



2014 WORK ZONE SAFETY REVIEWS



State of Connecticut

Prepared By:

Connecticut Department of Transportation

Office of Construction

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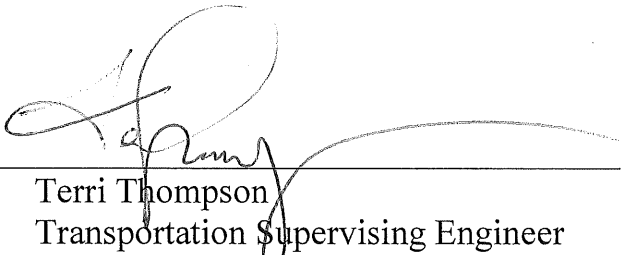
CONNECTICUT 2014 WORK ZONE SAFETY REVIEW REPORT

The report was prepared by the Connecticut Department of Transportation and the reviews have been completed to conform to the requirements of the Department's Work Zone Safety Improvement Plan, specifically Table 3, Work Zone Self-Assessment Element No. 8, Program Evaluation.

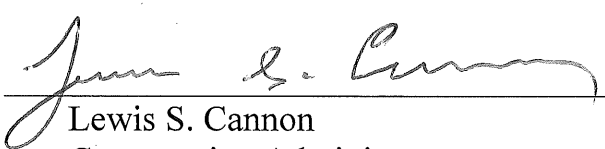
The Plan was developed in response to the recommendations in the 2011 Connecticut Work Zone Safety and Mobility Process Review Report and is evidence of Connecticut's compliance with 23 CFR 630.1008.

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Submitted By: _____


Terri Thompson
Transportation Supervising Engineer
Bureau of Engineering and Construction

Approved By: _____


Lewis S. Cannon
Construction Administrator
Bureau of Engineering and Construction

INTRODUCTION

The Connecticut Department of Transportation (CTDOT) conducts field reviews annually to help evaluate varying aspects of work zones paying particular attention to the current practices and designs being used in the Connecticut Department of Transportation's (CTDOT) work zones.

The reviews began in 2010 as a means to better understand and evaluate different characteristics of a work zone and the strategies and procedures that could be improved upon or used as a "best practices" example. In-depth field reviews include key personnel from the project, Office of Construction, Division of Traffic, Division of Safety and the Federal Highway Administration (FHWA). Reports are created to document both successes and opportunities for improvement, not only within the project limits but also within Department policies or procedures. The goal is to take the "Lessons Learned" and improve upon the various disciplines that are involved in work zone engineering, design and implementation.

The issues that arise as a result of these reviews are considered for incorporation into the Work Zone Improvement Plan and added to working group action item issues.

Projects are chosen from each of the four districts in the state: District 1- Central Connecticut; District 2- Eastern Connecticut; District 3- Southwestern Connecticut and District 4- Western Connecticut. There is an attempt to review projects that have some unique features, challenges or innovative practices.

NEW APPROACH

CTDOT is currently looking to conduct field reviews differently than has been done in the past 4 years. The intent is to form a more diverse team of review participants comprising personnel from all of the Bureaus: Engineering & Construction, Maintenance and Highway Operations; Policy & Planning, and Finance and Administration Safety Division along with FHWA.

The team would schedule several work zone reviews during a week(s) long period. Outside of the concentrated effort during this review schedule will be the addition of night time reviews since most work on limited access roadways occurs during this time. Night reviews are more of a challenge for a variety of reasons, including scheduling and availability of team members.

The Work Zone review team concept will include personnel that range in expertise. The knowledge and experience will range from personnel with expertise in project design, traffic engineering, construction and highway operations and maintenance to those that represent the common road user who for the most part have only come in contact with work zones during their daily travels.

The report itself will be streamlined as well and will no longer include an Executive Summary section but will have an issues/best practices section, copies of the reviews completed and also an updated report on entries in the work zone review database. The Work Zone Improvement Plan Tables will be updated and retained within the plan and not included in the report.

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2014 Work Zone Review Issues

2014 Work Zone Review Summary

Some of the issues and good practices from the 2014 reviews are as follows:

1. Detours

- The project installed detour signs per plan, but received complaints that there was not enough signage. Additional signage was added on two separate occasions.
- Best Practice - The project has produced detour maps to hand out to the public who stop at the field office to ask directions.

2. Signing

- Good Practice: The Contractor provided extra signage for additional safety.
- Pre-Stage 1A traffic was difficult due to inadequate areas to install warning signs. Traffic has improved with stage construction.
- Signs that were to be mounted on an inside barrier were relocated because Stage 1B would not provide enough height clearance for pedestrians.

3. Maintenance and Protection of Traffic

- The DE-7C delineators installed on the TPCBC are not all showing the correct color.
- The high intensity barricade warning lights provided in the Contract have not been used. (The reviewer did not locate any notes in the plans indicating the use of these lights.)
- Good Practice: The Contractor has been proactive by installing a speed radar trailer for nighttime operations.

4. Traffic Control Devices

- Marginal or unacceptable quality of drums, cones and barricades that should be replaced or do not meet standard.
- Due to an oversight, Traffic Cones, Traffic Drums and Type III Barricades were not included in the Contract. Good Practice: The Contractor was proactive and placed traffic drums out before a price was approved.
- The contract quantity for traffic cones was insufficient.
- There has been an issue with traffic cones being knocked down. Good Practice: The Contractor has a dedicated person to check traffic patterns and the Consultant checks patterns 2 or 3 times a night.

5. Transportation Management Plans (TMPs)

- Project personnel were not aware a TMP was developed for the project.

6. Pedestrian Issues

- Good Practice: The Project added a painted crosswalk from the temporary pedestrian bridge as a safety measure. It provides delineated guidance across a gas station driveway for pedestrians along with awareness for drivers.
- Crosswalk markings and signage needed to be added for guidance to the temporary pedestrian walkway.

2014 Work Zone Review Issues

Proj.ID	Comments
31-127	<ol style="list-style-type: none"> 1. Due to an oversight, Traffic Cones, Traffic Drums and Type III Barricades were not included in the Contract. Traffic Drums, 42” and 28” Traffic Cones, and Type III Construction Barricades were added by Construction Order. The Contractor was proactive and placed traffic drums out before a price was approved. Note: Traffic cones less than 42 inches in height shall not be used on limited-access roadways or on non-limited access roadways with a posted speed limit of 45 mph and above. 2. The Contractor provided extra signage for additional safety. 3. The Contractor questioned the temporary impact attenuation system that was designed for an impact velocity of 55 mph or less, since the posted speed limit is 45 mph. A change in the array system was approved to set up for an impact velocity of 45 mph or less. 4. The DE-7C delineators installed on the TPCBC are not all showing the correct color. The yellow side should show on the left side of traffic and silver show on the right side of traffic. 5. The high intensity barricade warning lights provided in the Contract have not been used. (The reviewer did not locate any notes in the plans indicating the use of these lights.)
36-182	<ol style="list-style-type: none"> 1. The Project continues to monitor traffic flow and work with the Office of Traffic to help alleviate traffic backup on Route 34 & Route 8 off-ramps. The following measures have been taken: <ul style="list-style-type: none"> • The right lane was changed to have a permanent green arrow to allow a continuous traffic flow onto Route 34 East. • Additional pavement markings were added for lane indicators. • “Do Not Block Intersection” signs were added. • The northbound Route 8 off-ramp force-off detector was disconnected. • Signal timing changes were made. • Municipal police were placed at intersections to direct traffic, but this did not improve the traffic issues. 2. Crosswalk markings and signage needed to be added for guidance to the temporary pedestrian walkway. 3. During the field review, a car was observed entering the northbound Route 8 on-ramp through the red arrow. The red arrow is activated by the pedestrian crossing button. 4. Signs that were to be mounted on an inside barrier were relocated because Stage 1B would not provide enough height clearance for pedestrians.

Proj.ID	Comments
51-258	<ol style="list-style-type: none"> 1. The Project added a painted crosswalk from the temporary pedestrian bridge as a safety measure. It provides delineated guidance across a gas station driveway for pedestrians along with awareness for drivers. 2. A safety inspection was also performed by Kiah Patten on this project and report submitted.
53-186	<ol style="list-style-type: none"> 1. The Contractor requested and was granted an extension on the time restrictions posted in the contract to allow for shoulder and lane closures. 2. The Contractor utilized the contract provision to close ramps when unable to maintain a 12 foot travel path to perform rubblization. 3. The merging taper for the right lane closure (Traffic Control Plan #1) was not the required length of 800'. The taper length measured in the field was approximately 400'. The inspector was instructing the contractor to comply with the specifications. Also, by visible inspection the shoulder closure taper length in front of the flashing arrow was not the required length. 4. The project had an incident where a State Police vehicle was hit when parked in front of the crash truck. 5. The project had an issue with a State Trooper who shut down night operations due to rain. 6. The Contractor has been proactive by installing a speed radar trailer for nighttime operations.
58-329	<ol style="list-style-type: none"> 1. The contract quantity for 42" traffic cones of 100 each was insufficient. The project has used 395 traffic cones. The Project Engineer noted that paving and tack coat are rough on traffic cones and they are being replaced as needed. 2. There has been an issue with traffic cones being knocked down. The Contractor has a dedicated person to check traffic patterns and the Consultant checks patterns 2 or 3 times a night. 3. The Contractor questioned why Reduced Speed signs were eliminated from the Traffic Control plans. He feels they are needed to help slow traffic down. The sign is not required per MUTCD and therefore was removed from traffic plans. Another solution may be to use the CMS as advance warning of upcoming work zone and indicate to reduce speed. 4. The Contractor feels that using the optional 1000' buffer slows traffic down. 5. The Consultant questioned whether State Police are allowed to shut a project down due to an event such as Sailfest. Terri Thompson informed him that State Police do not have that authority. 6. There was an incident where the crash truck mirror was hit at an exit, but the driver did not stop. 7. There had been issues with high speed truckers late at night. The Project personnel feel this has improved with time and increased awareness of ongoing

work being performed. A subcontractor trucker was removed from the project due to excessive speed.

Field Review Concerns:

1. There was a safety concern with the traffic pattern when entering from the left onto I-95 SB from Route 12 and Route 184. The traffic pattern closed the left side of the entrance ramp, forcing vehicles through the painted gore and into the high speed lane of I-95 SB without enough time to safely merge. It is recommended to close the left lane of I-95 SB upstream of the entrance ramp to allow ramp traffic adequate travel lane width and acceleration length to merge into mainline stream of traffic. *(Note: Project has taken corrective action).*
2. A Changeable Message Sign located in the median before the Gold Star Bridge on I-95 NB was partially obscured by a permanent bridge and river information sign. The CMS needs to be relocated to a location where the visibility is unrestricted.
3. A Changeable Message Sign display format of “Road Closed 10/8-9”, indicating dates, was confusing. It is suggested that two frames be used to display “Road Closed” for frame 1 and “10/8 to 10/9” for frame 2.
4. A sweeper truck was observed driving, lights on, the wrong way in a right shoulder closure.

