

Everyone Is Invited To A
PUBLIC INFORMATION MEETING

Project No. 120-90

**REPLACEMENT OF BRIDGE NOS. 01140 and 05401
ROUTE 82 over EAST BRANCH EIGHT MILE RIVER
and SWAMP BROOK
SALEM, CONNECTICUT**

TO BE HELD

THURSDAY, OCTOBER 20, 2016

at 7:00 p.m. in

**Salem Town Hall
Conference Room 1
270 Hartford Road
Salem, Connecticut**

Residents, business owners, commuters, and other interested individuals are encouraged to take advantage of this opportunity to learn about and discuss the proposed projects.

**PLEASE JOIN US ON
Thursday, October 20, 2016**

**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION**

Location is ADA accessible.
If language assistance is needed, please contact:
Connecticut Department of Transportation
Office of Communications at (860) 594-3062

NOTICE OF PUBLIC INFORMATION MEETING

The Department of Transportation (Department) will conduct a Public Information Meeting concerning the full replacement of Bridge Nos. 01140 and 05401, Route 82 over East Branch Eight Mile River and Swamp Brook in Salem, Connecticut. The meeting will be held on Thursday, October 20, 2016, at 7:00 p.m., in the Salem Town Hall, Conference Room 1, 270 Hartford Road, Salem, Connecticut.

The subject project involves the replacement of Bridge No. 01140, which was originally constructed in 1924. The existing structure consists of a two-span simply supported reinforced concrete slab bridge with a total length of 45.5 feet. It also involves the replacement of a structure located 200 feet to the east, Bridge No. 05401, which was originally constructed in 1924 and reconstructed in 1986 with a superstructure replacement. The existing structure consists of a single span adjacent prestressed concrete deck unit bridge with a total length of 24 feet.

At this time, the project is nearing completion of the Preliminary Design phase. The plan is to replace Bridge No. 01140 with a 56-foot single-span bridge and Bridge No. 05401 with a 32-foot single-span bridge. Both bridges are to be replaced with prefabricated bridge units of galvanized steel beams and a concrete deck and precast integral abutments on piles. The prefabricated bridge units are used for Accelerated Bridge Construction (ABC). Other work consists of profile adjustments on Route 82 to accommodate the longer, deeper superstructure and to improve the hydraulic performance. The twin pipe culvert 200 feet to the east of Bridge No. 05401 will be replaced as they are located within the reconstruction limits of Route 82.

Maintenance and protection of traffic is proposed to be accomplished through a complete closure and detour of Route 82 traffic. The recommended detours are approximately 7.7 miles and 8.5 miles in length, and will be posted for vehicles depending which direction they are traveling on Route 82. The recommended detour for vehicles travelling east through the project location on Route 82 is through the towns of Salem and East Haddam, on Woodbridge Road, West Road, Witch Meadow Road, and Route 11. The recommended detour for vehicles travelling west through the project location on Route 82 is through the towns of Salem, Lyme, and East Haddam, on Darling Road, Norwich Essex Turnpike, Salem Road, and Route 156. Construction requiring the full closure and detour will be completed in eight weeks, using the ABC techniques to limit the duration of the detour. Total construction duration will be approximately three months.

Construction is anticipated to commence in spring 2019, assuming availability of funding and receipt of any required environmental permits or Right-Of-Way acquisitions. The estimated construction cost is \$4,500,000 and will use both State and Federal funds.

The Public Information Meeting is being held to afford a full opportunity for the public's participation and to allow open discussion of any views and comments the community may have concerning this proposed project.

Plans will be available for public review. Department personnel will be available during the meeting to discuss these projects. More detailed information is available at the Department's Office of Engineering, 2800 Berlin Turnpike, Newington, Connecticut, during office hours, Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding holidays. Anyone wishing to review the plans may contact Mr. Andrew J. Cardinali, Transportation Supervising Engineer, at (860) 594-3315.

All persons interested in these projects are welcome to attend this meeting and discuss these projects with Department personnel.



