

**Department of Transportation  
Project No. 40-141  
Rehabilitation of Bridge No. 01138  
Towns of East Haddam and Haddam, Connecticut**

**Monday, October 2, 2017 at 7:00 p.m.**

**Grange Hall  
488 Town Street  
East Haddam, Connecticut**

**Meeting Minutes**

**In Attendance:**

Theodore H. Nezames	ConnDOT – Manager of Bridges
Rabih M. Barakat	ConnDOT – Bridge CLE Design
Andrew J. Cardinali	ConnDOT – Bridge CLE Design
Jonathan W. Kang	ConnDOT – Bridge CLE Design
Michelle A. Miller	ConnDOT – Rights-of-Way
Mark Elliott	ConnDOT – District 2 Construction
Anand Seshadri	CME Associates
Tracey A. Brais	CME Associates
Steven Harlacker	Hardesty & Hanover (Designer of Record)
Benjamin Hawthorne	Hardesty & Hanover (Designer of Record)
Public and Individual Stakeholders	

**Presentation:**

Mr. Kang opened the meeting with a brief introduction of the Department of Transportation (Department) and the Consultant Liaison Engineer, CME Associates (CME) personnel. He then stated the role of the Department and the role of CME as liaison engineers and continued with an introduction of the subject project and its goals. Mr. Kang stated that the purpose of this public information meeting is to present the proposed design and discuss any questions, comments, or concerns that the public or town officials may have.

Ms. Brais followed with the technical portion of the presentation for Bridge No. 01138. She explained the bridge's current deficiencies, proposed rehabilitation measures, proposed scheme to maintain and protect traffic during construction, funding source for the project, project schedule, and the anticipated utility, rights-of-way and environmental impacts. Ms. Miller explained the right-of-way acquisitions process followed by the State of Connecticut.

## Comments and Questions:

1. Do the durations for the Route 82 closures and swing span operation outages include night work or work on weekends? Can construction on holidays be restricted? Will two lanes be available on holidays when no construction is occurring since the towns depend a lot on tourism especially during holidays?
  - Ms. Brais said that the estimated swing span operation outage length of 4 weeks is based on work being done 24 hours a day, 7 days a week. She said that the Coast Guard requires work around the clock to minimize the impact to marine traffic. Ms. Brais said that the half-day full roadway closures could likely be done during off-peak overnight periods. Ms. Brais said that most of the work would be done during the day; however, ways to reduce the construction duration and impacts to traffic would be investigated further during design. Mr. Cardinali said that the contractor is not allowed to work on holidays and the specifications list the holiday restrictions. He stated that the use of lane closures depends on the contractor's means and methods as well as the construction operation that is being performed. Mr. Cardinali said that the need for lane closures will be evaluated in design and can be added to the Limitations of Operations in the contract specifications.
2. Will the sidewalk structure be constructed as part of this project as it is critical to the needs of the towns? How much does the sidewalk structure add to the project if the bridge rehabilitation already includes steel strengthening and mechanical and electrical system upgrades to support the sidewalk?
  - Mr. Cardinali said that the entire project cost of \$55 million is not funded at this time. He said that the sidewalk structure and necessary improvements to the existing bridge to support a sidewalk adds approximately \$15 million to the estimated \$40 million cost to repair just the deficient bridge components. Mr. Cardinali said that they would continue to design the bridge with the sidewalk structure attached. Mr. Barakat said that if the funding is not available for the full amount, the bridge structure will still be rehabilitated, without a sidewalk, to provide a safe passage for vehicular and marine traffic; however the bridge will be strengthened and ready at the end of this project to accept the sidewalk structure whenever funds are available to build the sidewalk. Mr. Barakat said that they would estimate the cost of the sidewalk structure alone, without including costs associated with strengthening the bridge, and share the information.
3. According to the presentation, approximately 80% of the project construction cost is funded by the federal government and the remaining 20% is funded by the State. If the State cannot fund their 20% and the sidewalk structure cost is approximately 20% of the project cost, can the State decide to not pay their 20% by eliminating the sidewalk structure construction from the project scope.
  - Mr. Barakat said that, in order to get the funding portion from the federal government, the State is obligated to provide the funds for 20% of the project construction cost. The State cannot decide to not pay their 20% by eliminating the proposed sidewalk structure construction.

