterns
- Changes in light incidence and water clarity due to increased sedimentation and vegetation removal
- Increased nutrient loading during construction via runoff from exposed areas
- Increased concentrations of toxic compounds in roadway runoff
- Increased potential for release of toxic compounds such as fuel and oil from construction equipment and other vehicles

Long-term impacts to streams along the project corridor will be limited to large rivers and estuaries. Impacts to these reaches adjacent to the facility footprint will be temporary and localized during construction. Long-term impacts to adjacent reaches resulting from construction are expected to be negligible.

At the August 17th, 2005 Concurrent Point 4B meeting, it was agreed by federal and state agency representatives that stormwater from the new bridge could be discharged directly into the Trent River without treatment. This allowance was based on the fact that impervious surface of the new bride will not exceed that of the existing bridge. Minutes from this meeting can be found in Appendix D.

6.3 Biotic Resources

6.3.1 Terrestrial Communities

The project study area is located in a region of high-density commercial, residential, and urban land use. Impervious surfaces such as road pavement, driveways, and building footprints occupy approximately 3.33 acres (21.0 %) of the 15.85-acre project study area. Open waters of the Trent River and Neuse River within the project study area occupy another 8.76 acres (55.3 %). Disturbed Land occupies approximately 3.48 acres of project study area (22 %) and is the dominant plant community. A small amount of freshwater marsh (0.04 acre or 0.3 %) occurs in the southwest quadrant of the project study area. The remaining plant communities occur within the Lengyel Mitigation Site. Salt Shrub habitat occupies approximately 0.15 acre (0.9 %) of the project study area. Brackish Meadow occupies approximately 0.09 acre (0.5 %) of shoreline in the southeast quadrant of the project study area.

Due to the highly developed nature of most of the project study area, various types of disturbed land constitute the dominant land use. Disturbed land occupies all of the northern end and much of the southern end of the project study area. Plant communities and associated wildlife are described briefly below. Wildlife directly observed in a plant community or determined to be present through evidence (tracks, scat) during field investigations are indicated with an asterisk (*).

Disturbed Land – Disturbed Land consists of lawns, road rights-of-way, planted trees and shrubs, and volunteer plants growing on rip-rap substrates between bulkheads and the water. This category includes the landscaped grounds of commercial establishments in the City of New Bern at the northern end of the project study area including Union Point Park and the New Bern Convention Center. Mown roadside shoulders and medians along US 70 Business make up the bulk of this plant community within the project study area. Environmental factors for plant communities are sometimes harsh and the low diversity of plant species reflects this fact. Disturbed land supports planted grasses and shrubs such as centipede grass (*Eremochloa ophiuroides*), fescue (*Festuca* sp.), wax myrtle (*Morella cerifera*), and crepe myrtle (*Lagerstroemia* sp.) as well as tough, weedy species such as dandelion (*Taraxacum officinale*). Volunteer species in areas beyond limits of regular maintenance, i.e. along rip-rap bulkheads, include wax myrtle, groundsel (*Baccharis halmifolia*), black willow (*Salix nigra*), paper mulberry (*Broussonetia papyrifera*), dog fennel (*Eupatorium capillifolium*), golden rod (*Solidago* sp.), persimmon (*Diospyros virginiana*), trumpet creeper (*Campsis radicans*), catbrier (*Smilax bona-nox*), and muscadine grape (*Vitis rotundifolia*).

The diversity of faunal species utilizing this plant community is low, as little foraging, resting, or breeding habitat is present. Mammalian species are expected to be especially scarce, but may include such adaptable species as Norway rat (*Rattus norvegicus*), raccoon (*Procyon lotor*)*, and bat species, such as silver-haired bat (*Lasionycteris noctivagans*) and eastern pipistrelle (*Pipistrellus subflavus*), may find foraging habitat in these areas and over water. Some bird species are adapted to disturbed land and are likely to occur within the project study area,

including killdeer (*Charadrius vociferus*)*, mockingbird (*Mimus polyglottos*)*, European starling (*Sturnus vulgaris*)*, common grackle (*Quiscalus quiscula*)*, rock dove (*Columba livia*)*, and house sparrow (*Passer domesticus*)*. Reptile and amphibian elements are probably rare but might include green anole (*Anolis carolinensis*) and rough green snake (*Opheodrys aestivus*), which can utilize shrubby components of the disturbed land community.

Freshwater Marsh – A series of drainage ways convey water from a stormwater pond located between the Bridge Pointe Hotel and the Outback Steakhouse to the Trent River. A portion of these drainage ways contains characteristics of a Freshwater Marsh. Located in the southwest quadrant of the project study area, the Freshwater Marsh is partially inside and partially outside of the project study area. Emergent herbs including arrowhead (*Sagittaria latifolia*), marsh pennywort (*Hydrocotyle* sp.), and smartweed (*Polygonum* sp.) grow in the marsh. However, the emergent nature of this wetland would not persist without regular maintenance by the Bridge Pointe Inn. At the confluence with the Trent River, the marsh contains black needle rush (*Juncus romerianus*) and is considered a coastal wetland at this point.

Natural shoreline can only be found from stream flags KC11 to KC14, KD01 to KD03, and a small portion near KC01 within the project study area. All of the natural shoreline except near KC01 is located within the NCDOT Lengyel Mitigation Site (Figure 1). Two plant communities occupy this area; Brackish Meadow and Salt Shrub.

Brackish Meadow - A small patch (0.09 acre) of *Spartina patens* occupies the area between the KF and KC lines. This plant community is accreting sediment, does not have hydric soils within 12 inches, and is being infiltrated by centipede grass.

Faunal diversity is practically non-existent within the brackish meadow because it is so small in areal extent. However, birds such as laughing gulls (*Larus atricilla*) were seen using this area as a resting site and may be used by shorebirds for brief periods of foraging during high wind tides.

Salt Shrub - The rest of the Lengyel Mitigation Site within the project study area (0.15 acre) consists of volunteer species such as bald cypress (*Taxodium distichum*), wax myrtle, black willow, groundsel, golden rod, trumpet creeper, catbrier, and muscadine grape. Salt shrub resembles an early succession forest but occupies relatively harsh environmental conditions due to wind tides and storms that can prevent long term establishment of trees.

The highest faunal diversity relative to the other plant communities within the project study area can be found in the Salt Shrub community. Mammals such as the raccoon and opossum may be found within the dense vegetation and foraging along the shoreline. Songbirds such as yellow warblers (*Dendroica petechia*), northern cardinals (*Cardinalis cardinalis*), and brown thrashers (*Toxostoma rufum*) will nest in the thick shrubbery and may provide migrating songbirds with food sources during migration. Reptiles and amphibians that may be found foraging and sunning within this habitat include Carolina anole and rough green snake.

6.3.2 Aquatic Communities

The Trent and Neuse Rivers are expected to support a wide variety of fish species because of the brackish waters such as Atlantic sturgeon (*Acipenser oxyrhynchus*), Atlantic menhaden (*Brevoortia tyrannus*), gizzard shad (*Dorosoma cepedianum*), alewife (*Alosa pseudoharengus*), hickory shad (*Alosa mediocris*), bay anchovy (*Anchoa mitchilli*), redfin pickerel (*Esox*

americanus), eastern silvery minnow (*Hybognathus regius*), white catfish (*Ameiurus catus*), channel catfish (*Ictalurus punctatus*), margined madtom (*Noturus insignis*), Atlantic needlefish (*Strongylura marina*), mumichog (*Fundulus heteroclitus*), Atlantic silverside (*Menidia menidia*), white perch (*Morone americana*), striped bass (*Morone saxatilis*), striped mullet (*Mugil cephalus*)*, and hogchoker (*Trinectes maculatus*). Marine crustaceans such as blue crabs (*Callinectes sapidus*)* and shrimp (*Panaeus* sp.) can also be found in the Trent and Neuse Rivers. Few mammals utilize the open water habitat within the project area although bottlenose dolphin (*Tursiops truncatus*) or other marine mammals will infrequently swim this far into an estuary. Some bird species dependent on aquatic resources can also be found within the project study area such as barn swallow (*Hirundo rustica*)*, laughing gull*, common tern (*Sterna hirundo*)*, caspian tern (*S. caspia*), osprey (*Pandion haliaetus*), and mallard (*Anas platyrhynchos*)*. Aquatic reptiles and amphibians are typically rare in open waters of this size but may infrequently include American alligators or marine species such as sea turtles. Waters within the project study area are jointly managed by the NCWRC and the North Carolina Division of Marine Fisheries (NCDMF). West of Bridge No. 60 are joint fishing waters and east are coastal fishing waters (15A NCAC 03Q .0201).

Submerged Aquatic Vegetation (SAV) is present within the project study area (Figure 8). SAV beds provide habitat for many aquatic species, especially during earlier life stages. The SAV beds are located near the southern and northern bridge abutments. The beds near the northern abutment are localized between the abutment and the pedestrian walkway that exists underneath the deck of the bridge. The beds near the southern abutment are located along the western shore of the Neuse River and extend north on both sides of the bridge encompassing approximately 1.0 acre. State and Federal agency representatives have indicated that no SAV survey will be required as long as no dredging occurs.

6.3.3 Rare and Unique Natural Areas

No NCNHP Significant Natural Heritage Areas (SNHA) have been identified within the project study area. However, the Trent River/Brice Creek SNHA and the Duck Creek Natural Area are located 0.75 mile west and 2 miles east of the project study area, respectively. No water bodies are deserving of special attention as denoted under the federal Wild and Scenic Rivers Act of 1968 (Pub. L. No. 90-542, 82 Stat. 906; codified and amended at 16 U.S.C. 1217-1287 (1982)) or under the Natural and Scenic Rivers Act of 1971 (G.S. 113A-30). Because rare or unique resources have not been identified within the project study area and those outside of the project study area are upstream or over one mile away, no adverse impacts are anticipated.

A portion of the Lengyel Mitigation Site is located in the southeast quadrant of the project area and includes all land between the protective rip rap and bulkheads and the Neuse River. This is a NCDOT mitigation site consisting of 13.2 acres of brackish marsh restoration and preservation used to mitigate impacts associated with the US 17 Trent and Neuse River bridges. Disturbance will be completely avoided in this site.

6.4 Summary of Anticipated Impacts

6.4.1 Anticipated Plant Community Impacts

Potential impacts to plant communities resulting from highway and bridge construction reflect the relative abundance of communities within the project study area. Much of the project study area

is within highway rights-of-way and commercial/industrial region of Craven County and, therefore, disturbed land comprises the majority of plant community acreage (Table 10). Impacts to plant communities are expected to be limited to cut-fill and clearing limits. Since this project involves improvements to existing roadways, no fragmentation of plant communities is expected.

Table 10: Plant communities and land use present within the project study area

Type	Acres within Project Study Area	Percentage
Impervious surface	3.33	21.0
Disturbed land	3.48	22.0
Freshwater Marsh	0.04	0.3
Brackish Meadow	0.09	0.5
Salt Scrub	0.15	0.9
Open water	8.76	55.3
TOTALS	**15.8**	**100**

6.4.2 Anticipated Impacts to Wildlife

Fragmentation and loss of wildlife habitat is often a consequence of highway development. However, the proposed project is not expected to result in fragmentation or adverse impacts to any wildlife populations due to the project goal of in-place replacement of an existing facility. Most local species in this developed area are habituated to anthropogenic disturbances and are expected to move back into the vicinity of the construction area upon project completion. Avoiding and minimizing impacts to SAV beds has the greatest potential for protecting fisheries and wildlife in the area.

As this reach of the Trent River has potential as a travel corridor for migratory fish, this project can be classified as Case 2, where no work in-water will be allowed during moratorium periods associated with anadromous fish migration (February 15 through June 30).

6.5 Special Topics

6.5.1 Waters of the United States

Section 404 of the Clean Water Act (CWA) requires regulation of discharge into "waters of the United States." Although the principal administrative agency of the CWA is the U.S. Environmental Protection Agency, the USACE has major responsibility for implementation, permitting, and enforcement of provisions of the CWA. The USACE regulatory program is defined in 33 CFR parts 320-330.

Water bodies such as rivers, lakes, and streams are subject to jurisdictional consideration under the Section 404 program. However, by regulation, wetlands are also considered "waters of the United States." Wetlands are described by (33 CFR 328.3(b) [1986]) as:

Those areas that are inundated or saturated by groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetlands are defined by the presence of three criteria: hydrophytic vegetation, hydric soils, and evidence of wetland hydrology during the growing season (Environmental Laboratory 1987). Open water systems and wetlands receive similar treatment and consideration with respect to Section 404 review.

Based on NWI mapping, no wetlands occur in the project area. However, a small drainageway from a stormwater pond on the west side of the southern end of the project study area has wetland characteristics and flows north along the project study area boundary (Wetland 1). A total of 0.04 acre of wetland is located within the project study area. Wetland 1 can be classified as palustrine with non-persistent (except by maintenance), emergent, vegetation that is permanently saturated (PEM2B). Wetland 1 is obviously maintained by groundskeepers at the Bridge Pointe Hotel. At the confluence with the Trent River, Wetland 1 contains characteristics of a Coastal Wetland and is therefore regulated by NCDCM. Wetland 1 is outside of the right-of-way and is not expected to be impacted by replacement of the bridge.

A total of 8.76 acres of surface waters (7.99 acres of Trent River and 0.77 acre of Neuse River) occur within the project area. Impacts to jurisdictional areas resulting from the proposed project will be limited to the construction of support bents in the Trent River bed. Bridge demolition fill will be placed on a barge to be disposed of off-site.

6.5.2 Coastal Area Management Act

The proposed project will occur in one (Craven) of the 20 counties covered by CAMA. Areas of Environmental Concern (AEC) within these counties are under the jurisdiction of the N.C. Division of Coastal Management (NCDCM). The Coastal Resource Commission (CRC) has set up four categories of AECs; The Estuarine and Ocean System, the Ocean Hazard System, Public Water Supplies, and Natural and Cultural Resource Areas. The Estuarine and Ocean System can be further divided into four components; Public Trust Areas, Estuarine Waters, Coastal Shorelines, and Coastal Wetlands. Based upon field investigations, the project study area contains Public Trust Areas, Estuarine Waters, Coastal Shorelines, and Coastal Wetlands, some of which are expected to be affected by the proposed project (15A NCAC 07H .0207).

Avoiding and minimizing impacts to SAV beds has the greatest potential for protecting fisheries and wildlife in the area. Some considerations towards this end include minimizing disturbance to the mud bottom so that SAVs do not become uprooted or silted over. Shading from demolition or equipment barges, mainly during the SAV growing season, May-September, can impact SAV beds. Logistics associated with minimizing shading include maintaining an elevation at least 3.0 feet off surface waters, eliminating or minimizing long term mooring of construction barges in designated beds, and avoidance of demolition or bottom disturbances during the growing season.

6.5.3 Neuse River Buffer Rules

The Nutrient Sensitive Waters Management Strategy for the Protection and Maintenance of Riparian Buffers for the Neuse River Basin (15A NCAC 02B .0233) provides a designation for uses that cause impacts to riparian buffers within the Neuse River Basin. The Neuse River Basin Buffer Rule applies to 50-foot wide riparian buffers (measured perpendicular to the stream) directly adjacent to surface waters in the Neuse River Basin. Changes in land use within the buffer area are considered to be buffer impacts. Land use changes within the riparian buffer are

defined as being Exempt, Allowable, Allowable with Mitigation, or Prohibited (15A NCAC 2B .0233 (7)). The Exempt designation refers to uses allowed within the buffer. The Allowable designation refers to uses that may proceed within the riparian buffer provided there are no practical alternatives, and that written authorization from the NCDWQ is obtained prior to project development. The Allowable with Mitigation designation refers to uses that are allowed, given there are no practical alternatives, and appropriate mitigation plans have been approved. The Prohibited designation refers to uses that are prohibited without a variance. Exemptions to the riparian buffer rule include the footprint of existing uses that are present and ongoing (15A NCAC 2B .0259 (3) (b)).

The Trent River and Neuse River within the project study area are subject to the Neuse River Basin Rule. Because the bridge is located within an urban area, most of the buffer zones have pre-existing bulk-heads and/or rip-rap. To comply with Neuse River Riparian Buffer requirements, all improvements associated with TIP B-2532 will remain inside the limits of the existing transportation facility (as defined by NC Division of Water Quality and NCDOT during a site visit on August 1st, 2005).

6.6 Permit Issues

6.6.1 Permits

The proposed project will occur in one (Craven) of the 20 counties covered by CAMA. Because the project study area contains open water or wetlands within a CAMA county, a NCDCM representative was consulted to verify the presence or absence of AECs. If replacement of the bridge avoids impacts to AECs, the NCDCM will review the permit application for CAMA consistency. If an AEC is proposed to be impacted, a CAMA Major Permit for bridge replacement (15A NCAC 07H.2300) may be applicable. The CAMA Major Permit application process coordinates most required state and federal permit authorizations. These permits include Dredge and Fill, Easement to Fill, Water Quality Certification, Section 10 of the Rivers and Harbors Act of 1899, and Section 404 of the Clean Water Act.

The U.S. Coast Guard (USCG) will likely consider this reach of the Trent River navigable for bridge administration purposes under Section 9 of the Rivers and Harbors Act of 1899 and the General Bridge Act of 1946. Coordination with the USCG will be required in order to obtain a permit for the replacement of Bridge No. 60 from the USCG (33 CFR Parts 114 and 115).

Because the bridge is located within an urban area, most of the buffer zones have pre-existing bulk-heads and/or rip-rap.

The Neuse and Trent Rivers have potential as travel corridors for migratory fish, this project can be classified as Case 2, where in-water work will be restricted by fish moratorium periods associated with fish migration, spawning, and nursery areas (February 15 to June 30). Bridge demolition fill will be placed on a barge and disposed of off-site. NCDOT will coordinate with various resource agencies during project planning to ensure that all concerns regarding bridge demolition are resolved. The final decision for this determination lies with the NCDMF and NCWRC.

6.6.2 Mitigation

The USACE has adopted through the Council on Environmental Quality (CEQ) a wetland mitigation policy that embraces the concept of "no net loss of wetlands" and sequencing. The purpose of this policy is to restore and maintain the chemical, biological, and physical integrity of waters of the United States, and specifically wetlands. Mitigation of wetland impacts has been defined by the CEQ to include avoiding impacts (to wetlands), minimizing impacts, rectifying impacts, reducing impacts over time, and compensating for impacts (40 CFR 1508.20). Each of these three aspects (avoidance, minimization, and compensatory mitigation) must be considered sequentially.

Compensatory mitigation for Section 404, CAMA AEC, and NCDWQ jurisdictional area impacts may not need to be proposed for this project due to the limited nature of the project impacts. However, utilization of BMPs is recommended in an effort to minimize impacts. A final determination regarding mitigation rests with the USACE, NCDCM, and NCDWQ.

Opportunities for compensatory mitigation are limited within the project study area. An existing NCDOT mitigation, the Lengyel Site already exists within the project study area and the developed nature of the southern peninsula effectively prohibits on-site mitigation.

6.7 Essential Fish Habitat

The Magnuson-Stevens Fishery Conservation and Management Act, as amended (PL 94-265), defines "Essential Fish Habitat" as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 USC 1820[10]). An August 11, 2005 consultation with the National Marine Fisheries Service and referral to *Essential Fish Habitat: A Marine Fish Habitat Conservation Mandate for Federal Agencies* (NMFS 2004) indicated that Essential Fish Habitat (EFH) for five species may occur within the project study area. These species are managed by the South Atlantic and Mid-Atlantic Fishery Management Councils. The on-Site EFH consists of Estuarine Mud Bottom, Estuarine Water Column, Estuarine Emergent Wetlands, and SAV beds. Managed species associated with the EFH within the project study area include summer flounder (*Paralichthys lethostigma*), bluefish (*Pomatomus saltatrix*), and shrimp (*Panaeus* spp.). Avoidance and minimization of EFH includes avoiding dredging and other extensive bottom disturbing activities, minimizing shading, and not dropping demolition materials in the water. Habitat Areas of Particular Concern (HAPC) occur in the project study area as SAV beds for larval and juvenile summer flounder. Mitigation by restoration and creation of SAV beds has largely been unsuccessful (SAFMC 1998 and Stephan et al. 2000). Every effort to avoid and minimize adverse effects to SAV in the project study area will be made (Section 5.5.2).

6.8 Protected Species

Species with Federal classifications of Endangered (E) or Threatened (T) are protected under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*). Endangered status refers to "any species which is in danger of extinction throughout all or a significant portion of its range," and Threatened status refers to "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" (16 U.S.C. 1532). Six federally protected species are listed for Craven County by the USFWS as of February 11, 2003 (Table 11). These species are briefly described below.

Table 11: Federally Protected Species listed for Craven County (February 11, 2003).			
Common Name	**Scientific Name**	**Status***	**Habitat?**
Leatherback Sea Turtle	*Dermochelys coriacea*	E	Yes
American Alligator	*Alligator mississippiensis*	T/SA	Yes
Bald Eagle	*Haliaeetus leucocephalus*	T	Yes
Red-cockaded Woodpecker	*Picoides borealis*	E	No
West Indian Manatee	*Trichechus manatus*	E	Yes
Sensitive Joint-vetch	*Aeschynomene virginica*	T	Yes

Source: Natural Resources Technical Report (October 2005)

*Federal Status: E--Endangered; a taxon "in danger of extinction throughout all or a significant portion of its range" T--Threatened; a taxon "likely to become Endangered within the foreseeable future throughout all or a significant portion of its range" T/SA—Threatened due to similarity of appearance.

***Dermochelys coriacea* (Leatherback sea turtle)**

Endangered

Family: Cheloniidae

Date Listed: June 2, 1970

The leatherback turtle is distinguished by its large size (46- to 70-inch carapace, 650 to 1,500 pounds) and a shell of soft, leathery skin. This species is primarily tropical in nature, but the range may extend to Nova Scotia and Newfoundland (Palmer and Braswell 1995, Martof et al. 1980). The leatherback is a powerful swimmer, often seen far from land; however, it sometimes moves into shallow bays, estuaries, and even river mouths. Its preferred food is jellyfish, although the diet includes other sea animals and seaweed. The leatherback generally nests on sandy, tropical beaches.

BIOLOGICAL CONCLUSION: NO EFFECT

Marginal foraging habitat for leatherback sea turtle exists within the study corridor. Construction activities will have no long-term impact to leatherback sea turtles as a result of this project.

***Alligator missisippiensis* (American alligator)**

Threatened due to Similarity of Appearance

Family: Alligatoridae

Date Listed: March 11, 1967

Date Delisted: June 04, 1987

The American alligator is listed as Threatened due to the Similarity in Appearance (T[S/A]) to other federally-listed crocodilians; however, there are no other crocodilians within North Carolina. American alligators can be found in a variety of freshwater to estuarine aquatic habitats including swamp forests, marshes, large streams and canals, and ponds and lakes.

T(S/A) species are not subject to Section 7 consultation and a biological conclusion for this species is not required. Potential habitat for American alligator exists within the study corridor. Construction activities may temporarily displace any American alligators in the vicinity; however, no long-term impact to American alligator is anticipated as a result of this project.

***Haliaeetus leucocephalus* (Bald Eagle)**
Threatened
Family: Accipitridae
Date Listed: March 11, 1967

The bald eagle is a large raptor with a wingspan greater than 6 feet. Adult bald eagles are dark brown with a white head and tail. Immature eagles are brown with whitish mottling on the tail, belly, and wing linings. Bald eagles typically feed on fish but may also take birds and small mammals. In the Carolinas, nesting season extends from December through May (Potter et al. 1980). Bald eagles typically nest in tall, living trees in a conspicuous location near open water. Eagles forage over large bodies of water and utilize adjacent trees for perching (Hamel 1992). Disturbance activities within a primary zone extending 750 to 1500 feet from a nest tree are considered to result in unacceptable conditions for eagles (USFWS 1987). The USFWS recommends avoiding disturbance activities including construction and tree-cutting within this primary zone. Within a secondary zone, extending from the primary zone boundary out to a distance of 1.0 mile from a nest tree, construction and land-clearing activities should be restricted to the non-nesting period. The USFWS also recommends avoiding alteration of natural shorelines where bald eagles forage, and avoiding significant land-clearing activities within 1500 feet of known roosting sites.

BIOLOGICAL CONCLUSION: MAY AFFECT, NOT LIKELY TO ADVERSELY AFFECT

The Trent and Neuse Rivers may offer foraging habitat for the bald eagle within the project study area. The rivers offer large expanses of open water. However, large trees along the banks suitable for nesting and perching are at least 1.0 mile away from the project study area. Existing disturbances due to traffic on US 70 Business and human activity in New Bern may deter eagles from regularly visiting the area but are known to become habituated to human disturbances (Vancouver, BC). The Trent and Neuse River were surveyed during the field visits for one-half mile upstream and downstream of bridge No. 60, and no eagles were found. The North Carolina Natural Heritage Program (NCNHP) documents one occurrence of bald eagles within 2.5 miles of the project study area. This project may affect bald eagle foraging on the short-term but is unlikely to affect the bald eagle long-term.

***Picoides borealis* (Red-cockaded woodpecker)**
Endangered
Family: Picidae
Date Listed: October 13, 1970

This small woodpecker (7 to 8.5 inches long) has a black head, prominent white cheek patches, and a black-and-white barred back. Males often have red markings (cockades) behind the eye, but the cockades may be absent or difficult to see (Potter *et al.* 1980). Primary habitat consists of mature to over-mature southern pine forests dominated by loblolly, long-leaf (*Pinus palustris*), slash (*P. elliottii*), and pond (*P. serotina*) pines (Thompson and Baker 1971). Nest cavities are constructed in the heartwood of living pines, generally older than 70 years that have been infected with red-heart disease. Nest cavity trees tend to occur in clusters, which are referred to as colonies (USFWS 1985). The woodpecker drills holes into the bark around the cavity entrance, resulting in a shiny, resinous buildup around the entrance that allows for easy detection of active nest trees. Pine flatwoods or pine-dominated savannas, which have been maintained by frequent natural or prescribed fires, serve as ideal nesting and foraging sites for this woodpecker. Development of a thick understory may result in abandonment of cavity trees.

BIOLOGICAL CONCLUSION: NO EFFECT

No suitable habitat for red-cockaded woodpecker exists within the project study area. No evidence of red-cockaded woodpecker presence, including foraging birds, was noted during the field studies. The closest occurrence of red-cockaded woodpecker recorded by the NCNHP is approximately 4 miles south-southwest of the project study area near in the Croatan National Forest. This project will not affect the red-cockaded woodpecker.

***Trichechus manatus* (West Indian Manatee)**
Endangered
Family: Trichechidae
Date Listed: March 11, 1967

The West Indian manatee (manatee) is a large, gray or brown aquatic mammal that averages 10 to 13 feet in length and weighs up to 1000 pounds. This species occurs from Brazil to the West Indies to the east coast of the United States. During summer months West Indian manatees migrate from their Florida wintering areas as far north as coastal Virginia. Reported occurrences in North Carolina are greatest from June to October. These mammals inhabit warm waters, both fresh and salt, where their diet consists mostly of aquatic vegetation (Linzey 1998, Clark 1987, Webster et al. 1985).

BIOLOGICAL CONCLUSION: MAY AFFECT, NOT LIKELY TO ADVERSELY AFFECT

The manatee rarely occurs in North Carolina inland waters; although there have been recent sightings in the Cape Fear and Neuse Rivers. The study corridor is expected to serve as a movement corridor and support foraging habitat for the manatee in the form of SAV beds. NCNHP records have documented manatee within 0.5 mile of the study corridor.

The USFWS has developed recommendations for general construction activities in aquatic areas which may be used by the manatee (USFWS 1996). The USFWS directs that construction which can be completed in several months be scheduled during the seven month period of November through May. The USFWS also makes a series of recommendations pertaining to construction and the manatee, some of which are summarized as follows: 1) construction managers should advise all construction personnel to be aware of the possibility of manatee appearance and the legal obligation to avoid harassment of the species; 2) construction personnel will watch for manatee sightings and be prepared to shut down equipment if one is made; 3) any sightings or contact with manatees will be reported to the appropriate natural resource agencies (USFWS, NCWRC); 4) a sign will be posted providing instructions to equipment operators in case a manatee is sighted; 5) special steps will be taken on site concerning operations during the no-blast moratorium period, such as guidelines for operating water craft and placement of siltation barriers. Detailed guidelines are available in Appendix A.

Based on available information, the manatee is not expected to be in the project area during the period of November to May and is unlikely to occur from June to October. However, any construction associated with the project will follow guidelines prepared by the USFWS to avoid impacts to the manatee.

***Aeschynomene virginica* (Sensitive joint-vetch)**
Threatened
Family: Fabaceae
Date Listed: May 20, 1992

Sensitive joint-vetch is a robust, bushy-branched, annual legume often exceeding 3.3 feet in height. Young stems have bristly hairs with large, swollen bases. The alternate, compound leaves are even-pinnate, approximately 1.3 to 2 inches wide, with 30 to 56 toothless, gland-dotted leaflets (Radford et al. 1968). Flowers are bright greenish-yellow with red veins, about 0.5 inch long, and are subtended by bractlets with toothed margins (Leonard 1985). Flowers are produced on few-flowered racemes from July to October. The jointed legume (loment) is about 2 inches long, has 6 to 10 segments, and a 0.5 to 1.0 inch long stalk. Sensitive joint-vetch occurs in the intertidal zone near the upper limit of tidal fluctuation. It seems to prefer sparsely-vegetated areas where annuals predominate. Habitat for this species in North Carolina consists of moist to wet coastal roadside ditches and moist fields that are nearly tidal (USFWS 1995), especially in full sun (Leonard 1985). Associated plants listed for this joint-vetch in North Carolina are all fresh water species. Sensitive joint-vetch is not expected to be found in association with salt-tolerant species such as salt marsh cordgrass or giant cordgrass (Rouse 1994). This species seems to favor microhabitats where there is a reduction in competition from other plant species, and usually some form of soil disturbance (USFWS 1995).

BIOLOGICAL CONCLUSION: NO EFFECT

There is suitable habitat for sensitive joint-vetch within the project area including disturbed open areas with little herbaceous competition. A survey was conducted on August 15, 2005 for sensitive joint-vetch in areas of suitable habitat. No individuals of sensitive joint-vetch were found within the project study area resulting in a biological conclusion of NO EFFECT.

In a letter dated December 27, 2005 (Appendix A), the US Fish & Wildlife Service concurred with the above biological conclusions.

6.9 Federal Species of Concern

Seventeen Federal Species of Concern (FSC) are listed by the USFWS for Craven County (February 11, 2003 list). FSC are not afforded federal protection under the Endangered Species Act of 1973, as amended, and are not subject to any of its provisions, including Section 7, until they are formally proposed or listed as Threatened or Endangered. An FSC is defined as a species that is under consideration for listing for which there is insufficient information to support listing. Table 12 summarizes Federal Species of Concern listed for Craven County.

Records of the NCNHP indicate that the FSC species recorded within 5 miles of the project study area are the southern hognose snake (*Heterodon simus*) at 3 miles west of the project study area, Carolina spleenwort (*Asplenium heteroresiliens*) at 4 miles southwest of the project study area, and spring-flowering goldenrod (*Solidago verna*) and Godfrey's sandwort (*Minuartia godfreyi*) at 2 miles southwest of the project study area. No FSC are specifically documented within the project study area, and no further action is currently warranted.

Table 12: Federal Species of Concern listed for Craven County

Common Name	**Scientific Name**	**Habitat?**
Bachman's Sparrow	*Aimophila aestivalus*	No
Black Rail	*Laterallus jamaicensis*	No
Bridle Shiner	*Notropis bifrenatus*	No
Neuse (Carolina) Madtom	*Noturus furiosus*	No
Southern Hognose Snake	*Heterodon simus*	No
Annointed Sallow Moth	*Pyreferra ceromatica*	No
Croatan Crayfish	*Procambarus plumimanus*	No
Carolina Asphodel	*Tofieldia glabra*	No
Carolina Spleenwort	*Asplenium heteroresiliens*	No
Chapman's Sedge	*Carex chapmanii*	No
Godfrey's Sandwort	*Minuartia godfreyi*	No
Loose Watermilfoil	*Myriophyllum laxum*	No
Long Beach Seedbox	*Lugwigia brevipes*	No
Pondspice	*Litsea aestivalis*	No
Savanna Cowbane	*Oxypolis ternata*	No
Spring-flowering Goldenrod	*Solidago verna*	No
Venus Flytrap	*Dionea muscipula*	No

Source: Natural Resources Technical Report (October 2005)

6.10 State Listed Species

The NCNHP lists 69 species as rare in Craven County in addition to federally listed species (Table 13; NCNHP 2005).

Table 13: State listed species for Craven County			
Common Name	Scientific Name	State Status*	Habitat?
Eastern Fox Squirrel	*Sciurus niger*	SR	No
Southern Bog Lemming	*Synaptomys cooperi helaletes*	SR	No
Anhinga	*Anhinga Anhinga*	SR	No
Black-throated Green Warbler	*Dendroica virens waynei*	SR	No
Double-crested Comorant	*Phalacrocorax auritus*	SR	Yes
Diamondback Rattlesnake	*Crotalus horridus*	E	No
Chicken Turtle	*Deirchelys reticularia*	SR	Yes
Glossy Crayfish Snake	*Regina rigida*	SR	No
Black Swamp Snake	*Seminatrix pygaea*	SR	No
Pigmy Rattlesnake	*Sistrurus miliarius*	SC	No
Neuse River Waterdog	*Necturus lewisi*	SC	No
Stickleback	*Speltes quadracus*	SR	No
Carolina Madtom	*Noturus furiosus*	SC	No
Cape Fear Spike	*Elliptio marsupiobesa*	SC	No
Roanoke Slabshell	*Elliptio roanokensis*	T	No
Eastern Lampmussel	*Lampsilis radiata*	T	No
Graceful Clam Shrimp	*Lynceus gracilicornis*	SR	No
North Carolina Spiny Crayfish	*Orconectes carolinensis*	SC	No
Reversed Roadside Skipper	*Amblyscirtes reversa*	SR	No
Little Metalmark	*Calephelis virginiensis*	SR	No
Frosted Elfin	*Callophrys irus*	SR	No
Dismal Swamp Green Stink Bug	*Chlorochroa dismalia*	SR	No
Mottled Duskywing	*Erynnis martialis*	SR	No
Berry's Skipper	*Euphyes berryi*	SR	No
Two-spotted Skipper	*Euphyes bimacula*	SR	No
Dukes' Skipper	*Euphyes dukesi dukesi*	SR	No
Dotted Skipper	*Hesperia attalus slossonae*	SR	No
Lemmer's Pinion	*Lithophane lemmeri*	SR	No
an owlet moth	*Meropleon diversicolor sullivani*	SR	No
King's Hairstreak	*Styrium kingi*	SR	No
Fitzgerald's Peatmoss	*Sphagnum fitzgeraldii*	SR-T	No
Scale-leaf Gerardia	*Aglinis aphylla*	SR-P	No
Branched Gerardia	*Aglinis virgata*	SR-P	No
Bog Bluestem	*Andropogon mohrii*	SR-P	No
Crowned Beggarticks	*Bidens coronata*	SR-P	No
Long's Bittercress	*Cardamine longii*	SR-T	No
Hop-like Sedge	*Carex lupuliformis*	SR-P	No
Leconte's Thistle	*Cirsium lecontei*	SR-P	No
Twig-rush	*Cladium mariscoides*	SR-O	No
Tennessee Bladder-fern	*Cystopteris tennesseensis*	E-SC	No
Robbins's Spikerush	*Eleocharis robbinsii*	SR-P	No

Table 13: State listed species for Craven County			
Common Name	Scientific Name	State Status*	Habitat?
Seven-angled Pipewort	*Eriocaulon aquaticum*	SR-P	No
Carolina Sunrose	*Helianthemum carolinianum*	SR-P	No
Riverbank Quillwort	*Isoetes riparia*	SR-P	No
White Wicky	*Kalmia cuneata*	SR-L	No
Winged Seedbox	*Ludwigia alata*	SR-P	No
Long Beach Seedbox	*Ludwigia brevipes*	SR-T	No
Raven's Seedbox	*Ludwigia ravenii*	SR-T	No
Globe-fruit Seedbox	*Ludwigia sphaerocarpa*	SR	No
Florida Adder's Mouth	*Malaxis spicata*	SR-P	No
Spoonflower	*Peltandra sagittifolia*	SR-P	No
Yellow Fringeless Orchid	*Platanthera integra*	T	No
Snowy Orchid	*Platanthera nivea*	T	No
Hooker's Milkwort	*Polygala hooderi*	SR-T	No
Shadow-witch	*Ponthieva racemosa*	SR-P	No
Bluff Oak	*Quercus austrina*	SR-P	No
Northern White Beaksedge	*Rhynchospora alba*	SR-P	No
Short-bristled Beaksedge	*Rhynchospora breviseta*	SR-P	No
Feather-bristle Beaksedge	*Rhynchospora oligantha*	SR-P	No
Long-beak Baldsedge	*Rhynchospora scirpoides*	SR-O	No
Grassleaf Arrowhead	*Sagittaria graminea var weatherbiana*	SR-T	No
Water Arrowhead	*Sagittaria stagnorum*	SR-P	No
Hardstem Bulrush	*Schoenoplectus acutus*	SR-P	No
Canby's Bulrush	*Schoenoplectus etuberculatus*	SR-P	No
Drooping Bulrush	*Scirpus lineatus*	SR-P	No
Georgia Nutrush	*Scleria georgiana*	SR-P	No
Carolina Goldenrod	*Solidago pulchra*	E	No
Dwarf Bladderwort	*Utricularia olivacea*	T	No
American Speedwell	*Veronica americana*	SR-P	No

Source: Natural Resources Technical Report (October 2005)

* State Status:

- SC = "Any species of plant in North Carolina which requires monitoring but which may be collected and sold under regulations adopted under the provisions of [the Plant Protection and Conservation Act]" (GS 19B 106:202.12);
- SR = Significantly Rare, "Species which are very rare in North Carolina, generally with 1-20 populations in the state, generally substantially reduced in numbers";
- SR-T = Significantly Rare, Throughout- "rare throughout their ranges (fewer than 100 populations total)"; SR-L = Significantly Rare, Limited-"endemic or near endemic";
- SR-P = Proposed- "A species which has been formally proposed for listing as Endangered, Threatened, or Special Concern, but has not yet completed the legally mandated listing process.";
- SR-O = Significantly Rare, Other- "The range of the species is sporadic or cannot be described by the other Significantly Rare categories";
- T = Threatened, "Any resident species of plant which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range" (GS 19B 106:202.12).
- E = Endangered, "Any species or higher taxon of plant whose continued existence as a viable component of the State's flora is determined to be in jeopardy" (GS 19B 106: 202.12).

NCNHP records indicate that eight of these species have been recorded to occur within 5 miles of the project study area within the past 20 years. The nearest documented occurrence of each is: riverbank quillwort at 0.75 mile west of the project study area, chicken turtle (*Deirchelys reticularia*) at 1.5 miles southwest of the project study area, crowned beggar-ticks (*Bidens coronata*) and water arrowhead (*Sagittaria stagnorum*) at 2 miles southwest of the project study area, northern white beaksedge (*Rhynchospora alba*) at 3 miles northeast of the project study area, shadow-witch (*Ponthieva racemosa*) at 3.5 miles southwest of the project study area, hop-like sedge (*Carex lupuliformis*) at 4 miles northeast of the project study area, and long-beak baldsedge (*Rhynchospora scirpoides*) at 5 miles southwest of the project study area. No state listed species have been specifically identified within the project study area. At this time, no further action is warranted.