Best Practice

1. The Contractor conducts a review of traffic control with the work crew and police ½ hour prior to setting up patterns.
2. Project requires contractor to set up pattern at beginning of job and staff assesses the quality of traffic control devices and has contractor remove from service any devices that are considered unacceptable.
3. Frequent nightly reviews to ensure all traffic control devices are in place and acceptable. Any found unacceptable or marginal are noted and contractor is notified via speed memo.
4. Project personnel kept in contact with an adjacent project to be aware of any coordination that would be required to maintain proper traffic flow.

Recommended Practice

1. Put Project No. and date on construction signs to document how many times signs have been put in service. New signs coming into project are also marked when they arrive
2. Provide means to accurately check the retro-reflectivity and sheeting type of signs. Add a measuring device into contract specification and provide a sheeting identification chart.

Project Action Item:

Project was requested to get signs from contractor; one that they feel is acceptable and one that may be marginal. They will be brought to DOT Sign Department for

	<p>testing of retro-reflectivity and condition.</p> <p>Note: FHWA Construction Inspection Report No. 2 was prepared and submitted by Robert Turner for this project.</p>
60-152	<ol style="list-style-type: none"> 1. The Project staff suggested that protection for the Portable Work Zone Management System be included in the contract. The PWZMS had to be recalibrated after being relocated for protection. At time of review the PWZMS was no longer in use. 2. A Changeable Message Sign was added to the project in order to give motorists an additional opportunity to get off of Route 9 and find an alternate route. 3. The Project staff would like to have had the plans suggest alternate routes. The Office of Traffic had to reset signals to maximum time in two locations on Route 154 to accommodate increased traffic. 4. The plans did not shut down the NB climbing lane, which would result in three lanes approaching the work zone. The Project ended up closing the climbing lane to keep all traffic in two lanes in the approach to the work zone. The intent was to improve traffic flow through the work zone and reduce queues approaching work area.
82-298	<ol style="list-style-type: none"> 1. Long Hill Road transitions into Wesleyan Hills Road without any street sign to signify the change. After turning a bend in the road where the name changes, the road intersects with another street named Long Hill Road. Driving through the detour, I turned onto Long Hill Road thinking I was continuing on the road indicated for the detour but I immediately realized that it was a different road. I would suggest that at that intersection there be another Detour sign with a straight arrow placed to give clarity about which road to stay on. I did see there was a Detour sign placed at the Daniel Street intersection to notify drivers they were entering a detour route; something similar at the other Long Hill Road will be sufficient. 2. When I approached the police officer, the Chief Inspector was telling him to place an extra detour sign they had at the Long Hill Road #1 intersection that I had concern with. The police officer told me that earlier in the evening he went out and placed paper detour signs with arrows throughout detour to further clarify detour route to drivers. He was told at a progress meeting with DOT and the Contractor that the Contractor would provide all the detour signs and barricades for road closure needed. At the time for the closure they weren't provided. The officer asked the Contractor that night to get some cones to help with the road closure. They were able to obtain 24-inch cones to close the road and they took it upon themselves to block the left turn lane on Randolph Road. There was, however, one barricade with a road closed sign that was further back beyond the road closure. He said there was no sign stating "Business Open" at Cypress Hill to notify motorists that they can access the business.

Proj.ID	Comments
135-270	<ol style="list-style-type: none"> 1. At northbound on ramp 36, there were construction equipment hanging over the right shoulder. Also construction workers were moving in and out of the right shoulder. The right shoulder was not safe for motorists. Therefore, it should have been closed to protect construction equipment and construction workers. Refer to the M&PT special provision for typical shoulder closure plans. 2. During the review, it was unclear if the work zones were too closely spaced. Except when a 3-mile work zone has been reviewed and allowed by Construction, the following language is included in the Prosecution & Progress special provision: “The Contractor will not be allowed to have more than 2 work zones on Route 15 in each direction at a time. Each work zone shall be 1.5 miles or less with a minimum of one mile of open roadway between the work zones. The one mile clear area length shall be measured from the end of the first work area to the beginning of the signing pattern for the next work area”. 3. On the southbound, there was a section of Temporary Precast Concrete Barrier Curb (TPCBC) on the right of the travelway with yellow delineators. Those delineators should be changed to white delineators.
138-221	<ol style="list-style-type: none"> 1. Due to Pre-stage 1 accidents, the speed of vehicles became a concern on this project. The Contractor tried to slow traffic one day with the use of crash trucks, but State Police had a concern about this practice and suggested 6” solid white lines be installed. Changes that were put in place include a reduced speed limit of 45 mph and marking the speed limit on the travel lanes. Operation Big Orange for police enforcement of speed has been used which the Project personnel feels has been effective. 2. Stage 3 accesses the median work zone from below for I-95 for daytime operations, while nighttime operations allow a lane closure to gain access. Project personnel would have liked to have a plan provided that would have provided daytime access from the travel lanes of I-95. 3. The Project has had requests approved for a change of hours in the Limitation of Operations to allow an earlier start to the second lane closure. 4. According to project personnel, some signs are difficult to maintain due to narrow areas.

WORK ZONE REVIEW FORM

Project Number: 138-221
Date: September 16, 2014

District No. 3
Weather: Cloudy 68°

Project Type: Construction Maintenance Bridge Safety
Road Type: Limited Access Secondary Local / Town
Inspection Forces: State Maintenance Consultant

Location (Route & Town): Reconstruction of Bridge No. 00135 (Moses Wheeler Bridge) I-95 over Housatonic River & Naugatuck Avenue in Towns of Milford and Stratford

Focus of Review: Lane Closure: Temporary Permanent; Stage Construction
 Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work

Prime Contractor: Walsh Construction Co. /PCL J.V. II

Project Engineer: Steven Hebert

Project Manager: Leon Wolochuk

Project Amount: \$185,253,956.39

Percent Complete: 82%

Calendar Days completed: 367

Calendar Days Allotted: 320

Review Participants

Name	Representing
Jack Ploski	HNTB Consultant (Chief Inspector)
Bonney Whitaker	Office of Construction
Kiah Patten	Office of Construction

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? Yes
- 2) What is the overall condition of traffic flow through the work zone? (include queue length and speed limit, roadway condition). Traffic was flowing smoothly at time of review. Morning and evening rush hour has the normal amount of slow down.
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). No.
- 4) Are there any horizontal/vertical clearance issues? No.
- 5) Are there any permitted load issues? No.
- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? Yes.
- 7) Are all cones, drums, barricades, or other channelization devices acceptable? Yes.

- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? Yes
- 9) Clear Zone issues: (Y / N) No. Respond to questions below.
- What is the clear zone for this project? Work site is behind TPCBC.
 - Where are materials stored for the project? Under I-95
 - Where is equipment stored when construction is not in progress? Behind barrier
- 10) Have accommodations been made to account for
- Emergency Services – Yes
 - Pedestrian/ Bike/ ADA issues? Yes.
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. No.
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used. Grinding
 - Are there conflicting markings? No.
 - Are the temporary markings legible? If night review, comment on visibility
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy
Per contract plans, epoxy resin pavement markings are used for all temporary pavement markings exposed throughout the winter.
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes. Class 3 pants are worn at night, although not a requirement.
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area.
- State Police
- Local Police Minimum Hourly Requirement:
- Uniformed Flagger
- Comments from Traffic Control Personnel (indicate type of traffic person): not available
- 15) Chief Inspector Comments: See comments on Pages 4 and 5.
- 16) Project Engineer Comments: Not available

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized/Sheeting Type	Bright fluorescent
Project Consistency	Yes
Need to be covered	No
Temp./Permanent	Post mounted (Temporary)

Table B – Traffic control Devices

Requirement	Comment
Type & Placement	Traffic cones and drums
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Majority are acceptable. A few were marginal.
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	Temporary Precast Concrete Barrier Curb
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	N/A
Reflectorized	Delineators installed on top of the barrier.
Anchored	Yes
Consistent throughout project	Yes
Crash Trucks (TMA) in use? If yes how many and type	One crash truck being used on local road in work zone where work underneath I-95 is being accomplished.

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	High intensity warning lights are attached to post mounted diamond shaped construction signs.
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	N/A
Location of portable devices – Indicate if in clear zone and how protected.	Changeable message signs located behind metal beam rail.
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	Two portable message signs, one northbound & one southbound, displaying “45 MPH ENFORCED”

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. Yes. This construction activity causes sustained mobility on I-95 for more than three (3) days with intermittent lane closures, therefore meeting the definition of a significant project. TMP needs to be updated.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

0821022A Remove & Reset Precast Concrete Barrier Curb,

0822005A Temporary Precast Concrete Barrier Curb (Structure)

0822006A Relocated Temporary Precast Concrete Barrier Curb (Structure)

0822042(3)A Temporary Glare Screen Modular Units (Relocated), Rev. 11/99,

0970006(7)A Trafficperson (Municipal police officer)(Uniformed flagger), Rev. 1/2008,

0971001A Maintenance and Protection of Traffic

0973725A Worksite Traffic Supervisor, Rev. 3/15/10

0979003A Construction Barricade Type III, Rev. 1/17/01

1131002A Remote Control Changeable Message Sign, Rev. 12/02/02

1220013A Construction Signs-Bright Fluorescent Sheeting, Rev. 1/17/01

Is the project being completed in stage construction? If yes, explain. Yes, Stage 1 erects the north section of the new bridge & shifts southbound traffic to the north section of the new bridge. Stage 2 demolishes the south half of the existing bridge and constructs the south 1/3rd of the new bridge. Stage 3 demolishes the remaining north section of the existing bridge.

Is there temporary signalization? If yes, explain. Yes. Temporary signalization is in the contract for local roads, but is not extensive.

Is a detour required or being used? If yes, explain. Yes. There are temporary detours on local roads only.

What guides, tools including manuals, pocket guides, books etc. do you reference?

The Chief Inspector references the Special Provisions.

What work zone traffic plans are included in the project? Plan Nos. MPT-1 through MPT-22.

Has the project had any incident reports filed? Yes How many? Count not provided.
Majority of incidents occur during rush hour and involve rear end collisions.

Comments:

1. Due to Pre-stage 1 accidents, the speed of vehicles became a concern on this project. The Contractor tried to slow traffic one day with the use of crash trucks, but State Police had a concern about this practice and suggested 6" solid white lines be installed. Changes that were put in place include a reduced speed limit of 45 mph and marking the speed limit on the travel lanes. Operation Big Orange for police enforcement of speed has been used which the Project personnel feels has been effective.
2. Stage 3 accesses the median work zone from below for I-95 for daytime operations, while nighttime operations allow a lane closure to gain access. Project personnel would have liked

to have a plan provided that would have provided daytime access from the travel lanes of I-95.

3. The Project has had requests approved for a change of hours in the Limitation of Operations to allow an earlier start to the second lane closure.
4. According to project personnel, some signs are difficult to maintain due to narrow areas.



Efforts to reduce speed through work zone include message signs for northbound and southbound traffic, solid white lines and 45 MPH speed limit painted directly on all travel lanes.



Two work sites underneath I-95.