4. How bad does the condition of the bridge need to get before the rehabilitation project will be moved up on the Capital Plan priority list?
  - Mr. Barakat said that the bridge projects that are in the Capital Plan have a structure evaluation rating of 4 or less. Mr. Barakat stated that if the condition of the bridge worsens, it is moved up on the priority list. Mr. Barakat said that the bridges are never left in an unsafe condition if they are not higher in the priority list for repair. He said that the frequency of safety inspections are increased to monitor deterioration and some maintenance is done to ensure that the bridges remain safe until funding for a major rehabilitation project is available.
5. A recommendation was made to have traffic persons at each end of the project limits during rush hour periods in addition to the proposed temporary traffic signals.
6. A recommendation was made that the bridge not be designed with heavier deck components due to past history of mechanical/electrical systems not designed/capable to carry heavy loads which resulted in a need for early repairs. A recommendation was also made that the Department have extra spare parts of critical items available should there be need for future repairs.
7. A recommendation was made that the Department use sand or other methods to keep ice off of the roadway. It was noted that the currently used de-icing chemicals seem to accelerate the deterioration of the deck overlay and steel bridge members.
8. Can sidewalk be less than 6 feet in width to reduce the added load and lessen the need for strengthening of the existing bridge?
  - Mr. Barakat said that 6 feet width is the minimum required for the sidewalk to be considered compliant with the Americans with Disabilities Act (ADA). Mr. Cardinali added that the sidewalk needs to be wide enough for two wheelchairs to pass each other.
9. If the Department is waiting for funding, how long can construction on this project be delayed before parts of the project planning and design process expire?
  - Mr. Barakat said that environmental permit approvals are usually valid for five years. He stated that the steps and reviews done as part of the National Environmental Policy Act (NEPA) process are valid for three years.
10. The detour is approximately 30 miles long. Has coordination been done with the Towns of East Haddam and Haddam (Towns) to make sure that emergency services can easily access residents in either town?
  - Mr. Cardinali said that they had discussed the project with the Towns and that further coordination will be done to make sure each town has the necessary emergency resources during the roadway closure period. Mr. Barakat added that on other projects where there is a long detour, a mutual aid agreement is made to send emergency responders to other towns that may not have the resources.

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11. It was mentioned during the presentation that the swing span operation outages will be coordinated with the US Coast Guard. Can coordination be done with the marinas and the Lady Katherine Cruises in the area? When are the operation outages anticipated to occur?
  - Mr. Cardinali said that coordination would be done as the project design progresses. Mr. Cardinali added that the Office of Construction will issue bulletins that give notice of upcoming closures and operation outages. Mr. Cardinali said that the outage period and sequence of operations would be determined later in the design phase.
12. Has a staging area for this project been decided?
  - Mr. Cardinali stated that the exact area for staging had not yet been decided but the CTDOT maintenance area on Route 82 west of the bridge could be considered.
13. Are any easements needed on the East Haddam side of the bridge especially to address deficiencies in the roadway geometry as that could impact properties/businesses and potential redevelopment?
  - Mr. Cardinali said that only temporary easements are most likely needed for construction access and that they would evaluate further if there was any need for temporary easements on the East Haddam side. He said this project is not intended to address roadway geometric deficiencies and therefore permanent easements/takings are not anticipated.
14. Does it really cost \$15 million for just the cantilevered sidewalk structure?
  - Mr. Cardinali said that the \$15 million includes more than just the materials and labor to build the sidewalk structure. He said that the estimated cost includes: strengthening of steel members on rest of the bridge structure, the counterweight in the swing span, the replacement of the span drive system and some mechanical components that would not need to be replaced without the additional load of the sidewalk, and additional electrical system components such as pedestrian barrier gates. Mr. Cardinali said that the cost also includes adjustments to the end wedges that support the swing span ends at Pier 2 and East Abutment because there is increased deflection at the ends of the swing span due to the sidewalk load.
15. Is the walkway just for pedestrians or is it also for bicyclists?
  - Mr. Barakat said that the walkway designed will accommodate only pedestrian traffic. He said that a walkway that is at least 10 feet wide would be needed to safely accommodate both pedestrians and bicyclists. He said that bicyclists would have to dismount and walk their bicycles across the bridge.