7.0 Hazardous Materials

In a Memorandum dated September 28th, 2004, the NCDOT Geotechnical Unit stated its findings of a geoenvironmental impact evaluation for the project. The main purpose of the investigation was to identify properties within the project study area (generally defined as the Trent River to the south, the Neuse River to the east, Broad Street to the north and North Carolina Railroad to the west) that are or may be contaminated and therefore result in increased project costs and future liability if acquired by NCDOT. Geoenvironmental factors may include, but are not limited to, active and abandoned underground storage tank (UST) sites, hazardous waste sites, regulated landfills and unregulated dumpsites. Due to the age and development of downtown New Bern, any parcels impacted by the project have the potential for soil and / or groundwater contamination.

As shown in Figure 8, thirty-two potentially contaminated modern and historical sites were identified. Of the six modern sites located in the project area, only two have a medium to high probability to impact the project: 1) Union Point Park, a former municipal landfill and 2) Property owned by Swiss Bear Inc., an inactive Superfund site and also part of Union Point Park. However, since construction will occur within the existing right-of-way, this project is not anticipated to impact these sites.

Table 13: Location of Potentially Contaminated Sites (Modern Sites Only)

*Site #	Property Name	Type	Likelihood of Site Impact on Project
1	Forrest Service Center (vacant)	Inactive gas station	Low
2	Handy Mart #8 (vacant)	Inactive gas station	Low
3	Cecil's Exxon II (razed)	Former gas station	Low
4	Sheraton Marina	Active USTs	Low
5	Union Point Park	Former Municipal Landfill	Med to High
6	Swiss Bear, Inc.	Inactive Superfund Site	Low to Med

Source: NCDOT Geotechnical Unit
*See Figure 8 for site locations

8.0 PUBLIC INVOLVEMENT

Substantial coordination with local officials and stakeholders has occurred throughout the project. Numerous meetings and telephone interviews have been held with local planning staff and emergency service personnel as well as business owners and marina dock masters. NCDOT has met with local business groups such as the Swiss Bear Downtown Development Corporation and the New Bern Chamber of Commerce. Meetings with neighborhood leaders, including James City, Duffyfield and Pembroke, were also held. As the request of local leaders, two meetings were held in the James City community (December 9, 2004 and September 29, 2005).

Citizens Informational Workshops (CIW) were held on October 28, 2004 and September 22, 2005. Both workshops were held at the New Bern Riverfront Convention Center located adjacent to the northern end of the bridge. Both workshops included formal presentations to elected officials of the City of New Bern and Craven County. Notification of the workshops was made by advertisements in local publications, including The Sun Journal, The Havelock News, and The Daily Drum. Notices were sent to the New Bern Public Housing Authority for circulation to their residents. A newsletter was developed for each workshop and mailed to everyone in the project mailing list, which consisted of nearly 5,000 entries. NCDOT send copies of the newsletter to local churches for announcement and distribution to members. Comment cards were also distributed at each workshop.

Approximately 80 attendees signed in at the October CIW. In general, attendees were supportive of replacing the existing bridge with a new bascule bridge. However, the architectural treatment of the new bridge was a prevailing concern.

Approximately 55 attendees signed in at the September CIW. Again, attendees were supportive of the project. Most concerns centered on temporary impacts during construction, including noise and vibration, impacts on local businesses and congestion of the road network. Many respondents felt that traffic congestion in downtown New Bern would be worsened by the simultaneous construction of the new bridge and the proposed Broad Street enhancements (TIP U-4755).

A project internet website was developed and maintained throughout the duration of the study.

9.0 AGENCY COORDINATION

Comments on the effect of the project were requested from appropriate federal, state and local agencies. Listed below are the agencies that were contacted:

- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Fish & Wildlife Service
- National Oceanic & Atmospheric Administration, National Marine Fisheries Service
- N.C. Department of Administration, N.C. State Clearinghouse
- N.C. Department of Cultural Resources
- N.C. Department of Environment and Natural Resources

-Division of Coastal Management
-Division of Marine Fisheries
-Division of Water Quality
-Natural Heritage Program
-Wildlife Resources Commission

- Eastern Carolina Council of Governments
- City of New Bern
- Craven County

Due to TIP B-2532 being an in-place bridge replacement, it was determined that the project would not be placed in the Section 404 / NEPA Merger 01 process. However, a meeting was held with the Concurrence Point 4B agencies to discuss drainage on the bridge. During this meeting it was agreed that direct discharge of stormwater from the bridge would be permitted (see meeting minutes in Appendix D).

10.0 BASIS FOR CATEGORICAL EXCLUSION

On the basis of planning and environmental studies conducted for this project, it is determined the proposed replacement of the Alfred Cunningham Bridge will not have significant adverse effects upon the human or natural environment. The project is expected to have an overall positive impact as replacement of the existing deficient and obsolete bridge will result in safer traffic operations and will maintain multimodal connectivity between James City and downtown New Bern. Therefore, a categorical exclusion is applicable for this project.

11.0 SECTION 4(F) OF THE U.S. DOT ACT OF 1966

Section 4(f) resources within the vicinity of the Alfred Cunningham Bridge include the following: 1) Union Point Park; 2) New Bern NRHD; 3) Existing multiuse path underneath the bridge; and 4) the National Register-eligible Alfred Cunningham Bridge.

Union Point Park is at the northeastern end of the bridge and is owned by the City of New Bern (Figure 1). Since all modifications will occur within the existing right-of-way, the replacement of the bridge and related approaches will not require the use of property from the park or otherwise impair its vital functions.

The northern roadway approach (E. Front Street) is located within the New Bern NRHD. This roadway will be elevated approximately 4 feet above existing grade to accommodate the bridge's new vertical alignment. Due to the need to avoid encroachment into Union Point Park, and the need to comply with the Neuse River Riparian Buffer Rules, the use of a retaining wall is proposed. The retaining wall will also allow the proposed modifications to E. Front Street to remain within the existing right-of-way. During Section 106 coordination, NC-HPO and the New Bern HPC agreed on the aesthetic treatment of the retaining wall and associated landscaping (Figures 6 and 7). Since the proposed modifications will occur within the existing right-of-way and the road itself has not been identified as being on, or eligible for listing on, the National Register, there will be no permanent or temporary use of historic property and thus no Section 4f involvement. However, as also noted by NC-HPO, there could be temporary vibration impacts

on structures within the Historic District during pile installation. Consequently, NCDOT has agreed to implement a vibration monitoring and enforcement program.

A City owned footbridge crosses underneath the northern end of the bridge. According the City officials, this is a multiuse path that is used by pedestrians and bicyclists. The footbridge provides a connection between Union Point Park and the New Bern Riverfront Convention Center. During construction, the footbridge will likely be temporarily closed. During closure, pedestrians and bicyclists would need to follow a short detour to the E. Front Street / S. Front Street intersection. NCDOT will keep the pedestrian footbridge open for public access as long as practical and until such time that construction activities warrant its closure. NCDOT will provide adequate signage that informs the public of the footbridge's temporary closure and of an alternate detour route. NCDOT will also ensure an adequate pedestrian crossing is provided in the vicinity of the E. Front Street / S. Front Street intersection. If the pedestrian footbridge is removed during construction, NCDOT will ensure a replacement footbridge is available for public use prior to, or simultaneous with, completion of the project. City officials understand the need for temporary closure of the footbridge and are satisfied with the proposed mitigation.

The Alfred Cunningham Bridge is eligible for listing on the National Register of Historic Places. The proposed project will require use of (i.e. removal) of the bridge. Section 4(f) of the US DOT Act of 1966, as amended, states in part "The Secretary may approve a transportation project or program requiring the use of a publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge, or land of a historic site of national, state, or local significance (as determined by the Federal, State or local officials having jurisdiction over the park, recreation area, refuge, or site) only if:

1. there is no prudent and feasible alternative to using that land; and
2. the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from such use."

A Programmatic 4(f) Evaluation and Approval Form for the Use of Historic Bridges is included in Appendix E.

12.0 FIGURES

Figure 1	*Project Area*
Figure 2	*Aerial Photograph with Preferred Alternative*
Figure 3	*Typical Section*
Figure 4	*Photographs of Project Area*
Figure 5	*Architectural Rendering of Preferred Alternative*
Figure 6	*Architectural Rendering of Retaining Wall*
Figure 7	*Landscape Plan*
Figure 8	*Hazardous Material Sites*
Figure 9	*Plant Communities and Soils*

13.0 APPENDIX

Appendix A	*Federal Letters*
Appendix B	*State Letters*
Appendix C	*Local Letters*
Appendix D	*Memoranda and Meeting Minutes*
Appendix E	*Programmatic 4f for Historic Bridges*

FIGURES

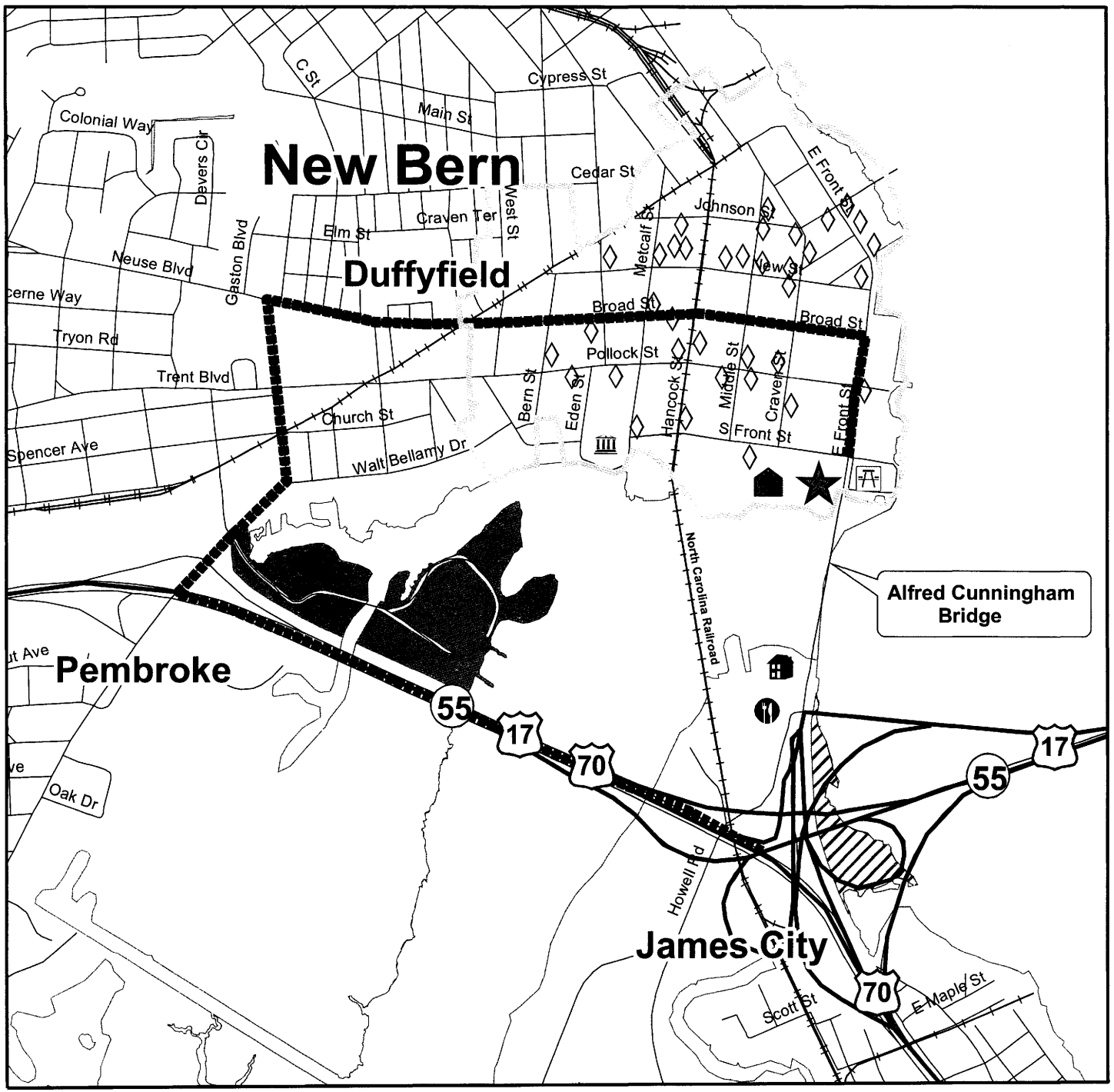


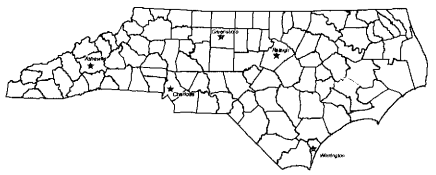
FIGURE 1: PROJECT AREA

- Union Point Park
- Historic Structures
- New Bern Convention Center
- Bridge Pointe Hotel & Marina
- Outback Steakhouse
- Tryon Palace
- Sheraton Hotel & Marina
- Proposed Detour Route
- New Bern NRHD
- Lengyel Wetland Mitigation Site
- New Bern City Limits
- Lawson Creek Park

0 0.25 0.5 Miles

N

MAP SOURCES:
North Carolina Department of Transportation
City of New Bern
Craven County
HNTB Research



CRAVEN COUNTY

HNTB

HNTB NORTH CAROLINA, P.C.
343 E. SIX FORKS ROAD, SUITE 200
Raleigh, North Carolina 27609

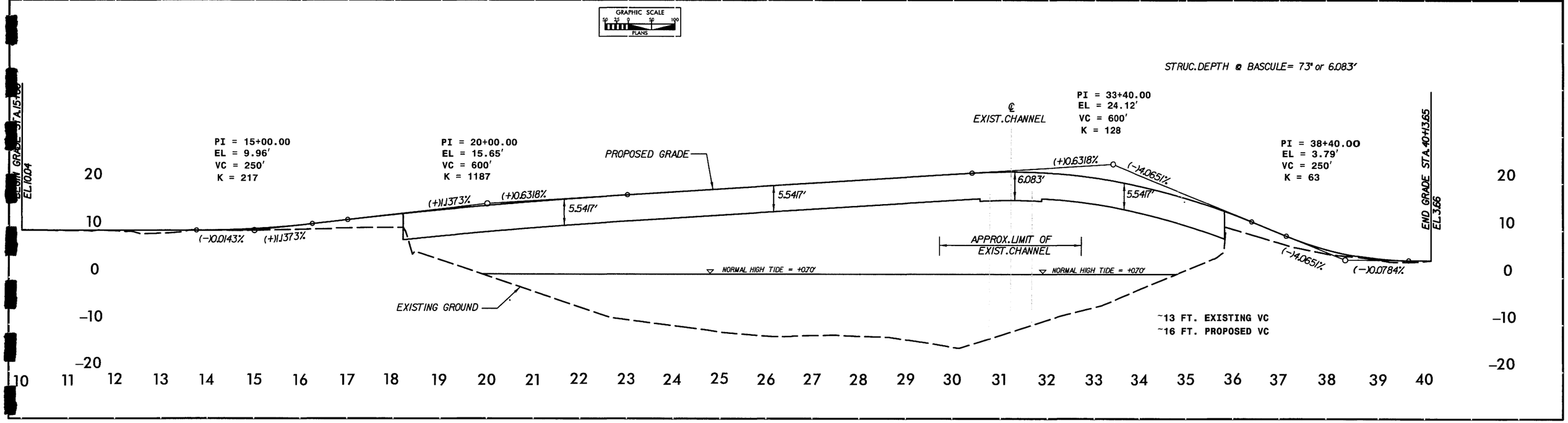
FIGURE 2
ALTERNATE NO. 3
REPLACE EXISTING BRIDGE WITH A BASCULE BRIDGE

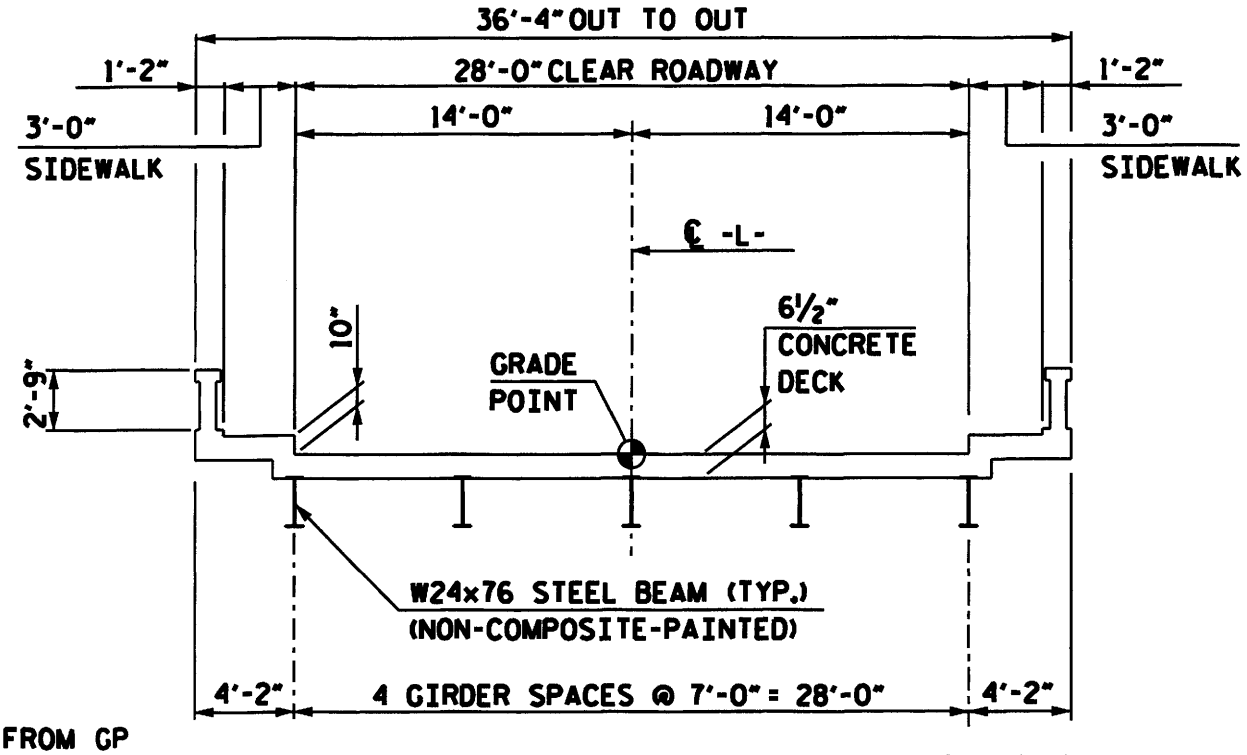
ALFRED CUNNINGHAM BRIDGE ON US 70 BUSINESS OVER THE TRENT RIVER
TIP NO.B-2532

LEGEND:

- Proposed 2'-6" Curb & Gutter
- Proposed 5' Sidewalk
- Proposed Paved Shoulder
- Proposed Retaining Wall
- Monolithic Island
- Proposed Structure
- Exist. Sidewalk Removal
- Proposed Alignment
- Proposed Slope Stakes Fill — F —
- Property Lines & Exist. R/W
- Proposed Guardrail

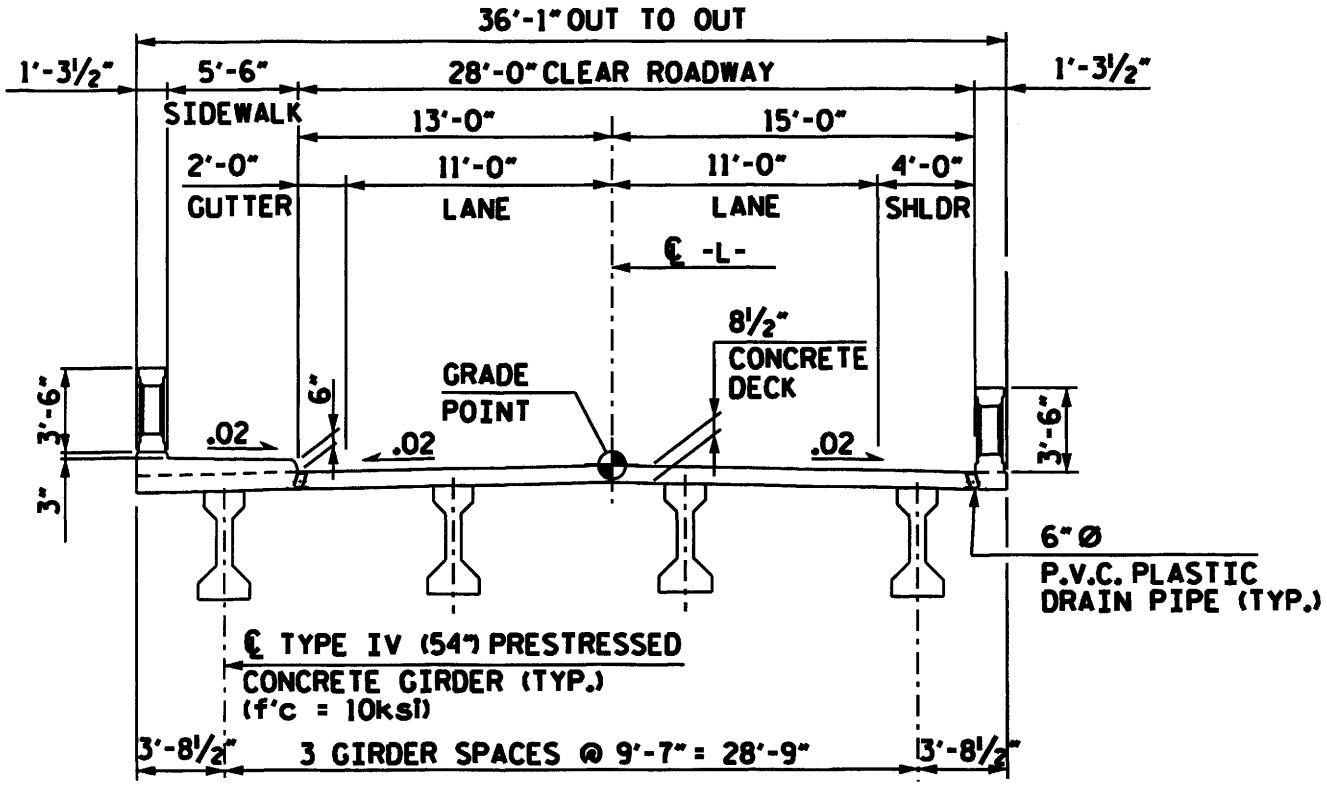
GRAPHIC SCALE
50 25 0 50 100
PLANS





NOTE:
DEPTH FROM GP
TO BOTTOM EXT.
BEAM = 2.6'(±)

EXISTING BRIDGE TYPICAL SECTION - APPROACH



PROPOSED BRIDGE TYPICAL SECTION - APPROACH

NOTE:
DEPTH FROM GP
TO BOTTOM EXT.
BEAM = 6.0'(±)

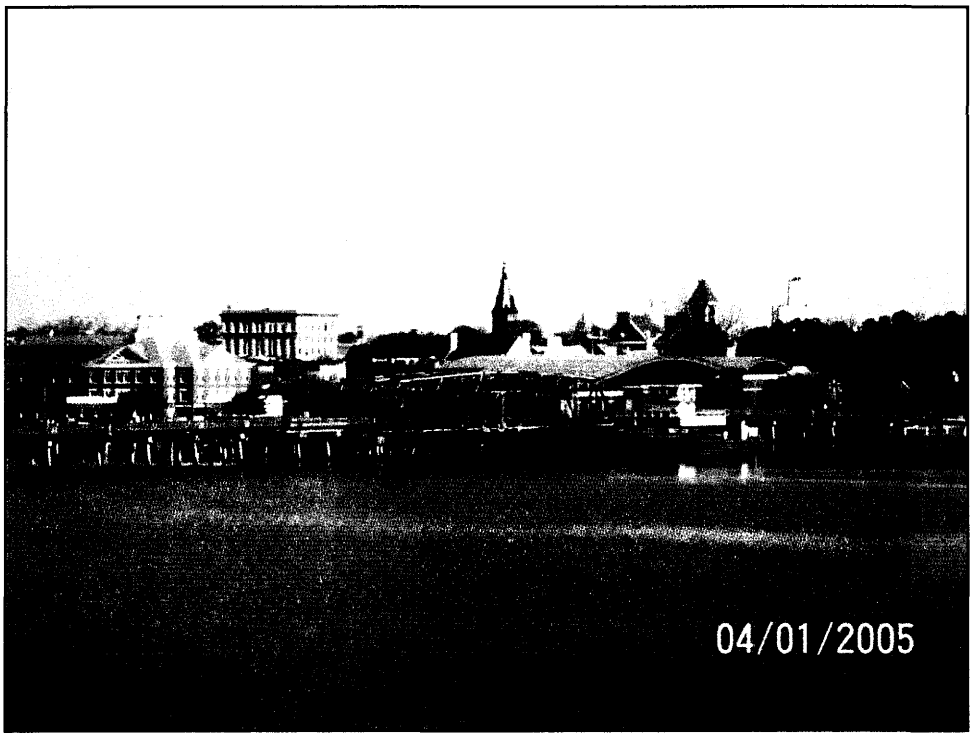
NOTES:

1. HIGHLY CORROSIVE ENVIRONMENT
2. MAX. DESIGN SPEED = 45 MPH (MAX. POSTED SPEED = 40 MPH)

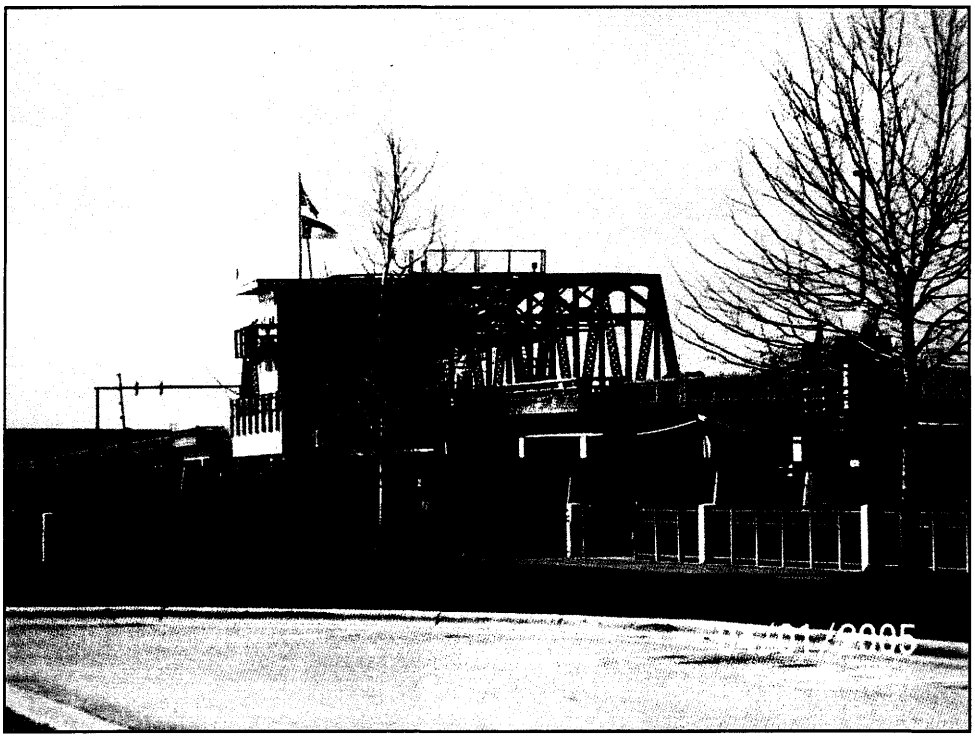
FIGURE 3
BRIDGE TYPICAL SECTIONS
ALFRED CUNNINGHAM BRIDGE
OVER THE TRENT RIVER

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Rd., Suite 200, Raleigh, N.C. 27609

Figure 4: Photographs of Project Area

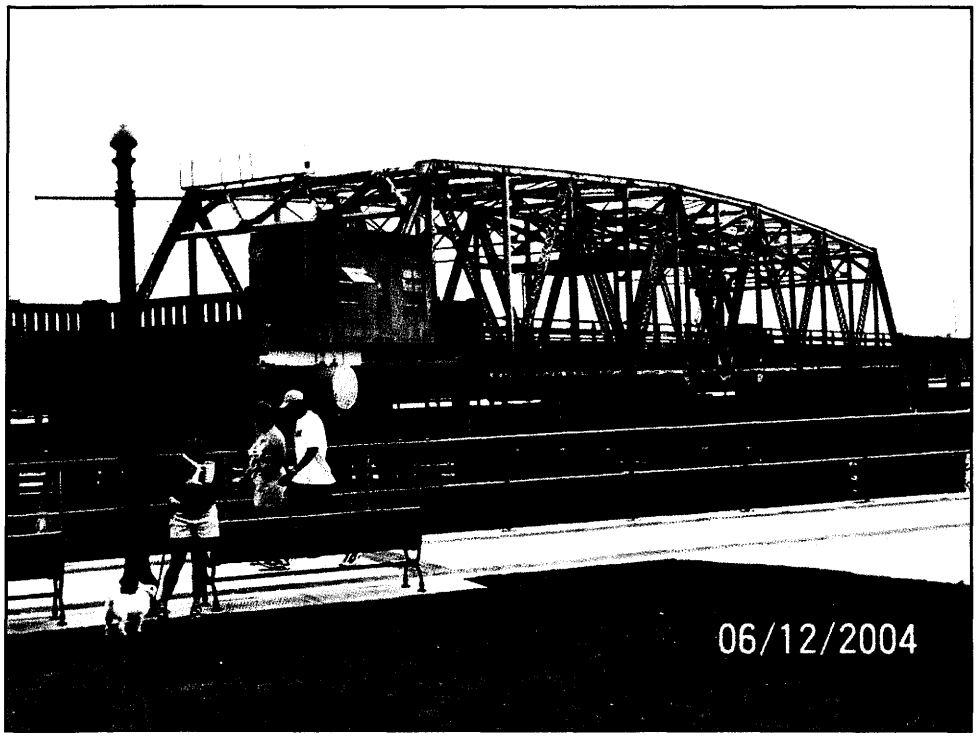


View 1: Looking towards downtown New Bern from the Neuse River Bridge



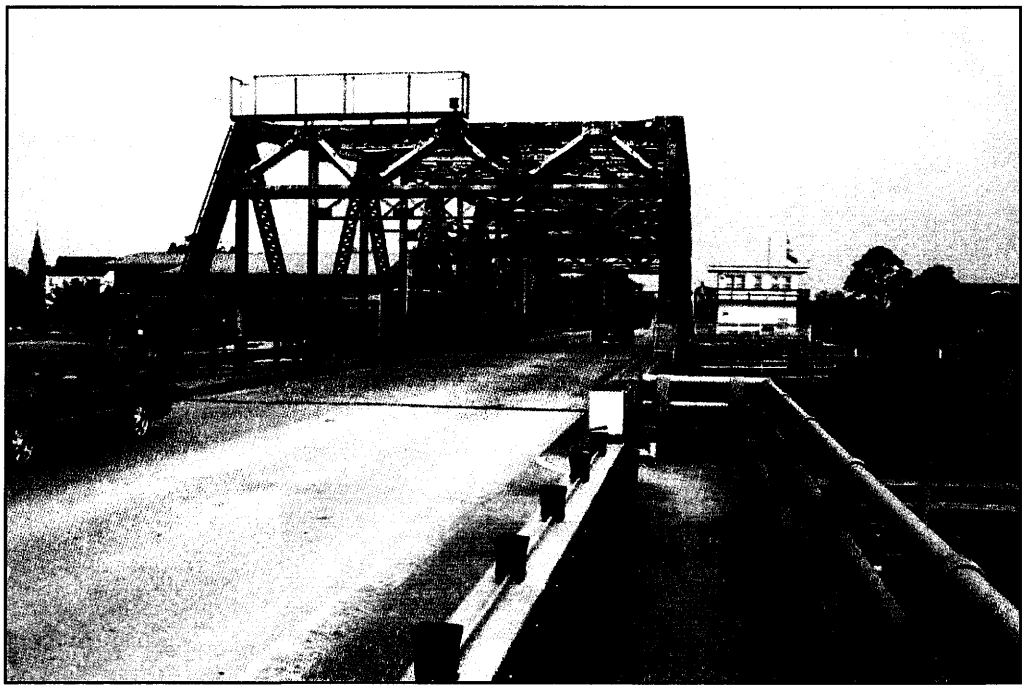
View 2: Looking south towards James City from Union Point Park

View 3: Looking south from the intersection of E. Front Street and S. Front Street



View 4: Looking southeast from the New Bern Riverfront Convention Center

View 5: Original bridge tender's house in the foreground; Current bridge tender's house behind



View 6: Looking north towards downtown New Bern. Union Point Park is on the right. New Bern Convention Center is on the left

Figure 5

HNTB

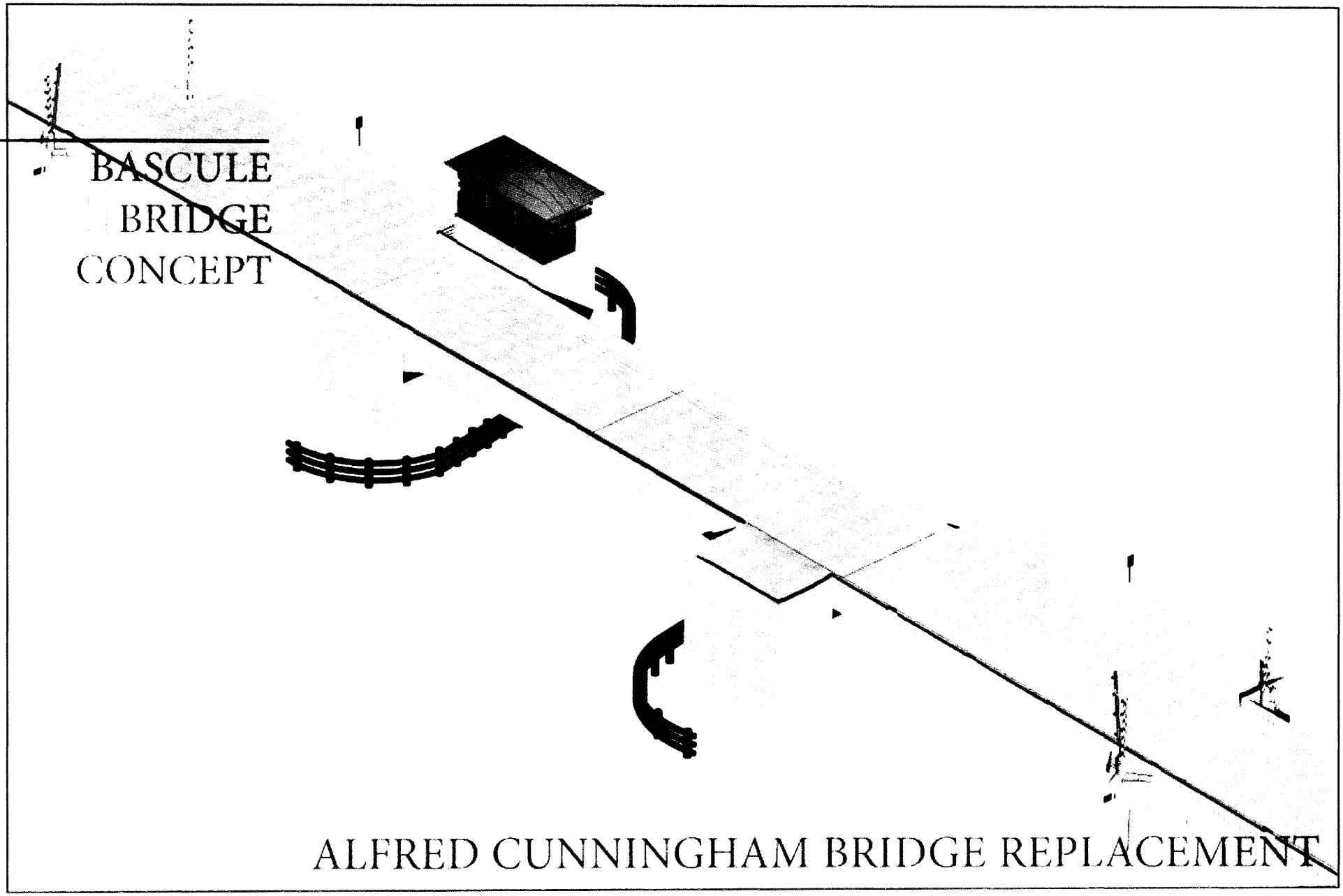


Figure 5a

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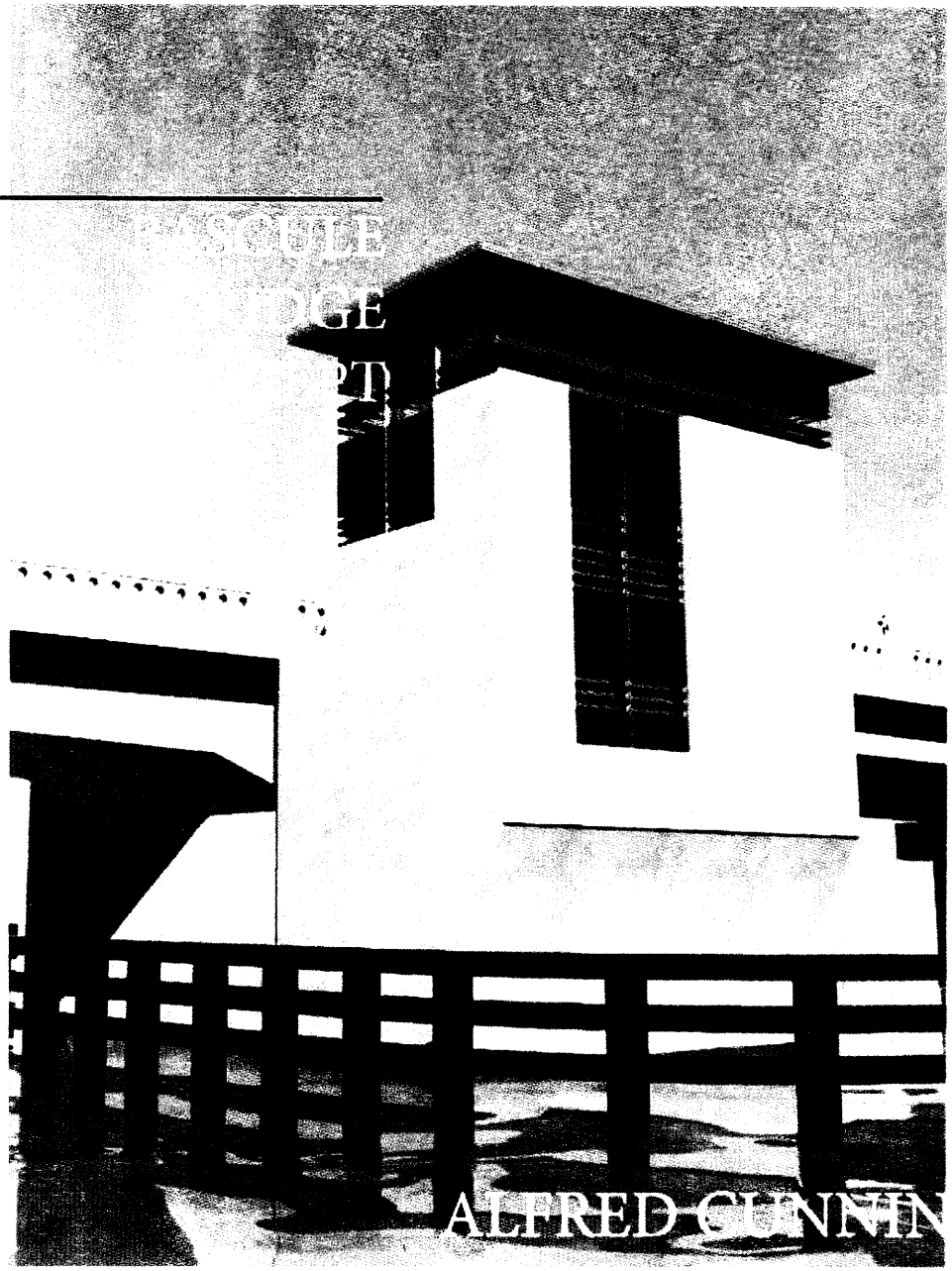

