



South Carolina
Department of Transportation

July 3, 2001

Ms. Mary W. Edmonds
Deputy State Historic Preservation Officer
South Carolina Department of Archives and History
8301 Parklane Road
Columbia, SC 29223-4905

Re: BRZ-BPRB(019), Proposed Rehabilitation of the U.S. Route 17/Little River/Intracoastal
Bridge over the Intracoastal Waterway, Horry County, PIN 24131

Dear Ms. Edmonds:

The Department proposes electrical, mechanical, structural, and OSHA design changes for the rehabilitation of the mechanical and electrical systems for the U.S. Route 17 Bridge over the Intracoastal Waterway in Horry County. This work will also improve access and working conditions for the maintenance and bridge operators. These repairs are based upon the 1996 inspection report by HNTB Corporation. Many of these repairs are minor, superficial repairs needed to replace corroding and deteriorating elements. The repairs are summarized in the attached report. The major change is replacing the existing control house with a new pre-engineered octagonal control house with bullet resistant glazing and heating and air conditioning. The exterior design will be nearly identical to the existing control house with the exception of added bullet resistant windows and steel plating. To the casual observer, there will appear to be no real changes.

The bridge is eligible for the National Register of Historic Places (NRHP). The proposed repairs will have a no effect on the bridge. No additional investigations are recommended.

In accordance with the memorandum of agreement approved by the Federal Highway Administration, March 16, 1993, the Department is providing this information as agency official designee, as defined under 36 CFR 800.2, to ensure compliance with Section 106 of the National Historic Preservation Act.

It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process.

Ms. Mary W. Edmonds
July 3, 2001
Page 2

Please respond within 15 days if you have any objections or if you have need of additional information.

Sincerely,

BLANCHE S. SPROUL

Blanche S. Sproul
Environmental Manager

BSS:cw

Enclosures (2)

I (do not) concur in the above determination.

Signed: _____ Date: _____

cc: Carol G. Adkins-FHWA
Mark W. Hunter, Asst. State Maintenance Engineer
bc: Wayne Roberts ✓
Environmental Management

File: Env/WDR

ATTACHMENT A

I. Project Description

Electrical, mechanical, structural and OSHA design services for the rehabilitation of the mechanical and electrical systems as well as improve access and working conditions for the maintenance personnel and bridge operators for the Little River Bridge located in Horry County, South Carolina.

The repairs on the bridge are derived from the In-depth Inspection and Condition Report dated July, 1996 by HNTB Corporation for the Department of Transportation.

II. Scope of Services

Phase II of this project consists of Design, Final Plans, Bid Documents and Letting for the above mentioned bridge. This Attachment A modifies the April 24, 1996 (Revised May 7, 1996) Scope of Services and the Basic Agreement as follows:

1. Architectural: Design and detail a new pre-engineered octagonal control house to replace existing control house. House will come with bullet resistant glazing, heating and air conditioning. House will be designed for hurricane wind loads of 110 miles per hour with a 30% gust factor. Due to the proximity of the structure to land, no water or sewer will be provided to the control house. Rather a pre-engineered building will be located at the Southeast side of the bridge adjacent to the development near the structure. This placement is assuming that this is the closest location for available water and sewer connection. This land based building will be equipped with heating and air conditioning along with running water and sewer for a lavatory and toilet. If space permits, the land based building will be designed with an additional room for storage of materials and equipment. Both the land based building and the control house will be of similar construction and details for aesthetic purposes.
2. Mechanical: Complete replacement of the span drive machinery including the rack and rack pinion is to be performed. Preliminary investigations indicate a gear driven pinion may not be feasible due to vertical space constraints. HNTB Corporation will further investigate this feasibility and if not possible, notify the Department immediately and discuss. The design for the span drive will utilize hydraulics. The hydraulic system will consist of a low speed- high torque hydraulic motor controlled and operated through a hydraulic power unit (HPU). The HPU primary components will include, but not be limited to a reservoir, pump, motor and valves. The HPU is anticipated to be located adjacent to the control house to facilitate maintenance.

In-kind rehabilitation of the wedge machinery was recommended in the inspection report. This consisted of replacement of the bushings in the line shaft bearings,

repair to the linkages and provide extended lubrication fittings for the north wedge bearings. If hydraulics for the span drive are to be used, consideration in the use of hydraulics for the wedge machinery should be considered. This may consist of hydraulic cylinders located at each wedge to drive and pull each of the six wedges. HNTB Corporation will discuss the options available for the wedges, when the span drive machinery is discussed.

The centering latch will be replaced with a lock bar operator similar to what was done on the previous swing bridges for the Department. This lock bar will be supplemented with a spring resistant bumper block. The lock bars will not be designed for hurricane loading. Rather a tie down utilizing clevises as shown in the inspection report will be designed for the structure. If hydraulics are to be used, the lock bars can also be hydraulically operated.

Included in the mechanical repairs will be the replacement of the bushings for the balance wheels.

3. Electrical: The bridge control system will be through the use of a relay logic system similar to the system already installed in the previously rehabilitated swing bridges. If a gear driven system is utilized, the span motor will be a DC motor controlled through a drive controller. The operator will have the ability to regulate the speed of the bridge, but the drive controller will ramp the motor up and down at a controlled acceleration and deceleration rate. If hydraulics are utilized, the span drive motor will be a single speed squirrel cage motor and the speed to the bridge will be through directional valve controlled by an amplifier card. All the electrical controls will be located in cabinets that are placed inside the control house. No cabinet will be taller than the window sill. Incoming voltage to the bridge will be upgraded to 480 volts. Wiring from the control house to the machinery area below will be through a weather-tight raceway in lieu of conduits. New submarine cables will be installed from the pivot pier to the north rest pier, for the new gates and signals. These cables shall be trenched in lieu of the concrete mattresses previously used. This is due to the softer material that is present on the riverbed.

Walkway lighting will be provided, but no roadway lighting is anticipated at this time.

As part of the repairs, the existing semaphore gates closest to the swing span will be replaced with resistance gates. The non functioning oncoming secondary gates will be replaced with the existing gates that are in good condition. At this time, it is anticipated that the existing flashing traffic signals will be replaced with a mast arm pole supporting three color signals on both approaches.

