

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

Date: October 8, 2019

Project Name: I-95 Interchange 74 Improvements at Route 161 and Replacement of Bridge No. 00250

Municipality: East Lyme

Staff Contact: Kevin Fleming

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 purpose of the proposed project is to address vehicular safety on I-95 at Interchange 74 and address traffic operational concerns between Interchanges 74 and 75 in East Lyme. In addition, this project will address traffic operational concerns and improve safety for all roadway users (motorists, pedestrians, and bicyclists) on Route 161 in the vicinity of the exit 74 interchange ramps. It is also proposed to replace the I-95 Bridge (No. 00250) over Route 161 due to its poor condition and to accommodate the widening on Route 161.

Current deficiencies include substandard geometry on the I-95 freeway, substandard geometric features on Interchange 74 access ramps, poor conditions and features of Bridge No. 00250 and a lack of auxiliary turn lanes/shoulders on Route 161.

The proposed improvements on I-95 include full reconstruction and widening to accommodate the revised ramp configurations, auxiliary lanes between exits 74 & 75 in each direction and the full replacement of the bridge over Route 161. As a result of the I-95 widening, the bridge over Pattagansett River will be extended and retaining walls will be constructed. At various locations within the project limits, the proposed improvements on I-95 will accommodate a future project to add a third lane.

The proposed southbound ramps will be realigned to terminate on a new frontage road to form a signalized "T" type intersection. This new frontage road will form a signalized "T" type intersection with a three-lane approach to Route 161 consisting of one left-turn lane and two right-turn lanes. Route 161 northbound at this new intersection will have a four-lane approach consisting of two exclusive left-turn lanes and two through lanes. The southbound Route 161 approach to this intersection will consist of two through lanes and exclusive turn lanes.

The terminus of the northbound I-95 exit 74 ramp will be located southerly to form a new signalized intersection with Route 161 and the Burger King driveway. Vehicles on southbound Route 161 will be accessing I-95 northbound on a new entrance “loop” ramp approximately 500 feet south of its current location. The entrance ramp to I-95 northbound for vehicles on northbound Route 161 will be realigned slightly at its present location.

To address safety and traffic operations on Route 161, improvements include full reconstruction and widening to provide turn lanes, wider shoulders, and sidewalk connectivity within the project limits.

The right of way impacts associated with the proposed project include total and partial property acquisitions, permanent easements, and temporary easements during construction. The existing non-access lines will be revised to accommodate the new proposed ramps.

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. It was determined that a Project Level Air Quality Conformity Determination is not required. The project is located within the boundaries of the portion of the state which has been classified as attainment for carbon monoxide (CO), PM2.5, PM10, and non-attainment for Ozone. Additionally, it was determined that this project would not require a qualitative analysis of Mobile Source Air Toxics effects. Any potential temporary air quality 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. The project is eligible for CTDEEP’s *General Permit for Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities*. As part of this permit, CTDOT will develop a stormwater pollution control plan for the project in order to avoid or minimize impacts from construction stormwater runoff to water quality.

The project must conform to CTDEEP’s *General Permit for the Discharge of Stormwater from Department of Transportation Separate Storm Sewer Systems* (DOT MS4 Permit). The Stormwater drainage system for this project will be designed in conformance with the 2004 CTDEEP Stormwater Quality Manual.

In addition, all CTDOT projects must conform to the CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817. Section 1.10.03, Environmental Compliance, specifically deals with water pollution control and Best Management Practices.

c) **Ambient Noise Levels-** In June 2019, a noise analysis was conducted. The Federal Highway Administration (FHWA) Traffic Noise Model (TNM) 2.5 was utilized to determine existing and future noise levels. Based on the modeled results, one receptor approaches the Noise Abatement Criteria (NAC) for the design year build alternative and two receptors approach or exceed the NAC in the existing model and exceed the NAC for the design year build alternative. Abatement measures were investigated for the two impacted receptors on Route 161 and found not to be feasible due to the fact that access and safety requirements (i.e. line of sight) would be impacted. Additionally, a noise barrier analysis was performed for the third impacted receptor adjacent to I-95 northbound (NB). Abatement for this location is not reasonable as the cost of the traffic noise barrier system would exceed the cost/residence index per benefitted receptor. Therefore, noise abatement is not proposed as part of the project. No public comments pertaining to noise impacts were received by CTDOT. If it is determined that any further noise analysis is warranted, it will be conducted as design progresses and any abatement/mitigation measures will be determined at that time, if applicable. Any noise impacts during construction will be temporary and be minimized to the best extent practicable by compliance with CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817 regarding construction noise pollution:

“1.10.05 – Noise Pollution: The contractor shall take measures to control noise intensity caused by his construction operations and equipment, including but not limited to equipment used for drilling, pile driving, blasting, and excavating or hauling. All methods and devices employed to minimize noise shall be subject to continuing approval of the Engineer. The maximum allowable level of noise at the nearest residence or occupied building shall be 90 decibels on the “A” weighted scale (dB(A)). Any operation that exceeds this standard will cease until a different construction methodology is developed to allow work to proceed within the 90-dB(A) limit.”

2. Impact on a public water supply system or serious effects on groundwater, flooding, erosion, or sedimentation

a) **Water Supply** – No negative impacts are anticipated. The Department of Public Health (Drinking Water Section) indicated in their comments, dated June 7, 2019, that the proposed work area for the project is located within a Level A Aquifer Protection Area for Gorton’s Pond Field Well, a ground water source of public drinking water for the customers of East Lyme Water and Sewer Commission. CTDOT will ensure that no sources of contamination pursuant to Regulations of Connecticut State Agencies section 19-13-B51d are introduced into the sanitary radius of the public drinking water source of supply, and that coordination with the East Lyme Water and Sewer Commission will take place. All CTDOT projects must conform to the CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817. Section 1.10.03, Environmental Compliance, specifically deals with water pollution control and Best Management Practices.

b) Groundwater - No negative impacts are anticipated. All CTDOT projects conform to the CTDOT Standard Specifications for Roads, Bridges, Facilities and Incidental Construction Form 817. Section 1.10.03, Environmental Compliance, specifically deals with water pollution control and Best Management Practices.

c) Flooding – No negative impacts are anticipated. The project is located within the 100 and 500-year flood zones on the community's Flood Insurance Rate Map. A Flood Management Certification will be required to address work within the mapped boundary. Any required permitting will be completed as design progresses. The project will be certified by CTDOT as being in compliance with flood and stormwater management standards specified in the Connecticut General Statutes and in the Regulations of Connecticut State Agencies. Coordination with CTDEEP will take place as appropriate.

d) Erosion or Sedimentation- No negative impacts are anticipated. Erosion and sedimentation control measures utilized during construction will comply with *The 2002 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 – Any activity within federally regulated wetland areas or watercourses require a permit from the U.S. Army Corps of Engineers (USACOE) pursuant to Section 404 of the Clean Water Act. In this case, an Individual Section 404 USACOE permit is required as 1.62 acres of wetlands, and .35 acres of watercourses will be permanently impacted. A Water Quality Certificate will also be required from CTDEEP pursuant to Section 401 of the Clean Water Act. DOT must also obtain a State Inland Wetland Permit from CTDEEP. Mitigation will be required and may include creating flood storage, improving degraded wetlands, and improving fish passage at Latimer Brook.

4. Disruption or alteration of an historic, archaeological, cultural, or recreational building, object, district, site or its surroundings – The project was reviewed under Section 106 of the National Historic Preservation Act and it was determined that the project, as proposed, will result in No Historic Properties Affected.

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 impacts are anticipated. Connecticut Department of Energy and Environmental Protection's (CTDEEP) review of Natural Diversity Database (NDDDB) Mapping indicates that the project does not fall within the mapped Natural Diversity Database area. The NDDDB is a record of state listed species maintained by CTDEEP's Wildlife Division.

6. Use of pesticides, toxic or hazardous materials or any other substance in such quantities as to create extensive detrimental environmental impact - No negative impact is anticipated. Land use in

the vicinity of the project limits and the potential for excess soil as a result of construction will be considered during the initial phases of project design. Should there be any sites with known contamination issues in the vicinity of the project, additional study will be performed within the project area and/or adjacent right-of-way. As design progresses, a testing plan will be developed to assess soil and groundwater in the moderate-to high-risk areas within which intrusive construction activities are proposed. Remediation measures will be put in place to mitigate potential impacts if contaminated soils or groundwater is confirmed by the testing. If needed, registration under CTDEEP's *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)* will be obtained, and soil management will be conducted in accordance with the General Permit.