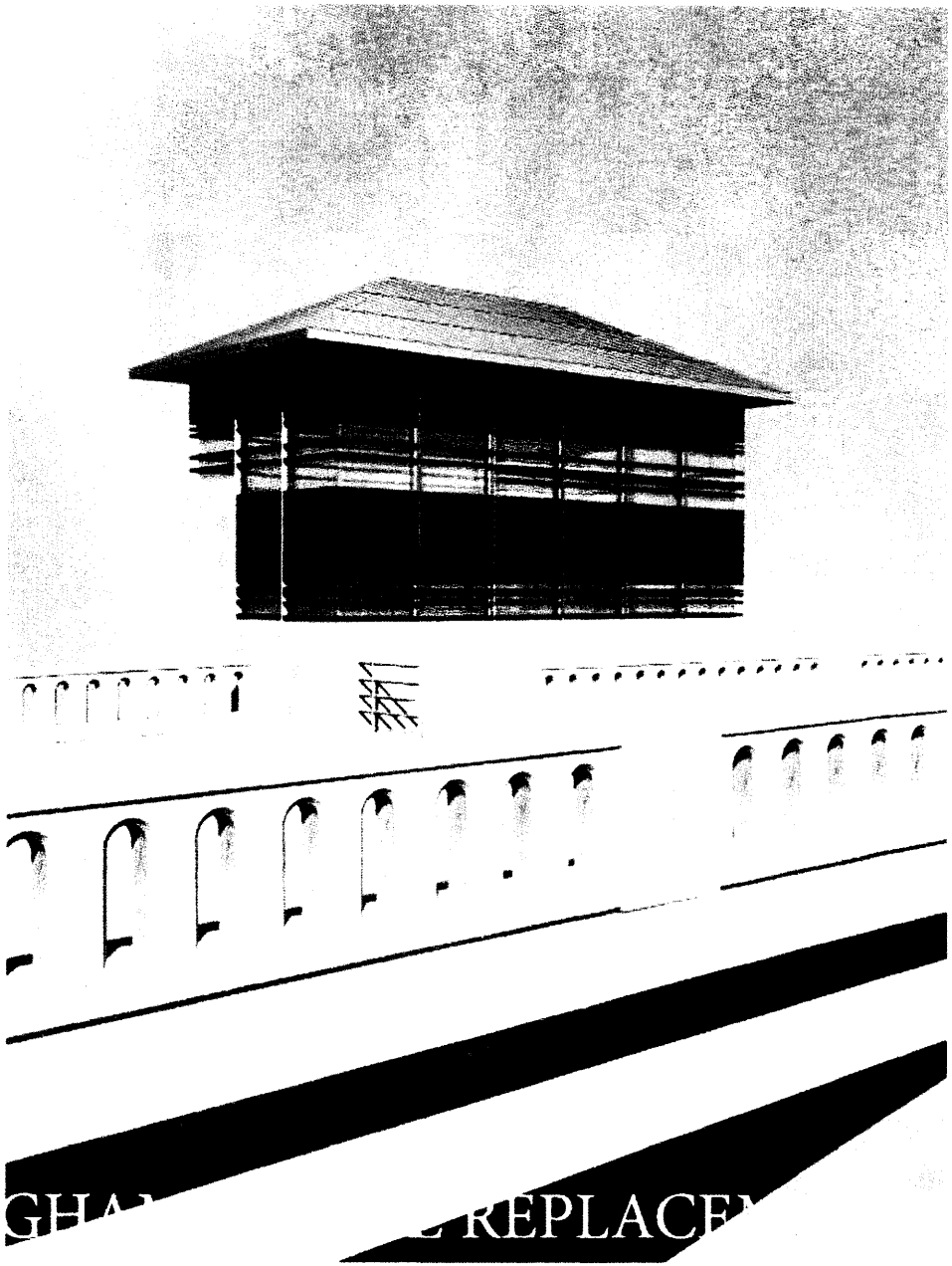

Figure 5b

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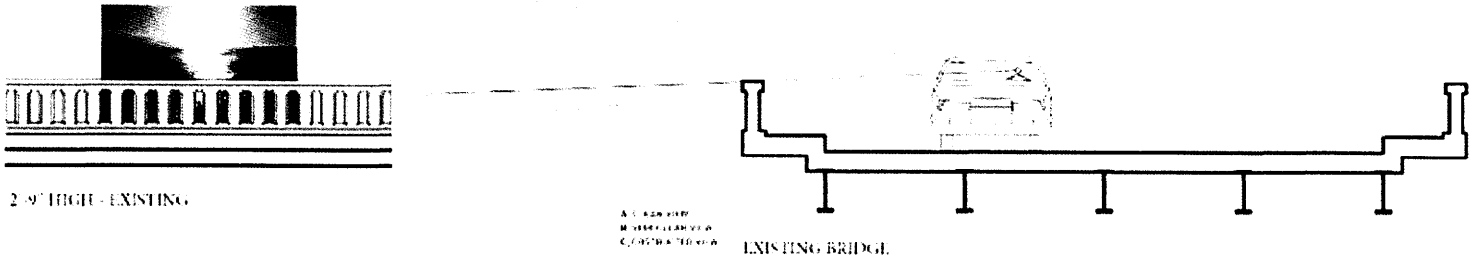
9.22.2005



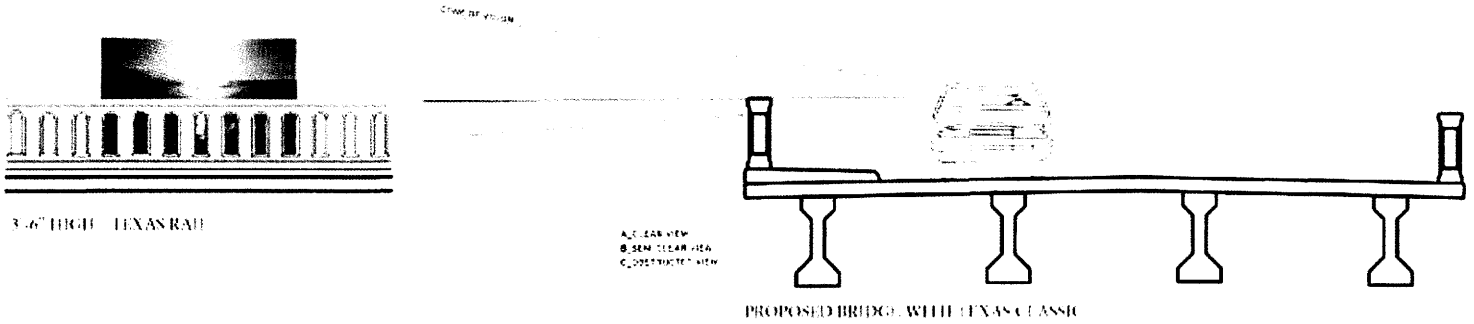


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Figure 5c

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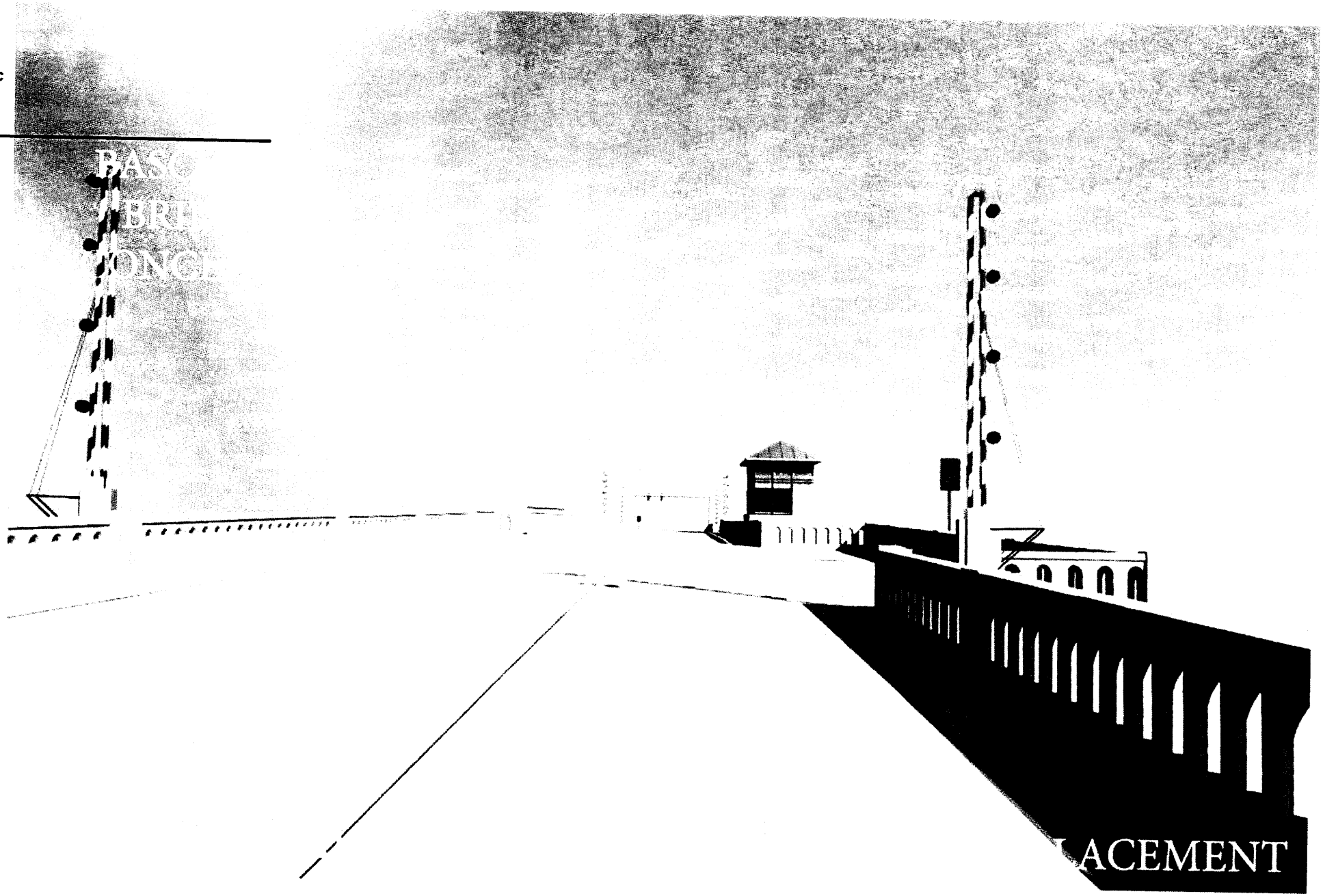

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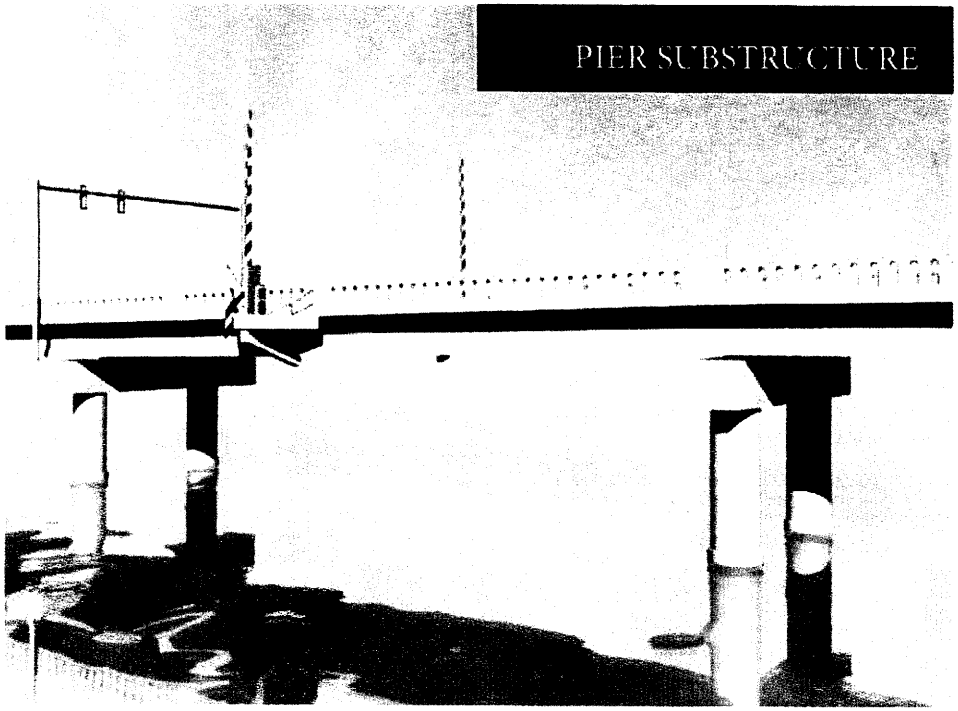

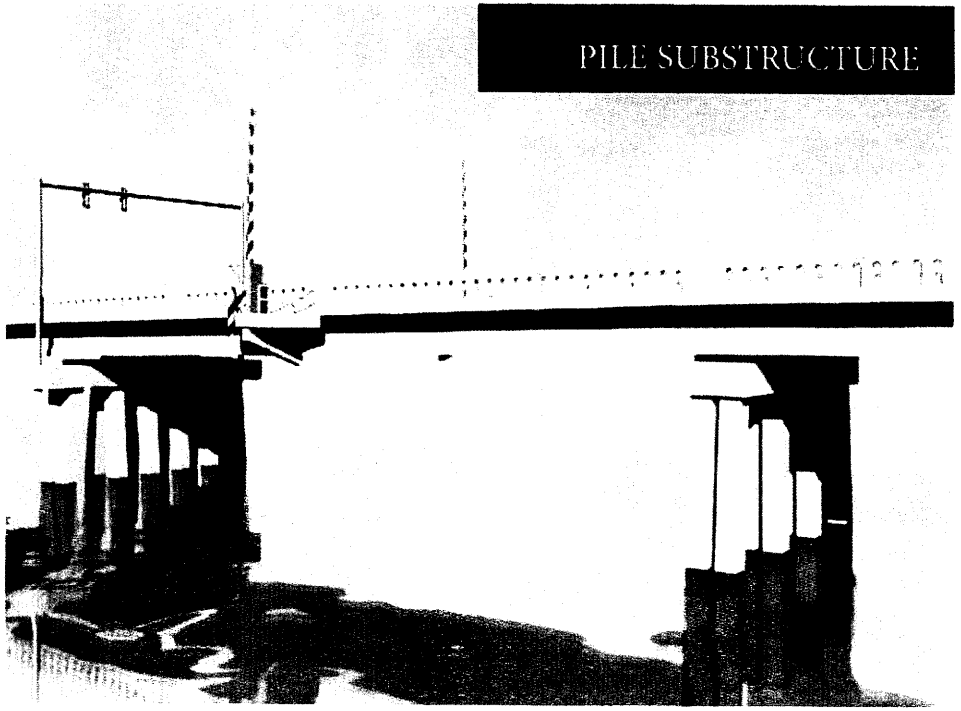

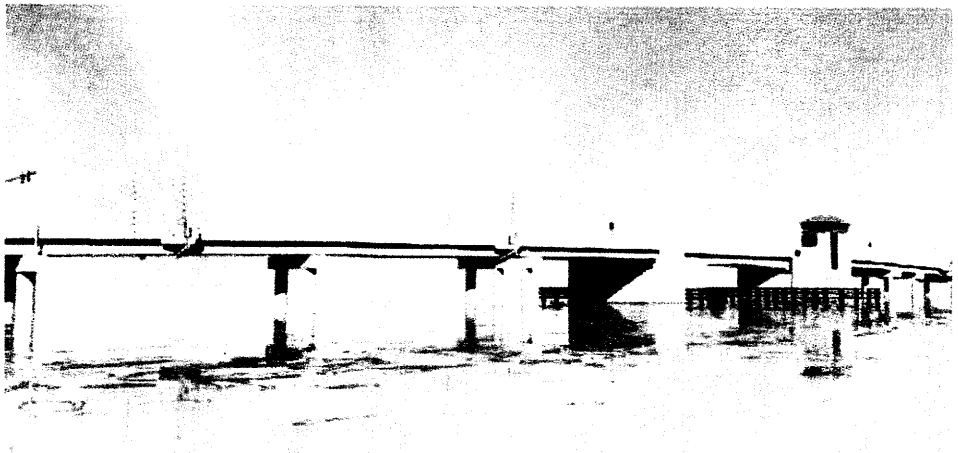

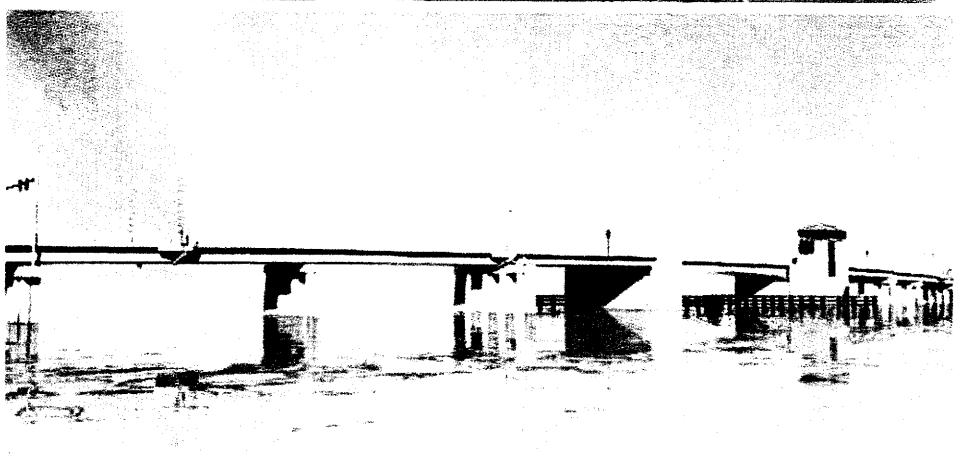

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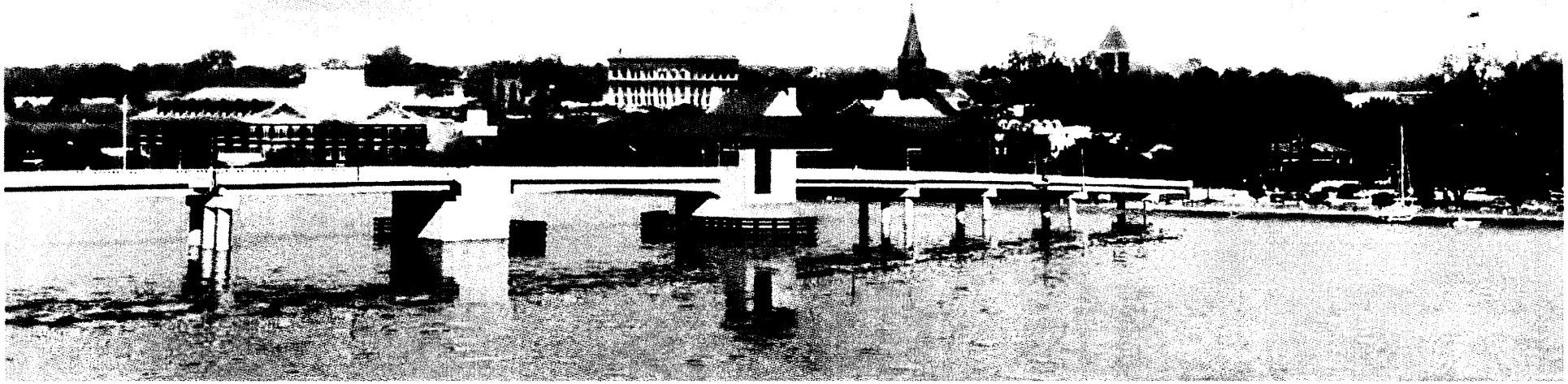
PIER SUBSTRUCTURE



PILE SUBSTRUCTURE

ALFRED CUNNINGHAM BRIDGE REPLACEMENT

Figure 5f

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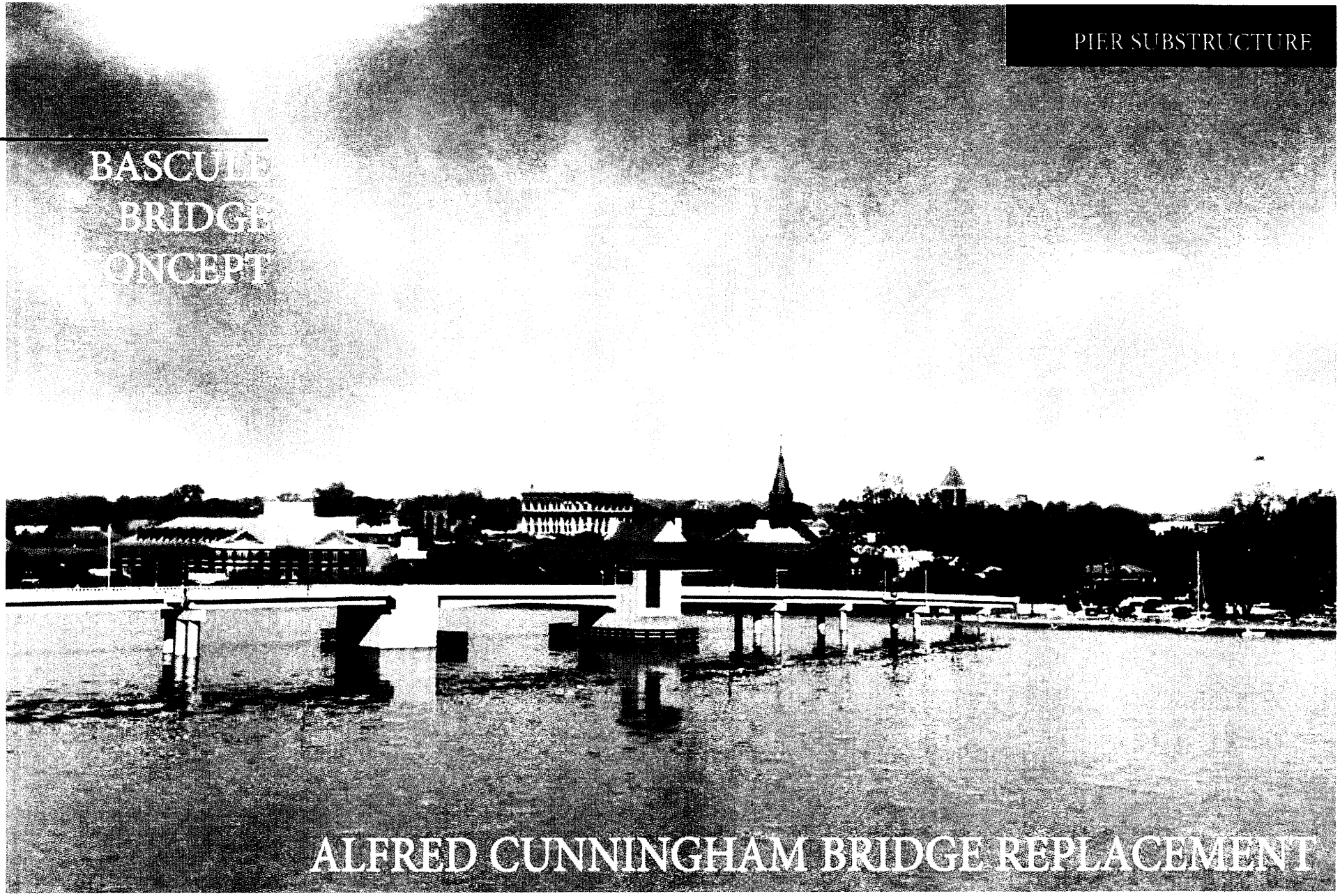
BRIDG
ONCEPT

PIER SUBSTRUCTURE



ALFRED CUNNINGHAM BRIDGE REPLACEMENT

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HNTB

22.2006

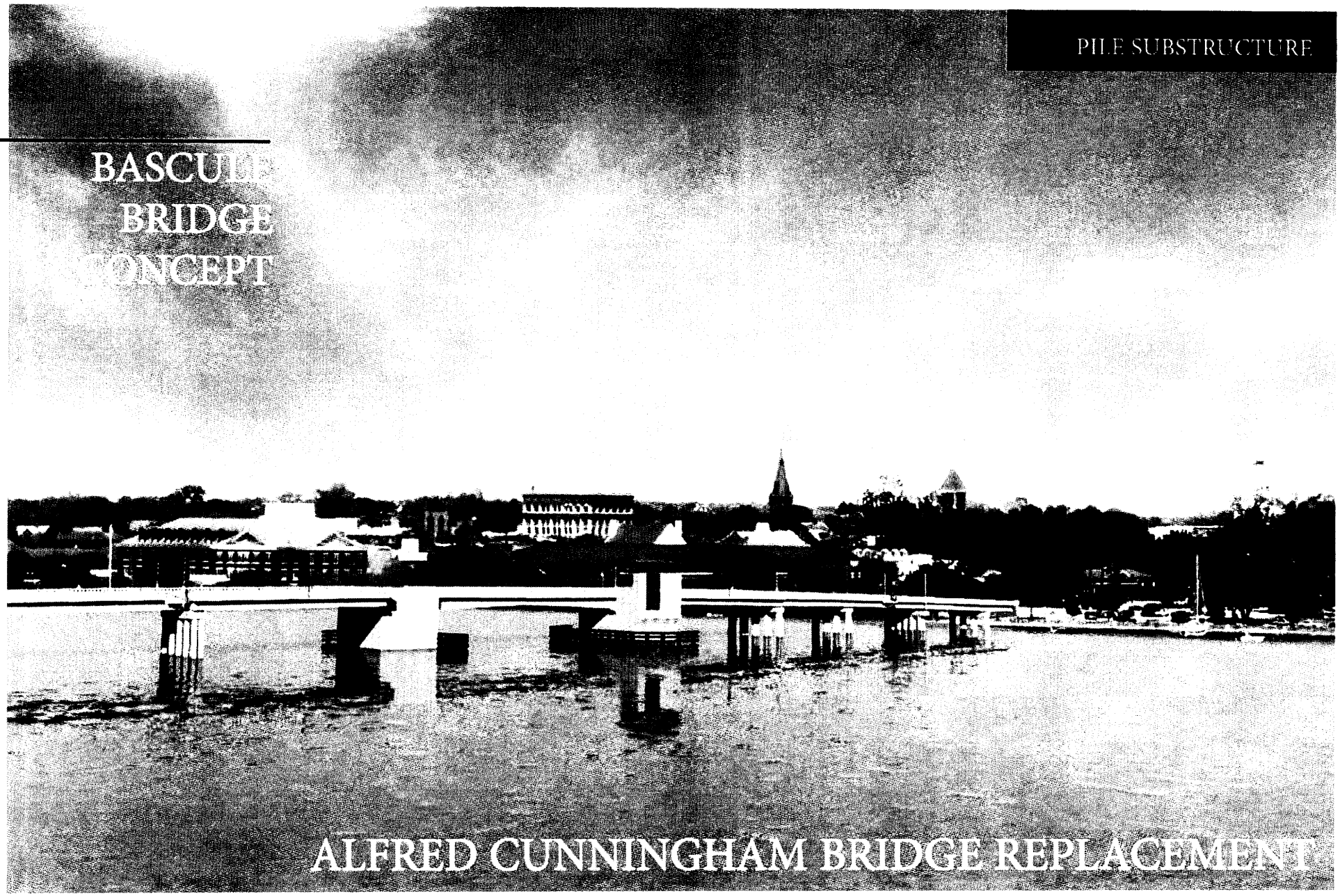


Figure 5h

HNTB

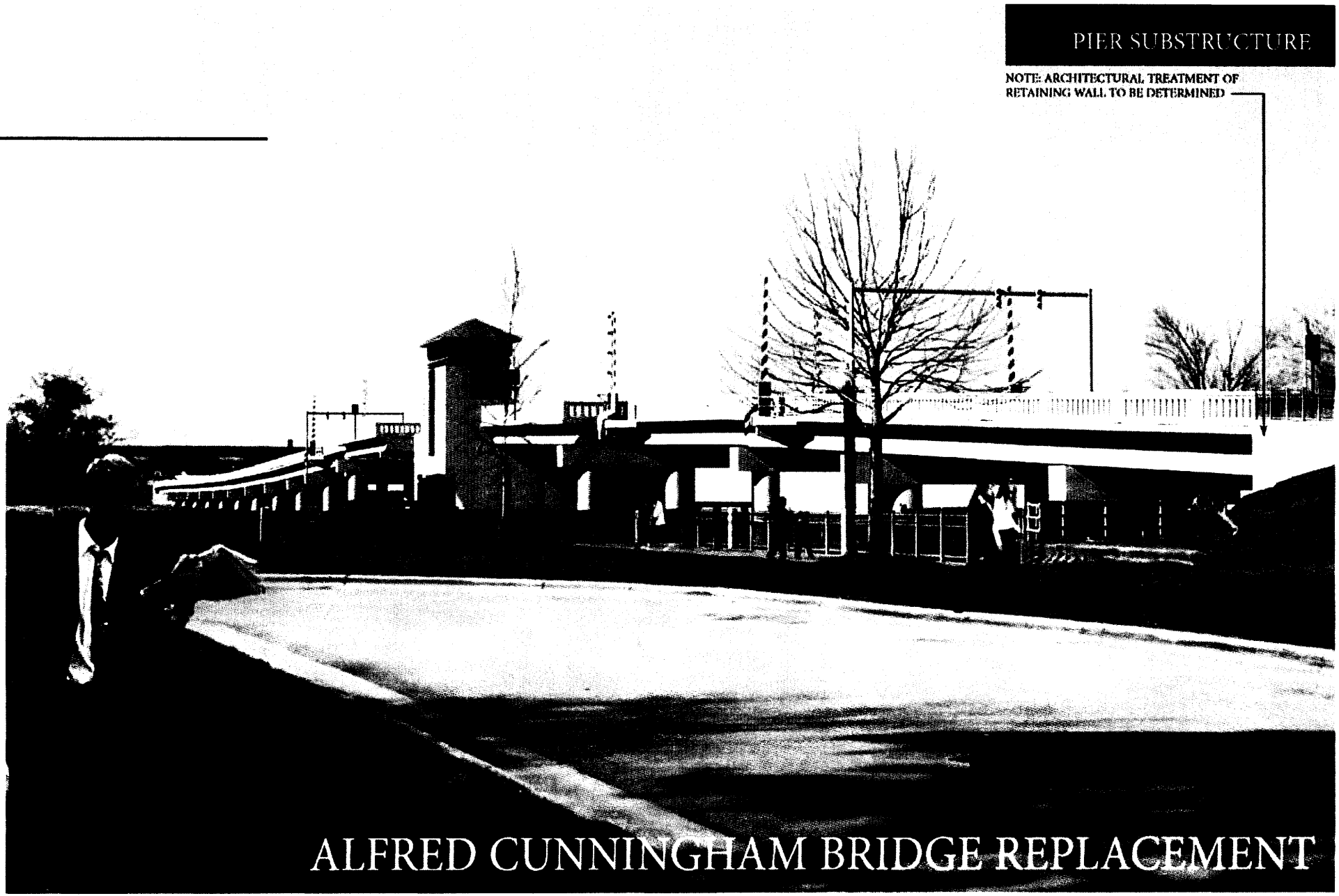
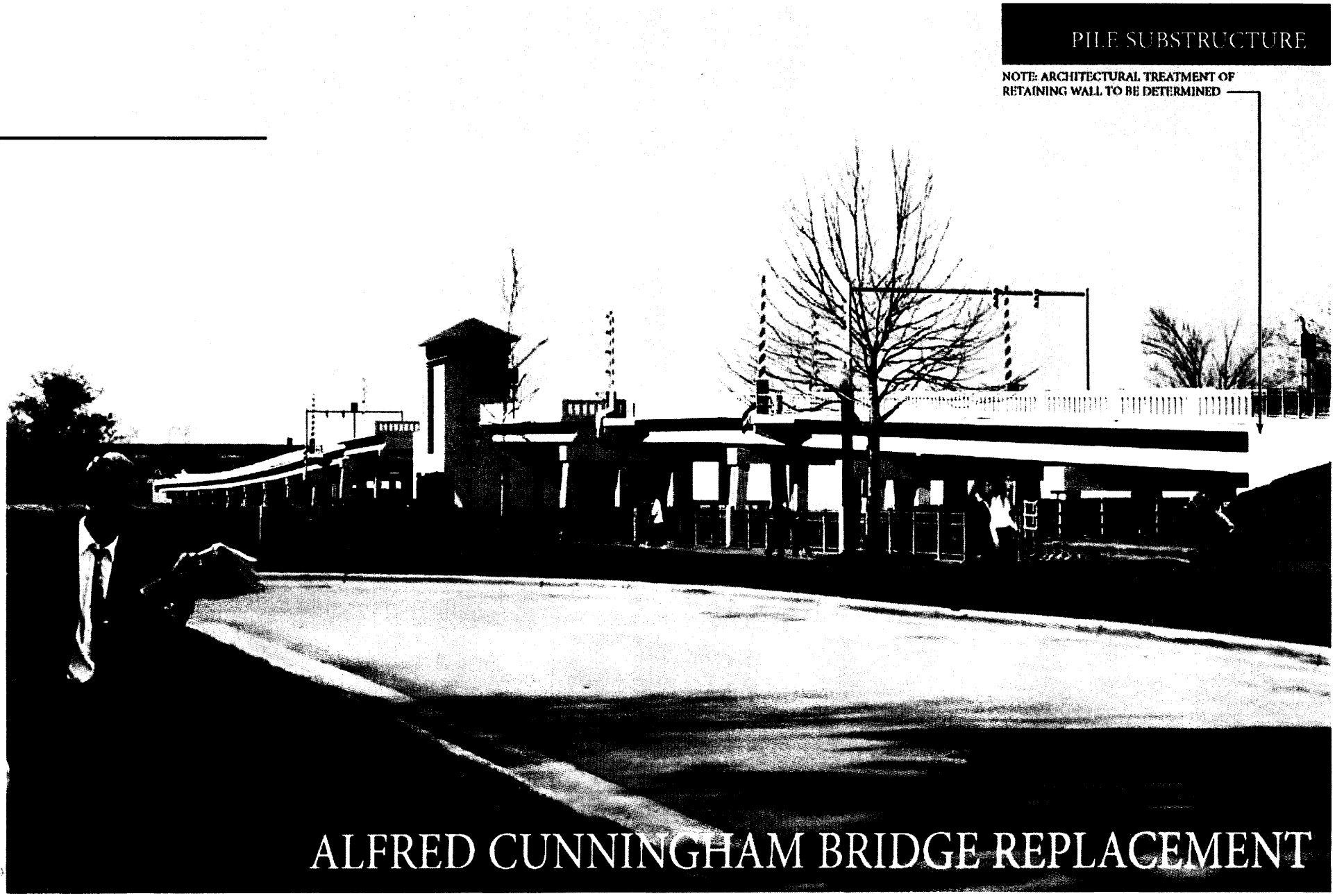


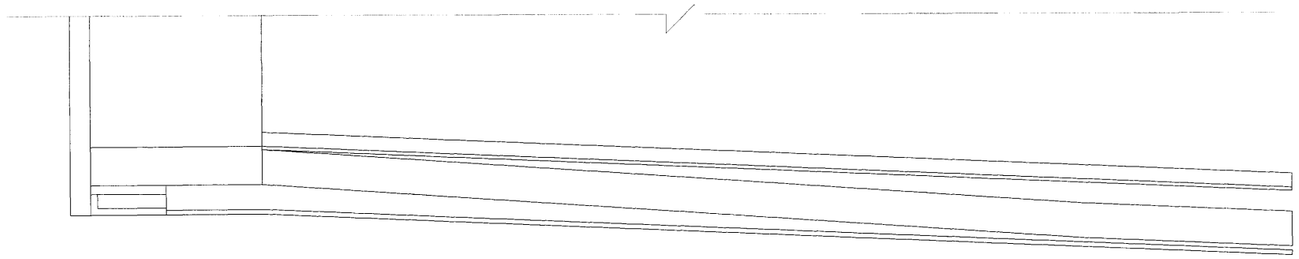
Figure 5i

HNTB

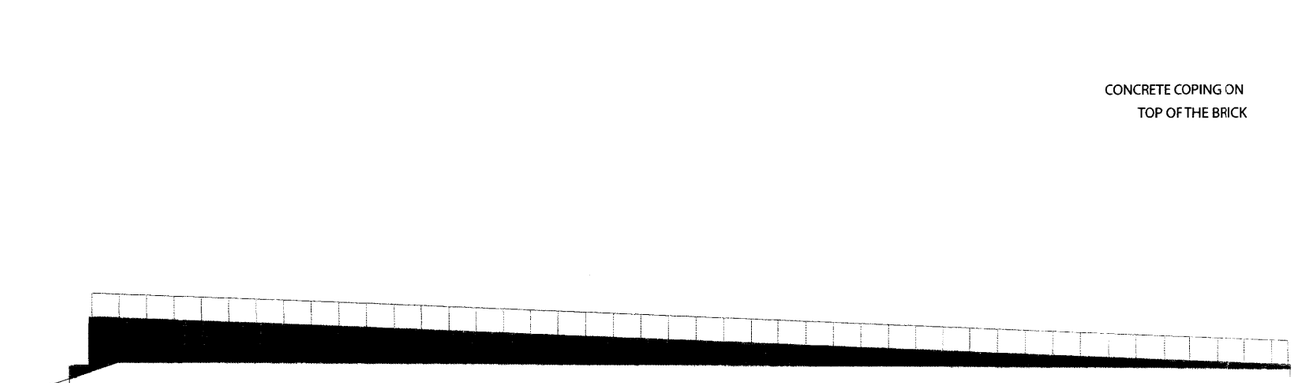


ALFRED CUNNINGHAM BRIDGE REPLACEMENT
OCTOBER 2005

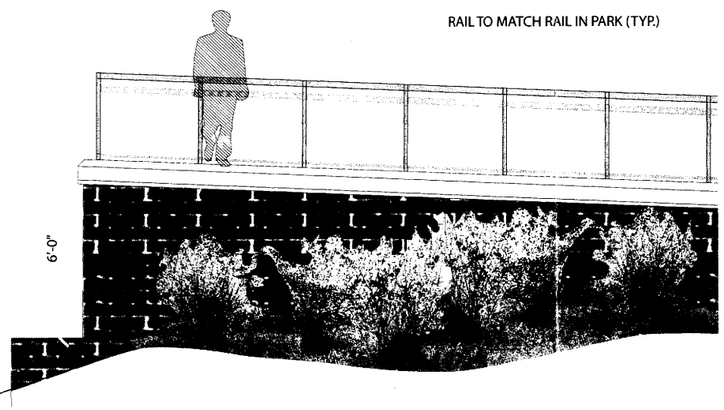
Figure 6: Retaining Wall (along E. Front Street - from north end of bridge towards S. Front Street intersection)



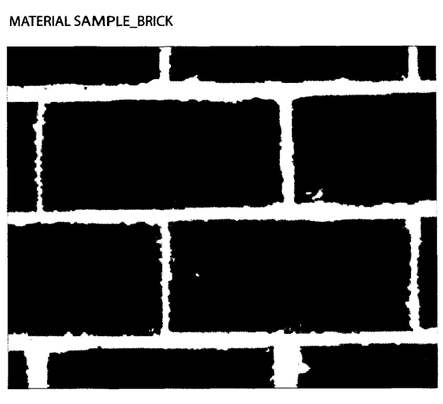
RETAINING WALL PLAN



A1_RETAINING WALL ELEVATION



B2_RETAINING WALL CLOSE-UP



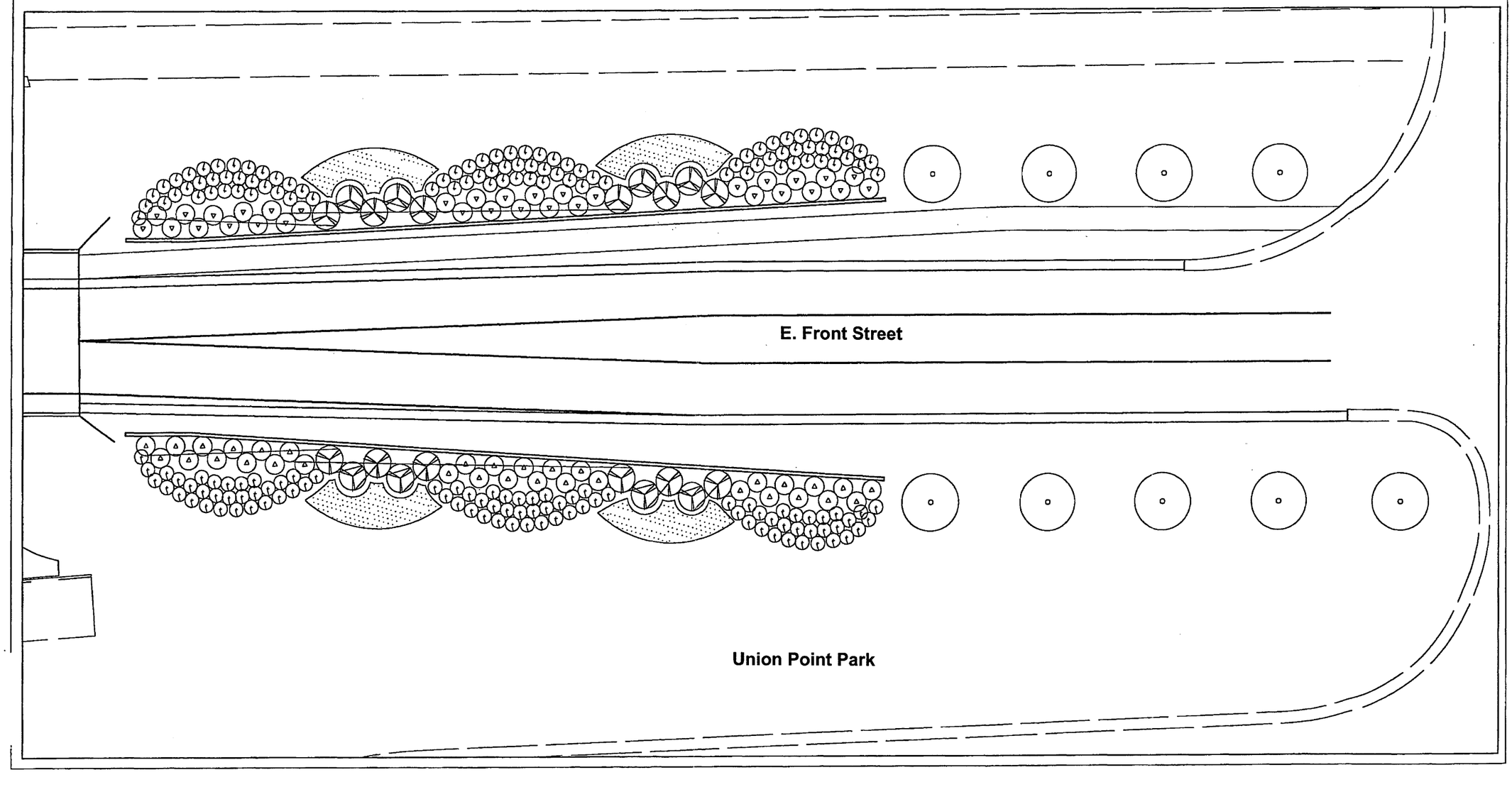
NOTE:
1. BRICK SHALL MATCH THE EXISTING BRICK ON THE NEW BERN RIVERFRONT CONVENTION CENTER.
2. BRICK SHALL BE "IRONSPOT COVENTRY - CLOSURE SIZE - RED" BY TRIANGLE BRICK COMPANY.
3. BRICK SHALL BE RUNNING OR STRETCHER BOND WITH NO HEADER COURSES.
4. MORTAR SHALL BE OFF-WHITE IN COLOR TO MATCH THE EXISTING MORTAR ON THE NEW BERN RIVERFRONT CONVENTION CENTER.
5. LANDSCAPING SHOWN IS CONCEPTUAL, REFER TO LANDSCAPE PLAN FOR PLANTING DETAIL.