Completed By: _____

Approved By: _____

WORK ZONE REVIEW FORM**Project Number: 135-270****District No. 3****Date: 9/24/2014****Weather: Pt. Cloudy, 58°****Project Type:** Construction Maintenance Bridge Safety**Road Type:** Limited Access Secondary Local / Town**Inspection Forces:** State Maintenance Consultant**Location (Route & Town): CT Route 15 in the Towns of Stamford to New Canaan****Focus of Review:** Lane Closure: Temporary Permanent; Stage Construction Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work**Prime Contractor: O & G Industries, Inc.****Project Engineer: Joe Sorcinelli****Project Manager: Michael Martin****Project Amount: \$57,864,272.43****Percent Complete: 52%****Calendar Days completed: 257****Calendar Days Allotted: 535****Review Participants**

Name	Representing
Joseph Becker	URS Consulting
Aldo Tartaglino	O&G Industries
Robert Turner	FHWA
Anthony Kwentoh	Office of Construction
Dan Stafko	District 3 Construction
Bonney Whitaker	Office of Construction
Kiah Patten	Office of Construction
Jeff Hunter	District 2 Construction
Oddler Fils	Office of Traffic

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? Yes.
- 2) What is the overall condition of traffic flow through the work zone? (include queue length and speed limit, roadway condition). Good. Moving continuously after set up.
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). No
- 4) Are there any horizontal/vertical clearance issues? No. The contract Special Provisions for Maintenance & Protection addresses Route 15 vertical clearance at Bridge No. 00710R.
- 5) Are there any permitted load issues? No. Route 15 is already restricted and does not allow commercial vehicles.

- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? Yes, although visually some appeared scuffed and dirty. (Refer to Page 5 pictures).
- 7) Are all cones, drums, barricades, or other channelization devices acceptable? The majority were acceptable. Some cones need to be replaced.
- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? Yes on required signs.
- 9) Clear Zone issues: N (Y / N) Respond to questions below.
- What is the clear zone for this project? Traffic is maintained adjacent to work zone using lane closure signing patterns, crash trucks and State Police to protect the workers.
 - Where are materials stored for the project? Yard off of Exit 37.
 - Where is equipment stored when construction is not in progress? Behind concrete barrier.
- 10) Have accommodations been made to account for
- Emergency Services – Yes, in accordance with NTC to coordinate all lane closures with emergency services.
 - Pedestrian/ Bike/ ADA issues? Yes, for local roads.
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. No.
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used. Grinding
 - Are there conflicting markings? No
 - Are the temporary markings legible? If night review, comment on visibility Good
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy (epoxy temporary for winter)
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area.
- State Police
- Local Police Minimum Hourly Requirement: 4 hour minimum
- Uniformed Flagger
- Comments from Traffic Control Personnel: State Police Sgt. Lynch of Troop G stated that traffic control has not been a problem.
- 15) Chief Inspector Comments: Having two work zone patterns in the same direction causes a longer delay.
- 16) Project Engineer Comments: Future Merritt Parkway projects should consider extending work zone to a 3 mile maximum vs. a 1.5 mile for Mon-Wed nights.

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Some were marginal (refer to pictures on page 5)
Reflectorized/Sheeting Type	Bright fluorescent
Project Consistency	Yes
Need to be covered	No
Temp./Permanent	Temporary

Table B – Traffic control Devices

Requirement	Comment
Type & Placement	42" traffic cones
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Overall, traffic cone were acceptable to marginal. A few were unacceptable and should be replaced.
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	No. Varying degrees of quality.

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	Traffic drums
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable to marginal
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	No. Varying degrees of quality.
Crash Trucks (TMA) in use? If yes how many and type	Three crash trucks

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	High intensity warning lights attached to construction signs as specified in the contract.
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	Truck mounted arrows functioning properly.
Location of portable devices – Indicate if in clear zone and how protected.	In lane closure, protected by traffic drums.
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	Changeable message signs were in use. One northbound & one southbound. Reviewers did not note message or timing.

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. No. Policy No. E&C-46 does not include Route 15 for significant projects. Existing lanes are maintained throughout the day and peak hours, so the sustained mobility impacts are not greater than typical traffic operations.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

0970006 Trafficperson (Municipal Police Officer), Rev. 1/2008;

0971001 Maintenance & Protection of Traffic, Rev. 2/2013;

0979003 Construction Barricade Type III, Rev. 1/17/01

1118051 (2)(3) Temporary Signalization (Site No. 1)(No. 2)(No. 3), Rev. 1/13;

1131002 Remote Control Changeable Message Sign, Rev. 12/2012;

1220013 Construction Signs-Bright Fluorescent Sheeting, Rev. 1/17/01

Is the project being completed in stage construction? If yes, explain. Yes. There are three stages of construction. Stage 1 shifts traffic to the left side of the roadway for right side operations, Stage 2 shifts traffic to the right side of the roadway for left side & median work and Stage 3 is final drainage, pavement, pavement markings and landscaping operations.

Is there temporary signalization? If yes, explain. Yes. Temporary signalization used on local roads to allow for alternating one-way traffic for bridge operations.

Is a detour required or being used? If yes, explain. Yes. A detour plan is provided for Guinea Road for work on bridge over Route 15. The Contractor provided a ramp detour plan to close NB Exit 33 on-ramp, as allowed for Maintenance & Protection of Traffic in the Special Provisions.

What guides, tools including manuals, pocket guides, books etc. do you reference?

This project is a pilot program for the use of tablets in the field. Inspections have PDFs for plans and specifications.

What work zone traffic plans are included in the project? MPT plans are a subset. The inspector stated a preference for MPT plans to be included within appropriate construction section.

Has the project had any incident reports filed? Yes. How many? Approximately 12

Comments:

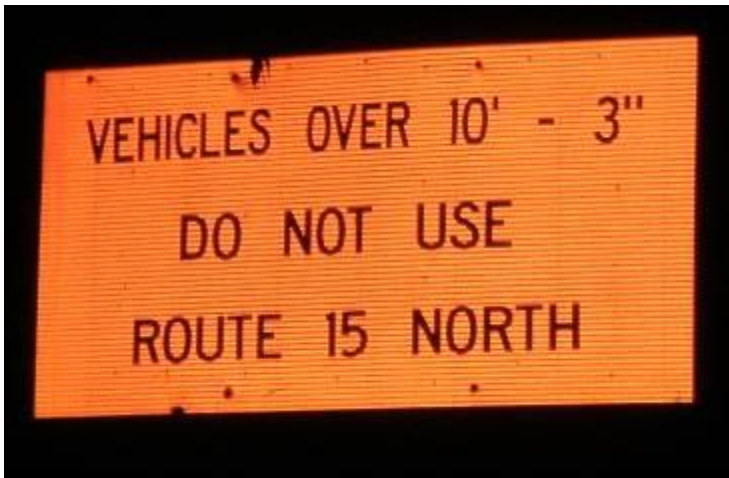
1. At northbound on ramp 36, there were construction equipment hanging over the right shoulder. Also construction workers were moving in and out of the right shoulder. The right shoulder was not safe for motorists. Therefore, it should have been closed to protect construction equipment and construction workers. Refer to the M&PT special provision for typical shoulder closure plans.
2. During the review, it was unclear if the work zones were too closely spaced. Except when a 3-mile work zone has been reviewed and allowed by Construction, the following language is included in the Prosecution & Progress special provision: "The Contractor will not be allowed to have more than 2 work zones on Route 15 in each direction at a time. Each work

zone shall be 1.5 miles or less with a minimum of one mile of open roadway between the work zones. The one mile clear area length shall be measured from the end of the first work area to the beginning of the signing pattern for the next work area”.

3. On the southbound, there was a section of Temporary Precast Concrete Barrier Curb (TPCBC) on the right of the travelway with yellow delineators. Those delineators should be changed to white delineators



Some temporary signs installed on this night were scuffed and appeared to be dirty.



Warning sign for Route 15 entrance ramp.



Traffic drums are placed for lane closure.

Completed By: _____

Approved By: _____

WORK ZONE REVIEW FORM**Project Number:** 0082-0298**District No.** 1**Date:** September 5, 2014**Weather:** clear, 70°**Project Type:** Construction Maintenance Bridge Safety**Road Type:** Limited Access Secondary Local / Town**Inspection Forces:** State Maintenance Consultant**Location (Route & Town):** Route 17 (South Main Street), Middletown**Focus of Review:** Lane Closure: Temporary Permanent; Stage Construction Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work**Prime Contractor:** J. Iappaluccio, Inc.**Project Engineer:** Juan Ruiz**Chief Inspector:** Michael Burch**Project Amount:** \$1,652,051.35**Percent Complete:** 10%**Calendar Days completed:** 102**Calendar Days Allotted:** 168**Review Participants**

Name	Representing
Mohammed Bishtawi	District 1 Construction
Michael Burch	District 1 Construction
Kiah Patten	Office of Construction

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? ***Yes, see note in comments section.***
- 2) What is the overall condition of traffic flow through the work zone? (include queue length and speed limit, roadway condition). ***No queue length, motorists were going the normal speed limit, roads used for the detour were in good condition,***
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). ***No.***
- 4) Are there any horizontal/vertical clearance issues? ***No.***
- 5) Are there any permitted load issues? ***No.***
- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? ***Yes.***

- 7) Are all cones, drums, barricades, or other channelization devices acceptable? *Yes.*
- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? *Yes.*
- 9) Clear Zone issues: (Y / N) Respond to questions below. *No.*
- What is the clear zone for this project? *N/A*
 - Where are materials stored for the project? *In Stonegate Apartment parking lot outside DOT field office.*
 - Where is equipment stored when construction is not in progress? *In Stonegate Apartment parking lot outside DOT field office.*
- 10) Have accommodations been made to account for
- Emergency Services – *Met with Middletown Fire Department – South District and Middletown Police Department – Traffic Division*
 - Pedestrian/ Bike/ ADA issues? *N/A, no sidewalks or pedestrian signals.*
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. *No.*
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used. *No.*
 - Are there conflicting markings? *N/A*
 - Are the temporary markings legible? If a night review, comment on visibility. *N/A*
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. *Yes.*
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area. *Stationed at road closure at either end of project site – Randolph Road and Wesleyan Hills Road, and at Brown Street (off of Randolph Road).*
- State Police
- Local Police Minimum Hourly Requirement: *4 hours*
- Uniformed Flagger
- Comments from Traffic Control Personnel (indicate type of traffic person): not asked.
- 15) Chief Inspector Comments: *No.*
- 16) Project Engineer Comments: *Not present.*

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	<i>Construction</i>
Location	<i>Throughout detour</i>
Mounting Height	<i>6 feet</i>
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	<i>Yes</i>
Reflectorized/Sheeting Type	<i>Bright Fluorescent Sheeting</i>
Project Consistency	<i>Yes</i>
Need to be covered	<i>No</i>
Temp./Permanent	<i>Permanent</i>

Table B – Traffic control Devices

Requirement	Comment
Type & Placement	<i>Cones/Drums</i>
Quantity	<i>30/15</i>
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	<i>Yes</i>
Reflectorized	<i>Yes</i>
Anchored	<i>No</i>
Consistent throughout project	<i>Yes</i>

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	<i>Type III</i>
Quantity	<i>7</i>
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	<i>Yes</i>
Reflectorized	<i>Yes</i>
Anchored	<i>No</i>
Consistent throughout project	<i>Yes</i>
Crash Trucks (TMA) in use? If yes how many and type	<i>No</i>

