

**State of Connecticut  
Department of Transportation**

# **RECORD OF DECISION**

*Prepared in accordance with the Connecticut Environmental Policy Act*

**Walk Bridge Replacement Project  
Bridge No. 04288R  
Norwalk, Connecticut  
State Project No. 0301-0176**



**June 2017**

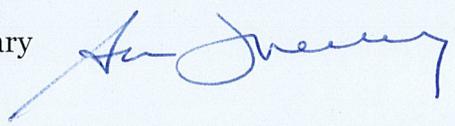


# STATE OF CONNECTICUT

OFFICE OF POLICY AND MANAGEMENT

OFFICE OF THE SECRETARY

**TO:** James Redeker  
Commissioner  
Department of Transportation

**FROM:** Susan Weisselberg, Deputy Secretary  
Office of Policy and Management 

**DATE:** July 6, 2017

**SUBJECT:** Environmental Impact Evaluation (EIE) for the Replacement of Walk Bridge and Record of Decision (ROD)

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Based on a review of the subject environmental impact evaluation conducted pursuant to C.G.S. 22a-1e, I am herewith advising you of my finding that this evaluation satisfies the requirements of the Connecticut Environmental Policy Act (CEPA).

OPM notes that, in proceeding from CEPA Scoping to the EIE, DOT chose to elevate maritime access above other economic and social considerations. OPM challenged that decision in its EIE comments and a number of commenters continued to raise other concerns. In reviewing this ROD, OPM considered DOT's interest in maritime access to carry no more weight than other concerns.

OPM's determination of adequacy is based on a finding that the cost and benefits of maintaining or even improving maritime access by means of a new movable bridge can justify other local impacts, particularly the new bridge structure's aesthetic impacts, but DOT must make every effort to mitigate such impacts.

Given the very limited amount of maritime activity impacted by the choice of bridge for this location, DOT's determination that it can complete the movable bridge project at a cost comparable to rehabilitating and locking the existing bridge in place, with long-term operational costs not being higher, played a key role in OPM determining the environmental review to be adequate.

The state and its infrastructure face various economic, environmental and other challenges, so it is important that potentially reasonable and cost-effective alternatives are considered prior to committing state funding.

Please contact Bruce Wittchen (860-418-6323) if there are any questions with regard to this finding.

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Due to their size, Appendix E: EA/EIE Review Comments, Appendix F-6 Commenter Index, Appendix F-7 Tables of Responses to Comments, and Appendix G Estimated Costs of Alternatives are being provided on an attached CD.

These Appendices can also be found, with the entire ROD, at [www.walkbridgect.com](http://www.walkbridgect.com)

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**Walk Bridge Replacement Project  
Bridge No. 04288R  
State Project No. 0301-0176  
Norwalk, Connecticut**

**I. Decision**

Through federal assistance provided by the Federal Transit Administration (FTA), the Connecticut Department of Transportation (CTDOT) intends to replace the New Haven Line (NHL) railroad bridge over the Norwalk River (Walk Bridge – Bridge No. 04288R) in Norwalk, Connecticut with a movable long-span vertical lift bridge. The Proposed Action will consist of removing the existing bridge structure and replacing it with two side-by-side 240-foot open-deck through truss vertical lift spans across the Norwalk River, each with separate mechanical and electrical equipment and controls so that each span can work independently of the other, or in unison with the other. The vertical lift bridge will provide a maximum of 170 feet of horizontal navigation clearance, approximately 25 feet of vertical clearance in the span-closed position, and a minimum of 60 feet of vertical clearance when the lift span is fully raised. The vertical clearance when the span is in the fully-raised position will match the vertical clearance, as posted in the National Oceanic and Atmospheric Administration (NOAA) Nautical Charts, of the I-95 crossing of the Norwalk River (Yankee Doodle Bridge), which is located approximately 3,300 feet upstream of Walk Bridge. To achieve a minimum of 60 feet of vertical clearance at mean high water, the lift span will be raised approximately 35 feet from its span down position. The total clear width of the lift span superstructure, including both trusses, will be approximately 70 feet. Construction of the Proposed Action, Option 11C of the Movable Bridge Replacement Alternative, will include the installation of a new fender system.

Dredging of approximately 4,900 cubic yards of sediment will be required to remove accumulated sediments at the pivot pier and rest piers of the existing bridge. These portions of the river that are not maintained as part of the federal channel will be dredged to match the federal channel depth of ten feet and to tie into the existing 125-foot navigation channel, thereby making the horizontal opening of the new bridge fully navigable. The widened channel will improve the bridge's alignment with the Stroffolino Bridge, which is located approximately 500 feet downstream of Walk Bridge.

In addition to construction of the vertical lift span replacement bridge over the Norwalk River, the Walk Bridge Replacement Project will include other improvements along the NHL and within the project vicinity. About one-half-mile of track, overhead catenary and supports, and signal work will be replaced, from approximately the Washington Street Bridge in South Norwalk to approximately 300 feet east of the Fort Point Street Bridge in East Norwalk. The railroad bridge over Fort Point Street will be replaced as part of the Walk Bridge Replacement Project. Additionally, the eastern abutment of the existing Walk Bridge will be retained and partially lowered to support an extension of the Harbor Loop Trail to areas south of the bridge.

This decision is based on the Walk Bridge Replacement Project Environmental Assessment and Section 4(f) Evaluation and Environmental Impact Evaluation (EA/EIE), Volumes 1 and 2 (HNTB Corporation, August 2016), and the mitigation commitments that are contained in the EA/EIE and those clarified or

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further detailed in the responses to agency and public comments. Comments were received on the EA/EIE during the public review period of the EA/EIE, held from September 7 through December 9, 2016, and during the November 17, 2016 public hearing.

A copy of the Executive Summary that was included in the EA/EIE and the Errata to the EA/EIE are provided as Appendix A.

The Proposed Action will be financed with state and federal (FTA) funds. Federal funds include monies allocated via the Disaster Relief Appropriations Act of 2013 and the Public Transportation Emergency Relief Program. The Proposed Action (Option 11C of the Movable Bridge Replacement Alternative) is entirely consistent with the intent of the Act and demonstrated needs of the infrastructure. The resiliency funds are being used to support the development of a critical and resilient infrastructure project on the New Haven Line/Northeast Corridor (NHL/NEC).

## **II. Statement of Environmental Impact**

Walk Bridge is a critical transportation link on the Northeast Corridor (NEC), extending from Washington, D.C. to Boston, Massachusetts. Walk Bridge carries four tracks of Metro-North Railroad commuter railroad service, Amtrak inter-city passenger rail service, and freight service.

CTDOT worked closely with FTA, as well as other federal and state agencies and the City of Norwalk, in developing the Purpose and Need Statement for the Proposed Action:

The purpose of the Walk Bridge Project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service, offer operational flexibility and ease of maintenance, and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Upgrades to the Walk Bridge, through rehabilitation or replacement, are needed to increase bridge reliability, incorporate bridge redundancy, and provide a sustainable bridge for significant weather events, thereby accommodating current and future rail and marine traffic.

The transportation problems or deficiencies that the Proposed Action will address – the project needs – are as follows:

- Structure age and deterioration;
- Decreasing reliability;
- Lack of resiliency;
- Safety standards;
- Lack of redundancy;
- Limited operational flexibility;
- Difficulty of maintenance;
- Reduced rail capacity and efficiency
- Reduced dependability and capacity for marine traffic;
- Lack of sustainability.

The Proposed Action is needed to rectify the deficiencies of the existing bridge, including its age and deterioration, decreasing reliability, safety considerations, and maintenance difficulties. By replacing the existing Walk Bridge with a redundant and resilient new structure, the Proposed Action will assist in

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meeting the transportation goals for the New Haven Line/Northeast Corridor (NHL/NEC), as enumerated by the NEC Commission, and for the State of Connecticut, as documented in the Connecticut State Rail Plan (2012-2016) and the Connecticut Transportation Planning Strategy (*Let's Go CT!* March 2015). The Proposed Action is identified on the 2015-2018 Connecticut Statewide Transportation Improvement Program (STIP). By replacing the existing movable bridge with a new movable bridge, the Proposed Action will maintain or improve the navigational capacity in the Norwalk River, which is consistent with federal legislation and which advances the policies, plans, and goals of federal, state, and local agencies, including the water-dependent use policies of the Connecticut Coastal Management Act, as implemented by the Connecticut Department of Energy and Environmental Protection (CTDEEP), and the Norwalk Harbor Management Plan. Further, the Proposed Action is consistent with the planning policies and goals of the State, Regional, and Local Plans of Conservation and Development.

Two alternatives were assessed in the EA/EIE: the No Build Alternative, and three options of a Build Alternative, a Replacement Movable Bridge. Alternatives that were not advanced for further evaluation beyond the initial screening process include the Rehabilitation Alternative and a Fixed Bridge Alternative (including low-level, mid-level, and high-level options). The Rehabilitation Alternative would not meet the project Purpose and Need, primarily the resiliency and redundancy needs, which are very important given the long-term climate change predictions, including higher sea levels and storm surge flooding, greater storm intensities, and temperature extremes. The Rehabilitation Alternative also would not meet other identified project needs such as incorporating updated safety standards and improving maintenance logistics. To strengthen the existing bridge while continuing to maintain rail service, the Rehabilitation Alternative would require construction of a temporary, two-track runaround bridge. As a result, the Rehabilitation Alternative would take substantially longer (12 to 24 months) to construct, would be more complicated, and would have a larger construction footprint than the Preferred Alternative. The estimated construction duration of the Rehabilitation Alternative is 52-64 months, as opposed to an estimated construction duration of 40 months for the Preferred Alternative. Consequently, the Rehabilitation Alternative would create more rail and marine transportation impacts during construction. While the proposed construction costs of the Rehabilitation Alternative are comparable to the Preferred Alternative, due to the advanced age of the existing bridge and the anticipated need to perform large-scale retrofits in the near term, the annual life cycle costs of the Rehabilitation Alternative would be more than double those of the Preferred Alternative. Relative to project needs, construction schedule, footprint, impacts, and risk, the Rehabilitation Alternative does not compare favorably with the Preferred Alternative. Neither the low-level Fixed Bridge option nor the mid-level Fixed Bridge option would fully meet the project Purpose and Need. While the high-level Fixed-Bridge option would comply with the project Purpose and Need, this option also would result in the greatest impacts regarding cost, schedule, rail traffic, and environmental resources. Both the mid-level and high-level Fixed Bridge options would result in an extended construction period and would require extensive reconstruction of the NHL mainline. Both options would introduce additional construction risk and create further environmental impacts, including substantial impacts to adjacent properties.

The Movable Bridge Replacement (Build) Alternative is the only alternative that will successfully meet the stated Purpose and Need for the Proposed Action and results in the least environmental impact, including rail, marine, and community impacts. Options considered for the Build Alternative included a rolling lift bascule bridge (Option 4C), a short span vertical lift bridge (Option 8A), and a long span vertical lift bridge (Option 11C). Option 11C, a long span vertical lift bridge, was selected as the preferred option because it will provide the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Because it will have the shortest construction duration, it will result in the least disruption to rail traffic on the NHL/NEC, the least disruption to marine traffic on the Norwalk River, and the least environmental impacts, including community disruption. In sum, it will require the shortest overall time

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from the start of Walk Bridge construction to restoration of four-track service and full operation capability for marine traffic.

Potential adverse effects from the Proposed Action include the following:

- Temporary (approximate 30-month) two-track outage, and limited four-track outages for specific construction activities.
- Temporary construction-period navigation restrictions due to construction of the bridge, including a limited number of full channel closures for specific construction activities.
- Temporary, construction-period impacts to the areas immediately surrounding the Walk Bridge site, including noise and vibration, air quality, traffic impacts, water quality, pedestrian and bicycle trails (Norwalk River Valley Trail and Norwalk Harbor Loop Trail).
- Temporary, construction-period impacts to local roadways, including restrictions and closures, and parking areas.
- Eight full-parcel acquisitions; 12 full- and partial-parcel temporary easements; and three partial-parcel permanent easements for the construction and operation of the bridge.
- Permanent loss of an existing water-dependent use (marina) in East Norwalk; temporary, construction-period relocation of the Sheffield Ferry and Maritime Aquarium vessel operations.
- Temporary impact to the Maritime Aquarium's outdoor animal exhibits; permanent impact to the Aquarium's IMAX Theatre.
- Indirect temporary impacts to approximately 2,400 square feet (sf) of vegetated tidal wetlands; permanent impacts to approximately 2,500 sf of vegetated tidal wetlands.
- Permanent impacts to approximately 600 sf freshwater wetlands.
- Temporary impacts to approximately 230,000 sf of 100-year floodplain; permanent impacts to approximately 19,500 sf of 100-year floodplain.
- Temporary impacts to terrestrial species due to loss of herbaceous coverage; minor permanent impacts to terrestrial species due to loss of narrow upland habitat patch.
- Temporary impacts to approximately 7,700 sf of intertidal habitat and 8,400 sf of subtidal habitat; conversion of approximately 300 sf of intertidal habitat to subtidal habitat; permanent impacts to approximately 900 sf of intertidal habitat and approximately 26,600 sf of subtidal habitat.
- Temporary disruption of foraging habitat potentially used by endangered species.
- Permanent impacts (improvements) to City parks due to the creation and/or restoration of wetlands along the Norwalk River.
- Loss of National Register of Historic Places-listed Walk Bridge and Fort Point Street Bridge; loss of historic stone abutment retaining walls, high towers, and catenary support structures, which are deemed to be contributing elements to a linear historic district.
- Permanent change in visual setting due to the removal of the existing Walk Bridge, high towers, stone retaining walls, and related historic infrastructure, and the construction of the lift span bridge.

The replacement of Walk Bridge will be a sustainable project; it will contribute to the long-term cultural, economic, and environmental health and vitality of the community and the NEC. Constructing a replacement bridge over an active waterway in a densely developed urban area, while continuing to maintain train service on the NEC, will result in unavoidable adverse community impacts during project construction. These impacts are unavoidable regardless of the selected Build alternative. As the Preferred Alternative, CTDOT has selected a replacement bridge that have the shortest construction duration and therefore will minimize impacts to intercity and intracity rail users and maritime traffic to the greatest extent practicable. Further, CTDOT has incorporated mitigation measures into the project to avoid, minimize, rectify, reduce, or compensate for potentially significant adverse environmental impacts. CTDOT will use

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FTA's Project Management Plan to track mitigation plans and permit conditions, as developed in final design, to which CTDOT has committed, working in coordination with the City of Norwalk, the local community, and regulatory agencies.

All practicable means to avoid or minimize environmental impacts have been adopted. Where impacts cannot be avoided, mitigation measures identified in the EA/EIE and supplemented in the responses to comments and agency coordination are incorporated into this Record of Decision. These mitigation measures and commitments are provided in Appendix B. Appendix B-1 contains a Summary Table of Mitigation Measures and Commitments. Appendix B-2 contains the Memorandum of Agreement among CTDOT, FTA, and the Connecticut State Historic Preservation Officer (CTSHPO), pursuant to Section 106 of the National Historic Preservation Act.

Coordination with the City of Norwalk, local stakeholders, and state and federal resource agencies, including CTDEEP, CTSHPO, the U.S. Army Corps of Engineers, the U.S. Coast Guard, U.S. Fish and Wildlife Service, and the National Marine Fisheries Service, among others, will continue throughout the duration of the project to ensure that all project commitments and regulatory requirements are met, including obtaining permits and approvals. Required federal and state permits and approvals are identified in Table ES-5 of Appendix A-1, the EA/EIE Executive Summary. Based upon these impact avoidance and mitigation measures and agency commitments, the Proposed Action will not incur significant environmental, cultural, or social impacts.

### **III. Summary of Consultation with Agencies and Other Persons**

Agency coordination and public involvement for the Walk Bridge Replacement Project EA/EIE were conducted in accordance with the National Environmental Policy Act (NEPA) and the Connecticut Environmental Policy Act (CEPA). Agency coordination and public involvement occurred during the public scoping process for the EA/EIE, during the preparation of the EA/EIE, and during and after the EA/EIE public review period.

Per CEPA requirements, a scoping notice for the Proposed Action was placed in Connecticut Council on Environmental Quality (CEQ) *Environmental Monitor* on February 3, 2015. A public comment period was held from February 3, 2015 through March 10, 2015. A Public Scoping Meeting was held at Norwalk City Hall, 125 East Avenue, Norwalk, CT, on February 24, 2015. An Agency Scoping Meeting was held at CTDOT Headquarters, 2800 Berlin Turnpike, Newington, CT, on March 5, 2015.

Verbal comments were provided at the scoping meeting and written comments were received from agencies during the comment period. The following state agencies provided written comments: Connecticut Department of Public Health, CTDEEP, and Connecticut Office of Policy and Management. Additionally, CTDOT corresponded with federal and state agencies for regulatory reviews of project area resources and potential project impacts.

A copy of the *Environmental Monitor* Public Scoping Notice, agency comments received during the scoping period, and responses from regulatory review agencies are provided as Appendix C.

Preparation of the Walk Bridge Replacement Project EA/EIE involved coordination with Federal and State agencies, the City of Norwalk, and other key stakeholders. A description of public involvement and agency coordination through the publication of the EA/EIE (August 2016) is provided in the EA/EIE (Chapter 8) and summarized in the Executive Summary (Appendix A-1).

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The following is a list of public involvement activities and stakeholder meetings conducted during the preparation of the EA/EIE:

<b>EA/EIE Preparation Public Involvement/Stakeholder Meeting</b>	<b>Date</b>
CEPA Public Scoping Session	February 24, 2015
First Design Charrette with Local Historic Stakeholders	August 13, 2015
Stakeholder Meeting for the Maritime Aquarium	October 13, 2015
Norwalk Seaport Association Meeting	November 18, 2015
Stakeholder Meeting for the Maritime Aquarium	November 19, 2015
Public Outreach Meeting	November 20, 2015
Project Partnering Workshop	December 2-3, 2015
Walk Bridge Stakeholders Meeting	February 8, 2016
Second Design Charrette with Local Historic Stakeholders	February 24, 2016
Rowers' Meeting	March 23, 2016
Upstream Businesses Coordination Meeting	May 3, 2016
Public Information Meeting	May 11, 2016
Project Partnering Workshop	June 23, 2016
Meeting with Legislators/City of Norwalk	July 14, 2106
Project Open House	August 16, 2016

A Notice of Availability for the Walk Bridge Replacement Project EA/EIE was published in the *Environmental Monitor* and made available to the public on September 6, 2016. Additionally, the Notice was published in *The Norwalk Hour* on September 6 and September 14, 2016; in *El Sol News* (a weekly publication) on September 9, 2016 and October 7, 2016; and in *The Haitian Voice* online ([www.haitianvoice.com](http://www.haitianvoice.com)) starting on September 11, 2016. The EA/EIE was available for public review at the following locations:

- The Connecticut Department of Transportation Bureau of Policy and Planning (Room 2155), 2800 Berlin Turnpike, Newington, CT;
- Norwalk City Hall, Town Clerk Office, 125 East Avenue, Norwalk, CT;
- Norwalk Public Library, 1 Belden Avenue, Norwalk, CT;
- East Norwalk Association Library, 51 Van Zant Street, Norwalk, CT;
- South Norwalk Branch Library, 10 Washington Street, Norwalk, CT; and
- Western Connecticut Council of Governments, 888 Washington Boulevard, Stamford, CT.

The EA/EIE was made available online via the project website and the CTDOT website:

- [www.walkbridgect.com/environmental](http://www.walkbridgect.com/environmental)
- [www.ct.gov/environmentaldocuments](http://www.ct.gov/environmentaldocuments)

Additionally, a link to the project website was forwarded to federal, state, and local agencies and interested parties, and to Cooperating and Participating Agencies.

The public review period, initially scheduled from September 6, 2016 through October 21, 2016, with a public hearing date of October 6, 2016, was extended through December 9, 2016, with a public hearing

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date of November 17, 2016. CTDOT extended the public comment period and rescheduled the public hearing date at the request of the City of Norwalk to allow additional time for the City and stakeholders to review the EA/EIE. In accordance with CEPA, CTDOT issued subsequent Notices in the *Environmental Monitor* on October 5, 2016 and November 28, 2016 to advise of a revision in the date of the public hearing and extension of the public review period. Additionally, revised legal notices were published in *The Norwalk Hour* (on October 5, 11, 18, 2016; November 15, 2016; and December 2 and 5, 2016); in *El Sol News* (on October 14, 2016); and in *The Haitian Voice* (a monthly publication) in October 2016 and online (from October 27, 2016 through November 17, 2016).

Copies of the EA/EIE *Environmental Monitor* Notices, newspaper notices and affidavits, and public depository notices are provided as Appendix D.

A public hearing was held at Norwalk City Hall (Concert Hall), 125 East Avenue, Norwalk, CT, on November 17, 2016. An open forum was held at 6:00 pm, followed by a brief presentation at 7:00 pm, and a public response period, from approximately 7:30 pm until 9:45 pm.

Written comments on the EA/EIE were received from seven state and local elected officials, five federal agencies, three state agencies, 13 municipal agencies and/or departments, 15 non-governmental organizations, 27 individuals, and 12 businesses. Additionally, 21 individuals, consisting of elected officials, City employees, organization and business representatives, and the public, provided testimony at the public hearing. In sum, CTDOT identified 593 individual comments received on the EA/EIE.

Appendix E contains the written and oral comments received on the Walk Bridge Replacement Project EA/EIE, including the Public Hearing testimony, with annotations. Substantive comments from the written comments and the public hearing transcript are side-barred with alpha-numeric comment identification numbers.

Many of the comments received on the EA/EIE addressed common themes. Of the total number of comments, over 100 comments addressed potential construction-period impacts, including potential socio-economic, transportation and traffic, air quality, and noise and vibration impacts. Approximately 80 comments were related to alternatives that were not further evaluated in the EA/EIE, including rehabilitation of the existing bridge and a fixed-bridge alternative. Over 80 comments addressed visual impacts and/or historic mitigation associated with the loss of the existing bridge. Slightly less than 80 comments focused on navigation, marine transportation, and/or existing and future water-dependent uses. Other frequent comments addressed water quality and aquatic resources, property acquisition, and the NEPA/CEPA process.

CTDOT responded to all substantive written and oral comments received on the EA/EIE and incorporated them into this Record of Decision. Responses to comments are provided in Appendix F. Appendices F-1 through F-5 are comprehensive responses, provided in the form of Issue Papers, which address five frequently-made comments that were received during the public review period. The Issue Papers consist of detailed information on topics in the EA/EIE that have been further explained to include background data and additional information, with references to specific EA/EIE chapters and sections as appropriate. These Issue Papers include:

- Appendix F-1.           Rehabilitation Alternative
- Appendix F-2.           Fixed Bridge Alternative
- Appendix F-3.           Early-Action NHL Projects with Independent Utility
- Appendix F-4.           Coordinating Construction with Osborne and East Avenue Projects

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Appendix F-5. Construction Period Coordination Plans

A Commenter Index is provided as Appendix F-6 and tables of responses to individual comments are provided in Appendix F-7.

Following the public hearing on November 17, 2016, CTDOT conducted additional public involvement activities. CTDOT held a public information meeting on December 5, 2016 at the Maritime Aquarium IMAX Theater, 10 North Water Street, Norwalk. The purpose of the meeting was to provide attendees with additional information on how design alternatives for the replacement of the Walk Bridge were narrowed down and the criteria used to shape the selection of appropriate structure types that were evaluated in the EA/EIE. An open forum was held at 6:00 pm, followed by a presentation at 6:30 pm, and a question and answer period. The public information meeting was advertised at the November 17, 2016 public hearing and through the project website. CTDOT conducted meetings with the City of Norwalk and other key stakeholders to review EA/EIE comments, held from December 2016 through March 2017. In May 2017, CTDOT conducted a third Charrette with local historic stakeholders to review the mitigation measures for the Memorandum of Agreement (MOA), as a follow-up to the two previously-held design Charrettes.

The following is a list of public and stakeholder meetings and activities conducted after the November 17, 2016 public hearing for review of the EA/EIE:

<b>EA/EIE Review Public Involvement/Stakeholder Meeting</b>	<b>Date</b>
Public Information Meeting	December 5, 2016
Norwalk Economic Development Department	December 20, 2016
Norwalk Redevelopment Agency	December 20, 2016
Norwalk Harbor Management Commission	December 20, 2016
Norwalk Planning and Zoning Department	January 6, 2017
Norwalk Department of Public Works	January 6, 2017
Maritime Aquarium at Norwalk	January 9, 2017
Norwalk Historical Commission	January 9, 2017
Norwalk Arts Commission	January 9, 2017
Norwalk Common Council	January 19, 2017
Spinnaker Real Estate Partners, Inc.	January 26, 2017
Mayor's Bike/Walk Task Force	January 30, 2017
Norwalk River Valley Trail Committee	January 30, 2017
Norwalk Upstream Businesses	January 30, 2017
Norwalk Parking Authority	March 6, 2017
Norwalk Third Taxing District	March 6, 2017
Third Charrette with Local Historic Stakeholders	May 10, 2017

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**Appendix A: Walk Bridge Replacement Project Environmental  
Assessment/Section 4(f) Evaluation and Environmental Impact  
Evaluation, Executive Summary and Errata to the EA/EIE**

**Appendix A-1 Executive Summary**

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## Executive Summary

### ES-1 Introduction

The Federal Transit Administration (FTA) and the Connecticut Department of Transportation (CTDOT) are preparing a combined Environmental Assessment (EA), Section 4(f) Evaluation, and Environmental Impact Evaluation (EIE) to evaluate proposed improvements to the New Haven Line railroad bridge over the Norwalk River (the Walk Bridge – Bridge No. 04288R) in Norwalk, Connecticut. Figure ES-1 shows the location of the Walk Bridge and approximate project limits.

This document has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), Title 42 of the United States Code (USC) Section 4321 et seq.; the Connecticut Environmental Policy Act (CEPA), Sections 22a-1a through 22a-1h of the Connecticut General Statutes (CGS); the joint Federal Highway Administration/FTA Environmental Impact and Related Procedures, 23 Code of Federal Regulations (CFR) 771; and Section 22a-1a-1 through 22a-1a-12 of the Regulations of Connecticut State Agencies (RCSA). This document also complies with the requirements of Title 49 USC Section 303 (referred to as Section 4(f) of the U.S. Department of Transportation Act of 1966), and other federal and state directives, policies, and regulations.

### ES-2 Background

Walk Bridge is a four-span swing bridge that spans 564 feet over the Norwalk River, a navigable waterway used for both recreational and commercial marine traffic. Walk Bridge was built in 1896 by the Pennsylvania Steel Company's Bridge and Construction Department as part of the four-tracking and elevation of the New Haven Line. Walk Bridge carries four tracks of the New Haven Line (NHL) of Metro-North Railroad commuter service. The NHL is one of three main lines of Metro-North, which had a total of 85.2 million riders in 2014, the highest in the railroad's history. The NHL also is used for intercity and high-speed passenger service by the National Railroad Passenger Corporation (Amtrak) on the Northeast Corridor (NEC), and for freight service by the Providence & Worcester Railroad. The NHL's right-of-way and physical infrastructure within Connecticut, including Walk Bridge, are owned by the State of Connecticut and maintained by CTDOT.

The deteriorating condition of Walk Bridge has been extensively documented over the years.<sup>1</sup> A detailed fatigue analysis was completed in 2005, and it indicated that major portions of the bridge have exceeded their fatigue life and require replacement. Cumulative fatigue damage (damage due to repetitive train loadings) of the main load carrying elements of the bridge has occurred. The electrical systems are generally obsolete. Existing and projected deterioration and wear of mechanical systems are key elements which affect the reliability of the bridge. CTDOT performs maintenance and repairs on a regular basis; however, without action to rehabilitate or replace the bridge, failures are expected to increase.

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<sup>1</sup> Documentation of the deteriorating condition of Walk Bridge includes the Transportation Strategy Board, "Strategic Framework for Investing in Connecticut's Transportation Infrastructure: Economic Growth – Infrastructure Preservation – Sustainable Communities," January 2011; CTDOT, Accelerated Bridge Construction Study, March 2014 (draft).

### ES-3 Project Purpose and Need

CTDOT and FTA have determined that the project purpose and need is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service; offer operational flexibility and ease of maintenance; and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/ Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Upgrades to the Walk Bridge, through rehabilitation or replacement, are needed to increase bridge reliability, incorporate bridge redundancy, and provide a sustainable bridge for significant weather events, thereby accommodating current and future rail and marine traffic.

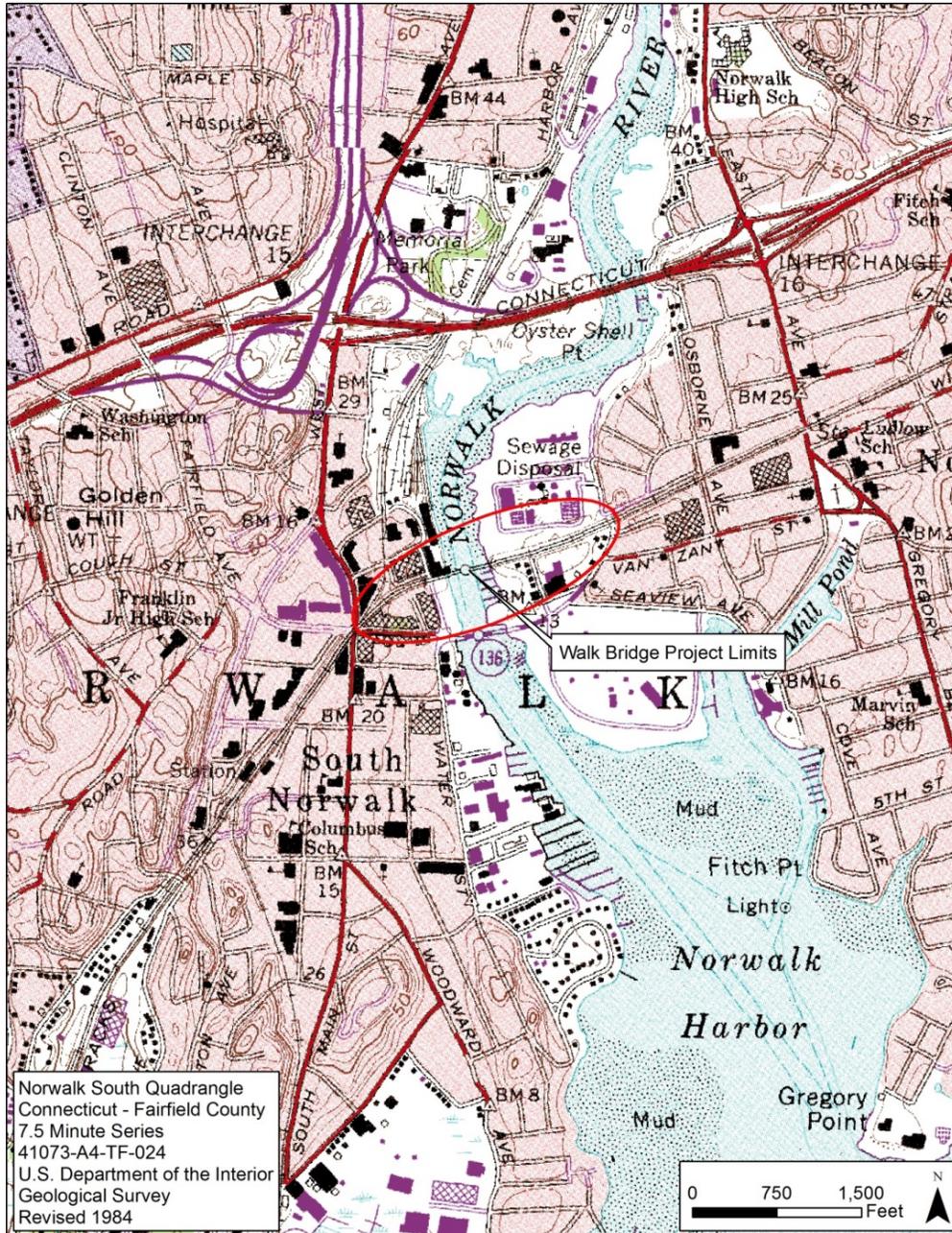


Figure ES-1—Project Location

## ES-4 Project Alternatives Considered

CTDOT's design strategy for the Walk Bridge Replacement Project focused upon meeting the project purpose and need: providing a resilient bridge structure to enhance the safety and reliability of rail service, offering operational flexibility and ease of maintenance, and providing for increased capacity and efficiencies of rail transportation, while maintaining or improving navigational capacity. An important overall design objective was therefore predicated upon providing *system resiliency* and *operational redundancy*, as mandated by FTA in its funding appropriation.

### Alternatives Development and Screening

CTDOT identified a range of alternatives and grouped them into four general categories:

1. **No Build (No Action) Alternative:** continuing the existing operations and maintenance of the historic swing (movable) bridge;
2. **Rehabilitation Alternative:** rehabilitating the existing bridge to extend its useful life by 100 years, a timeframe comparable to the useful life of a new bridge;
3. **Replacement Alternative – Movable Bridge:** constructing a new movable bridge, of either the bascule type or vertical lift type, on the same general alignment, and demolishing the existing bridge; and
4. **Replacement Alternative – Fixed Bridge:** constructing a new fixed (non-movable) bridge on the same or a different general alignment and demolishing the existing bridge.

The parameters considered in the development and evaluation of alternatives and design options included:

- Horizontal and vertical navigation clearances
- Track spacing for center tracks
- Span length
- Counterweight locations
- Pier locations
- Mechanical systems
- Electrical systems
- Bridge aesthetics, including historic considerations
- Environmental considerations
- Resiliency
- Redundancy
- Constructability
- Rail, marine, and local impacts during construction
- Cost, including initial costs and life cycle costs

More than 70 different design variations within the four groups of alternatives were initially investigated to identify representative options that consider these parameters and meet the project purpose and need. CTDOT identified and developed concepts to replace the existing Walk Bridge with dual, double-track movable spans in accordance with the design objectives for resiliency and redundancy. For a bascule movable bridge, design options included deck girder, through girder and through truss bascule bridges of both the trunnion and rolling lift genre.<sup>2</sup> For a vertical lift movable bridge, design options included deck girder, through girder, or through truss vertical lift bridges with span-drive or tower-drive lift span operating systems.<sup>3</sup>

CTDOT held multiple meetings with public agencies and project stakeholders, including the U.S. Army Corps of Engineers (USACE), the U.S. Coast Guard (USCG), the City of Norwalk, Metro-North,

<sup>2</sup> See Chapter 11, Acronyms and Glossary of Terms, for descriptions.

<sup>3</sup> Ibid.

property owners, and waterway users to ascertain concerns and requirements for the replacement bridge design and to obtain public and agency input. CTDOT also held a public scoping meeting on February 24, 2015, an agency scoping meeting on March 5, 2015, and a public information meeting on May 11, 2016. With input from those meetings, CTDOT concluded that the evaluation of alternatives would focus on replacement of the bridge and would include consideration of a bascule movable bridge type, a through truss vertical lift movable bridge type; as well as a fixed bridge (non-movable) type with three design options of varied vertical clearances over the Norwalk River: a low-level, a mid-level, and a high-level bridge.