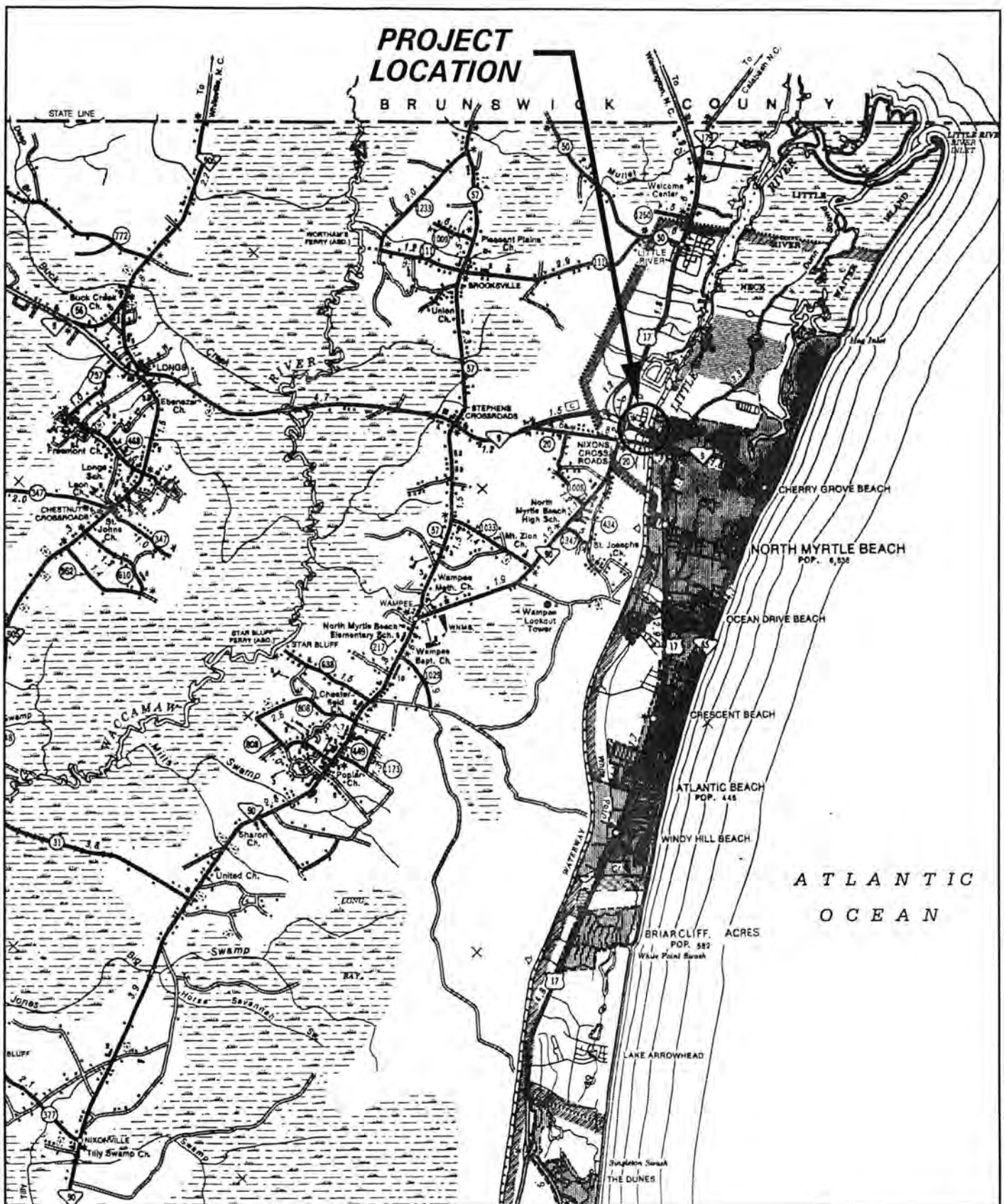
4. Structural and OSHA: The structural repairs shall consist of repairs to the structure due to deterioration and impact damage. These repairs shall include, but not be limited to the following:

Repairing the sway bracing, specifically EP1, damaged by vehicles; repairing LC5, LC4, L3 and H7; replacing rivets with high strength bolts, specifically at LGP4 and repairing the spalls in the deck cantilever.

Along with the structural repairs will be the design for a new control house support as well as a new beam for the rack pinion support.

For the OSHA repairs, this will consist of improving the access for the maintenance personnel. This will include providing a new stairway to the control house; modify the walkway from the land to the pivot pier; modify access to the pivot pier; provide access to the north rest pier; modify the access to the navigation lights on the upper chord; modify the access and provide a fall arrest system for the fenders; and modify platforms and access to the south wedge machinery.

5. Maintenance of Marine and Vehicular Traffic: The rehabilitation is anticipated to require closure of the structure either to vehicular traffic or to marine traffic. Since there is an available detour for vehicular traffic close by, any repairs will be performed with a temporary bridge closure, while maintaining marine traffic. The amount of time available will be discussed with the Department during contract development. At this time the anticipated bridge closure is estimated to be 3 weeks for the installation of the new machinery.
6. Man-hours and expenses have been included in the fee for a site visit to the structure to re-examine the bridge and confirm field conditions as well as compare present conditions to the as inspection conditions of 1996. Man-hours and expenses have also been included for two review meetings with the Department. The first will be a kick-off meeting to discuss the scope of the project and the second will be an interim review meeting to discuss the plans.



Shaded Area Indicates
County Location in SC

Figure 1

A Section of the Horry County Highway Map Showing
the Location of the Project Area

SCALE MILES





21 August 2001

Ms. Blanche S. Sproul
Environmental Manager
South Carolina Department of Transportation
PO Box 191
Columbia, SC 29202-0191

**RE: BRZ-BPRB(019), Proposed Rehabilitation of the US Route 17/Little
River/Intracoastal Bridge over the Intracoastal Waterway, Horry County, PIN 24131**

Dear Ms. Sproul:

On 5 July 2001, our office received the report on the above referenced project. Because the bridge is eligible for the National Register of Historic Places, any modifications, new construction, etc. affecting the appearance of the bridge, need to be reviewed by our Historic Architecture Consultant. I requested information as outlined below via a telephone call to your office. Because of the length of time that has passed, I thought it more appropriate to define our request in a letter.

The only existing documentation of the bridge was a 1988 site survey card completed as part of a grant-funded survey of Horry County. We have received photographs taken more recently of the bridge and the control tower, and these will be very useful. However, we still need to review information pertaining to the replacement tower. A design plan of the proposed replacement building with materials identified will be necessary before we are able to offer any further comments. In particular, we are concerned about size, shape, and design of the windows and the siding material of the new structure. Also, we will need to know the present composition of the siding.

Your letter references a July 1996 inspection report by HNTB Corporation. This report may be useful in identifying the materials presently making up the structure, plus any alterations, if any, which may have been incorporated into the building since its original construction date.