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- 16. East Haddam hosts bike tours in which over one hundred bicyclists have participated. Could the walkway be widened to 10 feet?
  - Mr. Cardinali said that it would be best if the bike tours continued to travel in the roadway. He said that a 10 foot wide cantilevered sidewalk would require significantly more steel strengthening and it would make balancing of the swing span more difficult.
- 17. Considering that this bridge is rated a 4, where does this rehabilitation project rank in the Capital Plan?
  - Mr. Barakat said that the projects are programmed by fiscal year. Mr. Cardinali said that the projects are slated for a certain fiscal year based on the project design schedule and are moved up in the priority list to fill a funding gap if other projects do not meet the obligated design completion dates which are then pushed to the next fiscal year. Mr. Barakat said that all bridges in the Capital Plan are rated 4 or less. He added that it is easier to increase the priority level of a project with a cost of few million dollars because the funding gaps that need to be filled are often less than the \$55 million that this project is estimated to cost.
- 18. It was a fiasco when a concrete filled grid deck was installed on the swing span as it overstressed the mechanical and electrical systems including the center pivot bearing even though it was stated prior to construction that these systems were designed for the heavy loads. Is the Department analyzing the center pivot bearing and designing all other parts for the additional sidewalk load that will not be symmetric?
  - Mr. Cardinali said that all components of the bridge would be analyzed in design for the sidewalk load.
- 19. The East Haddam town offices are relocating which will make the property adjacent to the east end of the bridge available for redevelopment. Would the Department consider using Eminent Domain that could cut into future redevelopment in order to improve the horizontal alignment or geometry of Route 82 at the east approach to the bridge?
  - Mr. Cardinali said that there are no plans to change the roadway alignment east of the bridge as part of this project. He added that the project limits were defined to fit only the bridge footprint because the purpose of the project is to address bridge deficiencies and incorporate the Towns' request to add a sidewalk. He said that other right-of-way takings would be necessary to realign the roadway. Mr. Nezames said that, even if the east approach roadway is realigned, the bridge would still be functionally obsolete due to the narrow deck geometry and the bridge is not being proposed for widening since it would not be possible with the current structure type/configuration. He said that in order to improve the bridge deck geometry, it would probably be best to replace the entire structure.
- 20. A representative from the RiverCOG discussed the Tiger Grant program from the Federal government. When the time is appropriate, the RiverCog would work with the Towns to apply for a TIGER grant to help fund a portion of the bridge rehabilitation project. RiverCOG has been successful in the past in receiving the grant and is optimistic that they will receive some funds for this project.

21. Once the sidewalk structure is attached to the bridge, won't the swing span be unbalanced?
  - Mr. Cardinali said that the design is moving forward with the sidewalk attached to the bridge. The counterweight needed to balance the sidewalk load will be designed as part of this project and, when the sidewalk is constructed, the counterweight will also be installed.
22. It was suggested that ferry hours of operations be extended during the construction of this project. It was noted that the ferry has run overnight during past construction projects.
23. What will be the service life of the repairs proposed under this project? Will the Department keep up with the maintenance and have staffing for the bridge operations?
  - Mr. Cardinali said that the rehabilitation scope is estimated to have a service life of approximately 25 years. Mr. Barakat said that this bridge is considered to be an important part of the state's infrastructure and state will want to well maintain this bridge. He stated that the maintenance schedule of this bridge would be discussed with the Department's Maintenance unit.
24. Will there be compensation for the loss of business and economic growth due to the proposed maintenance and protection of traffic methods?
  - Mr. Barakat said that the full roadway closure with a thirty mile detour is being proposed only for a half-day over a limited 3-week period of time. He stated that the half-day closure period will be specified to be "off-peak" times such as week nights that would minimize impacts to local businesses. He added that the alternating one-way traffic pattern, likely to be in-place for most of the construction, would allow for movement of people and vehicles throughout construction and minimize impacts to the community. He said that the Department will consider user impacts due to alternating one-way patterns and would try to reduce the duration of the lane closures. Mr. Barakat stated that while the Department strives to minimize impacts to the community and recognizes the hardships faced, the state does not provide any compensation for any loss of business due to project construction. Mr. Cardinali said that the Department often considers Accelerated Bridge Construction (ABC) methods to shorten the construction duration; however, ABC methods cannot be utilized for the type of repairs needed on this structure.
25. Isn't construction on the Arrigoni Bridge supposed to occur at the same time as the proposed construction on the East Haddam Bridge? Will the Department coordinate this project with other major bridge projects in the region?
  - Mr. Cardinali said that the Department would coordinate with the project managers of the Arrigoni Bridge project and other construction projects slated for that time period.
26. Is this project supposed to occur at the same time as the two roundabouts are constructed at the Rt. 82/Rt. 154 intersection in the Tylerville section of Haddam?
  - Mr. Cardinali said that coordination would occur with the project manager for the roundabout project to help mitigate conflicts during construction.