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	<i>Yes</i> <i>Barricade warning lights on advanced warning</i> <i>Yes</i> <i>High intensity</i>
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	<i>N/A</i>
Location of portable devices – Indicate if in clear zone and how protected.	<i>Construction Message Signs 500 feet north of Randolph Road and 1000 feet north of Round Hill Road</i>
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	<i>Portable, message is understandable, 2 frames, 2 seconds between frames</i>

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. *No.*

What special provisions are there in contract related to work zone (list item no, description and date of provision)? *0970006 – Trafficperson (Municipal Police Officer), 0970007 – Trafficperson (Uniformed Flagger), 0979003 – Construction Barricade Type III, 1131001 – Changeable Message Sign, 1220013 – Construction Signs – Bright Fluorescent Sheeting*

Is the project being completed in stage construction? If yes, explain. *Yes, two stages will be done after the bridge is replaced to install parapets.*

Is there temporary signalization? If yes, explain. *No.*

Is a detour required or being used? If yes, explain. *Yes, Route 17 closed from 7 pm Friday to 3pm Monday between Randolph Road and Wesleyan Hills Road, and at Coleman Road intersection due to rapid bridge construction.*

What guides, tools including manuals, pocket guides, books etc. do you reference? *OSHA Construction Industry Digest and ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features*

What work zone traffic plans are included in the project? *Detour, Stage 1 & 2 Construction*

Has the project had any incident reports filed? *No.*

How many? *N/A*

Comments:

1. Long Hill Road transitions into Wesleyan Hills Road without any street sign to signify the change. After turning a bend in the road where the name changes, the road intersects with another street named Long Hill Road. Driving through the detour, I turned onto Long Hill Road thinking I was continuing on the road indicated for the detour but I immediately realized that it was a different road. I would suggest that at that intersection there be another Detour sign with a straight arrow placed to give clarity about which road to stay on. I did see there was a Detour sign placed at the Daniel Street intersection to notify drivers they were entering a detour route; something similar at the other Long Hill Road will be sufficient.
2. When I approached the police officer, the Chief Inspector was telling him to place an extra detour sign they had at the Long Hill Road #1 intersection that I had concern with. The police officer told me that earlier in the evening he went out and placed paper detour signs with arrows throughout detour to further clarify detour route to drivers. He was told at a progress meeting with DOT and the Contractor that the Contractor would provide all the detour signs and barricades for road closure needed. At the time for the closure they weren't provided. The officer asked the Contractor that night to get some cones to help with the road closure. They were able to obtain 24-inch cones to close the road and they took it upon themselves to block the left turn lane on Randolph Road. There was, however, one barricade with a road closed sign that was further back beyond the road closure. He said there was no sign stating "Business Open" at Cypress Hill to notify motorists that they can access the business.



Advanced warning sign and CMS – Frame 1, 500 feet north of Randolph Road



Advanced warning sign and CMS, 1000 feet north of Round Hill Road



Barricade with road closure sign described in comments section.



Detour sign stating road open only to local traffic on Coleman Road

WORK ZONE REVIEW FORM**Project Number: 70-116****District No. 2****Date: July 25, 2014****Weather: Sunny, 75°****Project Type:** Construction Maintenance Bridge Safety**Road Type:** Limited Access Secondary Local / Town**Inspection Forces:** State Maintenance Consultant**Location (Route & Town): S.R. 616 (Norwich Avenue) over Bartlett Brook, Lebanon****Focus of Review:** Lane Closure: Temporary Permanent; Stage Construction Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work**Prime Contractor: McCarthy Concrete, Inc.****Project Engineer: Patrick Warzecha****Chief Inspector: Joseph Taylor****Project Amount: \$1,629,655.53****Percent Complete: 52%****Calendar Days completed: 294****Calendar Days Allotted: 208****Review Participants**

Name	Representing
Joseph Taylor	Construction – District 2
Bonney Whitaker	Office of Construction
Kiah Patten	Office of Construction
Joseph Grasso	Office of Traffic

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? Yes, however the project added extra detour signs after receiving complaints that there was insufficient signage.
- 2) What is the overall condition of traffic flow through the work zone? (include queue length and speed limit, roadway condition). Detour is in place to direct traffic around work site. The local residents are better at adhering to the posted speed limit.
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). No.
- 4) Are there any horizontal/vertical clearance issues? No.
- 5) Are there any permitted load issues? No. Existing bridge was posted for a 34 ton live load restriction however the bridge is being replaced while detour is in place.

- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? Yes. Signs are new.
- 7) Are all cones, drums, barricades, or other channelization devices acceptable? Yes
- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? Yes
- 9) Clear Zone issues: (Y / N) Respond to questions below.
- What is the clear zone for this project? Road is closed. All activity is behind barricades.
 - Where are materials stored for the project? Behind barricade at the work site.
 - Where is equipment stored when construction is not in progress? Behind barricade.
- 10) Have accommodations been made to account for
- Emergency Services – Chief inspector contacted police & fire departments, schools & town halls.
 - Pedestrian/ Bike/ ADA issues? N/A
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. No.
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used. No item. Total road closure for full depth excavation.
 - Are there conflicting markings? N/A
 - Are the temporary markings legible? If night review, comment on visibility
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area.
- State Police
- Local Police Minimum Hourly Requirement: Four & eight hours.
Road closure resulted in minimal use of police.
- Uniformed Flagger
- Comments from Traffic Control Personnel (indicate type of traffic person): not asked.
- 15) Chief Inspector Comments: People are inattentive and are not following installed signs. (See additional comments on Page 4). The inspector commented that white signs may not stand out to get the attention of the motorists.
- 16) Project Engineer Comments: Not Available

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized/Sheeting Type	Bright fluorescent
Project Consistency	Yes
Need to be covered	No
Temp./Post mounted	Post mounted

Table B – Traffic Control Devices

Requirement	Comment
Type & Placement	Traffic Drums
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	Construction Barricades Type III
Quantity	4 each
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes
Crash Trucks (TMA) in use? If yes how many and type	N/A

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	Flashing lights on post mounted diamond shaped signs All functioning High intensity
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	N/A
Location of portable devices – Indicate if in clear zone and how protected.	N/A
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	N/A

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. No.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

0970007 Trafficperson (Uniformed Flagger), Rev. Date 01/08

0971001 Maintenance & Protection of Traffic, Rev. Date 6/29/12

0979003 Construction Barricade Type III, Rev. Date 1/17/01

1220013 Construction Signs-Bright Fluorescent Sheeting, Rev. Date 1/5/12

1803070 Type B Impact Attenuation System (Flared), Rev. Date 9/21/11

1803071 Type B Impact Attenuation System (Tangential), Rev. Date 9/21/11

Is the project being completed in stage construction? If yes, explain. No.

Is there temporary signalization? If yes, explain. No.

Is a detour required or being used? If yes, explain. Yes. The bridge is being replaced in one stage, so traffic is being detoured

What guides, tools including manuals, pocket guides, books etc. do you reference?

Form 816 and the Contract Specifications & Special Provisions

What work zone traffic plans are included in the project? Detour plan.

Has the project had any incident reports filed? No.

How many? N/A

Comments:

1. The project installed detour signs per plan, but received complaints that there was not enough signage. Additional signage, noted in Table 1 at end of report, was added on two separate occasions. While at the work site, there were three occasions where motorists ignored warning signs that the road was closed and proceeded to the work site where they had to turn around.
2. Best Practice - The project has produced detour maps to hand out to the public who stop at the trailer to ask directions.
3. It was discovered that GPS directions will detour vehicles that end up at the closed bridge onto a local road that becomes a narrow dirt road with a 90° turn. A “NO TRUCKS” sign had to be installed at the entrance to this road after trucks were unable to negotiate the 90° turn.



Detour signs on CT 2 and at bottom of exit.



Advance warning to motorists installed on State Road 616.



Vehicles were observed having to turn around at this work site sign.

Table 1

Signs added for Project 70-116		
<u>DOT No.</u>	<u>Qty.</u>	<u>Sign Description</u>
31-0553	1	STOP
51-6612	2	EAST
51-6614	1	WEST
80-1608	1	CONSTRUCTION AHEAD
80-1613	1	CONSTRUCTION AHEAD
80-9078	1	BRIDGE CLOSED X MILES AHEAD LOCAL TRAFFIC ONLY
80-9082	1	BRIDGE OUT
80-9701R	1	DETOUR
80-9702L	1	DETOUR
80-9708	2	END DETOUR
80-9710	1	DETOUR (Insert right, left or straight arrow)
80-9913	1	NORWICH AVE (with arrows)
80-9916	2	NORWICH AVENUE
80-9928	1	NORWICH AVE. DETOUR
80-9929	1	NORWICH AVE. EAST CLOSED
80-9933	2	ROAD CLOSED AHEAD

Completed By: _____

Approved By: _____

WORK ZONE REVIEW FORM**Project Number: 60-152****District No. 1****Date: July 24, 2014****Weather: Cloudy, 77°****Project Type:** Construction Maintenance Bridge Safety**Road Type:** Limited Access Secondary Local / Town**Inspection Forces:** State Maintenance Consultant**Location (Route & Town): Route 9 over Nedobity Road, Haddam****Focus of Review:** Lane Closure: Temporary Permanent; Stage Construction Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work**Prime Contractor: Mohawk Northeast, Inc.****Project Engineer: Brian Gustafson****Chief Inspector: Brent Church****Project Amount: \$2,528,821.57****Percent Complete: 43%****Calendar Days completed: 120****Calendar Days Allotted: 265****Review Participants**

Name	Representing
Brent Church	Construction – Dist. 1
Brian Gustafson	Construction – Dist. 1
Rich Brooks	Construction – Dist. 1
Bonney Whitaker	Office of Construction
Kiah Patten	Office of Construction

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? Yes. Pavement markings with solid lane lines provide good guidance through work zone.
- 2) What is the overall condition of traffic flow through the work zone? Traffic is steady for this stage. According to project staff, Stage 2 had significant back-up due to reducing travel to one lane.
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). No. Blunt ends from concrete barriers are protected by impact attenuation systems
- 4) Are there any horizontal/vertical clearance issues? No
- 5) Are there any permitted load issues? No.
- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? Yes. All signs are new.

- 7) Are all cones, drums, barricades, or other channelization devices acceptable? Yes. Traffic drums are new. Traffic cones have not been used.
- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? Yes
- 9) Clear Zone issues: (Y / N) Respond to questions below.
- What is the clear zone for this project? 30' off traveled way
 - Where are materials stored for the project? On Nedobity Rd, away from traffic
 - Where is equipment stored when construction is not in progress? Behind concrete barrier
- 10) Have accommodations been made to account for
- Emergency Services – N/A
 - Pedestrian/ Bike/ ADA issues? N/A
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. No
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used? Grinding & water blasting.
 - Are there conflicting markings? No
 - Are the temporary markings legible? If night review, comment on visibility
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes.
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area.
- State Police
- Local Police Minimum Hourly Requirement:
- Uniformed Flagger (on local roads)
- Comments from Traffic Control Personnel (indicate type of traffic person): not available.
- 15) Chief Inspector Comments: See comments on page 4.
- 16) Project Engineer Comments: See comments on page 4.