Figure 7: Landscape Plan

Symbol	Qty	Botanical Name	Common Name	Specifications
o	9	Acer Rubrum	Red Maple	12'-14' Height, 2 1/2" Cal.
	20	Osmanthus heterophyllus	Holly Osmanthus	3' - 4' Height
	66	Ilex vomitoria 'nana'	Dwarf Yaupon Holly	2' Height, 3' O.C.
	178	Juniperous conferta	Shore Juniper	1Gal, 2' O.C.
	568 (652 S.F.)	Liriope Spicata	Liriope	1 Gal, 12" O.C.

Note: A minimum distance of 15' is required between the edge-of-curb and Acer Rubrum (Red Maple) streetscape plantings.

New Bern Riverfront Convention Center



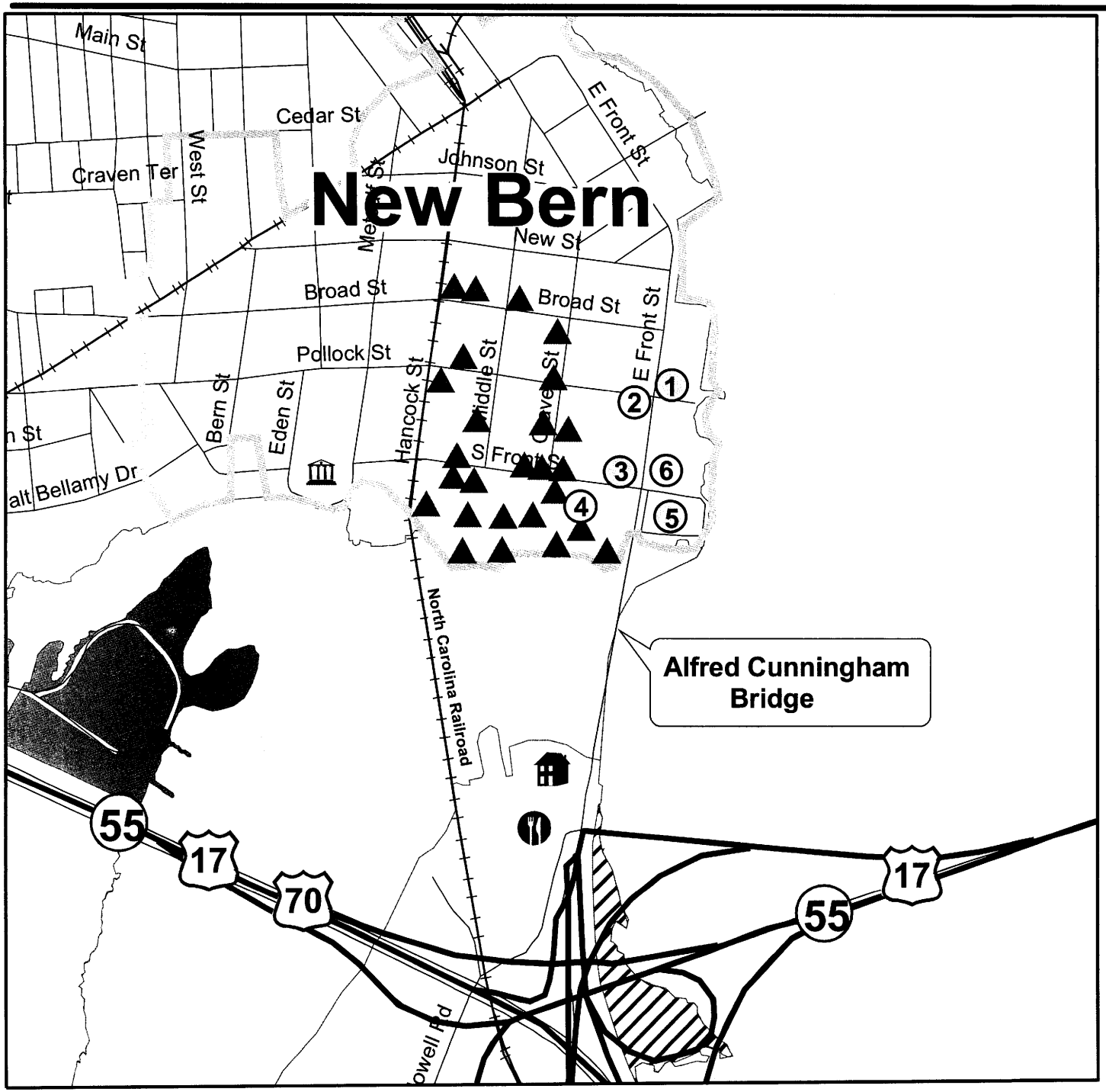


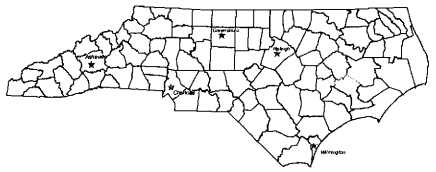
FIGURE 8: HAZARDOUS MATERIAL SITES

- Site 1: Forrest Service Center
- Site 2: Handy Mart #8 (vacant)
- Site 3: Cecil's Exxon II (razed)
- Site 4: Sheraton Marina
- Site 5: Union Point Park
- Site 6: Swiss Bear Inc.
- Historic Environmental Sites
- Bridge Pointe Hotel & Marina
- Outback Steakhouse
- Tryon Palace
- New Bern NRHD
- New Bern City Limits

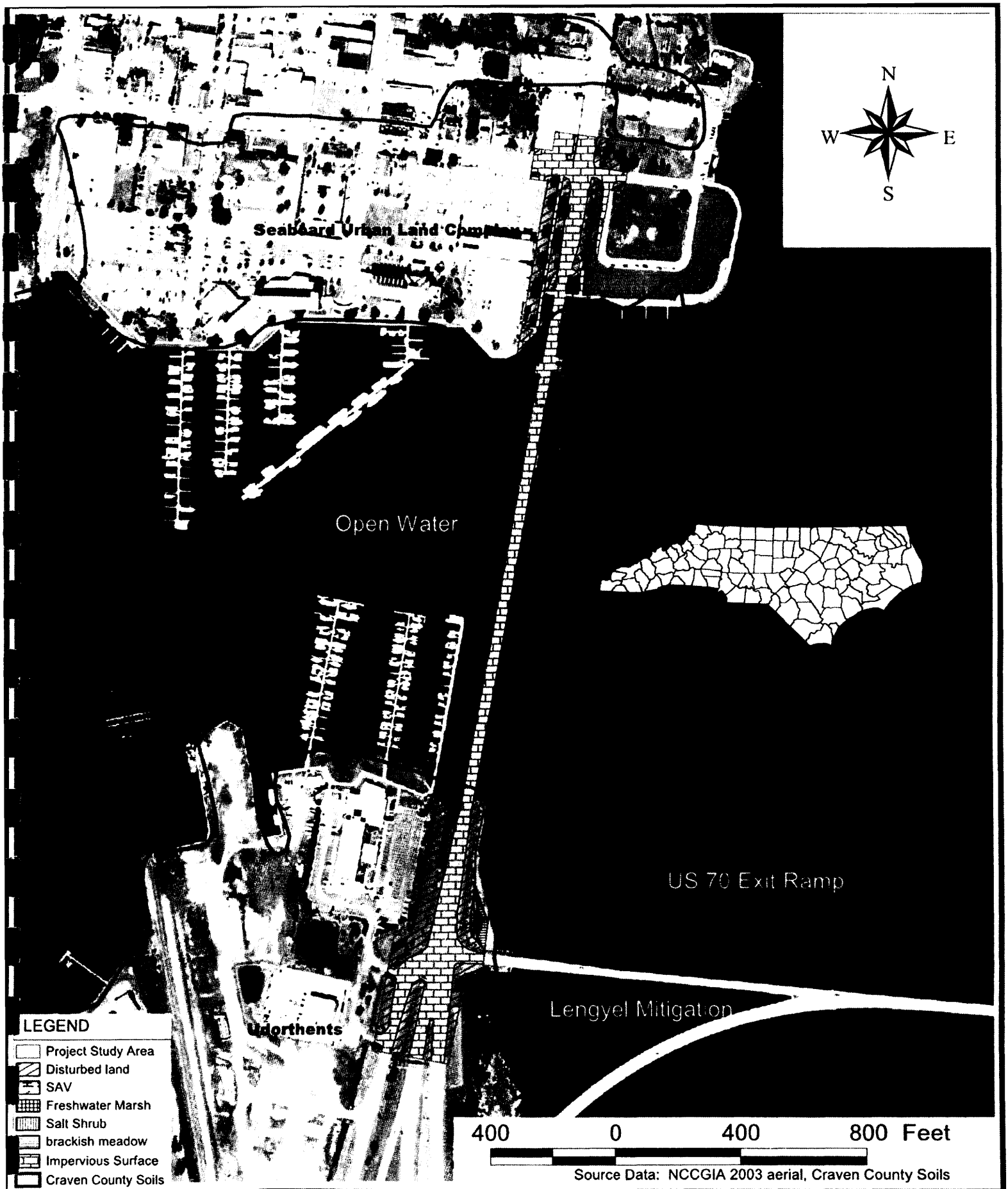
0 500 1,000 Feet

N

MAP SOURCES:
NCDOT - Geotechnical Unit
City of New Bern
Craven County
HNTB Research



CRAVEN COUNTY



EcoScience Corporation
1101 Haynes Street Suite 101
Raleigh, North Carolina 27604
919-828-3433 Fax 919-828-3518
ecosciencenc.com

Plant Communities and Soils

Replacement of Bridge No. 60
US 70 over the Trent River
B-2532
Craven County, North Carolina

Dwn by:	KCW
Scale:	1:5,000
Date:	August 2005
Project:	05-240

Figure 9

Appendix A

FEDERAL LETTERS

United States Department of the Interior
FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

July 9, 2004

Gregory J. Thorpe, Ph.D.
North Carolina Department of Transportation
Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Dr. Thorpe:

This letter is in response to your request for comments from the U.S. Fish and Wildlife Service (Service) on the potential environmental impacts of the proposed replacement or refurbishment of Bridge No. 60 on US 70 Business over the Trent River in Craven County, North Carolina (TIP No. B-2532). These comments provide scoping information in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661-667d) and section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

Recent aerial photography reveals the highly disturbed nature of the project area. Very little terrestrial habitat remains. However, aquatic habitat value is significant. For bridge replacement projects, the Service recommends the following general conservation measures to avoid or minimize environmental impacts to fish and wildlife resources:

1. Wetland, forest and designated riparian buffer impacts should be avoided and minimized to the maximum extent practical;

2. If unavoidable wetland impacts are proposed, every effort should be made to identify compensatory mitigation sites in advance. Project planning should include a detailed compensatory mitigation plan for offsetting unavoidable wetland impacts. Opportunities to protect mitigation areas in perpetuity via conservation easements, land trusts or by other means should be explored at the outset;

3. Off-site detours should be used rather than construction of temporary, on-site bridges. For projects requiring an on-site detour in wetlands or open water, such detours should be aligned along the side of the existing structure which has the least and/or lowest quality of fish and wildlife habitat. At the completion of construction, the detour area should be entirely removed and the impacted areas should be planted with appropriate vegetation, including trees if necessary;

4. Wherever appropriate, construction in sensitive areas should occur outside fish spawning and migratory bird nesting seasons. In waterways that may serve as travel corridors for fish, in-water work should be avoided during moratorium periods associated with migration, spawning and sensitive pre-adult life stages. The general moratorium period for anadromous fish is February 15 - June 30;

5. New bridges should be long enough to allow for sufficient wildlife passage along stream corridors;

6. Best Management Practices (BMP) for Protection of Surface Waters should be implemented;

7. Bridge designs should include provisions for roadbed and deck drainage to flow through a vegetated buffer prior to reaching the affected stream. This buffer should be large enough to alleviate any potential effects from run-off of storm water and pollutants;

8. The bridge designs should not alter the natural stream and stream-bank morphology or impede fish passage. To the extent possible, piers and bents should be placed outside the bank-full width of the stream;

9. Bridges and approaches should be designed to avoid any fill that will result in damming or constriction of the channel or flood plain. If spanning the flood plain is not feasible, culverts should be installed in the flood plain portion of the approach to restore some of the hydrological functions of the flood plain and reduce high velocities of flood waters within the affected area.

There are five federally protected species listed for Craven County: the bald eagle *(Haliaeetus leucocephalus)*, leatherback sea turtle (*Dermochelys coriacea*), West Indian manatee (*Trichechus manatus*), red-cockaded woodpecker *(Picoides borealis*) and sensitive jointvetch (*Aeschynomene virginica*). Information about the habitats in which these species are often found is provided on our web site, http://endangered.fws.gov/ . It appears that no habitat exists in the project vicinity for the red-cockaded woodpecker. The North Carolina Natural Heritage Program (NCNHP) database indicates two historical occurrences of sensitive jointvetch in the project area. Although their current presence is questionable due to the developed nature of the site, this should be verified with a field survey during the flowering season if any habitat remains for the species. The NCNHP database also indicates a 1994 occurrence of the West Indian manatee in the project vicinity. The Service's "Guidelines For Avoiding Impacts To The West Indian Manatee" should be fully implemented to avoid effects to this species. These recently revised guidelines can be found at the following website: http://nc-es.fws.gov/mammal/mammal.html . Surveys should also be conducted for bald eagles and nests if any habitat exists within a one-half mile radius of the project site. Any survey documentation must include methodologies and results.

We reserve the right to review any federal permits that may be required for this project, at the public notice stage. Therefore, it is important that resource agency coordination occur early in the planning process in order to resolve any conflicts that may arise and minimize delays in project implementation. In addition to the above guidance, we recommend that the environmental documentation for this project include the following in sufficient detail to facilitate a thorough review of the action:

1. A clearly defined and detailed purpose and need for the proposed project;

2. A description of the proposed action with an analysis of all alternatives being considered, including the "no action" alternative;

3. A description of the fish and wildlife resources, and their habitats, within the project impact area that may be directly or indirectly affected;

4. The extent and acreage of waters of the U.S., including wetlands, that are to be impacted by filling, dredging, clearing, ditching, or draining. Acres of wetland impact should be differentiated by habitat type based on the wetland classification scheme of the National Wetlands Inventory (NWI). Wetland boundaries should be determined by using the 1987 Corps of Engineers Wetlands Delineation Manual and verified by the U.S. Army Corps of Engineers;

5. The anticipated environmental impacts, both temporary and permanent, that would be likely to occur as a direct result of the proposed project. The assessment should also include the extent to which the proposed project would result in secondary impacts to natural resources, and how this and similar projects contribute to cumulative adverse effects;

6. Design features and construction techniques which would be employed to avoid or minimize impacts to fish and wildlife resources, both direct and indirect, and including fragmentation and direct loss of habitat;

7. If unavoidable wetland or stream impacts are proposed, project planning should include a detailed compensatory mitigation plan for offsetting the unavoidable impacts.

The Service appreciates the opportunity to comment on this project. Please continue to advise us during the progression of the planning process, including your official determination of the impacts of this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520, ext. 32.

Sincerely,

John A. Hammond

John Hammond
Ecological Services Acting Supervisor

cc: Mike Bell, USACE, Washington, NC
Nicole Thomson, NCDWQ, Raleigh, NC
Travis Wilson, NCWRC, Creedmoor, NC
Chris Militscher, USEPA, Raleigh, NC

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

December 27, 2005

Vincent J. Rhea, PE
North Carolina Department of Transportation
Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Mr. Rhea:

This letter is in response to your letter of December 13, 2005 and subsequent December 20, 2005 revision which provided the U.S. Fish and Wildlife Service (Service) with the biological determination of the North Carolina Department of Transportation (NCDOT) that the replacement of the Alfred Cunningham Bridge (Bridge No. 60) on US 70 Business over the Trent River in Craven County (TIP No. B-2532) may affect, but is not likely to adversely affect the federally listed bald eagle (*Haliaeetus leucocephalus*) and West Indian manatee (*Trichechus manatus*). In addition, NCDOT has determined that the project will have no effect on the federally listed leatherback sea turtle *(Dermochelys coriacea)*, red-cockaded woodpecker (*Picoides borealis*) and sensitive joint-vetch (*Aeschynomene virginica*). These comments are provided in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

According to information provided, eagle surveys were conducted on June 8 and 16, 2005. No eagles or eagle nests were observed. It is understood that little to no bald eagle habitat exists in the project area. To avoid impacts to the West Indian manatee, NCDOT has agreed to implement the Service's 2003 **Guidelines for Avoiding Impacts to the West Indian Manatee** during construction. Based on the information provided and other information available, the Service concurs with your determination that the project may affect, but is not likely to adversely affect the bald eagle or West Indian manatee.

According to information provided, a plant survey was conducted at the project site on August 15, 2005 for the federally threatened sensitive joint-vetch. No specimens of sensitive joint-vetch were observed. In addition, no habitat exists at the project site for the federally listed red-cockaded woodpecker and leatherback sea turtle. The Service concurs with your determination that the project will have no effect on sensitive joint-vetch, red-cockaded woodpecker and leatherback sea turtle.

We believe that the requirements of section 7(a)(2) of the ESA have been satisfied. We remind you that obligations under section 7 consultation must be reconsidered if: (1) new information

reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered in this review; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by this identified action.

The Service appreciates the opportunity to review this project. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520 (Ext. 32).

Sincerely,

for Pete Benjamin
Ecological Services Supervisor

cc: William Wescott, USACE, Washington, NC
Nicole Thomson, NCDWQ, Raleigh, NC
Travis Wilson, NCWRC, Creedmoor, NC
Chris Militscher, USEPA, Raleigh, NC
Tracy Roberts, HNTB, Raleigh, NC

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.

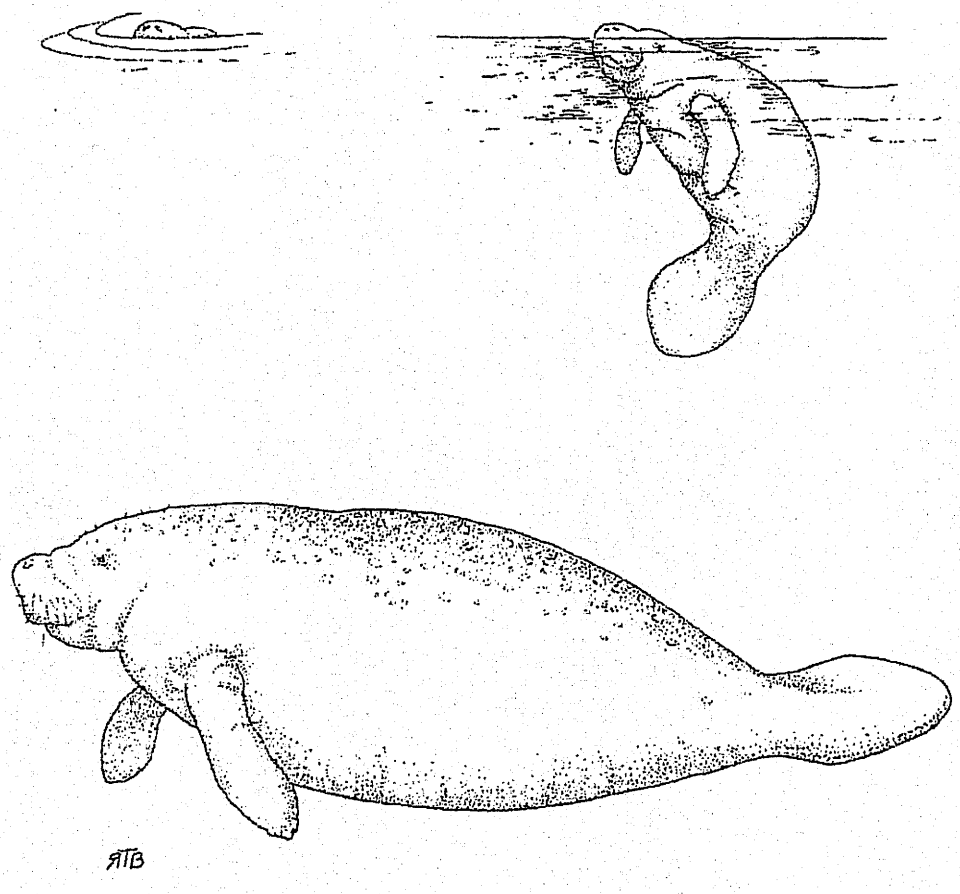


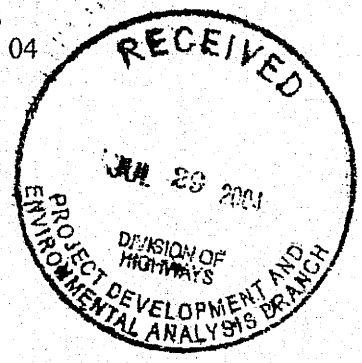
Illustration used with the permission of the North Carolina State Museum of Natural Sciences. Source: Clark, M. K. 1987. Endangered, Threatened, and Rare Fauna of North Carolina: Part I. A re-evaluation of the mammals. Occasional Papers of the North Carolina Biological Survey 1987-3. North Carolina State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

U.S. Department of Homeland Security
United States Coast Guard

Commander
United States Coast Guard
Fifth Coast Guard District

431 Crawford Street
Portsmouth, Va. 23704-5004
Staff Symbol: obr
Phone: (757) 398-6629
Fax: (757) 398-6629
Email: gheyer@lantd5.uscg.mil

16593
22 Jul 04



Mr. Gregory J. Thorpe, Ph.D., Director
NC Department of Transportation
Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh N.C. 27699-1548

Dear Mr. Thorpe:

This is response to your letter of June 22, 2004, regarding the proposed improvements to your Bridge No. 60 (Alfred Cunningham Bridge) over Trent River.

In response to our previous telephone conversation, you were provided a copy of our Bridge Permit Application Guide delineating our requirements in obtaining a formal Coast Guard bridge permit. Upon review of the proposed replacement project, we will proceed with the publication of our public notice. If you choose to refurbish the bridge in-kind, the following initial conditions are required:

You or the contractor must notify us at least 45 days in advance of the rehabilitation, and any work or structures placed in the water, which may be obstructions to navigation so we can publish the information in our Local Notice to Mariners. Please advise us of the location and type of construction plant that will be used in this activity. Plans showing this information as well as the sequence of operations should be provided to us at the time of the 45-day advance notification.

Please call Mr. Gary Heyer, Bridge Management Specialist at the above listed number, if you have any further questions.

Sincerely,

Waverly W. Gregory, Jr.

WAVERLY W. GREGORY, JR.
Chief, Bridge Administration Branch
By direction of the Commander
Fifth Coast Guard District

Copy: MSO Wilmington

Appendix B

STATE LETTERS

North Carolina
Department of Administration

Michael F. Easley, Governor

Gwynn T. Swinson, Secretary

June 30, 2004

Mr. Vince Rhea
NC Department of Transportation
Project Development and Environmental An
1548 Mail Service Center
Raleigh NC 27699-1548

Dear Mr. Rhea:

Subject: Scoping - Proposed improvement of Bridge No. 60 (Alfred Cunningham Bridge), on US70 Business, over the Trent River. TIP #B2532

The N. C. State Clearinghouse has received the above project for intergovernmental review. This project has been assigned State Application Number 04-E-4220-0375. Please use this number with all inquiries or correspondence with this office.

Review of this project should be completed on or before 07/30/2004. Should you have any questions, please call (919)807-2425.

Sincerely,

Chrys Baggett

Ms. Chrys Baggett
Environmental Policy Act Coordinator

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail: Chrys.Baggett@ncmail.net

Location Address:
116 West Jones Street
Raleigh, North Carolina

North Carolina
Department of Administration

Michael F. Easley, Governor

Gwynn T. Swinson, Secretary

August 3, 2004

Mr. Vince Rhea
NC Department of Transportation
Project Development and Environmental An
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Mr. Rhea:

Re: SCH File # 04-E-4220-0375; Scoping; Proposed improvement of Bridge No. 60 (Alfred Cunningham Bridge), on US70 Business, over the Trent River. TIP #B2532

The above referenced environmental impact information has been submitted to the State Clearinghouse under the provisions of the National Environmental Policy Act. According to G.S. 113A-10, when a state agency is required to prepare an environmental document under the provisions of federal law, the environmental document meets the provisions of the State Environmental Policy Act. Attached to this letter for your consideration are the comments made by agencies in the course of this review.

If any further environmental review documents are prepared for this project, they should be forwarded to this office for intergovernmental review.

Should you have any questions, please do not hesitate to call.

Sincerely,

Chrys Baggett

Ms. Chrys Baggett
Environmental Policy Act Coordinator

Attachments

cc: Region P

Mailing Address:
1301 Mail Service Center
Raleigh, NC 27699-1301

Telephone: (919)807-2425
Fax (919)733-9571
State Courier #51-01-00
e-mail Chrys.Baggett@ncmail.net

Location Address:
116 West Jones Street
Raleigh, North Carolina

NCDENR State of North Carolina
Department of Environment and Natural Resources

Reviewing Office: _____

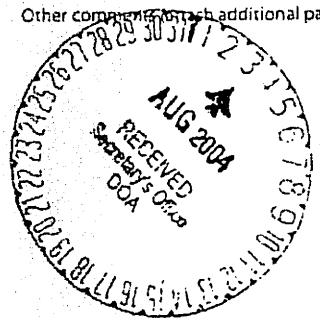
Project Number: 04-0375 Due Date: / /

INTERGOVERNMENTAL REVIEW - PROJECT COMMENTS

After review of this project it has been determined that the DENR permit(s) and/or approvals indicated may need to be obtained in order for this project to comply with North Carolina Law. Questions regarding these permits should be addressed to the Regional Office indicated on the reverse of this form. All applications, information and guidelines relative to these plans and permits are available from the same Regional Office.

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (Statutory Time Limit)
☐	Permit to construct & operate wastewater treatment facilities, sewer system extensions & sewer systems not discharging into state surface waters.	Application 90 days before begin construction or award of construction contracts. On-site inspection. Post-application technical conference usual.	30 days (90 days)
☐	NPDES-permit to discharge into surface water and/or permit to operate and construct wastewater facilities discharging into state surface waters.	Application 180 days before begin activity. On-site inspection preapplication conference usual. Additionally, obtain permit to construct wastewater treatment facility-granted after NPDES. Reply time, 30 days after receipt of plans or issue of NPDES permit-whichever is later.	90 - 120 days (N/A)
☐	Water Use Permit	Preapplication technical conference usually necessary	30 days (N/A)
☐	Well Construction Permit	Complete application must be received and permit issued prior to the installation of a well.	7 days (15 days)
☐	Dredge and Fill Permit	Application copy must be served on each adjacent riparian property owner. On-site inspection. Preapplication conference usual. Filling may require Easement to Fill from N.C. Department of Administration and Federal Dredge and Fill Permit.	55 days (90 days)
☐	Permit to construct & operate Air Pollution Abatement facilities and/or Emission Sources as per 15 A NCAC (2Q.0100, 2Q.0300, 2H.0600)	N/A	60 days
☐	Any open burning associated with subject proposal must be in compliance with 15 A NCAC 2D.1900	N/A	60 days (90 days)
☐	Demolition or renovations of structures containing asbestos material must be in compliance with 15 A NCAC 2D.1110 (a) (1) which requires notification and removal prior to demolition. Contact Asbestos Control Group 919-733-0820.		
☐	Complex Source Permit required under 15 A NCAC 2D.0800		
☐	The Sedimentation Pollution Control Act of 1973 must be properly addressed for any land disturbing activity. An erosion & sedimentation control plan will be required if one or more acres to be disturbed. Plan filed with proper Regional Office (Land Quality Section) at least 30 days before beginning activity. A fee of $50 for the first acre or any part of an acre.		20 days (30 days)
☑	The Sedimentation Pollution Control Act of 1973 must be addressed with respect to the referenced Local Ordinance. - NCDOT		30 days
☐	Sedimentation and erosion control must be addressed in accordance with NCDOT's approved program. Particular attention should be given to design and installation of appropriate perimeter sediment trapping devices as well as stable stormwater conveyances and outlets.		
☐	Mining Permit	On-site inspection usual. Surety bond filed with DENR. Bond amount varies with type mine and number of acres of affected land. Any are mined greater than one acre must be permitted. The appropriate bond must be received before the permit can be issued.	30 days (60 days)
☐	North Carolina Burning permit	On-site inspection by N.C. Division of Forest Resources if permit exceeds 4 days	1 day (N/A)
☐	Special Ground Clearance Burning Permit-22 counties in coastal N.C. with organic soils.	On-site inspection by N.C. Division of Forest Resources required "if more than five acres of ground clearing activities are involved. Inspections should be requested at least ten days before actual burn is planned."	1 day (N/A)
☐	Oil Refining Facilities	N/A	90 - 120 days (N/A)

	PERMITS	SPECIAL APPLICATION PROCEDURES or REQUIREMENTS	Normal Process Time (Statutory Time Limit)
☐	Dam Safety Permit	If permit required, application 60 days before begin construction. Applicant must hire N.C. qualified engineer to: prepare plans, inspect construction, certify construction is according to DENR approved plans. May also require permit under mosquito control program, and a 404 permit from Corps of Engineers. An inspection of site is necessary to verify Hazard Classification. A minimum fee of $200.00 must accompany the application. An additional processing fee based on a percentage or the total project cost will be required upon completion.	30 days (60 days)
☐	Permit to drill exploratory oil or gas well	File surety bond of $5,000 with DENR running to State of N.C. conditional that any well opened by drill operator shall, upon abandonment, be plugged according to DENR rules and regulations.	10 days (N/A)
☐	Geophysical Exploration Permit	Application filed with DENR at least 10 days prior to issue of permit. Application by letter. No standard application form.	10 days (N/A)
☐	State Lakes Construction Permit	Application fees based on structure size is charged. Must include descriptions & drawings of structure & proof of ownership of riparian property.	15 - 20 days (N/A)
☐	401 Water Quality Certification	N/A	55 days (130 days)
☐	CAMA Permit for MAJOR development	$250.00 fee must accompany application	60 days (130 days)
☐	CAMA Permit for MINOR development	$50.00 fee must accompany application	22 days (25 days)
☐	Several geodetic monuments are located in or near the project area. If any monument needs to be moved or destroyed, please notify: N.C. Geodetic Survey, Box 27687 Raleigh, N.C. 27611		
☐	Abandonment of any wells, if required must be in accordance with Title 15A. Subchapter 2C.0100.		
☐	Notification of the proper regional office is requested if "orphan" underground storage tanks (USTS) are discovered during any excavation operation.		
☐	Compliance with 15A NCAC 2H 1000 (Coastal Stormwater Rules) is required.		45 days (N/A)
*	Other comments (attach additional pages as necessary, being certain to cite comment authority)		



REGIONAL OFFICES

Questions regarding these permits should be addressed to the Regional Office marked below.

☐ **Asheville Regional Office**
59 Woodfin Place
Asheville, N.C. 28801
(828) 251-6208

☐ **Mooresville Regional Office**
919 North Main Street
Mooresville, N.C. 28115
(704) 663-1699

☐ **Wilmington Regional Office**
127 Cardinal Drive Extension
Wilmington, N.C. 28405
(910) 395-3900

☐ **Fayetteville Regional Office**
225 Green Street, Suite 714
Fayetteville, N.C. 28301
(910) 486-1541

☐ **Raleigh Regional Office**
3800 Barrett Drive, P.O. Box 27687
Raleigh, N.C. 27611
(919) 571-4700

☐ **Winston-Salem Regional Office**
585 Waughtown Street
Winston-Salem, N.C. 27107
(336) 771-4600

☐ **Washington Regional Office**
943 Washington Square Mall
Washington, N.C. 27889
(252) 946-6481

MEMORANDUM

TO: Melba McGee, NCDENR

FROM: Steve Sollod, NCDCM

DATE: July 22, 2004

SUBJECT: Proposed Improvement of Bridge No. 60 (Alfred Cunningham Bridge), on US 70 Business, over the Trent River. TIP # B-2532
State Number 04-E-4220-0375

The North Carolina Division of Coastal Management (NCDCM) has reviewed the scoping letter of the above referenced project, which was submitted to the NC State Clearinghouse for intergovernmental review. We offer the following comments, which should be considered in preparation of an environmental document.

1. A determination of consistency with the North Carolina Coastal Management Program may be required for this project. The consistency determination should include a review of the State's coastal program and contain an analysis describing how the proposed project would be consistent, to the maximum extent feasible, with the State's enforceable coastal policies as mandated by Executive Order #15. The consistency determination should be included in the final environmental document.

2. Section 103(5)(b) of the Coastal Area Management Act exempts road maintenance within a public right-of-way from CAMA permitting requirements. The draft environmental document should evaluate why this project constitutes maintenance within the meaning of the State's coastal program rather than new development. Should the refurbishment of the bridge be considered by NCDCM to be road maintenance, a CAMA permit will not be required for the project. Bridge replacement will require a CAMA permit. The project crosses public trust waters and estuarine shoreline CAMA Areas of Environmental Concern (AEC). Should the project require a CAMA permit, no consistency review would be necessary as the CAMA permit serves as the consistency review.

3. Regardless of whether the bridge is repaired or replaced, measures must be undertaken to ensure that the proposed project doea not result in unacceptable impacts to navigation.

4. Due to the bridge's proximity to the New Bern historic district, care must be used to ensure that adverse impacts to the historic district are minimized.

5. The 1996 Craven County Land Use Plan was reviewed for policies that might apply to the proposed project. The Craven County Land Use Plan policies state that, "Craven County is receptive to all state and federal programs which provide improvements to the county. The county will continue to fully support such programs, especially the following: the North Carolina Department of Transportation road and bridge improvement programs, ...". Specifically, the county supports the replacement of the US 70 Bridge over the Trent River.

6. DCM's GIS-based wetland inventory and mapping program provides wetland data that can be used to improve wetland avoidance, minimization, alternatives analysis, impact assessment, and mitigation site searches. DCM's GIS-based wetland maps and data may be included by DOT within the environmental document for this project. The GIS-based wetland maps and data are available through DOT's Geographic Information Systems Unit located at the Century Center on Birch Ridge Road in Raleigh. DCM's GIS-based wetland inventory and mapping program includes three wetland inventory and assessment tools available for the coastal area:

   a. Wetland type data. This data can be used early in the planning process to avoid and minimize impacts to wetlands and specific wetland types, to estimate project impacts, and to estimate mitigation needs.

   b. Wetland Functional Significance data (NC-CREWS). This data can be used to refine the road alignment to avoid the most ecologically significant wetlands that contribute most to their watershed's health.

   c. Potential wetland restoration and enhancement site data. This data can be used to locate mitigation sites.

We hope that you find these comments helpful and that they will be addressed during planning and preparation of the environmental document for this project. During future interagency project coordination ad review, DCM may have additional comments on the project, and may place conditions on the consistency determination to minimize any impacts to coastal resources. The information provided in this letter shall not preclude DCM from requesting additional information throughout the interagency project coordination and review process, and following normal consistency review procedures.

If you have any questions or concerns, please contact me at (919) 733-2293 x 230, or via e-mail at steve.sollod@ncmail.net. Thank you for your consideration of the North Carolina Coastal Management Program.

North Carolina Wildlife Resources Commission

Charles R. Fullwood, Executive Director

MEMORANDUM

TO: Melba McGee
Office of Legislative and Intergovernmental Affairs, DENR

FROM: Travis W. Wilson, Highway Project Coordinator
Habitat Conservation Program

DATE: July 26, 2004

SUBJECT: Request for information from the N. C. Department of Transportation (NCDOT) regarding fish and wildlife concerns for the proposed improvements to Bridge No. 60 on US 70 Business over the Trent River, Craven County, North Carolina. TIP No. B-2532, SCH Project No. 04-0375

This memorandum responds to a request from Gregory J. Thorpe of the NCDOT for our concerns regarding impacts on fish and wildlife resources resulting from the subject project. Biologists on the staff of the N. C. Wildlife Resources Commission (NCWRC) have reviewed the proposed improvements. Our comments are provided in accordance with certain provisions of the National Environmental Policy Act (42 U.S.C. 4332(2)(c)) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661-667d).