### **Alternatives Not Advanced for Further Evaluation**

Of the four alternative groups which were evaluated, the No Build Alternative, the Rehabilitation Alternative, and the Replacement Alternative – Fixed Bridge (all options) were dismissed from further evaluation for a number of reasons: they would not meet the project purpose and need; they would be inferior to other alternatives in meeting project purpose and need; they would result in higher initial or long-term costs; or they would have a higher potential for adverse environmental impact.

While it would not meet the project purpose and need, the No Build Alternative is carried forward in the EA/EIE as a baseline condition for comparison purposes; it represents the transportation conditions if no actions other than normal maintenance of the bridge were conducted.

### **Alternatives Retained for Further Evaluation**

In addition to the No Build Alternative, CTDOT retained and advanced a Build Alternative for further evaluation in this EA/EIE: the Replacement Alternative – Movable Bridge. Two types of replacement movable bridges were considered for the Build Alternative: a rolling lift bascule bridge was advanced, and a through truss vertical lift bridge was advanced. A variation of the vertical lift bridge type with a longer span also was advanced.

#### ***No Build Alternative***

In the No Build Alternative, CTDOT would retain the existing bridge and provide for normal maintenance activities during the life of the bridge. The No Build Alternative would not extend the useful life of the existing bridge. There would not be any major rehabilitation or replacement of structural elements, foundation elements, mechanical components, or electrical systems. The existing high towers would be retained and undergo normal maintenance. There would be no changes to the existing track configuration in South Norwalk and East Norwalk.

#### ***Build Alternative: Replacement Alternative – Movable Bridge***

CTDOT has determined that Replacement Alternative – Movable Bridge is the Build Alternative. Three options of the Build Alternative are presented in the EA/EIE: Bascule Bridge (Option 4S), short span Vertical Lift Bridge (Option 8A), and long span Vertical Lift Bridge (Option 11C). These options are representative of the bascule and vertical lift bridge types as a balance of user needs, engineering, environmental, cost, and constructability needs and constraints. As design progresses on a bridge type, design refinements such as modifying final span lengths and other dimensional attributes are possible.

## ES-5 Build Alternative

### ES-5.1 Bascule Bridge Option (Option 4S)

The Bascule Bridge option (as shown in Figure ES-2 and Figure ES-3) would provide two side by side single-leaf rolling lift bascule spans across the Norwalk River, each with separate mechanical and electrical equipment and controls so that each span can work independently of the other, or in unison with the other. It would provide a vertical clearance of approximately 27 feet above mean high water (MHW) when the movable span is in the closed position, and a vertical clearance of at least 60 feet when the movable span is in the opened position, as shown in the elevation view of the Bascule Bridge, Figure ES-4. When closed, the vertical clearance of the Bascule Bridge is increased by approximately 11 feet over the existing vertical clearance of 16 feet due to the design of the structure. However, the top of rail elevations on the new bridge would be approximately the same as the top of rail elevations on the existing bridge. A horizontal clearance of at least 120 feet would be provided for navigation, and the alignment of the navigation channel under the new bridge with the alignment of the navigation channel under the Stroffolino Bridge would be improved.



**Figure ES-2—Rendering of Bascule Bridge in the Closed Position (Option 4S)**

The rolling bascule spans would be comprised of 170-foot movable truss spans with overhead counterweights. As the span moves, the structure would be supported by curved segmental girders that are connected to the bascule span and the counterweight. As the span rotates during movements, it would also translate, or roll, horizontally, with the movements guided by the curved segmental girder. The overhead counterweights would be configured to permit the counterweights to pass to the outside of the adjacent fixed approach spans. The drive machinery, electrical components, and controls for operating the span would be located above track level, improving the resiliency of the systems by offering protection from high water events.



Figure ES-3—Rendering of Bascule Bridge in the Open Position (Option 4S)

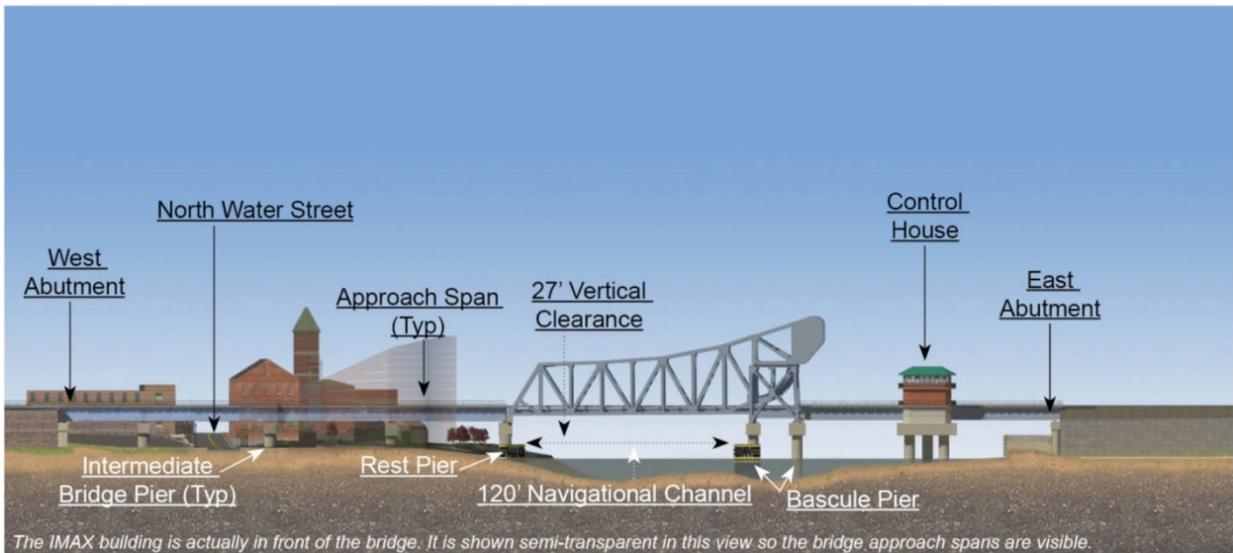


Figure ES-4—Elevation View of the Bascule Bridge (Option 4S)

The new movable spans would each carry two tracks: Tracks 1 and 3 on the northern span and Tracks 2 and 4 on the southern span. The tracks would be on a non-parallel alignment with adequate spacing between the two center tracks (Tracks 1 and 2) to accommodate structural and mechanical clearances. With this non-parallel alignment, the total width of the two bridge structures would vary from approximately 50 feet at the western abutment to 95 feet at the eastern abutment. The movable spans would be flanked by four spans on the western side and two spans on the eastern side. These approach spans would be fixed spans and would not move. Including the approach spans, the total length of Walk Bridge would be approximately 650 feet from bridge abutment to bridge abutment.

The Bascule Bridge would be supported by new abutments at each end and by six intermediate bridge piers, including the bascule pier and the bascule rest pier. The foundations for the bascule piers, rest pier, and intermediate pier supporting the control house would all be located in the Norwalk River and would be comprised of drilled shafts installed into bedrock with a cap beam connecting the drilled shafts. The construction of the piers in the river would be contained using sheet pile marine enclosures or oversized pipe enclosures. The western bridge abutment would be located approximately 100 feet further west than the existing abutment to avoid construction conflicts with the existing abutment, high tower foundations, and retaining walls. Although not the intent of the abutment relocation, this action would result in a more open environment on the west side of North Water Street under the bridge. A new control house would be located on the southern end of the intermediate pier.

The bascule pier would consist of two adjacent, open piers that support the rolling bascule span structural elements. Drilled shafts with cap beams would make up the bascule pier foundations. The open nature of the substructure would promote hydraulic flow through the limits of the bridge.

A new fender system would be constructed approximately 10 feet from the new bascule and rest piers to protect them, providing at least 120 feet of horizontal clearance in the navigation channel. The fenders would be supported by concrete or steel piles. Navigational lighting in accordance with USCG standards would be installed.

The probable construction cost of the Bascule Bridge (Option 4S) is estimated to range between \$330 and \$365 million in year 2020 dollars, which is the anticipated mid-point of construction. Life cycle costs, equalized to present worth of 100 year life, are estimated to range between \$3.4 and \$3.9 million per year.

### **ES-5.2 Vertical Lift Bridge Option (Option 8A – Short Span)**

The short span Vertical Lift Bridge option (Figure ES-5 and Figure ES-6) would provide two side by side vertical lift spans across the Norwalk River, each with separate mechanical and electrical equipment and controls so that each span can work independently of the other, or in unison with the other. A span-drive Vertical Lift Bridge with a 170-foot open-deck through-truss lift span would provide a minimum of 120 feet of horizontal navigational clearance and 60 feet of vertical clearance when the span is fully raised. There would be two separate lift spans, one through-truss for Tracks 1 and 3 and one through-truss for Tracks 2 and 4, providing system redundancy. The tracks would be on a parallel alignment across the Norwalk River, resulting in the two movable spans being parallel with one another. Track spacing between Tracks 1 and 2 would be 25 feet to allow for structural and mechanical clearance between the lift spans. The alignment of Tracks 1 and 3 would remain close to the current alignment, while the alignment of Tracks 2 and 4 would be shifted to the south to accommodate the increase in center track spacing. The total width of the bridge would be approximately 70 feet. As shown in Figure ES-7, the lift span would provide approximately 27 feet of vertical clearance in the closed position, which would be approximately 11 feet more than the vertical clearance of the existing swing span. To achieve 60 feet of vertical clearance at MHW, the lift span would be raised 35 feet above the profile of the existing bridge. The bridge tower heights would be determined during final design and would range between approximately 100 and 150 feet above the top of the support piers (the taller tower heights are shown).

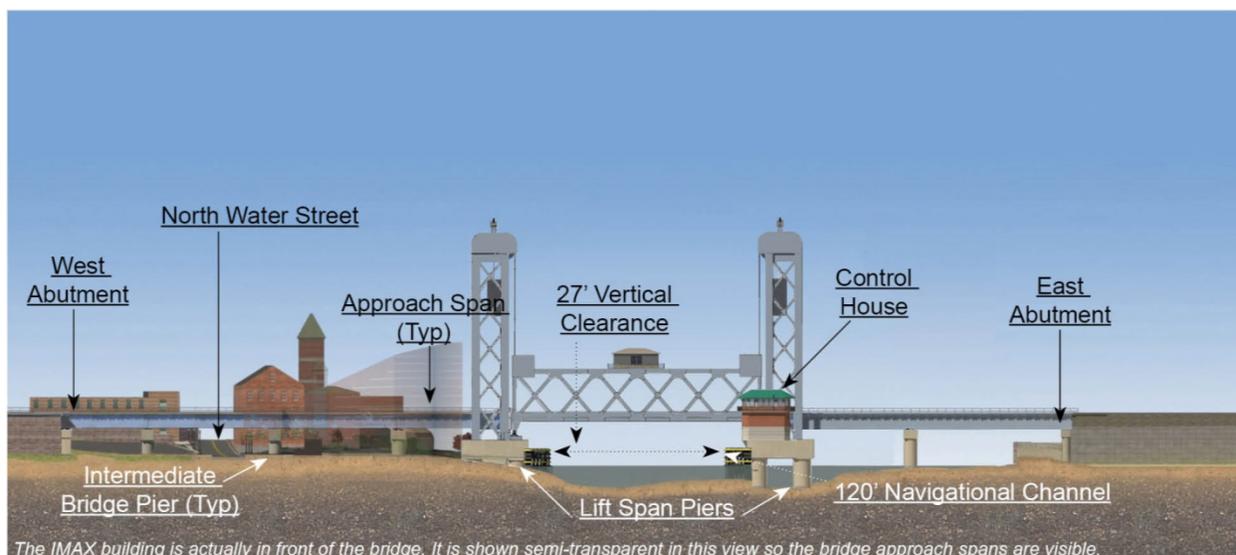
The movable spans would be flanked by four spans on the western side and two spans on the eastern side. These approach spans would be fixed spans and would not move. Including the approach spans, the total length of Walk Bridge would be approximately 690 feet from bridge abutment to bridge abutment.



**Figure ES-5—Rendering of the Short Span Vertical Lift Bridge in the Closed Position (Option 8A)**



**Figure ES-6—Rendering of the Short Span Vertical Lift Bridge in the Open Position (Option 8A)**



**Figure ES-7—Elevation View of the Short Span Vertical Lift Bridge (Option 8A)**

The bridge would be supported by new abutments at each end and by six intermediate bridge piers, including the vertical lift bridge piers. The foundations for the vertical lift span piers and one intermediate pier would all be located in the Norwalk River and would be comprised of drilled shafts installed into bedrock, with a cap beam connecting the drilled shafts. The construction of the piers in the river would be contained using sheet pile marine enclosures or oversized pipe enclosures. The western bridge abutment would be located approximately 100 feet further west than the existing abutment to avoid construction conflicts with the existing abutment, high tower foundations, and retaining walls. Although not the intent of the abutment relocation, this action would result in a more open environment on the west side of North Water Street under the bridge. A new control house would be located on the southern end of the east vertical lift span pier.

A new fender system would be constructed approximately 10 feet from the new vertical lift span piers to protect them, providing at least 120 feet of horizontal clearance in the navigation channel. The fenders would be supported by concrete or steel piles. Navigational lighting in accordance with USCG standards would be installed.

The initial program cost of the short span Vertical Lift Bridge (Option 8A) is estimated to range between \$380 and \$415 million in year 2020 dollars, which is the anticipated mid-point of construction. Life cycle costs, equalized to present worth of 100 year life, are estimated to range between \$3.4 and \$3.9 million per year.

### **ES-5.3 Vertical Lift Bridge Option (Option 11C - Long Span)**

Like the short span vertical lift bridge option, the long span Vertical Lift Bridge option (Figure ES-8 and Figure ES-9) would provide two side-by-side vertical lift spans across the Norwalk River, each with separate mechanical and electrical equipment and controls so that each span can work independently of the other, or in unison with the other. A vertical lift bridge with a 240-foot open-deck through-truss lift span would provide a minimum of 200 feet of horizontal navigational clearance and 60 feet of vertical clearance when the span is fully raised. There would be two separate lift spans, one through-truss for Tracks 1 and 3 and one through-truss for Tracks 2 and 4, providing system redundancy. The tracks would be on a parallel alignment across the Norwalk River, resulting in the two movable spans being parallel with one another. Track spacing between Tracks 1 and 2 would be 25 feet to allow for structural and

mechanical clearance between the lift spans. The alignment of Tracks 1 and 3 would remain close to the current alignment, while the alignment of Tracks 2 and 4 would be shifted to the south to accommodate the increase in center track spacing. The total width of the bridge would be approximately 70 feet. As shown in Figure ES-10, the lift span would provide approximately 27 feet of vertical clearance in the closed position, which would be approximately 11 feet more than the vertical clearance of the existing swing span. To achieve 60 feet of vertical clearance at mean high water, the lift span would be raised 35 feet above the profile of the existing bridge. Like the short span vertical lift bridge, Option 11C's bridge tower heights would be determined during final design and would range between approximately 100 and 150 feet above the top of the support piers (the taller tower heights are shown).



**Figure ES-8—Rendering of the Long Span Vertical Lift Bridge in the Closed Position (Option 11C)**

The movable spans would be flanked by four spans on the western side and one span on the eastern side. These approach spans would be fixed spans and would not move. Including the approach spans, the total length of Walk Bridge would be approximately 690 feet from bridge abutment to bridge abutment.

The differences between the short span (Option 8A) and long span (Option 11C) options lie in the pier placement and span length between the east and west bridge abutments of Walk Bridge. In Option 11C, the bridge would be supported by new abutments at each end and by five intermediate bridge piers, including the vertical lift bridge piers. The eastern pier in Option 11C would be located further east than the eastern pier for the short span vertical lift bridge (Option 8A), thus increasing the span length and the horizontal clearance between the vertical lift bridge piers. Both piers supporting the vertical lift span towers would be placed outside of the limits of the existing swing span, with no new foundation construction occurring in either the west or east navigation channels, as currently defined by the existing swing span. The foundations for the vertical lift span piers would be located in the Norwalk River and would be comprised of drilled shafts installed into bedrock, with a cap beam connecting the drilled shafts. The construction of the piers in the river would be contained using sheet pile marine enclosures or oversized pipe enclosures. The western bridge abutment would be located approximately 100 feet further west than the existing abutment to avoid construction conflicts with the existing abutment, high tower foundations, and retaining walls. Although not the intent of the abutment relocation, this action would

result in a more open environment on the west side of North Water Street under the bridge. A new control house would be located on the southern end of the east vertical lift span pier.



Figure ES-9—Rendering of the Long Span Vertical Lift Bridge in the Open Position (Option 11C)

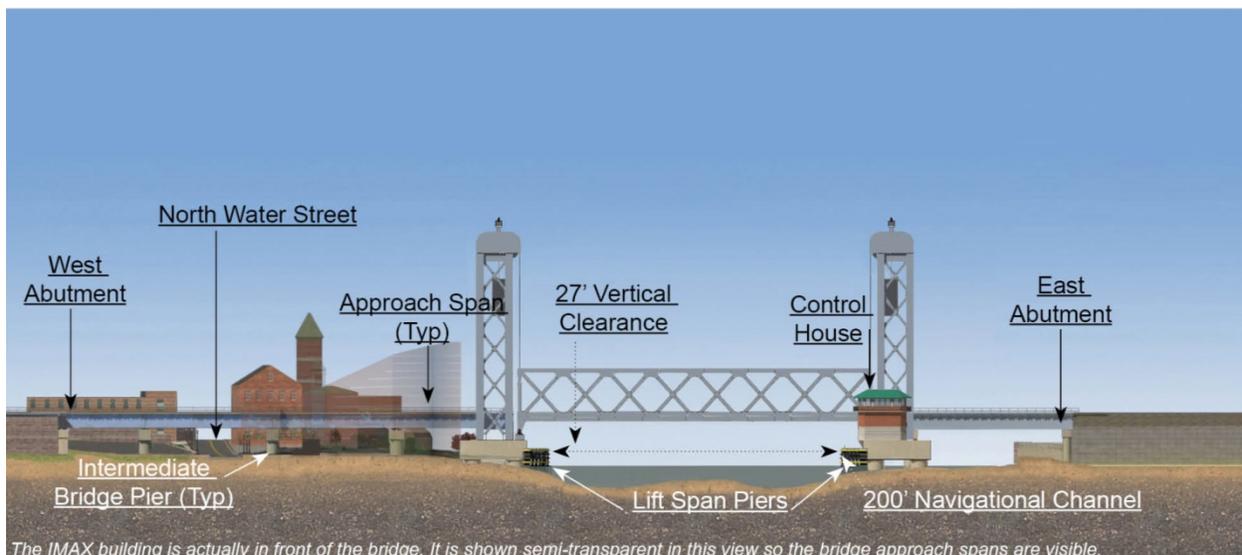


Figure ES-10—Elevation View of the Long Span Vertical Lift Bridge (Option 11C)

A new fender system would be constructed approximately 10 feet from the new vertical lift span piers to protect them, providing at least 200 feet of horizontal clearance in the navigation channel. The fenders would be supported by concrete, steel, or composite material piles. Navigational lighting in accordance with USCG standards would be installed.

The probable construction cost of the long span Vertical Lift Bridge (Option 11C) is estimated to range between \$425 and \$460 million in year 2020 dollars, which is the anticipated mid-point of construction.

Life cycle costs, equalized to present worth of 100 year life, were estimated to range between \$3.7 and \$4.2 million per year.

#### **ES-5.4 Other Build Alternative Components**

The Build Alternative will include other project improvements, which would be applicable to the Bascule Bridge (Option 4S) and the two Vertical Lift Bridge options (Option 8A and Option 11C).

##### ***Track, Catenary, and Signal Work***

Track, catenary, and signal work will be performed in addition to the work to replace Walk Bridge. All approach track, catenary and signal work for the project will be accomplished within the existing state right-of-way (ROW). Track work will include replacing about one-half-mile of tracks and ballast, from approximately the Washington Street Bridge in South Norwalk to approximately 300 feet east of the Fort Point Street Bridge in East Norwalk. Overhead catenary and supports also will be replaced within the limits of the project.

##### ***Existing Bridge Removal – Pedestrian/Bicycle Connection***

The existing Walk Bridge and fender system will be dismantled and removed. This will include removal of the foundations and fender supports in the river to a depth to be determined in consultation with USACE and USCG. The existing western bridge abutment will be removed in its entirety, while the eastern abutment will be retained and partially lowered so that the remaining portions of the abutment can be used as a retaining wall to support an extension of the pedestrian/bicycle trail north of the bridge to areas south of the bridge.

##### ***Fort Point Street Bridge Replacement***

The railroad bridge over Fort Point Street will be replaced as part of the project. The Fort Point Street Bridge abutments may be constructed in the same general location as the existing bridge abutments, or may be pulled back to accommodate a wider Fort Point Street below. CTDOT will continue to work with the City of Norwalk as design progresses to determine the abutment locations and span length of this bridge.

##### ***Removal of High Towers***

The project will require the removal of the two existing high towers which carry Eversource Energy high voltage power and Metro-North Railroad communications over the Norwalk River. These towers do not meet current structural design standards and conflict with the replacement bridge and associated track alignments. Several options for replacement of the high tower functions are under consideration from engineering, cost, environmental, and historical perspectives. Metro-North communication functions will potentially be carried on the bridge and then under the Norwalk River. Eversource Energy will be responsible for relocating its lines and the associated environmental evaluations and permits. CTDOT will be responsible for removing the existing high towers as part of the Walk Bridge Replacement Project.

##### ***Dredging for a Wider Navigation Channel***

Because the existing bridge's support piers will be removed, including the swing span's pivot pier and rest piers, and protective fenders, the Build Alternative will provide for a wider navigational opening. Portions of the Norwalk River under the bridge that are not maintained as part of the federal navigation channel will be dredged to match the federal channel depth of ten feet and tie into the existing 125-foot

navigation channel that exists upstream of the bridge. Approximately 4,100 cubic yards (cy) of sediment would be dredged in the Bascule Bridge (Option 4S) and short span Vertical Lift Bridge (Option 8A), and approximately 4,900 cy of sediment would be dredged in the long span Vertical Lift Bridge (Option 11C). Channel dredging will be conducted using a hydraulic clamshell bucket during the approved in-water work months, typically November through January where containment is not required.

## ES-6 Preferred Alternative

CTDOT considered the project purpose and need, engineering, constructability, potential impacts to rail and navigation traffic, estimated costs, and potential environmental impacts of the alternatives and options. With public input, CTDOT has determined that the Build Alternative, specifically the Replacement Alternative – Movable Bridge, Long Span Vertical Lift Bridge (Option 11C), is the preferred alternative. The Build Alternative is the only alternative that satisfies purpose and need. Each of the three design options for the Build Alternative would have similar environmental impacts. However, construction requirements and the associated impact to rail and navigation traffic, as well as the costs of the three design options, would be different.

The existing bridge, in whole or in part, is expected to remain in service throughout a significant portion of the construction duration. Maintaining the integrity of the existing bridge, in particular the foundations, is imperative to minimizing disruptions to rail and navigation traffic. Therefore, bridge replacement options requiring activities that limit proximity exposure of the existing bridge during construction are viewed favorably. For example, designs with foundations located in close proximity to the existing supports, specifically the pivot pier, exhibit more risk than other designs. Option 11C is the only alternative for which all foundations are located beyond the limits of the existing swing span.

Superstructure erection for all options will require a two-track outage. However, the amount of substructure work that can be completed without service disruptions (from a four-track operation to a two-track operation) would vary among the Build Alternative options. The design concept that allows for conducting the largest portion of substructure work in advance of an outage, along with the shortest period of superstructure construction, is expected to require the shortest overall construction duration. The shortest construction duration generally corresponds with the least disruptions to rail, maritime, and other users. Option 11C offers the greatest opportunity for maximum substructure construction prior to imposing a two-track outage, thereby minimizing the remaining duration of construction once the outage takes effect.

Designs that present fewer challenges during scheduled outages will have less risk of extending those outages and prolonging the disruptions to commuters and waterway users. The east movable span foundations for Option 4S and Option 8A would be located in the existing east navigation channel. Equipment access for float-in installation of the new lift spans is, therefore, obstructed by the existing pivot pier and limited to the west channel unless the pier is removed in advance of the span installation, indicating that additional temporary support is required for the tracks remaining in service. Option 4S also exhibits a highly asymmetric and unbalanced lift span configuration, further complicating a float-in installation. Symmetry and balance are favorable characteristics of Option 8A and Option 11C. Additionally, access to both channels would mitigate the pivot pier obstruction, presenting a potential advantage for Option 11C over Option 8A.

Work in the river is inherently riskier than work that is not in the water. For Option 11C, the elimination of the eastern intermediate approach span pier and the location of the east lift span tower foundation closer to shore, outside the navigation channel, and in shallower water (compared to Option 4S and Option 8A) introduce clear advantages regarding risks associated with in-water construction.

Option 11C exhibits navigation advantages over Option 4S and Option 8A by not blocking the east channel and thereby delaying immobilization of the swing span. Construction equipment can be operated on one side of the existing pivot pier while maintaining safe vessel transit through the bridge on the opposite side. Since the swing span would be operational until it is removed, over-height vessels could pass through the bridge, albeit on a restricted schedule that balances construction efficiency with the reasonable needs of safe, efficient navigation. Based on the configuration of the new movable spans and the associated track alignment, Option 11C does not require the use of a temporary runaround alignment during construction.

Option 8A introduces a vertical navigation restriction prior to completion of the lift span towers due to locking down the swing span for partial demolition or replacement with a non-movable temporary span. Option 4S requires removal of the existing bridge in the east channel to install the bascule pier foundations, thereby imposing a vertical restriction with temporary spans for drilled shaft installation, which is earlier in the construction sequence than Option 8A.

Figure ES-11 illustrates the estimated construction durations for each of the three design options. At approximately 40 months, the long span Vertical Lift Bridge (Option 11C) would require the shortest overall time from the start of Walk Bridge construction to restoration of four-track service and full operation capability for marine traffic. This compares to 44 months for the short span Vertical Lift Bridge (Option 8A) and 47 months for the Bascule Bridge (Option 4S). Figure ES-11 shows that more construction activities can be undertaken while the existing swing span is operational with Option 11C, thereby reducing the vertical navigation restrictions during construction by up to 14 months compared to the other two options. A two-track rail operation with Option 11C would be four months shorter than Option 8A and seven months shorter than Option 4S, thus minimizing the duration of rail restrictions during construction. Construction of Option 11C would result in less disruption to rail service and navigational traffic during construction.

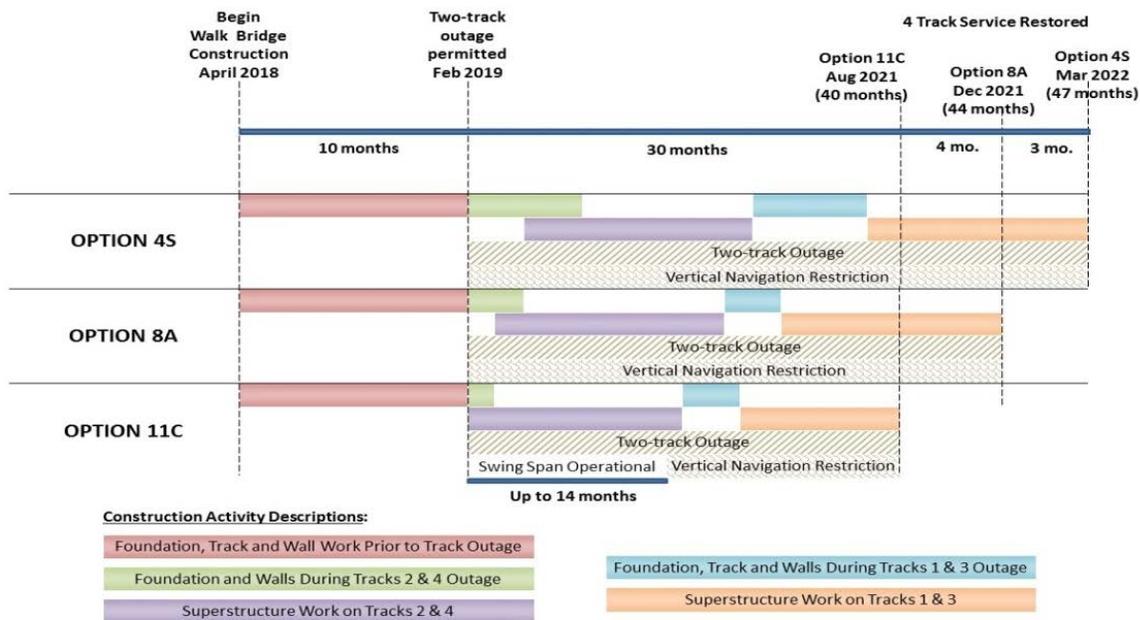


Figure ES-11—Construction Schedule - Comparison of Bridge Options

Temporary track outages, temporary channel restrictions or closures, and temporary street detours will potentially affect businesses in the area of construction as well as water-dependent businesses upstream from Walk Bridge. Option 11C would minimize this temporary disruption by minimizing the duration of construction activities, restrictions, or closures. As a result, Option 11C corresponds with the least social and economic risks and impacts to the city of Norwalk and the larger region.

The anticipated environmental impacts of the three design options are comparable. All options would require that the historic Walk Bridge and high towers be demolished. Fort Point Street Bridge also would be replaced in all options. In general, all other environmental impacts would be similar. The Bascule Bridge option (Option 4S) would require a wider bridge and project footprint on the east side of the Norwalk River than would the two Vertical Lift Bridge options. The footprint impacts of the three options to natural resources would be comparable; however, the impacts of the Bascule Bridge option to tidal wetlands, freshwater wetlands and subtidal habitat would be slightly higher than the footprint impacts of the Vertical Lift Bridge options. When the impacts associated with a temporary runaround alignment are considered, some impacts are further increased. In all cases, the long span Vertical Lift Bridge Option (Option 11C) would have the same or slightly less impact to natural resources than the short span Vertical Lift Bridge Option (Option 8A).

The existing high towers present prominent vertical elements at the site and they contribute to the overall historic character of the project area. As previously noted, these latticed high towers must be removed. A potential advantage of the Vertical Lift Bridge options (Options 8A and 11C) is that these options would reintroduce a prominent vertical element to the site and would offer flexibility, as the design advances, to retain this vertical element and continue to contribute to the character of the project area.

The estimated costs of Option 11C are higher than the other two design options. At an estimated construction cost between \$365 million and \$415 million, Option 11C would cost about 12 percent more than Option 8A (\$325 million - \$375 million) and about 10 percent more than Option 4S (\$330 million - \$380 million). Life cycle costs also are highest for Option 11C at between \$3.7 million and \$4.2 million per year. This compares to annual life cycle costs ranging from \$3.4 million to \$3.9 million for Option 4S and \$3.4 million to \$3.9 million for Option 8A. CTDOT has determined that the benefits of Option 11C - shorter construction duration, reduced disruption to rail traffic along the NEC and navigation traffic on the Norwalk River, and less environmental impacts - outweigh the additional costs of Option 11C.

## ES-7 Project Benefits

The replacement of Walk Bridge with a new resilient bridge structure will provide substantial long-term functional benefits to rail transportation along the NHL and the NEC, as well as to marine transportation in Norwalk Harbor. The project is consistent with the long-term policies and goals of multiple regional and state documents, including: the Long Range Transportation Plan (LRTP) for the South Western Region; the *Connecticut State Rail Plan: 2012 – 2016*; and *TransformCT*, the State's most recent strategic planning program for improving Connecticut's transportation infrastructure. Walk Bridge is listed on both the South Western Region 2015-2018 Transportation Improvement Program (TIP) and the 2015-2018 Connecticut Statewide TIP as a federally- and state-funded project proposed for construction in 2017 and 2018.<sup>4,5</sup> Replacement or repair of Walk Bridge is cited as a critical investment needed on the NEC by the Northeast Corridor Infrastructure and Advisory Commission (NEC Commission). Maintaining the viability of infrastructure in Norwalk Harbor to promote marine-based development is a goal of the Norwalk Harbor Management Commission and the State's Maritime Commission.

<sup>4</sup> SWRMPO, South Western Region 2015-2018 Transportation Improvement Program (TIP), Region 1, FA Code 5337, Project Number 0301-0040, AQCd X6, Route/System NHL-ML (pages 1/6 and 2/6), 3/17/16. Appendix 3 includes the TIP pages identifying Walk Bridge.

<sup>5</sup> CTDOT, 2015 Statewide Transportation Improvement Program (STIP), Region 1, FA Code 5337, Project Number 0301-0040, AQCd X6, Route/System NHL-ML (page 1). Appendix 3 includes the STIP page identifying Walk Bridge.

Table ES-1 presents a summary of the benefits of the Build Alternative relative to addressing the project needs, or deficiencies of the existing bridge. These benefits would be realized in all of the Build Alternative options.

**Table ES-1 - Summary of Operational Benefits of the Walk Bridge Replacement Project**

Existing Deficiencies/ Project Needs	Project Benefits
Structure age and deterioration	The project will fully replace the existing bridge with a new structure with an estimated 100-year life span.
Decreasing reliability	The project will replace all mechanical and electrical components, providing for a reliable bridge structure.
Lack of resiliency	<p>The project will substantially improve the bridge’s resistance to severe weather events. The replacement bridge will be located above the required elevation for critical actions (mechanical systems). Key structural elements of the replacement bridge will withstand inundation levels of a Category 3 and Category 4 hurricane, in comparison to the existing bridge’s ability to withstand inundation levels of a Category 1 and Category 2 hurricane. The replacement bridge will allow storms to flow through the bridge without inundating or impacting the bridge’s main span, including beams, deck, ballast, and rails. In all category storm events, storms will not impact critical mechanical and electrical elements in the control house or machine room.</p>
Safety standards	<p>The project will be designed to current design standards. The existing bridge does not meet current design standards which reflect improved safety aspects compared to when the bridge was originally designed and built. Minimum requirements (loading, safety margins, etc.) for the design of railroad bridges have evolved throughout the twentieth century to reflect increases in demands on the infrastructure and advances in materials, methods, and technology.</p> <p>The project will incorporate a number of safety and security measures, including a CCTV system, exterior lighting located along the bridge structure, and navigation lighting to meet USCG requirements. The CCTV system will provide for increased security relative to operations (bridge, navigation channel, and boat traffic) and surveillance (pedestrian and vehicular activity, control house and exit and entrance points, and anchorage and pier points).</p>
Lack of redundancy	The project will provide operational redundancy through the construction of two independent bridge spans, each with separate mechanical and electrical equipment and controls, which will minimize the potential for rail operation disruptions.
Limited operational flexibility	The project will maximize operational flexibility through construction of two independent bridge spans. Dual mechanical and electrical systems will be provided for each movable span, so that if the selected main drive system is inoperable, the alternative system can be used.
Difficulty of maintenance	The project will facilitate ease of regular maintenance, including in-water maintenance, by allowing for a closure of one span while the second span remains available for rail traffic operations.

Existing Deficiencies/ Project Needs	Project Benefits
Reduced rail capacity and efficiency	The project will correct existing deficiencies which directly impact Metro-North and Amtrak daily train service, particularly on-time performance (OTP). Combined with the CTDOT's planned improvements to the New Haven Line, the project will increase rail efficiencies, contribute to Metro-North's and Amtrak's passenger ridership and OTP goals, and accommodate Providence and Worcester Railroad Company's freight service needs, including weight standards.
Reduced dependability and capacity for marine traffic	The project's increased vertical clearance will reduce the frequency of bridge openings, which will benefit commercial and recreational marine users. The additional horizontal clearance will facilitate easier barge and tow operations. The required dredging will enhance the federal navigation channel by straightening the alignment between Walk Bridge and the Stroffolino Bridge and improving the navigability of the river between and through the two bridges.
Lack of sustainability	The project will incorporate sustainable materials to provide protection from accelerated corrosion due to condensation, cold weather conditions, and the marine environment. Project elements will be located to facilitate access and ease of maintenance.

