



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

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June 27 2016

MEMORANDUM

PROJECT:	PIN 113437.00, 113438.00, 118363.00
	Davidson County Interstate 24 from I-65 Split (LM 12.99) to I-40 Split (LM 16.06) PIN 113438.00
SUBJECT:	CONSTRUCTABILITY REVIEW MEETING SUMMARY
DATE:	June 15, 2016
NOTES BY:	Lori Lange, P.E. TDOT Construction Division

A Constructability Review meeting was held on June 15th and 16th, 2016 with Construction Industry Representatives, the Consultant Design Team, TDOT Headquarters Construction, TDOT Region 3 Operations and Project Development staff. The scope of the review was to integrate construction expertise early into the project development process for the Interstate 24 Bridge Repair Project.

The construction plans, and traffic control phasing were reviewed as part of the meeting for the structures located at Spring Street, Oldham Street, and Silliman Evans Bridge. The project is intended to be completed in a span of fourteen (14) weekends. Quantities were not discussed as part of this review and should be thoroughly reviewed at the Construction Field Review.

AGENDA:

1. Introductions
2. Purpose: Existing Conditions
3. Project Overview: Roadway, Right-Of-Way/Utilities, Structures, Railroad, Traffic Control, Construction/Maintenance
4. Work Session

ACTION ITEMS:

5. Railroad Coordination
6. Right-of-Way Acquisition (Easements/Air Rights)
7. Access Coordination
8. Number of Lanes Decision – Silliman Evans

SUMMARY:

The Spring Street location was viewed as having the least risk regarding constructability and completion date. The Oldham Street location was viewed as the greatest risk due to the crane requirements, railroad limitations, and access constraints.

At Oldham Street, CSX requires permits for work near the tracks; permits take roughly 30-60 days to acquire. It may benefit the project for the Department to obtain a crossing easement for the Contractor. CSX estimates traffic on the railroad at 31 trains a day operating 7 days a week. This estimation includes both directions. The overhead signs located on I-24 near the existing bridge should be considered to be removed and replaced. Early coordination with the railroad is critical similar to the coordination required for Fast Fix 8. The billboards near the railroad will require removal. Project Development will begin the billboard coordination, acquisition of the easements/air rights, and coordination of property access. The NEPA document will be reviewed by Project Development to ensure proper coverage of the project limits.

In regards to the Structure, encasement of the columns should be considered to aid in construction. The placement of cranes and access to this location should be reviewed with regards to any utility or right-of-way constraints. The vertical clearance between the railroad and bridge will affect the method chosen in bridge demolition. Flagging days should consider the additional time for this work (approximately 200 – 250 days). CSX requested notification 30-60 days prior to work beginning to establish train traffic. The project duration should include the preparation time for the weekend work. The utilities at the bridge location could restrict placement of equipment. The project team should investigate the possibility of reducing work at this location i.e. spans, panels, type of materials, etc.. In addition, the excavation requirements for the footings should be verified.

At Silliman Evans, the current state of the bridge is critical to timing of the project. GPR data is being obtained to further define the scope of work. The fourteen (14) weekend schedule was based on the Silliman Evans construction being critical path. The ability to work at other bridge locations simultaneously should be thoroughly reviewed. Additionally, a shoulder or one lane closure on Silliman Evans during the week should be considered, prior to letting, based on the GPR data. In reviewing the project location, the addition of the second lane at the split prior to the project and corresponding lane drop at the interchange adjacent to the end of the project aids in the feasibility of the closure of one lane. Project Development and the Structures Division should thoroughly review the associated traffic impacts of this decision prior to incorporating a closure into the plans. The project team should thoroughly evaluate the GPR data to determine

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the risks associated with the weekend work. Additionally, the asphalt cooling time for each lift should be further researched prior to the project letting. The Northfork Southern line is not active and is not anticipated to affect schedule.

Discussion at the meetings primarily focused on Oldham Street and Siliman Evans bridge locations. Spring Street did not pose as significant a risk although slide-in bridge construction was discussed.

It was indicated that there is no benefit in letting two to three separate contracts. The benefit cost of the proposed improvements in regards to time to complete the work and cost of the project should be considered in the form of a user cost. Alternative methods such as slide-in bridge construction was discussed for both Spring Street and Oldham Street locations. To reduce risk, a Fall letting should be considered.