- 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** – In a memo from CTDOT to OPM dated March 2015, CTDOT has adopted a programmatic approach for meeting the requirements of CGS Chapter 297 Section 16a-31(a) and Chapter 297a Section 16a-35(c) and 16a-35(d) for determining consistency of proposed actions with the Statewide Plan of Conservation and Development. As stated in the memo, this type of product is categorized as **“Renovations for Safety, No significant Capacity Improvement”**. It is CTDOT’s interpretation that this category of activities is consistent with the Plan through Growth Management Principle (GMP) #1 (Redevelop and Revitalize Regional Centers and Areas with Existing or Currently Planned Physical Infrastructure), and GMP #5 (Protect and Ensure the Integrity of Environmental Assets Critical to Public Health and Safety), 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 that this category of projects constitutes an exception to the definition of a GRP as defined in Sec. 16a-35c, Item (2), Subsection (D), Sub-Subsection (i) “Projects for maintenance, repair, additions 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. The project is consistent with the Town of East Lyme’s Plan of Conservation and Development (updated 2012). The Plan indicates that improvements on I-95 should be prioritized to ensure that substandard exit and entrance ramps are improved.
- 10. Displacement or addition of substantial numbers of people** – The project requires the complete acquisition of two (2) commercial properties and various partial acquisitions. A total of four (4) building demolitions are required resulting in both commercial and residential displacements. As required, CTDOT completed a right-of-way (ROW) Relocation Survey, and CTDOT does not anticipate any major problems with the relocation of the residential occupants. The survey findings

demonstrate that there are an adequate number of safe and sanitary replacement properties available. Additionally, CTDOT must comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as well as the current published Federal Regulations.

- 11. *Substantial increase in congestion (traffic, recreational, other)*** - No negative impacts are anticipated. The project, once complete, will reduce delay and congestion and improve traffic operations. Impacts are limited to temporary impact during construction. A plan for the maintenance of traffic during construction will be developed as the project moves forward.
- 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. The project will be reviewed for the potential of having lead, asbestos, or other hazardous material constituents in existing infrastructure components. Testing will be performed on any suspect materials. Should the presence of hazardous materials be conformed through the testing, specifications to properly handle and dispose the hazardous materials will be incorporated into the design to mitigate potential impacts. Therefore, significant impacts associated with hazardous materials or waste sites are not anticipated.
- 14. *Any other substantial impact on natural, cultural, recreational or scenic resources*** - No other negative impacts are anticipated. A public scoping meeting was held on May 23, 2019, and the project was well received and did not generate any public controversy.

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 this project.

Recommendations/ Comments from State Agencies

Connecticut Department of Energy and Environmental Protection (CTDEEP)

The project is located in the Gorton's Pond Well Field Aquifer Protection Area. The area is mapped to a Level A APA, has been formally adopted by the Town, and is now regulated under the State Aquifer Protection Area Program. Level A aquifers are active public water supply wells in stratified drift that serve more than 1000 people. Reconstructing the highway ramps is not a regulated activity. However, other activities that could be associated with the project are regulated such as fueling of trucks on site or any repair or maintenance of vehicles. These types of activities must be conducted outside of the APA. Best Management Practices should be utilized during construction.

The extensive fill required for this re-development and widening of I-95 will have a direct impact on wetlands and watercourses. Unavoidable impacts should be mitigated and buffer areas established to further protect wetlands and watercourses. Both the Individual Section 404 Water Quality Certification from the Army Corps of Engineers and the Individual Section 401 Water Quality Certification from CTDEEP are required. As a state agency, CTDOT must also obtain a State Inland Wetland permit from CTDEEP when proposing to conduct any operation within a wetland or watercourse.

The project is within the 100 and 500-year flood zones on the community's Flood Insurance Rate Map. As a State action, the project must be certified by the sponsoring agency 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 RCSA and receive approval from CTDEEP.

CTDOT should continue discussions with CTDEEP Inland Fisheries over the modifications proposed for Bridge No. 02585 over the Pattagansett River and Bridge No. 00251 over Latimer Brook. Fish passage improvements are being discussed as well as mitigation opportunities and time of year restrictions on in-water construction work.