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546

Phone:

September 27, 2016

The Honorable Kevin T. Lyden
First Selectman
Town of Salem
270 Hartford Road
Salem, Connecticut 06420-3809

Dear First Selectman Lyden:

Subject: Public Information Meeting Confirmation
State Project No. 120-90
Bridge Nos. 01140 and 05401
Route 82 over East Branch Eight Mile River and Swamp Brook
Town of Salem

This letter is to confirm the scheduling of a Public Information Meeting at the Salem Town Hall, concerning the full replacement of the subject bridges. The meeting will be held on Thursday, October 20, 2016, at 7:00 p.m. at the Salem Town Hall, Conference Room 1, 270 Hartford Road, Salem, Connecticut. Please have the room ready for Department personnel to set-up materials no later than 6:30 p.m. on the evening of the meeting. A copy of the Notice of Public Information Meeting, which contains a brief description of the proposed projects, is transmitted herewith.

Enclosed for your distribution to interested parties is a copy of the Public Information Meeting display ad, which will be published in the New London Day on October 5, 2016 and October 17, 2016, and the Norwich Bulletin on October 5, 2016 and October 17, 2016.

If you have any questions regarding these projects, please contact Mr. Andrew J. Cardinali, Transportation Supervising Engineer at (860) 594-3315.

Very truly yours,

Theodore H. Nezames, P.E.
Manager of Bridges
Bureau of Engineering and Construction

Enclosures

cc: Mr. Donald Bourdeau, Director of Public Works
TPR Christopher Pariseau, Town of Salem Resident Trooper
Ms. Elizabeth S. Lunt, Public Works Administrator, Town of East Haddam
TFC Patrick Hawes, Town of East Haddam Resident Trooper
Mr. James S. Butler, Southern Connecticut Council of Governments



CT Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06111



CME Associates, Inc.
333 East River Drive, Suite 400,
East Hartford, CT 06108

Maintenance and Protection of Traffic Evaluation

Subject: Project No. 120-90
Bridge Nos. 01140 & 05401 in Salem
Route 82 over East Branch Eightmile River and Swamp Brook

1. Stage Construction Option

This option replaces the bridge in two stages, maintaining alternating 1-way traffic on Route 82, for approximately 2 years. A 13 ft. wide section per stage would be provided for the alternating bounds of traffic. This would be controlled by either stop signs noting 3 vehicles at a time or by a temporary traffic signal. The length of the 1-way section of road would be approximately 600 ft. long.

➤ Pros

- Maintains reduced access and connectivity for traffic along Route 82 throughout the majority of construction.
- Alleviates safety concerns, especially for the 'worst case' scenario in which a home is not accessible by emergency vehicles from either side (houses at south end of Woodbridge Road are most difficult to access).
- Minimizes risk associated with unanticipated construction delays which may lengthen the duration of the full road closure.
- Does not require the detouring of State Road traffic onto Local Roads and the associated wear and tear of the roads.
- May be less of a deterrent to through traffic and therefore may have less impact to local businesses. (See Cons for related possibility)
- Pedestrians will be able to cross the project location throughout the majority of construction. (See Cons for related possibility)

➤ Cons

- Lengthens construction duration, from 8 weeks to 2 years, which may be a deterrent to through traffic and therefore may have a longer lasting impact to local businesses. (See Pros for related possibility)
- Pedestrians may try to cross the bridges during construction which would be unsafe due to the narrow width. (See Pros for related possibility)
- Increases administration costs and construction costs, by having longer duration project.
- Requires cutting two bridges along a stage construction line and keeping the remaining portions stable and useable for one year.
 - i. Both bridges have a 90+ year old substructure which would need to be cut "in half" which would have some risk of failing due to their modified configuration.
 - ii. Bridge No. 01140 has a 90+ year old concrete slab superstructure which would need to be cut "in half" which would have some risk of failing due to its modified configuration.
 - iii. Bridge No. 05401 has a 30 year old adjacent prestressed concrete deck unit superstructure which would need to be cut "in half" which would eliminate the transverse post-tensioning. A means to temporarily restore the post-tensioning would be required and is generally difficult and expensive.
- Requires long lengths of sheeting, parallel to traffic, between stages to accommodate the 3.5 ft. of profile adjustment at the structures.