Specific comments regarding the subject project are as follows:

1. This area of the Trent River supports a significant fishery for sunfish while also being utilized by anadromous fish species such as Striped bass, American shad, and River herring. WRC will request an in-water work moratorium from Feb 15 – June 30.

2. NCDOT should conduct a survey for Submerged Aquatic Vegetation (SAV's). DOT should avoid and minimize impacts to SAV's. Preconstruction and post construction surveys should be conducted to accurately determine impacts to this resource.

3. Located in the Southeast quadrant of this bridge is the Lengyel mitigation site. This is a DOT mitigation site consisting of 13.2 acres of brackish marsh restoration and preservation used to mitigate impacts associated with the 17 bypass Trent and Neuse river bridges. This site should be avoided.

Mailing Address: Division of Inland Fisheries • 1721 Mail Service Center • Raleigh, NC 27699-1721
Telephone: (919) 733-3633 ext. 281 • Fax: (919) 715-7643

To help facilitate document preparation and the review process, our general informational needs are outlined below:

1. Description of fishery and wildlife resources within the project area, including a listing of federally or state designated threatened, endangered, or special concern species. Potential borrow areas to be used for project construction should be included in the inventories. A listing of designated plant species can be developed through consultation with:

   The Natural Heritage Program
   N. C. Division of Parks and Recreation
   1615 Mail Service Center
   Raleigh, N. C. 27699-1615
   (919) 733-7795

   and,

   NCDA Plant Conservation Program
   P. O. Box 27647
   Raleigh, N. C. 27611
   (919) 733-3610

2. Description of any streams or wetlands affected by the project. The need for channelizing or relocating portions of streams crossed and the extent of such activities.

3. Cover type maps showing wetland acreages impacted by the project. Wetland acreages should include all project-related areas that may undergo hydrologic change as a result of ditching, other drainage, or filling for project construction. Wetland identification may be accomplished through coordination with the U. S. Army Corps of Engineers (COE). If the COE is not consulted, the person delineating wetlands should be identified and criteria listed.

4. Cover type maps showing acreages of upland wildlife habitat impacted by the proposed project. Potential borrow sites should be included.

5. The extent to which the project will result in loss, degradation, or fragmentation of wildlife habitat (wetlands or uplands).

6. Mitigation for avoiding, minimizing or compensating for direct and indirect degradation in habitat quality as well as quantitative losses.

7. A cumulative impact assessment section which analyzes the environmental effects of highway construction and quantifies the contribution of this individual project to environmental degradation.

8. A discussion of the probable impacts on natural resources which will result from secondary development facilitated by the improved road access.

9. If construction of this facility is to be coordinated with other state, municipal, or private development projects, a description of these projects should be

included in the environmental document, and all project sponsors should be identified.

Thank you for the opportunity to provide input in the early planning stages for this project. If we can further assist your office, please contact me at (919) 528-9886.

cc: USFWS, Raleigh
Mike Bell, USACE

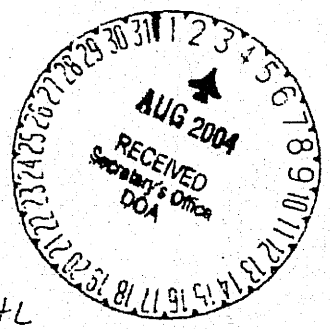
NCDENR

North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

July 26, 2004



MEMORANDUM

TO: Melba McGee

FROM: Harry LeGrand, Natural Heritage Program HL

SUBJECT: Proposed Improvements to Craven County Bridge No. 60 (Alfred Cunningham Bridge), on US 70 Business over the Trent River; Craven County

REFERENCE: 04-0375

The Natural Heritage Program has a record of a nesting colony of the State Special Concern least tern (*Sterna antillarum*) in the general project vicinity. In 2001 – the date for the last coastwide survey -- 16 nests were counted on a rooftop of a Food Lion on "US 70E", at coordinates 350549N, 0770224W, which places the building just to the southwest of the southern base of the bridge (if the coordinates were measured correctly). Bridge construction should not affect the nesting birds, as long as the shopping center and its flat rooftop are not impacted in the process.

In addition, there are one to several "stray" records of the Federally Endangered West Indian manatee (*Trichechus manatus*) from the Trent River. This mammal is a nearly annual visitor to some part of the state's coastal waters from farther south.

1601 Mail Service Center, Raleigh, North Carolina 27699-1601
Phone: 919-733-4984 • FAX: 919-715-3060 • Internet: www.enr.state.nc.us

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

August 24, 2004

MEMORANDUM

TO: Greg Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter B. Sandbeck BBS for Peter Sandbeck

SUBJECT: Craven County, Bridge No. 60 (Alfred Cunningham Bridge) on US 70 Business over Trent River, Federal Aid Project BRSTP-070B(4), State Project No. 8.1172401, TIP B-2532, ER 90-8222

Thank you for your letter of June 22, 2004, concerning the above project.

We have conducted a search of our maps and files and located the following structure of historical or architectural importance within the general area of this project:

> New Bern Historic District, of which the subject bridge is a contributing element and considered a local hallmark.

We recommend that a Department of Transportation architectural historian identify and evaluate any structures over fifty years of age within the project area, and report the findings to us.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

PBS:w

cc: Mary Pope Furr

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

September 23, 2004

MEMORANDUM

TO: Gregory J. Thorpe, Director
Project Development and Environmental Analysis
NCDOT, Division of Highways

FROM: Peter B. Sandbeck PBS for Peter Sandbeck

SUBJECT: Review of Scoping Sheets, Bridge No. 60 (Alfred Cunningham Bridge), on US 70 Business over Trent River, Craven County, Federal Aid Project BRSTP-070B(4), State Project 8.1172401, TIP B-2532, ER 90-8222

Thank you for your letter of August 31, 2004, concerning the above project.

Please see attached memo from August 24, 2004, with our comments. In addition, there are no known archaeological sites within the proposed project area. Based on our knowledge of the area, it is unlikely that any archaeological resources that may be eligible for conclusion in the National Register of Historic Places will be affected by the project. We, therefore, recommend that no archaeological investigation be conducted in connection with this project.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above-referenced tracking number.

PBS:w

Attachment

cc: Mary Pope Furr

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

RECEIVED
MAY 16 2005
H.N.T.B.
RALEIGH, NC

May 13, 2005

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter B. Sandbeck pbs for Peter Sandbeck

SUBJECT: Historic Architectural Resources Survey Report, Replace Bridge No. 60 (Alfred A. Cunningham Bridge) on US Highway 70 Business over the Trent River, New Bern, B-2532, Craven County, ER90-8222

Thank you for your letter of March 14, 2005, concerning the above project.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following property is eligible for the National Register of Historic Places under the criterion cited:

- Alfred A. Cunningham Bridge, (Bridge No. 60), New Bern, is eligible for the National Register of Historic Places under Criterion A: Transportation, for its association with the development of North Carolina's coastal military bases. The bridge facilitated a major corridor for Cherry Point and Camp Lejeune. The bridge also enabled the reconstruction and restoration of Tryon Palace and Gardens in New Bern.

The Cunningham Bridge has been altered and no longer retains sufficient integrity to be eligible for the National Register under Criterion C: Architecture. Furthermore, building demolition and recent in-fill have compromised the bridge's immediate setting, eliminating the consideration of the bridge as a contributing structure to the New Bern National Register Historic District.

We concur with the proposed National Register historic boundaries as defined and delineated in the survey report.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following property remains eligible and is listed in the National Register of Historic Places:

- New Bern Historic District

	Location	Mailing Address	Telephone/Fax
ADMINISTRATION	507 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-4763/733-8653
RESTORATION	515 N. Blount Street, Raleigh NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6547/715-4801
SURVEY & PLANNING	515 N. Blount Street, Raleigh, NC	4617 Mail Service Center, Raleigh NC 27699-4617	(919)733-6545/715-4801

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT
Tracy Roberts, HNTB

Properties within the area of potential effects for which there is no effect. Indicate if property is National Register-listed (NR) or determined eligible (DE).

Properties within the area of potential effects for which there is an effect. Indicate property status (NR or DE) and describe the effect.

New Bern Historic District (NR)	**Adverse Effect for Alternative 3** **No Adverse Effect for Alternatives 1 & 2**
Alfred A. Cunningham Bridge (DE)	**Adverse Effect for Alternatives 1 & 3** **No Adverse Effect for Alternative 2**

Initially, the project offered seven alternatives and has been reduced to three, with **Alternative 3** (replace existing bridge with a bascule bridge) the favored option by the City of New Bern.

Alternative 1 (remove existing bridge with no replacement) *will not* have an adverse effect on the New Bern National Register Historic District (NRHD), as the bridge is not a contributing element to the district. Removal of the existing bridge, because the Alfred A. Cunningham Bridge has been determined eligible under Criterion A for Transportation, *will* have an adverse effect.

Alternative 2 (rehabilitate existing bridge) *will not* have an adverse effect on the New Bern NRHD, nor upon the Alfred A. Cunningham Bridge.

Alternative 3 (replace existing bridge with a bascule bridge) *will* have an adverse effect on the New Bern NRHD. Construction limits at the bridge's northern approach fall within the southern boundary of the NRHD. Streets that will be directly affected by the altered approach to the bridge—South Front, East Front, and Pollock streets—contain some of the district's most important architectural resources, including two exceptional examples of antebellum brick townhouses, the Justice House and the Thomas Sparrow House (East Front Street), and the circa-1843-1880 frame Wade-Meadows House (South Front Street). Union Point Park at the confluence of the Neuse and Trent rivers is also in the district, and the new bridge's north approach will cut into a small section of the park's southwestern and western boundaries.

Another issue that will create a further adverse effect is if there are driven piles, rather than piers, in the bridge's substructure. The resulting vibration during ~~drilling~~ driving will impact several historic buildings, including those now outside of the APE yet within the New Bern NRHD, such as the circa-1798 Harvey Mansion (219 South Front Street), New Bern's oldest masonry mercantile building. If driven piles are approved, the APE will need to be considerably expanded to factor in potential impact within the district.

Initialed: NCDOT JPSS FHWA RHA HPO SDM

cc: VJ Rivers

Federal Aid # BRSTP-070B (4) *TIP*# B-2532 *County*: Craven

CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

Project Description: Replace Bridge No. 60 (Alfred A. Cunningham Bridge) on US Highway 70 Business over the Trent River, New Bern

On August 31, 2005, representatives of the

- ☒ North Carolina Department of Transportation (NCDOT)
- ☒ Federal Highway Administration (FHWA)
- ☒ North Carolina State Historic Preservation Office (HPO)
- ☐ Other

Reviewed the subject project and agreed

- ☐ There are no effects on the National Register-listed property/properties located within the project's area of potential effects and listed on the reverse.
- ☐ There are no effects on the National Register-eligible property/properties located within the project's area of potential effects and listed on the reverse.
- ☒ There is an effect on the National Register-listed property/properties located within the project's area of potential effects. The property/properties and the effect(s) are listed on the reverse.
- ☒ There is an effect on the National Register-eligible property/properties located within the project's area of potential effects. The property/properties and effect(s) are listed on the reverse.

Signed:

Renee Gledhill-Earley 8/31/05

Representative, NCDOT Date

for H A 9.7.05

FHWA, for the Division Administrator, or other Federal Agency Date

David W Myatt 8/31/05

Representative, HPO Date

for Renee Gledhill-Earley 8.31.05

State Historic Preservation Officer Date

Alternative 3 *will* have an adverse effect upon the Alfred A. Cunningham Bridge, which has been determined eligible under Criterion A for Transportation. While the bridge must be replaced for safety reasons, its loss will be, with the recently-replaced Neuse River Bridge, another vanished postwar resource. Therefore this will have an adverse effect on the district and the bridge.

Initialed: NCDOT JPSS FHWA RHA HPO SDM

3

Appendix C

LOCAL LETTERS

County of Craven

Office of Planning
And
Community Development

Human Services Annex
2828 Neuse Blvd.
New Bern, NC 28562

Donald R. Baumgardner, Director
Stephanie S. Currier, Assistant Director
Shelton P. Toler, Chief Bldg. Codes Inspector

Planning and CD (252) 636-6618
Fax (252) 636-5190
Inspections (252) 636-4987
Fax (252) 636-4984

July 13, 2004

Gregory J. Thorpe, Ph.D., Director
NC Department of Transportation
Project Development and Environmental Analysis Branch
1548 Mail Service Center
Raleigh, NC 27699-1548

Subject: Craven County, Bridge # 60 (Alfred Cunningham Bridge), on US 70 Business, over Trent River, Federal Aid Project BRSTP-070B(4), State Project No. 8.1172401, TIP No. B-2532

Dear Dr. Thorpe:

This letter is in response to your request for information regarding the study for the replacement/refurbishment of the Alfred Cunningham Bridge on US 70 Business over the Trent River. No permits or approvals will be required by the Craven County Planning and Inspections Department. However, I would like to provide the names of some local representatives who have been instrumental in the revitalization of downtown New Bern and the transportation patterns that serve this area. The following individuals were not able to attend your first meeting in New Bern due to scheduling conflicts but are likely to have an interest in this project and in attending any future meetings regarding the bridge:

Judy Hills, Planning Director, Eastern Carolina Council of Governments, PO Box 1717, New Bern, NC 28563-1717, (252) 638-3185

Troy Smith, Ward and Smith PA, 1001 College Ct., New Bern, NC 28562, (252) 672-5400

Susan Moffitt-Thomas, Director, Swiss Bear Downtown Revitalization Corporation, 233 Middle Street, New Bern, NC 28560, (252) 638-5781

Bob Mattocks, President, Jenkins Gas and Oil Company, PO Box 156, Pollocksville, NC 28573, (252) 224-8911

Danny Meadows, Engineer, City of New Bern, PO Box 1129, New Bern, NC 28563, (252) 636-4004

Kevin Roberts, Director, New Bern Area Chamber of Commerce, 316 S. Front Street, New Bern, NC 28560, (252) 637-3111

Sincerely,

Donald Baumgardner

Donald Baumgardner
Planning Director

Craven County Schools

Transportation Services

Becton Broughton, Director

BOARD OF EDUCATION
3600 Trent Road
New Bern, NC 28562
(252)514-6300
FAX (252)514-6327

SCHOOL BUS GARAGE
1816 Hazel Avenue
New Bern, NC 28560
(252)514-6377
FAX (252)514-4301

July 21, 2004

NC Department Of Transportation
Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh, NC 27699-1548

Dear Mr. Davis Moore,

This letter is in response to - TIP project Number: B-2532.
Subject: Bridge No. 60 on Hwy 70 Business, over Trent River, Craven County

As of July 2004, there are no school buses routed over the Alfred Cunningham Bridge on Hwy 70 Business over the Trent River. The only possible situation that could result in needed school bus travel on this bridge would be the re-districting of school attendance boundaries for elementary schools. However, the bridge replacement would not create an unworkable school bus routing situation since the Hwy 70 (Freedom Memorial) twin span bridge would be utilized.

The single requirement for safe school bus routing is a safe turn around near the last student passenger's residence. When construction begins, if NC DOT could assist with development of a suitable turn around, if needed, then any bus routing inconvenience would be minimal. Our local NC DOT has always been very helpful in assisting with road maintenance at existing school bus turn around areas; therefore, I do not foresee any significant problem.

Sincerely,

Becton Broughton

Becton Broughton

C: William Rivenbark
David Clifton

City of New Bern

Three Centuries of North Carolina Heritage
FOUNDED 1710
Phone: (252) 636-4000 P.O. Box 1129
New Bern, NC 28563-1129

October 3, 2005

Vincent Rhea, NCDOT
Project Development and Environmental Analysis Branch
1548 Mail Service Center
Raleigh, N.C. 27699-1548

Re: TIP B-2532

Dear Mr. Rhea:

The City of New Bern requests the utilization of a 42" Texas Classic Rail, in the replacement of the Alfred Cunningham Bridge over the Trent River. Thank you for your consideration in this matter.

Sincerely,

T.A. Bayliss, III
Mayor

Appendix D

MEMORANDA AND MEETING MINUTES

FINAL

HNTB
The HNTB Companies

Memorandum

To:	Vince Rhea, NCDOT PDEA	Date:	Dec. 17, 2004
From:	Tracy Roberts, AICP	HNTB Job Number 37685	
Subject:	Alfred Cunningham Bridge Replacement Project: Summary of October 28th Citizens Informational Workshop		

On Thursday, October 28th, 2004, the North Carolina Department of Transportation (NCDOT) sponsored a Citizens Informational Workshop in New Bern. This memorandum summarizes the public outreach efforts and public comments associated with the Workshop.

Event: Citizens Informational Workshop
Date: October 28th, 2004
Location: The Berne Room, New Bern Riverfront Convention Center
Time: 2:00pm – Presentation of the project to the New Bern Board of Aldermen and the Craven County Board of Commissioners
4:00pm-7:00pm – Public Workshop

Summary of public notification efforts :

- HNTB mailed approximately 2100 newsletters to residents and businesses in the vicinity of the Alfred Cunningham Bridge. The mailing list was based on Craven County tax records and a database of renters provided by Hill-Donnelly Corporation. The mailing list also included other known stakeholders, such as local government officials and NCDOT officials.
- HNTB also mailed approximately 39 packets to churches in three predominately minority neighborhoods (James City, Duffeyfield and Pembroke) in the project vicinity. Each packet contained a letter from NCDOT requesting that announcements be made during church service about the upcoming workshop. Each packet contained 25 newsletters to be distributed to church members.
- NCDOT posted advertisements in the following local newspapers:
  Havelock News
  The Daily Drum
  New Bern Sun-Journal
  The News & Observer
- HNTB placed advertisement in the New Bern Public Housing Authority's October newsletter
- HNTB placed advertisement on the project website: www.ncdot.org/projects/alfredcunningham/

According to responses indicated on comment cards (49 total were completed), participants were made aware of the Workshop by the following methods (some respondents checked more than one box):

- Newsletter: 21
- Newspaper Advertisement: 23
- Church Announcement: 2
- Friend/Relative: 6
- TV/Radio: 1
- Email: 1

Summary of questions and comments received from local elected officials during the 2:00pm presentation:

Attendees:
Lee Kyle Allen – Craven County Board of Commissioners
Johnnie Sampson – Craven County Board of Commissioners
Mayor Tom Bayliss – New Bern Board of Aldermen
Joseph Mattingly – New Bern Board of Aldermen
William (Bill) Ballenger - New Bern Board of Aldermen
Barbara Lee - New Bern Board of Aldermen
Mack "Max" Freeze - New Bern Board of Aldermen
Harold Blizzard – Craven County Manager
William (Bill) Hartman – City of New Bern Manager
Danny Meadows – City of New Bern Public Works Director
A. T. Morris – Town of River Bend Public Works Advisory Board
John Rouse – NCDOT – Division 2
Ed Eatmon – NCDOT – Division 2
Derrick Weaver – NCDOT – PDEA
Vincent Rhea – NCDOT – PDEA
Whitmel Webb - HNTB North Carolina, P.C.
Anne Redmond – HNTB North Carolina, P.C.
Tracy Roberts – HNTB North Carolina, P.C.
Jeffrey Dayton – HNTB North Carolina, P.C.
Peggy Hayes – Hayes Planning Associates

Tracy Roberts, HNTB Senior Planner on the project, described the proposed project using a PowerPoint presentation. Mr. Roberts distributed copies of the PowerPoint slideshow to the meeting attendees. Following the presentation, he opened the meeting to questions and comments.

- Alderman Mattingly inquired as to if any alternative was infeasible at this point. The fixed span alternative may have to be long to match the existing grade. Mr. Roberts responded that as part of the study process, all alternatives must be considered. The study team will be looking at a possible channel relocation for grade considerations.
- Alderwoman Lee opposes the tunnel and high rise alternatives.
- Mayor Bayliss asked if maintenance costs would be considered in the study as it would cost more to maintain a rehabilitated bridge. He would like to see a new bridge. Mr. Roberts responded that operation and maintenance costs would be considered for the rehabilitation and moveable bridge options.
- Alderman Mattingly and Mr. Blizzard expressed concerns on the length of time it would take to build the new bridge. Mr. Roberts indicated that a new bridge could be built by New Bern's 300 year anniversary in 2010 if the project is non-controversial.
- Commissioner Sampson supports a new bridge alternative, but opposes the fixed high span.
- Alderman Mattingly opposes removing the bridge without replacement and rehabilitation of the existing swing span.
- Mr. Blizzard asked if a preliminary cost estimate for the bascule bridge option is available. According to NCDOT TIP estimate, the bascule bridge alternative would cost $25.7 Million. However, according to Mr. Roberts, this cost estimate is preliminary and will be refined through the course of the study.
- Mayor Bayliss likes that the bascule bridge alternative would assure no height limitations, and asked what the height limitation could be on a lift span alternative. Mr. Roberts responded that the study team was unsure at this point what the height limitation would be for the lift span alternative, but this would be studied further.

- Alderman Mattingly thought the replacement of the bridge was a given, but wondered if it was cost prohibitive.
- Both Mayor Bayliss and Alderman Mattingly expressed concerns of the aesthetics of the chosen alternative. The appearance of the bridge is very important.
- Alderman Lee agreed that the new bridge must maintain the aesthetics of the area and must maintain the character of the downtown historic district.
- Mr. Blizzard stated that the tunnel alternative would be the most aesthetically pleasing, but the cost may be prohibitive.
- Alderman Mattingly expressed concern that the fixed span alternative may act as a barrier along E. Front Street, particularly in the area of Union Point Park and the Convention Center.
- Commissioner Lee asked if there were any similar tunnels in North Carolina. The study team was unaware of any tunnels under waterbodies in North Carolina, only tunnels through mountains in the western portion of the state.
- Mr. Roberts stated that there is a vertical lift bridge over the Cape Fear River in Wilmington.
- Mr. Hartman asked where the fixed span on the existing alignment would tie into. Mr. Roberts indicated that this option would require the project team to study relocating the channel. Mr. Hartman also emphasized that the study team will need to give people an idea of the visual aesthetics of the various alternatives. Mr. Roberts responded that NCDOT or HNTB's New York moveable bridge experts also have the ability to provide renderings of the alternatives.
- Alderman Mattingly requested that the project completion date occur before 2010, as 2010 is unacceptable.
- Alderman Ballenger indicated a preference for the bascule bridge or fixed span on existing alignment options.
- Mr. Hartman stated although the tunnel alternative may be infeasible, he would like the study team to consider it.
- Mr. Blizzard asked if the study team could also consider a suspended bridge.
- Mayor Bayliss humorously asked that the NCDOT not repaint the bridge and pass it off as the completed project.
- Alderman Mattingly asked about how long the bridge would be out of service during the rehabilitation or construction of a new bridge. Mr. Roberts responded that this project would require a two-year construction period. Mr. Blizzard asked if this two year period includes removing the existing swing span. Mr. Roberts responded that the two-year construction period included removal of the exiting bridge.
- Alderman Freeze inquired as to whether a temporary bridge could be constructed and indicated that impacts to First Street are not something that could not be mitigated or overcome. Mr. Roberts responded that it would be difficult to construct a temporary bridge without impacting the Union Point Park or the New Bern Convention Center.
- Mayor Bayliss stated that it was very important to keep the navigation channel open during the course of this project. Mr. Roberts stated that the Coast Guard would probably require this.
- Alderman Freeze inquired as to what the superstructure depth of the new bridge would be. The study team replied that this information is unavailable at this time. Alderman Freeze expressed support of the bascule bridge alternative as it seems less obstructive of the view of downtown.
- Mr. Blizzard asked that any new bridge have close joints on the pivot areas.
- Alderman Mattingly asked that the horizontal clearance of any new bridge alternative be coordinated with the Coast Guard. Alderman Mattingly also stated that it appears that the favored alternatives from this afternoon's discussion were the bascule bridge, tunnel and fixed span on existing alignment. The group in general agreed.

Summary of comments received from the general public during the 4:00pm-7:00pm Workshop:

80 attendees signed in. Each person was offered a comment card and a copy of the October 2004 newsletter. Each person was asked to place a sticky dot on a map that indicated the location of their residence. Three stations were set up that offered attendees an opportunity to discuss the project with HNTB and NCDOT staff. Attendees were encouraged to write comments and questions on posters placed on the wall.

The following comments reflect those made verbally to HNTB and NCDOT staff, those provided on comment cards and those provided on comment posters. In general, most attendees were supportive of the project, with most preferring the bascule bridge alternative. There were very few supporters of the removal with no replacement alternative. The architecture of the new bridge and keeping some sort of bridge in place seemed to be the prevailing concerns.

Questions:

- What are measurable criteria to be used to determine desired outcomes?
- How long will the bridge be closed to car traffic/boat traffic?
- How about combining with railroad trestle and eliminate existing bridge?
- Why does boat traffic receive priority over road traffic? The bridge should not open on demand.
- Can the opening of the bridge be made faster?
- Why not consider another swing span bridge?
- Can you provide a visual of what a high-rise would look like?

Benefits:

- The benefits depend on the type of bridge.
- A bridge is needed. Downtown businesses rely on traffic coming from James City, etc. Downtown would die just when everyone is trying revitalizing it.
- The bridge selected should improve the appearance of downtown.
- A bridge is needed for downtown New Bern.
- The bridge must be replaced.
- Downtown businesses & residents would be greatly affected in a negative way if the bridge goes away.
- Provide a lighted, safe structure for pedestrians and bicycles to pass from New Bern to James City restaurants, hotels, and businesses.
- The bascule bridge would reflect the historic aspects of our town and could be an asset visually.

Challenges:

- It is a waste of resources to do anything if the current maintenance practices continue. If the present bridge had been properly cared for, it would not need refurbishment or replacement.
- There must be a replacement. We cannot lose this access.
- Avoid impacts to Union Point Park.
- Movable bridges are obsolete, especially where there is high boat traffic.
- Forget the high-rise, tunnel, and vertical lift alternatives.
- A bascule bridge is the only logical choice.
- The approach to the movable bridge (fixed part) needs to blend with the historic nature of downtown.
- It would be unrealistic to close the river to boat traffic for more than 3 months.
- The replacement bridge needs to fit in with the atmosphere of the town.
- Ensure to improve bridge access for pedestrians.
- If the minimum height is over 35 feet, it would minimize number of openings.

- The bridge should not open on demand.
- The City of New Bern should not be in the bride maintenance business.
- A tunnel would be a maintenance nightmare and would be too expensive.
- Rehabilitation would be a waste of money.
- The entry and exit portals for a tunnel would have to be raised considerably above the existing grade since this area is subject to flooding.
- Environmental impacts of a tunnel would be too great.
- Traffic lights on East Front Street and South Front Street should be coordinated with bridge openings.
- The opening of the existing bridge should be changed to open on the hour and half hour only.

Community Values:

- The delay of boats now is very short. The bridge should be replaced with a similar structure to what is there. A bridge is necessary.
- The appearance of the bridge is important.
- Lighting of the bridge is important. Lighting should match the lighting used at Union Point Park.
- The vertical lift bridge is too imposing and would be too unsightly.
- Cannot get a boat through the bridge during high winds.
- Bridge openings delays Hatteras Yachts when performing on test runs. This increases the cost of doing business.
- Bike and pedestrian lanes are needed for the bridge.
- Wheel chairs and baby joggers need access across the bridge.
- Do not consider removing with no replacement!
- Select a bascule or swing type bridge. It is very important that design is compatible with the historic character of the city. No Jersey barrier type rails.
- Use a low profile that will not obscure downtown.
- Dislike the dingy/rusted appearance of the existing bridge.
- Any new structure must be integrated into historical character of New Bern.
- Lengthy traffic (vehicle) delays should be avoided.
- A swing or draw (bascule) bridge adds charm to downtown.
- Many visitors appreciate the nice visual approach into downtown New Bern that the Alfred Cunningham Bridge provides.
- There are long traffic queues at the Pembroke Avenue exit (the westbound ramp), especially during 7:30am – 8:30am. NCDOT should look at traffic signal timing at this intersection and the signal at Pollock Street/First Street, especially since additional traffic during the 2 year construction period would only make matters worse.
- Ensure good public involvement. Suggest using small groups (10-12 people) for consideration of evaluation criteria.

General comments

- Consider building a bridge from Hancock Street, over the railroad trestle, and tying into the NC 70/17/55 Interchange. This would not require a detour route and would help keep large trucks out of downtown. Much of the land this alternative would pass over is vacant.
- A bascule bridge should be elevated to allow more boats to pass without having to activate the draw.

A total of 49 comment cards were completed by workshop participants. While most comment cards were completed during the workshop, a few were mailed to NCDOT following the workshop. Each comment card asked visitors to select their preferred alternative (some respondents checked more than one). The results follow:

Alternative 1 – Remove the existing bridge with no replacement
Number preferred: 1
Reason given:

- Because of the historical neglect of the bridge, why subject a new bridge to more abuse at taxpayers expense?

Alternative 2 – Rehabilitate the existing bridge
Number preferred: 8
Reasons given:

- least expensive and retains the existing fabric
- cost and time of being unable to use the bridge are big factors
- least impact to boat and car traffic
- bridge is historic and is one of the few remaining in the state
- bridge adds charm to the downtown area

Alternative 3 – Replace the existing bridge with a bascule bridge
Number preferred: 31
Reasons given:

- minimizes visual impacts and would look most like the existing bridge
- could be made to fit into the historic feeling of downtown
- railings and street lamps could be made to coordinate with the quaint ambiance of downtown
- costs, aesthetics, efficiency
- bascule bridge would compliment the existing historic context
- quick to open & close; minimal vertical clearance interference
- could enhance the entrance to the New Bern Historic District
- clean aesthetic lines; minimal functional mechanisms
- faster operating times
- less interference with the channel
- less need for dredging, right-of-way acquisition and property purchases
- less need for US Army Corps of Engineers permits

Alternative 4 – Replace the existing bridge with a vertical lift bridge
Number preferred: 3
Reasons given:

- None

Alternative 5 – Replace the existing bridge with a tunnel
Number preferred: 8
Reasons given:

- reduces noise pollution
- eliminates traffic jams caused by bridge openings
- would not detract from the historic appearance of downtown New Bern
- allows a clear view of the water front
- more aesthetically pleasing than other alterantives
- minimal maintenance
- better for homeland security
- least hindering to boats

Alternative 6 – Replace the existing bridge with a high-rise bridge on the same alignment as the existing bridge
Number preferred: 11
Reasons given:

- interferes least with the flow of traffic
- convenient to motorists with no delays
- most efficient of the alternatives

- no maintenance required
- improves air quality since no vehicles would be idling
- doesn't interfere with boat traffic
- no labor costs (i.e. no need for a bridge tender)
- maintains the nature of the New Bern waterfront and access

Alternative 7 – Replace the existing bridge with a high-rise bridge that curves outward into the Neuse River before rejoining the New Bern mainland

Number preferred: 4

Reasons given:

- eliminates traffic jams and congestion
- eliminates waiting for the bridge to open (make sure the park is not affected)
- saves fuel costs since it would eliminate vehicle idling

General

According to responses provided on comment cards, the vast majority of respondents drive across the bridge while a smaller number bike and walk. A few respondents indicated that they also boat through the bridge. Many respondents indicated that they use the bridge several times a week.

Memorandum

To:	Vince Rhea, NCDOT PDEA	Date:	January 7, 2005
From:	Tracy Roberts, AICP	HNTB Job Number 37685	
Subject:	James City Community Meeting Summary Memo		

James City Community Meeting
December 9, 2004
7:00pm
James City Community Center
408 Plum Street, New Bern NC

At the request of Clarence Spellman, Chairman of the James City Community Organization, the North Carolina Department of Transportation (NCDOT) held a community meeting in James City to discuss the proposed Alfred Cunningham Bridge Replacement Project. NCDOT sent Mr. Spellman copies of the October 2004 newsletter, including announcements of the December 9th meeting. Mr. Spellman stated that he distributed this information throughout the James City community and that announcements were made in local churches.

Copies of the newsletter, comments cards and Power Point slides were distributed to all meeting attendees. Attendees were encouraged to take extra copies home with them for distribution to their neighbors and any others interested in the project.

Attendees:
Vincent Rhea, NCDOT – PDEA
Travis Totten, NCDOT - OHE
Tracy Roberts, HNTB
Peggy Hayes, Hayes Planning Associates
16 James City residents
Sandy Wall – Reporter with The Sun Journal

Clarence Spellman, Chairman of the James City Community Organization, opened the meeting with a prayer.

Tracy Roberts, Senior Planner with HNTB, introduced the team members that were present.

Mr. Roberts described the proposed project and the seven alternatives under consideration by using a Power Point presentation. Following the presentation, he opened the meeting to discussion about each of the alternatives.

Alternative 1: Remove the existing bridge with no replacement

The overwhelming sentiment of the James City attendees was that this was not an acceptable alternative and should not be considered.

Myrtle Downing commented that many James City residents as well as tourists staying at the Bridge Pointe Hotel and Marina travel and walk across the bridge. She implored NCDOT to not separate James City again.

Another commented that it is much safer to use the existing bridge than the bypass. Many people jog across the bridge.

Many commuters use the bridge; for example, many use it to get from New Bern to Cherry Point.

Mr. Roberts stated that the NCDOT estimates that 12,000 vehicles use the bridge per day and this number is expected to grow in the future.

Question: Why was the replacement of the bridge not considered when the Neuse River Bridge was built ten years ago?

Mr. Roberts responded that the bridge was considered for rehabilitation as part of the Neuse River Bridge EA/FONSI in 1994 but that there was not as much of a need to repair the bridge 10 years ago as there is now. The bridge only has about 10 years remaining.

Alternative 2: Rehabilitate the existing bridge

Question: Why not just rehabilitate the existing bridge instead of replacing it with a new bridge?

Mr. Roberts responded that a rehabilitated bridge would be expensive and yield only an additional 15-25 years of service.

Question: Will the new bridge be much higher than the existing bridge? Many people do not like to drive across the Neuse River Bridge, especially when it is windy and icy weather.

Mr. Roberts responded that the height of the replacement bridge will depend on which alternative is selected. The Coast Guard and/or the US Army Corps of Engineers will determine the vertical clearance requirements for this area of the Trent River. The vertical lift bridge alternative would also need to rise high enough to provide the necessary clearance. The bascule bridge alternative would be most similar to the height of the existing bridge and there would be no height limitations to the type of boats that pass through the bridge opening.

Comment: A vertical lift bridge would need to be very high, would have many mechanical problems and would have bad visual impact because it would contain lots of metal. Many people are concerned about the riverfront appearance.

Comment: The Atlantic Beach Bridge is a high rise bridge – I don't like going across it.

Comment: The vertical lift bridge would have many mechanical problems and would snarl traffic. We need to look ahead to the future repairs.

Alternative 3: Replace the existing bridge with a bascule bridge

Question: Will the bascule bridge stop traffic?

Mr. Roberts commented that all the movable bridges would stop traffic; only the high rise and tunnel alternatives and the removal with no replacement alternative would not stop traffic.

Question: Will there need to by any relocations?

Mr. Roberts responded that Alternatives 1, 2, 3 and 4 would most likely not require any relocations. More detailed engineering design work needs to be completed in order to determine whether the high rise or tunnel alternatives would require any relocations.

Comment: The bascule bridge is less massive and would have less visual impacts than the vertical lift bridge.

Comment: The bridge area is prone to flooding.

Question: Will the bascule bridge stop traffic?

Tracy Roberts responded that traffic will be stopped, but the bascule and vertical lift bridge alternatives are more efficient in opening than the current swing bridge resulting in less vehicular delay

Group consensus: The bascule bridge is the best alternative that has been presented thus far.

Alternative 4: Replace the existing bridge with a vertical- lift bridge

Comment: This alternative looks like lots of maintenance and would have more mechanical problems. There would be future locking problems with the bridge getting stuck.

Mr. Roberts responded that good maintenance could minimize the mechanical problems associated with any of the movable bridge alternatives.

Comment: This is a massive bridge and has bad visual impacts.

Alternative 5: Replace the existing bridge with a tunnel

Comment: This alternative would have lots of impacts for James City.

Comment: Tunnels are very complex.

Comment: Openings on both sides would be prone for flooding.

Mr. Roberts responded that the openings on either side would need to be raised and designed such to minimize flooding problems. Flood gates could also be installed.

Question: Would the tunnel require more distance?
Mr. Roberts responded that more distance would be needed in order to maintain the proper slope.

Question: Which alternative would you (meaning NCDOT) like the best?
Mr. Roberts responded that design work will begin in January. No preferred alternative will be selected until all the factors are studied.

Vincent Rhea of NCDOT also responded that NCDOT will be responsible for the final decision, but it is important for the agency to understand how the community feels about the alternatives.

Question: How did you come up with the alternatives that are being presented tonight?
Mr. Roberts responded that the seven alternatives currently being considered are the result input from NCDOT and local officials.

Question: How many communities have you presented this to thus far?
Mr. Roberts responded that the alternatives were presented at the October workshop. This is the only community meeting that has been requested thus far. NCDOT and HNTB are willing to meet with any group that wants a presentation. The next public workshop will be next fall. Mr. Roberts encouraged the attendees to contact himself or NCDOT if they would like additional meetings.

Question: What is the cost of a new bridge?
Mr. Roberts responded that the preliminary cost of a new bridge would be about $25 to $26 million. Current estimates suggest that it would cost about $9 million to rehabilitate the existing swing bridge. Better cost estimates will be prepared when the design work is completed.

Question: What will be the exact impact on James City?
Mr. Roberts stated that there has been no detailed engineering work completed so the exact impacts are not yet determined. The preliminary estimates are that the movable bridge alternatives would not exceed the interchange, but that the high rise and tunnel alternatives could.

Question: You have already taken our community – what more do you want? Why are you really here?
Mr. Roberts responded that it is very important for NCDOT to receive feedback from the communities affected by transportation projects. NCDOT values the input received from James City residents in its decision-making process.

Question: Why do you want this bridge? We know that this bridge is needed for the yachts.

Comment: Myrtle Downing responded that James City should not underestimate the power that they have. Back in the 1990s there were 12 alternatives being studied for the bypass and one of those came right through James City. We were able to keep the bypass bridge off of us and no one was relocated.

Comment: Where there is smoke there is fire. I have been here for 14 years. We are being taken inch by inch just like what always happens to black communities that are chiseled away. Not fair for us.

Alternative 5: Replace the existing bridge with a tunnel

Group response: We do not need to even hear about it.

Mr. Roberts explained the tunnel alternative and the pros and cons associated with tunnel construction.

Alternative 6: Replace the existing bridge with a high rise bridge on existing alignment

Question: Why not build a swing span? Build a new bridge just like what we have now.

Question: Will the bascule bridge take more space than the current bridge?
Mr. Roberts responded that a new bascule bridge may be wider than the current bridge, but it would be most similar to the existing bridge than any of the other alternatives.

Mr. Rhea responded that the bascule bridge would have the least impact while the tunnel alternative most likely would have the most impact.

Comment: The high rise bridge would be much higher than what we have now and in winter is more likely to get ice. It will be dangerous to drive and there will be no way to get into New Bern from James City when the bridge is closed because of bad weather conditions.

Comment: I am not fond of Alternative 6 because it will be closed when there is snow and ice and the other bridge is also closed.

Question: Where will the bridge come down?
Mr. Roberts responded that it depends on the height stipulated by the US Coast Guard or USACOE, as well as ADA compliance and general engineering practices.

Comment: A high rise bridge will have a big visual impact on New Bern.

Comment: I prefer the bascule bridge because it is more compatible with New Bern.

Alternative 7: Replace the existing bridge with a high rise bridge that curves into the Neuse River

Question: How far will the bridge curve out?