### ES-8 Summary of Project Construction

Construction of the Build Alternative is expected to occur over approximately three and one-half to four years, depending upon the Build option. The construction period for the project with a short span Vertical Lift Bridge may take several months less time than construction with a Bascule Bridge, and construction of a long span Vertical Lift Bridge is expected to take several fewer months than the short span.

The project will involve typical bridge and railroad construction activities, including work in and over water. Activities will include: construction of retaining walls along railroad; dredging within the waterway; bridge construction, including drilling foundation shafts, installing and removing sheeting and coffer dams, and erecting structural elements; demolition of existing bridge and support structures; installation of electrical and mechanical equipment; construction of control house; replacement of existing railroad track, signal systems and overhead contact (catenary) system (OCS) in South Norwalk and East Norwalk in proximity to the bridge; and contractor required staging, including installation of in-water trestle work platforms and the use of barges during construction. Initial and ongoing activities through the duration of the project will include implementation of mitigation measures and installation and maintenance of erosion and sedimentation controls.

Construction of the project will occur in multiple stages over the construction period with the objective of accommodating both railroad and marine traffic to the greatest extent possible. In all three Build Alternative options, relocation of the Eversource Energy wires will occur before bridge construction commences. Metro-North wires will be transferred to an underground duct bank and submarine cable early in construction. Construction sequencing and staging of the Build options is conceptual at this preliminary level of design, and will be refined as design progresses in future phases of project development.

Modifying the temporary trestles, backfilling earth excavations and behind retaining walls and abutments, installing drilled shaft foundation, pier caps and high tower (if used) foundations, and modifying OCS will occur as needed at various times during construction.

### ES-8.1 Construction Sequencing with the Bascule Bridge (Option 4S)

The Bascule Bridge option could be constructed using a temporary run-around structure or it could be constructed “online.” A run-around consists of a temporary two-track bridge structure placed on an alignment north of Walk Bridge. Once the run-around becomes functional, train operations shift from the existing bridge to the runaround; replacement of Walk Bridge then proceeds while rail service is accommodated on the run-around. The run-around is removed once rail service on the replacement bridge is fully operational.

Construction of the Bascule Bridge option would generally proceed in the following sequence with the use of a temporary run-around structure:

- Implement mitigation measures;
- Build temporary trestles and temporary gravel access platform on the west bank under the bridge;
- Build retaining walls on the east side;
- Build run-around structure (if used) and switch rail traffic to Tracks 1 and 3 on runaround structure and close Tracks 2 and 4;
- Float out existing swing span;
- Demolish existing piers and fenders within sheet pile marine enclosures;
- Build retaining wall on west side;
- Build new approach spans;
- Demolish existing high towers;
- Install new control house;
- Float in new south bascule span and complete control house, counterweight, mechanical, and OCS systems for both spans;
- Finish track and OCS for Tracks 2 and 4 and open them to rail traffic;
- Float in new north bascule span;
- Finish work on north bascule if needed; install Tracks 1 and 3 and OCS and open them to rail traffic;
- Remove any remaining trestles;
- Complete on-site mitigation measures; and
- Stabilize construction sites following removal of all construction-related equipment.

Construction sequencing would be similar under the “online” construction approach, which does not build run-around tracks. Instead of using temporary run-around tracks, rail traffic would operate on the existing northern tracks (Tracks 1 and 3) while the southern portion of the bridge and approaches are first demolished, and the new bridge and tracks are then built (Tracks 2 and 4). Once the southern side is finished and Tracks 2 and 4 are operational, rail traffic is shifted to these new tracks from Tracks 1 and 3, and the northern portion of the bridge and approaches is first demolished, and new Tracks 1 and 3 and approaches are then built.

### ES-8.2 Construction Sequencing with the Vertical Lift Bridge Short Span Option (Option 8A)

Construction of the short span Vertical Lift option would generally proceed in the following sequence:

- Implement mitigation measures;
- Build temporary trestles and temporary gravel access platform on the west bank under the bridge;
- Relocate existing control house;
- Build east retaining wall on the south side;
- Close Tracks 2 and 4;

- Remove existing approach spans for Tracks 2 and 4;
- Partially remove existing swing span;
- Demolish existing high towers;
- Erect lift span towers on south side;
- Build south approach spans;
- Build west retaining wall on south side;
- Build new approach spans;
- Float in new south lift span, counterweight, mechanical, and OCS systems, and testing;
- Install new control house;
- demolish pivot pier;
- Finish track and OCS for Tracks 2 and 4 and open them to rail traffic;
- Remove approach spans on north side;
- Build west retaining wall on north side;
- Build north approach spans;
- Erect towers on north side;
- Float in new north lift span; install counterweight, mechanical, OCS systems, and testing;
- Install Tracks 1 and 3 and OCS and open them to rail traffic;
- Remove any remaining trestles; and
- Stabilize construction sites following removal of all construction-related equipment.

### **ES-8.3 Construction Sequencing with the Vertical Lift Bridge Long Span Option (Option 11C)**

Construction of the long span Vertical Lift option would generally proceed in the following sequence:

- Implement mitigation measures;
- Build temporary trestles and temporary gravel access platform on the west bank under the bridge;
- Relocate existing control house;
- Build new lift span foundations;
- Demolish existing high towers;
- Build lift span piers;
- Remove Track 2 and 4 superstructure;
- Build west approach substructure and walls;
- Build east abutment and retaining walls;
- Place new Track 2 and 4 superstructure;
- Build west approach;
- Build east approach;
- Erect lift span towers on south side;
- Remove existing swing span;
- Demolish pivot pier;
- Float in new vertical lift span for Tracks 2 and 4; install counterweight, mechanical, OCS system, and testing;
- Open Tracks 2 and 4; Lift span operational;
- Remove existing fender system and piers;
- Remove Track 1 and 3 superstructure;
- Build west approach substructure and walls;
- Build east abutment;
- Place new Track 1 and 3 superstructure;

- Build west approach;
- Prepare east approach;
- Erect lift span towers on north side;
- Float in new vertical lift span for Tracks 1 and 3; install counterweight, mechanical, OCS system, and testing;
- Open Tracks 1 and 3; Lift span operational
- Open channel to navigation
- Remove any remaining trestles; and
- Stabilize construction sites following removal of all construction-related equipment.

## ES-9 Summary of Project Environmental Benefits

Table ES-2 summarizes the potential permanent benefits of the Walk Bridge Replacement Project. These permanent benefits will be realized with all three Build Alternative options. Where applicable to the environmental resource, temporary benefits of the project also are listed.

**Table ES-2 - Summary of Walk Bridge Replacement Project Environmental Benefits**

Environmental Resource	Project Benefit
Rail Transportation	The project will improve bridge operation and reliability, resulting in improved NHL operations.
Marine Transportation	The project will increase the bridge’s vertical clearance by approximately 16 feet. The project will increase the bridge’s horizontal clearance by at least 62 feet. The project will improve the navigational channel alignment and bridge reliability.
Pedestrian and Bicycle Facilities	The project will provide a new north-south pedestrian and bicycle connection to the Norwalk Harbor Loop Trail at the existing bridge’s eastern abutment, which will extend the Norwalk River Valley Trail (NRVT)/Harbor Loop Trail on the Norwalk River’s eastern shorefront.
Consistency with Planning	The project is consistent with local, regional, state plans of conservation and development; the regional and statewide Transportation Improvement Program (TIP), and regional, state, and multi-state transportation plans and policies.
Socioeconomics	The project will create construction period jobs, which are estimated in job-years and include direct on-site jobs, indirect jobs in supplier industries, and jobs that are induced in consumer goods and service industries as workers with direct and indirect jobs spend their incomes. Estimated job-years generated each year during project construction are: <ul style="list-style-type: none"> <li>• Option 4S: 1,100 - 1,200 job-years</li> <li>• Option 8A: 1,300 – 1,500 job-years</li> <li>• Option 11C: 1,600 – 1,700 job-years</li> </ul> The project will increase the reliability of rail service on the NEC and improve the reliability of the bridge for commercial navigation, resulting in long-term benefits to the local and regional economy.
Water Quality	The project will include new water quality protections. The land-based rail approach grades will be constructed on retained fill and sheet flow runoff will be directed to side slopes by the rail bed and ballast drainage system and away from the river. Drainage swales may be used in locations where drainage requires conveyance. Where applicable, the closed deck approach span sections of the bridge will include drainage methods to direct water away from the river.
Floodplains	The project will decrease hydraulic constraints and reduce upstream flooding due to the increased hydraulic opening. The project will increase the flood storage volume of the Norwalk River due to removal of the existing large granite pivot pier and rest piers.

Environmental Resource	Project Benefit
Consistency with CT Coastal Management Act	The project will enhance coastal resources and coastal uses, by improving conditions in the Norwalk River for commercial and recreational boaters and enhancing the federal navigation channel and Norwalk Harbor. The project will expand coastal recreation and coastal access by providing opportunities to link to the Norwalk Harbor Loop Trail on the east side of the Norwalk River.
Water Dependent Uses	The project will improve navigation along the Norwalk River and will benefit water-dependent uses, particularly upriver commercial marine users and vessels with restricted maneuverability.
Parklands, Public Recreation and Community Facilities	The project will provide a north-south connection with the Norwalk Harbor Loop Trail on the east side of the Norwalk River at the existing bridge's eastern abutment; it will provide opportunities for additional pedestrian/bicycle path extensions connections in East Norwalk; and it will contribute to the city's open space and water views.
Visual Resources	The project will improve the landscape of Norwalk River shore due to saltmarsh restoration.
Air Quality	The project will provide a resilient bridge that will not lead to diversion to other travel modes during bridge opening failures, such as automobiles or additional bus trips.
Safety and Security	The project will be designed to current design standards, including the minimum requirements for loading and safety margins. The project will improve safety and security measures at the bridge site.
Secondary and Cumulative Impacts	The project will provide regional secondary economic benefits on a temporary basis due to increased construction spending.
	The project will provide cumulative benefits on a permanent basis through improved NHL performance and reliability, improved marine conditions in Norwalk Harbor, and an expanded NRVN network in Norwalk.

## ES-10 Summary of Project Environmental Impacts

Table ES-3 summarizes potential permanent and temporary construction-related environmental impacts of the Build Alternative. Where applicable to the environmental resource, Table ES-3 distinguishes between construction-related and permanent impacts of the three Build Alternative options.

**Table ES-3 - Summary of Walk Bridge Replacement Project Impacts**

Environmental Resource	Potential Impacts		
	Bascule Bridge (Option 4S)	Vertical Lift Bridge (Option 8A-Short Span)	Vertical Lift Bridge (Option 11C-Long Span)
Rail Transportation	<b>Temporary two-track outage</b> would be needed for up to 37 months. Limited four-track outages would be required for specific construction activities and would be limited to several days per outage.	<b>Temporary two-track outage</b> would be needed for up to 34 months. Limited four-track outages would be required for specific construction activities and would be limited to several days per outage.	<b>Temporary two-track outage</b> would be needed for up to 30 months. Limited four-track outages would be required for specific construction activities and would be limited to several days per outage.
Marine Transportation	<b>Temporary navigation restrictions</b> would occur. Restrictions would occur at the start of the two-track outage. Vertical restrictions would occur for about 37 months without the temporary run-around and for about 40 months with the temporary run-around.	<b>Temporary navigation restrictions</b> would occur. Restrictions would occur at the start of the two-track outage. Vertical restrictions would occur for about 34 months. Horizontal restrictions and a limited number of full channel closures would be needed for	<b>Temporary navigation restrictions</b> would occur. The swing span would remain operational for up to 14 months after the start of the two-track outage. Vertical restrictions would occur for as few as 16 months. A limited number of full channel closures would be

Environmental Resource	Potential Impacts		
	Bascule Bridge (Option 4S)	Vertical Lift Bridge (Option 8A-Short Span)	Vertical Lift Bridge (Option 11C-Long Span)
	Horizontal restrictions and a limited number of full channel closures would be needed for specific construction activities and construction equipment.	specific construction activities and construction equipment.	needed for specific construction activities. The contractor would have more flexibility to work on either side of the river, allowing one channel to remain open for traffic, thereby limiting horizontal restrictions.
Traffic, Transit and Parking	<b>Temporary impacts</b> to local roadways would include full closure to public access of a portion of Goldstein Place; periodic partial lane closures and full street closures of North Water Street; and partial lane closures of Fort Point Street of about a month and occasional full street closures. Road closures may affect existing routing to parking facilities.	<b>Temporary impacts</b> to local roadways would include full closure to public access of a portion of Goldstein Place; periodic partial lane closures and full street closures of North Water Street; and partial lane closures of Fort Point Street of about a month and occasional full street closures. Road closures may affect existing routing to parking facilities.	<b>Temporary impacts</b> to local roadways would include full closure to public access of a portion of Goldstein Place; periodic partial lane closures and full street closures of North Water Street; and partial lane closures of Fort Point Street of about a month and occasional full street closures. Road closures may affect existing routing to parking facilities.
	<b>Temporary impacts</b> (including closure) of the Norwalk Parking Authority's (NPA's) North Water Street parking lot could occur due to a construction easement on the parcel.	<b>Temporary impacts</b> (including closure) of the Norwalk Parking Authority's (NPA's) North Water Street parking lot could occur due to a construction easement on the parcel.	<b>Temporary impacts</b> (including closure) of the Norwalk Parking Authority's (NPA's) North Water Street parking lot could occur due to a construction easement on the parcel.
	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>
Pedestrian and Bicycle Facilities	<b>Temporary disruptions</b> to pedestrian and bicycle circulation may occur due to easements on the east and west sides of the Norwalk River. <b>Temporary closure</b> of a portion of the NRVT could occur due to the construction easement at the NPA facility.	<b>Temporary disruptions</b> to pedestrian and bicycle circulation may occur due to easements on the east and west sides of the Norwalk River. <b>Temporary closure</b> of a portion of the NRVT could occur due to the construction easement at the NPA facility.	<b>Temporary disruptions</b> to pedestrian and bicycle circulation may occur due to easements on the east and west sides of the Norwalk River. <b>Temporary closure</b> of a portion of the NRVT could occur due to the construction easement at the NPA facility.
	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>
Land Use and Zoning	<b>No permanent impact</b> to the land use pattern or zoning would occur due to limited parcel-specific land use changes from parcel acquisitions and permanent easements.	<b>No permanent impact</b> to the land use pattern or zoning would occur due to limited parcel-specific land use changes from parcel acquisitions and permanent easements.	<b>No permanent impact</b> to the land use pattern or zoning would occur due to limited parcel-specific land use changes from parcel acquisitions and permanent easements.
Property Acquisitions, Displacement, and Relocation	<b>Temporary easements on 12 parcels</b> would be needed, consisting of 11 new easements and expansion of one existing easement. Displaced uses would include	<b>Temporary easements on 12 parcels</b> would be needed, consisting of 11 new easements and expansion of one existing easement. Displaced uses would include	<b>Temporary easements on 12 parcels</b> would be needed, consisting of 11 new easements and expansion of one existing easement. Displaced uses would include

Environmental Resource	Potential Impacts		
	Bascule Bridge (Option 4S)	Vertical Lift Bridge (Option 8A-Short Span)	Vertical Lift Bridge (Option 11C-Long Span)
	private and public parking in South Norwalk; some Maritime Aquarium facilities and operations; and a warehouse.	private and public parking in South Norwalk; some Maritime Aquarium facilities and operations; and a warehouse.	private and public parking in South Norwalk; some Maritime Aquarium facilities and operations; and a warehouse.
	<b>Nine parcel acquisitions</b> would be needed, displacing four businesses, including a water-dependent use, and up to six residences on three parcels.	<b>Nine parcel acquisitions</b> would be needed, displacing four businesses, including a water-dependent use, and up to six residences on three parcels.	<b>Nine parcel acquisitions</b> would be needed, displacing four businesses, including a water-dependent use, and up to six residences on three parcels.
	<b>Permanent easements on three parcels</b> (two properties) would be needed for access to and maintenance of the replacement bridge on both sides of the river.	<b>Permanent easements on three parcels</b> (two properties) would be needed for access to and maintenance of the replacement bridge on both sides of the river.	<b>Permanent easements on three parcels</b> (two properties) would be needed for access to and maintenance of the replacement bridge on both sides of the river.
Socioeconomics	<b>Temporary access impacts</b> would occur to land-based businesses proximate to Walk Bridge and water-based businesses upriver from Walk Bridge over an approximate 47-month construction period.	<b>Temporary access impacts</b> would occur to land-based businesses proximate to Walk Bridge and water-based businesses upriver from Walk Bridge over an approximate 44-month construction period.	<b>Temporary access impacts</b> would occur to land-based businesses proximate to Walk Bridge and water-based businesses upriver from Walk Bridge over an approximate 40-month construction period.
	<b>Temporary construction easements</b> would adversely impact public and private parking facilities and some facilities and operations of the Maritime Aquarium. Evaluations are ongoing.	<b>Temporary construction easements</b> would adversely impact public and private parking facilities and some facilities and operations of the Maritime Aquarium. Evaluations are ongoing.	<b>Temporary construction easements</b> would adversely impact public and private parking facilities and some facilities and operations of the Maritime Aquarium. Evaluations are ongoing.
	<b>Loss of property tax revenue</b> of approximately \$91,000 per year over the 4-year construction period would result from parcel acquisitions.	<b>Loss of property tax revenue</b> of approximately \$91,000 per year over the 4-year construction period would result from parcel acquisitions.	<b>Loss of property tax revenue</b> of approximately \$91,000 per year over the 4-year construction period would result from parcel acquisitions.
Water Quality	<b>Temporary impacts</b> would include sediment disturbance due to waterway work and soil exposure due to land-based work.	<b>Temporary impacts</b> would include sediment disturbance due to waterway work and soil exposure due to land-based work.	<b>Temporary impacts</b> would include sediment disturbance due to waterway work and soil exposure due to land-based work.
	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>
Tidal Wetlands	<b>Indirect temporary impacts</b> would occur to approximately 2,700 sf of vegetated tidal wetlands.	<b>Indirect temporary impacts</b> would occur to approximately 2,400 sf of vegetated tidal wetlands.	<b>Indirect temporary impacts</b> would occur to approximately 2,400 sf of vegetated tidal wetlands.
	<b>Permanent impacts</b> would occur to approximately 3,100 sf of vegetated tidal wetlands.	<b>Permanent Impacts</b> would occur to approximately 2,500 sf of vegetated tidal wetlands.	<b>Permanent Impacts</b> would occur to approximately 2,500 sf of vegetated tidal wetlands.
Freshwater Wetlands	<b>Permanent loss</b> of 600-sf wetland would occur.	<b>Permanent loss</b> of 600-sf wetland would occur.	<b>Permanent loss</b> of 600-sf wetland would occur.

Environmental Resource	Potential Impacts		
	Bascule Bridge (Option 4S)	Vertical Lift Bridge (Option 8A-Short Span)	Vertical Lift Bridge (Option 11C-Long Span)
Floodplains	<b>Temporary impacts</b> would occur to 230,000 feet of 100-year floodplain due primarily to construction staging and access to the railroad ROW.	<b>Temporary impacts</b> would occur to 230,000 feet of 100-year floodplain due primarily to construction staging and access to the railroad ROW.	<b>Temporary impacts</b> would occur to 230,000 feet of 100-year floodplain due primarily to construction staging and access to the railroad ROW.
	<b>Permanent impacts</b> would occur to approximately 15,000 sf of 100-year floodplain.	<b>Permanent impacts</b> would occur to approximately 19,500 sf of 100-year floodplain.	<b>Permanent impacts</b> would occur to approximately 19,500 sf of 100-year floodplain.
Terrestrial Resources, Species and Critical Habitats	<b>Temporary impacts</b> would occur to terrestrial species due to loss of herbaceous coverage.	<b>Temporary impacts</b> would occur to terrestrial species due to loss of herbaceous coverage.	<b>Temporary impacts</b> would occur to terrestrial species due to loss of herbaceous coverage.
	<b>Minor permanent impacts</b> would occur due to loss of narrow upland habitat patch.	<b>Minor permanent impacts</b> would occur due to loss of narrow upland habitat patch.	<b>Minor permanent impacts</b> would occur due to loss of narrow upland habitat patch.
Aquatic Resources, Species and Critical Habitats	<b>Temporary impacts</b> would occur to approximately 7,750 sf of intertidal habitat and 10,250 sf of subtidal habitat.	<b>Temporary impacts</b> would occur to approximately 7,700 sf of intertidal habitat and 8,400 sf subtidal habitat.	<b>Temporary impacts</b> would occur to approximately 7,700 sf of intertidal habitat and 8,400 sf subtidal habitat.
	<b>Conversion</b> of approximately 300 sf of intertidal habitat to subtidal habitat and increased depth of subtidal areas would occur due to dredging.	<b>Conversion</b> of approximately 300 sf of intertidal habitat to subtidal habitat and increased depth of subtidal areas would occur due to dredging.	<b>Conversion</b> of approximately 300 sf of intertidal habitat to subtidal habitat and increased depth of subtidal areas would occur due to dredging.
	<b>Permanent impacts</b> would occur to approximately 900 sf of intertidal habitat and 27,000 sf of subtidal habitat.	<b>Permanent impacts</b> would occur to approximately 900 sf of intertidal habitat and 26,800 sf of subtidal habitat.	<b>Permanent impacts</b> would occur to approximately 900 sf of intertidal habitat and 26,600 sf of subtidal habitat.
Endangered and Threatened Species	<b>Potential temporary disruption</b> of foraging activities would occur due to work in the water and vegetation clearing.	<b>Potential temporary disruption</b> of foraging activities would occur due to work in the water and vegetation clearing.	<b>Potential temporary disruption</b> of foraging activities would occur due to work in the water and vegetation clearing.
	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>
Consistency with CT Coastal Management Act	<b>Unavoidable temporary and permanent impacts</b> would occur to tidal wetlands, intertidal and subtidal habitat, coastal access, water-dependent uses, and historic resources.	<b>Unavoidable temporary and permanent impacts</b> would occur to tidal wetlands, intertidal and subtidal habitat, coastal access, water-dependent uses, and historic resources.	<b>Unavoidable temporary and permanent impacts</b> would occur to tidal wetlands, intertidal and subtidal habitat, coastal access, water-dependent uses, and historic resources.
Water-Dependent Uses	<b>Temporary impacts</b> would occur to upstream uses and uses in immediate proximity to the bridge due to navigation restrictions for about 37 to 40 months.	<b>Temporary impacts</b> would occur to upstream uses and uses in immediate proximity to the bridge due to navigation restrictions for about 34 months.	<b>Temporary impacts</b> would occur to upstream uses and uses in immediate proximity to the bridge due to navigation restrictions for about 16 months.
	<b>Temporary relocation</b> of the Sheffield Ferry and Maritime Aquarium vessel operations would be required.	<b>Temporary relocation</b> of the Sheffield Ferry and Maritime Aquarium vessel operations would be required.	<b>Temporary relocation</b> of the Sheffield Ferry and Maritime Aquarium vessel operations would be required.

Environmental Resource	Potential Impacts		
	Bascule Bridge (Option 4S)	Vertical Lift Bridge (Option 8A-Short Span)	Vertical Lift Bridge (Option 11C-Long Span)
	<b>Permanent impact</b> would occur through parcel acquisition of private marina.	<b>Permanent impact</b> would occur through parcel acquisition of private marina.	<b>Permanent impact</b> would occur through parcel acquisition of private marina.
Parklands, Public Recreation and Community Facilities	<b>Temporary impacts</b> would occur due to construction easements and would include the Wastewater Treatment Plant property, NRVF on both sides of the river, and some of the Maritime Aquarium’s facilities and operations. Evaluations are ongoing.	<b>Temporary impacts</b> would occur due to construction easements and would include the Wastewater Treatment Plant property, NRVF on both sides of the river, and some of the Maritime Aquarium’s facilities and operations. Evaluations are ongoing.	<b>Temporary impacts</b> would occur due to construction easements and would include the Wastewater Treatment Plant property, NRVF on both sides of the river, and some of the Maritime Aquarium’s facilities and operations. Evaluations are ongoing.
	<b>No permanent impacts</b> would occur on the east side of the river. <b>Potential impacts</b> on the west side of the river would involve a permanent relocation of the Aquarium’s emergency egress.	<b>No permanent impacts</b> would occur on the east side of the river. <b>Potential impacts</b> on the west side of the river would involve a permanent relocation of the Aquarium’s emergency egress.	<b>No permanent impacts</b> would occur on the east side of the river. <b>Potential impacts</b> on the west side of the river would involve a permanent relocation of the Aquarium’s emergency egress.
Visual Resources	<b>Temporary impacts</b> would occur due to construction staging, including use of temporary trestles and barges in the water, and the temporary run-around in the river on the north side of the bridge, if this option is employed.	<b>Temporary impacts</b> would occur due to construction staging, including use of temporary trestles and barges in the water.	<b>Temporary impacts</b> would occur due to construction staging, including use of temporary trestles and barges in the water.
	<b>Permanent altered visual setting</b> would occur due to loss of historic resources, and potential altered visual effect could occur due to new bridge in an historic setting.	<b>Permanent altered visual setting</b> would occur due to loss of historic resources, and potential altered visual effect could occur due to new bridge in an historic setting.	<b>Permanent altered visual setting</b> would occur due to loss of historic resources, and potential altered visual effect could occur due to new bridge in an historic setting.
Air Quality	<b>Temporary minor impacts</b> would occur from diesel equipment, fugitive dust.	<b>Temporary minor impacts</b> would occur from diesel equipment, fugitive dust.	<b>Temporary minor impacts</b> would occur from diesel equipment, fugitive dust.
	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>
Noise and Vibration	<b>Temporary impacts</b> would occur due to daytime and night-time noise proximate to the project site.	<b>Temporary impacts</b> would occur due to daytime and night-time noise proximate to the project site.	<b>Temporary impacts</b> would occur due to daytime and night-time noise proximate to the project site.
	<b>Potential temporary impacts of ground-borne vibration</b> would affect nearby buildings, including the Maritime Aquarium and historic structures that may not have the same physical resistance to vibration as modern buildings.	<b>Potential temporary impacts of ground-borne vibration</b> would affect nearby buildings, including the Maritime Aquarium and historic structures that may not have the same physical resistance to vibration as modern buildings.	<b>Potential temporary impacts of ground-borne vibration</b> would affect nearby buildings, including the Maritime Aquarium and historic structures that may not have the same physical resistance to vibration as modern buildings.

Environmental Resource	Potential Impacts		
	Bascule Bridge (Option 4S)	Vertical Lift Bridge (Option 8A-Short Span)	Vertical Lift Bridge (Option 11C-Long Span)
	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>	<b>No permanent impacts.</b>
Cultural Resources	<b>No adverse effect</b> would occur to historic buildings and settings due to temporary construction staging/access areas or permanent access areas, provided no physical damage occurs to the historic buildings.	<b>No adverse effect</b> would occur to historic buildings and settings due to temporary construction staging/access areas or permanent access areas, provided no physical damage occurs to the historic buildings.	<b>No adverse effect</b> would occur to historic buildings and settings due to temporary construction staging/access areas or permanent access areas, provided no physical damage occurs to the historic buildings.
	<b>Adverse effects</b> would occur due to demolition of National Register-listed Walk Bridge and Fort Point Street Bridge; and historic stone abutment retaining walls, high towers, and catenary support structures.	<b>Adverse effects</b> would occur due to demolition of National Register-listed Walk Bridge and Fort Point Street Bridge; and historic stone abutment retaining walls, high towers, and catenary support structures.	<b>Adverse effects</b> would occur due to demolition of National Register-listed Walk Bridge and Fort Point Street Bridge; and historic stone abutment retaining walls, high towers, and catenary support structures.
	<b>Potential archaeological sensitivity for pre-colonial/contact and historic periods</b> exists on many of the construction parcels, requiring subsurface testing and/or monitoring.	<b>Potential archaeological sensitivity for pre-colonial/contact and historic periods</b> exists on many of the construction parcels, requiring subsurface testing and/or monitoring.	<b>Potential archaeological sensitivity for pre-colonial/contact and historic periods</b> exists on many of the construction parcels, requiring subsurface testing and/or monitoring.
	<b>Potential underwater archaeological sensitivity</b> exists within the project footprint, requiring subsurface testing.	<b>Potential underwater archaeological sensitivity</b> exists within the project footprint, requiring subsurface testing.	<b>Potential underwater archaeological sensitivity</b> exists within the project footprint, requiring subsurface testing.
Hazardous and Contaminated Materials/ Environmental Risk Sites	<b>Potential exposure</b> to hazardous materials could occur due to removal of existing bridge structures, rail and ties, ballast, and soil.	<b>Potential exposure</b> to hazardous materials could occur due to removal of existing bridge structures, rail and ties, ballast, and soil.	<b>Potential exposure</b> to hazardous materials could occur due to removal of existing bridge structures, rail and ties, ballast, and soil.
	<b>Permanent impacts</b> would occur due to disposal of approximately 15,100 cy of dredged sediment.	<b>Permanent impacts</b> would occur due to disposal of approximately 16,700 cy of dredged sediment.	<b>Permanent impacts</b> would occur due to disposal of approximately 16,700 cy of dredged sediment.
Safety & Security	<b>No temporary or permanent impacts.</b>	<b>No temporary or permanent impacts.</b>	<b>No temporary or permanent impacts.</b>
Public Utilities and Service	<b>No temporary or permanent impacts.</b>	<b>No temporary or permanent impacts.</b>	<b>No temporary or permanent impacts.</b>
Title VI and Environmental Justice	<b>No disproportionate temporary or permanent impacts.</b>	<b>No disproportionate temporary or permanent impacts.</b>	<b>No disproportionate temporary or permanent impacts.</b>
Secondary and Cumulative Impacts	<b>Secondary impacts</b> would occur due to relocation of the Eversource power, currently on high towers abutting the existing bridge.	<b>Secondary impacts</b> would occur due to relocation of the Eversource power, currently on high towers abutting the existing bridge.	<b>Secondary impacts</b> would occur due to relocation of the Eversource power, currently on high towers abutting the existing bridge.
	<b>Cumulative impacts</b> would occur due to loss of a tangible	<b>Cumulative impacts</b> would occur due to loss of a tangible	<b>Cumulative impacts</b> would occur due to loss of a tangible

Environmental Resource	Potential Impacts		
	Bascule Bridge (Option 4S)	Vertical Lift Bridge (Option 8A-Short Span)	Vertical Lift Bridge (Option 11C-Long Span)
	example of historic movable bridge technology in Connecticut, and a bridge on the National Register-listed Movable Railroad Bridges on the Northeast Corridor in Connecticut Thematic Resource.	example of historic movable bridge technology in Connecticut, and a bridge on the National Register-listed Movable Railroad Bridges on the Northeast Corridor in Connecticut Thematic Resource.	example of historic movable bridge technology in Connecticut, and a bridge on the National Register-listed Movable Railroad Bridges on the Northeast Corridor in Connecticut Thematic Resource.

## ES-11 Summary of Mitigation and Commitments

Table ES-4 provides a summary of project mitigation and commitments of the project.

**Table ES-4 - Summary of Proposed Mitigation and CTDOT Commitments**

Environmental Resource	Mitigation and Commitments
Rail Transportation	CTDOT will maintain weekday passenger train service by keeping at least two tracks in service throughout nearly all of the construction period. CTDOT will schedule limited four-track outages required during construction time during an off-peak and/or weekend period, to the extent possible.
	CTDOT will complete planned independent NHL-improvement projects on the main line and Danbury Branch prior to implementing the long-term, two-track outages; these projects will facilitate considerable train movement flexibility on the NHL main line and minimize schedule adjustments associated with long-term two-track outages.
	CTDOT will minimize temporary impacts to rail traffic by coordinating the construction of the project with the East Avenue Railroad Bridge Project (Bridge No. 42.14) and the Osborne Avenue Railroad Bridge Project (Bridge No. 41.96).
	CTDOT will work with Metro-North, Amtrak, and freight service providers to ensure that train operations proceed in a manner that maintains service, facilitates passenger boarding and alighting at East Norwalk and South Norwalk Stations, and prioritizes the overall safety of the railroad corridor.
Marine Transportation	CTDOT will coordinate channel closures with the City of Norwalk, USCG, USACE, and waterway uses to the maximum extent possible.
	CTDOT will work with commercial and recreational marine users to develop mitigation strategies to address impacts to marine users during the project construction period, coordinating with USCG, USACE, the City of Norwalk, and the Norwalk Harbor Management Commission.
Traffic, Transit and Parking	CTDOT will maintain pedestrian and vehicular access to adjacent buildings and parking during periods of partial and full closures of streets during construction. However, if it becomes necessary to temporarily close the NPA’s North Water Street parking lot during construction, ample replacement parking is available nearby.
	CTDOT will coordinate with the City of Norwalk and local businesses in developing traffic detour and mitigation plans in the vicinity of the Fort Point Street Bridge in East Norwalk and North Water Street in South Norwalk.
Pedestrian and Bicycle Facilities	CTDOT will explore opportunities for bicycle connections in South Norwalk in cooperation with the City of Norwalk and stakeholders.

Environmental Resource	Mitigation and Commitments
Property Acquisition and Displacement	CTDOT will provide monetary and other relocation assistance to displaced property owners in accordance with the procedures outlined in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and Connecticut’s Uniform Relocation Assistance Act. Relocation assistance could include relocation services, moving payments, replacement housing payments, and other payments related to commercial and residential moving costs and displacement.
	CTDOT will manage the properties acquired for the project, including their sale or lease following completion of construction.
	CTDOT will work with affected property owners to provide replacement parking. There is adequate parking available to provide replacement parking, with City parking lots and other parking garages located in close proximity to affected property owners.
Socioeconomics	CTDOT will coordinate with the City of Norwalk and stakeholders to minimize adverse effects of the project construction upon local land-based and water-based businesses, including developing a business coordination plan.
Water Quality	CTDOT will employ Best Management Practices (BMPs) while conducting all work within the water to minimize releases of sediment to the water; measures could include cofferdams, sheet pile marine enclosures, or oversized pipe enclosures, or other containment measures such as turbidity curtains, sheeting, and geotextile encapsulation.
	CTDOT will prepare a site-specific Stormwater Pollution Prevention Plan (SWPPP), which will identify potential pollutant source areas and describe BMPs to be used for erosion and sedimentation control, temporary stormwater management, dust control, and site stabilization. All land-based activities will use erosion and sedimentation control BMPs to limit debris and runoff from entering the watercourse or offsite areas.
Tidal Wetlands	CTDOT will provide compensatory mitigation for temporary direct impacts to intertidal and subtidal habitats, and for indirect shading impacts to tidal vegetated wetlands, consisting of in-place restoration or enhancement of temporary impact areas, and restoration of tidal marsh areas that may be temporarily impacted from trestle platform shading.
	CTDOT will provide compensatory mitigation for permanent impacts to vegetated tidal wetlands through restoration/enhancement of wetlands along the Norwalk River dominated by invasive species.
Freshwater Wetlands	CTDOT will provide compensatory mitigation for the loss of a state-regulated freshwater wetland through restoration or replacement in-kind; out-of-kind wetland creation; invasive species removal; or any combination of these methods.
Floodplains	CTDOT will analyze both the temporary and permanent conditions to assess floodplain effects in compliance with Connecticut and FEMA floodplain management standards and criteria; if needed, CTDOT will take steps to mitigate effects.
Terrestrial Resources, Species, and Critical Habitats	CTDOT will implement BMPs, use construction phasing or sequencing, and comply with seasonal restrictions to avoid impacts to terrestrial resources and habitats.