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized/Sheeting Type	Bright fluorescent
Project Consistency	Yes
Need to be covered	No
Temp./Post mounted	Post mounted

Table B – Traffic Control Devices

Requirement	Comment
Type & Placement	Traffic Drums
Quantity	Not Counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	TPCBC
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized	Delineators attached on top of TPCBC
Anchored	Yes – One section not pinned.
Consistent throughout project	Yes
Crash Trucks (TMA) in use? If yes how many and type	No

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	High intensity warning lights attached to post mounted diamond shaped construction signs.
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	N/A
Location of portable devices – Indicate if in clear zone and how protected.	N/A
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	N/A

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. No.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

0970007 Trafficperson (Uniformed Flagger), Rev. Date 1/2008

0971101(2) Maintenance & Protection of Traffic (Site No. 1) (Site No. 2), Rev. Date 7/24/13

1131002 Remote Control Changeable Message Sign, Rev. Date 12/02/02

1131007 Portable Work Zone Management System Deployment, Rev Date 07/24/13

1131008 Portable Work Zone Management System Operations, Rev. Date 07/24/13

1131009 Portable Work Zone Management System Queue Trailer/Sensor, Rev. Date 07/24/13

1131010 Portable Work Zone Management System Changeable Message Sign, Rev. 07/24/13

1131011 Portable Work Zone Management System Mobile Video Trailer with Pan Tilt Zoom (PTZ), Rev. Date 07/24/13

1220013 Construction Signs-Bright Fluorescent Sheeting, Rev. Date 1/5/12

Is the project being completed in stage construction? If yes, explain. This project has three stages. The first stage was used to lay out Stage 2 which provided one lane of traffic. The current Stage 3 provides for two lanes of continuous traffic.

Is there temporary signalization? If yes, explain. No.

Is a detour required or being used? If yes, explain. No.

What guides, tools including manuals, pocket guides, books etc. do you reference?
Form 816, Special Provisions, Construction Manual

What work zone traffic plans are included in the project? M&PT Stage 2 & Stage 3

Has the project had any incident reports filed? Yes. How many? 1

Comments:

1. The Project staff suggested that protection for the Portable Work Zone Management System be included in the contract. The PWZMS had to be recalibrated after being relocated for protection. At time of review the PWZMS was no longer in use.
2. A Changeable Message Sign was added to the project in order to give motorists an additional opportunity to get off of Route 9 and find an alternate route.
3. The Project staff would like to have had the plans suggest alternate routes. The Office of Traffic had to reset signals to maximum time in two locations on Route 154 to accommodate increased traffic.
4. The plans did not shut down the NB climbing lane, which would result in three lanes approaching the work zone. The Project ended up closing the climbing lane to keep all traffic in two lanes in the approach to the work zone. The intent was to improve traffic flow through the work zone and reduce queues approaching work area.



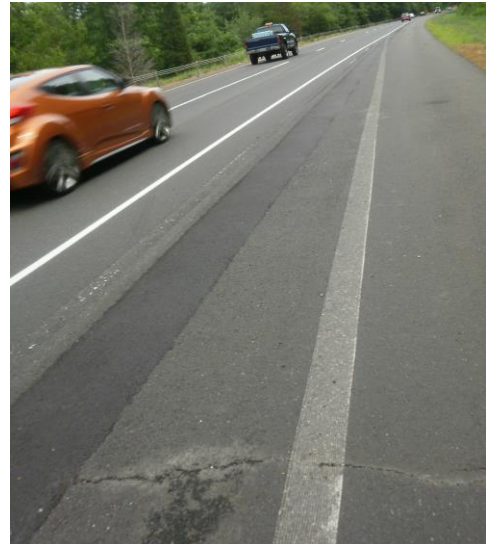
Start of lane closure on NB Route 9



Temporary impact attenuation system is protecting blunt end of TPCBC. End delineator needs to be reattached.



Traffic drums are weighted with two rubber rings for additional stability from passing traffic.



Existing edge line was removed for placement of temporary edge line.

Completed By: _____

Approved By: _____

WORK ZONE REVIEW FORM**Project Number: 58-329****District No. 2****Date: October 8, 2014****Weather: Pt. Cloudy, 69°****Project Type:** Construction Maintenance Bridge Safety**Road Type:** Limited Access Secondary Local / Town**Inspection Forces:** State Maintenance Consultant**Location (Route & Town): Pavement Preservation on I-95, Groton****Focus of Review:** Lane Closure: Temporary Permanent; Stage Construction Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work**Prime Contractor: American Industries, Inc.****Project Engineer: Keith Schoppe****Resident Engineer: Bret Kaczka****Project Amount: \$9,037,320.00****Percent Complete: 95%****Calendar Days completed: 140****Calendar Days Allotted: 175****Review Participants**

Name	Representing
Bret Kaczka	Tectonic
Terry McAuliffe	Tectonic Office Engineer
Cale Carnot	American Industries, Inc.
Keith Schoppe	Construction – District 2
Robert Turner	FHWA
Terri Thompson	Office of Construction
Anthony Kwentoh	Office of Construction
Bonney Whitaker	Office of Construction
Kiah Patten	Office of Construction
Michael Chachakis	Office of Traffic
Jeff Hunter	Construction – District 2

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? Yes. Traffic control is checked several times a night.
- 2) What is the overall condition of traffic flow through the work zone? (include queue length and speed limit, roadway condition). May have ¼ mile queue during set-up. Usually have 2 lanes open, so traffic flow is normal.
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). No. Wedge joint is being used & there is not any TPCBC.
- 4) Are there any horizontal/vertical clearance issues? No
- 5) Are there any permitted load issues? Paving material delivered to the project is routed around the Gold Star Bridge.

- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? Signs are bright fluorescent sheeting, but visually some were scuffed and dirty, making them difficult to read.
- 7) Are all cones, drums, barricades, or other channelization devices acceptable? Yes. Project does request for devices to be replaced when unacceptable.
- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? No. The project does not have permanent diamond shaped construction signs.
- 9) Clear Zone issues: (Y / N) Respond to questions below.
- What is the clear zone for this project? Project has staked out a 30' offset.
 - Where are materials stored for the project? Exit 88 NB off-ramp gore area.
 - Where is equipment stored when construction is not in progress? Same as b above.
- 10) Have accommodations been made to account for
- Emergency Services – Contact list is used.
 - Pedestrian/ Bike/ ADA issues? N/A
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. Contractor is compliant
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used. Milling roadway
 - Are there conflicting markings?
 - Are the temporary markings legible? If night review, comment on visibility
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy
Hot applied
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes
- 14) Type of Traffic Control Personnel being used on project?
- State Police
- Local Police Minimum Hourly Requirement:
- Uniformed Flagger
- 15) Chief Inspector Comments: It would be a good idea to have detour plans included in contract plans in order to omit contractor submittal process.
- 16) Project Engineer Comments: Believes that plywood used for construction signs contributes to sign dullness and because they are heavier, scratching during handling, transporting and storing.

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Some were unacceptable. They were dull, scratched and difficult to read. Requested contractor to clean them.
Reflectorized/Sheeting Type	Bright fluorescent sheeting
Project Consistency	See comment above
Need to be covered	No
Temp./Permanent	Temporary

Table B – Traffic control Devices

Requirement	Comment
Type & Placement	42" Traffic Cones and traffic drums
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Yes - Acceptable
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	N/A
Quantity	
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	
Reflectorized	
Anchored	
Consistent throughout project	
Crash Trucks (TMA) in use? If yes how many and type	Crash trucks in use.

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	No. Project does not have diamond shaped post mounted signs..
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	Truck-mounted. Lights functioning and in correct mode.
Location of portable devices – Indicate if in clear zone and how protected.	Various locations in closed lanes and gore area at exit.
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	Three of four portable message signs being used tonight. One message sign is confusing. Refer to comments at end of report. One to two frames being used. Timing is acceptable.

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. Yes. Due to high traffic volumes, the potential for traffic disruption on I-95, and in order to serve the safety and mobility needs of the traveling public, a TMP was developed. The project staff was not aware of the TMP.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

0970006 (7) Trafficperson (Municipal Police Officer) (Uniformed Flagger), Rev. 1/2008

0971001 Maintenance and Protection of Traffic, Rev. 9/16/13

1131002 Remote Control Changeable Message Sign, Rev. 12/02/02

1220013 Construction Signs - Bright Fluorescent Sheeting, Rev. 1/5/12

Is the project being completed in stage construction? If yes, explain. No.

Is there temporary signalization? If yes, explain. No.

Is a detour required or being used? If yes, explain. Detour plans were not included in the contract. The Contractor had concerns about working safely on the ramps due to the widths and radii of the ramps. The Contractor submitted detour plans which have been reviewed and approved by the District.

What guides, tools including manuals, pocket guides, books etc. do you reference?
Standard Specifications Form 816 and Special Provisions.

What work zone traffic plans are included in the project? All of the temporary lane closures are handled with the temporary traffic control plans within the special provision for Item No. 0971001A: Maintenance and Protection of Traffic.

Has the project had any incident reports filed? No.

How many? N/A

Discussion Comments:

- The contract quantity for 42" traffic cones of 100 each was insufficient. The project has used 395 traffic cones. The Project Engineer noted that paving and tack coat are rough on traffic cones and they are being replaced as needed.
- There has been an issue with traffic cones being knocked down. The Contractor has a dedicated person to check traffic patterns and the Consultant checks patterns 2 or 3 times a night
- The Contractor questioned why Reduced Speed signs were eliminated from the Traffic Control plans. He feels they are needed to help slow traffic down. The sign is not required per MUTCD and therefore was removed from traffic plans. Another solution may be to use the CMS as advance warning of upcoming work zone and indicate to reduce speed.
- The Contractor feels that using the optional 1000' buffer slows traffic down.

- The Consultant questioned whether State Police are allowed to shut a project down due to an event such as Sailfest. Terri Thompson informed him that State Police do not have that authority.
- There was an incident where the crash truck mirror was hit at an exit, but the driver did not stop.
- There had been issues with high speed truckers late at night. The Project personnel feel this has improved with time and increased awareness of ongoing work being performed. A subcontractor trucker was removed from the project due to excessive speed.

Field Review Concerns:

- There was a safety concern with the traffic pattern when entering from the left onto I-95 SB from Route 12 and Route 184. The traffic pattern closed the left side of the entrance ramp, forcing vehicles through the painted gore and into the high speed lane of I-95 SB without enough time to safely merge. It is recommended to close the left lane of I-95 SB upstream of the entrance ramp to allow ramp traffic adequate travel lane width and acceleration length to merge into mainline stream of traffic. (*Note: Project has taken corrective action*).
- A Changeable Message Sign located in the median before the Gold Star Bridge on I-95 NB was partially obscured by a permanent bridge and river information sign. The CMS needs to be relocated to a location where the visibility is unrestricted.
- A Changeable Message Sign display format of “Road Closed 10/8-9”, indicating dates, was confusing. It is suggested that two frames be used to display “Road Closed” for frame 1 and “10/8 to 10/9” for frame 2.
- A sweeper truck was observed driving, lights on, the wrong way in a right shoulder closure.