If there are any questions about our request for more information, please feel free to call me at (803) 896-6184. Thank you for your cooperation.

Sincerely,

Marta L. Thacker
DOT Project Coordinator





South Carolina
Department of Transportation

F
RDH

September 26, 2001

1359
RECEIVED

SEP 26 2001

S.C. DEPARTMENT
ARCHIVES & HISTORY

Ms. Mary W. Edmonds
Deputy State Historic Preservation Officer
South Carolina Department of Archives and History
8301 Parklane Road
Columbia, SC 29223-4905

Re: BRZ-BPRB(019), Additional Documentation for the Proposed Rehabilitation of the
U.S. Route 17/Little River Bridge over the Intracoastal Waterway, Horry County, PIN 24131

Dear Ms. Edmonds:

In response to the letter of Marta Thacker dated August 21, 2001, we are enclosing the artist's drawings for the proposed rehabilitation of the U.S. Route 17/Little River Bridge over the Intracoastal Waterway. Two copies are provided, one in color. Please note that the design retains the octagonal design of the present control house structure.

The bridge is eligible for the National Register of Historic Places (NRHP). The proposed repairs will have a no effect on the bridge because it will retain the original octagonal design of the present control house. No additional investigations are recommended. There are no historic properties affected.

In accordance with the memorandum of agreement approved by the Federal Highway Administration, March 16, 1993, the Department is providing this information as agency official designee, as defined under 36 CFR 800.2, to ensure compliance with Section 106 of the National Historic Preservation Act.

It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process. Please respond within 15 days if you have any objections or if you have need of additional information.

Sincerely,

Blanche S. Sproul
Blanche S. Sproul
Environmental Manager

BSS:cw

*** NO ADVERSE EFFECT**

Enclosures (2)

I (~~do not~~) concur in the above determination.

Signed:

Mark Hunter ~~DOT PROJECT MANAGER~~
SCDOT

Date: 3 Oct. 2001

cc: Chetna Dixon, FHWA
Mark Hunter, Asst. State Maintenance Engineer

File: Env/WDR



South Carolina
Department of Transportation

March 6, 2002

Ms. Mary W. Edmonds
Deputy State Historic Preservation Officer
South Carolina Department of Archives and History
8301 Parklane Road
Columbia, SC 29223-4905

Re: No Need for Archaeological or Historical Architectural Survey for the Proposed
Rehabilitation of the U.S. Route 17/ Little River/ Intracoastal Bridge over the Intracoastal
Waterway, Horry County, PIN 24131

Dear Ms. Edmonds:

The Department's staff archaeologist has completed an archaeological review of the above referenced project and we have enclosed two copies of the report for your review and comment. The Department proposes electrical, mechanical, structural, and OSHA design changes for the rehabilitation of the mechanical and electrical systems for the U.S. Route 17 bridge over the Intracoastal Waterway in Horry County. The major repair is replacing the existing control house with a new control house, which will have no adverse effect to this historical bridge (see attached correspondence). Since no water or sewer will be provided to the control house, a pre-engineered building will be located at the southeast side of the bridge.

Initially, all repairs were to be conducted within the Department's existing right-of-way. However, in order to provide sewer to building, an easement is required outside of the existing right-of-way. The sewer line will extend approximately 53 feet outside of the Department's right-of-way and under an existing paved parking lot. This action will have no effect on the bridge. The Department's staff archaeologist does not believe an archaeological survey is necessary for this project. This decision is based on careful review of the Wampee U.S.G.S. topographic map and careful review of the project plans. The area where the easement is required has been disturbed from construction of a paved parking lot.

In summary, no archaeological or architectural survey is needed for the above-named project. The current action will not affect the bridge. No additional investigations are recommended.

In accordance with the memorandum of agreement approved by the Federal Highway Administration, March 16, 1993, the Department is providing this information as agency official designee, as defined under 36 CFR 800.2, to ensure compliance with Section 106 of the National Historic Preservation Act.

Ms. Mary W. Edmonds

Page 2

March 6, 2002

It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process. Please respond within 15 days if you have any objections or if you have need of additional information.

Sincerely,

BLANCHE S. SPROUL

Blanche S. Sproul
Environmental Manager

BSS:cw

Enclosures (2)

I (do not) concur in the above determination.

Signed: _____ Date: _____

cc: Patrick Tyndall, FHWA
Keith Derting, SCIAA

bc: Environmental Management (Davis)
Bonnie L. Frick ✓

File: Env/BLF/KFD



TO: Blanche S. Sproul, Environmental Manager

FROM: Bonnie L. Frick, Staff Archaeologist

DATE: February 28, 2002

SUBJECT: BRZ-BPRB(019) , No need for archaeological or historical architectural survey for the proposed rehabilitation of the U.S. Route 17/Little River/Intracoastal Bridge over the Intracoastal Waterway, Horry County. PIN 24131.

I have examined the plans for the project referenced above in Horry County (Figures 1 and 2). The Department proposes electrical, mechanical, structural, and OSHA design changes for the rehabilitation of the mechanical and electrical systems for U.S. Route 17 Bridge over the Intracoastal Waterway in Horry County. This bridge was previously determined eligible for listing in the National Register of Historic Places. Most of the repairs to be completed are minor. The major repair is replacing the existing control house with a new pre-engineered octagonal control house. The repairs will have no adverse effect to this bridge, as determined by the State Historic Preservation Office (correspondence dated September 26, 2001). Due to the proximity of the structure to land, no water or sewer will be provided to the control house. Rather, a pre-engineered building will be located at the southeast side of the bridge adjacent to the structure (Figure 2).