Environmental Resource	Mitigation and Commitments
Aquatic Resources, Species and Critical Habitats	CTDOT will minimize impacts to finfish, shellfish, and other aquatic resources through the use of protective measures, including managing turbid water generated inside casing, sheet piles, or cofferdam containments; replacing contaminated native materials cut from the submarine conduits with clean material matching grain size of removed sediments; mechanically removing select existing bridge components; separating and removing sediment-laden water from containment areas; and avoiding construction blasting.
	CTDOT will provide compensatory mitigation for habitat displacement due to the construction phase temporary direct impacts to intertidal and subtidal habitats, and for indirect shading impacts to tidal vegetated wetlands, in coordination with the USACE and CTDEEP.
Endangered and Threatened Species	CTDOT will consult with USFWS, USACE, USEPA, NMFS, and CTDEEP during the permitting process to avoid and /or minimize impacts to endangered and threatened species.
	CTDOT will conduct vegetation clearing during the off-season for protected bird species and will monitor the area for the presence of protected bird species during construction.
	CTDOT will incorporate a construction period BMP into the construction specifications to address the potential presence of the state-listed Peregrine Falcon nesting within the project area.
Consistency with CT Coastal Management Act	CTDOT will incorporate mitigation measures for unavoidable impacts and refine the design to minimize impacts to be consistent with the CT Coastal Management Act’s policies for the protection of coastal resources and policies on development of those resources.
Water-Dependent Uses	CTDOT will explore mitigation opportunities for addressing temporary impacts to marina users, rowers, and other water-dependent users, working in coordination with the City of Norwalk, the Norwalk Harbor Management Commission, the Maritime Aquarium, the Norwalk Seaport Association, and local rowing groups, among others.
Parklands, Public Recreation, and Community Facilities	CTDOT will continue coordination with the City of Norwalk regarding the temporary use of City-owned property, including parks or trails, during construction.
Visual Resources	CTDOT will coordinate with CTSHPO, the City of Norwalk’s Design Review Committee, and other stakeholders as design of the bridge, abutments, and other elements advances.
Air Quality	CTDOT will consider implementing the following measures on a voluntary or mandatory basis during the construction period: reducing idling, properly maintaining equipment, using cleaner fuel, and retrofitting diesel engines with diesel-emission control devices.
Noise and Vibration	CTDOT will continue ongoing discussions with the Maritime Aquarium so that construction vibration will not affect the fish and mammals at the aquarium.
	CTDOT will coordinate the need for vibration mitigation measures with the National Marine Fisheries Service (NMFS), including addressing potential vibration impacts on fish living/migrating in the Norwalk River.

Environmental Resource	Mitigation and Commitments
	<p>CTDOT will investigate mitigation measures to prevent vibration damage to buildings in the area, and will consider the following mitigation measures during construction: locating temporary noise barriers between noise-sensitive receptors and noisy stationary equipment; locating stationary equipment as far from residential areas as possible; establishing dedicated truck routes to keep construction trucks from residential areas; scheduling noisy operations to be performed simultaneously, so that the slightly louder noise levels will be offset by less exposure to the public; and including appropriate noise control devices on construction equipment.</p> <p>CTDOT will keep the public informed of proposed construction schedules, noisy activities and nighttime work. CTDOT will work with adjacent properties and facilities to address construction noise and vibration, work hours, and possible mitigation.</p>
Cultural Resources	<p>CTDOT will sponsor design charrettes with historic stakeholders during project design to develop mitigation measures.</p> <p>CTDOT will coordinate with adjacent property owners of historic structures to establish protocols for conducting pre-construction and construction survey and monitoring activities, as required.</p> <p>CTDOT will conduct subsurface testing in areas with potential archaeological sensitivity and will develop mitigation measures for impacts to archaeological resources once the types and significance of archaeological resources are known and following further design.</p> <p>CTDOT and FTA will document agreed mitigation in a Memorandum of Agreement (MOA) among CTDOT, FTA, CTSHP, and local stakeholders, the draft of which is included in Appendix 1. Stipulations in the MOA regarding historic properties include the implementation of an Archaeological Treatment Plan that will account for project impacts to archaeological resources.</p>
Hazardous and Contaminated Materials/ Environmental Risk Sites	<p>CTDOT will conduct its due diligence relative to contaminated material investigations on the nine parcels to be acquired for the project. As a part of this, sampling of soil, sediment, groundwater and other media anticipated to be impacted by project construction will be completed during the design phase of the project.</p> <p>CTDOT will manage dredged sediments on-site and dispose of materials off-site at an approved location.</p> <p>CTDOT will survey and evaluate structures for asbestos containing material, lead-based paint, and potential polychlorinated biphenyl (PCB)-containing equipment prior to dismantling/demolishing the existing bridge, control tower, overhead catenary system (OCS), and high towers.</p> <p>CTDOT will locate any storage fuels, chemicals, and/or hazardous materials within contained, secure facilities at elevations above the 500-year floodplain.</p>
Safety and Security	<p>CTDOT will develop a site-specific Safety and Health Plan, in conformance with Occupational Safety and Health Administration (OSHA) regulations. The Plan will include protocols to be followed during project construction based on contamination detected during subsurface investigations conducted during the design phase of the project.</p> <p>CTDOT will require the contractor to develop an overall site safety plan addressing construction worker and site safety, site security, and public safety, including safety of adjacent properties.</p>

Environmental Resource	Mitigation and Commitments
Title VI and Environmental Justice	CTDOT will coordinate with the City of Norwalk to identify community organizations representing EJ communities and methods for outreach to EJ and LEP groups, which could include: translating communications materials in appropriate languages; advertising in multi-language publications; and conducting grassroots outreach by establishing partnerships in low-income neighborhoods, including community organizations, neighborhood groups, and small neighborhood businesses. CTDOT is developing an EJ and Title VI Outreach Plan to ensure that EJ and Title VI populations have equal access to information about the project, including the public comment period.
Secondary & Cumulative Impacts	CTDOT will coordinate with other non-rail infrastructure and construction projects in the vicinity of Walk Bridge to reduce public impacts.

### ES-12 Required Permits and Approvals

CTDOT will be responsible for applying for and obtaining federal and state agency approvals for the construction and operation of Walk Bridge. Throughout the preparation of the EA/EIE, CTDOT has conducted coordination efforts with federal, state, and local agencies to identify issues and concerns associated with the bridge replacement. CTDOT will apply to federal and state agencies for project permits and authorizations at the project’s 60 percent design phase.

Table ES-5 lists federal and state requirements for the construction and operation of Walk Bridge, consisting of project coordination, reviews, permits, and notices.

**Table ES-5 - Federal and State Requirements for the Walk Bridge Replacement Project**

Federal/State Regulation	Review/Approval/Permit
National Environmental Policy Act (42 USC 4321 et seq)	Review and Finding
Connecticut Environmental Policy Act (CGS Section 22a-1-22a-1h)	Record of Decision
Section 4(f), U.S. Department of Transportation Act (49 USC 303)	Individual Evaluation and Finding for potential use of Section 4(f) properties
Executive Order 11988, Floodplain Protection, as amended by Executive Order 13690, Federal Flood Risk Management	Review for impact to floodplain
Executive Order 11990, Wetlands Protection	Review for impact to wetlands
Executive Order 12898, Environmental Justice	Review for assessment of impact to EJ communities
Title VI Program/FTA Circular 4702.1B of October 1, 2012	Environmental Equity Review

<b>Federal/State Regulation</b>	<b>Review/Approval/Permit</b>
Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 (42 USC 4601 et seq); Uniform Relocation Assistance Act (CGS Section 8-266 et seq)	Review/relocation assistance
Clean Air Act (42 USC 7401 et seq)	Conformity Determination
Section 106, National Historic Preservation Act (36 CFR 800)	Memorandum of Agreement
Section 7, Endangered Species Act (16 USC 1531 et seq)	Biological Evaluation
Magnuson-Stevens Fishery Conservation and Management Act (16 USC 1801 et seq)	Essential Fish Habitat Assessment
Coastal Zone Management Act/Connecticut Coastal Management Act (16 USC 1451 et seq)	Consistency Review
Section 9 of the Rivers and Harbors Act (33 USC 491)	Permit for construction of new bridge
Section 10 of the Rivers and Harbors Act (33 USC 403)	Permit for dredging and filling in navigable waters/ impacts to waters and wetlands of the U.S.
Section 404 of the Clean Water Act (33 USC 1344)	
Section 14 of the Rivers and Harbors Act (33 USC 408)	Permit for impact to federal navigation channel
Section 401 of the Clean Water Act (33 USC 1341); Connecticut Surface Water Quality Standards (CGS Section 221-426)	Water Quality Certification
Section 402 of the Clean Water Act (33 USC 1342); General Conditions Applicable to Water Discharge Permits and Procedures and Criteria for Issuing Water Discharge Permits (CGS Section 22a-430b)	General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activity
49 CFR 77; Safe, Efficient Use and Preservation of the Navigable Airspace	Notice of Proposed Construction or Alteration (pending siting of bridge-related utilities)
Connecticut Endangered Species Act (CGS Section 26-303)	Natural Diversity Database Review
Connecticut Coastal Management Act; and Tidal Wetlands Regulations (CGS Section 22a-30-1)	Structures, Dredge and Fill, and Tidal Wetlands Permit

Federal/State Regulation	Review/Approval/Permit
Connecticut Flood Management Program (CGS Sections 25-68b - 25-68h)	Flood Management Certification
CGS Section 22a-36-45a	Inland Wetlands General Permit
CGS Section 22a-134, et seq., Hazardous Materials	Review of potential for hazardous material impacts, high-risk sites, site investigations, and environmental audits
CGS Section 22a-133z and 22a-208a	General Permit for Contaminated Soil and/or Sediment Management
CGS Chapter 446d and 446k, RCSA Sections 22a-208a-1, 22a-209-1, and 22a-209-8	Authorization for Disposal of Special Waste
CGS Section 22a-430(b)	General Permit for the Discharge of Groundwater Remediation Wastewater

### ES-13 Public Involvement and Agency Coordination

CTDOT has developed a public outreach and agency coordination plan, which details requirements for public and agency involvement through the receipt of project permits. In accordance with NEPA and CEPA requirements, Section 106 consultation procedures, and FTA’s *Environmental Review Process Guidance* (draft),<sup>6</sup> CTDOT provided extensive public involvement and agency coordination opportunities in the preparation and review of the EA/EIE.

CTDOT conducted the CEPA public scoping session on February 24, 2015 at Norwalk City Hall. Per CEPA requirements, the scoping session was noticed in the Environmental Monitor on February 3, 2015. CTDOT notified approximately 160 stakeholders and property owners of the public scoping session through a direct mailing invitation. Additionally, press releases were disseminated to news outlets to advertise the public scoping session. Approximately 160 people attended the public scoping session. The following is a summary of general requests from the public scoping session:

- Balance the interests of all water uses in and around the bridge, including barge traffic, boating, and rowing, including coordinating with the Stroffolino Bridge openings;
- Avoid negatively affecting local business owners by taking properties or affecting access to them during project construction;
- Preserve or echo, to the extent possible, the iconic look and historical features of the bridge, while also improving the bridge’s operations; and
- Accomplish other transportation needs such as completing missing bike path/trail links under the bridge on both sides of the river and providing other local road network connections.

CTDOT held a public information meeting on May 11, 2016, to update the public of the project, identify concerns and address questions. The meeting, held in the Community Room of Norwalk City Hall, was conducted in two sessions, from 4:30 to 6:30 pm, and from 7:00 to 9:00 pm, to solicit a wide audience. Each session included a presentation on the Walk Bridge Replacement Project; a question and answer

<sup>6</sup> The Environmental Review Process Guidance (proposed revised guidance for public comment, 3/12/2015) was developed by FTA and the Federal Highway Administration.

period; and an open house during which displays were available for viewing and project team members were available for informal discussion. The public information meeting also provided an update on the design of the new bridge and related projects, environmental reviews, and construction schedule. CTDOT held an open house on August 16, 2016 from 6:30 to 8:00 pm in the lobby of the IMAX Theater at the Maritime Aquarium, 10 North Water Street, Norwalk. This was an informal open house where the public was able to speak one-on-one with CTDOT staff, ask questions and view informational graphics about the project.

FTA is the Lead Federal Agency for the environmental review of the Walk Bridge Replacement Project, and is responsible for NEPA compliance and issuing its finding of the project relative to anticipated environmental impacts.

CTDOT is the Sponsoring Agency for the Walk Bridge Replacement Project. CTDOT is responsible for preparing the environmental review document in compliance with NEPA and CEPA and other federal and state regulations and policies. In addition to coordinating with FTA regarding compliance with NEPA, CTDOT is coordinating with the Connecticut Office of Policy and Management (OPM) regarding compliance with CEPA, including preparing the Record of Decision document for OPM's review and approval.

CTDOT invited four federal agencies to participate in the development of the EA/EIE as Cooperating Agencies: USCG, USACE, the U.S. Environmental Protection Agency (USEPA), and the Federal Railroad Administration (FRA). USCG agreed to be a Cooperating Agency; and was responsible for reviewing the EA/EIE, including the level of detail required in the alternatives analysis, the project's purpose and need, and goals and objectives.

Four agencies agreed to participate in the development of the EA/EIE as Participating Agencies: the National Marine Fisheries Service/ Greater Atlantic Regional Fisheries Office (NMFS/GARFO), the CT Department of Energy and Environmental Protection (CTDEEP), the City of Norwalk, and the Western Connecticut Council of Governments (WCCOG). As Participating Agencies, they reviewed the project's anticipated impacts and proposed mitigation.

CTDOT's ongoing coordination activities with the City of Norwalk include meetings with the Norwalk Harbor Management Commission and its Walk Bridge subcommittee, the Norwalk Harbormaster, the Mayor, the Norwalk Historical Commission, the Norwalk Board of Selectmen, and various City departments and agencies to provide project updates and solicit municipal information.

The Connecticut State Historic Preservation Office (CTSHPO), four local historical associations, and two Tribal Nations are participating in the review of the project. At the initiation of the project, CTDOT met with representatives from CTSHPO and project stakeholders to ascertain project issues. CTDOT has continued to apprise local historic stakeholders of the project as design advances, and CTDOT anticipates that its outreach and consultation activities with CTSHPO and local stakeholders will continue through project completion.

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix A-2      Errata to the EA/EIE**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix A-2 Errata to the EA/EIE**

<b>EA/EIE Section</b>	<b>Page</b>	<b>Revision</b>																					
2.3.2	2-6	Fixed Span – Low-Level Option. Revise the first sentence of the last paragraph in this subsection to read: CTDOT estimated the construction and program cost of the low-level option to range between \$290 and \$340 million in year 2020 dollars, which is the anticipated mid-point of construction.																					
2.3.2	2-6	Fixed Span – Mid-Level Option. Revise the first sentence of the last paragraph in this subsection to read: CTDOT estimated the construction and program cost of the mid-level option to range between \$320 and \$370 million in year 2020 dollars, which is the anticipated mid-point of construction.																					
2.3.2	2-7	Fixed Span – High-Level Option. Revise the first sentence of the last paragraph in this subsection to read: CTDOT estimated the construction and program cost of the high-level option to be in excess of \$1 billion in year 2020 dollars, which is the anticipated mid-point of construction.																					
2.4.2	2-21	Dredging for a Wider Navigation Channel. Revise the last sentence in this subsection to read: State and federal permits from CTDEEP and USACE will be required for dredging activities in the federal navigation channel, as described in Chapter 7.																					
3.1.3	3-11	Build Alternative subsection, second paragraph. Revise all references to “Cooper 80” to “Cooper E-80.”																					
3.6.2	3-38	Delete the following row from Table 3-5: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th><b>Map/Block/Lot</b></th> <th><b>Address</b></th> <th><b>Existing Uses on Parcels <sup>a</sup></b></th> <th><b>Displaced Uses</b></th> <th><b>Parcel Size (acre)</b></th> <th><b>Portion of Parcel to be Used</b></th> <th><b>FTA CPE <sup>b</sup></b></th> </tr> </thead> <tbody> <tr> <td>3/1/8</td> <td>217 Liberty Square</td> <td>Plastic fabrication company - 4,452 sf structure</td> <td>Plastic fabrication company</td> <td>0.16</td> <td>Full</td> <td>yes</td> </tr> </tbody> </table>	<b>Map/Block/Lot</b>	<b>Address</b>	<b>Existing Uses on Parcels <sup>a</sup></b>	<b>Displaced Uses</b>	<b>Parcel Size (acre)</b>	<b>Portion of Parcel to be Used</b>	<b>FTA CPE <sup>b</sup></b>	3/1/8	217 Liberty Square	Plastic fabrication company - 4,452 sf structure	Plastic fabrication company	0.16	Full	yes							
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3.6.2	3-38	Revise the following rows in Table 3-5 to read as follows (corrections in bold print): <table border="1" style="margin-left: 20px;"> <thead> <tr> <th><b>Map/Block/Lot</b></th> <th><b>Address</b></th> <th><b>Existing Uses on Parcels <sup>a</sup></b></th> <th><b>Displaced Uses</b></th> <th><b>Parcel Size (acre)</b></th> <th><b>Portion of Parcel to be Used</b></th> <th><b>FTA CPE <sup>b</sup></b></th> </tr> </thead> <tbody> <tr> <td>2/84/63</td> <td>70 Water Street</td> <td>Warehouse (vacant) - 2,370 sf</td> <td>warehouse</td> <td><b>0.46</b></td> <td>Full</td> <td>no</td> </tr> <tr> <td>2/84/33</td> <td>90 Water Street</td> <td>Undeveloped commercial apparently used for employee and visitor parking</td> <td>none</td> <td><b>1.01</b></td> <td>Full</td> <td>no</td> </tr> </tbody> </table>	<b>Map/Block/Lot</b>	<b>Address</b>	<b>Existing Uses on Parcels <sup>a</sup></b>	<b>Displaced Uses</b>	<b>Parcel Size (acre)</b>	<b>Portion of Parcel to be Used</b>	<b>FTA CPE <sup>b</sup></b>	2/84/63	70 Water Street	Warehouse (vacant) - 2,370 sf	warehouse	<b>0.46</b>	Full	no	2/84/33	90 Water Street	Undeveloped commercial apparently used for employee and visitor parking	none	<b>1.01</b>	Full	no
<b>Map/Block/Lot</b>	<b>Address</b>	<b>Existing Uses on Parcels <sup>a</sup></b>	<b>Displaced Uses</b>	<b>Parcel Size (acre)</b>	<b>Portion of Parcel to be Used</b>	<b>FTA CPE <sup>b</sup></b>																	
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2/84/33	90 Water Street	Undeveloped commercial apparently used for employee and visitor parking	none	<b>1.01</b>	Full	no																	

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3.17.5	3-105	<p>Revise the second row in Table 3-13 to read as follows:</p> <table border="1" data-bbox="337 319 1552 632"> <thead> <tr> <th data-bbox="337 319 743 359"><b>Potential Adverse Impact</b></th> <th data-bbox="743 319 1552 359"><b>Preliminary Assessment</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="337 359 743 632">Replacing an existing water-dependent use with a non-water-dependent use.</td> <td data-bbox="743 359 1552 632">During construction of the bridge, the project will replace an existing water-dependent use, a commercial marina and community rowing facility, with a non-water dependent use, consisting of access to the waterfront for demolition of the existing bridge and construction of the replacement bridge. However, this will be a temporary condition. Upon completion of the project, CTDOT will sell the property. Per the Norwalk Building Zone Regulations, provisions for public access to the waterfront are required for new development on lots adjacent to the water.</td> </tr> </tbody> </table>	<b>Potential Adverse Impact</b>	<b>Preliminary Assessment</b>	Replacing an existing water-dependent use with a non-water-dependent use.	During construction of the bridge, the project will replace an existing water-dependent use, a commercial marina and community rowing facility, with a non-water dependent use, consisting of access to the waterfront for demolition of the existing bridge and construction of the replacement bridge. However, this will be a temporary condition. Upon completion of the project, CTDOT will sell the property. Per the Norwalk Building Zone Regulations, provisions for public access to the waterfront are required for new development on lots adjacent to the water.
<b>Potential Adverse Impact</b>	<b>Preliminary Assessment</b>					
Replacing an existing water-dependent use with a non-water-dependent use.	During construction of the bridge, the project will replace an existing water-dependent use, a commercial marina and community rowing facility, with a non-water dependent use, consisting of access to the waterfront for demolition of the existing bridge and construction of the replacement bridge. However, this will be a temporary condition. Upon completion of the project, CTDOT will sell the property. Per the Norwalk Building Zone Regulations, provisions for public access to the waterfront are required for new development on lots adjacent to the water.					
5.3.20	5-25	<p>Add the following sentences to the end of the paragraph: There could be project-related actions that warrant work on or affecting South Norwalk Electric and Water (SNEW) and the Third Taxing District (TTD) utilities. As design advances, CTDOT will coordinate with SNEW and TTD to perform site-specific adjustments.</p>				

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**Appendix B: Mitigation Measures and Commitments**

**Appendix B-1 Summary Table of Mitigation Measures and Commitments**

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**Appendix B-1  
Summary Table of Impacts, Mitigation, and Commitments**

Appendix B-1 provides the following summary table of mitigation and commitments for the Walk Bridge Replacement Project. To track mitigation plans and permit conditions to be developed in final design, CTDOT will use FTA's Project Management Plan, working in coordination with the City of Norwalk, the local community, and regulatory agencies. As the lead federal agency, FTA exercises continual oversight and independent review of the project. Additionally, the project's commitment to mitigation measures will be reviewed by federal and state regulators. Refer to Appendix F-5.

Environmental Resource	Potential Impacts	Mitigation and Commitments
<p><b>Rail Transportation</b> (EA/EIE Sections 3.1 &amp; 5.3.1)</p>	<p>Temporary two-track outage will be needed for up to 30 months. Limited four-track outages will be required for specific construction activities.</p>	<p>CTDOT will maintain weekday passenger train service by keeping at least two tracks in service throughout nearly all the construction period. CTDOT will schedule limited four-track outages required during construction time during an off-peak and/or weekend period, to the extent possible.</p> <p>CTDOT will complete planned independent NHL-improvement projects on the main line and Danbury Branch prior to implementing the long-term, two-track outages; these projects will facilitate considerable train movement flexibility on the NHL main line and minimize schedule adjustments associated with long-term two-track outages. Refer to Appendix F-3.</p> <p>CTDOT will minimize temporary impacts to rail traffic by coordinating the construction of the project with the East Avenue Bridge Project (Bridge No. 42.14) and associated roadway and the Osborne Avenue Bridge Project (Bridge No. 41.96). Refer to Appendix F-4.</p> <p>CTDOT will work with Metro-North, Amtrak, and freight service providers to ensure that train operations proceed in a manner that maintains service, facilitates passenger boarding and alighting at East Norwalk and South Norwalk Stations, and prioritizes the overall safety of the railroad corridor.</p>
<p><b>Marine Transportation</b> (EA/EIE Sections 3.2 &amp; 5.3.2)</p>	<p>For most of the 40-month construction period, one or both channels will be open to navigation, and the replacement bridge project footprint will not encroach upon the existing channels. Temporary navigation restrictions will occur. The swing span will remain operational until shortly before its removal. A limited number of full channel closures will be needed for specific construction activities.</p>	<p>CTDOT will coordinate channel closures with the City of Norwalk, Norwalk Harbor Management Commission, the Norwalk Harbor Master, the U.S. Coast Guard (USCG), the U.S. Army Corps of Engineers (USACE), and waterway users to the maximum extent possible.</p> <p>CTDOT will develop a Marine Transportation Plan and a series of water-dependent use/waterfront access strategies, working in coordination with the affected marine-based businesses, the City of Norwalk, and the Norwalk Harbor Management Commission. The Plan will address temporary impacts to water-based businesses, marina users, rowers, and ferry and vessel operations. Individual plans or strategies may be developed with owners and water-users. As a component of the Marine Transportation Plan, CTDOT will coordinate with the City of Norwalk Police and Fire Departments, water-dependent businesses, the Connecticut Department of Energy and Environmental Protection (CTDEEP), and the USCG to develop and update emergency preparedness, communications and response measures for businesses and properties upstream of Walk Bridge through the construction period. Refer to Appendix F-5.</p>

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<p><b>Traffic, Transit and Parking</b> (EA/EIE Sections 3.3 &amp; 5.3.3)</p>	<p>Temporary impacts to local roadways will include full closure to public access of a portion of Goldstein Place; periodic partial lane closures and full street closures of North Water Street; and partial lane closures of Fort Point Street of about a month and occasional full street closures. Road closures may affect existing routing to parking facilities.</p>	<p>CTDOT will prepare a Transportation Management Plan (TMP) to accommodate the replacement of Walk Bridge and Fort Point Street Bridge in conjunction with the East Avenue Bridge replacement (and associated roadway) project and the Osborne Avenue Bridge replacement project. The TMP will include vehicle, pedestrian, and bicycle detour plans for the stages of the project; temporary bus routes; rail user updates; and construction material haul routes.</p>
	<p>Temporary impacts (including closure) of the Norwalk Parking Authority (NPA) North Water Street parking lot could occur due to a construction easement on the parcel.</p>	<p>CTDOT will work with the City of Norwalk, the NPA, and business community to develop an Alternative/Replacement Parking Plan. The Plan will identify replacement parking due to temporary closures of parking facilities (including the North Water Street Lot), and identify access to available parking facilities unaffected by the project.</p>
<p><b>Pedestrian and Bicycle Facilities</b> (EA/EIE Sections 3.4 &amp; 5.3.3)</p>	<p>Temporary use of the City's Wastewater Treatment Plant (WWTP) site (Parcel 3/2/3) and construction of an extension of this trail connection along the east river bank will temporarily affect the southernmost terminus of the existing Harbor Loop Trail.</p>	<p>CTDOT will develop a TMP which will include pedestrian and bicycle detour plans for the stages of the project, including bridge construction.</p>
		<p>CTDOT will restore the existing trails to pre-construction condition following completion of construction.</p>
	<p>Due to the temporary use of the Norwalk Parking Authority site (Parcel 2/19/1), the portion of the Norwalk River Valley Trail (NRVT) adjacent to this parking lot may be closed to the public during construction. North Water Street and its sidewalks can be used by pedestrians and bicyclists.</p>	<p>CTDOT will include an extension of the Harbor Loop Trail on the east side of the Norwalk River in the Walk Bridge Replacement Project. CTDOT will work with the City of Norwalk, including the Bike-Walk Task Force and Norwalk River Valley Trail Steering Committee, to determine the preferred routing from the proposed north-south connector, as shown on EA/EIE Figure 3-10 or as determined through discussions with project stakeholders.</p> <p>CTDOT is supportive of an extension of the NRVT on the west side of the Norwalk River. The determination of the most appropriate location for this extension of the existing trail on the west side of the river will be made in coordination with the City and the Maritime Aquarium. Implementation specifics will be determined as the project progresses.</p>
<p><b>Property Acquisition and Displacement</b> (EA/EIE Sections 3.6 &amp; 5.3.4)</p>	<p>A total of eight full-parcel acquisitions will be required for project construction. A total of twelve full- and partial-parcel temporary easements</p>	<p>In accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended, and the Connecticut Uniform Relocation Assistance Act, CTDOT will aid businesses and residents whose properties are acquired by the project, including payment of fair market value for the parcels and appropriate relocation costs.</p>

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<p><b>Property Acquisition and Displacement</b>            (EA/EIE Sections 3.6 &amp; 5.3.4)</p>	<p>are currently anticipated for the project, and, of that total, permanent easements are anticipated on three parcels.</p>	<p>CTDOT is guided by Connecticut General Statutes when releasing excess property. Following project completion, any property determined to be in excess of CTDOT’s needs will first be offered to other State Agencies in accordance with Connecticut General Statute (CGS) 4b-21. Thereafter, pursuant to CGS 3-14b, the City of Norwalk will have an opportunity to purchase property deemed in excess of the State’s needs, prior to being offered to the public. The future use and development of these properties is determined by municipal zoning, the City's Plan of Conservation and Development, permit approvals, and for properties within the coastal zone boundary, municipal coastal site plan review.</p>
<p><b>Socioeconomics</b>            (EA/EIE Sections 3.8 &amp; 5.3.5)</p>	<p>Temporary access impacts will occur to land-based businesses proximate to Walk Bridge and water-based businesses upriver from Walk Bridge over an approximate 40-month construction period.</p> <p>Temporary construction easements will adversely impact public and private parking facilities and facilities and operations of the Maritime Aquarium.</p>	<p>CTDOT will develop Construction Period Coordination Plans to address concerns and develop mitigation plans as design advances and the contractor’s construction means and methods are defined. The Plans will include a series of individual plans and strategies. The plans will identify project-specific tasks and mitigation measures to minimize impacts. The CTDOT design and construction team will develop and update these plans working in close coordination with the City of Norwalk, the business community, residents, and other affected parties. Refer to Appendix F-5.</p> <p>CTDOT has developed a Communications Management Plan which outlines the objectives of the communications and public involvement efforts for the Walk Bridge Program. Through the project website - <a href="http://www.walkbridgect.com">www.walkbridgect.com</a> - CTDOT will continue to provide continuous updates to the community on the Walk Bridge Replacement Project and nearby projects. The Communications Management Plan includes strategic approaches for communicating accurate and timely information to all involved agencies and stakeholders, including residents, businesses, visitors, and rail and maritime users. The Plan will be reviewed vigorously and updated as necessary to support transparency and proactively engage stakeholders as design and construction progress. A variety of outreach tools is outlined in the Plan; these communication tools will be used through the duration of the project to facilitate meaningful dialogue.</p> <p>CTDOT will develop a Business Coordination Plan to identify the concerns of the business community and address construction-related impacts. By developing and maintaining ongoing communication with local businesses, CTDOT seeks to establish a two-way communication system where the project schedule is communicated, business concerns are identified, and strategies are put in place to minimize disruptions to businesses. Initially, personal interviews will be conducted with businesses in the immediate project construction area to assess existing conditions, including employee and patron parking areas, delivery schedules, hours of operation, and shopping patterns. From these discussions, potential temporary impacts will be determined and mitigation measures will be developed in coordination with businesses in South Norwalk and East Norwalk. Individual plans or strategies may be developed as required.</p>

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<b>Socioeconomics</b> (EA/EIE Sections 3.8 & 5.3.5)	Loss of property tax revenue of approximately \$91,000 per year over the 4-year construction period will result from parcel acquisitions.	CTDOT does not have the statutory authority to reimburse municipalities for long term tax revenue losses resulting from property acquisitions. However, mitigation measures are incorporated into the project that will benefit the Norwalk community.
<b>Water Quality</b> (EA/EIE Sections 3.9 & 5.3.6)	Temporary impacts will include sediment disturbance due to waterway work and soil exposure due to land-based work.	<p>CTDOT will develop a construction-period water quality control plan, pursuant to the requirements of Section 401 Water Quality Certification and the National Pollutant Discharge Elimination System (NPDES) program.</p> <p>CTDOT will prepare a Stormwater Pollution Control Plan (SWPCP) as part of the project's Construction Stormwater General Permit. The SWPCP will identify potential pollutant sources areas and Best Management Practices (BMPs) to be used for erosion and sedimentation control, temporary stormwater management, dust control, and site stabilization.</p> <p>CTDOT will comply with the requirements of the Municipal Separate Stormwater Sewer Systems (MS4) General Permit requirements for linear transportation infrastructure.</p> <p>CTDOT will identify opportunities to protect and improve water quality as feasible, as it continues to evaluate the types of approach spans in coordination with the City, as the project proceeds into final design, and as the contractor's means and methods of construction are defined. Some examples of BMPs include using marine enclosures for work around piers during construction and demolition; adding protective enclosures for work on the bridge to contain materials that could potentially fall to the water; stabilizing land-based soils; using erosion control measures; removing contaminated sediments from the river; and disposing of sediments following state regulations. Further, CTDOT will utilize its own Environmental Compliance specifications, which list specific BMPs for water pollution control, and address standards for the management and disposal of contaminated and/or hazardous materials.</p>
<b>Tidal Wetlands</b> (EA/EIE Sections 3.10 & 5.3.7)	Indirect temporary impacts will occur to approximately 2,400 sf of vegetated tidal wetlands. Permanent Impacts will occur to approximately 2,500 sf of vegetated tidal wetlands.	<p>CTDOT will provide compensatory mitigation for temporary direct impacts to intertidal and subtidal habitats, and for indirect shading impacts to tidal vegetated wetlands, consisting of in-place restoration or enhancement of temporary impact areas, and restoration of tidal marsh areas that may be temporarily impacted from trestle platform shading.</p> <p>CTDOT will provide compensatory mitigation for permanent impacts to vegetated tidal wetlands through restoration and/or enhancement of wetlands along the Norwalk River dominated by invasive species. Wetland restoration will produce a permanent community benefit.</p>
<b>Freshwater Wetlands</b> (EA/EIE Sections 3.11 & 5.3.7)	Permanent loss of approximate 600-sf wetland will occur.	CTDOT will provide compensatory mitigation for the loss of a state-regulated freshwater wetland through restoration or replacement in-kind; out-of-kind wetland creation; invasive species removal; or any combination of these methods.