Best Practice

- The Contractor conducts a review of traffic control with the work crew and police ½ hour prior to setting up patterns.
- Project requires contractor to set up pattern at beginning of job and staff assesses the quality of traffic control devices and has contractor remove from service any devices that are considered unacceptable.
- Frequent nightly reviews to ensure all traffic control devices are in place and acceptable. Any found unacceptable or marginal are noted and contractor is notified via speed memo.
- Project personnel kept in contact with an adjacent project to be aware of any coordination that would be required to maintain proper traffic flow.

Recommended Practice

- Put Project No. and date on construction signs to document how many times signs have been put in service. New signs coming into project are also marked when they arrive
- Provide means to accurately check the retro-reflectivity and sheeting type of signs. Add a measuring device into contract specification and provide a sheeting identification chart.

Project Action Item:

Project was requested to get signs from contractor; one that they feel is acceptable and one that may be marginal. They will be brought to DOT Sign Department for testing of retro-reflectivity and condition.

WORK ZONE REVIEW FORM**Project Number: 53-186****District No. 1****Date: June 16, 2014****Weather: Clear, 82°****Project Type:** Construction Maintenance Bridge Safety**Road Type:** Limited Access Secondary Local / Town**Inspection Forces:** State Maintenance Consultant**Location (Route & Town): Route 2, Glastonbury****Focus of Review:** Lane Closure: Temporary Permanent; Stage Construction Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work**Prime Contractor: Tilcon Connecticut, Inc.****Project Engineer: Paul Carl****Chief Inspector: John O'Dierna****Project Amount: \$21,808,646.00****Percent Complete: 15%****Calendar Days completed: 83****Calendar Days Allotted: 360****Review Participants**

Name	Representing
Paul Carl	Construction – Dist. 1
John O'Dierna	Dewberry-Consultant
Khaled Abu-Sitteh	Dewberry-Consultant
Joseph Grasso	Office of Traffic
Bonney Whitaker	Office of Construction
Kiah Patten	Office of Construction

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? Yes.
- 2) What is the overall condition of traffic flow through the work zone? (include queue length and speed limit, roadway condition). There are no significant issues. There is a slight back-up around 3pm to 4 pm, but less than 5 minutes.
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). There is a drop-off next to the travel lane at the work site where there is full depth excavation of the existing road.
- 4) Are there any horizontal/vertical clearance issues? No
- 5) Are there any permitted load issues? No.
- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? Yes

- 7) Are all cones, drums, barricades, or other channelization devices acceptable? Traffic drums are showing some wear, but have maintained their shape and reflectivity.
- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? There are not any diamond shaped signs that require warning lights, but there will be in the future.
- 9) Clear Zone issues: (Y / N) Respond to questions below.
- What is the clear zone for this project? Thirty feet off traveled way.
 - Where are materials stored for the project? In gore areas at Exits 10 & 17.
 - Where is equipment stored when construction is not in progress? In gore areas and Exit 10 commuter parking lot at field office.
- 10) Have accommodations been made to account for
- Emergency Services – Highway operations are notified of lane closure.
 - Pedestrian/ Bike/ ADA issues? N/A
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. No.
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used. Full depth removal
 - Are there conflicting markings? No.
 - Are the temporary markings legible? If night review, comment on visibility
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy (Winter)
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes. Safety pants worn at night.
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area.
- State Police
- Local Police Minimum Hourly Requirement: Four (4) hour minimum
- Uniformed Flagger
- Comments from Traffic Control Personnel (indicate type of traffic person): not asked.
- 15) Chief Inspector Comments: Project plans did not provide MPT sheets.
- 16) Project Engineer Comments: N/A

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized/Sheeting Type	Type III reflective sheeting
Project Consistency	Good
Need to be covered	No
Temp./Permanent	Temporary

Table B – Traffic control Devices

Requirement	Comment
Type & Placement	N/A
Quantity	
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	
Reflectorized	
Anchored	
Consistent throughout project	

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	Traffic drums
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Marginal
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes
Crash Trucks (TMA) in use? If yes how many and type	Two crash trucks are being used by the project

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	High intensity warning lights will be used, but are not required at this time.
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	Two portable
Location of portable devices – Indicate if in clear zone and how protected.	Right side of road behind guardrail
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	Portable message sign – two frames- 3 seconds between screens reading: Right lane closed Merge left

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. No.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

0822005(6) (Relocated) Temporary Precast Concrete Barrier Curb (Structure), date not posted

0970006 (7) Trafficperson(Municipal)(Uniformed Flagger), Rev. date 1/2008

0971001 Maintenance and Protection of Traffic, date not posted

1130002 Remote Control Changeable Message Sign, Rev. date 12/02/02

1220013 Construction Signs-Bright Fluorescent Sheeting, Rev date 1/5/12

1803071 Type B Impact Attenuation System (Tangential), Rev. date 9/21/11

Is the project being completed in stage construction? If yes, explain. No.

Is there temporary signalization? If yes, explain. No.

Is a detour required or being used? If yes, explain. No.

What guides, tools including manuals, pocket guides, books etc. do you reference?

MUTCD & ATSSA Supervisor Training Course Manual

What work zone traffic plans are included in the project? No MPT plans.

Has the project had any incident reports filed? Yes How many? 3

Comments:

1. The Contractor requested and was granted an extension on the time restrictions posted in the contract to allow for shoulder and lane closures.
2. The Contractor utilized the contract provision to close ramps when unable to maintain a 12 foot travel path to perform rubblization.
3. The merging taper for the right lane closure (Traffic Control Plan #1) was not the required length of 800'. The taper length measured in the field was approximately 400'. The inspector was instructing the contractor to comply with the specifications. Also, by visible inspection the shoulder closure taper length in front of the flashing arrow was not the required length.
4. The project had an incident where a State Police vehicle was hit when parked in front of the crash truck.
5. The project had an issue with a State Trooper who shut down night operations due to rain.
6. The Contractor has been proactive by installing a speed radar trailer for nighttime operations.



One lane traffic traveling through work site



Merging taper length is incorrect length as noted in comments on page 4.



State Police gave a warning to an aggressive driver



Contractor took initiative to install speed radar that operates during nighttime operations

WORK ZONE REVIEW FORM

Project Number: 51-258
Date: June 9, 2014

District No. 1
Weather: Cloudy, 68°

Project Type: Construction Maintenance Bridge Safety
Road Type: Limited Access Secondary Local / Town
Inspection Forces: State Maintenance Consultant

Location (Route & Town): **Replacement of Bridge No. 01951, Route 4, Farmington**

Focus of Review: Lane Closure: Temporary Permanent; Stage Construction
 Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work

Prime Contractor: **The Brunalli Construction Company**

Project Engineer: Juan Ruiz

Chief Inspector: Jon Leblanc

Project Amount: \$4,043,380

Percent Complete: 27%

Calendar Days completed: 175

Calendar Days Allotted: 625

Review Participants

Name	Representing
Juan Ruiz	Construction – Dist. 1
Jon Leblanc	Construction – Dist. 1
Claudiel Meronnis	Office of Traffic
Bonney Whitaker	Office of Construction
Kiah Patten	Office of Construction
Robert Whittaker	CDR Maguire

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? Yes
- 2) What is the overall condition of traffic flow through the work zone? (include queue length and speed limit, roadway condition). Traffic has been shifted while maintaining existing number of travel lanes and flow of traffic. Traffic flow is good with short queue lengths at the signalized intersection.
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). No. Temporary impact attenuation systems are installed to protect blunt ends.
- 4) Are there any horizontal/vertical clearance issues? No
- 5) Are there any permitted load issues? No
- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? Yes. Signs are new.

- 7) Are all cones, drums, barricades, or other channelization devices acceptable? Overall, devices were acceptable. There were some drums and cones that required replacement. Inspector will notify contractor.
- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? High intensity barricade warning lights are mounted on appropriate signs.
- 9) Clear Zone issues: (Y / N) Respond to questions below.
- What is the clear zone for this project? Work zone area protected by barriers.
 - Where are materials stored for the project? In work area, behind temporary precast concrete barrier curb.
 - Where is equipment stored when construction is not in progress? Same as "b" above.
- 10) Have accommodations been made to account for
- Emergency Services – Yes, through calls and email to the Farmington Police Department.
 - Pedestrian/ Bike/ ADA issues? Temporary sidewalk and pedestrian bridges are constructed in Stage 2 and Stage 4.
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. No.
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used. Grinding has been used for removal.
 - Are there conflicting markings? No
 - Are the temporary markings legible? If night review, comment on visibility
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area.
- State Police
- Local Police Minimum Hourly Requirement: Four (4) & eight (8) hours
- Uniformed Flagger
- Comments from Traffic Control Personnel (indicate type of traffic person): N/A.
- 15) Chief Inspector Comments: Project installed additional pavement markings for pedestrian walkway from temporary pedestrian bridge across gas station driveway.
- 16) Project Engineer Comments: None

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized/Sheeting Type	Bright fluorescent
Project Consistency	Good
Need to be covered	No
Temp./Permanent	Permanent

Table B – Traffic control Devices

Requirement	Comment
Type & Placement	Traffic drums
Quantity	Approximately 20 each
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Most are acceptable or marginal. A few were unacceptable which the inspector will get replaced.
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	Construction Barricade Type III
Quantity	4 each
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes
Crash Trucks (TMA) in use? If yes how many and type	N/A

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	Barricade warning lights mounted on diamond shaped post mounted construction signs. All lights are functioning High intensity
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	N/A
Location of portable devices – Indicate if in clear zone and how protected.	N/A
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	N/A

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. No.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

0503018 Maintaining Pedestrian Traffic, Rev. date not posted

0970006(7) Trafficperson (Municipal Police Officer)(Uniformed Flagger), Rev. 1/2008

0971001 Maintenance & Protection of Traffic, Rev. 1/10/2013

0979003 Construction Barricade Type III, Rev. 1/17/01

1118051 Temporary Signalization (Site 1), Rev. 1/13

1803060(2) Type B Impact Attenuation System -Non-gating (Replacement parts), Rev. 9/21/11

Is the project being completed in stage construction? If yes, explain. There are five stages to allow for one lane of traffic in each direction and maintain an existing left turn lane during each stage. Temporary bridges are erected to accommodate pedestrians during Stages 2 & 4.

Is there temporary signalization? If yes, explain. Traffic signal had a sensor installed when project work involved removing the existing loop detectors.

Is a detour required or being used? If yes, explain. No.

What guides, tools including manuals, pocket guides, books etc. do you reference? The contract, project plans, the Form 816 and Temporary Traffic Control pocket guide.

What work zone traffic plans are included in the project? Maintenance & Protection of Traffic plans for stages 1 through 5.

Has the project had any incident reports filed? No

How many? N/A

Comments:

1. The Project added a painted crosswalk from the temporary pedestrian bridge as a safety measure. It provides delineated guidance across a gas station driveway for pedestrians along with awareness for drivers.

2. A safety inspection was also performed by Kiah Patten on this project and report submitted.



The left photo shows the temporary pedestrian bridge constructed per plan. As an added safety measure, the project took the extra step to delineate a walkway across a gas station driveway from the pedestrian bridge, as shown in the right photo.



The Double Reverse Curve sign, left photo, installed prior to the lane shift pictured above. Existing pavement markings were removed by grinding. Temporary pavement markings provide clear guidance for motorists to travel through the work zone.

