

**State of Connecticut
Department of Transportation
Office of Quality Assurance (OQA), Office of Construction (OOC),
and Office of Engineering (OOE)**

**Summary of Meeting Minutes
July 12, 2011
Newington HQ, Room 4209**

<u>Attendees:</u>	Mohammed Bishtawi	OQA
	Anthony Kwentoh	OOC
	Jan Mazeau	OQA
	Will Britnell	OOE - Highway Design
	Hugh Hayward	OOE - Hwy Des Local Roads
	Philip Cohen	Traffic Engineering
	Joe Cancelliere	OOE - Bridge Design
	Julie Georges	OOE - Bridge Consultant Design

Subject: Staged Construction - Lessons Learned

Purpose: Open discussion on recent issues on projects with staged construction and to determine how to share this information with all concerned.

Summary of Discussion:

1. The reason this meeting was called has to do with two projects that recently had issues with the plans not addressing work that was needed for staged construction to proceed:
 - a. Example Project #1: Interstate traffic was to be shifted onto existing shoulder pavement but the District Construction staff found the pavement structure to be inadequate and in some areas the cross slope would have been a problem.
 - b. Example Project #2: The elevation difference between the existing roadway and the new bridge being constructed in two stages was only partially addressed in the plans. The OOC provided photographs of the bridge being constructed, in the first stage layout as per the plans.
2. Other recurring issues pertaining to staged construction were listed on the meeting agenda and in some research done by OQA. A few of the items on the list were discussed.
3. It was noted that a good plan review may catch some problems with staging plans. The Office of Engineering personnel stated that they realize a District plan review takes time and manpower and can't always be done. There are some situations when a deadline for review comments doesn't allow enough time for a thorough review.

4. There was some discussion of Design using a checklist to make sure all items that need to be addressed are included in the plans. (Construction and OQA reviewers have been using the established checklist introduced by District 3 and modified by OQA which can be accessed through their webpage on the DOT Intranet as follows: http://www.ct.gov/dot/lib/dot/documents/dqa_qc/cru/cru_project_review_checklist.xls OQA also is in the process of updating their webpage, including the checklist.)
5. It was agreed that in most cases design should provide general scenarios for the major stages of construction where operations cannot be performed with alternating traffic. It is then up to the contractor and the inspection staff to determine the best steps or sub-stages needed to accomplish the work.
6. It was also noted that it would be better if the contract included the items that would be needed so that large change orders could be avoided. The design could show one feasible scenario how the staged work could get done and include the items in the contract. The contractor may propose an alternative method and there is a protocol in place for acceptance or rejection.
7. On projects that have especially complex staged construction or that have longer durations, possible solutions include:
 - a. Meeting during design phase with the design team, consultant, OOC and/or District Construction personnel to discuss the proposed stages of construction
 - b. Notice to Contractor calling attention to the staged construction
 - c. Additional traffic control item(s) or quantities in the contract
 - d. Contingencies to cover the additional expenses that will probably arise
 - e. Estimated Lump Sum item for staging of traffic
8. Regarding Example Project #1 (see Summary Item No. 1) and projects like it, the designer relies on advice from the Pavement Management Unit about needs to build up pavement, etc.
9. The OOE representatives suggested that discussions should be held about specific project issues with the construction inspection staff, District, designer and consultant (if applicable), during and after the construction phase to bring out Lessons Learned.

Conclusions: To prevent recurrences of issues with staged construction on future projects the best solutions should be recorded in a simple, user friendly format. Using the checklist on the website, positive reinforcement, District reviews, review meetings and “keeping the dialog going” about Lessons Learned will continue.

We believe these minutes accurately reflect what transpired at the meeting. Unless notified in writing to the contrary within ten (10) days after receipt, we will assume that all in attendance concur with the accuracy of this transcript.

Submitted by:

Janet Mazeau Date 7/14/11
Janet Mazeau

Reviewed by:

Mohammed Bishtawi Date 7/14/11
Mohammed Bishtawi

cc: Attendees

Rich Armstrong (w/ Attachments)

James Connery (w/ Attachments)