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<p><b>Floodplains</b> (EA/EIE Sections 3.12 &amp; 5.3.8)</p>	<p>Temporary impacts will occur to approximately 230,000 square feet of 100-year floodplain due primarily to construction staging and access to the railroad ROW.</p> <p>Permanent impacts will occur to approximately 19,500 sf of 100-year floodplain.</p>	<p>CTDOT will analyze both the temporary and permanent conditions to assess floodplain effects in compliance with Connecticut and Federal Emergency Management Agency (FEMA) floodplain management standards and criteria; if needed, CTDOT will take steps to mitigate effects.</p>
<p><b>Terrestrial Resources, Species, and Critical Habitats</b> (EA/EIE Sections 3.13 &amp; 5.3.9)</p>	<p>Temporary impacts will occur to terrestrial species due to loss of herbaceous coverage.</p> <p>Minor permanent impacts will occur due to loss of narrow upland habitat patch.</p>	<p>CTDOT will implement BMPs, use construction phasing or sequencing, and comply with seasonal restrictions to avoid impacts to terrestrial resources and habitats.</p>
<p><b>Aquatic Resources, Species and Critical Habitats</b> (EA/EIE Sections 3.14 &amp; 5.3.10)</p>	<p>Temporary impacts will occur to approximately 7,700 sf of intertidal habitat and approximately 8,400 sf of subtidal habitat.</p> <p>Conversion of approximately 300 sf of intertidal habitat to subtidal habitat and increased depth of subtidal areas will occur due to dredging.</p> <p>Permanent impacts will occur to approximately 900 sf of intertidal habitat and approximately 26,600 sf of subtidal habitat.</p>	<p>CTDOT will minimize impacts to finfish, shellfish, and other aquatic resources through the use of protective measures, including managing turbid water generated inside casing, sheet piles, or cofferdam containments; replacing contaminated native materials cut from the submarine conduits with clean material matching grain size of removed sediments; mechanically removing select existing bridge components; separating and removing sediment-laden water from containment areas; and avoiding construction blasting.</p> <p>CTDOT will provide compensatory mitigation for habitat displacement due to the construction-phase temporary direct impacts to intertidal and subtidal habitats, and for indirect shading impacts to tidal vegetated wetlands, in coordination with the USACE and CTDEEP.</p>
<p><b>Endangered and Threatened Species</b> (EA/EIE Sections 3.15 &amp; 5.3.11)</p>	<p>Potential temporary disruption of foraging habitat will occur due to work in the water and vegetation clearing.</p>	<p>CTDOT will consult with the U.S. Fish and Wildlife Service (USFWS), USACE, U.S. Environmental Protection Agency (USEPA), National Marine Fisheries Service (NMFS), and CTDEEP during the permitting process to avoid and/or minimize impacts to endangered and threatened species. On-going coordination with state and federal agencies will ensure minimal disruption of the species.</p> <p>CTDOT will conduct vegetation clearing during the off-season for protected bird species and will monitor the area for the presence of protected bird species during construction.</p> <p>CTDOT will incorporate a construction period BMP into the construction specifications to address the potential presence of the state-listed Peregrine Falcon nesting within the project area.</p>

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<p><b>Consistency with CT Coastal Management Act</b> (EA/EIE Section 3.16)</p>	<p>Unavoidable temporary and permanent impacts will occur to tidal wetlands, intertidal and subtidal habitat, coastal access, water-dependent uses, and historic resources.</p>	<p>CTDOT will incorporate mitigation measures for unavoidable impacts and refine the design to minimize impacts to be consistent with the CT Coastal Management Act’s policies for the protection of coastal resources and policies on development of those resources. CTDOT will request Coastal Consistency Review as part of its application to CTDEEP for a Structures, Dredge and Fill and Tidal Wetlands Permit for the project.</p>
<p><b>Water-Dependent Uses</b> (EA/EIE Sections 3.17 &amp; 5.3.12)</p>	<p>Temporary impacts will occur to upstream uses and uses in immediate proximity to the bridge due to navigation restrictions</p>	<p>CTDOT will develop a series of water-dependent use/waterfront access strategies, working in coordination with the affected marine-based businesses, the City of Norwalk, and the Norwalk Harbor Management Commission. The Plan will address temporary impacts to water-based businesses, marina users, rowers, and ferry and vessel operations. Individual plans or strategies may be developed with owners and water-users.</p>
	<p>Temporary relocation of the Sheffield Ferry and Maritime Aquarium vessel operations will be required, as the current docking facilities will be temporarily removed due to anticipated project construction activities.</p>	<p>CTDOT is working with the Norwalk Seaport Association and the Maritime Aquarium to aid in relocating their respective vessels in accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970 (Uniform Act).</p>
	<p>Permanent impact will occur through parcel acquisition of private marina.</p>	<p>Regarding the sale of properties with existing water-dependent uses, CTDOT will market the excess property indicating the highest priority and preference for water-dependent use of the site. With approval from the Commissioner of the Department of Energy and Environmental Protection, CTDOT will select the highest bid that best demonstrates an integrated, quality, water-dependent use. Water-dependent uses include, but are not limited to: marinas, recreational and commercial fishing and boating facilities, finfish and shellfish processing plants, waterfront dock and port facilities, shipyard and boat building facilities, and water-based recreational uses.</p>
<p><b>Parklands, Public Recreation, and Community Facilities</b> (EA/EIE Sections 3.18 &amp; 5.3.13)</p>	<p>Temporary impacts that will occur to the Norwalk River Valley Trail (NRVT) on the east side and west side of the Norwalk River.</p> <p>Permanent impacts will occur to City parks due to the creation and/or restoration of wetlands.</p>	<p>CTDOT will restore the existing trails to pre-construction condition following completion of construction.</p> <p>CTDOT’s proposed wetland restoration will be a positive permanent impact: it will enhance the City’s parks and waterfront and provide a permanent benefit to the community. The tidal wetland restoration that may be located adjacent to or within the boundaries of Oyster Shell Park is identified in the City of Norwalk’s Oyster Shell Park Master Plan as part of planned waterfront improvements.</p>

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<p><b>Parklands, Public Recreation, and Community Facilities</b> (EA/EIE Sections 3.18 &amp; 5.3.13)</p>	<p>Construction will impact the Maritime Aquarium, including animal exhibits and the IMAX Theatre. CTDOT is coordinating with the Maritime Aquarium and the City regarding the temporary and/or permanent nature of these impacts.</p>	<p>CTDOT is developing a specific coordination plan with the Maritime Aquarium. CTDOT is working with the City of Norwalk and the Aquarium to develop a plan to identify and address the impacts of the project upon the Aquarium’s outdoor and indoor exhibits and its terrestrial and aquatic animals. CTDOT will compensate the City of Norwalk for the property rights to be acquired. In connection therewith, CTDOT will provide the City of Norwalk and/or the Aquarium the assistance necessary to relocate the animals affected by the acquisition.</p>
<p><b>Visual Resources</b> (EA/EIE Sections 3.19 &amp; 5.3.14)</p>	<p>Temporary impacts will occur due to construction staging, including use of temporary trestles and barges in the water. Permanent altered visual setting will occur due to loss of historic resources, and potential altered visual effect could occur due to new bridge in an historic setting.</p>	<p>CTDOT has initiated meetings with the City of Norwalk's Design Advisory Committee to review design and solicit feedback on those design elements that will contribute to the aesthetics of the replacement bridge, including (but not limited to) façade treatments, color, and landscaping. CTDOT has committed to working with the Design Advisory Committee, as well as local historic stakeholders, on the design elements of the bridge.</p>
<p><b>Air Quality</b> (EA/EIE Sections 3.20 &amp; 5.3.15)</p>	<p>Temporary minor impacts will occur from diesel equipment, fugitive dust.</p>	<p>CTDOT will develop a construction-period air quality/dust control plan. It is anticipated that construction-related dust will be primarily controlled by using BMPs, and will build on the air quality/dust control measures identified for consideration in the EA/EIE (Section 5.3.15).</p>
<p><b>Noise and Vibration</b> (EA/EIE Sections 3.21 &amp; 5.3.16)</p>	<p>Temporary impacts will occur due to daytime and night-time noise proximate to the project site.</p>	<p>CTDOT will develop a construction-period noise and vibration control plan to address potential impacts of land-based and water-based noise. It is anticipated that the construction noise and vibration control plan will build on the noise and vibration control measures identified for consideration in the EA/EIE (Section 5.3.16).</p> <p>CTDOT is developing a specific coordination plan with the Maritime Aquarium. CTDOT is working with the City of Norwalk and the Aquarium to develop a plan to identify and address the impacts of the project upon the Aquarium’s outdoor and indoor exhibits and its terrestrial and aquatic animals.</p> <p>CTDOT will coordinate the need for vibration mitigation measures with the NMFS, including addressing potential vibration impacts on fish living/migrating in the Norwalk River.</p>

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<p><b>Noise and Vibration</b> (EA/EIE Sections 3.21 &amp; 5.3.16)</p>	<p>Potential temporary impacts of ground-borne vibration to affect nearby buildings, including the Maritime Aquarium and historic structures that may not have the same physical resistance to vibration as modern buildings.</p>	<p>CTDOT will develop an Historic Building Protection Plan in coordination with the Connecticut State Historic Preservation Office (CTSHPO) to minimize the effects of construction-period vibration upon nearby historic buildings. The historic buildings to be included in the Plan consist of the Interlocking Tower (South Norwalk Switch Tower Museum) and historic buildings on the north side of Washington Street in the South Main and Washington Streets Historic District, the Former Norwalk Lock Company, the Former Norwalk Iron Works, the circa 1910 commercial buildings at 68 Water Street, and the buildings that comprise the potentially eligible Liberty Square Historic District. The Plan will be based on FTA’s vibration threshold criteria, and will consist of multiple elements, including (but not limited to) conducting pre-construction inspection of historic buildings, developing and implementing a vibration monitoring program, and conducting post-construction surveys of historic buildings. The plan will include protective measures to be implemented if monitoring indicates the potential for damage to historic buildings. CTDOT will prepare a draft technical memorandum documenting the results of the Plan’s implementation and will submit it to CTSHPO and FTA. The final technical memorandum will be submitted to CTSHPO for permanent archiving and public accessibility.</p>
<p><b>Cultural Resources</b> (EA/EIE Sections 3.22 &amp; 5.3.17)</p>	<p>Adverse effects will occur due to demolition of National Register-listed Walk Bridge and Fort Point Street Bridge; and historic stone abutment retaining walls, high towers. and catenary support structures.</p>	<p>CTDOT has developed mitigation measures for impacts to historic resources, working in coordination with FTA, CTSHPO, and local historic stakeholders. CTDOT has determined that to the maximum amount practicable, mitigation measures for the loss of the landmark structure will be public in their scope and availability to the Norwalk community, particularly the South Norwalk and East Norwalk neighborhoods. The mitigation measures are memorialized in a Memorandum of Agreement (MOA) among FTA, CTSHPO and CTDOT (as signatory parties) and local historic stakeholders (as concurring parties), pursuant to Section 106 of the National Historic Preservation Act. Refer to Appendix B-2.</p> <p>Prior to demolition, CTDOT will contact the Historic American Engineering Record (HAER) for advice as to the level of documentation that would be appropriate for recording the Walk Bridge. CTDOT will retain a qualified consultant to prepare the documentation of the Walk Bridge as specified in HAER’s response. CTDOT will submit the documentation to FTA and CTSHPO for review, revise the documentation according to any comments, and submit the revised documentation to HAER and provide CTSHPO with two copies of the documentation upon completion.</p>

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Environmental Resource	Potential Impacts	Mitigation and Commitments
<p><b>Cultural Resources</b> (EA/EIE Sections 3.22 &amp; 5.3.17)</p>	<p>Adverse effects will occur due to demolition of National Register-listed Walk Bridge and Fort Point Street Bridge; and historic stone abutment retaining walls, high towers, and catenary support structures.</p>	<p>Prior to demolition, CTDOT will determine whether the documentation entitled “New Haven Railroad Catenary System,” prepared by Historical Technologies in 2000 (the 2000 Documentation), adequately represents the catenary structures to be demolished as part of the project. If the catenary structures that were photographed and described in the 2000 Documentation are essentially identical to those proposed for demolition, CTDOT will notify CTSHPO of this determination and no further documentation will be necessary. If the catenary structures to be demolished are unique and not adequately represented in the 2000 Documentation, CTDOT will prepare additional written and photographic documentation of the catenary structures to the professional standards of CTSHPO. CTDOT will submit the documentation to the FTA and CTSHPO for review, revise the documentation according to any comments, and submit the revised documentation to CTSHPO for permanent archiving and public accessibility.</p>
		<p>CTDOT will prepare written and photographic documentation of other historic structures on the New Haven Line, within the limits of the project, to the professional standards of CTSHPO. The documentation will address the high towers, stone retaining walls, interlocking tower (South Norwalk Switch Tower Museum), Fort Point Street Railroad Bridge, and any historic trackside features such as mileposts. The documentation will also provide context views that incorporate the former Norwalk Lock Company buildings, the former Norwalk Iron Works buildings, and the buildings of the South Main and Washington Streets Historic District. CTDOT will submit the documentation to the FTA and CTSHPO for review, revise the documentation according to any comments, and submit the revised documentation to CTSHPO for permanent archiving and public accessibility.</p>
		<p>CTDOT will attempt to reuse/repurpose the stone masonry from the existing bridge abutments that will be demolished in the construction of the replacement bridge. If CTDOT determines that it is not feasible to reuse/repurpose the stone, CTDOT will notify FTA and CTSHPO of the reason(s) that reuse would not be feasible, and CTDOT’s obligation to reuse the stone will cease. Subsequently, CTDOT will attempt to solicit interest in obtaining the stone masonry to be used for public education purposes, from local institutions identified in the MOA. If it is feasible to do so, CTDOT will use its best efforts to ensure that the salvaged material is removed in as intact a condition as possible. If CTDOT determines it is not feasible to salvage the stone masonry, CTDOT will notify FTA and CTSHPO of the reason(s) that salvaging the material would not be feasible and CTDOT’s obligation to salvage the material will cease.</p>

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

Environmental Resource	Potential Impacts	Mitigation and Commitments
<p><b>Cultural Resources</b> (EA/EIE Sections 3.22 &amp; 5.3.17)</p>	<p>Adverse effects will occur due to demolition of National Register-listed Walk Bridge and Fort Point Street Bridge; and historic stone abutment retaining walls, high towers, and catenary support structures.</p>	<p>CTDOT will attempt to solicit interest in obtaining salvaged material from the project, such as the catenary structures, to be used for public education purposes, from the institutions listed in the MOA. If it is feasible to do so, CTDOT will use its best efforts to ensure that the salvaged material is removed in as intact a condition as possible. If CTDOT determines it is not feasible to salvage the material, CTDOT will notify FTA and CTSHPO of the reason(s) that salvaging the material would not be feasible and CTDOT's obligation to salvage the material will cease.</p>
		<p>CTDOT will develop a maximum of two (2) exhibits and/or education programs for institutions and educators in the community, including the Maritime Aquarium. A maximum of \$450,000 will be allocated to the development of the two (2) exhibits and/or education programs. CTDOT will solicit letters of interest (including scope of work and fee), select the institution(s) to develop the exhibits/education program(s), and submit the scope of work to FTA and CTSHPO for review. Following consultation with and approval by FTA and CTSHPO, CTDOT will oversee the development and implementation of the exhibits and/or education programs.</p> <p>One exhibit will be focused on historic and current movable bridge engineering. The exhibit will include information about the extant WALK Bridge, earlier rail bridges at this location, and the new lift bridge. The public will learn about bridge operation, construction, and function. Hands-on Science, Technology, Engineering, and Math (STEM) educational components will be developed and distributed to local schools to be used in conjunction with school trips to the Maritime Aquarium. Materials will also be provided to the Aquarium to share with and educate visitors. A second exhibit will focus on the history of the railroad in the City of Norwalk, especially the WALK Bridge and the archaeological work conducted as part of the project. Photographs, documents, and other materials will be compiled to create the exhibit narrative and visuals. An exhibit will be developed that could be accommodated in any of the historical museums in the City. Associated classroom information will be developed, as well as electronic media that can be shared online with the public.</p>
		<p>CTDOT will provide non-federal resources for the restoration of the original iron fencing, gates, and associated masonry located in Mathews Park at the original entrance to the Lockwood-Mathews Mansion on West Avenue in Norwalk. CTDOT will provide a maximum of \$2,500,000 for the restoration. CTDOT will work with the City of Norwalk, the Norwalk Historical Commission, and the Lockwood Mathews Mansion Museum to develop the scope for the restoration of the original fencing, gates, and associated masonry.</p>

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

Environmental Resource	Potential Impacts	Mitigation and Commitments
<p><b>Cultural Resources</b> (EA/EIE Sections 3.22 &amp; 5.3.17)</p>	<p>Adverse effects will occur due to demolition of National Register-listed Walk Bridge and Fort Point Street Bridge; and historic stone abutment retaining walls, high towers, and catenary support structures.</p>	<p>CTDOT will prepare documentation for listing the potentially eligible Liberty Square Historic District on the National Register of Historic Places. The Liberty Square Historic District to be listed consists of a row of late 19<sup>th</sup>-century and early 20<sup>th</sup>-century commercial buildings (195-201 Liberty Square, 203 Liberty Square, 205 Liberty Square, 207 Liberty Square, 209 Liberty Square, 211 Liberty Square, 213 Liberty Square, and 215 Liberty Square). CTDOT will submit the documentation to the FTA and CTSHPO for review, revise the documentation according to any comments, and submit the revised documentation to CTSHPO for submittal to the National Park Service in accordance with the requirements of the National Register of Historic Places. The documentation will be available for archiving and public accessibility.</p> <p>CTDOT will prepare permanent interpretative panels for outdoor display in the city of Norwalk that will be available for viewing by the public. It is anticipated that the subject of the panels will be related to the history of Walk Bridge, the railroad, railroad engineering and transportation history in Connecticut. CTDOT will consult with the City of Norwalk and the local historic stakeholders regarding the content and locations of the interpretative panels. CTDOT will prepare and install a maximum of ten (10) permanent interpretive panels.</p> <p>CTDOT will share Thirty (30), sixty (60), and ninety (90) percent design plans with CTSHPO and concurring parties who will have a thirty (30) day comment period in which to submit their comments to CTDOT. CTDOT will consider these comments as design further progresses.</p>
	<p>Potential archaeological sensitivity for pre-colonial/contact and historic periods exists on many of the construction parcels, requiring subsurface testing and/or monitoring.</p>	<p>CTDOT will implement an Archaeological Treatment Plan as attached to the MOA in areas with potential archaeological sensitivity. If it is determined that archaeological properties that are eligible for listing in the NRHP are present, CTDOT will consult with FTA and CTSHPO regarding measures to avoid affecting the properties or to mitigate adverse effects on the properties and will implement the agreed-upon measures.</p>

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

Environmental Resource	Potential Impacts	Mitigation and Commitments
<p><b>Title VI and Environmental Justice</b> (EA/EIE Sections 3.26 &amp; 5.3.21)</p>	<p>No disproportionate temporary or permanent impacts will occur.</p>	<p>As part of its overall Communications Management Plan (included in the Project Management Plan), CTDOT developed an EJ and Title VI Outreach Plan to ensure that EJ and Title VI populations have equal access to information about the project. CTDOT has committed to implementing EJ and Title VI outreach for each major Walk Bridge Program event so these populations have equal access to information about the Program.</p> <p>CTDOT coordinated with the City of Norwalk to identify community organizations representing EJ communities and methods for outreach to EJ and LEP groups. Outreach methods included translating communications materials in appropriate languages (Spanish and Haitian Creole); advertising in multi-language publications (<i>El Sol News</i> and <i>The Haitian Voice</i>); and conducting grassroots outreach by establishing partnerships in low-income neighborhoods, including community organizations, neighborhood groups, and small neighborhood businesses. Community organizations with which CTDOT has initiated and/or established relationships include (but are not limited to) the South Norwalk Community Center, Open Door Shelter, Norwalk Senior Center, Norwalk NAACP, Norwalk Housing Authority, Make the Road CT, and Greater Norwalk Hispanic Chamber of Commerce. Outreach activities conducted for the EA/EIE public review period, the EA/EIE public hearing, and public meetings held after the public hearing included translated advertising, translated materials, and advance phone calls and emails to community organizations.</p> <p>On an ongoing basis, CTDOT tracks and addresses all concerns and issues voiced from EJ and Title VI stakeholders. For future Walk Bridge public meetings and outreach efforts, CTDOT has committed to: conducting phone calls, emails, and check-ins with community groups prior to meetings; offering translation services at all public meetings, and translating meeting materials and advertisements. Google Translate (into any language) is enabled on the Walk Bridge Program website (<a href="http://www.walkbridgect.com">www.walkbridgect.com</a>).</p>
<p><b>Secondary &amp; Cumulative Impacts</b> (EA/EIE Section 3.27)</p>	<p>Secondary impacts will occur due to relocation of the Eversource powerlines, currently on high towers abutting the existing bridge.</p>	<p>Eversource Energy, LLC, the utility owner, is responsible for the relocation of the powerlines and will be obtaining NEPA review (if required pursuant to the Federal Energy Regulatory Commission) and permits, including identifying impacts and mitigation measures. CTDOT is coordinating with Eversource Energy on the timing of its replacement project.</p>

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

Environmental Resource	Potential Impacts	Mitigation and Commitments
<p><b>Secondary &amp; Cumulative Impacts</b> (EA/EIE Section 3.27)</p>	<p>There are multiple CTDOT-sponsored and local municipal and private projects planned for construction in the greater Norwalk area over the next six years (prior to and during the Walk Bridge Replacement Project).</p>	<p>CTDOT is preparing a Regional Transportation Management Plan (Regional TMP) to address the potential cumulative impacts of these projects. The Regional TMP, which will include Norwalk and surrounding communities, will address potential traffic impacts of the multiple projects, facilitate comprehensive public outreach efforts, and provide coordination with stakeholder agencies in the region. An early Regional TMP has been created that assesses viable mitigation strategies, prioritizes these based on the lead time required to implement them, identifies the responsible parties, and establishes coordination protocols for inter-agency coordination. CTDOT initiated several Regional TMP tools for implementation in 2017, including portable data collection units, Regional TMP coordination, website rollout, and public involvement strategies. CTDOT will continue to work with the City of Norwalk to determine appropriate traffic mitigation strategies for various stages of individual projects, as well as for projects with anticipated substantial impacts.</p>
	<p>Cumulative impacts will occur due to loss of a tangible example of historic movable bridge technology in Connecticut, and a bridge on the NRHP-listed Movable Railroad Bridges on the Northeast Corridor in Connecticut Thematic Resource.</p>	<p>CTDOT has identified mitigation measures for the loss of the historic bridge and other resources which could address the historic bridge technology in Connecticut. Mitigation measures include developing exhibits that are historic- and/or STEM-related; obtaining salvaged material from the project to be used for public education purposes; and creating permanent interpretative panels related to the history of Walk Bridge, the railroad, and railroad engineering and transportation history in Connecticut. (Refer to Cultural Resources Mitigation Measures and Commitments).</p>

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix B-2            Section 106 Memorandum of Agreement**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**MEMORANDUM OF AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE CONNECTICUT DEPARTMENT OF TRANSPORTATION,  
AND  
THE CONNECTICUT STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176**

**WHEREAS**, the Connecticut Department of Transportation (CTDOT), an agency of the State of Connecticut, proposes the replacement of the Walk Bridge, also known as the Norwalk River Railroad Bridge and State Bridge No. 04288R, across the Norwalk River in Norwalk, Connecticut (the Undertaking); and

**WHEREAS**, the U.S. Department of Transportation, Federal Transit Administration (FTA) is providing funding for the Undertaking, making it subject to the provisions of Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 306108) (NHPA) and its implementing regulations, 36 C.F.R. Part 800, et. seq.; and

**WHEREAS**, the Undertaking is not a Tier 2 Project in accordance with the Programmatic Agreement regarding the Northeast Corridor (NEC) FUTURE Investment Program and is an independent project on the NEC; and

**WHEREAS**, CTDOT has prepared technical reports, *Historic Resources Evaluation Report, Walk Bridge Replacement Project* August 2016 and *Archaeological Sensitivity Assessment, Walk Bridge Replacement Project* August 2016 (collectively, the Technical Reports) for historic above-ground resources and archaeological resources potentially affected by the Undertaking, which Technical Reports have been reviewed and approved by FTA and the Connecticut State Historic Preservation Office (CTSHPO); and

**WHEREAS**, CTDOT has prepared an Archaeological Treatment Plan (Appendix A) to address areas of archaeological sensitivity identified in the archaeological technical reports, as well as areas of sensitivity that could be identified as part of ongoing actions associated with the Undertaking, which plan has been reviewed and approved by FTA and CTSHPO and has been incorporated into this Memorandum of Agreement (MOA) as Appendix A; and

**WHEREAS**, this Agreement was developed with appropriate public involvement (pursuant to 36 CFR 800.2[d] and 800.6[a]) both coordinated with the scoping, public review and public hearings conducted to comply with NEPA and its implementing regulations and through public meetings to comply with NHPA and its implementing regulations; and in consultation with the CTSHPO, the Advisory Council on Historic Preservation and (pursuant to 36 CFR 800.2[d] and 800.6[a]) additional invited Consulting Parties; and

**WHEREAS**, the public has had an opportunity to comment on the Undertaking and the findings set forth in the Undertaking's associated Technical Reports; and

**WHEREAS**, the Norwalk Historical Commission, the Norwalk Historical Society, the Norwalk Preservation Trust, and the SONO Switch Tower Museum have participated in the consultation process pursuant to 36 C.F.R. Part 800, have been invited to concur in this MOA, and will continue to be consulted in the implementation of the MOA; and

**WHEREAS**, the Tribal Historic Preservation Officers (THPOs) of the Mashantucket Pequot Tribal Nation and the Mohegan Tribe of Indians of Connecticut have participated in the consultation process pursuant to 36 C.F.R. Part 800, have been invited to concur in this MOA;

**WHEREAS**, FTA in consultation with CTSHPO has defined the Area of Potential Effect of the Undertaking as shown on the attached map (Appendix B); and

**WHEREAS**, FTA, in consultation with CTSHPO, has (i) determined that the Undertaking will have unavoidable adverse effects pursuant to 36 C.F.R. Part 800.5 to properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP) and are enumerated in the attached table (Appendix C) (collectively, the Historic Properties); and

**WHEREAS**, FTA has notified the Advisory Council on Historic Preservation (the Council) of the adverse effects on the Historic Properties that were identified in the Technical Reports and the Council has elected not to participate in consultation; and

**NOW, THEREFORE**, FTA, CTDOT, and CTSHPO agree that the Undertaking shall be implemented with the following Stipulations to ensure that effects to the Historic Properties are taken into account:

**STIPULATIONS:**

FTA will ensure that the terms of this MOA are carried out and will require, as a condition of any approval of federal funding for the Undertaking, adherence to the stipulations set forth herein.

1. Prior to demolition, CTDOT shall contact the Historic American Engineering Record (HAER) for advice as to the level of documentation that would be appropriate for recording the Walk Bridge. CTDOT shall retain a qualified consultant to prepare the documentation of the Walk Bridge as specified in HAER's response. CTDOT shall submit the documentation to FTA and CTSHPO for review and shall revise the documentation according to any comments. CTDOT shall submit the revised documentation to HAER and provide CTSHPO with two copies of the documentation upon completion.

2. When track access is granted to view individual catenary structures and prior to demolition, CTDOT shall determine whether the documentation entitled "New Haven Railroad Catenary System," prepared by Historical Technologies in 2000 (the 2000 Documentation), adequately represents the catenary structures to be demolished as part of the Undertaking. If the catenary structures that were photographed and described in the 2000 Documentation are essentially identical to those proposed for demolition, CTDOT shall notify CTSHPO of this determination and no further documentation will be necessary. If the catenary structures to be demolished are unique and not adequately represented in the 2000 Documentation, CTDOT will prepare additional written and photographic documentation of the catenary structures to the professional standards of CTSHPO. CTDOT shall submit the documentation to the FTA and CTSHPO for review and revise the documentation according to any comments. CTDOT shall submit the revised documentation to CTSHPO for permanent archiving and public accessibility.

3. CTDOT shall prepare written and photographic documentation of other historic structures on the New Haven Line, within the limits of the Undertaking, to the professional standards of CTSHPO. The documentation will address the high towers, stone retaining walls, interlocking tower (South Norwalk Switch Tower Museum), Fort Point Street Railroad Bridge, and any historic trackside features such as mileposts. The documentation will also provide context views that incorporate the former Norwalk Lock Company buildings, the former Norwalk Iron Works buildings, and the buildings of the South Main and Washington Streets Historic District. CTDOT shall submit the documentation to the FTA and CTSHPO for review and revise the documentation according to any comments. Upon completion, CTDOT shall submit the revised documentation to CTSHPO for permanent archiving and public accessibility.

4. CTDOT shall implement the Archaeological Treatment Plan set forth in Appendix A attached to this MOA and hereby incorporated herein in its entirety. If it is determined that archaeological properties that are eligible for listing in the NRHP are present, CTDOT shall consult with FTA and CTSHPO regarding measures to avoid affecting the properties or to mitigate adverse effects on the properties and shall implement the agreed-upon measures.

5. CTDOT shall attempt to solicit interest in obtaining salvaged material from the Undertaking, such as the catenary structures, to be used for public education purposes, from the institutions listed in Appendix D. If it is feasible to do so, CTDOT shall use its best efforts to ensure that the salvaged material is removed in as intact a condition as possible. The recipient shall be required to accept the salvage material in its "AS-IS" condition and assume all liability, costs and expenses related to the salvaged material, including, without limitation, contamination, and storage. If CTDOT determines it is not feasible to salvage the material, CTDOT shall notify FTA and CTSHPO of the reason(s) that salvaging the material would not be feasible and CTDOT's obligation to salvage the material shall cease.

6. CTDOT shall attempt to reuse/repurpose the stone masonry from the existing bridge abutments that will be demolished in the construction of the replacement bridge. If CTDOT determines that it is not feasible to reuse/repurpose the stone, CTDOT shall notify FTA and CTSHPO of the reason(s) that reuse would not be feasible, and CTDOT's obligation to reuse the stone shall cease. Subsequently, CTDOT shall attempt to solicit interest in obtaining the stone masonry to be used for public education purposes, from the institutions listed in Appendix D. If it is feasible to do so, CTDOT shall use its best efforts to ensure that the salvaged material is removed in as intact a condition as possible. The recipient shall be required to accept the salvage material in its "AS-IS" condition and assume all liability, costs and expenses related to the salvaged material, including, without limitation, contamination, and storage. If CTDOT determines it is not feasible to salvage the stone masonry, CTDOT shall notify FTA and CTSHPO of the reason(s) that salvaging the material would not be feasible and CTDOT's obligation to salvage the material shall cease.

7. CTDOT shall develop an Historic Building Protection Plan in coordination with CTSHPO to minimize the effects of construction-period vibration upon nearby historic buildings. The historic buildings to be included in the Plan consist of the Interlocking Tower (South Norwalk Switch Tower Museum) and historic buildings on the north side of Washington Street in the South Main and Washington Streets Historic District, the Former Norwalk Lock Company, the Former Norwalk Iron Works, the circa 1910 commercial buildings at 68 Water Street, and the buildings that comprise the potentially eligible Liberty Square Historic District. The Plan shall be based on FTA's vibration threshold criteria, and shall consist of multiple elements, including (but not limited to) conducting pre-construction inspection of historic buildings, developing and implementing a vibration monitoring program, and conducting post-construction surveys of historic buildings. The plan shall include protective measures to be implemented if monitoring indicates the potential for damage to historic buildings. CTDOT shall prepare a draft technical memorandum documenting the results of the Plan's implementation and shall submit it to CTSHPO and FTA. The final technical memorandum shall be submitted to CTSHPO for permanent archiving and public accessibility.

8. CTDOT shall develop a maximum of two (2) exhibits and/or education programs for institutions and educators in the community, including the Maritime Aquarium. A maximum of \$450,000 will be allocated to the development of the two (2) exhibits and/or education programs. CTDOT shall solicit letters of interest (including scope of work and fee), select the institution(s) to develop the exhibits/education program(s), and submit the scope of work to FTA and CTSHPO for review. Following consultation with and approval by FTA and CTSHPO, CTDOT shall oversee the development and implementation of the exhibits and/or education programs.

- One exhibit will be focused on historic and current movable bridge engineering. The exhibit will include information about the extant WALK Bridge, earlier rail bridges at this location, and the new lift bridge. The public will learn about bridge operation, construction, and function. Hands-on Science, Technology, Engineering, and Math (STEM) educational components will be developed and distributed to local schools to be used in conjunction with school trips to the Maritime Aquarium. Materials will also be provided to the Aquarium to share with and educate visitors.
- A second exhibit will focus on the history of the railroad in the City of Norwalk, especially the WALK Bridge and the archaeological work conducted as part of the project. Photographs, documents, and other materials will be compiled to create the exhibit narrative and visuals. An exhibit will be developed that could be accommodated in any of the historical museums in the City. Associated classroom information will be developed, as well as electronic media that can be shared online with the public.

9. CTDOT shall provide non-federal resources for the restoration of the original iron fencing, gates, and associated masonry located in Mathews Park at the original entrance to the Lockwood-Mathews Mansion on West Avenue in Norwalk. CTDOT shall provide a maximum of \$2,500,000 for the restoration. CTDOT will work with the City of Norwalk, the Norwalk Historical Commission, and the Lockwood Mathews Mansion Museum to develop the scope, including the maximum funding amount, for the restoration of the original fencing, gates, and associated masonry.

10. CTDOT shall prepare documentation for listing the potentially eligible Liberty Square Historic District on the National Register of Historic Places. The Liberty Square Historic District to be listed consists of a row of late 19<sup>th</sup>-century and early 20<sup>th</sup>-century commercial buildings (195-201 Liberty Square, 203 Liberty Square, 205 Liberty Square, 207 Liberty Square, 209 Liberty Square, 211 Liberty Square, 213 Liberty Square, and 215 Liberty Square). CTDOT shall submit the documentation to the FTA and CTSHPO for review and revise the documentation according to any comments. Upon completion, CTDOT shall submit the revised documentation to CTSHPO for submittal to the National Park Service in accordance with the requirements of the National Register of Historic Places. The documentation shall be available for permanent archiving and public accessibility.

11. CTDOT shall prepare permanent interpretative panels for outdoor display in the city of Norwalk that will be available for viewing by the public. It is anticipated that the subject of the panels will be related to the history of Walk Bridge, the railroad, railroad engineering and transportation history in Connecticut. CTDOT shall consult with the City of Norwalk and the local historic stakeholders regarding the content and locations of the interpretative panels. CTDOT shall prepare and install a maximum of ten (10) permanent interpretive panels.

11. CTDOT will share Thirty (30), sixty (60), and ninety (90) percent design plans with CTSHPO and concurring parties who will have a thirty (30) day comment period in which to submit their comments to CTDOT. CTDOT will consider these comments as design further progresses.

## 12. Administrative Stipulations

### A. Dispute Resolution

If at any time during the implementation of this MOA, CTDOT or CTSHPO objects to any action proposed or the manner in which the terms of this MOA are implemented and cannot resolve the issue between them, both parties shall immediately notify and consult with FTA in order to resolve the objection. If, within thirty (30) days of such written notice, FTA determines that such objection(s) cannot be resolved, FTA will forward all documentation relevant to the dispute to the Council. Within thirty (30)

days after receipt of all pertinent documentation, the Council will provide FTA with recommendations, which FTA will take into account in reaching a final decision regarding the dispute.

If the Council does not provide comments regarding the dispute within thirty (30) days after receipt of adequate documentation, FTA may render a decision regarding the dispute. In reaching its decision, FTA will take into account all comments regarding the dispute from the parties to this MOA.

Any recommendations or comments provided by the Council will be understood to pertain only to the subject of the dispute; FTA's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remains unchanged.

FTA will notify all parties of its decision in writing before implementation of that portion of the Undertaking that was subject to dispute. FTA's decision will be final.

#### B. Amendments and Noncompliance

If any signatory to this MOA determines that its terms will not or cannot be carried out or that an amendment to its terms must be made, that party shall immediately consult with the other signatories to develop an amendment to this MOA pursuant to 36 C.F.R. §§ 800.6(c)(7) and 800.6(c)(8). The amendment will be effective on the date a copy signed by all of the original signatories is filed with the Council. If the signatories cannot agree to appropriate terms to amend this MOA, any signatory may terminate this MOA in accordance with Stipulation 12.C.

#### C. Termination

If this MOA is not amended following the consultation set out in Stipulation 12.B, it may be terminated by any signatory. Within thirty (30) days following termination, FTA shall notify the signatories if it will initiate consultation to execute a new MOA with the signatories under 36 C.F.R. § 800.6(c)(1) or request the comments of the Council under 36 C.F.R. § 800.7(a) and proceed accordingly.