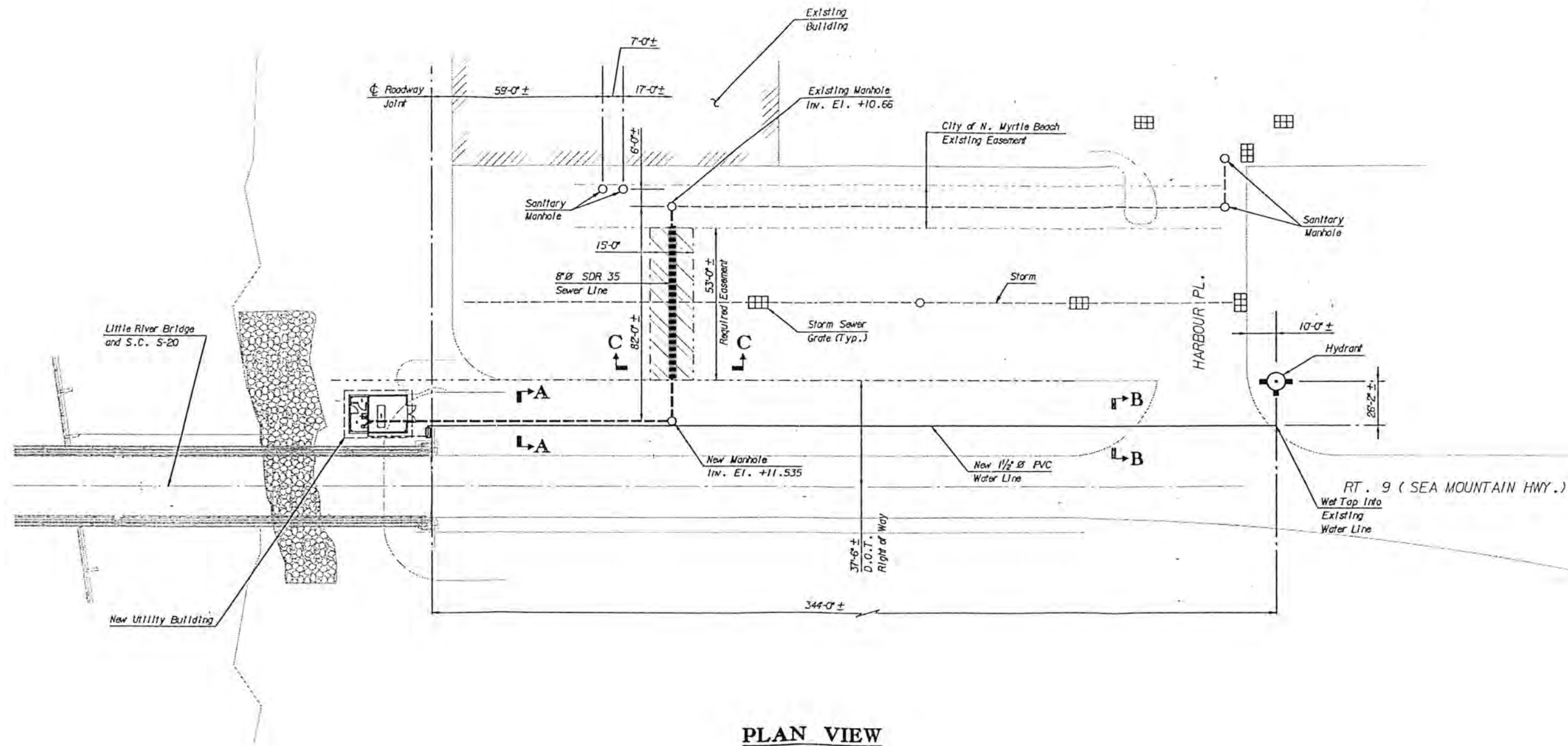
Initially, all repairs were to be conducted within the Department's existing right-of-way. However, in order to provide sewer to this building, an easement is required outside of the existing right-of-way. The sewer line will extend for approximately 53 feet outside of the Department's right-of-way and under an existing paved parking lot.

The State Site Files at the South Carolina Institute of Archaeology and Anthropology (SCIAA) were examined on February 27, 2002. One previously identified archaeological site is thought to be located within a one-mile radius of the project area (Figure 3). However, the exact location of site 38HR11 is questionable. It was recorded in 1975 by M.G. Rhett as part of the collections survey. There was no information recorded on the site file about the artifacts found at this site or about the site's exact location. However, the site is thought to be at a location approximately .75 mile from the current project area. The current project will have no effect on this site. The files of the NRHP of the South Carolina Department of Archives and History were examined on February 28, 2002. Besides the bridge itself, there are no National Register properties within one mile of the proposed project.

I do not believe an archaeological survey is necessary for this project. This decision is based on careful review of the Wampee U. S. G. S. topographic map (Figure 3) and careful review of the project plans. The Department will be doing most of the improvements within the existing right-of-way. An easement will be required outside of the existing right-of-way for the sewer line. However, this sewer line will be under an already disturbed area (parking lot). Therefore, no archaeological survey is necessary. A review of the State Site Files revealed only one archaeological site within a one-mile radius, and even this location is questionable. There are no other sites that are eligible or are already listed on the National Register within a one-mile radius. There are no other buildings shown on the plans within the immediate project area. Therefore, no historical architectural survey is needed.

In summary, no archaeological or architectural survey is needed for the proposed rehabilitation of the U.S. Route 17/Little River/Intracoastal Bridge over the Intracoastal Waterway. The Department will be obtaining an easement for a sewer line outside of the existing right-of-way. The sewer line will extend under an already paved parking lot. This action will have no effect on the bridge. Since this area is already highly disturbed, there is no reason for an archaeological or architectural survey. No further work is recommended for this project.

FED. ROAD DIV. NO.	STATE	COUNTY	FILE NO.	ROAD NO.	SHEET NO.	TOTAL SHEETS
	SC	HORRY	26.117B	S.C.S-20		



PLAN VIEW

Scale: 1 inch= 40 feet

Figure 2. A plan view of the current project showing the existing right-of-way and the area where the easement is required.

HNTB ARCHITECTS ENGINEERS PLANNERS
The HNTB Companies

SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION
BRIDGE DESIGN COLUMBIA, S.C.
LITTLE RIVER

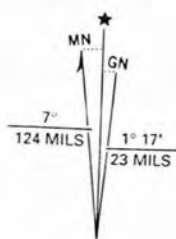
WATER AND SEWER

REV.			
REV.			
REV.			
REVIEWED			
DR.	SN	EK	03-02
DES.	MZ	EK	03-02
BY	CHK	DATE	

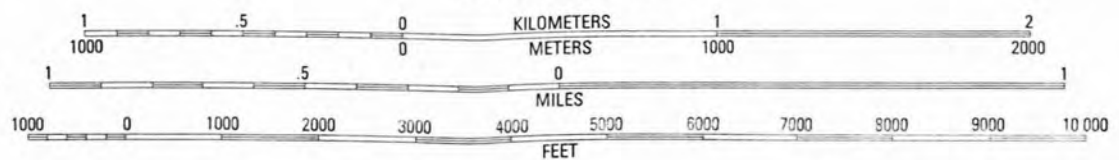
FILE NO.	ROUTE	COUNTY	DRAWING NO.
26.117B	S.C.S-20	HORRY	M-



Figure 3. A section of the Wampee U.S.G.S. topographic map showing the project location and archaeological site 38HR11.



