RECONSTRUCTION OF THE MOSES WHEELER BRIDGE

Fact Sheet

The information contained in this fact sheet is intended to provide a general description of State Project No. 138-221, Reconstruction of Moses Wheeler Bridge. In the case of any conflict between the information contained in this fact sheet and information published by the Connecticut Department of Transportation (ConnDOT) via its website, published bid documents, contracts, press releases, etc., the information published by ConnDOT shall govern.

This project involves the reconstruction of I-95 between Longbrook Avenue and Interchange 34 in the towns of Stratford and Milford, Connecticut. Several interstate highway bridges will be modified or replaced including the bridge carrying I-95 over the Housatonic River, also known as the Moses Wheeler Bridge. The state boat ramp, located on the east bank of the Housatonic River, south of the Moses Wheeler Bridge, will be replaced as part of this project.

The foundations for the new Moses Wheeler Bridge were constructed by O&G Industries, Inc. of Torrington, CT under State Project No. 138-232. This project was completed on schedule in November of 2011.

Key Project Dates

- Advertisement for bid – December 29, 2010.
- Bid opening – April 27, 2011.
- Notice to Proceed – August 22, 2011.
- Estimated completion of construction – late 2016.

Project Limits

The project's limits extend along Interstate 95 beginning at approximately 150 meters (500 ft) west of the Longbrook Avenue overpass to Interchange 34. Local/State roads that will be directly affected by construction activities include Barnum Avenue Cut-Off, East Main Street/U.S. Route 1, Dock Drive No. 1 (located in the Dock Shopping Center) and Naugatuck Avenue.

Structures Affected

The following bridges will be affected by this project:

- Bridge No. 00132 – I-95 over Longbrook Avenue–median barrier replacement
- Bridge No. 00133 – I-95 over Barnum Avenue Cut-Off– complete replacement
- Bridge No. 00134 – I-95 over East Main Street/U.S. Route 1– complete replacement
- Bridge No. 00135 – I-95 over the Housatonic River (Moses Wheeler Bridge) – complete replacement

- Bridge No. 06613 – I-95 over Naugatuck Avenue– new structure, independent of Bridge No. 00135

Options (Concrete/Steel)

Two bridge designs were prepared for the new Moses Wheeler Bridge; one for precast segmental concrete and the other for structural steel. Contractors were allowed to bid the design option they were best capable of constructing, however, the lowest bid pricing to the State would prevail. The State believed that providing two designs would mitigate material price volatility and generally provide for the quickest construction. Walsh Construction/PCL JV II was awarded the superstructure project having submitted the lowest responsive bid which was for the steel design.

Stages of Construction

This project is proposed to be built in three major construction stages in the following sequence:

- Stage 1 - northern portion (approximately 1/3) of I-95.
- Stage 2 - southern portion (approximately 1/3) of I-95.
- Stage 3 - middle portion (approximately 1/3) of I-95.

The general description of the work to be performed in each stage of construction is described below.

Stage 1 The work zone during this stage is mainly to the north of existing I-95. Three travel lanes on I-95 will be maintained in each direction on existing and temporary pavements for the length of the project. The travel lanes in both directions will be shifted to the south after the following sequence of temporary construction activities is completed.

- I-95 northbound will be widened to the south using temporary pavement and barrier between the Longbrook Avenue and East Main Street/U.S. Route 1 overpasses.
- I-95 northbound lanes will be shifted as far south as possible to facilitate removal of the existing median barrier and construction of temporary pavement in its place.
- Temporary median barrier will be installed to the south of the existing median for separation of northbound and southbound travel lanes for the length of the project with the exception of the existing Moses Wheeler Bridge where the existing median barrier will remain.

Prior to the traffic shifts, temporary lane closures may be necessary to perform the temporary construction.

Once temporary construction is completed and the I-95 travel lanes have been shifted, construction of permanent improvements will commence as follows:

- The north sides of the following bridges will be replaced:
    - Bridge No. 00133 (I-95 over Barnum Avenue Cut-Off)
    - Bridge No. 00134 (I-95 over East Main Street/U.S. Route 1)
    - Bridge No. 00135 (I-95 over Housatonic River aka Moses Wheeler Bridge)
    - Bridge No. 06613 (I-95 over Naugatuck Avenues)
- Retaining walls located along the north edge of the work zone, will be constructed.
- Highway approaches within the work zone will be reconstructed. Temporary pavement will be constructed during this stage near both ends of the work zone on I-95 to facilitate transition between existing and new pavement during Stages 2 and 3.

Stage 2 The work zone in this stage is the south side of I-95. This stage will be initiated by shifting I-95 southbound traffic to the north side of I-95 (the new northern portion of Moses Wheeler Bridge) and temporary pavement that was constructed in Stage 1. Northbound I-95 traffic will be shifted to the center portion of I-95, which is generally where I-95 southbound traffic operated during Stage 1.

During this stage the south side of I-95, including the south sides of Bridge Nos. 00133, 00134, 00135 and 06613 will be constructed. Construction of temporary pavement and embankment on the south side of I-95 is necessary in this Stage from the Longbrook Avenue and East Main Street/U.S. Route 1 overpasses to support I-95 northbound traffic during Stage 3. At the end this stage, temporary precast concrete barrier curbs and temporary pavement markings will be installed on south side of I-95in anticipation of the shift of I-95 northbound traffic in Stage 3.

Stage 3 The work zone in the stage will be the middle portion of I-95 (existing northbound section of I-95). I-95 southbound traffic will be maintained in the same location as during Stage 2 (new northerly portion of the Moses Wheeler Bridge). This stage will be initiated by shifting the I-95 northbound traffic to the south side of I-95 (the new southern portion of the Moses Wheeler Bridge) and temporary pavements constructed on the south side of I-95 in Stage 2.

The middle portion of I-95, including the middle portions of Bridge Nos. 00133, 00134, 00135 and 06613 will be constructed in this stage.

Temporary pavement installed in Stage 2 on the south side of I-95 between the Longbrook Avenue and East Main Street/U.S. Route 1 overpasses will be removed and permanent embankment and guide rail in this area will be constructed in this area.

Temporary pavement installed in Stage 1 on the north side of I-95 will be removed between the Longbrook Avenue and East Main Street/U.S. Route 1 overpasses and the Naugatuck Avenue overpass to Interchange 34.

Upon completion of the bridge construction and highway pavement base course, the final pavement wearing surface on the reconstructed highway approach sections will be installed. The existing highway areas beyond the limits of full-depth pavement reconstruction at both ends of the project that were used for traffic shifts shall be milled and overlaid.

Basics Regarding the Addition of Trestle Fingers

A work platform (trestle and fingers) was built in the Housatonic River as part of the foundation project (State Project No. 138-232). The trestle and fingers are constructed with driven steel piles and structural steel support structure topped by a timber matt work surface and railings. This system will remain in place for use WPJV during the construction of the new Moses Wheeler Bridge and demolition of the existing bridge.

Upon completion of the new Moses Wheeler Bridge, WPJV will dismantle the entire trestle and all fingers.

Limited Construction Area May Require Construction using a Gantry Crane, etc.

The existing Moses Wheeler Bridge carries three travel lanes in each direction of I-95 with narrow shoulders. Even with slightly narrowed lanes widths, there is limited space for WPJV to perform its work. Because of the limited work space, WPJV may utilize overnight lane closures, beam and winch or other construction equipment and techniques design specifically for construction in limited work areas. It will not be unusual to see large cranes adjacent to I-95 during the construction of the new Moses Wheeler Bridge.