Mr. Roberts highlighted the potential alignment of Alternative 7 on a map.
Mr. Roberts explained that the exact alignment would not be known until engineering design work had been done.

Question: Do you have a picture?
Mr. Roberts explained that visual illustrations for some of the alternatives will be available next year.

Question: Would it be similar to the Bridgeton Bridge?
Mr. Roberts explained that it could be similar in appearance but the impacts would likely be greater due to its closer proximity to the New Bern mainland.

Comment: The bridge would have to be designed to accommodate boat traffic and would need to be high over the channel.

Question: How will it impact James City?

Comment: A high rise bridge would impact walkers.

Group Discussion of Preference

The meeting attendees supported Alternative 3, the bascule bridge.

Potential Impacts During 2-Year Construction Period

Mr. Roberts informed the participants that the rehabilitation or construction of the bridge would take about 2 years. The Pembroke Avenue exit would be the likely detour route during construction. It is not feasible to build a temporary bridge because of the location of Union Point Park and the Convention Center. What will be the impacts to James City?

General Consensus: We will have to deal with the detour period – it is unavoidable.

Question: Will the new bridge accommodate pedestrians and bicyclists?
Mr. Roberts responded that the bridge is part of a designated NCDOT bicycle route. It will have to be designed to accommodate sidewalks and may have to feature wide lanes for bicycle traffic.

Question: Myrtle Downing: Will the new bridge be "enclosed?" Myrtle then clarified her question and asked whether the pedestrian/bicycle path would have barriers (railing), rather than meaning an overhead partition.

Mr. Roberts explained that railing would be provided along the outer edge of the bridge.

Question: Did Bridgeton people come to the October workshop? Bridgeton residents will have to travel a longer distance by using the Pembroke exit to go to downtown.

Peggy Hayes stated that there were several Sandy Point residents that attended the October workshop.

Question: What was the preference of those who attended the October workshop?
Mr. Roberts stated that most workshop participants preferred Alternative 3, the bascule bridge.

Peggy Hayes urged the participants to submit the comment cards and give their mailing address if they wanted to be added to the mailing list.

The meeting adjourned at 8:30 pm.

Final Minutes for Hydraulic Design Review Meeting
B-2532
Alfred Cunningham Bridge Replacement

A Hydraulic Design Review Meeting was held on Wednesday, August 17, 2005 in the Location and Surveys conference room at the NCDOT Century Center Complex, Raleigh.

Team Members:
Andrew Nottingham-NCDOT Hydraulics (Present)
Bill Biddlecome-USACOE (Present)
Christina Breen- NCDWQ (Present)
Travis Wilson-NCWRC (Absent)
Gary Jordan-USFWS (Present)
Chris Militscher-EPA (Present)
Greg Brew- NCDOT Roadway Design (Absent)
Chris Underwood-NEU (Present)
Donnie Brew for Clarence Coleman-FHWA (Present)
Steve Sollod-NCDCM (Present)
Bill Arrington-NCDCM (Present)
Ed Eatmon-Division 8 (Present)
Vince Rhea for Derrick Weaver-PDEA (Present)
Lonnie Brooks-Structures (Present)
Renee Gledhill-Early for Sarah McBride-SHPO (Present)
Ron Sechler-NMFS (Absent)

Participants:
Stephen Morgan-NCDOT Hydraulics
David Chang-NCDOT Hydraulics
Laura Sutton-Structure Design
Theresa Wyatt-NCDOT Admin. Office
Enrico Roque-HNTB
Tracy Roberts-HNTB
Paul Barber-HNTB
Anne Redmond-HNTB

The meeting began at 1:00 p.m. with introductions and NCDOT Hydraulics giving a brief description and history of the project. The team then reviewed the plans. The following items of importance were discussed:

- The new bridge has been designed so there will not be any increase in impervious area when compared to the existing bridge. Deck drains from the existing bridge drain directly into the Trent River. Since the new bridge will not increase the impervious area NCDOT proposes to allow the deck drainage from the new bridge to drain directly into the Trent River also. The team agreed that this would be acceptable.

- The grade of the new bridge will be higher than the old bridge to allow longer span lengths to be used resulting in fewer piers in the water. On the north end of the bridge a retaining wall is proposed on both sides of the road to minimize the footprint of the road. The maximum height of the wall will be approximately 6 feet at the end of the bridge and taper down to the existing ground approximately 200 feet from the end of the bridge. The use of the retaining wall will help avoid impacts to the Union Pointe Park on the East Side and the New Bern Riverfront Convention Center on the West Side. The roadway improvements will be kept within the existing transportation facility limits. A footbridge currently exists underneath the bridge at the north end, which connects Union Pointe Park with the New Bern Riverfront Convention Center. The footbridge will be preserved or replaced.

- The existing roadway width will be maintained on the north approach to the bridge so there will not be any increase in impervious area. The existing approach on the north side of the bridge is a curb and gutter section. NCDOT proposes to match the existing roadway width on the north side of the bridge and use the curb and gutter typical section to maintain the character of this area. The sidewalk on the East Side of the north approach to the bridge will be eliminated up to South Front Street since the new bridge typical calls for a single sidewalk on the West Side of the bridge. This will reduce the impervious area in this location. The existing catch basins near the South Front Street intersection will be maintained. The catch basins in this area drain to a storm drain system, which runs west on South Front Street and then connects to storm drainage from downtown New Bern. This storm drain system then flows south across the convention center property and discharges into the Trent River west of the north end of the bridge. The team discussed if this storm drainage could be treated. It was determined that there were no practicable areas where this could be treated and since there would be no increase in impervious area that it would be acceptable to maintain this system.

- The existing roadway width will be maintained on the south approach to the bridge. The existing approach on the south side of the bridge is a shoulder section with gently sloping side slopes. NCDOT proposes to match the existing roadway width on the south side of the bridge and maintain the shoulder section. The roadway improvements will be kept within the existing transportation facility limits. On the West Side of the south approach runoff from the roadway will sheet flow across the fill slopes into a large drainage swale that drains to the Trent River. On the East Side of the south approach runoff from the roadway will sheet flow across the fill slopes and eventually drain into the Neuse River.

- The team discussed that the bridge would likely be constructed using a barge as a work platform in the deeper parts of the river and in the shallower portions of the river near the bridge ends that work bridges would likely be used.

The meeting was adjourned at approximately 1:45 p.m.

FINAL

HNTB
The HNTB Companies

Memorandum

To:	Vince Rhea, NCDOT PDEA	Date:	11/23/2005
From:	Tracy Roberts, AICP	HNTB Job Number 37685	
Subject:	Alfred Cunningham Bridge Replacement Project: Summary of September 22nd, 2005 Citizens Informational Workshop		

On Thursday, September 22nd, 2005, the North Carolina Department of Transportation (NCDOT) sponsored a Citizens Informational Workshop in New Bern. This memorandum summarizes the public outreach efforts and public comments associated with the Workshop.

Event: Citizens Informational Workshop
Date: September 22nd, 2005
Location: The Berne Room, New Bern Riverfront Convention Center
Time: 2:00pm – Presentation of project to the New Bern Board of Aldermen and the Craven County Board of Commissioners
4:00pm-7:30pm – Public Workshop

Summary of public notification efforts:

- HNTB mailed approximately 4700 newsletters to residents and businesses in the vicinity of the Alfred Cunningham Bridge. The mailing list was based on Craven County tax records and a database of renters developed by Hill-Donnelly Corporation. The mailing list also included other known stakeholders that were identified throughout the course of the project.
- HNTB mailed 36 packets to churches in three predominately minority neighborhoods (James City, Duffeyfield and Pembroke) in the project vicinity. Packets were also mailed to minority churches in downtown New Bern, as well as several churches that offer Spanish services. Each packet contained a letter from NCDOT requesting that announcements be made during church service about the upcoming workshop. Each packet contained 25 newsletters to be distributed to church members.
- NCDOT posted advertisements in the following local newspapers:
  The New Bern Sun Journal
  The Havelock News
  The Daily Drum
  The Shopper
- HNTB sent notices of the Workshop to the New Bern Public Housing Authority to be placed in their administrative offices.
- HNTB emailed the newsletter and notification of the Workshop to approximately 80 recipients. Recipients included local officials, residents and members of various stakeholder groups.
- NCDOT advertised the Workshop on the project website: www.ncdot.org/projects/alfredcunningham/

According to responses indicated on comment cards (37 were completed), participants were made aware of the Workshop by the following methods (some respondents checked more than one):

- Newsletter: 21
- Newspaper Advertisement: 6
- Friend/Relative: 2
- Email: 3

- Website: 3
- TV/Radio: 1
- Other: 7 (through contact with elected officials, Division 2 Engineer, Historic Downtown Residents Association, etc)

Summary of questions and comments received from local elected officials during the 2:00pm presentation:

Attendees:
Lee Kyle Allen – Craven County Board of Commissioners
Mayor Tom Bayliss – New Bern Board of Aldermen
Joseph Mattingly – New Bern Board of Aldermen
William (Bill) Ballenger - New Bern Board of Aldermen
Harold Blizzard – Craven County Manager
George Sawyer –Craven County Assistant Manager
Don Baumgardner – Craven County Planning Director
Danny Meadows – City of New Bern Public Works Director
John Rouse – NCDOT – Division 2
Neil Lassiter – NCDOT – Division 2
Dwayne Alligood – NCDOT – Division 2
Jason Peterson – NCDOT – Division 2
Carl Goode – NCDOT - HEU
Vincent Rhea – NCDOT – PDEA
Anne Redmond – HNTB North Carolina, P.C.
Paul Barber – HNTB North Carolina, P.C.
Tracy Roberts – HNTB North Carolina, P.C.
Jeffrey Dayton – HNTB North Carolina, P.C.
Peggy Hayes – Hayes Planning Associates

Tracy Roberts, Senior Transportation Planner with HNTB, described the proposed project using a PowerPoint presentation. Mr. Roberts distributed copies of the PowerPoint slideshow to the meeting attendees. Following the presentation, he opened the meeting to questions and comments.

- Mayor Bayliss asked about accommodations for bicyclists. Mr. Roberts responded that the northbound lane would feature a four foot shoulder that could be used by bicyclists. The southbound lane would offer no additional provisions for bicyclists.
- Mr. Mattingly asked if the bascule leaves operated independently of each other (i.e. would one leaf be opened while the other remained closed). Mr. Barber responded that both leaves would operate simultaneously. Mr. Barber also stated that the cycle time for a double leaf bascule would be slightly faster than a single leaf bascule.
- Mayor Bayliss asked whether the clearance under the new bridge (in the closed position) would be greater than it is today. Mr. Roberts stated that the clearance under the new bridge would be at least equal to the existing clearance, with perhaps another one or two feet being provided.
- Mayor Bayliss stated that there is some concern by the New Bern Convention Center and others about the noise and vibration associated with installation of piles. He requested that drilled piers be used if possible. Mr. Roberts responded that the substructure type would be dependent on completion of a vessel impact study and geotechnical investigations.
- Mr. Roberts stated that NCDOT will make the existing swingspan bridge available for adoption or reuse. Neil Lassiter requested that the notification process begin as soon as possible so that the bridge's outcome will be known prior to

construction. Ideally, the contractor could dismantle the bridge and transport it to a new site, which would eliminate the need for storage in an NCDOT maintenance yard.

- Mr. Roberts stated that the New Bern Historic Preservation Commission requested that pedestrian scale lighting be provided on the new bridge. While NCDOT will provide conduit for such lighting, the funding and installation would need to be provided by the City of New Bern or some other entity. Mr. Roberts stated that NCDOT would need to know the lighting details (i.e. type, location, number, etc) by January 2006 so that final design could account for future lighting installation.
- Mr. Blizzard questioned the need for a three year construction period. He stated that the Neuse River Bridge was built in four years and it was a much larger bridge that the Alfred Cunningham Bridge. Mr. Barber responded that the Neuse River Bridge was on new location and thus removal of the old bridge did not affect the schedule. In the case of the Alfred Cunningham Bridge, removal of the existing bridge must occur before construction of the new bridge can begin. Mr. Barber also stated that the bascule span is a specialized bridge that requires the fabrication of mechanical parts that was not applicable on the Neuse River Bridge. Mr. Roberts stated that a major factor in the need for a three year construction period is the moratorium on in-water work from February 15th through June 30th of each year (due to the presence of migratory fish).
- Mayor Bayliss requested that construction of the Alfred Cunningham Bridge and the proposed Broad Street enhancements be staged so as to minimize disruption in downtown New Bern. The goal is to have both projects completed prior to New Bern's 300th Anniversary in 2010.
- Mr. Allen expressed concern about the rattling effect on his vehicle caused by expansion joints on the Never River Bridge. He hoped the new Alfred Cunningham Bridge would not have similar joints. Mr. Barber stated that, due to a lower speed limit and fewer expansion joints, this should not be a major problem on the new bridge.
- Mayor Bayliss expressed his appreciation to the project team for their hard work and diligence in getting the project completed on schedule. He felt the new bridge would be an excellent addition to the New Bern community.

Summary of comments received from the general public during the 4:00pm-7:30pm Workshop:

48 attendees signed in. Each person was offered a comment card, a fact sheet, and a copy of the September 2005 newsletter. Attendees were asked to place a sticky dot on a map that indicated the location of their residence. Three stations were set up that offered attendees an opportunity to discuss the project with HNTB and NCDOT staff. Attendees were encouraged to write comments and questions on posters placed on the wall.

The following comments reflect those made verbally to HNTB and NCDOT staff, those provided on comment cards and those provided on comment posters. In general, most attendees were supportive of the project and felt the new bridge would be an attractive addition to the New Bern community.

Summary of Comments

Aesthetics

- The proposed bridge is a great choice, one that is architecturally pleasing and that fits the character of New Bern. The design is appropriately simple and will function well.
- A more old fashioned bridge tender's house (especially the roof) would be appropriate.
- The proposed control tower looks like a guard house at a prison. Would prefer a more classical look.
- The City of New Bern should commit to pedestrian lighting consistent with existing street lights on E. Front Street.

- Consider low level lights to illuminate the sidewalk that would be unobtrusive and safer. Avoid the use of tall light poles.
- The proposed height of rail (3' 6") is too high.

Navigation
- Potential disruption / closure of navigational channel during construction should be avoided.
- The proposed navigational channel should be wider with longer piers at each end.
- NCDOT should maximize vertical clearance of the new bridge (in the closed position) at the navigational channel to minimize bridge closures, particularly for medium sized boats and pleasure yachts.

Environmental
- Proper treatment of stormwater prior to discharge into the Trent River should be provided.
- Proper safeguards to minimize disruption of the river bed during construction should be considered.

Operations
- Need reasonable and fair rules for bridge openings. Openings for marine vessels should be on a schedule, not on demand.
- The bridge could be made automatic similar to a garage-door opener. There would have to be safety interlocks similar to a garage-door opener or an automatic elevator. This would render the need for a bridge tender unnecessary.
- Bridge openings may be slower because of the proposed single channel when boats have to pass in opposite directions.
- The high wind limit for restricted openings is currently 40 MPH. Please consider increasing this as we often have to evacuate on short notice.
- Please consider bicyclists in both directions (i.e. northbound and southbound).
- The single 5.5 foot sidewalk and double leaf bascule are good choices.

Construction
- Provide a sign saying "Downtown New Bern" along US 70 at the Pembroke Avenue Exit from both east and west directions.
- Need to ensure downtown remains accessible during construction.
- Consider installing a traffic signal at 1st St/Queen St. There will be more traffic at that intersection. Even now, it is a dangerous cross-street area. Other traffic flow adjustments may need to be addressed.
- Attempt to complete the project as soon as possible.
- Potential disruption / closure of navigational channel during construction should be avoided.

General
- The present structure should be retained, which is perfectly useful.
- Proper removal of existing bridge is important.
- Ensure the control house will provide a comfortable environment for bridge operator.
- Consider incorporating wave protection for the inner harbor.

Memorandum

To:	Vince Rhea, NCDOT PDEA	Date:	Nov 21, 2005
From:	Tracy Roberts, AICP	HNTB Job Number 37685	
Subject:	James City Community Meeting Summary Memo		

James City Community Meeting
September 29, 2005
7:00pm
James City Community Center
408 Plum Street, New Bern NC

At the request of Clarence Spellman, Chairman of the James City Community Organization, the North Carolina Department of Transportation (NCDOT) held a community meeting in James City to discuss the proposed Alfred Cunningham Bridge Replacement Project. NCDOT sent Mr. Spellman copies of the September 2005 newsletter, including announcements of the September 29th meeting. Mr. Spellman stated that he distributed this information throughout the James City community, including local churches.

Copies of the newsletter, comments card and a fact sheet were distributed to all meeting attendees. Attendees were encouraged to take extra copies of the newsletter and comment card home for distribution to their neighbors and others interested in the project.

Attendees:
Bill Harper, Craven County Board of Commissioners
Vincent Rhea, NCDOT – PDEA
Tracy Roberts, HNTB
Jeffrey Dayton, HNTB
Peggy Hayes, Hayes Planning Associates (HPA)
9 James City residents

Tracy Roberts, Senior Transportation Planner with HNTB, introduced the team members that were present.

Mr. Roberts explained that the purpose of the meeting was to provide an update of what had occurred on the project since the last meeting in James City (December 9, 2004), as well as to answer questions and receive comments. Mr. Roberts utilized a Power Point presentation to provide an overview of the project. Following the presentation, he opened the meeting to discussion.

Question: How does the safety of the Alfred Cunningham Bridge compare with other bridges in the area?

Mr. Roberts stated that the Cunningham Bridge has a sufficiency rating of 8 out of a possible 100 points. Although the sufficiency rating is low, the bridge is not unsafe and has approximately 10 years of service remaining. Vince Rhea, Project Manager with NCDOT, stated that NCDOT periodically inspects bridges and rates them based on a number of criteria. Bridges are then programmed to be replaced or rehabilitated depending on need. Bridge rehabilitation and

replacements projects are published in NCDOT's Transportation Improvement Program (the Cunningham Bridge has been in the TIP for several years).

Question: Why wasn't the Cunningham Bridge replaced when the Neuse River Bridge was built?

Mr. Rhea explained that the Cunningham Bridge was studied when the environmental studies were done for the Neuse River Bridge in 1994. Although the bridge was recommended for rehabilitation at that time, there was no immediate need for action. Mr. Roberts explained that the bridge still had several years of service when the 1994 study was completed. The Neuse River Bridge was a very expensive project, and there was no need for immediate rehabilitation or replacement of the Cunningham Bridge.

The new Cunningham Bridge will be an expensive project and NCDOT is currently exploring ways to generate the necessary funds, including delaying other projects in the area. Recent budget cuts and slow downs in the economy have made funding a major challenge.

Question: Why is the Cunningham Bridge not being properly maintained? No one is ever seen performing maintenance on the bridge.

Mr. Roberts explained that NCDOT does perform routine maintenance, such as periodic greasing of the gears. Additionally, the lead paint on the truss span is difficult and costly to remove due to environmental concerns. Mr. Rhea added that federal monies are not available for bridge maintenance, only new construction. Thus, NCDOT has to assume full financial responsibility for bridge maintenance and operation. However, with the agreement being prepared between NCDOT and the City of New Bern, maintenance of the new bridge would likely become the City's responsibility.

Question: Who is paying for the Broad Street improvements and the new Cunningham Bridge?

Mr. Roberts stated that funding of the new Cunningham Bridge would involve a combination of federal and state money. He was unsure of the funding source for the Broad Street improvements.

Question: Mr. Roberts asked how many attendees walk or bike across the Cunningham Bridge.

Two attendees responded in the affirmative. They also stated that they cross the bridge to see friends, get to work and to visit recreational facilities.

Question: Traffic queues at the Pembroke Avenue Interchange when returning to James City and Bridgeton. There is only one merging lane and there is a curve that makes it hard to see.

While the study team was not familiar with this particular situation, Mr. Rhea stated that NCDOT was considering adding an additional turn lane on the westbound off-ramp at the Pembroke Avenue / US 70 Interchange. Signal modifications would also be considered in conjunction with the lane additions.

Question: How many companies will bid on the new bridge?

Mr. Roberts stated that this will probably be known sometime in late 2006 when NCDOT advertises the project for bidding.

Question: The Freedom Memorial Bridge (over the Trent River) can accumulate ice in the winter. When this happens, some people use the Cunningham Bridge instead. Is there a way to keep the existing bridge in place until the new one is constructed?

Mr. Roberts explained that due to Union Point Park and the urbanized nature of the area, there is no location to put a temporary bridge. The only practical solution is to remove the existing bridge and construct the new bridge in the same location. Mr. Roberts reiterated that during the anticipated three year construction period, an off-site detour would be needed. The detour route would take users down the US 70/17 Bypass to the Pembroke Avenue exit and then down First Street to Broad Street.

Question: What is going to happen to Union Point Park?

Mr. Roberts responded that Union Point Park would be avoided. All improvements will occur within the existing right of way.

Question: When the Neuse River Bridge was built, NCDOT eliminated many of the access points along US 70 through James City. Due to the resultant elimination of left-hand turns and the inability to cross over US 70 from one side to the other, cars are having to go down to the McDonald's (at US 70 and Williams Road) to turn around in order to travel back towards downtown New Bern on US 70. The left turn at the Williams Road intersection also forces you into McDonald's parking lot. This situation has caused several accidents; pedestrians have also been hit. NCDOT seems to be more concerned with getting people from Raleigh to the beach rather than considering the impacts on the local community. What can be done about this?

Mr. Rhea responded that NCDOT keeps records of accidents and would know the relative danger of that particular intersection. Since this situation is not related to the Cunningham Bridge replacement, Mr. Rhea suggested that the local community contact their NC Board of Transportation representative for assistance.

General Comments

One participant recalled memories of the old wooden bridge that existed even before the Cunningham Bridge was built (in 1955).

Mr. Roberts commented that the City of New Bern is considering adding pedestrian-scale lighting to the new bridge.

Attendees were appreciative of NCDOT's outreach efforts on the Alfred Cunningham Bridge project and thought the new bridge would be a nice addition to the community.

Conclusion

Mr. Roberts concluded the meeting by expressing appreciation for James City's active involvement in the project. Mr. Roberts stated that either he or Vince Rhea could be contacted at anytime throughout the project for questions. Mr. Roberts directed everyone's attention to the contact information on the newsletter.

The meeting adjourned at 8:10pm.

Comment Cards

Comment cards were distributed to attendees during the meeting. Attendees were also asked to complete their comment card prior to the end of the meeting. A total of four comment cards were completed and submitted to the project team. Responses are summarized below:

- Respondents were notified of the James City meeting through the newsletter and church.

- All respondents drive across the bridge, while two indicated that they also walk and bike across the bridge.

- Two respondents indicated that they use the bridge on a weekly basis and the other two indicated that they use it on a monthly basis.

- The most common purpose for crossing the Cunningham Bridge was to get to work. Respondents indicated that they cross the bridge to access Union Point Park, Trent Court, and government offices.

- One respondent indicated that they use a boat to pass through the Cunningham Bridge navigational channel.

Appendix E

PROGRAMMATIC 4(F) FOR HISTORIC BRIDGES

January 18, 2006

NORTH CAROLINA DIVISION
FINAL NATIONWIDE SECTION 4(f) EVALUATION AND APPROVAL
FOR FEDERALLY-AIDED HIGHWAY PROJECTS
THAT NECESSITATE THE USE OF HISTORIC BRIDGES

F. A. Project BRSTP-070B(4)
State Project 8.1172401
T. I. P. No. B-2532

Description: Replacement of Bridge No. 60 (Alfred Cunningham Bridge) on US 70 Business over the Trent River in New Bern (Craven County). Project proposes to replace the existing swingspan bridge and related approaches with a double-leaf bascule bridge.

		Yes	No
1.	Is the bridge to be replaced or rehabilitated with Federal funds?	X	☐
2.	Does the project require the use of a historic bridge structure which is on or eligible for listing on the National Register of Historic Places?	X	☐
3.	Is the bridge a National Historic Landmark?	☐	X
4.	Has agreement been reached among the FHWA, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) through procedures pursuant to Section 106 of the National Historic Preservation Act (NHPA)?	X	☐

ALTERNATIVES CONSIDERED AND FOUND NOT TO BE FEASIBLE AND PRUDENT

The following alternatives were evaluated and found not to be feasible and prudent:

		Yes	No
1.	Do nothing	X	☐
	Does the "do nothing" alternative:		
	(a) correct the problem situation that caused the bridge to be considered deficient?	☐	X
	(b) pose serious and unacceptable safety hazards?	X	☐

	Yes	No
2. Build a new structure at a different location without affecting the historic integrity of the structure.	X	☐

(a) The following reasons were reviewed: (circle, as appropriate)

(i) The present bridge has already been located at the only feasible and prudent site

and/or (ii) Adverse social, environmental, or economic impacts were noted

and/or (iii) Cost and engineering difficulties reach extraordinary magnitude

and/or (iv) The existing bridge cannot be preserved due to the extent of rehabilitation, because no responsible party will maintain and preserve the historic bridge, or the permitting authority requires removal or demolition.

3. Rehabilitate the historic bridge without affecting the historic integrity of the structure.	X	☐

(a) The following reasons were reviewed: (circle, as appropriate)

(i) The bridge is so structurally deficient that it cannot be rehabilitated to meet the acceptable load requirements and meet National Register criteria

and/or (ii) The bridge is seriously deficient geometrically and cannot be widened to meet the required capacity and meet National Register criteria

MINIMIZATION OF HARM

	Yes	No
1. The project includes all possible planning to minimize harm.	X	☐

2. Measures to minimize harm include the following: (circle, as appropriate)

   a. For bridges that are to be rehabilitated, the historic integrity of the bridge is preserved to the greatest extent possible, consistent with unavoidable transportation needs, safety, and load requirements.

   b. For bridges that are to be rehabilitated to the point that the historic integrity is affected or that are to be removed or demolished, the FHWA ensures that, in accordance with the Historic American Engineering Record (HAER) standards, or other suitable means developed through consultation, fully adequate records are made of the bridge.

   (c) For bridges that are to be replaced, the existing bridge is made available for an alternative use, provided a responsible party agrees to maintain and preserve the bridge.

   (d) For bridges that are adversely affected, agreement among the SHPO, ACHP, and FHWA is reached through the Section 106 process of the NHPA on measures to minimize harm and those measures are incorporated into the project.

3. Specific measures to minimize harm are discussed below:

The architectural treatment of the replacement bridge has been developed in coordination with SHPO and the New Bern Historic Preservation Commission (NBHPC). Architectural treatment of the control house, railing, retaining walls, sidewalks, traffic control devices and general materials and colors have been agreed upon by SHPO and NBHPC. The NBHPC issued a Certificate of Appropriateness on August 23rd, 2005.

Other measures to minimize harm include 1) Creation of a written record of the existing bridge prior to removal; 2) Bridge design consultations between SHPO, NCDOT and NBHPC; and 3) Relocation and reuse of the existing bridge.

Note: Any response in a box requires additional information prior to approval. Consult Nationwide 4(f) evaluation.

COORDINATION

The proposed project has been coordinated with the following (attach correspondence):

a. State Historic Preservation Officer	X
b. Advisory Council on Historic Preservation	X
c. Local/State/Federal Agencies	X
d. US Coast Guard	X
(for bridges requiring bridge permits)	X

SUMMARY AND APPROVAL

The project meets all criteria included in the programmatic 4(f) evaluation approved on July 5, 1983.

All required alternatives have been evaluated and the findings made are clearly applicable to this project.

There are no feasible and prudent alternatives to the use of the historic bridge. The project includes all possible planning to minimize harm, and there are assurances that the measures to minimize harm will be incorporated in the project.

All appropriate coordination has been successfully completed.

Approved:

1/23/06 for
Date Manager, Planning & Environmental Branch
NCDOT

1/23/06 for
Date Division Administrator, FHWA

North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Easley, Governor
Lisbeth C. Evans, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

May 13, 2005

MEMORANDUM

TO: Gregory Thorpe, Ph.D., Director
Project Development and Environmental Analysis Branch
NCDOT Division of Highways

FROM: Peter B. Sandbeck PBS for Peter Sandbeck

SUBJECT: Historic Architectural Resources Survey Report, Replace Bridge No. 60 (Alfred A. Cunningham Bridge) on US Highway 70 Business over the Trent River, New Bern, B-2532, Craven County, ER90-8222

Thank you for your letter of March 14, 2005, concerning the above project.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following property is eligible for the National Register of Historic Places under the criterion cited:

- Alfred A. Cunningham Bridge, (Bridge No. 60), New Bern, is eligible for the National Register of Historic Places under Criterion A: Transportation, for its association with the development of North Carolina's coastal military bases. The bridge facilitated a major corridor for Cherry Point and Camp Lejeune. The bridge also enabled the reconstruction and restoration of Tryon Palace and Gardens in New Bern.

The Cunningham Bridge has been altered and no longer retains sufficient integrity to be eligible for the National Register under Criterion C: Architecture. Furthermore, building demolition and recent in-fill have compromised the bridge's immediate setting, eliminating the consideration of the bridge as a contributing structure to the New Bern National Register Historic District.

We concur with the proposed National Register historic boundaries as defined and delineated in the survey report.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following property remains eligible and is listed in the National Register of Historic Places:

- New Bern Historic District

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

cc: Mary Pope Furr, NCDOT
Tracy Roberts, HNTB

MEMORANDUM OF AGREEMENT AMONG THE FEDERAL HIGHWAY ADMINISTRATION AND NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICER FOR TIP No. B-2532 ALFRED A. CUNNINGHAM BRIDGE REPLACEMENT CITY OF NEW BERN, CRAVEN COUNTY, NC

DRAFT

WHEREAS, the Federal Highway Administration (FHWA) has determined that the Alfred A. Cunningham Bridge Replacement (Bridge No. 60) on US 70 Business over the Trent River, City of New Bern, in Craven County, North Carolina (the Undertaking) will have an effect upon the Alfred A. Cunningham Bridge, a structure determined eligible for the National Register of Historic Places, and on the New Bern National Register Historic District, a property listed to the National Register of Historic Places, and has consulted with the North Carolina State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

WHEREAS, the North Carolina Department of Transportation (NCDOT), and the City of New Bern Historic Preservation Commission (New Bern HPC) participated in the consultation and have been invited to concur in this Memorandum of Agreement;

NOW, THEREFORE, FHWA and the SHPO agree that the Undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on the historic properties.

STIPULATIONS

FHWA will ensure that the following measures are carried out:

I. Alfred A. Cunningham Bridge

A. Recordation: Prior to the demolition of the Alfred A. Cunningham, NCDOT shall record the existing condition of the bridge and its surroundings in accordance with the attached Historic Structures and Landscape Recordation Plan [Appendix A].

B. Replacement Bridge Design: NCDOT shall consult with the SHPO on the design for the replacement bridge and any other improvements that are part of the Undertaking and provide the SHPO an opportunity to comment upon each phase of the design plans for the replacement bridge and any other improvements.

C. Relocation and Reuse of Bridge: The Alfred A. Cunningham Bridge (Bridge No. 60) will not be demolished. Instead, the bridge will be documented, dismantled, and relocated as per the guidelines of the NCDOT Bridge Relocation and Reuse Program. NCDOT's 1988 agreement with the North Carolina Historic Preservation Office (NC-HPO) and the Federal Highway Administration (FHWA) affords the opportunity for the relocation and reuse of historic truss bridges. Bridge No. 60 has been identified as a candidate for this program. Should a bridge recipient not be identified prior to construction of the replacement bridge, Bridge No. 60 will be stored at a local NCDOT facility until a recipient can be found, as per the guidelines of the NCDOT Bridge Relocation and Reuse Program.

II. New Bern NRHD

A. Vibration Monitoring: NCDOT shall install vibration monitoring equipment at especially significant buildings in the historic district prior to the construction of the bridge. Potential vibration effects in the New Bern NRHD are to be monitored throughout the construction of the bridge by Geotech. If vibration levels rise to a level that could cause structural damage to the building or if structural damages are discovered during this period, work shall immediately cease and NCDOT shall contact the SHPO and property owners immediately to determine what steps should be taken to address the damage.

III. Dispute Resolution: Should the North Carolina SHPO or any other party to this Agreement object within (30) days to any plans or documentation provided for review pursuant to this Agreement, FWHA shall consult with the North Carolina SHPO to resolve the objection. If FHWA or the North Carolina SHPO determines that the objection cannot be resolved, FHWA shall forward all documentation relevant to the dispute to the Advisory Council on Historic Preservation (Council). Within thirty (30) days after receipt of all pertinent documentation, the Council will either:

A. Provide FHWA with recommendations which FHWA will take into account in reaching a final decision regarding the dispute, or

B. Notify FHWA that it will comment pursuant to 36 CFR Section 800.7(c) and proceed to comment. Any Council comment provided in response to such a request will be taken into account by FHWA in accordance with 36 CFR Section 800.7 (c) (4) with reference to the subject of the dispute.

Any recommendation or comment provided by the Council will be understood to pertain only to the subject of the dispute; FHWA's responsibility to carry out all the actions under this Agreement that are not the subject of the dispute will remain unchanged.

Execution of this Memorandum of Agreement by FHWA and the North Carolina SHPO, its subsequent filing with the Advisory Council on Historic Preservation, and implementation of its terms evidence that FHWA has afforded the Council an opportunity to comment on the Alfred A. Cunningham Bridge Replacement on US 70 Business over the Trent River, City of New Bern, in Craven County, North Carolina and its effects on the Alfred A. Cunningham Bridge and the New Bern NRHD, and that FHWA has taken into account the effects of the Undertaking on the historic properties.

AGREE:

FEDERAL HIGHWAY ADMINISTRATION DATE

NORTH CAROLINA STATE HISTORIC PRESERVATION OFFICER DATE

CONCUR:

CITY OF NEW BERN DATE

CONCUR:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DATE

FILED BY:

ADVISORY COUNCIL ON HISTORIC PRESERVATION DATE

APPENDIX A

Historic Structures and Landscape Recordation Plan
For the proposed Alfred A. Cunningham Bridge Replacement
New Bern, Craven County, North Carolina
TIP No. B-2532, State Project No. 8.1172401
Federal Aid No. BRSTP-070B (4)

Documentary Research shall include

- A brief history of the bridge:
  When built
  Type
  Designer/Engineer
  Plan changes, renovation/repair records

Photographic Requirements

- Selected photographic views of the Alfred A. Cunningham Bridge and the New Bern National Register Historic District as a whole, and views of the structures and their setting, including:
- Overall views of the structures (elevations and oblique views)
- Overall views of the project area, showing the relationship of the structures to their setting

Photographic Format

- Color slides (all views)
- 35 mm or larger black and white negatives (all views)
- Two (2) sets of black and white contact sheets (all views)
- All processing to be done to archival standards
- All photographs and negatives to be labeled according to Division of Archives and History standards

Copies and Curation

One (1) set of all photographic documentation will be deposited with the North Carolina Division of Archives and History/State Historic Preservation Office to be made a permanent part of the statewide survey and iconographic collection. One contact sheet shall be deposited in the files of the Historic Architecture Section of NCDOT.

Federal Aid # BRSTP-070B (4) *TIP* #B-2532 *County*: Craven

Properties within the area of potential effects for which there is no effect. Indicate if property is National Register-listed (NR) or determined eligible (DE).

Properties within the area of potential effects for which there is an effect. Indicate property status (NR or DE) and describe the effect.

New Bern Historic District (NR)	**Adverse Effect for Alternative 3** **No Adverse Effect for Alternatives 1 & 2**
Alfred A. Cunningham Bridge (DE)	**Adverse Effect for Alternatives 1 & 3** **No Adverse Effect for Alternative 2**

Initially, the project offered seven alternatives and has been reduced to three, with **Alternative 3** (replace existing bridge with a bascule bridge) the favored option by the City of New Bern.

Alternative 1 (remove existing bridge with no replacement) *will not* have an adverse effect on the New Bern National Register Historic District (NRHD), as the bridge is not a contributing element to the district. Removal of the existing bridge, because the Alfred A. Cunningham Bridge has been determined eligible under Criterion A for Transportation, *will* have an adverse effect.

Alternative 2 (rehabilitate existing bridge) *will not* have an adverse effect on the New Bern NRHD, nor upon the Alfred A. Cunningham Bridge.

Alternative 3 (replace existing bridge with a bascule bridge) *will* have an adverse effect on the New Bern NRHD. Construction limits at the bridge's northern approach fall within the southern boundary of the NRHD. Streets that will be directly affected by the altered approach to the bridge—South Front, East Front, and Pollock streets—contain some of the district's most important architectural resources, including two exceptional examples of antebellum brick townhouses, the Justice House and the Thomas Sparrow House (East Front Street), and the circa-1843-1880 frame Wade-Meadows House (South Front Street). Union Point Park at the confluence of the Neuse and Trent rivers is also in the district, and the new bridge's north approach will cut into a small section of the park's southwestern and western boundaries.

Another issue that will create a further adverse effect is if there are driven piles, rather than piers, in the bridge's substructure. The resulting vibration during ~~driving~~ pulling will impact several historic buildings, including those now outside of the APE yet within the New Bern NRHD, such as the circa-1798 Harvey Mansion (219 South Front Street), New Bern's oldest masonry mercantile building. If driven piles are approved, the APE will need to be considerably expanded to factor in potential impact within the district.

Initialed: NCDOT JPSS FHWA RHA HPO SDM

cc: VJ Rhea

Federal Aid # BRSTP-070B (4) *TIP#* B-2532 *County*: Craven

CONCURRENCE FORM FOR ASSESSMENT OF EFFECTS

Project Description: Replace Bridge No. 60 (Alfred A. Cunningham Bridge) on US Highway 70 Business over the Trent River, New Bern

On August 31, 2005, representatives of the

- ☒ North Carolina Department of Transportation (NCDOT)
- ☒ Federal Highway Administration (FHWA)
- ☒ North Carolina State Historic Preservation Office (HPO)
- ☐ Other

Reviewed the subject project and agreed

- ☐ There are no effects on the National Register-listed property/properties located within the project's area of potential effects and listed on the reverse.
- ☐ There are no effects on the National Register-eligible property/properties located within the project's area of potential effects and listed on the reverse.
- ☒ There is an effect on the National Register-listed property/properties located within the project's area of potential effects. The property/properties and the effect(s) are listed on the reverse.
- ☒ There is an effect on the National Register-eligible property/properties located within the project's area of potential effects. The property/properties and effect(s) are listed on the reverse.

Signed:

Renee Sandbeck — 8/31/05
Representative, NCDOT — Date

RHA — 9.7.05
FHWA, for the Division Administrator, or other Federal Agency — Date

David D Brook — 8/31/05
Representative, HPO — Date

for Renee Gledhill-Earley — 8.31.05
State Historic Preservation Officer — Date

Alternative 3 *will* have an adverse effect upon the Alfred A. Cunningham Bridge, which has been determined eligible under Criterion A for Transportation. While the bridge must be replaced for safety reasons, its loss will be, with the recently-replaced Neuse River Bridge, another vanished postwar resource. Therefore this will have an adverse effect on the district and the bridge.

Initialed: NCDOT JPSS FHWA RHA HPO SDM

Historic Preservation Commission
P. O. Box 1129
New Bern, North Carolina
(252) 639-7583

September 28, 2005

Property Location: at the southern end of East Front Street, near intersection of South Front and East Front Streets
Description of Work: replacement of Alfred Cunningham bridge

Dear Property Owner:

Attached please find a copy of the Certificate of Appropriateness that was approved at the August 23, 2005 meeting of the New Bern Historic Preservation Commission. **This approval is based on the application you submitted to the Commission and any conditions the Commission placed upon the project.** In addition, you will find a copy of the specific guidelines cited by the Commission that applies to your project. Please note the comments of the Chief Building Inspector and Zoning Administrator. If you have any questions concerning this matter, please do not hesitate to contact me at (252) 639-7583.

Sincerely,

Annette D. Stone

Annette D. Stone, AICP
City Planner

Cc: Mr. Tracy Roberts, HNTB North Carolina, P.C.