#### D. Duration

If the terms of this MOA have not been implemented within fifteen (15) years of its execution, this MOA shall be considered null and void. In such event, FTA shall so notify the parties to this MOA and, if FTA chooses to continue with the Undertaking, shall reinitiate review of the Undertaking in accordance with 36 C.F.R. Part 800, et. seq.

#### E. Timely Review

Materials provided by CTDOT to FTA and CTSHPO under Stipulations 1 through 4 shall be reviewed in a timely fashion by FTA and CTSHPO. FTA and CTSHPO will provide CTDOT with requests for revision and any other comments within thirty (30) days of receiving a draft document. CTDOT will revise the materials accordingly and re-submit to FTA and CTSHPO for approval. Disputes regarding revisions shall be resolved as in Stipulation 12.A. If no response is received within the thirty (30) day period, the document will be considered to be approved by the non-responding party.

#### F. Unanticipated Discoveries

After the execution of this MOA if previously unidentified properties other than those discussed in this MOA are discovered that are eligible for the NRHP or that unanticipated effects on historic properties are found during the implementation of this MOA, CTDOT shall notify FTA, CTSHPO and appropriate concurring parties, and FTA shall follow the procedure specified in 36 C.F.R. 800.13.

G. Execution

Execution of this MOA by FTA, CTDOT, and CTSHPO and implementation of its terms are evidence that FTA has taken into account the effects of the Undertaking on the Historic Properties.

H. Counterparts

This MOA may be signed in counterpart copies, all of which, taken together, shall constitute but one and the same document.

I. Monitoring and Reporting

Each year following the execution of this MOA until it expires, is terminated, or the Stipulations have been fulfilled, CTDOT, on behalf of FTA, shall provide all parties and signatories to this MOA a summary report detailing work undertaken pursuant to its terms. Such report shall include, as applicable, status of mitigation activities, actions and accomplishments over the past year, any scheduling changes proposed, any problems encountered, and any disputes and/or objections received regarding CTDOT and FTA's efforts to carry out the terms of this MOA.

SIGNATORY PAGE

MEMORANDUM OF AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE CONNECTICUT DEPARTMENT OF TRANSPORTATION,  
AND  
THE CONNECTICUT STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176

Federal Transit Administration

By: Mary Beth Mello  
Mary Beth Mello, Regional Administrator, Region 1

Date: 5/25/17

Concur: Charles J. Dyer  
Charles J. Dyer, Regional Counsel

Date: 5/25/2017

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REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
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Connecticut Department of Transportation

By:

  
Thomas J. Maziarz, Bureau Chief, Bureau of Policy and Planning

Date:

5-15-2017

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WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176**

**Connecticut State Historic Preservation Officer**

By:   
Catherine Labadia, Deputy State Historic Preservation Officer

Date: 5/16/17

**CONCURRING PARTY**

**MEMORANDUM OF AGREEMENT  
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THE FEDERAL TRANSIT ADMINISTRATION,  
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WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176**

**Tribal Historic Preservation Officer, Mashantucket Pequot Tribal Nation**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Marissa Turnbull, Tribal Historic Preservation Officer

**CONCURRING PARTY**

**MEMORANDUM OF AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE CONNECTICUT DEPARTMENT OF TRANSPORTATION,  
AND  
THE CONNECTICUT STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176**

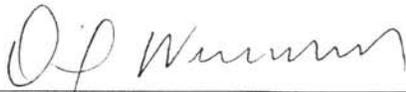
**Tribal Historic Preservation Officer, Mohegan Tribe of Indians of Connecticut**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
James Quinn, Tribal Historic Preservation Officer

CONCURRING PARTY

MEMORANDUM OF AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE CONNECTICUT DEPARTMENT OF TRANSPORTATION,  
AND  
THE CONNECTICUT STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176

Norwalk Historical Commission

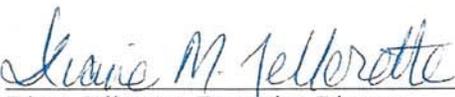
By:   
David Westmoreland, Chairman

Date: 5/23/17

CONCURRING PARTY

MEMORANDUM OF AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE CONNECTICUT DEPARTMENT OF TRANSPORTATION,  
AND  
THE CONNECTICUT STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176

Norwalk Historical Society

By:   
Diane Jellerette, Executive Director

Date: May 22, 2017

CONCURRING PARTY

MEMORANDUM OF AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE CONNECTICUT DEPARTMENT OF TRANSPORTATION,  
AND  
THE CONNECTICUT STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176

Norwalk Preservation Trust

By:   
Tod Bryant, President

Date: 5/19/2017

CONCURRING PARTY

MEMORANDUM OF AGREEMENT  
AMONG  
THE FEDERAL TRANSIT ADMINISTRATION,  
THE CONNECTICUT DEPARTMENT OF TRANSPORTATION,  
AND  
THE CONNECTICUT STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176

SONO Switch Tower Museum

By: Anthony White  
Anthony White, President

Date: 5/15/2017

**MEMORANDUM OF AGREEMENT  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176**

**APPENDIX A  
ARCHAEOLOGICAL TREATMENT PLAN**

**I. INTRODUCTION**

The Connecticut Department of Transportation (CTDOT) proposes the replacement of the Norwalk River Railroad Bridge (State Bridge 04288R), also known as the Walk Bridge, across the Norwalk River in Norwalk, Connecticut (the Undertaking). The plans for the Undertaking involve numerous actions that may affect buried archaeological sites which may be eligible for listing in the National Register of Historic Places (NRHP). The actions include the acquisition of at least twenty (20) parcels for use as construction easements, access and staging areas, as well as shoreline, intertidal and underwater actions related to the erection of new bridge footings, submarine electric cables, and construction-related structures.

An archaeological sensitivity assessment (Phase IA) was undertaken of the terrestrial, intertidal and underwater areas that will be affected by the Undertaking. The assessment included review of historic maps, archaeological site files, local histories, census records, environmental data and bathymetric data, as well as a walkover survey. Twenty (20) terrestrial parcels were assessed as having the potential for containing intact buried archaeological remains. Most of the terrestrial parcels are sensitive for historic-period resources based on the land-use history and 19<sup>th</sup> century development on both sides of the Norwalk River. However, the survival of pre-colonial Native American site remains cannot be ruled out, because substantial portions of the project area were formerly marshlands, inclusive of a mapped “ancient Indian fort” within a current marina formed by filling in the marsh around the fort site. Intertidal and underwater portions of the Area of Potential Effect (APE), outside of the deep regularly-dredged channel, were also assessed as having archaeological sensitivity for pre-colonial Native American sites.

A combination of geoprobe investigation, machine-assisted and manual testing, and archaeological monitoring is recommended for terrestrial parcels to determine whether potentially significant archaeological resources have survived. A combination of vibracores and hand cores is recommended to determine whether potentially significant submerged archaeological resources have survived in intertidal and underwater portions of the APE.

Additional evaluation of areas of archaeological sensitivity will occur as outlined below.

## II. EVALUATION OF AREAS OF ARCHAEOLOGICAL POTENTIAL

### A. Further Analysis of Archaeological Sensitivity

Additional geotechnical information may become available that indicates that areas designated as archaeologically sensitive in the project-wide archaeological sensitivity report have little or no potential for containing intact archaeological resources. CTDOT shall notify the U.S. Department of Transportation, Federal Transit Administration (FTA) and the Connecticut State Historic Preservation Office (CTSHPO) of these findings. No further archaeological investigations will be undertaken for these areas.

### B. Standards for Archaeological Documentation

All archaeological survey, assessment, documentation and mitigation will be conducted according to the CTSHPO's *Environmental Review Primer for Connecticut's Archaeological Resources* and the United States Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*.

### C. Assessment of Additional Sensitive Areas

Additional areas of archaeological sensitivity may also be identified as part of ongoing actions associated with the Undertaking. Specific areas of the Undertaking impact identified after completion of the Undertaking-wide archaeological sensitivity assessment survey will be evaluated for their potential to contain NRHP-eligible subsurface terrestrial, intertidal and underwater resources. The assessment survey for additional areas will include documentary research, walkover survey, and evaluation of historical, environmental and bathymetric data. Sensitive areas will undergo testing as per Section II.D. below.

### D. Field Testing to Determine Presence or Absence of Archaeological Resources

In areas determined to have terrestrial, intertidal and underwater sensitivity, CTDOT, in consultation with CTSHPO and FTA, shall undertake field testing to identify the presence or absence of archaeological resources (Phase Phase IB) as follows:

1. Phase IB testing will begin with geoprobe, vibracore and hand-testing in terrestrial and intertidal areas already identified as sensitive in the Phase IA survey. This testing will rule out certain areas as too disturbed to contain intact archaeological deposits and will help guide development of a focused, more intensive Phase IB testing plan that will conclusively determine the presence or absence of archaeological resources. These determinations will be included in the Phase IB testing plan identified in section D.2.
2. Prior to intensive Phase IB field testing, CTDOT will submit a plan outlining the proposed methodology for CTSHPO's concurrence. The plan will likely include machine-stripping followed by manual shovel testing, expanded shovel testing in non-paved areas, and underwater archaeological investigation.
3. Subsequent to field testing in sensitive areas, CTDOT shall provide a technical memorandum to FTA, CTSHPO, and local stakeholders in which one of the following conclusions is reached:

- a) The APE does not appear to contain potentially significant NRHP-eligible archaeological resources; or
- b) The APE does contain potentially significant NRHP-eligible archaeological resources.

**E. Field Testing to Determine Significance and Extent of Archaeological Resources**

If Phase IB testing determines that potentially significant archaeological resources exist in areas that will be impacted by the Undertaking, Phase II field investigations shall be undertaken immediately in order to identify the physical extent of such resources and to determine their significance.

Subsequent to Phase II field testing in sensitive areas, CTDOT shall provide a combined Phase I/II survey technical report to FTA and CTSHPO in which one of the following conclusions is reached:

- 1. The APE contains significant NRHP-eligible archaeological resources; or
- 2. The APE does not contain significant NRHP-eligible archaeological resources.

**F. Mitigation Data Recovery and Curation**

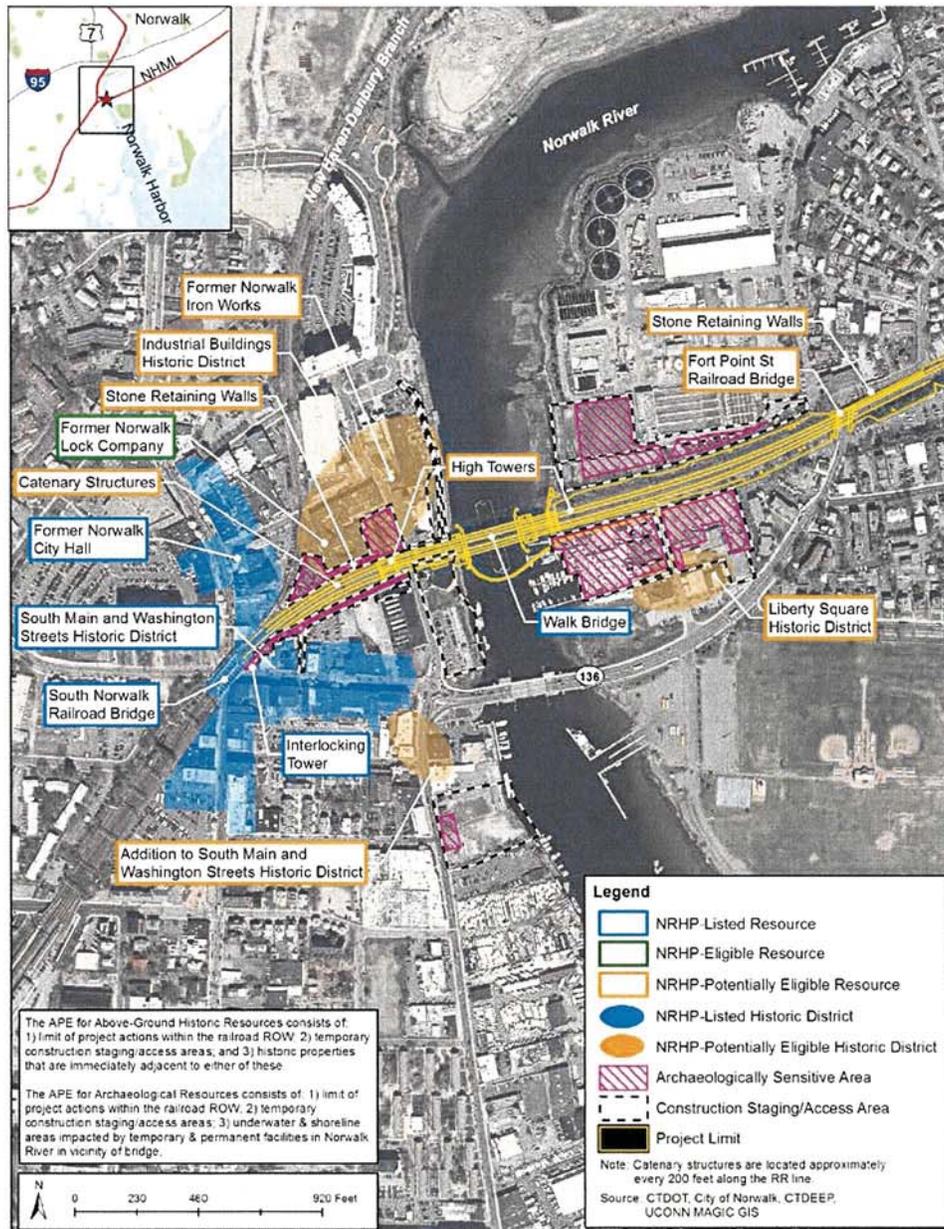
If Phase II field testing determines that significant archaeological resources exist in areas that will be impacted by the Undertaking and that such impacts cannot be avoided, CTDOT, in consultation with FTA and CTSHPO, shall develop and implement appropriate measures to minimize and/or mitigate adverse effects on archaeological resources in the APE. These measures will be implemented prior to any construction or demolition of the area of significant archaeological resources.

- 1. CTDOT and FTA, in consultation with CTSHPO, shall consider measures, such as design modification, for avoidance of significant archaeological resources.
- 2. Should mitigation of an unavoidable archaeological site be required, stipulations may be amended to the MOA to address the mitigation, if deemed necessary by CTDOT and FTA in consultation with CTSHPO.
- 3. In advance of any mitigation or data recovery efforts undertaken for significant archaeological sites in the APE, CTDOT, in consultation with CTSHPO and in coordination with local stakeholders, will develop, in accordance with 36 CFR Part 79, an Analysis and Curation of Material and Records Plan for any archaeological excavations. CTDOT shall be responsible for the implementation of such plan.

**MEMORANDUM OF AGREEMENT  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176**

**APPENDIX B:**

**Area of Potential Effect Map**



**MEMORANDUM OF AGREEMENT  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176**

**APPENDIX C:**

**Historic Properties Adversely Affected by the Undertaking**

<b>Property</b>	<b>National Register Status</b>	<b>Effects</b>
Norwalk River Railroad Bridge (Walk Bridge)	Listed	To be replaced: Adverse Effect.
High Towers	Contributing to an eligible linear historic district	To be removed: Adverse Effect.
Catenary Support Structures	Contributing to an eligible linear historic district	Some or all of the existing catenary support structures will be removed: Adverse Effect.
Stone Retaining Walls	Contributing to an eligible linear historic district	To be removed: Adverse Effect.
Fort Point Street Railroad Bridge	Contributing to an eligible linear historic district	To be removed: Adverse Effect.
South Main and Washington Streets Historic District	Listed	Removal/replacement of bridge and high towers will have a visual impact on the district's setting: indirect (visual) Adverse Effect.
Industrial Buildings Historic District	Eligible	Removal of the high towers and removal and replacement of the Walk Bridge, catenary support structures, and stone retaining walls will have a visual impact on the setting of the potentially eligible historic district: Indirect (Visual) Adverse Effect.
Former Norwalk Lock Company, 18 Marshall St.	Eligible	Removal of the high towers and removal and replacement of the Walk Bridge, catenary support structures, and stone retaining walls will have a visual impact on the building's setting: Indirect (Visual) Adverse Effect.
Former Norwalk Iron Works (Maritime Aquarium), 10 North Water St.	Contributing to an eligible historic district	Removal of the high towers and removal and replacement of the Walk Bridge, catenary support structures, and stone retaining walls will have a visual impact on the building's setting: Indirect (Visual) Adverse Effect.

**MEMORANDUM OF AGREEMENT  
REGARDING THE  
WALK BRIDGE REPLACEMENT PROJECT  
NORWALK, CONNECTICUT  
STATE PROJECT 301-176**

**APPENDIX D**

**INSTITUTIONS THAT MAY BE INTERESTED IN OBTAINING SALVAGED MATERIALS  
FROM THE WALK BRIDGE REPLACEMENT PROJECT**

City of Norwalk Norwalk City Hall 125 East Avenue Norwalk, CT 06851-5125	Connecticut Eastern Railway Museum Eastern CT Chapter, National Railway Historical Society P.O. Box 665 Willimantic, CT 06226-0665
SONO Switch Tower Museum 77 Washington Street Norwalk, CT 06854	Connecticut Trolley Museum P.O. Box 360 East Windsor, CT 06088
Norwalk Historical Society Mill Hill Historic Park 2 East Wall Street, P. O. Box 1640 Norwalk, CT 06851	Danbury Railway Museum 120 White Street Danbury, CT 06810
Lockwood-Mathews Mansion Museum 295 West Avenue Norwalk, CT 06851	Railroad Museum of New England P.O. Box 400 Thomaston, CT 06787-0400
Maritime Aquarium at Norwalk 10 North Water Street Norwalk, CT 06854	The Shoreline Trolley Museum 17 River Street East Haven, CT 06512
	The Valley Railroad Company One Railroad Avenue P.O. Box 452 Essex, CT 06426
	Vernon Depot Park Vernon Parks and Recreation Department 14 Park Place Vernon, CT 06066

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix C: Public Scoping Notice and Comments**

**Appendix C-1 Public Scoping Notice**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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Susan D. Merrow  
Chair

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- [CEPA Statutes](#)
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- [What is Scoping?](#)
- [What to Expect at a Scoping Meeting](#)
- [How to Request a Public Scoping Meeting](#)
- [Guide to the State Lands Transfer Process](#)

[CEQ HOME](#)


**February 3, 2015**

### Scoping Notices

1. I-84 Project, Hartford
2. East Side Water Storage Tank and Pump Station, Southington
3. **NEW!** Hawleyville Low Pressure Sewer Extension, Newtown
4. **NEW!** Norwalk River Railroad Bridge Replacement, Norwalk

### Post-Scoping Notices: Environmental Impact Evaluation (EIE) Not Required

1. Deep River Water Treatment Plant and Transmission Main Replacement Meter and Microturbine, Lebanon and Bozrah
2. Mohegan Park Water Tank, Norwich

### Environmental Impact Evaluations

No Environmental Impact Evaluations were submitted for publication in this edition.

### State Land Transfers

1. **NEW!** Hartland

**The next edition of the Environmental Monitor will be published on February 17, 2015.**

[Subscribe to e-alerts](#) to receive an e-mail when the Environmental Monitor is published.

### **Scoping Notices**

"Scoping" is for projects in the earliest stages of planning. At the scoping stage, detailed information on a project's design, alternatives, and environmental impacts does not yet exist. Sponsoring agencies are asking for comments from other agencies and from the public as to the scope of alternatives and environmental impacts that should be considered for further study. Send your comments to the contact person listed for the project by the date indicated.

**The following Scoping Notices have been submitted for review and comment.**

#### **1. Notice of Scoping for: I-84 Hartford Project**

**Municipality where proposed project might be located:** Hartford, CT

**Address of Project Location:** I-84 from approximately Hamilton Street to I-91 interchange in downtown Hartford.

**Project Description:** The I-84 Hartford Project was initiated by the Connecticut Department of Transportation (CTDOT) to address structural deficiencies, improve traffic operations and safety, and reduce congestion on I-84 mainline and its interchanges from approximately Hamilton Street to I-91 in the City of Hartford. At the same time, the I-84 Hartford Project will strive to reduce the highway's adverse impact and footprint on the City, while integrating it more closely into the regional multimodal and interstate transportation system, both existing and planned.

**Project Map:** [Click here to view a map of the project area.](#)

**There will be a Public Scoping Meeting for this project at:**

**DATE:** **January 21, 2015** (snow date **January 28, 2015**; same time and location)

**TIME:** Open House from 3:00 p.m. to 7:30 p.m. Presentation at 5:30 p.m.

**PLACE:** Hartford Public Library, 500 Main Street, Hartford, CT 06103

**Purpose of Meeting:** The Scoping Meeting will present information about the project and solicit public comments on the project's purpose and need, preliminary alternatives, and areas of key environmental concern.

The study team will be available from 3:00 p.m.-5:30 p.m. and after the presentation until 7:30 p.m. to discuss the proposed project. The presentation will begin at 5:30 p.m.

**Written comments** from the public are welcomed. Public comments may be submitted verbally at the meeting, either in front of an audience, one-on-one with a stenographer, or in writing. The meeting facility is ADA accessible. Language assistance may be requested by contacting the Department of Transportation's Office of Communications (voice only) at (860) 594-3062 at least five (5) working days prior to the meeting. Language assistance is provided at no cost to the public, and efforts will be made to respond to requests for assistance. The Scoping Initiation Packet and other scoping materials are available online at [www.i84hartford.com](http://www.i84hartford.com).

While comments may be submitted at any time throughout the course of this project, **comments must be postmarked by February 20, 2015 to be part of the scoping record.**

**Written comments should be sent to:**

**Name:** Mr. Richard Armstrong, Transportation Principal Engineer

**Agency:** Connecticut Department of Transportation, Bureau of Engineering and Construction

**Address:** P.O. Box 317546, Newington, CT 06131-7546

**E-Mail:** [richard.armstrong@ct.gov](mailto:richard.armstrong@ct.gov) (Please use the subject heading "I-84 HARTFORD Project")

**Phone:** (860) 594-3187

**Other Information:** I-84 Hartford Project Website, [www.i84hartford.com](http://www.i84hartford.com)

**If you have questions about the public meeting, or other questions about the scoping for this project please contact Mr. Armstrong as directed above.**

¿Habla español? Visite [www.i84hartford.com](http://www.i84hartford.com) y use la función "Google Translate."

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## 2. Notice of Scoping for East Side Water Storage Tank and Pump Station

**Municipality where proposed project might be located:** Southington

**Addresses of Possible Project Locations:** Flanders Street on the Southington High School Property, Smith Street ROW, and Chesterwood Terrace

**Project Description:** In order to address pressure deficiencies in the existing distribution system, the Southington Water Department (SWD) has proposed to install a 1.0 million gallon pre-stressed concrete tank, approximately 1,500 lineal feet of transmission main, approximately 550 lineal feet of twin distribution mains, a new pump station, and associated components. The tank is proposed to be located in wooded area to the east of the Smith Street right-of-way. A new gravel access road will be constructed from the end of Smith Street to the tank site and a small parking area will be provided in front of the tank. Twin 8-inch water pipes will be installed to connect the pump station proposed to be constructed on the Southington High School Property to the existing water mains on Flanders Street.

**Project Maps:** Click [here](#) for a map of the project area. Click [here](#) for a more detailed view of the proposed East Side Water Storage tank. Click [here](#) for a more detailed view of the proposed pump station.

**Written comments from the public are welcomed and will be accepted until the close of business on: Friday, February 20, 2015.**

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a**

**Public Scoping Meeting. Such requests must be made by Friday, January 30, 2015.**

**Written comments and/or requests for a Public Scoping Meeting should be sent to:**

**Name:** Mr. Eric McPhee  
**Agency:** Department of Public Health  
Drinking Water Section  
**Address:** 410 Capitol Avenue, MS # 51WAT  
PO Box 340308  
Hartford, CT 06134-0308  
**Fax:** 860-509-7359  
**E-Mail:** [DPH.SourceProtection@ct.gov](mailto:DPH.SourceProtection@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Patricia Bisacky  
**Agency:** Department of Public Health  
Drinking Water Section  
**Address:** 410 Capitol Avenue, MS # 51WAT  
PO Box 340308  
Hartford, CT 06134-0308  
**Phone:** 860-509-7333  
**Fax:** 860-509-7359  
**E-Mail:** [Patricia.Bisacky@ct.gov](mailto:Patricia.Bisacky@ct.gov)

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### 3. Notice of Scoping for Hawleyville Low-Pressure Sewer Extension

**Municipality where proposed project would be located:** Newtown

**Project Location:** Residential and commercial/industrial properties along Route 6 (Mount Pleasant Road), Route 25 (Hawleyville Road), Covered Bridge Road and Hillcrest Drive.

**Project Description:** As part of an economic development project, the Town of Newtown desires to provide developed and undeveloped parcels with access to public sewers as depicted in Figure 1. The purpose of the project is to incentivize development within the Hawleyville Area pursuant to the goals established by the Town's Economic Development Commission and in accordance with Housatonic Valley Council of Elected Officials (HVCEO) Guidance Bulletin #94.

Utilizing a Small Town Economic Assistance Program (STEAP) Grant and benefit assessments not exceeding the appraised value of each property that connects to the system, the town intends to provide a low-pressure sanitary sewer system servicing the properties abutting the above listed roadways. Properties that are currently developed will be provided with a semi-positive displacement grinder pump and a service lateral extending from the grinder pump discharge to the low-pressure sewer main in the street. For commercial/industrial properties that are currently undeveloped, the intent of the project is to provide an adequately sized, low-pressure sewer connection stub to the property line to serve the property in the future. In addition, the Town intends to purchase and stockpile pumps capable of pumping the design flowrate based upon existing zoning for the undeveloped properties.

In order to convey the complete buildout scenario presented in the 1998 Hawleyville Area Facility Plan and based on the land use mix presented in the HVCEO Bulletin #94, a 6-inch dry forcemain will be installed in the same trench as the low pressure sewer, providing sufficient project budget exists. The 6-inch forcemain will extend from the proposed manhole directly in front of the Midway Home Estates to the intersection of Route 6 and Route 25 and be capped there. The purpose of this forcemain will be to convey future wastewater, which can drain via gravity along Mount Pleasant Road to the intersection with Route 25. The developers of the two large vacant properties would be responsible for siting and providing the pump station to serve their properties.

Wastewater collected from the proposed collection system will flow westward and discharge into an existing manhole directly upstream of the existing Toll Brothers Pump Station at 164 Mount Pleasant Road. From there, the wastewater flow is pumped along Route 6 to Bethel's collection system and ultimately discharged for treatment at the Danbury Wastewater Treatment Facility. In all, it is estimated that approximately 7,350 linear feet of low pressure sewer and approximately 500 linear feet of gravity sewer will be provided as part of this project.

**Project Maps:** [Click here to view a map of the proposed sewer infrastructure.](#)  
[Click here to view a map of the sewer service area.](#)

**Written comments from the public are welcomed and will be accepted until the close of business on: March 6, 2015**

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a**

**request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by February 13, 2015.**

**Written comments and/or requests for a Public Scoping Meeting should be sent to:**

**Name:** Carlos Esguerra  
**Agency:** Department of Energy & Environmental Protection  
Bureau of Water Protection & Land Reuse  
**Address:** 79 Elm Street  
Hartford, CT 06106-5127  
**Phone:** 860-424-3756  
**Fax:** 860-424-4067  
**E-Mail:** [carlos.esguerra@ct.gov](mailto:carlos.esguerra@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact Mr. Esguerra, as directed above.**

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act. Any person with a disability who may need a communication aid or service may contact the agency's ADA Coordinator at 860-424-3194 or at [deep.hrmed@ct.gov](mailto:deep.hrmed@ct.gov). Any person with limited proficiency in English, who may need information in another language, may contact the agency's Title VI Coordinator at 860-424-3035 or at [deep.aaooffice@ct.gov](mailto:deep.aaooffice@ct.gov). ADA or Title VI discrimination complaints may be filed with DEEP's EEO Manager at (860) 424-3035 or at [deep.aaooffice@ct.gov](mailto:deep.aaooffice@ct.gov).

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#### **4. Notice of Scoping for the Norwalk River Railroad Bridge, Norwalk**

**Project Title:** Replacement of the Norwalk River Railroad Bridge (WALK Bridge)

**Municipality where proposed project might be located:** Norwalk, Connecticut

**Project Description:** The Connecticut Department of Transportation (CTDOT) proposes to replace the Norwalk River Railroad Bridge, which carries the New Haven Line Railroad over the Norwalk River in the city of Norwalk. The bridge was built in 1896 and is a truss swing bridge with three fixed spans and one movable span. Total length is 565 feet. The activities associated with total replacement of the existing bridge include the following:

- Complete replacement of the entire bridge
- Complete replacement of the fender system
- Complete replacement of the high towers
- Replacement of the track rails and ties
- Signal and communications replacements which will include the installation of a new cable spanning the river either via submarine or aerial path

The purpose of this project is to replace the existing, deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of commuter and intercity passenger rail service, offer operational flexibility and ease of maintenance, as well as provide for increased capacity and efficiencies of rail transportation along the New Haven Line/ Northeast Corridor.

**Project Maps:** Click [here](#) to view a map and an aerial photograph of the project area.

**Written comments from the public are welcomed and will be accepted until the close of business on: Tuesday, March 10, 2015**

**There will be a Public Scoping Meeting for this project at:**

**DATE:** Tuesday, **February 24, 2015** (In case of inclement weather: Thursday, February 26, 2015 same time and place)

**TIME:** 7:00 pm

**PLACE:** City Hall Community Room, 125 East Avenue, Norwalk, Connecticut 06851

**NOTES:** The meeting location is accessible to persons with disabilities (ADA accessible). Deaf and hearing impaired persons and those with limited English proficiency wishing to attend this meeting and requiring an interpreter may make arrangements by contacting the CTDOT's Office of Communications at 860-594-3062 (voice only) at least five working days prior to the meeting. Language assistance is provided at no cost to the public.

**Additional information about the project can be viewed in person at CTDOT's Office of Engineering, 2800 Berlin Turnpike, Newington, Connecticut, during regular office hours, Monday**

through Friday, 8:30 a.m. to 4:30 p.m.

**Written comments should be sent to:**

**Name:** Mr. Mark Alexander, Transportation Assistant Planning Director  
**Agency:** Connecticut Department of Transportation, Bureau of Policy and Planning  
**Address:** 2800 Berlin Turnpike, Newington, Connecticut, 06131  
**E-Mail:** [dot.environmentalplanning@ct.gov](mailto:dot.environmentalplanning@ct.gov)

**If you have questions about the public meeting, or other questions about this project, contact:**

**Name:** Mr. John Hanifin, Transportation Supervising Engineer  
**Agency:** Connecticut Department of Transportation, Bureau of Engineering and Construction  
**Address:** 2800 Berlin Turnpike, Newington, Connecticut, 06131  
**Phone:** (860) 594-2899  
**E-Mail:** [John.Hanifin@ct.gov](mailto:John.Hanifin@ct.gov)

## Post-Scoping Notices: Environmental Impact Evaluation Not Required

This category is required by the October 2010 revision of the [Generic Environmental Classification Document](#) for State Agencies. A notice is published here if the sponsoring agency, after publication of a scoping notice and consideration of comments received, has determined that an Environmental Impact Evaluation (EIE) does not need to be prepared for the proposed project.

**The Following Post-Scoping Notices have been submitted for publication in this edition.**

### 1. Post-Scoping Notice for: Deep River Water Treatment Plant and Transmission Main Replacement, Meter and Microturbine

**Municipalities where project will be located:** Lebanon and Bozrah

**CEPA Determination:** On June 7, 2011 the Department of Public Health (DPH) published a [Notice of Scoping](#) to solicit public comments for this project in the *Environmental Monitor*.

Based on the [comments](#) provided by the Department of Energy and Environmental Protection (DEEP) dated July 8, 2011, it has been determined that the project does not require the preparation of Environmental Impact Evaluation (EIE) under CEPA. The DPH will coordinate with Norwich Public Utilities to ensure that the recommendations by the DEEP will be implemented.

The agency's conclusion is documented in a [Memorandum of Findings and Determination](#) and an [Environmental Assessment Summary](#).

**If you have questions about the project, you can contact the agency at:**

**Name:** Mr. Eric McPhee  
**Agency:** Department of Public Health  
 Drinking Water Section  
**Address:** 410 Capitol Avenue, MS #51WAT  
 PO Box 340308  
 Hartford, CT 06134-0308  
**Phone:** 860-509-7333  
**Fax:** 860-509-7359  
**E-Mail:** [DPH.SourceProtection@ct.gov](mailto:DPH.SourceProtection@ct.gov)

**What happens next:** The DPH expects the project to go forward. This is expected to be the final notice of the project to be published in the *Environmental Monitor*.

### 2. Post-Scoping Notice for: Mohegan Park Water Tank

**Municipality where project will be located:** Norwich

**CEPA Determination:** On August 7, 2012, the Department of Public Health (DPH) published a [Notice of Scoping](#) to solicit public comments for this project in the *Environmental Monitor*.

Based on the [comments](#) provided by the Department of Energy and Environmental Protection (DEEP) dated September 5, 2012, it has been determined that the project does not require the preparation of Environmental Impact Evaluation (EIE) under CEPA. The DPH will coordinate with Norwich Public Utilities to

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix C-2      Agency Comments**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**STATE OF CONNECTICUT**  
**DEPARTMENT OF PUBLIC HEALTH**

**Jewel Mullen, M.D., M.P.H., M.P.A.**  
**Commissioner**



**Dannel P. Malloy**  
**Governor**  
**Nancy Wyman**  
**Lt. Governor**

March 10, 2015

Mark Alexander  
Transportation Assistant Planning Director  
Bureau of Policy and Planning  
Connecticut Department of Transportation  
2800 Berlin Turnpike  
Newington, CT 06131

Re: Notice of Scoping for the Norwalk River Rail Road Bridge, Norwalk

Dear Mr. Alexander:

The Drinking Water Section of the Department of Public Health has reviewed the above-mentioned project for potential impacts to any sources of public drinking water supply. This project does not appear to be in a public water supply source water area; therefore, the Drinking Water Section has no comments at this time.

Sincerely,

A handwritten signature in blue ink, appearing to read "Eric McPhee".

Eric McPhee  
Supervising Environmental Analyst  
Drinking Water Section



Phone: (860) 509-7333 • Fax: (860) 509-7359 • VP: (860) 899-1611  
410 Capitol Avenue, MS#51WAT, P.O. Box 340308  
Hartford, Connecticut 06134-0308  
[www.ct.gov/dph](http://www.ct.gov/dph)

*Affirmative Action/Equal Opportunity Employer*



**CONNECTICUT DEPARTMENT OF  
ENERGY & ENVIRONMENTAL PROTECTION  
OFFICE OF ENVIRONMENTAL REVIEW  
79 ELM STREET, HARTFORD, CT 06106-5127**

---

**To:** Mark W. Alexander - Transportation Assistant Planning Director  
DOT - Office of Environmental Planning, 2800 Berlin Turnpike, Newington

**From:** David J. Fox - Senior Environmental Analyst      **Telephone:** 860-424-4111

**Date:** March 10, 2015      **E-Mail:** [david.fox@ct.gov](mailto:david.fox@ct.gov)

**Subject:** Norwalk River Railroad Bridge

---

The Department of Energy & Environmental Protection (DEEP) has reviewed the Notice of Scoping for proposed replacement of the Norwalk River railroad bridge (WALK Bridge). The following comments are submitted for your consideration.