SCALE 1:24 000



FHWA SOUTH CAROLINA DIVISION
PROGRAMMATIC 4(f) DETERMINATION

HISTORIC BRIDGES

For

Bridge Name: Road S-26-20 Bridge Rehabilitation over the Intracoastal Waterway at Little River Inlet
Project No.: BRT-RPRB(021)
County: Horry

In reference to the Nationwide Programmatic 4(f) Evaluation for Historic Bridges approved by FHWA on July 5, 1983:

1. This project meets all the Applicability Criteria.
2. The alternatives in the Findings section have been fully evaluated for this project.
3. The use of the programmatic Findings clearly leads to the conclusion that there are no feasible and prudent alternatives to the use of the historic bridge.
4. This project complies with the section, "Measures to Minimize Harm," and FHWA will assure that the appropriate measures will be implemented.
5. Our records contain documentation that clearly identifies the basis for the above determinations with regard to the alternatives considered, the mitigation measures to be implemented, and the necessary coordination.

Based on the above, FHWA determines that the Nationwide "Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges" is applicable to this project.

Jan. 14 2002

Patrick Zindell
(for) Division Administrator

Date: Tuesday, October 22, 2002

To: Bonnie Frick, SCDOT Environmental Management Office

From: Resident Construction Engineer S. B. Forbes

Re: SC File Nos. 22.117B & 26.142B; F.A. Project No. BRT-RPRB (021) & BRT-RPRB (027); REHAB SWING SPAN BRIDGES ON ROAD S-616 (OLD SOCASTEE SWING SPAN) AND ON US 17 (LITTLE RIVER BRIDGE); PIN 25594 & 27152; Horry County – Control House Information for Socastee and Little River Swing Bridges

Enclosed please find a sample and the contractor's proposal for modifications to the walls of the control houses referenced above. This information is forwarded to you from Eric Kelly of HNTB Architects Engineer Planners.


S. B. Forbes

Georgetown Construction

SBF/jms

Enc. 4



**ARCHITECTS ENGINEERS PLANNERS**

352 Seventh Ave., 14th Fl.
New York, NY 10001-5012
(212) 594-9717
FAX (212) 947-4056

Date: January 15, 2003

To: Mr. S. Brantley Forbes
Resident Construction Engineer
South Carolina Department of Transportation
1007 Merriman Road
Georgetown, SC 29440

Re: S.C. File No. 26.117B and 26.142B
Project Nos. BRT-RPRB (021) and (027)
Little River and Socastee Swing Bridge Rehabilitation, Horry County

Gentlemen:

We are transmitting the following:

☐ Shop Drawings	☐ Under Separate Cover
☐ Sepias	☐ By Messenger
☐ Prints/Originals	☒ Federal Express
☒ Herewith	☐ Fax

Copies	Description		Code*
1	Sample	Arctic Mist A-1 color for control house stucco	5
1	Letter & Sketch	Contractor proposed wall construction revision	8
1	Copy of Fax	Fax comments from DOT people involved during design	6

Remarks:

Brantley,
We have looked at the sample and feel that it is adequate for the control house application. It is recommended that you forward it to either Bonnie Frick from SCDOT Environmental Management Office (803) 737-1395, she was our point contact regarding historic concerns or Dan Elswick from SC Department of Archives & History (803) 896-6100. He was the one that reviewed our plans. I have also enclosed the Contractor's proposed modification to wall construction for you to send to them also. I have enclosed also a copy of a fax from Bonnie and Dan with the comments they had on the house during the design. This fax has names phone numbers and addresses for you to use. My feeling is it is best to keep them in loop early. I do not think they will have any concerns. Please let me know if I may be of further assistance with these people. Thanks, Eric

HNTB CORPORATION


By: Eric Kelly

Copy to:

* Code

- | | | |
|----------------------------|--------------------------|----------------------------|
| (1) No exceptions taken | (4) Rejected | (7) As per your request |
| (2) Make corrections noted | (5) For your approval | (8) For distribution |
| (3) Amend and resubmit | (6) For your information | (9) For review and comment |

Attachment #5

Hightower Construction Co., Inc.

P.O. Box 1369
Goose Creek, SC 29445

Phone: 843-572-9153
Fax: 843-797-7730

October 22, 2002

Cape Romain Contractors, Inc.
660 Cape Romain Road
Wando, SC 29492



Attn: E. Horry Parker

Project: Rehabilitation of Swing Bridges
Re: Wall Construction

Project #: 5628

Dear Mr. Parker,

If reviewing the details for the Control House at Little River and Socastee, it appears the designed walls for these buildings are to be an aluminum curtain wall with a 1 inch insulated panel covered with lathe and plaster. This is shown on details 2 through 6 on drawing A-4.

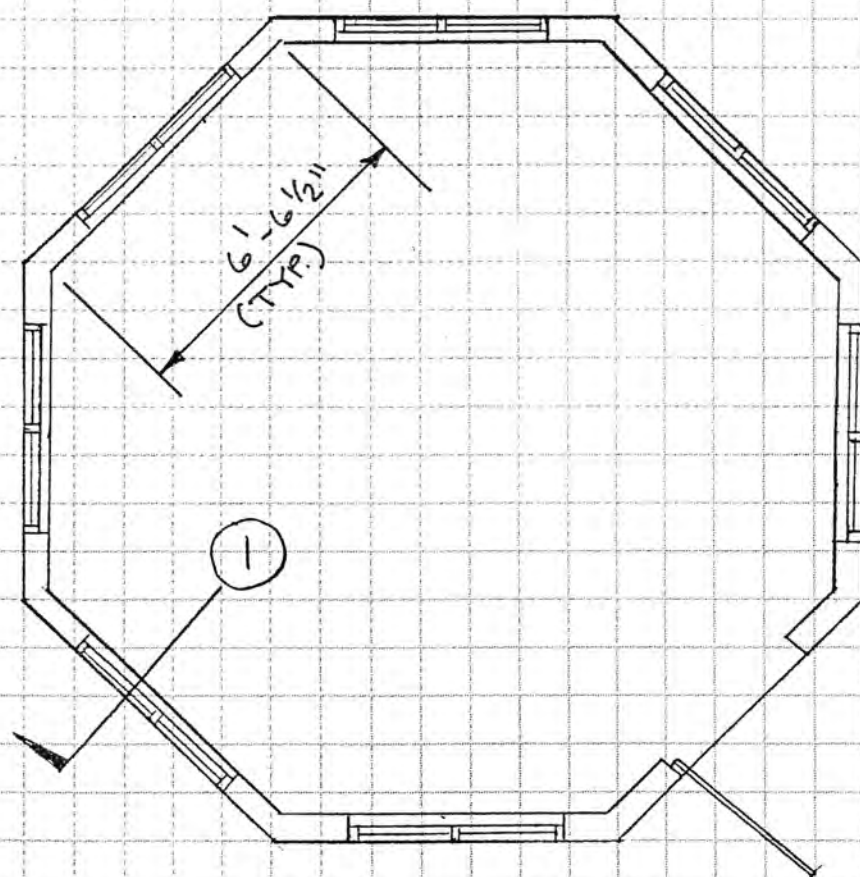
Because these buildings are to be constructed off site and barged to the sites, Hightower recommends using a different wall construction which will be much more durable and sturdy during the shipment of the buildings. We have enclosed a detail showing the use of a 6 inch metal stud with a 16 gauge thickness. A Dens-glass material would then be installed over the metals studs with lathe and stucco attached to the dens-glass. This will provide a much more rigid frame for the windows, door, and stucco to be attached to.

