

**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ASSESSMENT CHECKLIST**

Date: April 19, 2016

Project Name: Various Bridge Rehabilitation at Route 8 / I-84 "Mixmaster" Interchange including Construction of Route 8 NB Temporary Bypass

Municipality: Waterbury

Staff Contact: Mark Alexander

This assessment is being conducted in conformance to the Connecticut Department of Transportation's Environmental Classification Document (ECD) to determine Connecticut Environmental Policy Act (CEPA) obligations.

Project Description:

The Connecticut Department of Transportation proposes to rehabilitate Bridge Nos. 03190A, 03190B, 03190C, 03190D, 03190E, 03190F, 03191A, 03191B, 03191D, and 03191E which are part of the Route 8/I-84 "Mixmaster" Interchange in the City of Waterbury.

The proposed project consists of deck repair, steel repair, substructure repair, joint repair, parapet modifications and general repair to bridge drainage, and signage. Bridge No. 03190A, carrying Route 8 Northbound, will have the entire concrete deck replaced. Because of this, a temporary bypass will be utilized to relocate Route 8 Northbound while the concrete deck is being replaced. The proposed alignment for this Temporary Bypass, two lane urban expressway, is approximately $\frac{3}{4}$ mile long with three (3) temporary bridges. The alignment from south to north will begin the Temporary Bypass on existing Route 8 Northbound just north of the Bank Street overpass. The Temporary Bypass will end on existing Route 8 Northbound approximately 350 feet north of the Freight Street overpass. The Route 8 Northbound Exit 30 On Ramp, and the Route 8 Northbound Exit 32 Off Ramp will be closed during the deck replacement of Bridge No. 03191A, eliminating access from Route 8 Northbound to I-84.

In order to avoid conflicts with the Temporary Bypass and to maintain local traffic flow, Southbound Riverside Street will temporarily be converted to a bi-directional roadway with one lane of traffic in each direction between Sunnyside Avenue and Freight Street. This will temporarily relocate Northbound Riverside Street onto the eastern lane of Southbound Riverside Street. Northbound Riverside Street between Sunnyside Avenue and Freight Street will be utilized for the Temporary Bypass.

In order to mitigate for the loss of access from Route 8 Northbound to I-84 due to the exit closures listed above, a new single lane northbound and southbound will be constructed at and within the Exit 35 Right of Way. This will allow a Median U-Turn to be constructed within the infield connecting the existing left

lanes of the northbound and southbound roadways (Watertown Connector/Route 73). This will allow traffic that utilizes the Temporary Bypass to complete the connections to Interstate 84.

Regulations of Connecticut State Agencies (RCSA) Section 22a-1a-3 Determination of Environmental Significance (Direct/Indirect)

1. Impact on air and water quality or on ambient noise levels
 - a) Air Quality – No negative impacts are anticipated. This project is located within the boundaries of the portion of the state which has been classified as attainment maintenance for carbon monoxide, attainment maintenance for PM2.5, attainment for PM10, and non-attainment for Ozone. This project has been determined to be exempt from the requirement that an air quality conformity determination be made. This project should not result in an increase of mobile source emissions of air pollution. Potential impacts during construction can be avoided or limited by proper operation of construction equipment and adherence to regulations limiting idling of engines.
 - b) Water Quality –No negative impacts are anticipated. Registration under CTDEEP’s *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* is anticipated. Best Management Practices shall be used and compliance with the *The Connecticut Guidelines for Soil Erosion and Sediment Control* will be required.
 - c) Ambient Noise Levels – No negative impacts are anticipated. Any noise impacts during construction would be temporary.

2. Impact on a public water supply system or serious effects on groundwater, flooding, erosion, or sedimentation
 - a) Water Supply – This project is not within a public drinking water supply source water area, but it is within the public water supply service area of Waterbury Water Department. No negative impacts are anticipated. CTDOT will consult with the Waterbury Water Department as needed as the project progresses.
 - b) Groundwater – No negative impacts are anticipated. See 1(b) above.
 - c) Flooding – The project is within the 100-year flood zone on the community’s Flood Insurance Rate Map. This project will require a General Flood Management Certification. No negative impacts are anticipated.
 - d) Erosion or Sedimentation – No negative impacts are anticipated. In order to protect any wetlands or watercourses adjacent to the site, erosion and sediment controls should be employed during construction. Construction period erosion and sedimentation control measures must comply with *The Connecticut Guidelines for Soil Erosion and Sediment Control*.

3. Effect on natural land resources and formations, including coastal and inland wetlands, and the maintenance of in-stream flows –No negative impacts are anticipated. This project will require

a permit from the CTDEEP's Inland Water Resources Division (IWRD). Any unavoidable impacts to wetlands and watercourses would be mitigated.