Based upon the available scoping materials, it appears that ConnDOT is well aware of the appropriate environmental resources to be evaluated in the CEPA/NEPA document and the state permits, reviews and authorizations required for the project. ConnDOT has already had significant involvement with various project stakeholders, including the Permitting & Enforcement Section of the Office of Long Island Sound Programs (OLISP). Specifically, several pre-application meetings have been held, where Micheal Grzywinski provided resource information and identified permitting issues. To supplement this information, I have included some preliminary comments from the OLISP Planning Section and the Inland Fisheries Division as well as general recommendations to minimize construction impacts.

As you know, the proposed project is within Connecticut's coastal boundary as defined by section 22a-94 of the Connecticut General Statutes (CGS) and is subject to the provisions of the Connecticut Coastal Management Act (CCMA), sections 22a-90 through 22a-112. In accordance with CGS section 22a-100, state actions within the coastal boundary that may significantly affect the environment must be consistent with the standards and policies of the CCMA.

The site of the Norwalk River railroad bridge crossing has abundant coastal resources, both to the north and south, including coastal waters, intertidal flats and tidal wetlands. Please find enclosed CCMA fact sheets for information specific to protection policies regarding these resources. As the project proceeds towards design, these resources should be protected to the maximum extent practicable, with remaining impacts to be fully mitigated. OLISP expects to provide further analysis once plans are developed.

Managing for water quality protection will be of paramount importance. Construction practices for replacement or repair represent significant potential adverse impacts to water quality during construction and all best management practices to minimize and mitigate for such impacts should be incorporated as design proceeds. Details of construction sequencing and measures to avoid discharge of any foreign material into the water column would be required.

The railroad bridge is surrounded by public access on both sides of the river, up and down the harbor as well as many active water-dependent uses which rely on readily available access north and south of the railroad bridge. Public access is by definition is a water-dependent use pursuant to the CCMA and subject to the CCMA's full protections as well as enhancement and mitigation policies. The relevant CCMA policy is "preserve and protect water-dependent uses by managing uses in the coastal boundary giving highest priority and preference to water-dependent uses and facilities in shorefront areas" [CGS section 22a-92(b)(1)(A)]. See enclosed fact sheet for more information regarding water-dependent uses.

The Maritime Aquarium at Norwalk offers public waterfront uses, dock access and parking open to the public north and south of the railroad bridge. There are several other public walkways and spaces which will likely be impacted during construction that will require full compensation and mitigation. Other parks and public walkways along the harbor have the potential of being impacted to various degrees during construction. OLISP anticipates that many water-dependent use businesses will be significantly impacted by the disruption and adequate compensation will be required once more detail is provided.

Due to the significant construction disruption over a period of years, OLISP anticipates additional public walkway development will be required along both sides of the river and northeast to Smith Street to satisfy the water dependent use criteria and impacts of the railroad project. OLISP believes the City will specifically be looking, in part, for waterfront walkway enhancements on both sides of harbor, lighting under the bridge, a path from the harbor back to Smith St on the north side of tracks along the east side of river, and other public park area development, public parking and signage to offset public use/water-dependent use criteria and impacts.

The Norwalk *Plan of Conservation & Development* and *Harbor Management Plan* strongly supports water-dependent use and public access development policies and goals within the Norwalk Harbor area. These plans, along with the *Norwalk River Watershed Plan*, also strongly support preservation and enhancement of natural and coastal resources and water quality. These documents should be fully analyzed and planned for as project details become available.

The Inland Fisheries Division has also been consulted by ConnDOT and provided the following preliminary observations. Some of the alternatives may involve new dredging and other benthic impacts if the piers are built in new locations, so there will be long-term habitat issues to examine for each alternative. Depending on the methods used to demolish the piers, measures will be recommended to protect anadromous fish and perhaps other species from excessive noise, pressure waves, or other demolition effects. Also, dredging projects in the Norwalk River/Harbor are routinely evaluated for effects on winter flounder reproduction during the period February 1 through May 15 and anadromous fish migration from April 1 through June 30; seasonal restrictions would be required, as appropriate.

In designing the new bridge, the effects of climate change, in particular sea level rise and increased storm surges, should be considered. Given that the age of the existing structure is approaching 120 years, it is likely that the replacement bridge will be expected to be in service

throughout the century. It should be designed to withstand projected conditions for its anticipated lifespan.

The extent of land side construction along the railway approaches is not known. Given the urban location, the discovery of hazardous materials, hazardous waste and/or contaminated soils is likely. It is assumed that ConnDOT's standard procedures, such as preparing Land Use Evaluation reports (Task 110) and Preliminary Evaluation reports (Task 120), would be employed to evaluate the potential to encounter contamination. 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 also be prepared.

It should also be noted that rail lines in Connecticut are historically contaminated with PCBs. PCB waste in the form of soil, ballast, ties, and rails may be generated during rail line projects. Such waste must be managed in accordance with state and federal PCB requirements and are subject to approval by DEEP and EPA. Additional information is also available on-line at: [PCB Program](#).

The Department's standard comments concerning construction projects in urban areas are submitted for your information:

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. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: [Special Waste Fact Sheet](#).

The Waste Engineering & Enforcement Division has issued a *General Permit for Contaminated Soil and/or Sediment Management (Staging & Transfer)* (DEP-SW-GP-001). It establishes a uniform set of environmentally protective management measures for stockpiling soils when they are generated during construction or utility installation projects where contaminated soils are typically managed (held temporarily during characterization procedures to determine a final disposition). 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. A fact sheet describing the general permit, a copy of the general permit and registration

forms are available on-line at: [Soil Management GP](#).

The DEEP Office of Environmental Justice is aware that previous construction projects in urban environments have resulted in displacement of rodents that result in problem infestations in neighboring areas. Prior to construction, a comprehensive survey of the project area should be conducted to identify rodent nesting/feeding areas. An extermination plan should be developed in coordination with municipal health officials to be implemented before construction activities commence. The project site and surrounding areas should be monitored to confirm the success of the extermination efforts and investigate any reports of rodents. Additional extermination efforts should be implemented, as necessary.

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.

Additionally, Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. Adhering to the 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 limit is recommended. It should be noted that only DEEP can enforce Section 22a-174-18(b)(3)(C) of the RCSA. Therefore, it is recommended that the project sponsor 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.

As you know, the Natural Diversity Data Base (NDDB) has been consulted to determine whether the project would affect Federally listed endangered or threatened species or species listed by the State, pursuant to section 26-306 of the CGS, as endangered, threatened or special concern, that occur within the project corridor. The NDDB does not anticipate negative impacts to listed species from implementation of the project. (See letter to Christopher Samorajczyk dated November 17, 2014.) The NDDB response includes all information regarding critical biological resources available at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the

scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Thank you for the opportunity to review this proposal. If you have any questions concerning these comments, please contact me.

cc: Robert Hannon, DEEP/OPPD  
Marcy Balint, DEEP/OLISP  
Micheal Grzywinski, DEEP/OLISP  
Mark Johnson, DEEP/IFD  
Dawn McKay, DEEP/NDDDB  
Edith Pestana, DEEP/OEJ  
Ellen Pierce, DEEP/APSD  
Lori Saliby, DEEP/PCB



STATE OF CONNECTICUT  
OFFICE OF POLICY AND MANAGEMENT  
INTERGOVERNMENTAL POLICY DIVISION

March 10, 2015

Mr. Mark Alexander  
Bureau of Policy and Planning  
Connecticut Department of Transportation,  
2800 Berlin Turnpike, Newington, Connecticut, 06131

Re: Notice of Scoping:  
Norwalk River Railroad Bridge

Dear Mark:

The Office of Policy and Management (OPM) has reviewed the Notice of Scoping for the Norwalk River Railroad Bridge and submits the following comment:

- The second sentence of the Walk Bridge website (<http://www.walkbridgect.com>) says:

*The new or rehabilitated Walk Bridge will improve maritime navigation on the Norwalk River.*

However, the Project Description in DOT's Notice of Scoping does not specifically mention maritime navigation:

*The purpose of this project is to replace the existing, deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of commuter and intercity passenger rail service, offer operational flexibility and ease of maintenance, as well as provide for increased capacity and efficiencies of rail transportation along the New Haven Line/ Northeast Corridor.*

People appreciate the state considering how it can maintain and even improve access to Long Island Sound when undertaking coastal area projects and the CEPA process is an opportunity for considering the benefits and costs. Given that it does not appear that maintaining maritime navigation is an essential element of this project, as it would be if the bridge separated the Thames River from Long Island Sound, for example, perhaps DOT should also evaluate the alternative of securing the existing bridge in closed position, despite the loss of navigability for vessels too large to pass beneath the bridge.

Given the significant cost associated with each of the existing alternatives, the CEPA process seems well-suited to evaluating the environmental (including socio-economic) impacts of a secure-in-position alternative. An EIE would help estimate the extent to which any cost savings from this alternative might be offset by additional costs to mitigate impacts on those who currently depend on the bridge opening. An EIE could also provide a better understanding of future anticipated costs associated with maintenance and repair activities for each alternative and how the timing and frequency of bridge operations might affect the reliability and safety of the passenger rail system.

Thank you for the opportunity to respond to this Notice of Scoping and please feel free to contact me if you have any questions.

Sincerely:

A handwritten signature in blue ink, appearing to read "Bruce Wittchen". The signature is fluid and cursive, with a long horizontal stroke at the end.

Bruce Wittchen  
Office of Policy & Management  
450 Capitol Ave, MS# 54ORG  
Hartford, CT 06106  
(860) 418-6323  
[bruce.wittchen@ct.gov](mailto:bruce.wittchen@ct.gov)

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix C-3      Agency Coordination**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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August 8, 2014

Mr. Mark Alexander  
Office of Environmental Planning  
Department of Transportation  
2800 Berlin Turnpike  
P.O. Box 317546  
Newington, CT 06131-7546

Subject: Project No. 301-40  
Replacement of Bridge No. 04288R  
Norwalk, Connecticut

Dear Mr. Alexander,

The State Historic Preservation Office (SHPO) is in receipt of your request for our comments concerning the referenced project, dated July 21, 2014. The Norwalk River Railroad Bridge (No. 04288R, also known as the WALK Bridge) was listed on the National Register of Historic Places in 1987. It is one of the few remaining swing bridges in the state. This office provided prior comments to the Department of Transportation (DOT) for the rehabilitation of this bridge during 2002. At that time, SHPO commented that the proposed rehabilitation would have no adverse effect to this historic property with the condition that SHPO receives a copy of *Rehabilitation of Norwalk Swing Bridge Engineering Significance Study* and that a submission is prepared for publication in the *Society for Industrial Archeology New England Chapters Newsletter*. During 2004, this office issued a letter accepting the requested bridge documentation.

SHPO understands that rehabilitation is no longer sufficient and replacement of the bridge is necessary as part of an Emergency Declaration because it does not reliably open and close. SHPO concurs with the Office of Environmental Planning (OEP) at DOT that demolition and replacement of this historic property constitutes an adverse effect. This office appreciates DOT's efforts to also consult with the Norwalk Historical Commission and we look forward to consulting with DOT to develop a suitable Memorandum of Agreement for this project.

These comments are provided in accordance with the Connecticut Environmental Policy Act and Section 106 of the National Historic Preservation Act, as amended. For additional information, please contact Catherine Labadia, Environmental Reviewer, at (860) 256-2764 or [catherine.labadia@ct.gov](mailto:catherine.labadia@ct.gov).

Sincerely,

Daniel T. Forrest  
State Historic Preservation Officer

State Historic Preservation Office



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

November 17, 2014

Christopher Samorajczyk  
State Of Connecticut Department Of Transportation  
2800 Berlin Tpke.  
PO Box 317546  
Newington, CT 06131  
christopher.samorajczyk@ct.gov

Project: CTDOT 301-0040, Replacement of Metro-North Railroad Bridge (Bridge # 04288R) over the Norwalk River in Norwalk  
NDDB Determination No.: 201411167

Dear Christopher Samorajczyk,

I have reviewed Natural Diversity Data Base (NDDB) maps and files regarding the area delineated on the map provided for the proposed CTDOT 301-0040, Replacement of Metro-North Railroad Bridge (Bridge # 04288R) over the Norwalk River in Norwalk, Connecticut. I do not anticipate negative impacts to State-listed species (RCSA Sec. 26-306) resulting from your proposed activity at the site based upon the information contained within the NDDB. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits. This determination is good for one year. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project by November 17, 2015.

Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at (860) 424-3592, or [dawn.mckay@ct.gov](mailto:dawn.mckay@ct.gov) . Thank you for consulting the Natural Diversity Data Base.

Sincerely,

Dawn M. McKay  
Environmental Analyst 3



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
GREATER ATLANTIC REGIONAL FISHERIES OFFICE  
55 Great Republic Drive  
Gloucester, MA 01930-2276

DEC 19 2014

Mark W. Alexander  
Transportation Assistant Planning Director  
Bureau of Policy and Planning  
State of Connecticut, Department of Transportation  
2800 Berlin Turnpike, PO Box 317546  
Newington, CT. 06131-7546

**Re: Replacement of New Haven Line Railroad Bridge over Norwalk River, Norwalk, CT.**

Dear Mr. Alexander:

This is in response to your letter received December 11, 2014 requesting information on the presence of species listed under the Endangered Species Act by NOAA's National Marine Fisheries Service (NMFS) in the Norwalk River near the Walk Railroad Bridge at Norwalk Connecticut.

The following endangered species may occur in the Norwalk River: Shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) (Distinct Population Segments [DPSs]: New York Bight, Chesapeake Bay, Carolina, South Atlantic), Kemp's ridley sea turtle (*Lepidochelys kempi*), green sea turtle (*Chelonia mydas*), and leatherback turtle (*Dermochelys coriacea*).

The following threatened species may occur in the Norwalk River: Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) (Distinct Population Segments [DPS]: Gulf of Maine), and Northwest Atlantic Ocean DPS of loggerhead sea turtle (*Caretta caretta*).

**Conclusion**

As listed species of sea turtles and sturgeon may occur in the Norwalk River in the vicinity of your proposed project, any proposed in-water work has the potential to impact these species. As project details become finalized, a consultation, pursuant to section 7 of the Endangered Species Act (ESA) of 1973, as amended, may be necessary as any discretionary federal action, such as the approval or funding of a project by a federal agency, that may affect a listed species must undergo consultation pursuant to section 7 of the ESA of 1973, as amended. If the proposed project has the potential to affect listed species, and it is being approved, permitted or funded by a Federal agency, the lead Federal agency, or their designated non-Federal representative, is responsible for determining whether the proposed action is likely to affect the listed species. The Federal agency, or their designated non-Federal representative, would submit their determination along with justification for their determination, and a request for concurrence to the attention of the ESA Section 7 Coordinator, NMFS Northeast Regional Office, Protected Resources



Division, 55 Great Republic Drive, Gloucester, MA 01930. After reviewing this information, NMFS would then be able to conduct a consultation under section 7 of the ESA. Should you have any questions about these comments or about the section 7 consultation process in general, please contact Max Tritt at 207-866-3756 or by email [max.tritt@noaa.gov](mailto:max.tritt@noaa.gov).

NOV 01 2014

**Essential Fish Habitat**

The Norwalk River provides habitat for a wide variety of resident, migratory and forage species including striped bass, alewife, blueback herring, weakfish, tautog, American eel, winter flounder, summer flounder and many others. Depending upon the nature and extent of the work proposed, seasonal in-water work restrictions or other conditions may be required to avoid, minimize or mitigate for any adverse effects to aquatic resources and their habitats. In addition, Essential Fish Habitat (EFH) has been designated within the project area. EFH consultation by the federal action agency may be required as part of the federal permit process. For a listing of EFH and further information, please go to our website at: <http://www.nero.noaa.gov/habitat>. If you wish to discuss this further, please contact Carol She at 732-872-3023 or e-mail [carol.she@noaa.gov](mailto:carol.she@noaa.gov).

Sincerely,



**Kimberly Damon-Randall**  
**Assistant Regional Administrator**  
**for Protected Resources**

EC: Tritt, NMFS/PRD  
She, NMFS/HCD

File Code: Section 7/Non-fisheries/FTA/Technical Assistance/2014/Walk RR Bridge Replacement, Norwalk, CT.



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087  
<http://www.fws.gov/newengland>

July 7, 2015

To Whom It May Concern:

Under Section 7 of the Endangered Species Act, Federal agencies that authorize, fund or carry out an action that may affect a federally listed species are required to ensure their actions do not jeopardize the continued existence of a listed species or adversely modify federally designated critical habitat through consultation with the U.S. Fish and Wildlife Service. As you are aware, the northern long-eared bat (*Myotis septentrionalis*) (NLEB) was recently listed as threatened with an associated interim 4(d) rule (April 2, 2015). The NLEB was once widespread throughout New England, but due to white-nose syndrome, the primary threat to its existence, the population in New England has declined by at least 90 percent. Currently, we do not have presence/absence data for this species for the vast majority of New England. Therefore, in order to assess effects of a project, we must assume presence in the absence of project-specific surveys. This has led to an increase in project review requests made to staff in this office.

In order to streamline the review process and provide regional guidance to Federal agencies and their applicants, the New England Field Office (NEFO) consulted with our state wildlife agency partners to develop regional time-of-year restrictions for tree clearing activities that if implemented, will avoid take of the NLEB. The time-of-year restrictions we are adopting vary, depending on the location of the proposed project.

The time-of-year restrictions described below are predicated on our conclusion that if surveys are not conducted to determine whether NLEBs are present, we must assume presence as long as suitable habitat is present. Based on regional data on NLEB presence and seasonal behavior, we recommend the following time-of-year restrictions to avoid adverse effects to bats that may be roosting in trees that could be cleared (assuming presence).

**April 15 - October 31** - project is located within 1 mile or less from known hibernaculum

**April 15 - September 30** - Known site - acoustic and/or mist-net confirmation - ("known site" as determined in consultation between NEFO and the State Natural Resource agency) **OR** projects located in "Coastal New England" where we appear to have greater numbers of NLEB based on recent acoustic surveys. "Coastal New England" includes all towns bordering the coast of Connecticut and Rhode Island, Massachusetts including Buzzards Bay, Cape Cod, Martha's

July 7, 2015

2

Vineyard, Nantucket, and the North and South Shore of Massachusetts, and the coast of New Hampshire.

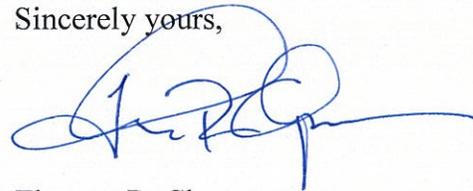
**April 15 - August 31** - Unknown site/no data (with the exception of coastal towns)

These time-of-year restrictions do not address a minimum acreage below which we do not anticipate habitat impacts to NLEBs. We still need to review the proposed acreage of tree cutting to ensure that there are no impacts as a result of significant roosting or foraging habitat loss if we assume bats are present in the project area.

We suggest that it may be to your advantage to assess the effect of the loss of suitable habitat resulting from the proposed activity in the context of the surrounding forested habitat and provide that analysis or discussion in your project review requests. Such information should expedite our review and response.

Thank you for your cooperation, and please contact Ms. Susi von Oettingen of this office at (603) 223-2541, extension 6418, if you have questions.

Sincerely yours,



Thomas R. Chapman  
Supervisor  
New England Field Office

# Walk Bridge

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## *IPaC Trust Resource Report*

Generated September 02, 2015 12:43 PM MDT



US Fish &amp; Wildlife Service

# IPaC Trust Resource Report



## Project Description

NAME

Walk Bridge

PROJECT CODE

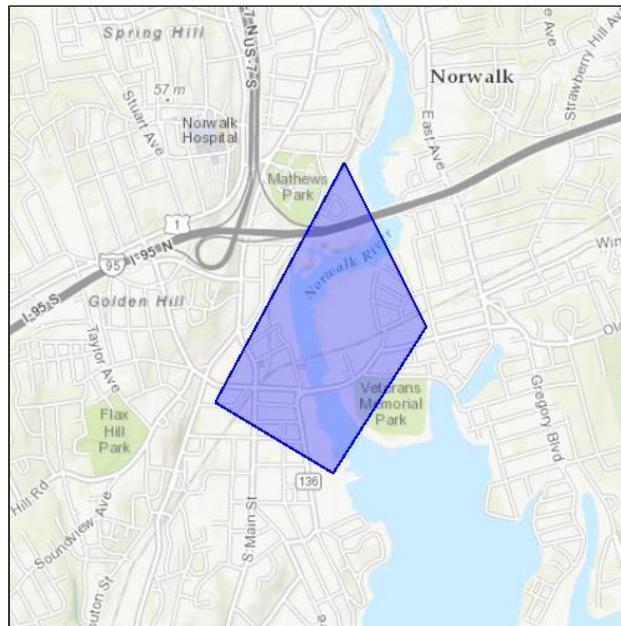
65N6Y-K4YPB-HSVFA-EM3VA-KKS62I

LOCATION

Fairfield County, Connecticut

DESCRIPTION

No description provided



## U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

### New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

# Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under [Section 7](#) of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an Official Species List from the regulatory documents section.

## Birds

**Red Knot** *Calidris canutus rufa*

Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0DM>

## Mammals

**Northern Long-eared Bat** *Myotis septentrionalis*

Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0JE>

## Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

# Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

<b>American Oystercatcher</b> <i>Haematopus palliatus</i>	<b>Bird of conservation concern</b>
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0G8">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0G8</a>	
<b>American Bittern</b> <i>Botaurus lentiginosus</i>	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0F3">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0F3</a>	
<b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i>	<b>Bird of conservation concern</b>
Year-round <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B008">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B008</a>	
<b>Black Rail</b> <i>Laterallus jamaicensis</i>	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B09A">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B09A</a>	
<b>Black-billed Cuckoo</b> <i>Coccyzus erythrophthalmus</i>	<b>Bird of conservation concern</b>
Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0HI">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0HI</a>	
<b>Blue-winged Warbler</b> <i>Vermivora pinus</i>	<b>Bird of conservation concern</b>
Season: Breeding	
<b>Canada Warbler</b> <i>Wilsonia canadensis</i>	<b>Bird of conservation concern</b>
Season: Breeding	
<b>Fox Sparrow</b> <i>Passerella iliaca</i>	<b>Bird of conservation concern</b>
Season: Wintering	
<b>Gull-billed Tern</b> <i>Gelochelidon nilotica</i>	<b>Bird of conservation concern</b>
Season: Breeding	
<b>Horned Grebe</b> <i>Podiceps auritus</i>	<b>Bird of conservation concern</b>
Season: Wintering	
<b>Hudsonian Godwit</b> <i>Limosa haemastica</i>	<b>Bird of conservation concern</b>
Season: Migrating	
<b>Least Bittern</b> <i>Ixobrychus exilis</i>	<b>Bird of conservation concern</b>
Season: Breeding	
<b>Least Tern</b> <i>Sterna antillarum</i>	<b>Bird of conservation concern</b>
Season: Breeding	
<b>Pied-billed Grebe</b> <i>Podilymbus podiceps</i>	<b>Bird of conservation concern</b>
Year-round	

<b>Prairie Warbler</b> <i>Dendroica discolor</i> Season: Breeding	<b>Bird of conservation concern</b>
<b>Purple Sandpiper</b> <i>Calidris maritima</i> Season: Wintering	<b>Bird of conservation concern</b>
<b>Rusty Blackbird</b> <i>Euphagus carolinus</i> Season: Wintering	<b>Bird of conservation concern</b>
<b>Saltmarsh Sparrow</b> <i>Ammodramus caudacutus</i> Season: Breeding	<b>Bird of conservation concern</b>
<b>Seaside Sparrow</b> <i>Ammodramus maritimus</i> Year-round	<b>Bird of conservation concern</b>
<b>Short-eared Owl</b> <i>Asio flammeus</i> Season: Wintering <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0HD">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0HD</a>	<b>Bird of conservation concern</b>
<b>Snowy Egret</b> <i>Egretta thula</i> Season: Breeding	<b>Bird of conservation concern</b>
<b>Upland Sandpiper</b> <i>Bartramia longicauda</i> Season: Breeding <a href="https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0HC">https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=B0HC</a>	<b>Bird of conservation concern</b>
<b>Wood Thrush</b> <i>Hylocichla mustelina</i> Season: Breeding	<b>Bird of conservation concern</b>
<b>Worm Eating Warbler</b> <i>Helmitheros vermivorum</i> Season: Breeding	<b>Bird of conservation concern</b>

## Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

# Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

## DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

## DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

## DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Wetland data is unavailable at this time.



U.S. Department  
of Transportation  
**Federal Transit  
Administration**

REGION I  
Connecticut, Maine,  
Massachusetts,  
New Hampshire,  
Rhode Island, Vermont

Volpe Center  
55 Broadway, Suite 920  
Cambridge, MA 02142-1093  
617-494-2055  
617-494-2865 (fax)

August 8, 2016

Mr. Daniel Forrest  
State Historic Preservation Officer  
Connecticut Commission on Culture and Tourism  
One Constitution Plaza  
Hartford, CT 06103

**RE: Norwalk River Railroad Bridge Replacement, Norwalk, CT  
Section 106 Adverse Effect and Section 4(f) Temporary Occupancy**

Dear Mr. Forrest:

The Connecticut Department of Transportation (CTDOT) is proposing to utilize Federal Transit Administration (FTA) financial assistance to replace the Norwalk River Railroad Bridge located in Norwalk, Connecticut. The bridge is identified as No. 04288R, also known as the Walk Bridge, and carries four tracks of the New Haven Line of Metro-North Railroad commuter service over the Norwalk River and is also used for intercity and high-speed passenger service by Amtrak as well as for freight service. The purpose of the project is to replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service; offer operational flexibility and ease of maintenance; and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River.

**Section 106**

The Area of Potential Effect (APE) is delineated as: 1) the limits of project actions within the railroad right-of-way (ROW), extending from the east end of the South Norwalk Railroad Bridge over South Main and Washington Streets to a point east of the Fort Point Street Railroad Bridge; 2) the project's temporary construction staging/access areas; 3) historic properties that are immediately adjacent to either of these; and 4) underwater and shoreline areas that could be impacted by the project's temporary and permanent facilities in the Norwalk River in the vicinity of the bridge.

Based on an historic evaluation conducted by a cultural resources consultant, it was determined that historic properties potentially affected by the project include the bridge itself, the high towers, catenary structures, stone retaining walls, and Fort Point Street Railroad Bridge, which are contributing components of the overall historic rail line; and four listed or potentially eligible historic districts immediately adjacent to the right-of-way or construction staging/access areas (see attached *Technical Report: Historic Resources Evaluation Report*). The Walk Bridge,

constructed in 1896, is a deck-truss swing bridge that carries the Metro-North Railroad over the Norwalk River between South Norwalk and East Norwalk stations and is listed on the National Register of Historic Places. Also, the New Haven Line within Connecticut has been determined eligible for the National Register of Historic Places as a linear district (District) by CTSHP.

The project will include demolition of the existing bridge and is also expected to require changes to or replacement of elements associated with the electrification of the line including the steel lattice high towers, removal and replacement of catenary support structures, removal of stone retaining walls, replacement of the Fort Point Street Bridge, and temporary construction staging/access areas. These activities will alter the historic characteristics of the bridge and the historic rail line. Work will conform to the Secretary of the Interior standards and will be monitored for compliance with those standards by a cultural resources professional.

In accordance with 36 CFR Part 800.5(a) Protection of Historic Properties, the FTA has determined that the Norwalk River Railroad Bridge project will have an adverse effect on historic resources. The FTA is requesting your concurrence with the adverse effect determination, and the following information is provided to support this determination:

- CTDOT Recommendation of Adverse Effect letter
- DRAFT Memorandum of Agreement
- Technical Report: Historic Resources Evaluation Report
- Technical Report: Archaeological Sensitivity Assessment

In addition to your concurrence with the adverse effect finding, we would appreciate your review and comments on the attached DRAFT Memorandum of Agreement. Please respond to this office within 30 days of receipt of this request. In accordance with 36 CFR Section 800.3 (c)(4), if a response is not received within 30 days FTA will proceed with the section 106 process.

#### **Section 4(f)**

The impacts of the project on the Walk Bridge and the historic rail line will constitute a use of a historic resource under Section 4(f) of the US DOT Act, and an individual 4(f) evaluation is being prepared. Additionally, creation and use of temporary construction staging/access areas will require a temporary occupancy of certain non-rail historic resources. The parking area of the parcel containing the former Norwalk Lock complex at 18 Marshall Street will be used for temporary construction staging/access area, and a portion of the South Main and Washington Streets Historic District, primarily a strip of undeveloped land at the rear of the buildings as well as the footprint of the interlocking tower (the SONO Switch Tower Museum), will be used for temporary construction staging/access. The project is not anticipated to impact the utilization of the Switch Tower Museum, CTDOT will employ protective measures to minimize impacts to properties during construction, and no physical damage will occur as a result of the preparation and use of the temporary construction staging/access areas.

In order to meet the exception to the requirement for Section 4(f) approval, the following criteria, as specified in 23 CFR 774.13(d), shall be met:

- (1) Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;

- (2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;
- (3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- (4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
- (5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

We request your concurrence as the officials with jurisdiction that these impacts would meet the conditions of a temporary occupancy under Section 4(f) of the US DOT Act as per 23 CFR 774.13(d).

If you have any questions regarding this matter, please contact Leah Sirmin at 617-494-2459.

We look forward to receiving your response.

Sincerely,

A handwritten signature in black ink, appearing to read "Mary Beth Mello". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

 Mary Beth Mello  
Regional Administrator

cc: J. Redeker, CTDOT  
J. Fallon, CTDOT  
M. Alexander, CTDOT

Attachment



Department of Economic and  
Community Development

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October 12, 2016

Ms. Mary Beth Mello  
Federal Transit Administration, Region I  
Volpe Center  
55 Broadway, Suite 920  
Cambridge, MA 02142-1093

Subject: Replacement of Bridge No. 04288R  
Norwalk, Connecticut

Dear Ms. Mello,

The Connecticut State Historic Preservation Office (SHPO) is in receipt of your request for our comments concerning the referenced project, dated August 8, 2016. The Norwalk River Railroad Bridge (No. 04288R and also known as the WALK Bridge) was listed on the National Register of Historic Places in 1987. It is one of the few remaining swing bridges in the state. SHPO understands that replacement of the bridge is necessary as part of an Emergency Declaration because it does not reliably open and close. The proposed undertaking will include demolition of the WALK Bridge, lattice high towers, and catenary support structures; as well as removal of masonry retaining walls and replacement of the Fort Point Street Bridge. SHPO concurs with the Area of Potential Effect (APE) defined in your letter, which includes temporary construction facilities.

The existing railroad corridor is embedded in the Norwalk community and reflects its development around this important piece of our nation's transportation history. The historic features associated with this portion of the rail corridor within the APE; including the bridges, masonry walls, high tower and catenary structures; are considered by SHPO to be eligible for listing on the National Register of Historic Places (NRHP) as contributing elements to a linear historic district. As a result, this office concurs with FTA that the Norwalk River Railroad Bridge project constitutes an adverse effect to historic properties. This office has reviewed the Memorandum of Agreement (MOA) prepared by the Federal Transit Administration (FTA) for the undertaking. SHPO does not have any substantive comments regarding this document, but recognizes that the comment period for this project has been extended and a new public hearing has been scheduled for November 17, 2016. Therefore, this office requests that the mitigation efforts not be finalized until the public has been given the additional opportunity to comment.

As defined in 23 CFR 774.17, SHPO has official jurisdiction for historic sites in compliance with Section 4(f) of the Department of Transportation Act. SHPO appreciates the Connecticut Department of Transportation's commitment to employ protective measures wherever and

State Historic Preservation Office

One Constitution Plaza | Hartford, CT 06103 | P: 860.256.2800 | [Cultureandtourism.org](http://Cultureandtourism.org)

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Department of Economic and  
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whenever possible to avoid or minimize harm to historic resources during construction. With the implementation of such measures taken into consideration, SHPO concurs that FTA would meet the conditions of a temporary occupancy under Section 4 (f).

These comments are provided in accordance with the Connecticut Environmental Policy Act and Section 106 of the National Historic Preservation Act, as amended. For additional information, please contact me at (860) 256-2764 or [catherine.labadia@ct.gov](mailto:catherine.labadia@ct.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Catherine Labadia".

Catherine Labadia  
Deputy State Historic Preservation Officer

cc: Alexander, CT DOT  
Sirmin, FTA

State Historic Preservation Office

One Constitution Plaza | Hartford, CT 06103 | P: 860.256.2800 | [Cultureandtourism.org](http://Cultureandtourism.org)

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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix D: EA/EIE Availability and Public Review Notices**

**Appendix D-1 Environmental Monitor Notices**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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Susan D. Merrow  
Chair

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**September 6, 2016**

### Scoping Notices

1. **REVISED!** Proposed Commuter Railroad Station, Orange
2. Franklin Sewer Extension, Franklin
3. **NEW!** Rehabilitation of the Heroes Tunnel, Woodbridge, Hamden, New Haven

### Post-Scoping Notices: Environmental Impact Evaluation (EIE) Not Required

1. Relocation of I-91 Northbound (NB) Interchange and Widening of I-91 NB and Rt. 15 NB to I-84 EB, Hartford and East Hartford

### Environmental Impact Evaluations

1. **NEW!** Norwalk River Railroad Bridge, Norwalk

### State Land Transfers

1. #18 Thames St., Groton
2. Hartford Turnpike, Vernon

The next edition of the Environmental Monitor will be published on **September 20, 2016**.  
[Subscribe to e-alerts](#) to receive an e-mail when the Environmental Monitor is published.

*Notices in the Environmental Monitor are written by the sponsoring agencies and are published unedited. Questions about the content of any notice should be directed to the sponsoring agency.*

### **Scoping Notices**

"Scoping" is for projects in the earliest stages of planning. At the scoping stage, detailed information on a project's design, alternatives, and environmental impacts does not yet exist. Sponsoring agencies are asking for comments from other agencies and from the public as to the scope of alternatives and environmental impacts that should be considered for further study. Send your comments to the contact person listed for the project by the date indicated.

**The following Scoping Notices have been submitted for review and comment.**

#### **1. Notice of Scoping for Proposed Commuter Railroad Station**

**Municipality where proposed project might be located:** Orange, Connecticut

**Address of Possible Project Location:** The proposed project site is located on the eastern end of Salem Lane, approximately 0.25 miles south of Interstate 95. The site is bounded on the west by Marsh Hill Road, on the east by the Oyster River, and on the southeast by the Metro North Railroad.

**Project Description:** The Connecticut Department of Transportation (Department) is proposing to construct a New Haven Line commuter rail station on the Metro North Railroad in the Town of Orange, CT through a public-private partnership agreement that will include Transit Oriented Development (TOD). The

commuter rail station will include station platforms, canopies, a pedestrian overpass, and a service access road within the existing railroad right-of-way. A commuter drop-off/pick-up, taxi stand and bus stop areas will be part of the TOD developer's site work. Two new approximately 1020 feet long, canopied station platforms, one bound for New Haven and one bound for Stamford and points west are proposed. A covered pedestrian bridge will connect the two platforms via stairtowers and elevators. The Stamford-bound platform will connect to sidewalks leading to a proposed commercial/commuter parking structure that is being constructed as part of a proposed TOD adjacent to the proposed commuter rail station.