Stormwater discharges from construction sites where one or more acres are disturbed, regardless of project phasing, require an NPDES permit from the Permitting and Enforcement Division. The *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* will cover these discharges. For projects disturbing five or more acres, registration describing the site and the construction activity must be submitted to CTDEEP prior to the initiation of construction. A Stormwater Pollution Control Plan, including measures such as erosion and sediment controls and post construction stormwater management, must be prepared. A goal of 80 percent removal of total suspended solids from the stormwater discharge shall be used in designing and installing post-construction stormwater management measures. The general permit also requires that post-construction control measures incorporate runoff reduction practices, such as low impact development techniques, to meet performance standards specified in the permit. Projects defined as

Locally Exempt (not requiring a permit from the municipality) that have a disturbance area over one acre must submit a registration form and Stormwater Pollution Control Plan to CTDEEP.

The disposal of demolition waste should be handled in accordance with applicable solid waste statutes and regulations. Demolition debris may be contaminated with asbestos, lead-based paint or chemical residues and require special disposal. Clean fill includes only natural soil, rock, brick, ceramics, concrete and asphalt paving fragments. Clean fill can be used on site or at appropriate off-site locations. Land clearing debris and waste other than clean fill resulting from demolition activities is considered bulky waste. Bulky waste is classified as special waste and must be disposed of at a permitted landfill or other solid waste processing facility. In addition, the solid waste management regulations prohibit the disposal or indefinite storage of more than 10 cubic yards of stumps, brush, or woodchips on site, either buried or on the surface.

Construction and demolition debris should be segregated on-site and reused or recycled to the greatest extent possible. Waste management plans for construction, renovation or demolition projects are encouraged to help meet the State's reuse and recycling goals. The State set a goal of 60% rate of diversion from disposal for municipal solid waste by the year 2024 and adopted that goal in the State's December 2016 *Comprehensive Materials Management Strategy*. Part of this effort includes increasing the amount of construction and demolition materials recovered for reuse and recycling in Connecticut.

CTDEEP recommends that the DOT consider opportunities to incorporate green infrastructure and/or low impact development (LID) features to the maximum extent feasible into its plans.

CTDEEP encourages the use of newer off-road construction equipment and newer on-road vehicles that meet the latest EPA or California Air Resources Board standards.

Idling of mobile sources should be limited to 3 minutes. Use of posted signs indicating the 3-minute idling limit is recommended. It is recommended that CTDOT include language similar to the anti-idling regulations in the contract specifications for construction.

Connecticut Department of Public Health

The project is located entirely within the Level A Aquifer Protection Area for Gorton's Pond Well Field, a ground water source of public drinking water for the customers of the East Lyme Water and Sewer Commission. The following recommendations are offered to protect the source public drinking water supply:

- Storm water systems should be designed to be protective of the public drinking water supply and compliant with the Regulations of Connecticut State Agencies section 19-13-B32.
- Erosion and sedimentation controls should be in place and properly maintained as necessary.

- A series of downstream suspended debris booms in conjunction with oil and chemical absorbent booms should be installed on the Pattagansett River to catch floating contaminants.
- A responsible party should be identified for maintenance, inspection, repair, replacement, and incorporation of new controls as may become necessary. At a minimum, daily inspections of booms and erosion/sedimentation controls should take place.
- Servicing machinery should be completed outside of the Gorton's Pond Level A APA.
- Refueling of vehicles or machinery should take place on an impervious pad with secondary containment designed to contain fuels.
- Fuel and other hazardous materials should not be stored within the Gorton's Pond Level A APA. Any fuel or hazardous materials that must be kept within the Gorton's Pond Level A APA during working hours should be stored on an impervious surface utilizing secondary containment.
- A fuel spill remediation kit should be stored on-site so that any spills may be contained and cleaned quickly.
- Where dust control is required, plain water should be utilized.
- Clean fill should be utilized during all phases of construction.
- The East Lyme Water and Sewer Commission should be contacted prior to starting this project to review the scope of the project.
- The East Lyme Water and Sewer Commission should be allowed to periodically inspect this project to ensure that drinking water quality is not being adversely impacted.