4. Disruption or alteration of an historic, archaeological, cultural, or recreational building, object, district, site or its surroundings – No negative impacts are anticipated. A Programmatic Agreement (PA) between the CTDOT, Federal Highway Administration (FHWA), and CT State Historic Preservation Office (CTSHPO) has been signed to develop a plan for compliance with Section 106 of the National Historic Preservation Act as the project moves forward. A prior professional archaeological assessment of an adjacent land parcel suggests that archaeological remains associated with a State Archaeological Site, may exist within the area of potential effect for this project. Stipulations in the PA ensure that an archaeological assessment survey be performed and, if necessary, an archaeological reconnaissance / intensive survey be performed to reach a definitive determination of National Register of Historic Places-eligibility for deposits that may be affected. A plan for mitigation and minimization will be developed at that time if necessary.
5. Effect on natural communities and upon critical species of animal or plant and their habitats; interference with the movement of any resident or migratory fish or wildlife species – No negative impact is anticipated. A preliminary assessment has been made and there are records of the State threatened Peregrine Falcon in the vicinity of the project area. During construction, CTDEEP suggests using the protocols to protect the falcon which were employed for the I-84 bridges over Route 8 and the Naugatuck River (Projects No. 151-312 and 151-313).
6. Use of pesticides, toxic or hazardous materials or any other substance in such quantities as to create extensive detrimental environmental impact – CTDOT's Environmental Compliance Division conducted a Contaminated Materials Screening Evaluation and has determined that further investigation is warranted due to painting operations on the bridge superstructures. This will take place as the project moves forward and any required actions/remediation will take place. The properties being used for the project are all also under review for hazardous/contaminated materials. One of the properties joined the CTDEEP Voluntary Remediation Program (VRP) in December 2015. Data collection should be complete by the end of 2016, the remediation plan will be designed in 2017, and implementation of the plan would begin in the latter half of 2018. It is anticipated that the mitigation process would continue during construction of this project. Furthermore, if required, CTDOT will register for CTDEEP's *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)*.
7. Substantial aesthetic or visual effects – No negative impacts are anticipated.
8. Consistency with the written and/or mapped policies of the Statewide Plan of Conservation and Development and such other plans and policies developed or coordinated by the Office of Policy and Management or other agency – It is CTDOT's interpretation that this type of project is consistent with the Plan of Conservation and Development through GMP #1 (Redevelop and

Revitalize Regional Centers and Areas with Existing or Currently Planned Physical Infrastructure), specifically the state policy “Ensure the safety and integrity of existing infrastructure over its useful life through the timely budgeting for maintenance, repairs and necessary upgrades. Furthermore, it is CTDOT’s interpretation that this type of project constitutes an exception to the definition of a Growth Related Project as defined in Sec. 16a-35c, Item (2), Subsection (D), Sub-Subsection (i), “Projects for maintenance, repair or renovations to existing facilities”.

9. Disruption or division of an established community or inconsistency with adopted municipal and regional plans – No negative impacts are anticipated, project is consistent with the City of Waterbury’s 2015 Plan of Conservation and Development (Plan). The Plan notes that car travel is the predominant form of travel in Waterbury and that I-84 has the highest volume of traffic. The Plan also indicates that the City of Waterbury understands the importance of safe, efficient, and modern transportation infrastructure; in fact, this project appears in the Transportation Section of the City’s Plan.
10. Displacement or addition of substantial numbers of people – This project does not involve the displacement of people.
11. Substantial increase in congestion (traffic, recreational, other) – No negative permanent impacts are anticipated. Detours will be required during construction. During construction activities a temporary bypass will be utilized to accommodate Route 8 NB while the concrete deck is being replaced. During construction, the project will require the closure of the Route 8 NB Exit 30 on-ramp and the Route 8 NB Exit 32 off-ramp. Various local roads will require temporary reconfiguration; and at Exit 35 a median U-turn will be constructed within the infield connecting the existing left lanes of the inbound and outbound roadways (Watertown Connector/Route 73). This will allow traffic that utilizes the temporary bypass to complete the connections to I-84.
12. A substantial increase in the type or rate of energy use as a direct or indirect result of this action – No negative impact is anticipated.
13. The creation of a hazard to human health or safety – No negative impact is anticipated. This project will improve safety once complete. Regarding any hazardous materials during construction, please refer to Question 6.
14. Any other substantial impact on natural, cultural, recreational or scenic resources – No negative impact is anticipated. The CTDOT is coordinating with the City of Waterbury for the development of a recreational trails project that will be constructed in the same vicinity as the temporary bypass on the east side of the Naugatuck River. Continued coordination will occur.