Completed By: _____ Date: _____

Approved By: _____ Date: _____

WORK ZONE REVIEW FORM

Project Number: 0036-0182

District No. 4

Date: October 14, 2014

Weather: Cloudy, 73°

Project Type: Construction Maintenance Bridge Safety

Road Type: Limited Access Secondary Local / Town

Inspection Forces: State Maintenance Consultant

Location (Route & Town): Route 34 over Naugatuck River, City of Derby

Focus of Review: Lane Closure: Temporary Permanent; Stage Construction

Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work

Prime Contractor: Baier Construction Company, Inc.

Project Engineer: Thomas Weldon

Chief Inspector: Richard Rudaitis

Project Amount: \$8,952,986.59

Percent Complete: 19%

Calendar Days completed: 183

Calendar Days Allotted: 732

Review Participants

Name	Representing
Thomas Weldon	District 4 Construction
Bonney Whitaker	Office of Construction
Claudel Meronnis	Office of Traffic
Kiah Patten	Office of Construction

Q&A:

- 1) **Is there clear, positive, understandable guidance through the work zone?** Yes.
- 2) **What is the overall condition of traffic flow through the work zone? (Include queue length, speed limit, and roadway condition.)** Traffic flow has improved as project progresses. Traffic queues are being monitored and discussed with the Office of Traffic to make changes for improvement. Traffic will back up when drivers ignore a green arrow.
- 3) **Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs.)** No. Impact attenuation systems are in place.
- 4) **Are there any horizontal/vertical clearance issues?** No
- 5) **Are there any permitted load issues?** No
- 6) **Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements?** Yes
- 7) **Are all cones, drums, barricades, or other channelization devices acceptable?** Reflectivity is good. Some drums and cones are dented or misshapen and should be replaced.

- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? Yes.
- 9) Clear Zone issues: (Y / N) Respond to questions below.
- a. What is the clear zone for this project?
 - b. Where are materials stored for the project? Storage yard by field office & town access road
 - c. Where is equipment stored when construction is not in progress? Behind barrier & town access road
- 10) Have accommodations been made to account for:
- a. Emergency Services? Existing Emergency Vehicle Pre-emption System is operational.
 - b. Pedestrian/ Bike/ ADA issues? Temporary pedestrian walkway is installed with temporary ramp. It is regularly used by two individuals in motorized wheelchairs.
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. No. Contractor is compliant.
- 12) Pavement Markings- Temporary
- a. Is there an item for removal of pavement markings? If yes, indicate removal method being used. Grinding
 - b. Are there conflicting markings?
 - c. Are the temporary markings legible? If night review, comment on visibility
 - d. Type of marking material being used. Tape Paint (hot applied) Epoxy
Epoxy for winter (temporary)
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area.
- State Police: Only for installation of advance warning signs on Route 8.
 - Local Police Minimum Hourly Requirement: Four (4) hours minimum
 - Uniformed Flagger
- Comments from Traffic Control Personnel (indicate type of traffic person): Not available
- 15) Chief Inspector Comments: Not available.
- 16) Project Engineer Comments: Pre-Stage 1A traffic was difficult due to inadequate areas to install warning signs. Traffic has improved with stage construction. The Office of Traffic has been responsive in helping to alleviate traffic and signage issues, building a good working relationship with the Project.

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized/Sheeting Type	Bright fluorescent sheeting
Project Consistency	Acceptable
Need to be covered	Right Lane Closed Ahead signs are folded down-see pg. 5
Temp./Permanent	Permanent

Table B – Traffic Control Devices

Requirement	Comment
Type & Placement	42" Traffic cones
Quantity	Not counted
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable – some are dented.
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	Type III barricade @ temp. pedestrian crosswalk
Quantity	5 each
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes
Crash Trucks (TMA) in use? If yes how many and type	N/A

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	High intensity warning lights mounted on all diamond shaped post mounted construction signs. All are functioning.
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	N/A
Location of portable devices – Indicate if in clear zone and how protected.	N/A
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	N/A

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. Yes, Route 34 is a major highway between the towns of Newtown and New Haven. The project site is located on the route where there is high traffic volumes and potential to disrupt mobility for both Route 34 and Route 8 during construction.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

#0822005A - Temporary Precast Concrete Barrier Curb (Structure), #0822052A - Temporary Precast Concrete Half-Section Barrier Curb (Structure) (10/10/13), #0970006(7)A - Trafficperson (Municipal Police Officer)(Uniformed Flagger) (01/08), #0971001A - Maintenance & Protection of Traffic (02/25/13), #0979003A - Construction Barricade Type III (01/17/01), #1111201(2)A - Temporary Detection (Site No. 1) (Site No. 2)(01/13), #1118051(2)(3)A - Temporary Signalization (Site No. 1) (Site No. 2) (Site No. 3) (01/13), #1131002A - Remote Control Changeable Message Sign (01/09), #1220013A - Construction Signs - Bright Fluorescent Sheeting (01/05/12), #1807200A - Temporary Impact Attenuation System Type B (01/08/10)

Is the project being completed in stage construction? If yes, explain. There is Pre-Stage 1, Stage 1, Stage 2 and Stage 3.

Is there temporary signalization? If yes, explain. Traffic signals were relocated, realigned and timing modified.

Is a detour required or being used? If yes, explain. The detour plan provided in the contract has yet to be used. Route 34 may be closed on a maximum of six (6) occasions during off-peak night time periods for the purpose of steel erection, installation of drainage structures and full depth pavement reconstruction on Route 8 NB on-ramp.

What guides, tools including manuals, pocket guides, books etc. do you reference?

The MUTCD and M&PT sheets in the project plans are referenced.

What work zone traffic plans are included in the project? MPT Stage 1A, MPT Stage 1B, MPT Stage 2, MPT Stage 3, Maintenance and Protection Details, Detour Plan.

Has the project had any incident reports filed? No. **How many? N/A**

Comments:

1. The Project continues to monitor traffic flow and work with the Office of Traffic to help alleviate traffic backup on Route 34 & Route 8 off-ramps. The following measures have been taken:

- The right lane was changed to have a permanent green arrow to allow a continuous traffic flow onto Route 34 East.
- Additional pavement markings were added for lane indicators.
- “Do Not Block Intersection” signs were added.
- The northbound Route 8 off-ramp force-off detector was disconnected.

- Signal timing changes were made.
 - Municipal police were placed at intersections to direct traffic, but this did not improve the traffic issues.
2. Crosswalk markings and signage needed to be added for guidance to the temporary pedestrian walkway.
 3. During the field review, a car was observed entering the northbound Route 8 on-ramp through the red arrow. The red arrow is activated by the pedestrian crossing button.
 4. Signs that were to be mounted on an inside barrier were relocated because Stage 1B would not provide enough height clearance for pedestrians.



The “Right Lane Closed Ahead” sign is hinged to fold down when not in use.



New traffic island allows continuous right turn from Main St.



Crosswalk markings added for pedestrian guidance. A field decision was made to use traffic cones & drums, on left, in place of Type III Construction Barricades.



The end of the impact attenuation system in the temporary pedestrian walkway was framed out for protection.

WORK ZONE REVIEW FORM

Project Number: 31-127
Date: September 19, 2014

District No. 4
Weather: Sunny, 60°

Project Type: Construction Maintenance Bridge Safety
Road Type: Limited Access Secondary Local / Town
Inspection Forces: State Maintenance Consultant

Location (Route & Town): **Replacement of Bridge No. 01933, Route 4 over Bloody Brook in the Town of Cornwall**

Focus of Review: Lane Closure: Temporary Permanent; Stage Construction
 Detour; Pedestrian/ Bike issues; Temporary Signalization; Night Work

Prime Contractor: Dayton Construction Company, Inc.

Project Engineer: Ali Farzan

Chief Inspector: Donald Lamb

Project Amount: \$693,689.50

Percent Complete: 34%

Calendar Days completed: 80

Calendar Days Allotted: 154

Review Participants

Name	Representing
Donald Lamb	Office of Construction-District 4
Bonney Whitaker	Office of Construction
Kiah Patten	Office of Construction

Q&A:

- 1) Is there clear, positive, understandable guidance through the work zone? Yes.
- 2) What is the overall condition of traffic flow through the work zone? (include queue length and speed limit, roadway condition). Rural road does not experience queues. Microwave detectors are installed on temporary signalization.
- 3) Are there any hazards to the traveling public or construction personnel? (Blunt ends, Drop-offs). No. Impact attenuation systems are in place.
- 4) Are there any horizontal/vertical clearance issues? No. An 11' wide travel lane is provided.
- 5) Are there any permitted load issues? No.
- 6) Are all signs being used for Maintenance and Protection of Traffic acceptable in accordance with applicable requirements? Yes. Signs have bright fluorescent sheeting.

- 7) Are all cones, drums, barricades, or other channelization devices acceptable? Yes. A few traffic drums were marginal.
- 8) Are warning lights and devices used for Maintenance and Protection of Traffic? No. They are an item in the contract, but they have not been used.
- 9) Clear Zone issues: (Y / N) Respond to questions below.
- What is the clear zone for this project? Work zone is behind TPCBC
 - Where are materials stored for the project? Behind TPCBC.
 - Where is equipment stored when construction is not in progress? Behind TPCBC.
- 10) Have accommodations been made to account for
- Emergency Services – Notice in the paper for alternating one-way traffic.
 - Pedestrian/ Bike/ ADA issues? Vehicles allow bikes to proceed first through work site.
- 11) Do you have a hard time ensuring Traffic Control Devices are in functioning condition and installed according to plan? If yes, explain. No
- 12) Pavement Markings- Temporary
- Is there an item for removal of pavement markings? If yes, indicate removal method being used. 6" preformed black line mask pavement marking tape.
 - Are there conflicting markings? No
 - Are the temporary markings legible? If night review, comment on visibility
 - Type of marking material being used. Tape Paint (non-epoxy) Epoxy
Extra 6' black tape required to cover double yellow lines.
- 13) Personnel Protective Equipment- Are all members of the work force wearing the proper reflective equipment? If no, explain. Yes
- 14) Type of Traffic Control Personnel being used on project? Indicate type of training or certification for each and position within the work zone area.
- State Police
- Local Police Minimum Hourly Requirement:
- Uniformed Flagger
- Comments from Traffic Control Personnel (indicate type of traffic person): N/A.
- 15) Chief Inspector Comments: Refer to comments 1-3 on page 4.
- 16) Project Engineer Comments: Not available.

Traffic Control Device Inspection- PART II**Table A – Signs**

Requirement	Comment
Type: Construction/Regulatory	Construction
Location	Throughout project
Mounting Height	Acceptable
Clean, Visible, Legible (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized/Sheeting Type	Bright fluorescent sheeting
Project Consistency	Yes
Need to be covered	No
Temp./Post mounted	Post mounted

Table B – Traffic control Devices

Requirement	Comment
Type & Placement	Traffic drums
Quantity	15 each
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Overall acceptable; a few were marginal with numerous scratches on the sheeting.
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes

Table C - Barricades and other channelization devices

Requirement	Comment
Type & Placement	Type III Construction Barricades
Quantity	4 each
Clean, Visible, Functioning (rate using quality standards guide ATSSA 3 rd edition)	Acceptable
Reflectorized	Yes
Anchored	Yes
Consistent throughout project	Yes
Crash Trucks (TMA) in use? If yes how many and type	N/A

Table D- Warning lights and devices

Requirement	Comment
Warning lights being used? Indicate type and location. Are all lights functioning? High or low intensity?	No.
Advance Flashing Warning arrows Portable or Truck-mounted Lights functioning and in correct mode?	N/A
Location of portable devices – Indicate if in clear zone and how protected.	N/A
Changeable Message Signs – indicate if Permanent or Portable, Message understandable, Number of frames displayed, Timing between screens acceptable?	N/A

Work Zone Traffic Control Review
Plans and Specifications Section – PART III

Is there a Transportation Management Plan? If yes, explain. No.