Expires: n/a

PERMIT #: 051267

North Carolina Begins Here

CERTIFICATE OF APPROPRIATENESS

Property Owner: North Carolina Department of Transportation
Property Location: at the southern end of East Front Street, near intersection of South Front and East Front Streets

Description of Work: replacement of the Alfred Cunningham Bridge

This application is for a Minor / Major work project. (Circle one)

Comments/Signature/Date:

ZONING ADMINISTRATOR:	CHIEF BUILDING INSPECTOR:

The **New Bern Historic Preservation Commission**/Administrator of the Historic Preservation Commission reviewed the application on 08/23/05 and

approved ____

disapproved ____

approved (with conditions listed below) X

the request in accordance with the New Bern Historic Ordinance and Design Guidelines.

Conditions:

- Use "Scheme B" operator's house with hipped roof and terra cotta side panels.
- Use "Texas"-style railing
- Incorporate railing from Union Point Park above the tapering retaining wall coming off the bridge on the New Bern side
- DOT to return to Commission with a more patterned tapered retaining wall
- Commission recommends DOT provide for pedestrian lighting on the bridge
- Suspension poles for traffic lights shall remain silver
- Use "London walkway" for sidewalk pattern to match existing E. Front Street sidewalk

Commission Administrator: Kenneth D. Stone Date: 8/24/05

CERTIFICATE OF APPROPRIATENESS APPLICATION
Fee: None

City of New Bern

Annette Stone, City Planner
(252) 639-7583
stonea@newbern-nc.org
Fax: (252) 636-2146

Approved w/ Conditions
Sent 8/23/05
PERMIT #: 051267

CITY OF NEW BERN
APPLICATION FOR A CERTIFICATE OF APPROPRIATENESS

APPLICANT: North Carolina Department of Transportation

PROJECT ADDRESS: US 70 Business over the Trent River, New Bern

MAILING ADDRESS: NCDOT-PDEA, 1548 Mail Service Center, Raleigh NC 27699

TELEPHONE NUMBER: (919) 733-7844 ext. 261 HOME (919) 733-7844 ext. 261 WORK

FAX: (919) 733-9794 EMAIL: vrhea@dot.state.nc.us

PROPERTY OWNER: North Carolina Department of Transportation

OWNER'S MAILING ADDRESS: same as mailing address c/o Mr. Vincent Rhea

INDICATE IF PRE-APPLICATION REVIEW IS NEEDED: YES _____ NO X
(Pre-application review is required for all projects exceeding a cost of $10,000 and/or involving new construction projects with a minimum square footage of 1,000 sq.ft.)

IF FEDERAL OR STATE PERMITS, LICENSING, OR MONIES ARE INCLUDED IN THE PROJECT, A REVIEW BY THE STATE HISTORIC PRESERVATION OFFICE (SHPO) MAY BE REQUIRED IN CONJUNCTION WITH CITY REVIEW. IF APPLICABLE, ATTACH A LIST OF FEDERAL OR STATE PERMITS, LICENSING, OR FUNDS INVOLVED IN THE PROJECT.

INSTRUCTIONS:

1. In the space provided or on additional sheets, describe the nature and extent of the proposed work. Include a listing of materials and dimensions when applicable. Provide sufficient detail to allow the Historic Preservation Commission (HPC) to make an informed decision regarding appropriateness.

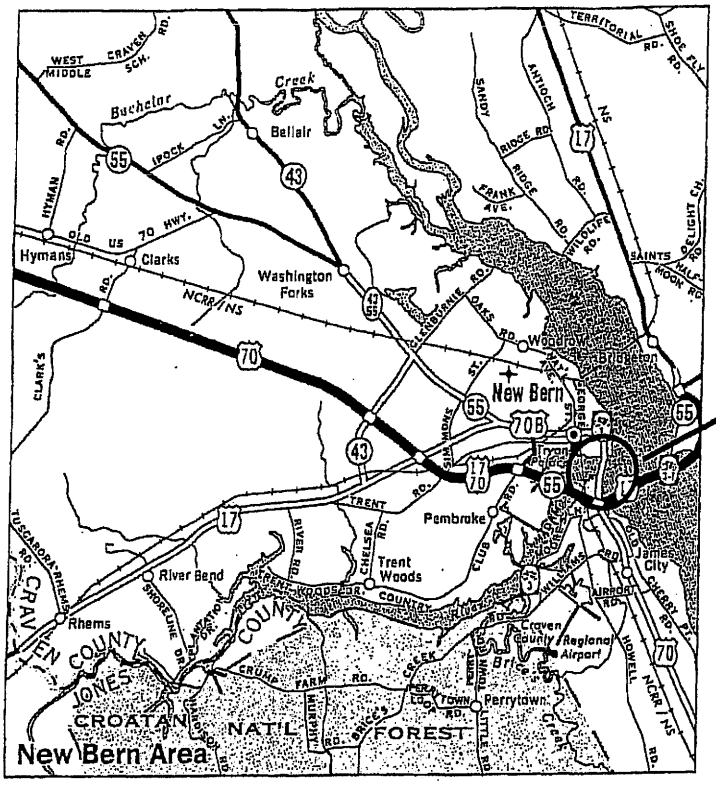
2. For each specific type of activity, attach the following materials: (Check the applicable category).

___ **EXTERIOR ALTERATION**: Photograph(s) and sketch(es) showing existing conditions and proposed changes for each affected area.

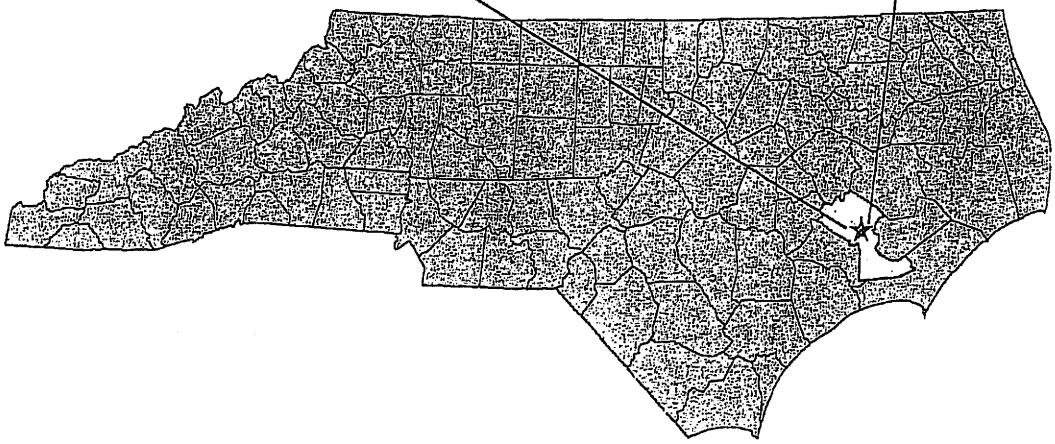
X **NEW CONSTRUCTION**: a) Plot plan showing all new construction on proposed site; b) preliminary or final drawings showing proposed design of new construction or new addition (elevation required); c) descriptions, samples, and specifications indicating materials and textures used on exterior construction; and d) statement by owner of how proposed new construction meets the intent of the HPC's design guidelines for projects involving new buildings with more than 1,000 square feet.

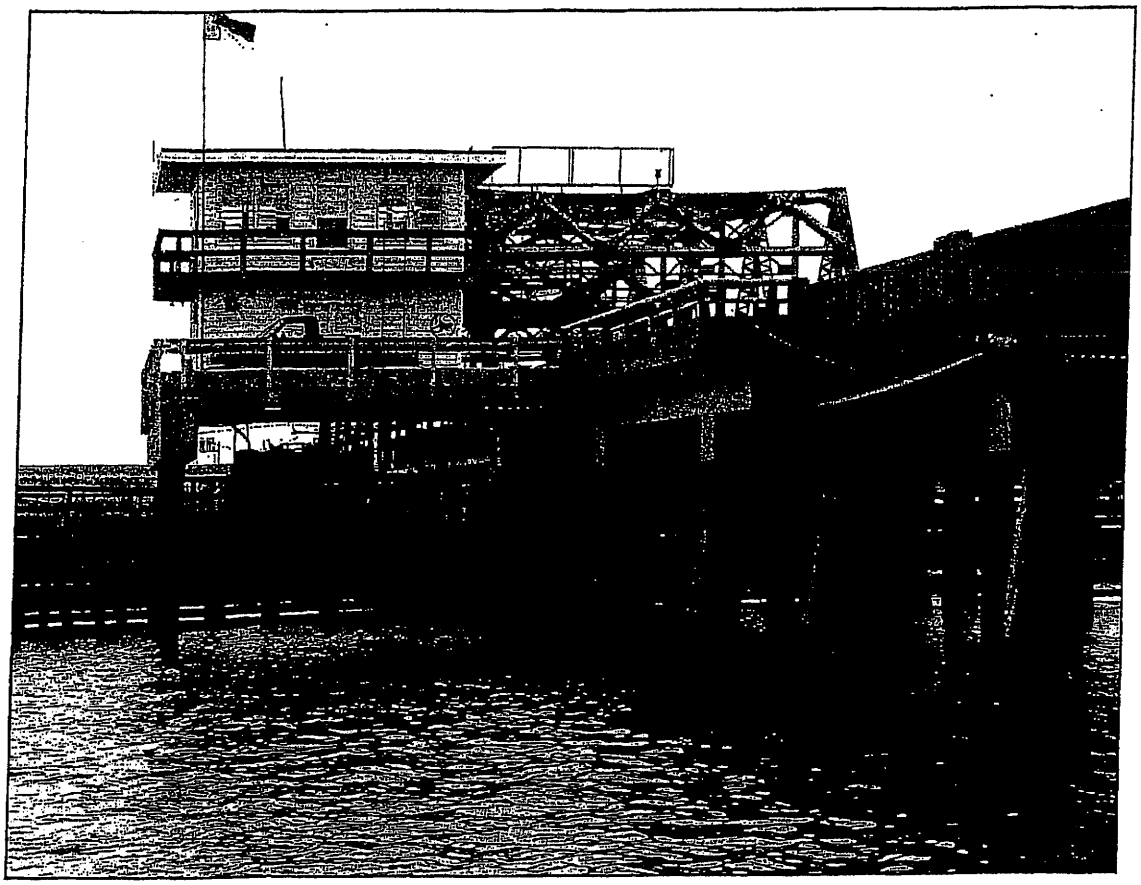
Rec'd 9/20/05

Vicinity Map



TIP B-2532 Alfred Cunningham Bridge





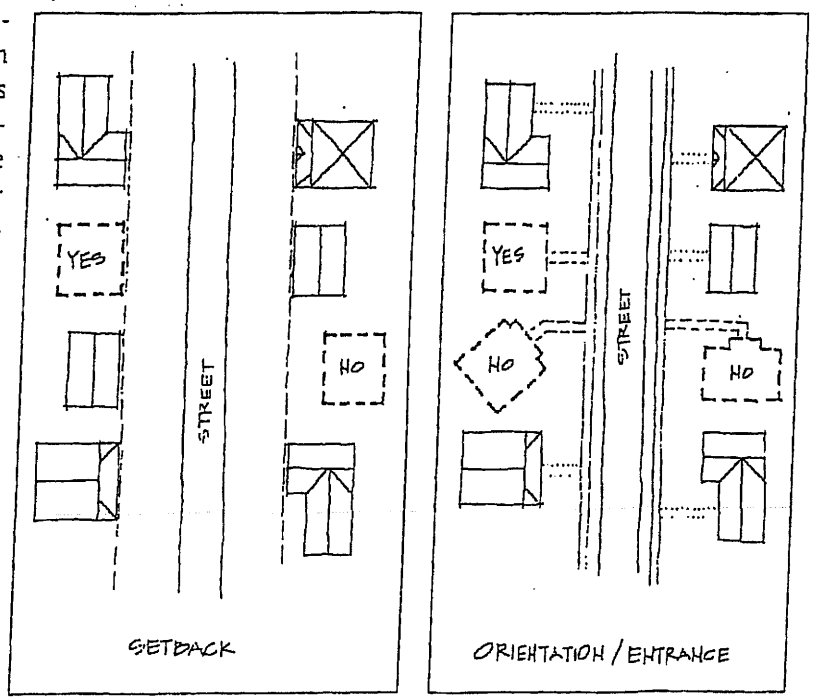
Existing Alfred Cunningham Bridge (to be removed)

New Construction

A well-designed new building, structure, or addition can be an attractive element of the Historic District. New construction affords the opportunity to eliminate vacant lots and missing gaps in the urban fabric, thus reestablishing the streetscape and contributing to a community's sense of cohesiveness. New construction also provides an opportunity to participate in the architectural evolution of a community. By reflecting the period in which it is built, a new building or addition becomes part of a continuum of building design, style, and technology that demonstrates the ongoing growth of the City and the Historic District.

In evaluating new construction, the Historic Preservation Commission shall take into account the impact of such construction on the character of the immediate area and the overall District. The purpose of the new construction guidelines is not to prevent change, but rather to guide change in a manner that protects the distinguishing elements that give the Historic District its character. Some of the elements that impact the character of an area and district include placement of structures, building scale/height, materials, details, texture, form, and rhythm. Specific guidelines have been established below for each design element.

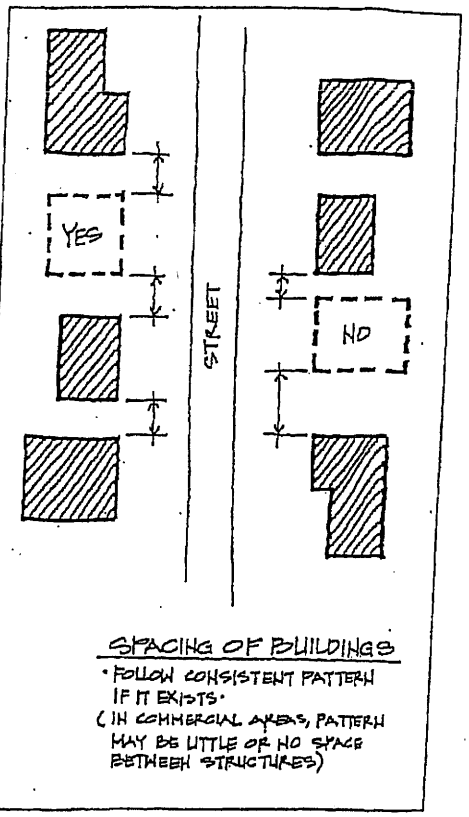
Due to the complexity of most new construction projects, consultation with the Historic Preservation Commission early on in the process is encouraged. A pre-application review of the new construction by the HPC may be required. See page 7 for further information on the pre-application review process.



PLACEMENT OF STRUCTURES:

The way buildings are situated on their lots plays an important role in helping to define the character of a streetscape or district. Consistency in placement can serve as a unifying element of the streetscape that helps to visually tie together over two hundred years of architecture. In New

Bern's commercial downtown district, buildings are traditionally built immediately adjacent to the public sidewalk with little or no front yard setbacks. The uniform placement of buildings creates a definable building edge at the street. Entrances necessarily are located in the front of the building directly on the public sidewalk. Institutional uses, particularly churches, are often set back from the street, providing a break in the continuous building line. In residential sections of the Historic District, building setbacks vary with some of the City's oldest residential structures continuing the tradition of building close to the public right-of-way. The majority of residential structures, however, are set back an average of ten (10) to twenty-five (25) feet from the public sidewalk with a small grassed lawn area found in front. Most buildings have their entrances facing the public street.



PLACEMENT OF STRUCTURES: GUIDELINES

1. Position the building on the lot in a manner that is consistent with other structures on the block and side of the street.
2. Orient the building's front entrance in a similar manner to other structures on the block. The incorporation of architectural elements such as porches and stoops will help to reinforce the building's placement on the street.
3. The maximum allowable width or depth of a structure shall be the same as the width and depth requirements for lot coverage and setbacks as established in the New Bern Land Use Ordinance.
4. Maintain the pattern of separation between buildings that is found on the block.
5. Place outbuildings and accessory structures in secondary or tertiary areas.
6. Minimize disruption to the site to avoid unnecessary destruction of unknown archaeological resources and mature vegetation.

BUILDING SCALE/HEIGHT

The scale of a building is determined by the size of the units of construction and architectural details in relation to the size of man and also by the relationship of building mass to adjoining open space and nearby buildings and structures (i.e., proportion). Changes in the size of an architectural element such as a window or siding can significantly disrupt the harmony of elements on a building and adversely impact the character of the historic resource. Likewise, new construction that occurs in a neighborhood of similar scale that ignores that scale can disrupt the harmony of the streetscape in which it is located. Buildings in the New Bern Historic District are generally similar in scale. Thus, it is important that new buildings respect that existing scale.

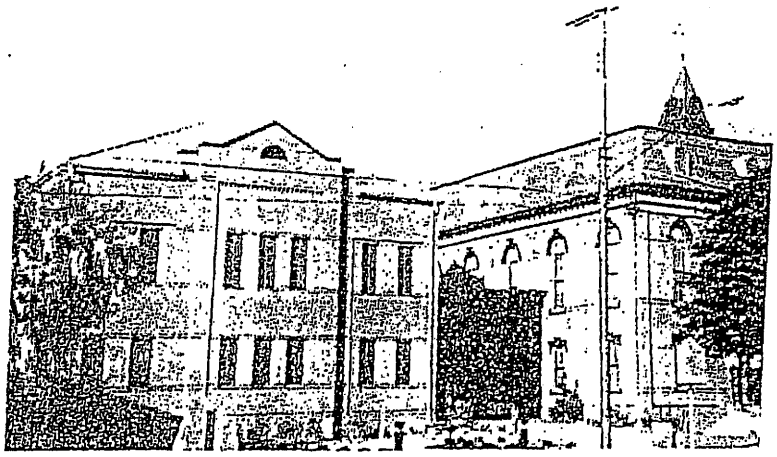
In the residential areas of the Historic District, buildings are traditionally 2 to 2-1/2 stories in height. In commercial areas, while 2 story buildings dominate, there exists a greater variety in height. This is achieved not only by the presence of multi-storied buildings, but also by the use of varied cornice and parapet treatments, towers, cupolas, and other rooftop appurtenances. Generally, buildings in the Historic District shall not exceed a height of thirty-five (35) feet, excluding rooftop appurtenances such as spires, cupolas, and towers. The thirty-five (35) feet threshold is measured from ground level to the bottom of the cornice line of the building. Height requirements are explained in further detail in Article XXIII of the New Bern Land Use Ordinance.

that are found on the City's historic buildings. This includes, but may not be limited to, brick, rusticated and smooth face concrete block, stucco, and wood. Materials such as aluminum and vinyl siding, asbestos shingles, artificial brick and stone sheathing, and other imitation sidings shall not be used as the principal sheathing materials on new buildings. Limited use of such materials may be deemed appropriate for cornice and other decorative architectural treatments and for new window units. Use of modern materials in limited applications is acceptable as a means of continuing the evolution of architecture through time. However, said materials are not appropriate in large applications due to their potential to erode the historic character of the District.

Brick, slate, cooper, and wood are masterfully combined in the William Blades House, 602 Middle Street.

MATERIALS: GUIDELINES

1. Keep the predominant material of the new building within the palette of materials traditionally found in the Historic District. These include, but are not limited to, brick, rusticated and smooth face concrete block, stucco, and wood.
2. Materials such as aluminum and vinyl siding, asbestos shingles, artificial brick and stone sheathing, and other imitation sidings shall not be used as the principal sheathing materials on new buildings.
3. Limit the use of contemporary and synthetic materials. Vinyl, aluminum, exterior insulation finish systems, fiberglass and other materials may be used for window and door units and trim, architectural ornamentation, cornice treatments, etc.
4. Use materials in traditional ways. New materials should appear as if they were applied in a traditional manner so as to convey the same visual appearance as historically used and applied building materials.



The use of red brick with black brick banding, windows with a vertical orientation, and three-part division to the facade were a few of the design elements used to relate the Craven County Annex to the historic courthouse.

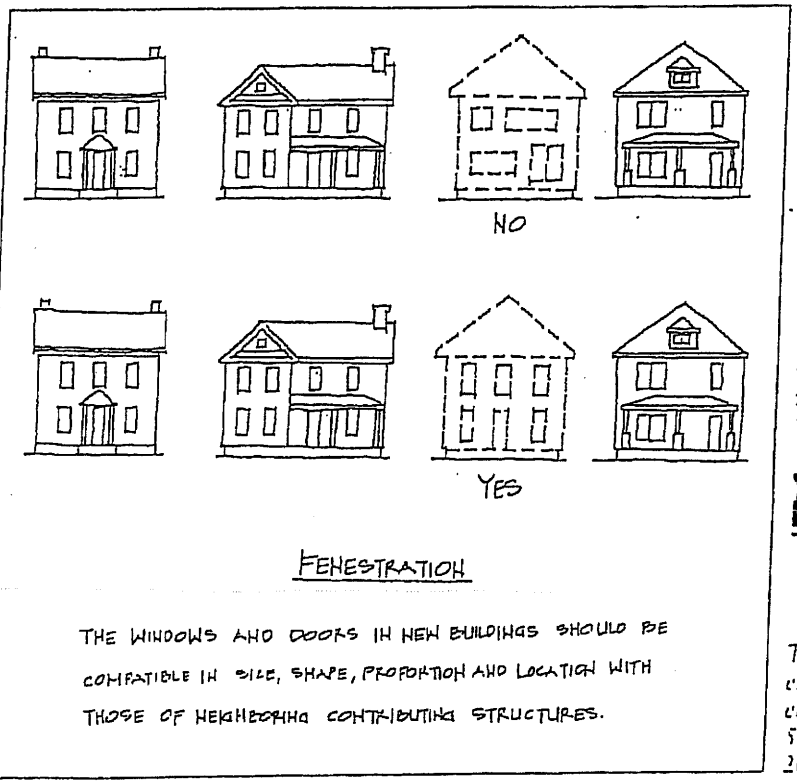
DETAILS

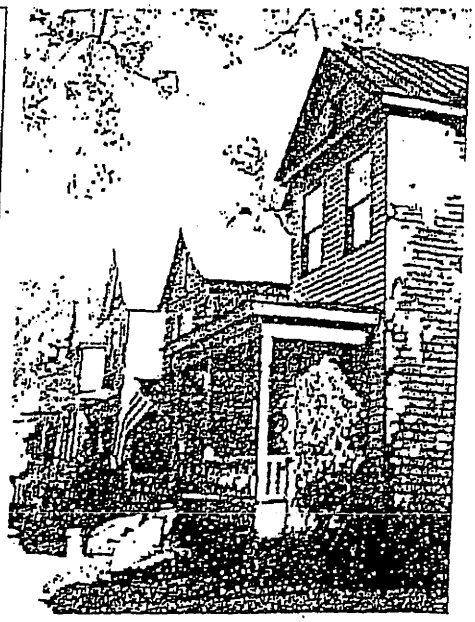
New Bern's two hundred year architectural evolution has produced a rich and varied palette of building styles, details, architectural ornament, and construction technology. The presence of these features creates a visually delightful setting for the pedestrian and student and admirer of architectural history alike. New construction should continue that progression, yet work within the established framework of architectural detailing that characterizes the New Bern Historic District. As contemporary, yet compatible new design is encour-

the placement of windows, doors, and porches on a building's facade all work together to establish a certain pattern that characterizes a building, streetscape, or a district. Variations or repetition of certain forms and building features in the streetscape should be carefully evaluated and considered in any new construction project.

FORM AND RHYTHM: GUIDELINES

1. Design new construction that reflects the basic shapes and forms found on the block and in the Historic District;
2. Employ roof forms and pitches that are traditionally found in the Historic District. Flat or low sloped roofs are commonly found in New Bern's Downtown Commercial District, while roofs in the residential sections of the Historic District generally have roof pitches of 7/12 or greater. Roof forms commonly found in residential areas include: gable varieties, hip, gambrel and mansard styles.
3. Maintain similar percentages of window and door openings to those of neighboring historic structures. Openings which vary significantly from that which exists in the area surrounding the proposed new construction will tend to have a disruptive effect and draw undue attention to the new structure.
4. Create rhythm and form in new construction through the use of details. Elements found on neighboring historic structures such as columns, shutters, and decorative sawnwork when viewed collectively help establish a level of rhythm and form that should be emulated in new construction.





The repetition of building forms and details establishes a rhythm in architecture as evidenced by these streetscape views of the 500 block of Metcalf Street (above) and the 200 block of King Street (below).

Landscaping

Landscape elements, both natural and man-made, play an important role in helping to define the total "cultural environment" of the New Bern Historic District. Mature trees, hedge rows, foundation plantings, formal and informal gardens, grassy lawns, patios, fences, walls, curbing and walkway treatments, public parks, lighting, art and statuary, and streetscape furniture all contribute to the character of a specific site and the Historic District as a whole. Importantly, these features provide a context for and enhance the historic built environment. Equally as important, they help to further communicate man's interaction with his surroundings.

The public areas of the residential sections of the Historic District are characterized by tree-lined streets. Street trees are generally located in a planting strip located between the public sidewalk and the street curb. The consistent treatment of uniformly spaced canopy trees set in a linear grass strip serves as a unifying element of the streetscape and shall be preserved. When tree replacement is warranted, new trees shall be of a deciduous, large canopy variety that will help to establish a definable urban forest "edge" at the street. Smaller tree species may be permitted in areas where utility wires and other site features cause overhead obstruction. Grass areas in the planting strip shall remain intact.

Residential areas of the Historic District are also characterized by small private lawn and garden areas. Gardens are generally located in rear yards, but larger lots also have side yards with gardens. These lush landscapes, both formal and informal in their presentation, are characterized by a variety of indigenous plantings ranging from mature canopy trees to flowering shrubs to perennial bulbs. The preservation and propagation of these native plant species is encouraged. New plantings should consist of plant species that are indigenous to the area and complement the existing vegetation on the site.

A grass planting strip with large shade trees along the street characterizes residential sections of the Historic District.

Protection of mature trees is provided for under Article XIX of the New Bern Land Use Ordinance. Ingen-

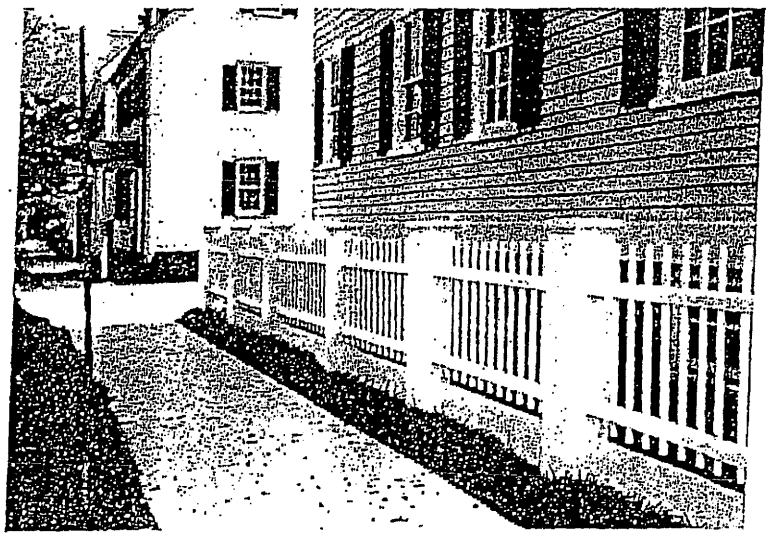
LANDSCAPING: GUIDELINES

1. Maintain mature street trees. When removal or replacement is warranted, replace with a tree of the same species or another tree that will achieve a similar canopy and street edge definition at maturity. Canopy trees suitable for placement along the street include: assorted maple and oak species, Zelkova, Honey Locust, Sweet Gum, Sycamore, Bald Cypress, Pecan, Beech, Walnut, and Ginko (male).
2. Obtain a tree removal permit prior to tree removal in accordance with Section 15-379 of the New Bern Land Use Ordinance.
3. Plant smaller tree species in the planting strip adjacent to the public street only if utility lines or other overhead obstructions exist.
4. Preserve the planting strip found between the public sidewalk and the street curb. This area should remain predominately grass and trees. Small walkways connecting the curb to the public sidewalk may be permitted, provided they align with the walkway leading to the front entrance of the house and do not exceed a width of six (6) feet. In no case shall trees be removed from the planting strip in order to provide for a new walkway installation.
5. Use plant materials that are indigenous to the Historic District. New plant materials should complement those found on the site and in the Historic District.
6. Retain and maintain landscape elements that contribute to the character of the Historic District such as mature trees and hedge rows, grassy lawns, foundation plantings, paving materials, ground covers, fountains, statuary, outbuildings, and gardens.
7. Keep the location of new landscape features consistent with the location of similar elements in the Historic District.
8. Avoid the use of contemporary plant bed edging materials such as exposed landscape timbers in primary and secondary areas of visual concern.
9. Maintain the relationship between building mass and open space that exists on the block or streetscape.
10. Locate additions and new construction, if possible, in areas that do not necessitate the removal of mature plantings or cause the disruption of the established rhythm of building mass and open space.
11. Undertake commercial streetscape improvements in accordance with the 1990 New Bern Urban Design Plan. For public improvements, use the family of streetscape furniture and pavement treatments recommended by the Plan.
12. Use outbuildings, public art, statuary, and fountains as focal points in public and private spaces. Avoid placing such elements in areas that will obscure historic buildings or their architectural features. Due to the subjectivity involved in the

One of the few early brick outbuildings remaining in New Bern, the smokehouse at the Attmore-Oliver House is a rare survivor in a townscape that was characterized by large numbers of "dependency" structures. Such buildings were typically placed in rear yards.

Utilities

One of the greatest challenges in the management of the Historic District is the sensitive treatment and integration of utilities into the landscape. Left unabated, these features often contribute to visual clutter. When introducing new mechanical and electrical equipment and lines, care must be taken that historic elements of the building or important landscape features are not damaged or obscured. Frequently utilities such as HVAC units that are located outside will have to be elevated by virtue of their location in the floodplain. Utility equipment should be located in secondary or tertiary areas and be sufficently screened from the public view by means of vegetation, fencing, or other means. (Approval for such installations may be handled through the minor works process.) Whenever practicably possible, utility lines should be located underground.



This wooden fence at the Jerkins-Richardson House, 520 Craven Street, was recreated based on a ca. 1863 documentary photograph. Aside from being decorative, the fence effectively screens an HVAC unit from public view.

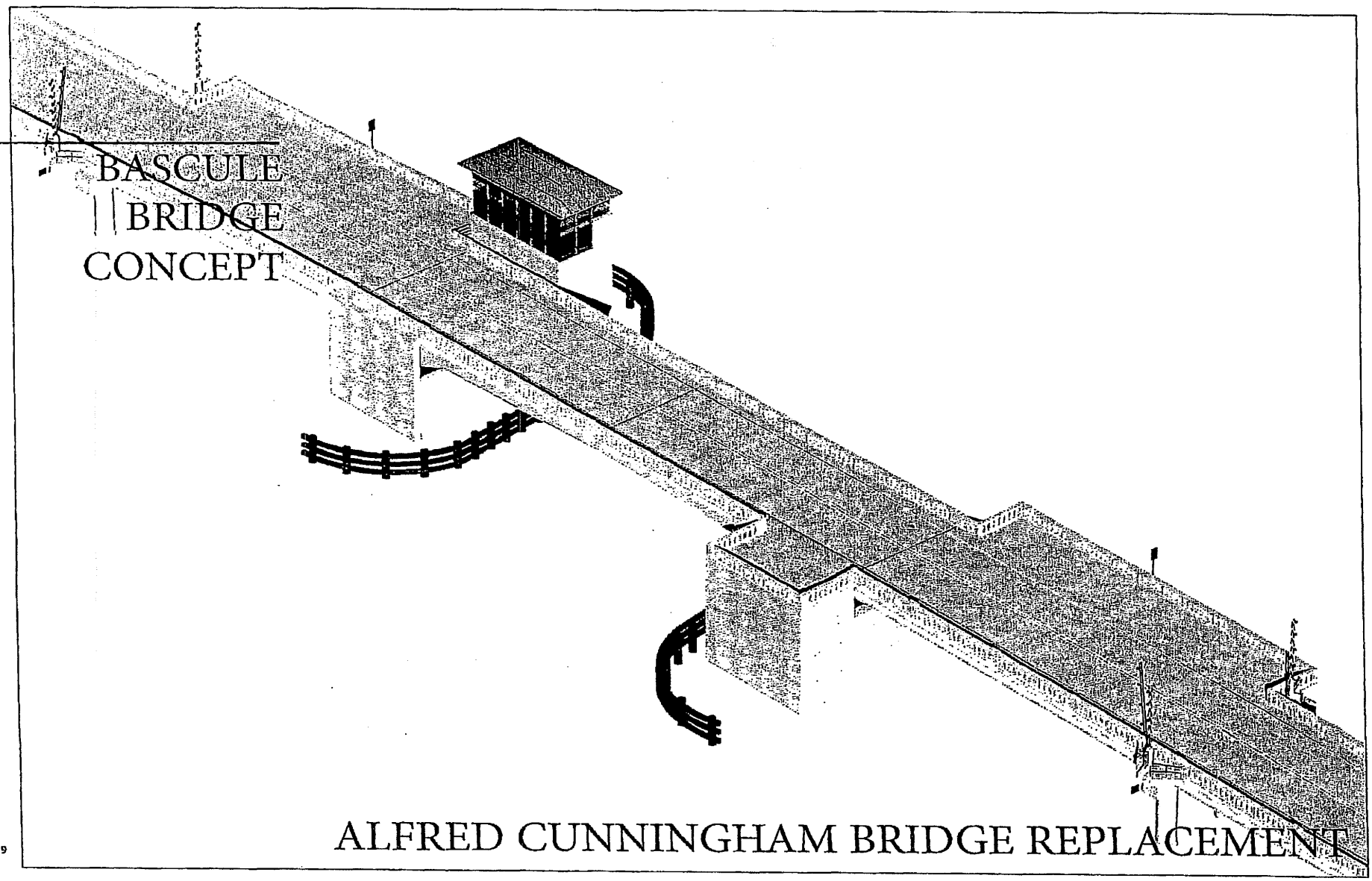
In addition to private individuals and utility providers, all public utility companies, including the State of North Carolina, its political subdivisions, agencies, and instrumentalities, shall be required to obtain a Certificate of Appropriateness (COA) prior to initiating any changes in utility installations or structures on easements or streets located in the Historic District or on a landmark property. Utility installations will be evaluated by the Commission on the basis of design, scale, massing, color, compatibility with surrounding streetscape features, and overall visual impact on the Historic District.

A Certificate of Appropriateness is not required for ordinary maintenance or repair in-kind of utility lines and support structures , and or replacement of street fixtures in the event of equipment failure or damage due to accident or natural occurrences, such as electrical storms, tornadoes, and ice storms.

