



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

MICHAEL F. EASLEY  
GOVERNOR

LYNDO TIPPETT  
SECRETARY

June 28, 2006

**Addendum No. 1**

RE: Contract ID: C201614  
WBS# 40838.3.1 (B-4990)  
Brunswick-New Hanover Counties  
Cape Fear Memorial Lift Bridge  
Over Cape Fear River.

**July 18, 2006 Letting**

To Whom It May Concern:

Reference is made to the proposal form and plans recently furnished to you on this project.

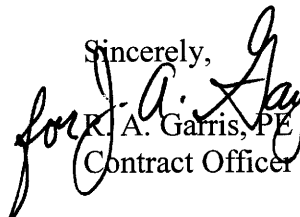
On Page No. 54, paragraph 2.12.2 has been revised. Please void Page No. 54 in your proposal and staple the revised Page No. 54 thereto.

On Page No. 97 paragraph 2.5.5 has been revised. Please void Page No. 97 in your proposal and staple the revised Page No. 97 thereto.

Plan Sheet No. 12, quantities have been revised and a note has been added. Please void Plan Sheet No. 12 and staple the revised Plan Sheet No. 12 thereto.

Plan Sheet No. 53 a note has been added. Please void Plan Sheet No. 53 and staple the revised Plan Sheet No.53 thereto.

Sincerely,



R. A. Garris, PE  
Contract Officer

RAG/jag/pa  
Attachments

cc: Mr. W. S. Varnedoe, PE  
Mr. S. D. DeWitt, PE  
Mr. E. C. Powell, PE  
Mr. H. A. Pope, PE  
Mr. Victor Barbour, PE  
Mr. Dan Holderman, PE

Mr. Robert Meory  
Mr. R. E. Davenport, Jr., PE  
Ms. Norma Smith  
Ms. Marsha Byrd  
Ms. Taylor Mishoe  
Project File (2)

**MAILING ADDRESS:**  
NC DEPARTMENT OF TRANSPORTATION  
DESIGN SERVICES UNIT  
1591 MAIL SERVICE CENTER  
RALEIGH NC 27699-1591

TELEPHONE: 919-250-4128  
FAX: 919-250-4119

WEBSITE: [WWW.DOH.DOT.STATE.NC.US](http://WWW.DOH.DOT.STATE.NC.US)

**LOCATION:**  
CENTURY CENTER COMPLEX  
ENTRANCE B2  
1020 BIRCH RIDGE DRIVE  
RALEIGH NC

2.11.6 Touchscreen display shall permit adjustment of control system parameters such as timer delays, drive control parameters, span position setpoints, etc. Adjustment of era such parameters shall password protected.

2.11.7 A keyed selector switch shall be installed in the PLC cabinet door adjacent to the touchscreen display to select between the following modes: "OFF", "MONITOR", and "CONTROL". In "OFF" mode, the touchscreen shall be powered off. In "MONITOR", mode, it shall be possible to monitor bridge control system operation, but not control any functions. In "CONTROL" mode, the normal control console shall be locked-out (status monitoring still possible) and control shall be from the touchscreen display. The selector switch shall be maintained in "OFF" and "MONITOR" positions, but spring return to "MONITOR" from "CONTROL". If the selector switch is released during operation, a normal stop shall be initiated. The touchscreen display keyed selector switch shall be keyed differently from the control console control power switch.

## 2.12 Notebook Computer

2.12.1 A notebook computer shall be included, with all necessary software, cables and interface module for programming the PLC. Programming capabilities shall include both on-line and off-line programming. The software and interface module shall be furnished by the PLC manufacturer, and shall include extensive documentation. The software shall have provisions for: programming in ladder logic-type graphics language, rung, address and instruction comments, program listings, cross-reference reports and contact histograms.

2.12.2 The notebook computer shall meet the following minimum requirements, unless specified otherwise by the PLC manufacturer: 2.0GHz (or higher) processor operating speed, 512 Mb system RAM, Shock mounted 80 Gb (minimum) hard drive flash memory based hard disk drive, DVD-CD/RW drive, 24X (or higher) CD-RW, 56Kbps internal modem, 15 inch active matrix color LCD 1024x768 (XGA) outdoor-readable TFT active matrix color LCD touchscreen display, and Windows XP Professional operating system. Shall provide RS-232 serial, parallel, USB 2.0, and 10/100 Ethernet ports. The notebook computer shall be moisture, Lithium ion battery pack, dust, vibration, and drop-shock resistant, Full magnesium alloy case and designed using MIL-STD-810F test procedures. Shall include a 120-volt AC power adapter. The notebook computer shall be mounted on a dedicated shelf inside the PLC cabinet. Notebook computer shall be Panasonic Ruggedized laptop (similar to Panasonic Toughbook CF-51), or approved equal.

## 2.13 Modem

2.13.1 A modem shall be provided and installed in the PLC cabinet. Modem shall provide for remote monitoring of PLC operation and data acquisition through normal telephone circuits

2.13.2 Provide surge suppressor in telephone line ahead of modem.

usage of the approved sequence of construction shall be the sole responsibility of the Contractor, and shall not be considered cause for delay or additional payment

2.5 The Contractor's actual sequence of construction shall comply with the requirements of the Contract Documents, all applicable state, federal, and local laws and regulations, and the following:

2.5.1 The Contractor shall operate the bridge from the time that the bridge is switched-over from the existing SCR main drives to the new flux-vector main drives until the project is accepted as complete by the Department.

2.5.2 The Contractor shall not operate the lift span prior to the switch-over to the main drives. Bridge operation during this time period will be by NCDOT personnel.

2.5.3 The Contractor's activities shall not disturb the current normal operation of the bridge (i.e. from the operator's point-of-view, the bridge must continue to operate in the same manner as it did prior to starting construction) while NCDOT personnel are operating the bridge.

2.5.4 Until the main drives switch-over, both existing modes of operation (SCR drives and switched resistance) must remain fully available.

2.5.5 The Contractor must keep a licensed electrician, plus at least one assistant or helper, available to be on site within a 30 minute notice (as determined by NCDOT) temporary wiring is being utilized, and/or while the Contractor is responsible for operation of the bridge.

2.5.6 During those periods when the Contractor is responsible for operating the bridge, a NCDOT representative will remain on-site to observe that all procedures and safety regulations are adhered to with respect to traffic control for bridge operations.

2.5.7 The new auxiliary drive motors, controllers, temporary generators, and related items must be fully operational prior to disturbing any bridge electrical system components.

2.5.8 The new auxiliary drive motors are to be used only as back-up in the event of a failure which takes the main drives out of service, except for pre-scheduled openings made at night such as are outlined in this section. Otherwise, either the existing drives (SCR and switched resistance) or new drives must remain in service any time the lift span is required to be operable.

2.5.9 The bridge must remain available to roadway traffic at all times. Any required test operations must be conducted at night or as otherwise directed by NCDOT.

2.5.10 Any waterway disruption longer than 24 hours must include one pre-scheduled nighttime opening to allow waterway traffic to pass. Such openings shall occur only between 8pm and 4am. (Note that this requirement has not been formally approved by the Coast Guard. Actual waterway disruptions allowed shall be coordinated with the Coast Guard as stated elsewhere herein.)

2.5.11 All waterway disruption periods must be separated by continuous periods of no disruption, the length of which shall be as directed by the Coast Guard. (Note that this requirement has not been formally approved by the Coast Guard. Actual waterway disruptions allowed shall be coordinated with the Coast Guard as stated elsewhere herein.)