It is proposed that the inside surface be a paint grade "finish" plywood with a micarta material installed between the metal studs and the plywood. The micarta material will provide the necessary bullet resistance required.

Please review this detail and advise if this proposed construction is acceptable. If you have any questions, you may contact us at 572-9153.

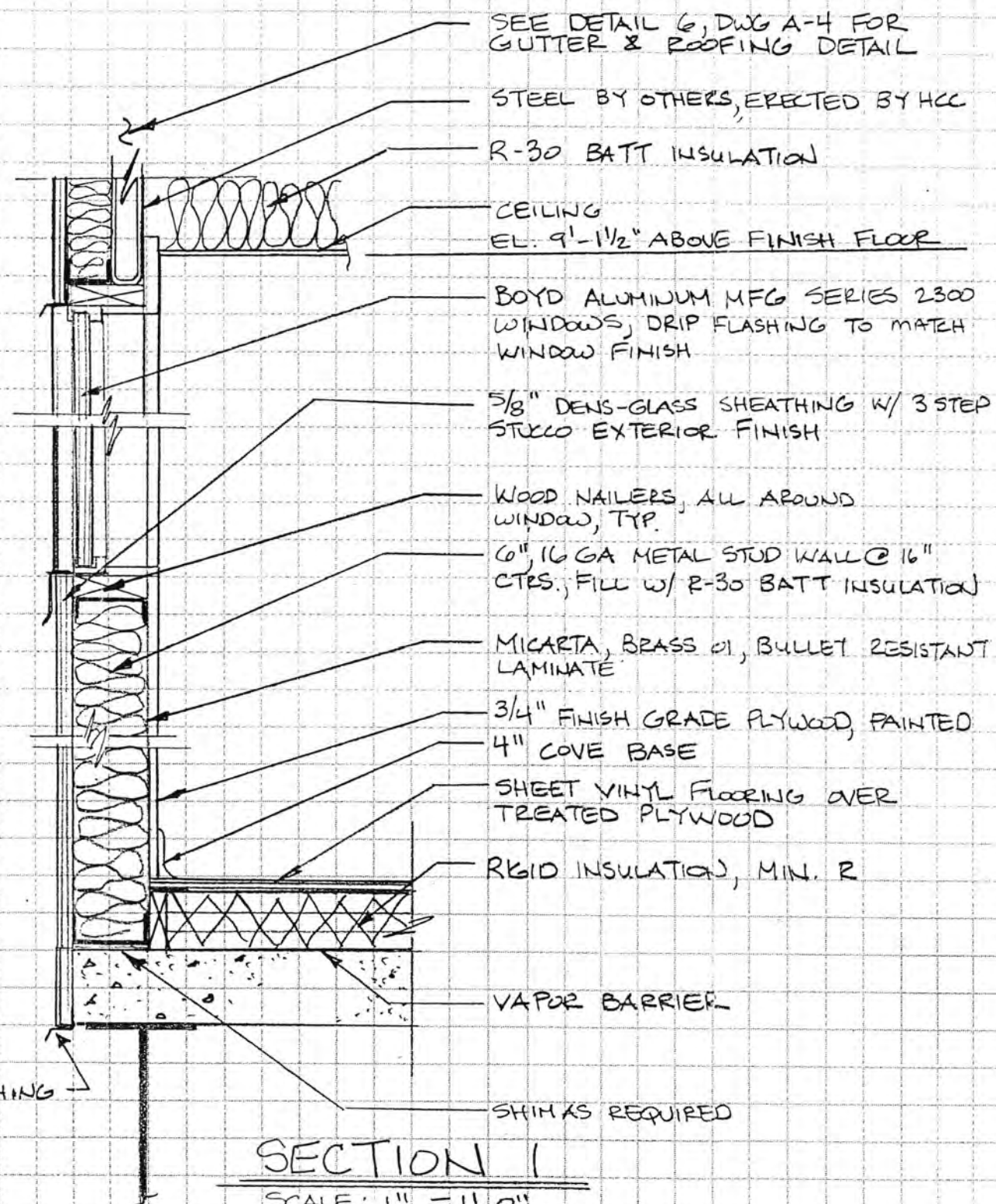
Sincerely,

Dennis Schumm
Project Manager



FLOOR PLAN

SCALE: $\frac{1}{4}" = 1'-0"$

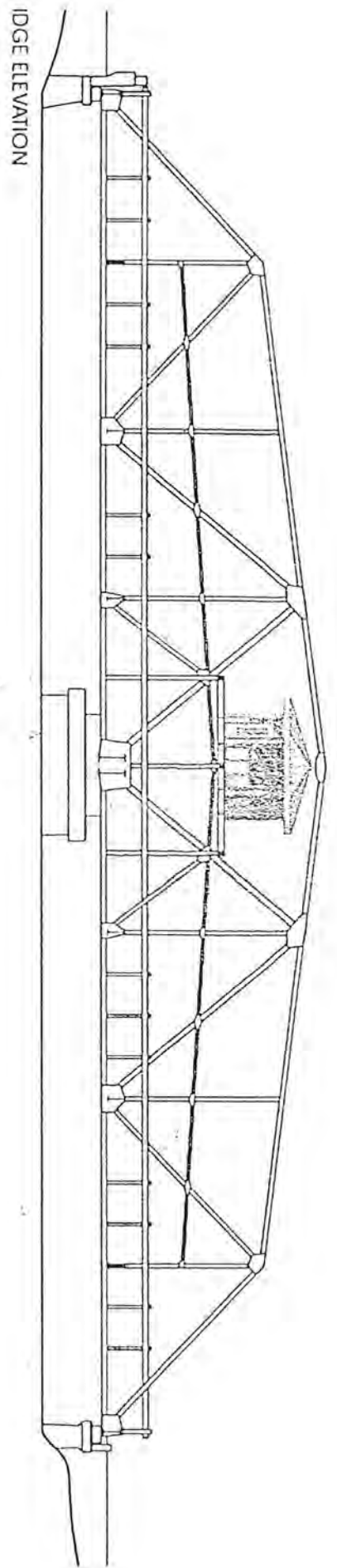


SECTION I

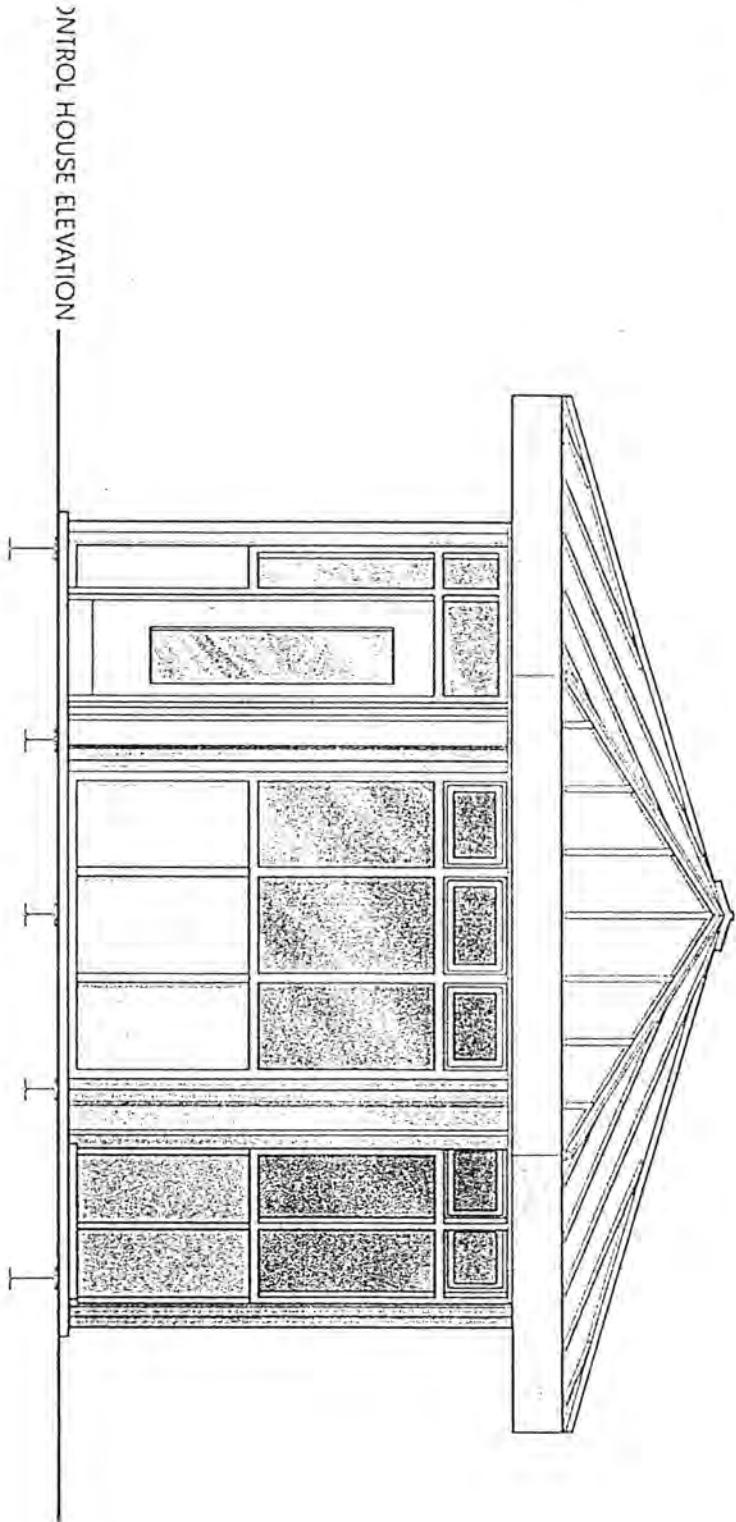
SCALE: $1" = 1'-0"$

HIGHTOWER CONSTRUCTION COMPANY, INC.
Commercial And Industrial Construction
1841 Bushy Park Road P.O. Box 1369
GOOSE CREEK, SOUTH CAROLINA 29445
(843) 572-9153

JOB LITTLE RIVER Control House
SHEET NO. 1 OF 1
CALCULATED BY _____ DATE 10/21/02
CHECKED BY _____ DATE _____
SCALE VARIES



BRIDGE ELEVATION



CONTROL HOUSE ELEVATION

LITTLE RIVER BRIDGE SOUTH CAROLINA

CONTROL HOUSE

HNTB

S-26-20/INTRACOASTAL WATERWAY SWINGSPAN BRIDGE REHABILITATION
in Horry County

NATIONWIDE PROGRAMMATIC 4(f) EVALUATION

I. APPLICABILITY

A. Introduction

The SCDOT proposes electrical, mechanical, structural, improvements to the Road S-26-20/Intracoastal Waterway bridge (Figure 1). These changes will replace worn components, improve safety, and help to meet the standards of the Occupational Safety and Health Administration (OSHA). The bridge was constructed in 1935 and is eligible for the National Register of Historic Places (NRHP).

As indicated below, the proposed action meets the five criteria of the Federal Highway Administration's "Final Nationwide Section 4(f) Evaluation and Approval for Federally Aided Highway Projects with Minor Involvement with Historic Sites."

1. The bridge is to be replaced or rehabilitated with Federal funds.
2. The project will require the use of a historic bridge structure which is on or is eligible for listing on the National Register of Historic Places.
3. The bridge is not a National Historic Landmark.
4. The FHWA Division Administrator determines that the facts of the project match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation.
5. Agreement among the FHWA, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) has been reached through procedures pursuant to Section 106 of the NHPA.

Therefore, the Department has concluded that this one step process provides conformity with 49 USC 303(c).