What special provisions are there in contract related to work zone (list item no, description and date of provision)?

0970007 Trafficperson (Uniformed Flagger), Rev. 01/08

0971001 Maintenance and Protection of Traffic, Rev. 2/25/13

1118101 Temporary Signalization, Rev. 2/21/01

1220013 Construction Signs-Bright Fluorescent Sheeting, Rev. 1/5/12

Is the project being completed in stage construction? If yes, explain. Stage I places TPCBC to shift traffic to the south side of the existing structure. Stage II relocates Stage I TPCBC to shift traffic to the north side of the new structure.

Is there temporary signalization? If yes, explain. Temporary signalization is utilized to maintain alternating one-way traffic during all stages of construction.

Is a detour required or being used? If yes, explain. No.

What guides, tools including manuals, pocket guides, books etc. do you reference?

Work experience

What work zone traffic plans are included in the project? MPT-1 & MPT-2

Has the project had any incident reports filed? No

How many? N/A

Comments:

1. Due to an oversight, Traffic Cones, Traffic Drums and Type III Barricades were not included in the Contract. Traffic Drums, 42” and 28” Traffic Cones, and Type III Construction Barricades were added by Construction Order. The Contractor was proactive and placed traffic drums out before a price was approved. Note: Traffic cones less than 42 inches in height shall not be used on limited-access roadways or on non-limited access roadways with a posted speed limit of 45 mph and above.
2. The Contractor provided extra signage for additional safety. (Refer to picture on Page 5).
3. The Contractor questioned the temporary impact attenuation system that was designed for an impact velocity of 55 mph or less, since the posted speed limit is 45 mph. A change in the array system was approved to set up for an impact velocity of 45 mph or less.
4. The DE-7C delineators installed on the TPCBC are not all showing the correct color. The yellow side should show on the left side of traffic and silver show on the right side of traffic.
5. The high intensity barricade warning lights provided in the Contract have not been used. (The reviewer did not locate any notes in the plans indicating the use of these lights.)



Advanced signs for traffic light ahead.



Stop bar and signs at approach to one lane traffic.



Eradicated and new pavement markings at work site.



Additional signage provided by the contractor.

Completed By: _____

Approved By: _____

2014 Work Zone Safety Review Participants

District 1	District 2
<p><u>Project 51-258</u> Juan Ruiz – Project Engineer Job LeBlanc – Project Manager Robert Whittaker – CDR Maguire Claudel Meronnis – Office of Traffic Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction</p> <p><u>Project 53-186</u> Paul Carl – Project Engineer John O’Dierna –Dewberry Khaled Abu-Sitteh – Dewberry Joseph Grasso – Office of Traffic Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction</p> <p><u>Project 82-298</u> Mohammed Bishtawi – Supervising Engineer Michael Birch – Project Manager Kiah Patten – Office of Construction</p>	<p><u>Project 58-329</u> Keith Schoppe – Project Engineer Bret Kaczka – Tectonic Terry MacAuliffe – Tectonic Cale Carnot – American Industries, Inc. Robert Turner – FHWA Michael Chachakis – Office of Traffic Terri Thompson – Office of Construction Anthony Kwentoh – Office of Construction Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction Jeff Hunter – District 2 Construction</p> <p><u>Project 58-329</u> Brian Gustafson – Project Engineer Brent Church – Project Manager Rich Brooks – District 1 Construction Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction</p> <p><u>Project 70-116</u> Joseph Taylor – Project Engineer Joseph Grasso – Office of Traffic Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction</p>
District 3	District 4
<p><u>Project 135-270</u> Dan Stafko – Supervising Engineer Joseph Becker – URS Consulting Aldo Tartaglino – O&G Industries Robert Turner – FHWA Oddler Fils – Office of Traffic Anthony Kwentoh – Office of Construction Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction Jeff Hunter – District 2 Construction</p> <p><u>Project 138-221</u> Jack Ploski – HNTB Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction</p>	<p><u>Project 31-127</u> Donald Lamb – Project Manager Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction</p> <p><u>Project 36-182</u> Thomas Weldon – Project Engineer Claudel Meronnis – Office of Traffic Bonney Whitaker – Office of Construction Kiah Patten – Office of Construction</p>

APPENDIX A - WORK ZONE REVIEWS TO DATE DATABASE REPORT

Date	Project Number	Dist	Location (Route Town)	Prime Contractor	Project Engineer	Detours	Stage Const	Temp. Signal	Night Work	Ped and Bicycle	Limited	Temp. Lane Closure	Perm. Lane Closure
8/3/2010	0050-0204/0206	3	Route 15 Fairfield / Trumbull	O & G Industries	Anil Sehgal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8/25/2010	76-205	1	Intersection of Route 6 & Route 44 in the Town of Manchester	Spazzarini Construction Company	Jaspal Jutla	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8/25/2010	42-297	1	Intersection of Silver Lane & Forbes St. East Hartford	Spazzarini Construction Company	Jaspal Jutla	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10/6/2010	0044-0151	2	Interstate 95 Exits 72 to 83 in East Lyme / Waterford	Tilcon CT	Michael Wilson	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11/2/2010	0015-0296 & 0301-0070A, B, C	1A	Various RR Bridges, Fairfield, Bridgeport, Westport	Ducci Electrical Contractors	Basel Hashem	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11/3/2010	83-255	3	Interstate 95 North and Southbound in Milford and Orange	Manafort Brothers	Jeff Mordino	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11/9/2010	140-164	4	Route 8 NB, Thomaston, Rehab Bridge # 00604	NJR Construction	Dave Ferraro	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11/10/2010	0143-0177	4	Pinewoods Road, Torrington, CT	Spazzarini Construction	Dave Ferraro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12/8/2010	142-144	1	Route 74 west of I-84 Overpass, Tolland	Northern Construction Services	Dilraj Josen	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12/8/2010	0111-0118	2	Route 97 Pomfret	New England Infrastructure	Mark Elliott	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6/25/2011	0126-0167	3	Route 8 - Shelton	Rotha Contracting Co.	Joseph Sorcinelli	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6/29/2011	0067-0115	4	Route 341 Kent	Dayton Construction Co.	Matthew Cleary	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7/21/2011	59-155	2	Route 77 (Durham Road) Guilford, CT	Brunalli Construction Company	Paul Andruskiewicz	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9/12/2011	173-414	3	Route 15 S.B. Hamden	New England Road Inc.	Jeffrey Knapp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

APPENDIX A - WORK ZONE REVIEWS TO DATE DATABASE REPORT

Date	Project Number	Dist	Location (Route Town)	Prime Contractor	Project Engineer	Detours	Stage Const	Temp. Signal	Night Work	Ped and Bicycle	Limited	Temp. Lane Closure	Perm. Lane Closure
10/25/2011	0092-0531/0619	3A	I-95, I-91 & Route 34 Interchange (Q Corridor) New Haven	92-531 E O&G/Tutor Perini 92-619 E2 Walsh	92-531 Dan Stafko 92-619 Bob Savage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11/8/2011	0084-0102	4	Route 25 Monroe, CT	Dayton Construction Company Inc.	Charles Murad	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6/12/2012	0144-0179	3	Route 25, Trumbull	Manafort Brothers, Inc	Steven Hebert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6/19/2012	0103-0256	2	Route 97, Norwich	Pondview Construction, Inc.	Patrick Warzecha	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7/26/2012	0098-0100	3	Route 17, North Branford	D & V Morin Constructio Co., Inc.	Roger Thomas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8/8/2012	0082-0299	1	Arrigoni Bridge, Cromwell/Middletown	The Middlesex Corp.	James J. Ruitto	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8/23/2012	0042-0312	1	I-84 East Hartford, Manchester	Tilcon Connecticut, Inc	Paul Carl	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8/29/2012	0096-0199	4	Route I-84, Newtown, Southbury and Middlebury	Tilcon Connecticut, Inc.	Dave Neelands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9/11/2012	0171-0351	1	Various	Arborio Corp.	Joe Sullivan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10/16/2012	0137-0143 & 0137-0144	2	Route 1 over Stony Brook & over Quana duck Cove, Stonington	Hemlock Construction Co., Inc.	Keith Schoppe	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11/30/2012	0079-0215	4	Route 71 (Cook Ave) over Harbor Brook, Meriden	Dayton Construction Co., Inc.	Ali Farzan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6/26/2013	0151-0296	4	Chase Avenue, Waterbury	Dayton Construction Co.	James Zaharevich	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8/21/2013	0102-0278	3	Reconstruction of I-95 & Route 1, Norwalk	O & G Industries	Bob Nowak	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9/5/2013	0081-0088	1	Route 147, Middlefield	New England Road, Inc	James Ruitto	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/3/2013	0088-0178	4	Route 174, New Britain (New Britain-Hartford Busway Contract 2)	E & S Joint Venture II	Dave Ferraro	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

APPENDIX A - WORK ZONE REVIEWS TO DATE DATABASE REPORT

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6/9/2014	0051-0258	1	Replacement of Bridge No. 01951, Route 4, Farmington	The Brunalli Construction Company	Juan Ruiz	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6/16/2014	0053-0186	1	Route 2, Glastonbury	Tilcon Connecticut, Inc	Paul Carl	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7/24/2014	0060-0152	1	Route 9 over Nedobity Road, Haddam	Mohawk Northeast, Inc.	Brian Gustafson	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7/25/2014	0070-0116	2	S.R. 616 (Norwich Avenue) over Bartlett Brook, Lebanon	McCarthy Concrete, Inc	Patrick Warzecha	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9/5/2014	0082-0298	1	Route 17 (South Main Street), Middletown	J. Iappaluccio, Inc.	Juan Ruiz	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9/16/2014	0138-0221	3	Reconstruction of Bridge No. 00135 (Moses Wheeler Bridge) I-95 over Housatonic River & Naugatuck Avenue in Towns of Milford and Stratford	Walsh Construction Co. /PCL J.V. II	Steven Hebert	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9/19/2014	0031-0127	4	Replacement of Bridge No. 01933, Route 4 o/Bloody Brook, Cornwall	Dayton Construction Company, Inc.	Ali Farzan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9/24/2014	0135-0270	3	CT Route 15 in the Towns of Stamford to New Canaan	O & G Industries, Inc.	Joe Sorcinelli	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10/8/2014	0058-0329	2	Pavement Preservation on I-95, Groton	American Industries, Inc.	Keith Schoppe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10/14/2014	0036-0182	4	Route 34 over Naugatuck River, City of Derby	Baier Construction Company, Inc.	Thomas Weldon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>