27. Will there only be one lane available during the two years of construction?
- Mr. Cardinali said that the duration of one lane closure will depend on the type of repairs being done. He said that the Designer of Record will evaluate and refine the need/duration of lane closures during the design phase of the project.
28. Before the 1988 rehabilitation project, the swing span was able to swing in the clockwise and counterclockwise direction. This helped reduce the amount of time that vehicles spent waiting for the swing span to close. Will it be able to swing in both directions at the end of this project?
- Mr. Cardinali said that the presence of a south sidewalk would likely require the bridge to open in a counterclockwise direction to reduce the amount of time to close the bridge, since Span 3 is considered to be the main navigable channel. He added that the Department would look into the feasibility of allowing the swing span to rotate in both directions.
29. With a properly sized motor, will the swing span be able to operate faster?
- Mr. Cardinali and Mr. Barakat said that it was unlikely that there would be any increase in swing span rotation speed, since an increased speed is not desirable due to the large inertia associated with the bridge structure and need for operational safety.
30. Can the purpose of the sidewalk be revised to accommodate bicyclists? Why does it need to be ADA compliant if the bridge is not used frequently by people in wheel chairs?
- Mr. Barakat said that the Department has to design it so that wheelchair bound people can use the sidewalk to be in compliance with ADA. Mr. Barakat added that a bike path would require adding a ten foot wide cantilevered structure which is not feasible.
31. Will the Department stop pretreating the roadway with deicing chemicals? Can sand be used instead to treat the roads?
- Mr. Barakat stated that the use of pre-treatments has advantages and disadvantages. Mr. Cardinali said that there are environmental concerns with the use of sand on this bridge. Mr. Barakat said that a further discussion on the use of de-icing salt may be held with the Department's Maintenance unit.
32. A suggestion was made that the walkway be covered so that people are more likely to use it during all seasons.
33. A comment was made that adding a sidewalk structure to an older moveable bridge is a wasteful expenditure and has a big associated risk. Why is the sidewalk needed? It was added that a survey of the town residents should have been conducted to determine whether a sidewalk is needed.
- Following the comment, the Land Use Administrator for the town of East Haddam spoke to the history behind the need for a sidewalk on the structure and noted the significant benefit to the public, the towns of East Haddam and Haddam as well as the surrounding businesses. It was noted that a sidewalk was requested by both towns to improve the economic development of the Towns of Haddam and East Haddam and that both towns would benefit greatly by having walkable connectivity

34. How will pedestrian safety be maintained during swing span operations?
- Mr. Cardinali said that cameras will be used to monitor pedestrians on the bridge.
35. When would the Department know that the funding is available for the full project cost?
- Mr. Barakat stated that it would depend on the completion of design (currently anticipated to be completed by spring 2019) and if the funds are not available by then, the project will be shelved until the bridge becomes prioritized based on structural condition or funds are made available. Mr. Barakat said that the Department will keep the Towns informed on the funding situation of the project.
36. The proposed sidewalk is on the bridge and will just end. Are there plans to build the approach sidewalks?
- The Town of Haddam said that the design and construction of the approach sidewalk on the Haddam side (up to Tylerville section) is being funded with regional funds. The Town of East Haddam said it is still working on getting the funds for the sidewalk on the east side of the bridge.
37. Was a sidewalk feasibility study done?
- Mr. Barakat said that a sidewalk feasibility study was performed by the Designer of Record and the conclusion of the study was that the addition of a sidewalk is feasible.

### **Adjournment:**

The recommended plan provides a design for correcting the structural deficiencies of the existing bridge while minimizing the need for future maintenance, and also a design for improving pedestrian access between the Towns of East Haddam and Haddam. Accordingly, the Department intends to seek design approval for the proposed plan. The Department will continue to keep the Towns informed of any changes that may occur as the design is being completed and will notify the Towns as the project transitions into the construction phase.

The meeting was adjourned at 9:30 p.m.