B. Description of Proposed Action

The Department proposes to design and detail a new pre-engineered octagonal control house to replace the existing control house. The new control house will come with bullet resistant glazing, heating and air conditioning. The house will be designed for hurricane wind loads of 110 miles per hour with a 30 percent gust factor. A pre-engineered building with water and sewer connections will be built on the ground on the southeast side of the bridge. The complete replacement of the span drive machinery including the rack and pinion is to be performed. Rehabilitation of the wedge machinery will also be conducted. The centering latch will be replaced with a lock bar operator supplemented with a spring resistant bumper block. A new electrical bridge control system will be installed. All of the electrical controls will be located in cabinets inside the control house with no cabinet higher than the windowsill. The structural repairs will

include areas of deterioration and impact damage including repairing the sway bracing, replacing rivets with high strength bolts, and repairing spalls in the deck cantilever. The OSHA repairs will consist of improving the access for the maintenance personnel by providing a new stairway to the control house, modifying the walkway from land to the pivot pier, modifying the access to the navigation lights on the upper chord, modifying the access and providing a fall arrest for the fenders, and modifying platforms and access to the south wedge machinery.

C. Historic Sites

The Road S-26-20 bridge over the Intracoastal Waterway is a historic significant metal truss swing span bridge. Specifically, it is a Warren through truss type with rigid joints. It was designed by the South Carolina Department of Transportation Bridge Design staff in 1934. Bethlehem Fabricators, Inc. of Bethlehem, Pennsylvania built it in 1935. This bridge has been determined eligible for the National Register of Historic Places (NRHP) by the South Carolina State Historic Preservation Officer (SHPO). The project will have no adverse effect to this bridge. A copy of the SHPO's finding of no adverse effect is attached.

II. ALTERNATIVES, FINDINGS, AND MITIGATION

Various alternatives were considered to avoid impacting this section 4(f) property. The "do nothing" alternative is considered neither feasible nor prudent because the repairs are needed to keep the bridge operating. Failure to repair the bridge may result in closing the bridge because of failure. The current and projected traffic volumes necessitate its improvement.

New location alternatives are neither feasible nor prudent because they would substantially increase costs, and could increase adverse social, economic, or environmental impacts. These additional costs and impacts could be of extraordinary magnitude.

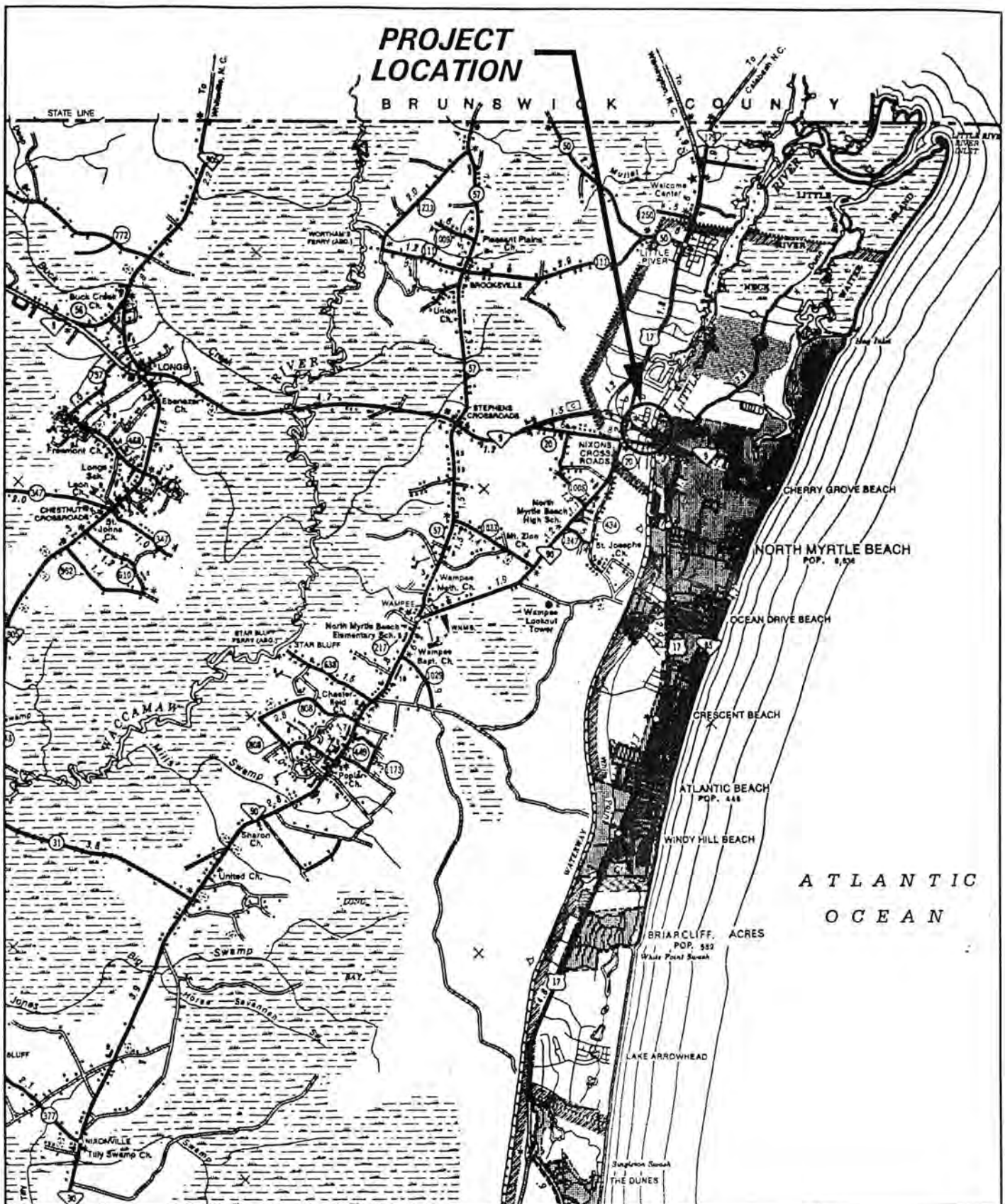
No mitigation measures are necessary for this project.

III. MEASURES TO MINIMIZE HARM

To minimize any change in appearance and avoid an adverse effect to this significant property, the design of the bridge operator's house is octagonal like the original. The other changes are visually minimal and will not detract from the appearance of the bridge. The SHPO has concurred with this determination of "no adverse effect." No mitigation measures are necessary for this project.

IV. COORDINATION

Section 106 consultation has been carried out with the State Historic Preservation Officer. The SHPO was satisfied the rehabilitation would have no adverse effect on the bridge.



Shaded Area Indicates
County Location in SC

Figure 1

A Section of the Horry County Highway Map Showing
the Location of the Project Area

SCALE 0 2 MILES