HNTB

8.23.2005

BASCULE BRIDGE CONCEPT



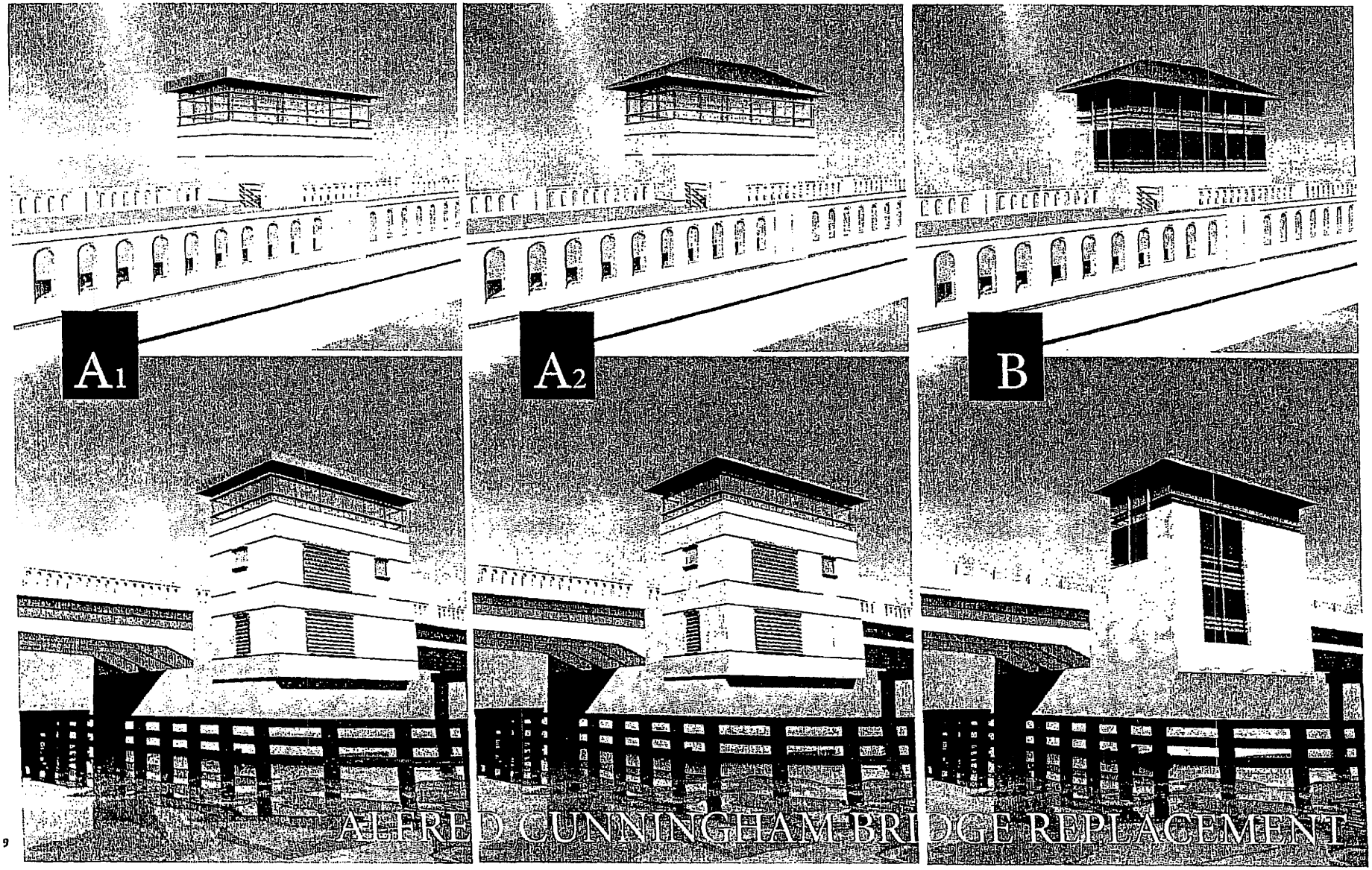
ALFRED CUNNINGHAM BRIDGE REPLACEMENT

SHEET 1 OF 9

Approved w/ Conditions
1 of 7 8/23/05

HNTB

8.23.2005



ALFRED C. CUNNINGHAM BRIDGE REPLACEMENT

SHEET 2 OF 9

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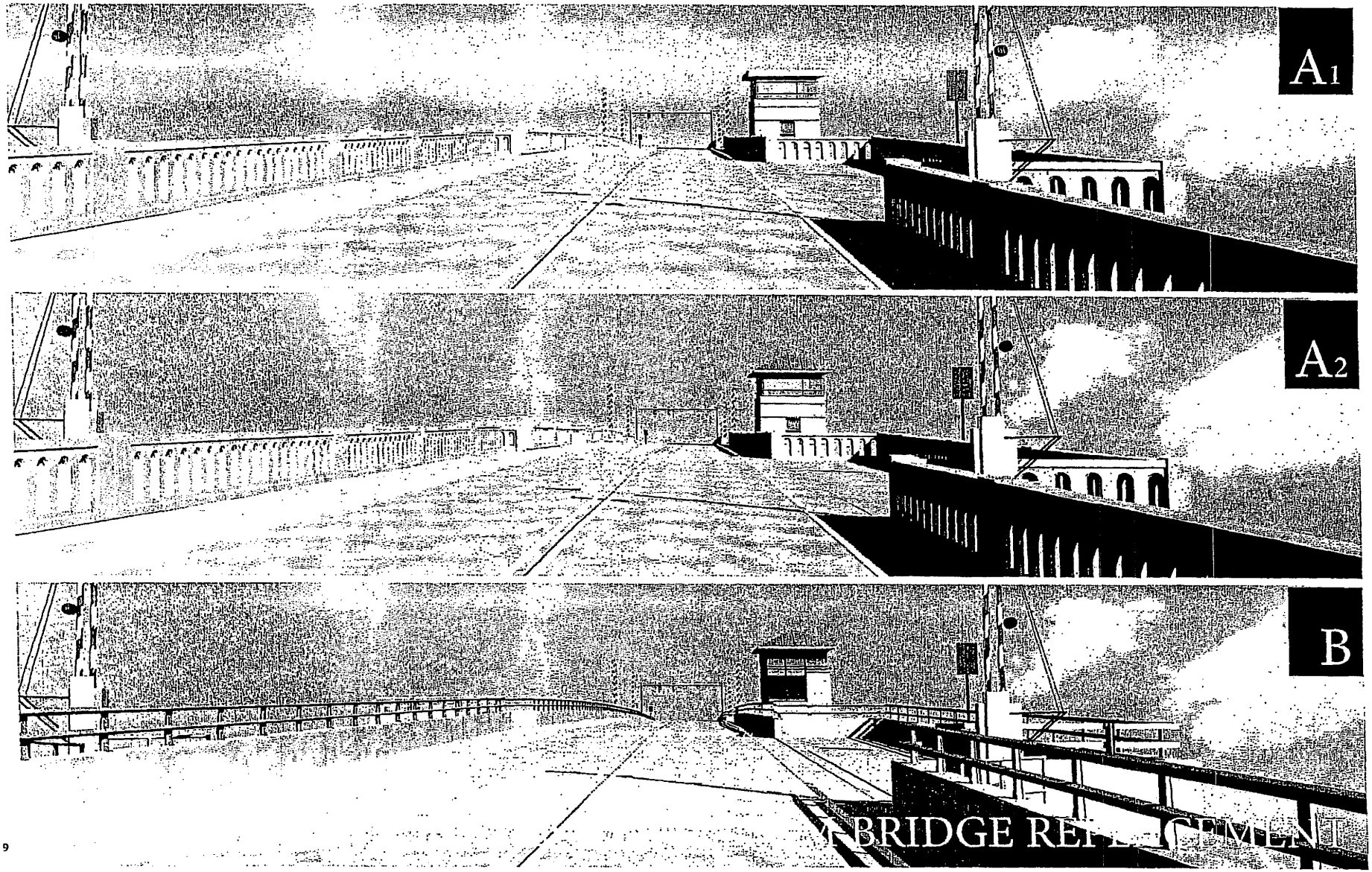
Jet 8/23/05

HNTB

8.23.2005

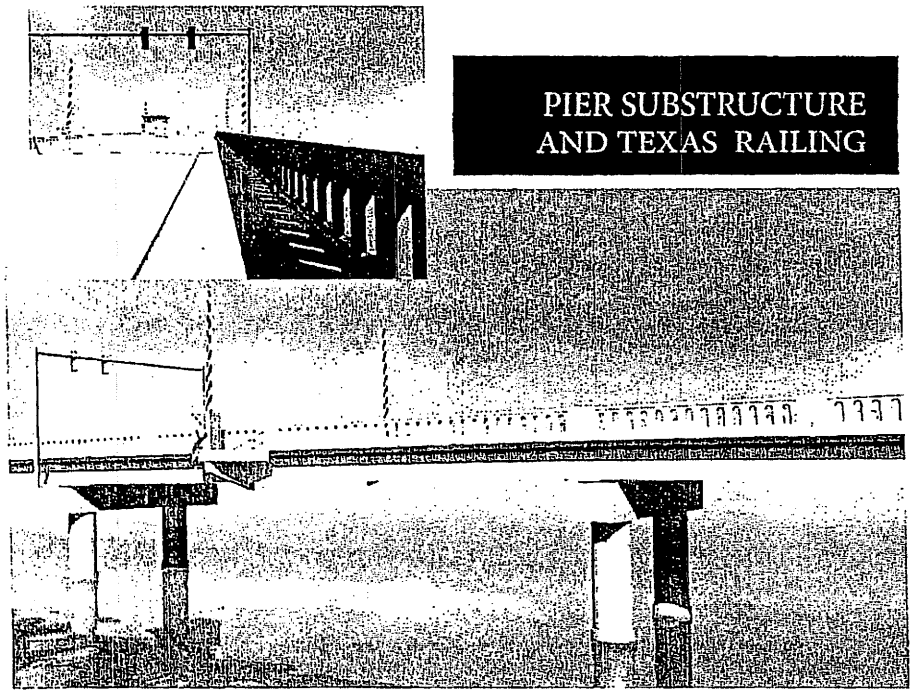


SHEET 3 OF 9

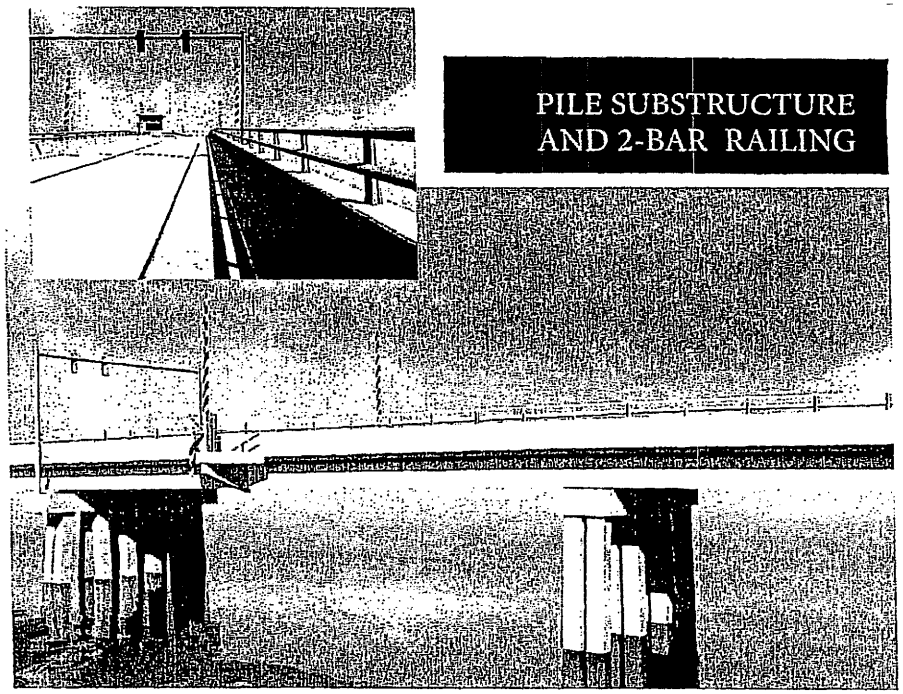
Approved w/ Conditions
JAT 8/23/05

HNTB

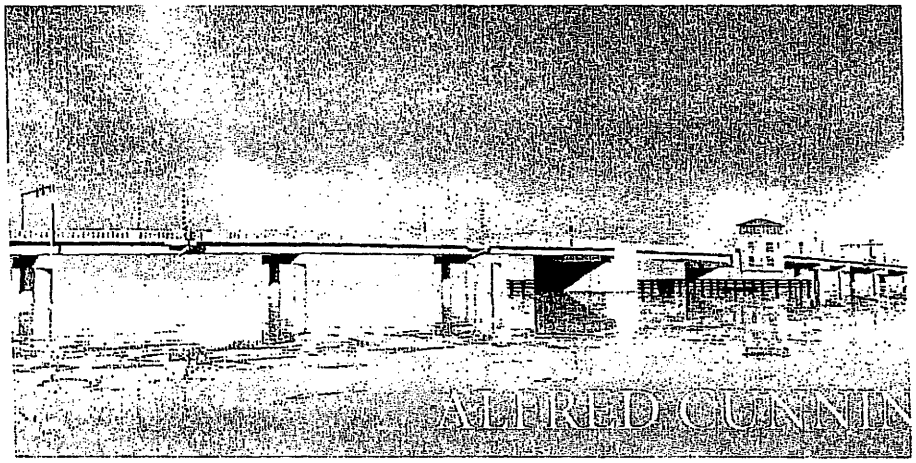
8.23.2005

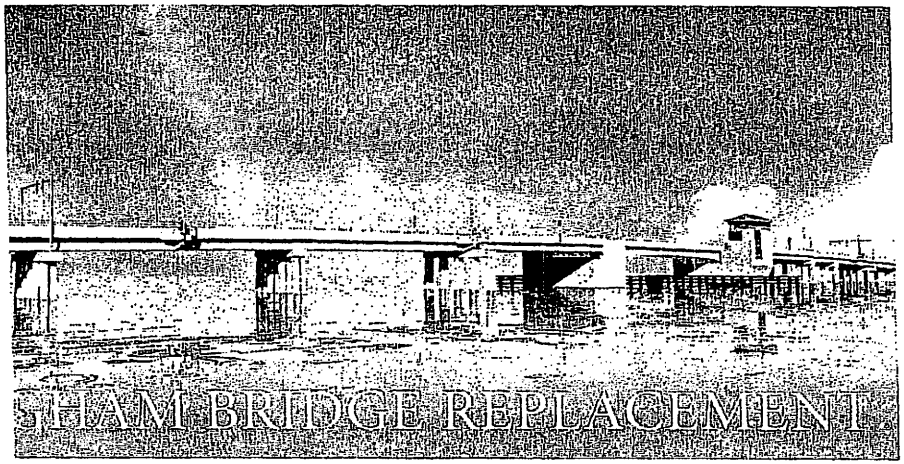


PIER SUBSTRUCTURE
AND TEXAS RAILING



PILE SUBSTRUCTURE
AND 2-BAR RAILING





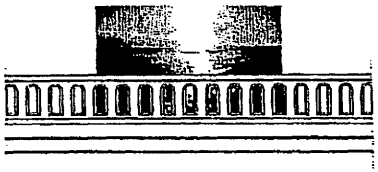
ALFRED CUNNINGHAM BRIDGE REPLACEMENT

SHEET 4 OF 9

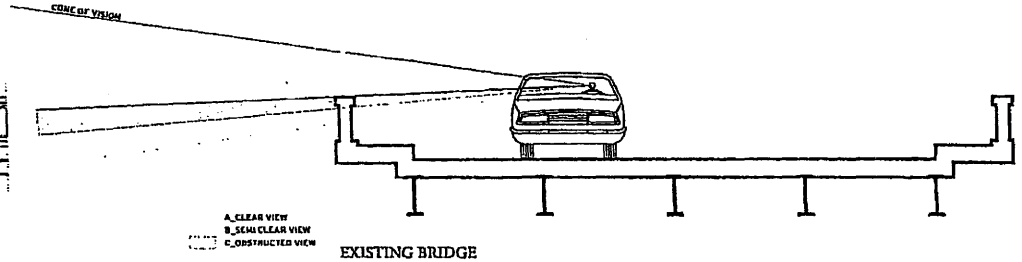
Approved w/ Conditions
JAT 8/23/05

HNTB

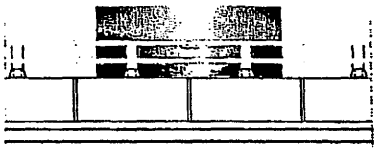
8.23.2005



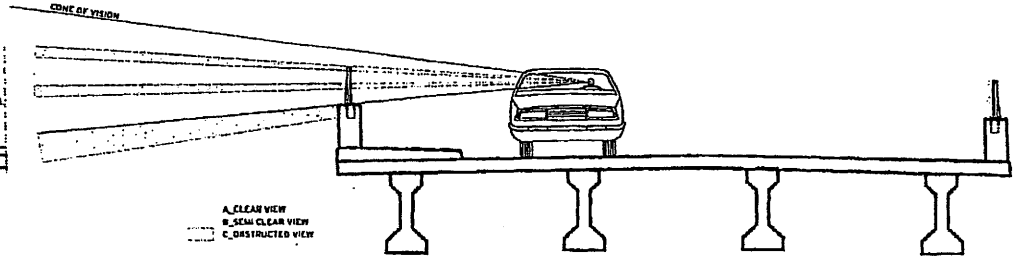
2'-9" HIGH - EXISTING



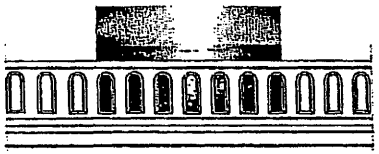
EXISTING BRIDGE



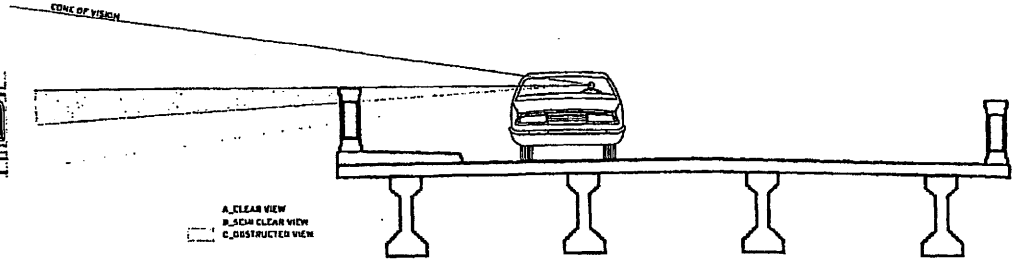
4'-6" HIGH - 2 BAR RAIL



PROPOSED BRIDGE WITH 2-BAR RAIL



3'-6" HIGH - TEXAS RAIL



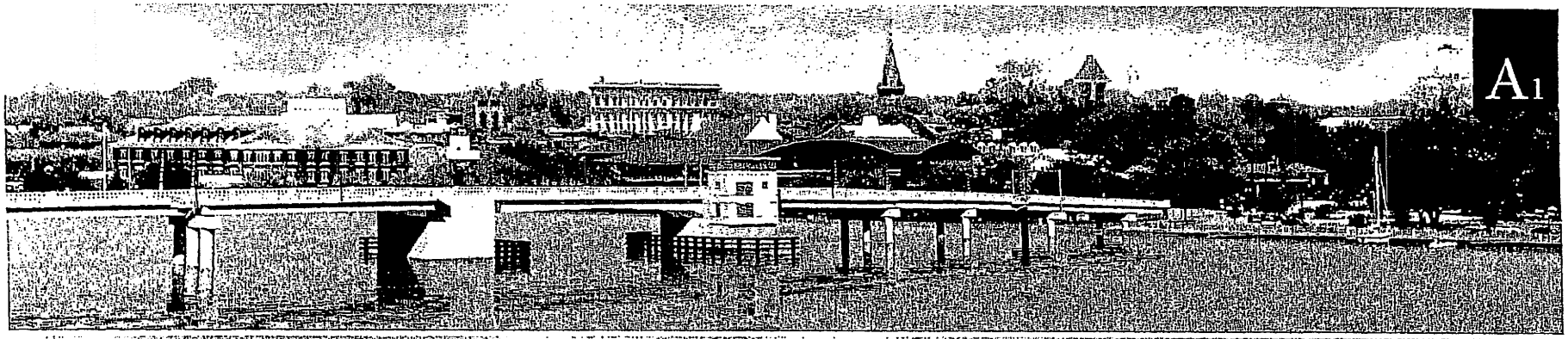
PROPOSED BRIDGE WITH TEXAS CLASSIC

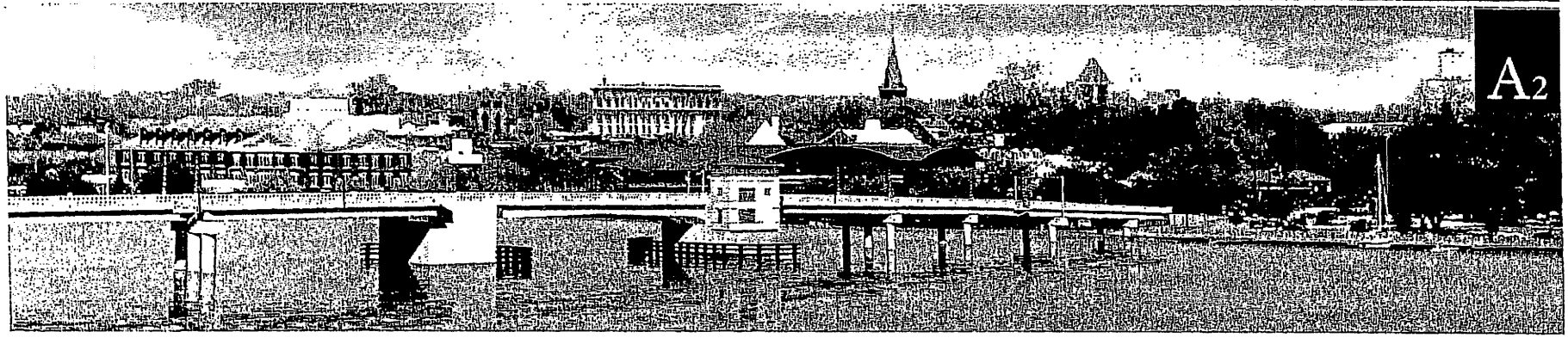
SHEET 5 OF 9

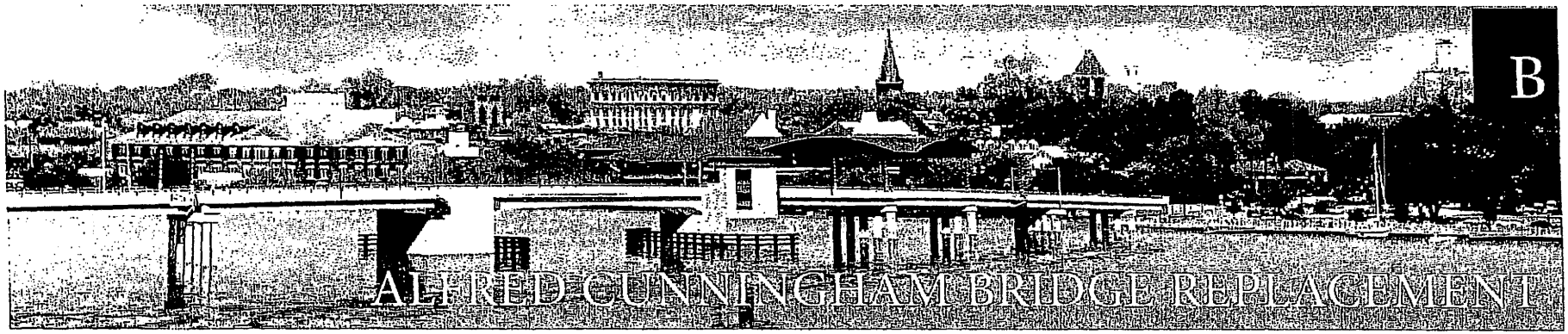
Approved w/ conditions
SAT 8/23/05

HNTB

8.23.2005







ALFRED GUNNINGHAM BRIDGE REPLACEMENT

SHEET 6 OF 9

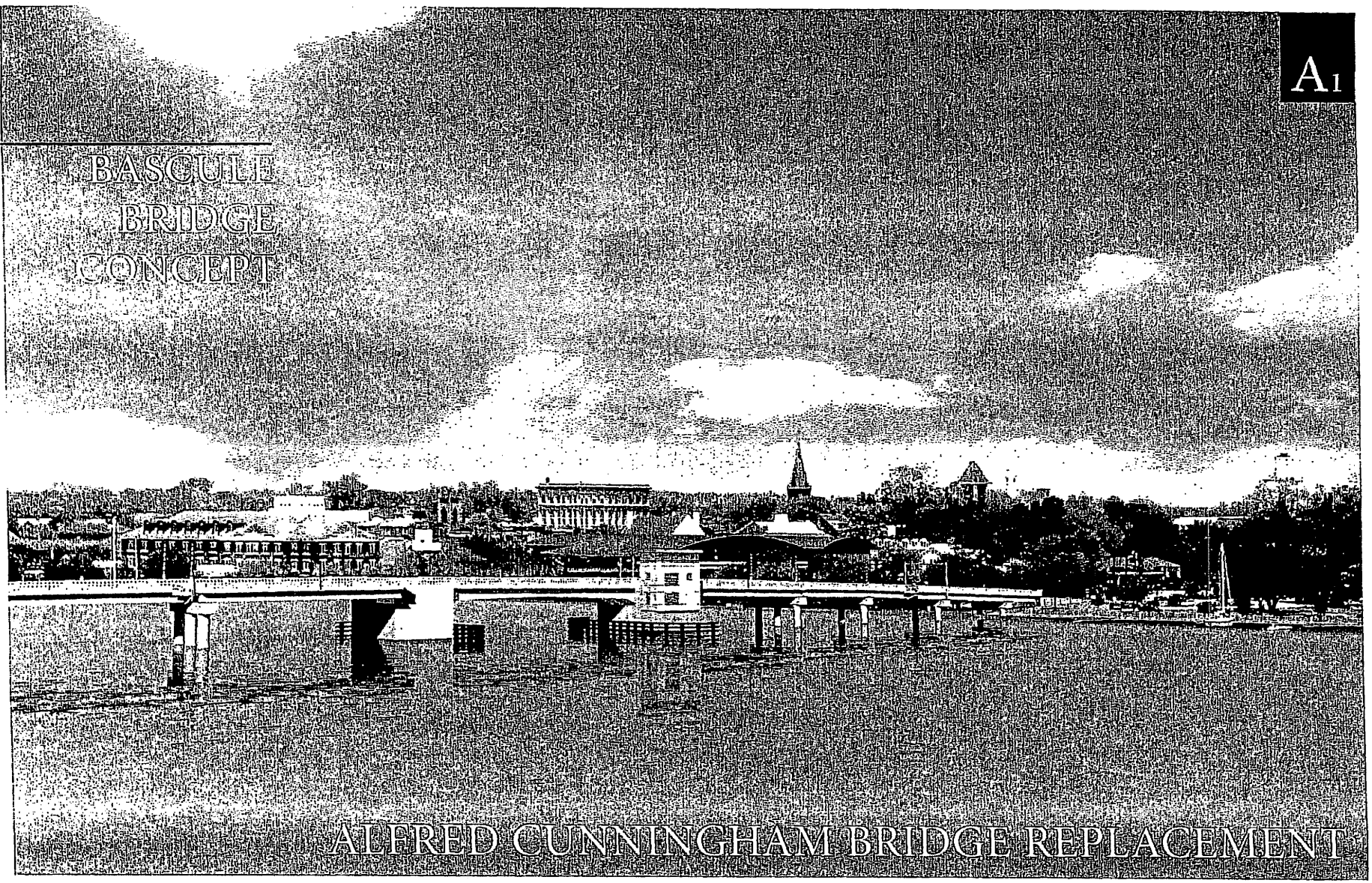
Approved w/ Conditions
Sat 8/23/05

HNTB

8.23.2005

A1

BASCULE BRIDGE CONCEPT



ALFRED CUNNINGHAM BRIDGE REPLACEMENT

SHEET 7 OF 9

Approved w/ conditions
[signature] 8/23/05

HNTB

8.23.2005

BASCULE BRIDGE CONCEPT

A2

ALFRED CUNNINGHAM BRIDGE REPLACEMENT

SHEET 8 OF 9

Approved w/ Conditions
SAT 8/23/05

HNTB

8.23.2005

BASCULE BRIDGE CONCEPT

B

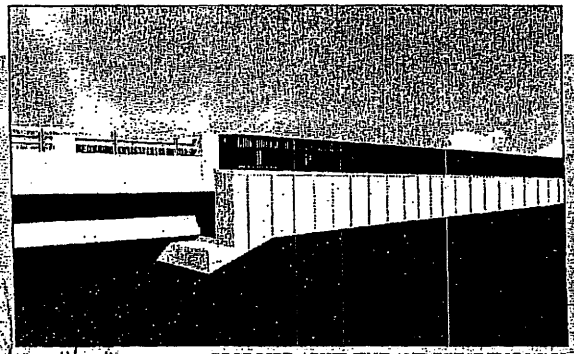
ALFRED CUNNINGHAM BRIDGE REPLACEMENT

SHEET 9 OF 9

Approved w/ Conditions
SAT 8/23/05

HNTB

8.23.2005



PROPOSED ABUTMENT AND RETAINING WALL
WITH BLACK ORNAMENTAL RAILING

ALFRED CUNNINGHAM BRIDGE REPLACEMENT

SHEET 10

Approved w/ Conditions
SAT 8/23/05

City of New Bern

Three Centuries of North Carolina Heritage

FOUNDED 1710

Phone: 252-636-4000 P.O. Box 1129

New Bern, NC 28563-1129

MEMO

TO: Tracy Roberts, HNTB North Carolina, P.C.

FROM: Leigh Anne Friesen, Planner I LAF

DATE: November 4, 2005

RE: Amended COA for the Alfred Cunningham Bridge

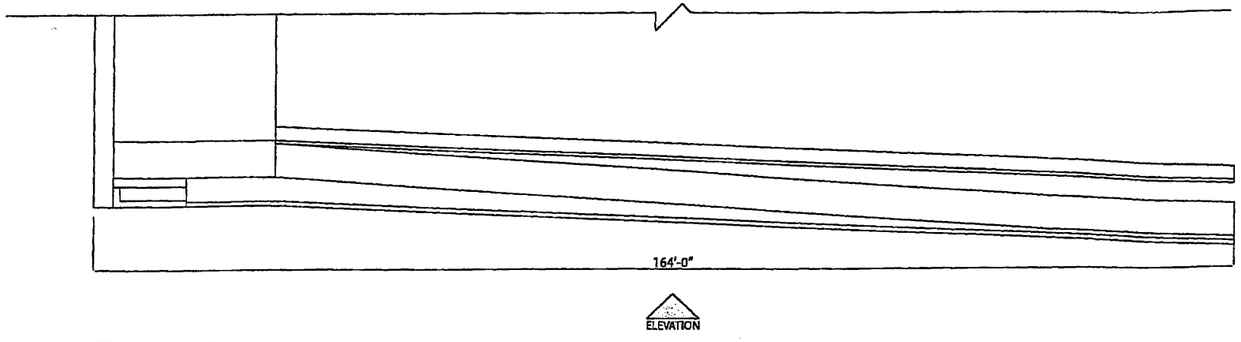
Attached are the drawings you submitted to satisfy the condition of your Certificate of Appropriateness that NCDOT return to the Commission with a more patterned tapered retaining wall. They were approved by the Commission on 10/19/05 with the condition that NCDOT follow up with Danny Meadows, City of New Bern Director of Public Works, regarding landscape planting details.

Please don't hesitate to let me know if you need anything more.

Amendment approved 10/19/05 with condition that NCDOT follow up with Danny Meadows, Dir. of Public Works, on landscape planting details.
Jo Freis

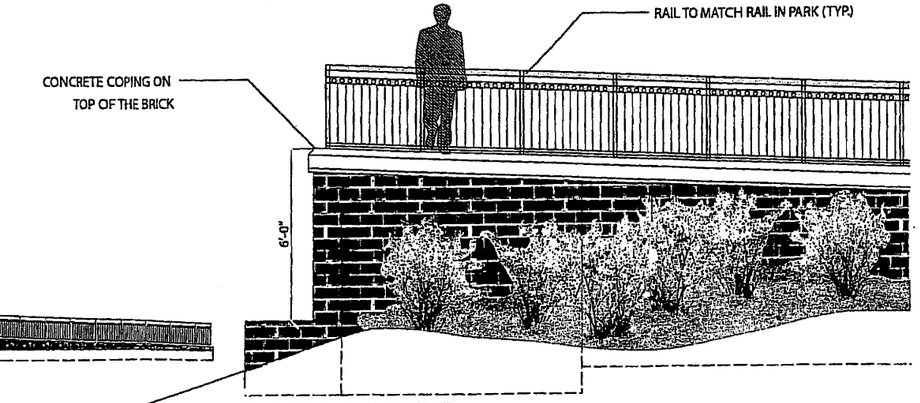
ALFRED CUNNINGHAM BRIDGE REPLACEMENT

OCTOBER 2005



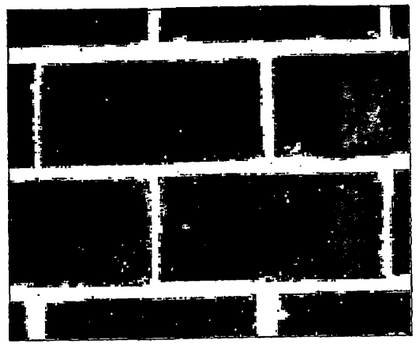
RETAINING WALL PLAN

A1_RETAINING WALL ELEVATION



B2_RETAINING WALL CLOSE-UP

MATERIAL SAMPLE_BRICK



NOTE:
1. BRICK SHALL MATCH THE EXISTING BRICK ON THE NEW BERN RIVERFRONT CONVENTION CENTER.
2. BRICK SHALL BE "IRONSPOT COVENTRY - CLOSURE SIZE - RED" BY TRIANGLE BRICK COMPANY.
3. BRICK SHALL BE RUNNING OR STRETCHER BOND WITH NO HEADER COURSES.
4. MORTAR SHALL BE OFF-WHITE IN COLOR TO MATCH THE EXISTING MORTAR ON THE NEW BERN RIVERFRONT CONVENTION CENTER.
5. LANDSCAPING SHOWN IS CONCEPTUAL, REFER TO LANDSCAPE PLAN FOR PLANTING DETAIL.

8/17/99

Symbol	Qty	Botanical Name	Common Name	Specifications
	9	Acer Rubrum	Red Maple	12'-14' Height, 2 1/2" Cal.
	20	Osmanthus heterophyllus	Holly Osmanthus	3' - 4' Height
	66	Ilex vomitoria 'nana'	Dwarf Yaupon Holly	2' Height, 3' O.C.
	178	Juniperous conferta	Shore Juniper	1Gal, 2' O.C.
	568 (652 S.F.)	Liriope Spicata	Liriope	1 Gal, 12" O.C.

Note: A minimum distance of 15' is required between the edge-of-curb and Acer Rubrum (Red Maple) streetscape plantings.

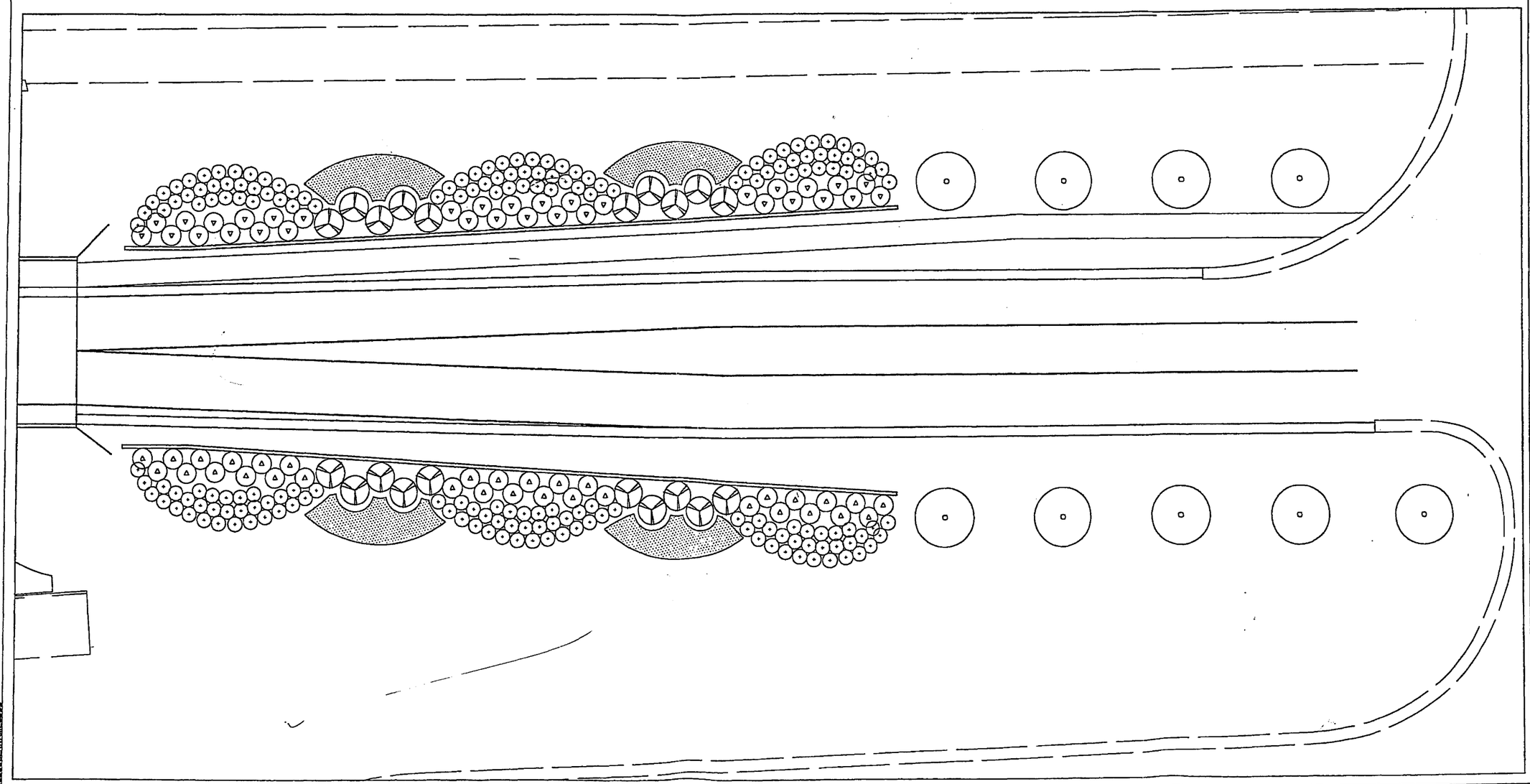
Amendment approved 10/19/05 with condition that NCDOT follow up with Danny Meadows, Dir. of Public Works, on landscape & planting details. JPatrick

PROJECT REFERENCE NO.	SHEET NO.
B-2532	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

GRAPHIC SCALE
10 5 0 10 20
PLANS

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY
GOVERNOR

LYNDO TIPPETT
SECRETARY

October 4, 2005

MEMORANDUM TO: Vincent J Rhea
PDEA

FROM: Don Idol
Assistant State Bridge Inspection Engineer

SUBJECT: Alfred Cunningham Bridge, TIP B-2532
Bridge #60 Craven County
Rehabilitation of Existing Bridge Comments

The Alfred Cunningham Bridge carrying US 70 Business across the Trent River was built in 1955. The bridge consists of 17 – 2 @ 35' continuous I-beam span units, 2 @ 110' swing span truss, and 5 – 2 @ 35' continuous I-beam span units. The concrete deck is a 28'-0" clear roadway with 3'-0" sidewalks each side.

The bridge was designed for HS-15 Live Load. The Live load Design criteria for new bridges is HS-20.

The bridge is currently Posted for Single Vehicle (SV) = 30 Tons and Truck Tractor Semi-Trailer (TTST) = Legal Gross Weight. For a number of years, the Legal Gross Weight of trucks in North Carolina has been 40 Tons for both SV and TTST. The North Carolina Legislature has passed a number of exceptions to North Carolina Weight Laws. These changes are being reviewed and will be adopted in the next few months. The Legal Gross Vehicle Weights will increase to a minimum of 42 Tons for both SV and TTST and may increase to 45 Tons for TTST.

The bridge is old, deteriorated, has low load capacity, and is not a good candidate for rehabilitation.

Numerous Concrete Piles have hairline to 1/32" cracks on random faces. All bents have Concrete Piles with cracks larger than 1/32" up to ¼" maximum crack width. Piles have surface deterioration to 38/" in depth and random pitting to 1" deep in Tidal Zone. Numerous Piles have spalls with exposed reinforcing steel and cracks are observed above high tide mark.

Both the swing span and the approach spans would need strengthening to carry today's loads.

MAILING ADDRESS:
BRIDGE MAINTENANCE UNIT
1565 MAIL SERVICE CENTER
RALEIGH NC 27699-1565

TELEPHONE: 919-733-4362
FAX: 919-733-2348
WEBSITE: WWW.DOH.DOT.STATE.NC.US

LOCATION:
4809 BERYL ROAD
RALEIGH, NC

All machinery and controls should be replaced. The Fender System should be replaced.

From a Maintenance viewpoint, it is not logical to rehabilitate a 50 year old bridge.

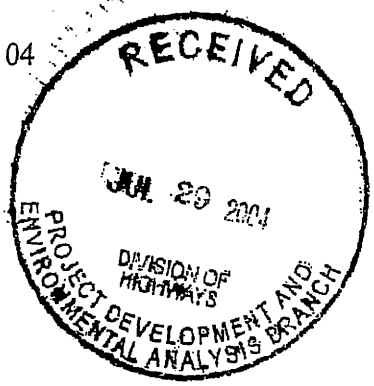
Please advise if I can be of further assistance in this matter.

U.S. Department of Homeland Security
United States Coast Guard

Commander
United States Coast Guard
Fifth Coast Guard District

431 Crawford Street
Portsmouth, Va. 23704-5004
Staff Symbol: obr
Phone: (757) 398-6629
Fax: (757) 398-6629
Email: gheyer@lantd5.uscg.mil

16593
22 Jul 04



Mr. Gregory J. Thorpe, Ph.D., Director
NC Department of Transportation
Project Development and Environmental Analysis
1548 Mail Service Center
Raleigh N.C. 27699-1548

Dear Mr. Thorpe:

This is response to your letter of June 22, 2004, regarding the proposed improvements to your Bridge No. 60 (Alfred Cunningham Bridge) over Trent River.

In response to our previous telephone conversation, you were provided a copy of our Bridge Permit Application Guide delineating our requirements in obtaining a formal Coast Guard bridge permit. Upon review of the proposed replacement project, we will proceed with the publication of our public notice. If you choose to refurbish the bridge in-kind, the following initial conditions are required:

You or the contractor must notify us at least 45 days in advance of the rehabilitation, and any work or structures placed in the water, which may be obstructions to navigation so we can publish the information in our Local Notice to Mariners. Please advise us of the location and type of construction plant that will be used in this activity. Plans showing this information as well as the sequence of operations should be provided to us at the time of the 45-day advance notification.

Please call Mr. Gary Heyer, Bridge Management Specialist at the above listed number, if you have any further questions.

Sincerely,

Waverly W. Gregory, Jr.

WAVERLY W. GREGORY, JR.
Chief, Bridge Administration Branch
By direction of the Commander
Fifth Coast Guard District

Copy: MSO Wilmington

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

City of New Bern
PO Box 1129
New Bern, NC 28563

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☒ Agent ☐ Addressee

B. Received by (Printed Name) James N Lewis C. Date of Delivery 5-18

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

NEW BERN, NC 28563 MAY 2006 USPS

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7005 1820 0002 0149 6395

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-154

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Shipyard Properties
101 Howell Road
New Bern, NC 28562

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) Kim Hill C. Date of Delivery 5-18-06

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7005 1820 0002 0149 6418

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-154

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Craven County
406 Craven Street
New Bern, NC 28560

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) Rebecca M. Cloud C. Date of Delivery 5/18/06

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. Article Number (Transfer from service label) 7005 1820 0002 0149 6388

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-15

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Outback Steakhouse
2202 N. West Shore Blvd
Tampa, FL 33607

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery 5-22-06

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Gail Beaman
NCDOT
Natural Environment Unit
1598 Mail Service Center
Raleigh, NC 27699-1598

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MAY 31 2006
DIVISION OF HIGHWAYS

UNITED STATES POSTAL SERVICE

First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

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Raleigh, NC 27699-1598

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• Sender: Please print your name, address, and ZIP+4 in this box •

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Raleigh, NC 27699-1598

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PDEA-OFFICE OF NATURAL ENVIRONMENT