Conclusion:

After examining any potential environmental impacts and reviewing all comments received, CTDOT has concluded that the preparation of an Environmental Impact Evaluation (EIE) will not be required for the subject project.

Project No. 151-326

Various Improvements “Mixmaster Interchange”

City of Waterbury

The following are comments and questions received during the public scoping process.

Responses to questions are written in red.

No comments were received from the public from the scoping process for this project.

Comments received from the City of Waterbury:

CTDOT received the following “Wish List” of collaborative efforts to be undertaken by CTDOT in connection with the Route 8 & I-84 Interchange Improvements project from the City of Waterbury.

Construct a “middle” bridge (of the temporary bypass roadway), or structural elements thereof, to facilitate re-use as a part of pedestrian bridge for Greenway Trail. *This temporary Route 8 bypass bridge will be a temporary, multi-span leased superstructure supported on a temporary foundation, and will be oriented in a highly skewed river crossing alignment. It would be unsuitable for use as a permanent pedestrian bridge.*

When Route 8 NB work is complete, transfer excess portion of Laidlaw and Yankee Gas/Eversource properties to the City of Waterbury for Greenway/Riverside Park. *While CTDOT is interested in the outright purchase of these parcels, it is not out of the question that temporary easements for the construction of a temporary Route 8 NB bypass would be sought in lieu of outright purchases. The current bridge rehabilitation project should be viewed as a major stop gap measure to maintain the interchange until such a time that it is replaced. It is important that CTDOT not enter land transfers that may negatively impact future roadway construction alternatives. Options and alternatives for replacement of the interchange are currently under study.*

Grant an easement to CTDOT land under I-84 adjoining north side of excess Yankee Gas/Eversource property to the City for park use. *As noted in the previous response, it is important that CTDOT not enter into land transfers that may negatively impact future roadway construction alternatives, whether temporary or permanent.*

“Greening” of the land (CTDOT land under I-84 and Laidlaw and Yankee Gas/Eversource properties) in the area of the temporary bypass roadway, i.e., remediate (for public use) and establish turf, when

Route 8 NB work is complete. *CTDOT will consider this request following removal of the proposed temporary bypass roadway.*

Building Greenway Trail between Bank Street and Freight Street and/or through Riverside Park area and across the river and up the east side of Riverside Street. *The project is a bridge rehabilitation project and the scope of the project is limited to the purpose and need, which is to bring the bridges back to a state of good repair for a period of time until the bridges can be replaced. The proposed trail work would be outside the scope of the project, and may impact future roadway alternatives for replacing the bridges in the future.*

For portion of Greenway Trail running up the east side of Riverside Street (along the west side of the river bank), and in lieu of a cantilevered walkway, consider “road diet” for northbound Riverside Street. *CTDOT will consider reconfiguring Riverside Street to allow for a walkway.*

Be responsible to implement TIGER/W.A.T.E.R. scope of work for Jackson Street from Bank Street to Freight Street (Task 2 – Southern Section). *As previously stated, the scope of this project is bridge rehabilitation and the improvements to Jackson Street would be outside that scope. CTDOT is not opposed to undertaking final construction of the portion of the proposed Jackson Street improvements that conflict with the temporary Route 8 northbound bypass, in the event the Tiger/W.A.T.E.R is executed. CTDOT will also agree to resurface any portion of Jackson Street damaged from construction equipment or material/equipment transport.*

Be responsible for determination of location of pedestrian bridge, ramps to station and path way to Jackson Street/ riverfront area (all components of Task 3 – Library/ Station/ Jackson Street Connector). *These areas are unaffected by the proposed Route 8 northbound temporary bypass and, as such, the City of Waterbury would be free to proceed on their own accord with this portion of the proposed Tiger/W.A.T.E.R grant.*

Recommendations received from the Department of Health Drinking Water Section as a result of the Scoping Process:

CTDOT should consult with the Waterbury Water Department on the locations of water distribution mains and coordinate with the Waterbury Water Department on potential relocation or replacement of water distribution mains within the project area.

Recommendations received from the Department of Energy and Environmental Protection as a result of the Scoping Process:

The project will require a permit from the Inland Water Resources Division (IWRD) pursuant to Section 22a-39(h) of the Connecticut General Statutes (CGS). In order to minimize impacts the bridges should be designed to completely span the river.