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- Increases environmental impact; by duration of impact and by increasing the amount of fill placed in wetlands for overbuild / cranes. The wetland impact area is increased by 41%, from 8,436 SF to 11,890 SF.
- It is possible that the increased amount of fill for overbuild/cranes will change the hydraulic and floodway model results, potentially impacting the approval of the models or the design decisions based on the models.
- The water handling during construction is more complicated with stage construction and in place for a longer duration.
- Increases impact to ROW-conservation restrictions, by increasing the limits of fill required for overbuild / cranes. The temporary ROW impact area is increased by 209%, from 3,304 SF to 10,207 SF. The permanent ROW impact area is the same for both options.
- Does require overbuilding to accommodate staging **Going from 28 ft. to 34 ft. allows for 11 ft. lane and 1 ft. shoulders (13 ft. per stage) with a 0.5 ft. overhang past the TPCBC. However, there is 0 ft. available gap between the halves, so need to overbuild by the 2 ft. gap that is required between stages, for a total curb-to-curb width of either 36 ft. (unsymmetrical overbuild) or 38 ft. (symmetrical overbuild). The existing prestressed concrete deck units of Bridge No. 05401 limit where the cut line can be located. The proposed stage line falls in the middle of one of the deck units, therefore the proposed structure will either have to be 1.5 ft. wider or the curb-to-curb width provided in the stage construction will be reduced by 1.5 ft.*
- The 13 ft. width will be provided over the winter months, potentially impacting the plows for snow removal and potentially creating an unsafe section of Route 82.
- More complicated and expensive temporary utility relocations. Utility Cos. will either have to move the overhead wires and poles in conjunction with the staging back and forth between north and south side of the road, or move the temporary poles further south into the wetlands with a higher risk of the poles sinking into the poor soils.

2. Detour Option

This option is the complete closure of Route 82 and detouring traffic for approximately 8 weeks. The recommended detour for vehicles travelling east through the project location on Route 82 is through the towns of Salem and East Haddam, on Woodbridge Road, West Road, Witch Meadow Road, and Route 11. The recommended detour for vehicles travelling west through the project location on Route 82 is through the towns of Salem, Lyme, and East Haddam, on Darling Road, Norwich Essex Turnpike, Salem Road, and Route 156.

➤ Pros

- Reduces construction duration, from 2 years to 8 weeks, which may have less overall impact to local businesses. (See Cons for related possibility)
- Reduces administration costs and construction costs, by having a shorter duration project.
- Eliminates difficulties of cutting two bridges along a stage construction line and keeping the remaining portions stable and useable for one year.
- Does not require long lengths of sheeting, parallel to traffic, between stages to accommodate the 3.5 ft. of profile adjustment at the structures because there is no adjacent lane for traffic.
- Lessens environmental impact; by duration of impact and by lessening the amount of fill placed in wetlands for overbuild / cranes.
- The water handling during construction is less complicated with the full closure option and in place for a shorter duration.
- Lessens impact to ROW-conservation restrictions, by lessening the limits of fill required for overbuild / cranes.



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- Does not require overbuilding to accommodate staging so the most practical bridge width of 34 ft. can be used.
 - Does not require a reduced width during winter months when there is snow and plowing is required, therefore eliminating associated potential safety concerns.
 - Less complicated and expensive temporary utility relocations. Shorter duration move of the temporary poles south into the wetlands can be done, rather than relocating in conjunction with stages.
- Cons
- Does not maintain access and connectivity for traffic (vehicles, bicycles, pedestrians) along Route 82.
 - Raises safety concerns, especially for the 'worst case' scenario in which a home is not accessible by emergency vehicles from either side (houses at south end of Woodbridge Road are most difficult to access).
 - Carries a risk associated with unanticipated construction delays which may lengthen the duration of the full road closure.
 - Does require the detouring of State Road traffic onto Local Roads, including the associated wear and tear of the roads.
 - Does not accommodate through traffic and therefore may have more impact to local businesses. (See Pros for related possibility)