Unavoidable and unmitigated impacts to wetlands and watercourses must be compensated. The Inland Fisheries Division has identified potential mitigation measures. These include:

- Installation of features or structures within the Naugatuck River reach from the Route 8/I-84 Interchange and continuing upstream (north) to the Huntington Avenue Bridge, a river segment has been previously channelized and is in extreme need of habitat diversity and enhancement.
- Removal of Bray's Buckle Dam spanning the Mad River, southwesterly of South Main Street in Waterbury. The removal would further complement other efforts to provide unimpeded fish passage in the Mad River from the Naugatuck River confluence continuing upstream several miles.

The project must be certified as being in compliance with flood and stormwater management standards specified in Section 25-68d of the CGS and Section 25-68h-1 through 25-68h-3 of the Regulations of Connecticut State Agencies (RCSA) and receive approval from CTDEEP.

There may be opportunities at the completion of the project to re-establish a healthy, riparian border along sections of the river corridor. Native species should be used, and invasive species should be controlled to the extent possible.

CTDOT should coordinate with the Naugatuck Valley Council of Governments and the City of Waterbury to determine their plans for the greenway and identify potential opportunities to facilitate greenway construction as the bridge rehabilitation project is completed.

Water Quality in the section of river where the project is located, is listed in the 2014 *State of Connecticut Integrated Water Quality Report* as not supporting designated uses for both Aquatic Resources and Recreation. The opportunity to introduce treatment measures to the stormwater collection system during reconstruction of the bridges should be explored. There may be opportunities during the course of the project to improve stormwater drainage systems associated with the bridges and highways using new techniques and/or best management practices such that stormwater is not discharged directly to the river but is handled in a manner such that it is infiltrated into the ground and/or otherwise detained and cleansed prior to entering the river. Detaining and/or metering the flow of stormwater discharge would also help reduce stormwater surges that contribute to the flashiness of the river and associated flooding issues.

There are records of the state threatened peregrine falcon in the vicinity of the project area. The Office of Environmental Planning protocols to protect falcons during construction, which were employed for the I-84 bridges over Route 8 and the Naugatuck River (Projects No. 151-312 and 151-313), should be instituted for this project in order to avoid adverse impacts to this listed species.

In order to mitigate potential air quality impacts from construction activities, the Department typically recommends the following measures:

- For large construction projects, the Department typically encourages the use of newer off-road construction equipment that meets the latest EPA or California Air Resources Board (CARB) standards. If that newer equipment cannot be used, equipment with the best available controls on diesel emissions including retrofitting with diesel oxidation catalysts or particulate filters in addition to the use of ultra-low sulfur fuel would be the second choice that can be effective in reducing exhaust emissions. The use of newer equipment that meets EPA standards would obviate the need for retrofits.
- The Department also encourages the use of newer on-road vehicles that meet either the latest EPA or California Air Resources Board (CARB) standards for construction projects. These on-road vehicles include dump trucks, fuel delivery trucks and other vehicles typically found at construction sites. On-road vehicles older than the 2007-model year typically should be retrofitted with diesel oxidation catalysts or diesel particulate filters for projects. Again, the use of newer vehicles that meet EPA standards would eliminate the need for retrofits.
- Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. Adhering to this regulation will reduce unnecessary idling at truck staging zones, delivery or truck dumping areas and further reduce on-road and construction equipment emissions. Use of posted signs indicating the three minute idling time is recommended. It is recommended that CTDOT include language similar to the anti-idling regulations in the contract specifications for construction in order to allow them to enforce idling restrictions at the project site without the involvement of the Department.

A site specific hazardous materials management plan should be developed prior to commencement of construction and a health and safety plan for construction workers should be prepared.

Development plans in urban areas that entail soil excavation should include a protocol for sampling and analysis of potentially contaminated soil. Soil with contaminant levels that exceed the applicable criteria of the Remediation Standard Regulations, that is not hazardous waste, is considered to be special waste. The disposal of special wastes, as defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA), requires written authorization from the Waste Engineering and Enforcement Division prior to delivery to any solid waste disposal facility in Connecticut. If clean fill is to be segregated from waste material, there must be strict adherence to the definition of clean fill, as provided in Section 22a-209-1 of the RCSA. In addition, the regulations prohibit the disposal of more than 10 cubic yards of stumps, brush or woodchips on the site, either buried or on the surface.

The Waste Engineering & Enforcement Division has issued a *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)* (DEP-SW-GP-001). Temporary storage of less than 1000 cubic yards of contaminated soils (which are not hazardous waste) at the excavation site does not require registration, provided that activities are conducted in accordance with the applicable conditions of the general permit. Registration is required for on-site storage of more than 1000 cubic yards for more than 45 days or transfer of more than 10 cubic yards off-site.