The proposed TOD, which is subject to local review and approval, will include improvements and extension of the existing Salemm Lane, and is anticipated to include construction of 6 new buildings, housing 200 dwelling units and approximately 21,500 square feet of retail space, 43 on-street and 80 off-street surface parking spaces, an approximately 800 space parking structure, and associated site landscaping and stormwater management features. The proposed parking structure will consist of a 3-level 233+/- space section that will be dedicated parking for the TOD development and a second, 6-level, 566+/- space commercial/commuter garage that will serve the rail station. The Department will share expenses for the portion of the garage dedicated to commuter parking. The TOD design also provides opportunity for future pedestrian connection with the Yale West Campus to the north.

Elements of the project associated with the rail station will be funded by the State of Connecticut and the Federal Transit Administration.

**Project Maps:** Click [here](#) to view a location map of the project area.

Click [here](#) to view an illustrative site plan.

**Written comments from the public are welcomed and will be accepted until the close of business on: **Friday, October 7, 2016****

**There will be a Public Scoping Meeting for this project at:**

**DATE:** **Thursday, September 8, 2016**

**TIME:** Doors open at 6:30 PM, a presentation will begin at 7:00 PM

**PLACE:** High Plains Community Center Gymnasium, 525 Orange Center Road, Orange, CT 06477

**NOTES:** The meeting location is accessible to persons with disabilities. Deaf and hearing impaired persons wishing to attend this meeting and requiring an interpreter may make arrangements by contacting the Department's Office of Communication at 860-594-3062 (voice only) at least five days prior to the meeting.

**Written comments should be sent to:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director  
**Agency:** Connecticut Department of Transportation  
Bureau of Policy and Planning  
**Address:** 2800 Berlin Turnpike, Newington, CT 06131  
**Fax:** 860-594-3028  
**E-Mail:** [dot.environmentalplanning@ct.gov](mailto:dot.environmentalplanning@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Mr. Keith A. Hall, Project Manager  
**Agency:** Connecticut Department of Transportation  
Bureau of Engineering and Construction  
**Address:** 2800 Berlin Turnpike, Newington, CT 06131  
**Phone:** 860-594-3301  
**E-Mail:** [Keith.A.Hall@ct.gov](mailto:Keith.A.Hall@ct.gov)

**The Connecticut Department of Transportation's (CTDOT) Environmental Classification Document requires the preparation of an Environmental Impact Evaluation (EIE) for projects involving the construction of a new rail facility. CTDOT expects to release an EIE for this project for public review and comment in 2017.**

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## 2. Notice of Scoping for Franklin Sewer Extension

**Municipality where proposed project would be located:** Franklin

**Project Location:** Route 32

**Project Description:** The project, funded by an Urban Action Grant, will consist of the design, permitting and construction of approximately 7,500 feet of 8" and 12" gravity sewers from a connection with the City of Norwich sewer system along a portion of Old Route 32, continuing northerly along State Route 32 to the

intersection of Murphy Road in Franklin. At the same time, approximately 6,100 feet of gas main and related improvements and appurtenances will be installed in Route 32, between the intersections of Murphy Road and New Park Avenue, and 8,000 feet of 12" water main will be installed from the interconnection with the City of Norwich Water system on New Park Avenue and along State Route 32 between the intersections of Old Route 32 and Murphy Road. Water and gas utilities will be funded by the U.S. Department of Agriculture and U.S. Economic Development Administration.

**Project Map:** [Click here to view a project location map.](#)

**Additional information about the project can be viewed in person at:**

Department of Energy and Environmental Protection  
Bureau of Water Protection & Land Reuse (2nd floor)  
79 Elm Street  
Hartford, CT 06106

**Written comments from the public are welcomed and will be accepted until the close of business on: **September 16, 2016****

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by **August 26, 2016**.**

**Written comments and/or requests for a Public Scoping Meeting should be sent to:**

**Name:** Ivonne Hall  
**Agency:** Department of Energy & Environmental Protection  
Bureau of Water Protection & Land Reuse  
**Address:** 79 Elm Street  
Hartford, CT 06106-5127  
**Phone:** 860-424-3754  
**Fax:** 860-424-4067  
**E-Mail:** [ivonne.hall@ct.gov](mailto:ivonne.hall@ct.gov)

**If you have questions about scoping for this project, contact Ms. Hall, as directed above.**

The Connecticut Department of Energy and Environmental Protection is an Affirmative Action/Equal Opportunity Employer that is committed to complying with the requirements of the Americans with Disabilities Act. Any person with a disability who may need a communication aid or service may contact the agency's ADA Coordinator at 860-424-3194 or at [deep.hrmed@ct.gov](mailto:deep.hrmed@ct.gov). Any person with limited proficiency in English, who may need information in another language, may contact the agency's Title VI Coordinator at 860-424-3035 or at [deep.aao@ct.gov](mailto:deep.aao@ct.gov). ADA or Title VI discrimination complaints may be filed with DEEP's EEO Manager at (860) 424-3035 or at [deep.aao@ct.gov](mailto:deep.aao@ct.gov).

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### **3. Notice of Scoping for Rehabilitation of the Heroes Tunnel (Bridge No. 00773)**

**Municipalities where proposed project might be located:** Woodbridge, Hamden, and New Haven

**Address of Possible Project Location:** Route 15 (Wilbur Cross Parkway) through West Rock Ridge

**Project Description:** The Heroes Tunnel, also known as Bridge No. 00773, consists of twin 1,200 foot long horseshoe-shaped tunnels, carrying two lanes of Route 15 (Wilbur Cross Parkway) traffic in each direction through the West Rock Ridge. The Heroes Tunnel carries approximately 71,000 vehicles daily and is a vital scenic connector between New York and Hartford, as well as an alternate expressway route to Interstate 95 and Interstate 91.

Structural and drainage deficiencies have been identified within the Heroes Tunnel. The general deterioration necessitates either rehabilitation or replacement. In addition to the deteriorating condition of the tunnel, other characteristics are substandard such as the electrical and mechanical utilities, all of which would be upgraded or improved through this project.

The project team recently completed a preliminary engineering study where several rehabilitation alternatives were identified, including variations of tunnel rehabilitation, tunnel widening, and construction of a new third barrel.

**Project Maps:** Click [here](#) to view a location map of the project area.

Click [here](#) to view an aerial view of the project area.

**Written comments from the public are welcomed and will be accepted until the close of business on: **Friday, October 7, 2016****

**There will be a Public Scoping Meeting for this project at:**

**DATE: **Thursday September 22, 2016****

**TIME:** Open Forum at 6:30 p.m. - Formal Presentation will begin at 7:00 p.m.

**PLACE:** Woodbridge Senior Center, 4 Meetinghouse Lane, Woodbridge, CT

**NOTES:** The meeting location is ADA accessible. If language assistance is needed please contact the Department of Transportation's Office of Communications at 860-594-3062 (voice only) at least five days prior to the meeting.

**Written comments should be sent to:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director  
**Agency:** Connecticut Department of Transportation  
Bureau of Policy and Planning  
**Address:** 2800 Berlin Turnpike, Newington, CT 06131  
**Fax:** 860-594-3028  
**E-Mail:** [dot.environmentalplanning@ct.gov](mailto:dot.environmentalplanning@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Mr. David A. Cutler, Transportation Supervising Engineer  
**Agency:** Connecticut Department of Transportation  
Bureau of Engineering and Construction  
**Address:** 2800 Berlin Turnpike, Newington, CT 06131  
**Phone:** 860-594-3210  
**E-Mail:** [David.Cutler@ct.gov](mailto:David.Cutler@ct.gov)

**The agency expects to release an Environmental Impact Evaluation for this project, for public review and comment, in late 2017.**

### **Post-Scoping Notices: Environmental Impact Evaluation Not Required**

This category is required by the October 2010 revision of the [Generic Environmental Classification Document](#) for State Agencies. A notice is published here if the sponsoring agency, after publication of a scoping notice and consideration of comments received, has determined that an Environmental Impact Evaluation (EIE) does not need to be prepared for the proposed project.

**The following Post-Scoping Notice has been submitted for publication in this edition.**

#### **1. Post-Scoping Notice for Relocation of I-91 Northbound (NB) Interchange 29 and Widening of I-91 NB and Route 15 NB to I-84 Eastbound (EB).**

**Municipalities where project will be located:** Hartford and East Hartford

**CEPA Determination:** On August 18, 2015 the Connecticut Department of Transportation (Department) published a [Notice of Scoping](#) to solicit public comments for this project in the *Environmental Monitor*. During the scoping period, the Department received comments from the [Department of Public Health](#), the [Connecticut Department of Energy and Environmental Protection](#), the [Office of Policy and Management](#), and one member of the public. The Department has taken those comments into consideration and has concluded that the project does not require the preparation of Environmental Impact Evaluation under CEPA.

In addition to requirements under CEPA, an Environmental Assessment was performed under the National Environmental Policy Act (NEPA) to determine the proper level of Federal environmental documentation. After concluding this process, the Department will be seeking a Finding of No Significant Impact under NEPA since the project is not expected to have any associated significant environmental impacts. The agency's conclusion is documented in a [Memo of Findings and Determination](#) and [Environmental Assessment Checklist](#).

**If you have questions about the project, you can contact the agency at:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director  
**Agency:** Connecticut Department of Transportation  
Bureau of Policy and Planning  
**Address:** 2800 Berlin Turnpike  
Newington, CT 06131  
**Fax:** 860-594-3028  
**E-Mail:** [dot.environmentalplanning@ct.gov](mailto:dot.environmentalplanning@ct.gov)

**What happens next:** The Connecticut Department of Transportation expects the project to go forward. This is expected to be the final notice of the project to be published in the *Environmental Monitor*.

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## EIE Notices

After Scoping, an agency that wishes to undertake an action that could significantly affect the environment must produce, for public review and comment, a detailed written evaluation of the expected environmental impacts. This is called an Environmental Impact Evaluation (EIE).

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**The following EIE Notice has been submitted for publication in this edition.**

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### 1. Notice of EIE for Norwalk River Railroad Bridge (Walk Bridge) Replacement

**Municipality where project is proposed:** Norwalk, Connecticut

**Address of Possible Project Location:** New Haven Line Railroad Bridge (Walk Bridge), Bridge No. 42.88R; Mile Post (MP) 41.5 on the New Haven Line, Norwalk River, Norwalk, CT

**Project Description:** In cooperation with the Federal Transit Administration (FTA), the Connecticut Department of Transportation (Department) proposes to replace the Walk Bridge over the Norwalk River in South Norwalk. The purpose of the project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service; offer operational flexibility and ease of maintenance; and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Upgrades to the Walk Bridge, through rehabilitation or replacement, are needed to increase bridge reliability, incorporate bridge redundancy, and provide a sustainable bridge for significant weather events, thereby accommodating current and future rail and marine traffic.

The proposed project includes railroad approaches from the east and west, totaling approximately one-half-track-mile. Track, catenary, and signal work will be accomplished within the existing state right-of-way, and will extend from approximately the Washington Street Bridge in South Norwalk (Bridge No. 36.93R; MP 41.28) to approximately 300 feet east of the Fort Point Street Bridge in East Norwalk. The Fort Point Street Bridge (Bridge No. 41.31; MP 41.79) will be replaced as part of the project.

Multiple design variations within four groups of alternatives were investigated: No Build, Rehabilitation, Replacement (Movable Bridge), and Replacement (Fixed Bridge). The Department held multiple meetings with public agencies and project stakeholders, including the public, to identify concerns and requirements for the replacement bridge design and to obtain public and agency input. With input from those meetings, the Department determined that the Replacement Alternative (Movable Bridge) would be evaluated in the document and would include the options for a bascule bridge and a vertical lift bridge. The Department has determined that a Long Span Vertical Lift Bridge is the Preferred Alternative.

Since this project involves Federal funding, the environmental document is a joint Environmental Assessment (EA)/Environmental Impact Evaluation (EIE) to satisfy both the National Environmental Policy Act and the Connecticut Environmental Policy Act.

**Comments on this EA/EIE will be accepted until the close of business on: Friday, October 21, 2016.** The Department will consider all oral and written comments received during the comment period.

**The public can view a copy of this EA/EIE at:** The Connecticut Department of Transportation Bureau of Policy and Planning (Room 2155), 2800 Berlin Turnpike, Newington, CT; Norwalk City Hall, Town Clerk Office, 125 East Avenue, Norwalk, CT; Norwalk Public Library, 1 Beldon Avenue, Norwalk, CT; East Norwalk Association Library, 51 Van Zant Street, Norwalk, CT; South Norwalk Branch Library, 10 Washington Street, Norwalk, CT; and the Western CT Council of Governments, 1 Riverside Road, Sandy Hook, CT.

Additionally, the public can view a copy of the project map, the proposed project alternatives, and a copy of the EA/EIE online at: [www.walkbridgect.com/environmental](http://www.walkbridgect.com/environmental)

It is also available online at: [www.ct.gov/environmentaldocuments](http://www.ct.gov/environmentaldocuments)

**There is a public hearing scheduled for this EA/EIE on:**

**DATE:** Thursday, **October 6, 2016**

**TIME:** Open Forum at 6:00 p.m. and Formal Presentation at 7:00 p.m.

**PLACE:** Norwalk City Hall, Concert Hall, 125 East Avenue, Norwalk, CT

**NOTES:** The meeting facility is ADA accessible. Free language assistance or sign interpretation may be requested by contacting the Program's Public Information Office at (203) 752-1996 at least five (5) business days prior to the meeting. Efforts will be made to respond to requests for assistance.

**Additional information about this project can be found online at:** [www.walkbridgect.com](http://www.walkbridgect.com)

**Send your comments about this EA/EIE to:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director  
**Agency:** Connecticut Department of Transportation  
 Bureau of Policy and Planning  
**Address:** 2800 Berlin Turnpike, Newington, Connecticut, 06131  
**E-Mail:** [info@walkbridgect.com](mailto:info@walkbridgect.com)

Please use the subject heading "Walk Bridge Project" for any comments

**If you have questions about the public hearing, or where you can review this EA/EIE, or similar matters, please contact:**

**Name:** Ms. Heather Cwikla  
**Agency:** WSP / Parsons Brinckerhoff  
**Address:** 424 Chapel Street, New Haven, CT 06511  
**E-Mail:** [info@walkbridgect.com](mailto:info@walkbridgect.com)  
**Phone:** (203) 785-0456 ext.137

**Other information:**

To be added to the Walk Bridge Program communications list or to submit a comment through the project website, please visit [www.walkbridgect.com/contact](http://www.walkbridgect.com/contact)

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## State Land Transfer Notices

Connecticut General Statutes [Section 4b-47](#) requires public notice of most proposed sales and transfers of state-owned lands. The public has an opportunity to comment on any such proposed transfer. Each notice includes an address where comments should be sent. [Read more about the process.](#)

**The following Land Transfer Notices have been submitted for publication in this edition.**

### 1. Notice of Proposed Land Transfer, Groton

**Complete Address of Property:** 18 Thames Street, Groton

**Commonly used name of property or other identifying information:** N/A

**Number of acres to be transferred:** 0.455

[Click to view map of property location](#)

#### Description of Property

Below is some general information about the property. It should not be considered a complete description of the property and should not be relied upon for making decisions. If only a portion of a property is proposed for transfer, the description pertains only to the portion being transferred.

**Brief Description of Historical and Current Uses:** Not available

**The property to be transferred contains the following:**

**Structures:**  Buildings in use  Buildings not in use  No Structures  
**Other Features:**  Wooded land  Nonagricultural fields  Active agriculture  
 Paved areas  Ponds, streams, other water, wetlands

**Water Supply:**  Public water supply  On-site well  Unknown

**Waste Disposal:**  Served by sewers  On-site septic system  Unknown

[Click to view aerial view of property](#)

**The property is in the following municipal zone(s):**

Residential  Industrial  Commercial  Institutional  
 Other:  
 Not zoned  Not known

**Special features of the property, if known:** Unknown

**Value of property, if known:** Unknown

If checked, value is not known.

**Links to other available information**

**Type of Sale or Transfer:**

Sale or transfer of property in fee

Sale or transfer of partial interest in the property (such as an easement). Description of interest:

**Proposed recipient, if known:** N/A

**Proposed use by property recipient, if known:** N/A

**The agency is proposing to transfer the property with the following restrictions on future uses:**

If checked, the state is not currently proposing restrictions on future uses.

**Reason the State of Connecticut is proposing to transfer this property:** No longer meets the State's needs.

**Comments from the public are welcome and will be accepted until the close of business on **September 15, 2016.****

**Comments may include (but are not limited to) information you might have about significant natural resources or recreation resources on the property, as well as your recommendations for means to preserve such resources.**

**Written comments\* should be sent to:**

Name: Patrick O'Brien  
 Agency: Office of Policy and Management  
 Address: 450 Capitol Avenue MS#52 ASP  
 Hartford, CT 06106-1379  
 E-Mail: [Patrick.O'Brien@ct.gov](mailto:Patrick.O'Brien@ct.gov)

**\*E-Mail submissions are preferred.**

**With copies to:**

Shane Mallory, DAS  
 165 Capitol Ave, G-1  
 Hartford, CT 06106  
[shane.mallory@ct.gov](mailto:shane.mallory@ct.gov)

**(Comments from state agencies **must** be on agency letterhead and signed by agency head. Scanned copies are preferred.)**

### What Happens Next?

To find out if this proposed transfer is the subject of further notices, check future editions of the Environmental Monitor. [Sign up for e-alerts](#) to receive a reminder e-mail on Environmental Monitor publication dates.

## 2. Notice of Proposed Land Transfer, Vernon

**Complete Address of Property:** (Unknown number) Hartford Turnpike, Vernon, CT

**Commonly used name of property or other identifying information:** N/A

**Number of acres to be transferred:** 300 Sq. Feet

[Click to view map of property location](#)

### Description of Property

Below is some general information about the property. It should not be considered a complete description of the property and should not be relied upon for making decisions. If only a portion of a property is proposed for transfer, the description pertains only to the portion being transferred.

**Brief Description of Historical and Current Uses:** Old easement.

**The property to be transferred contains the following:**

**Structures:**  Buildings in use  Buildings not in use  No Structures  
**Other Features:**  Wooded land  Nonagricultural fields  Active agriculture  
 Paved areas  Ponds, streams, other water, wetlands  
**Water Supply:**  Public water supply  On-site well  Unknown  
**Waste Disposal:**  Served by sewers  On-site septic system  Unknown

[Click to view a parcel map of the property](#)

**The property is in the following municipal zone(s):**

- Residential  Industrial  Commercial  Institutional  
 Other:  
 Not zoned  Not known

**Special features of the property, if known:** Unknown

**Value of property, if known:**

- If checked, value is not known.

**Type of Sale or Transfer:**

- Sale or transfer of property in fee  
 Sale or transfer of partial interest in the property (such as an easement). Description of interest:

**Proposed recipient, if known:** Unknown

**Proposed use by property recipient, if known:** Unknown

**The agency is proposing to transfer the property with the following restrictions on future uses:**

- If checked, the state is not currently proposing restrictions on future uses.

**Reason the State of Connecticut is proposing to transfer this property:** no longer meets State's needs.

**Comments from the public are welcome and will be accepted until the close of business on **September 15, 2016.****

**Comments may include (but are not limited to) information you might have about significant natural resources or recreation resources on the property, as well as your recommendations for means to preserve such resources.**

**Written comments\* should be sent to:**

Name: Patrick O'Brien  
Agency: Office of Policy and Management  
Address: 450 Capitol Avenue MS#52 ASP  
Hartford, CT 06106-1379  
E-Mail: [Patrick.O'Brien@ct.gov](mailto:Patrick.O'Brien@ct.gov)

**\*E-Mail submissions are preferred.**

**Send copies of comments to:**

Shane Mallory, DAS  
165 Capitol Ave, G-1  
Hartford, CT 06106  
[shane.mallory@ct.gov](mailto:shane.mallory@ct.gov)

**(Comments from state agencies **must** be on agency letterhead and signed by agency head. Scanned copies are preferred.)**

**What Happens Next?**

To find out if this proposed transfer is the subject of further notices, check future editions of the Environmental Monitor. [Sign up for e-alerts](#) to receive a reminder e-mail on Environmental Monitor publication dates.

The Adobe Reader is necessary to view and print Adobe Acrobat documents, including some of the maps and illustrations that are linked to this publication. If you have an outdated version of Adobe Reader, it might cause pictures to display incompletely. To download up-to-date versions of the free software, click on the Get Acrobat button, below. This link will also provide information and instructions for downloading and installing the reader.



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Susan D. Merrow  
Chair

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**October 4, 2016**

### Scoping Notices

1. Proposed Commuter Railroad Station, Orange
2. Rehabilitation of the Heroes Tunnel, Woodbridge, Hamden, New Haven
3. Safety Improvements on Route 127 at Evers St., Bridgeport
4. Dixwell Q House Community Center Project, New Haven
5. Mulberry Point Water Main Extension, Guilford

### Post-Scoping Notices: Environmental Impact Evaluation (EIE) Not Required

1. **NEW!** Preston Riverwalk Remediation, Preston

### Environmental Impact Evaluations

1. **REVISED!** Norwalk River Railroad Bridge (Walk Bridge) Replacement, Norwalk

### State Land Transfers

1. **NEW!** 37 Church St. Stonington

The next edition of the Environmental Monitor will be published on **October 18, 2016**.  
[Subscribe to e-alerts](#) to receive an e-mail when the Environmental Monitor is published.

*Notices in the Environmental Monitor are written by the sponsoring agencies and are published unedited. Questions about the content of any notice should be directed to the sponsoring agency.*

### Scoping Notices

"Scoping" is for projects in the earliest stages of planning. At the scoping stage, detailed information on a project's design, alternatives, and environmental impacts does not yet exist. Sponsoring agencies are asking for comments from other agencies and from the public as to the scope of alternatives and environmental impacts that should be considered for further study. Send your comments to the contact person listed for the project by the date indicated.

**The following Scoping Notices have been submitted for review and comment.**

#### **1. Notice of Scoping for Proposed Commuter Railroad Station**

**Municipality where proposed project might be located:** Orange, Connecticut

**Address of Possible Project Location:** The proposed project site is located on the eastern end of Salem Lane, approximately 0.25 miles south of Interstate 95. The site is bounded on the west by Marsh Hill Road, on the east by the Oyster River, and on the southeast by the Metro North Railroad.

**Project Description:** The Connecticut Department of Transportation (Department) is proposing to

construct a New Haven Line commuter rail station on the Metro North Railroad in the Town of Orange, CT through a public-private partnership agreement that will include Transit Oriented Development (TOD). The commuter rail station will include station platforms, canopies, a pedestrian overpass, and a service access road within the existing railroad right-of-way. A commuter drop-off/pick-up, taxi stand and bus stop areas will be part of the TOD developer's site work. Two new approximately 1020 feet long, canopied station platforms, one bound for New Haven and one bound for Stamford and points west are proposed. A covered pedestrian bridge will connect the two platforms via stairtowers and elevators. The Stamford-bound platform will connect to sidewalks leading to a proposed commercial/commuter parking structure that is being constructed as part of a proposed TOD adjacent to the proposed commuter rail station.

The proposed TOD, which is subject to local review and approval, will include improvements and extension of the existing Salemm Lane, and is anticipated to include construction of 6 new buildings, housing 200 dwelling units and approximately 21,500 square feet of retail space, 43 on-street and 80 off-street surface parking spaces, an approximately 800 space parking structure, and associated site landscaping and stormwater management features. The proposed parking structure will consist of a 3-level 233+/- space section that will be dedicated parking for the TOD development and a second, 6-level, 566+/- space commercial/commuter garage that will serve the rail station. The Department will share expenses for the portion of the garage dedicated to commuter parking. The TOD design also provides opportunity for future pedestrian connection with the Yale West Campus to the north.

Elements of the project associated with the rail station will be funded by the State of Connecticut and the Federal Transit Administration.

**Project Maps:** Click [here](#) to view a location map of the project area.

Click [here](#) to view an illustrative site plan.

**Written comments from the public are welcomed and will be accepted until the close of business on: **Friday, October 7, 2016****

**There will be a Public Scoping Meeting for this project at:**

**DATE:** **Thursday, September 8, 2016**

**TIME:** Doors open at 6:30 PM, a presentation will begin at 7:00 PM

**PLACE:** High Plains Community Center Gymnasium, 525 Orange Center Road, Orange, CT 06477

**NOTES:** The meeting location is accessible to persons with disabilities. Deaf and hearing impaired persons wishing to attend this meeting and requiring an interpreter may make arrangements by contacting the Department's Office of Communication at 860-594-3062 (voice only) at least five days prior to the meeting.

**Written comments should be sent to:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director

**Agency:** Connecticut Department of Transportation  
Bureau of Policy and Planning

**Address:** 2800 Berlin Turnpike, Newington, CT 06131

**Fax:** 860-594-3028

**E-Mail:** [dot.environmentalplanning@ct.gov](mailto:dot.environmentalplanning@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Mr. Keith A. Hall, Project Manager

**Agency:** Connecticut Department of Transportation  
Bureau of Engineering and Construction

**Address:** 2800 Berlin Turnpike, Newington, CT 06131

**Phone:** 860-594-3301

**E-Mail:** [Keith.A.Hall@ct.gov](mailto:Keith.A.Hall@ct.gov)

**The Connecticut Department of Transportation's (CTDOT) Environmental Classification Document requires the preparation of an Environmental Impact Evaluation (EIE) for projects involving the construction of a new rail facility. CTDOT expects to release an EIE for this project for public review and comment in 2017.**

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## **2. Notice of Scoping for Rehabilitation of the Heroes Tunnel (Bridge No. 00773)**

**Municipalities where proposed project might be located:** Woodbridge, Hamden, and New Haven

**Address of Possible Project Location:** Route 15 (Wilbur Cross Parkway) through West Rock Ridge

**Project Description:** The Heroes Tunnel, also known as Bridge No. 00773, consists of twin 1,200 foot long horseshoe-shaped tunnels, carrying two lanes of Route 15 (Wilbur Cross Parkway) traffic in each direction through the West Rock Ridge. The Heroes Tunnel carries approximately 71,000 vehicles daily and is a vital scenic connector between New York and Hartford, as well as an alternate expressway route to Interstate 95 and Interstate 91.

Structural and drainage deficiencies have been identified within the Heroes Tunnel. The general deterioration necessitates either rehabilitation or replacement. In addition to the deteriorating condition of the tunnel, other characteristics are substandard such as the electrical and mechanical utilities, all of which would be upgraded or improved through this project.

The project team recently completed a preliminary engineering study where several rehabilitation alternatives were identified, including variations of tunnel rehabilitation, tunnel widening, and construction of a new third barrel.

**Project Maps:** Click [here](#) to view a location map of the project area.

Click [here](#) to view an aerial view of the project area.

**Written comments from the public are welcomed and will be accepted until the close of business on: **Friday, October 7, 2016****

**There will be a Public Scoping Meeting for this project at:**

**DATE:** **Thursday September 22, 2016**

**TIME:** Open Forum at 6:30 p.m. - Formal Presentation will begin at 7:00 p.m.

**PLACE:** Woodbridge Senior Center, 4 Meetinghouse Lane, Woodbridge, CT

**NOTES:** The meeting location is ADA accessible. If language assistance is needed please contact the Department of Transportation's Office of Communications at 860-594-3062 (voice only) at least five days prior to the meeting.

**Written comments should be sent to:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director

**Agency:** Connecticut Department of Transportation  
Bureau of Policy and Planning

**Address:** 2800 Berlin Turnpike, Newington, CT 06131

**Fax:** 860-594-3028

**E-Mail:** [dot.environmentalplanning@ct.gov](mailto:dot.environmentalplanning@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Mr. David A. Cutler, Transportation Supervising Engineer

**Agency:** Connecticut Department of Transportation  
Bureau of Engineering and Construction

**Address:** 2800 Berlin Turnpike, Newington, CT 06131

**Phone:** 860-594-3210

**E-Mail:** [David.Cutler@ct.gov](mailto:David.Cutler@ct.gov)

**The agency expects to release an Environmental Impact Evaluation for this project, for public review and comment, in late 2017.**

### **3. Notice of Scoping for Safety Improvements on Route 127 at Evers Street**

**Municipality where proposed project might be located:** Bridgeport

**Address of Possible Project Location:** Route 127 (East Main Street) at Evers Street adjacent to Beardsley Park

**Project Description:** Route 127 runs in a north/south direction and is classified as urban minor arterial. The Average Daily Traffic (ADT) on Route 127 within the project is 11,600 vehicles per day, and the posted speed limit is 35 miles per hour. The purpose of this project is to improve safety at this intersection by improving Intersection Sight Distance from Evers Street and Beverly Place as well as Stopping Sight Distances on Route 127. There is a series of rear end and run-off the road accidents that are likely attributed to the limited sightlines to the intersections and left turning vehicles. In a five year period, between 2010 and 2014, there have been a total of 39 accidents with 27 injuries and 1 fatality. The proposed improvements include roadside grading and profile adjustments to provide adequate Stopping Sight Distances on Route 127. The project will also include sliver widening on Route 127 to provide southbound bypass on Route 127 at Evers Street. Partial acquisitions and easements will be required from Beardsley Park to provide the increased sight distances.

**Project Map:** Click [here](#) to view a map of the project area.

**Written comments from the public are welcomed and will be accepted until the close of business on: **Friday, October 21, 2016****

**There will be a Public Scoping Meeting for this project at:**

**DATE:** **Wednesday, October 5, 2016**

**TIME:** Presentation at 7:00 p.m. with a Question and Answer Session immediately following

**PLACE:** Bridgeport City Hall Council Chambers, 45 Lyon Terrace, Bridgeport, CT

**NOTES:** The meeting location is ADA accessible. If language assistance is needed please contact the Department of Transportation's Office of Communications at 860-594-3062 (voice only) at least five days prior to the meeting.

**Written comments should be sent to:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director

**Agency:** Connecticut Department of Transportation  
Bureau of Policy and Planning

**Address:** 2800 Berlin Turnpike, Newington, CT 06131

**Fax:** (860) 594-3028

**E-Mail:** [dot.environmentalplanning@ct.gov](mailto:dot.environmentalplanning@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Mr. William W. Britnell, Transportation Principal Engineer

**Agency:** Connecticut Department of Transportation  
Bureau of Engineering and Construction

**Address:** 2800 Berlin Turnpike, Newington, CT 06131

**Phone:** (860) 594-3274

**E-Mail:** [William.Britnell@ct.gov](mailto:William.Britnell@ct.gov)

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#### **4. Notice of Scoping for Dixwell Q House Community Center Project, New Haven, CT**

**Municipality where proposed project might be located:** New Haven, CT

**Address of Possible Project Location(s):** 197 Dixwell Avenue, New Haven CT

**Project Description:** Urban Act Grant funds (through the Dept. of Economic and Community Development - DECD) will be used for the construction of a new Dixwell Q House Community Center. The Center will house a wide variety of activities (gymnasium, senior center, youth resource rooms, museum, dance studio, meeting spaces, kitchen, etc.) along with a branch of the Hill Health Center and the Stetson Branch of the New Haven Free Public Library. The existing structure will be demolished using City funds. Other state funds will also be used for design of the new center and the library relocation (through the Department of Social Services and State Library, respectively). The DECD will be the sponsoring agency for the project.

**Project Maps:** Click here to view a [Location Map](#). Click here to view [conceptual plans](#) of the project.

**Written comments from the public are welcomed and will be accepted until the close of business on: **Thursday, October 20, 2016****

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by close of business on **Friday, September 30, 2016**.**

**Written comments and/or requests for a Public Scoping Meeting should be sent to:**

**Name:** Binu Chandy

**Agency:** CT Dept. of Economic and Community Development

**Address:** 505 Hudson Street, Hartford CT 06106

**Fax:** 860.706.5740

**E-Mail:** [binu.chandy@ct.gov](mailto:binu.chandy@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Binu Chandy  
**Agency:** CT Dept. of Economic and Community Development  
**Address:** 505 Hudson Street, Hartford CT 06016  
**Phone:** 860.270.8154  
**Fax:** 860.706.5740  
**E-Mail:** [binu.chandy@ct.gov](mailto:binu.chandy@ct.gov)

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## 5. Notice of Scoping for Town of Guilford (Bittner Park)-Mulberry Point Water Main Extension

**Municipality where proposed project might be located:** Guilford

**Addresses of Possible Project Location:** Lower Road, Daniel Avenue, Mulberry Point Road, Tuttle Point Road, Charles Street, Marshall Avenue, Decatur Avenue, Highland Street, Meriden Street, Spring Street, Faulkner Drive, Rock Lane, Charles Street, Brown Street, Ruth Lane, Sagamore Street, White Top Lane

**Project Description:** The Town of Guilford is seeking financial assistance under the Drinking Water State Revolving Fund (DWSRF) program for the extension of water main intended to serve approximately 145 residents which are currently served by private wells. Based on the feasibility study report of the project area, a number of private wells have experienced water quality and quantity problems. The results of recent well water sampling conducted by the Town showed that numerous private wells have water containing coliform bacteria and E. Coli. In addition, concentrations of nitrate, sodium and chloride are elevated.

The proposed project will comprise of installation of new water main that will be connected to the existing distribution main of the Connecticut Water Company located near the intersection of Colonial Road and Sachus Head Road. The new main will traverse the open area between Vineyard Point and Lower Road, then runs along Daniel Avenue to Mulberry Point. The water main has been minimally sized to meet the demands for domestic water use and satisfy fire protection requirements specified by the Town Fire Marshall for the intended service area.

**Project Map:** Click [here](#) to view a map of the project area.

**Written comments from the public are welcomed and will be accepted until the close of business on: **Friday, October 21, 2016.****

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by **Friday, October 7, 2016.****

**Written comments and/or requests for a Public Scoping Meeting should be sent to**

**Name:** Mr. Eric McPhee  
**Agency:** Department of Public Health  
Drinking Water Section  
**Address:** 410 Capitol Avenue, MS #51WAT  
PO Box 340308  
Hartford, CT 06134-0308  
**Fax:** 860-509-7359  
**E-Mail:** [DPH.SourceProtection@ct.gov](mailto:DPH.SourceProtection@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Patricia Bisacky  
**Agency:** Department of Public Health  
Drinking Water Section  
**Address:** 410 Capitol Avenue, MS #51WAT  
PO Box 340308  
Hartford, CT 06134-0308  
**Phone:** 860-509-7333  
**Fax:** 860-509-7359  
**E-Mail:** [Patricia.Bisacky@ct.gov](mailto:Patricia.Bisacky@ct.gov)

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## Post-Scoping Notices: Environmental Impact Evaluation Not Required

This category is required by the October 2010 revision of the [Generic Environmental Classification Document](#) for State Agencies. A notice is published here if the sponsoring agency, after publication of a scoping notice and consideration of comments received, has determined that an Environmental Impact Evaluation (EIE) does not need to be prepared for the proposed project.

**The following Post-Scoping Notice has been submitted for publication in this edition.**

### 1. Post-Scoping Notice for the Preston Riverwalk Remediation

**Municipality where project will be located:** Preston

**CEPA Determination:** On July 19, 2016 the Department of Economic and Community Development (DECD) published a [Notice of Scoping](#) to solicit public comments for this project in the *Environmental Monitor*. During the scoping period, the DECD received comments from the [Department of Public Health Drinking Water Section](#), the [Department of Public Health Environmental Health Section](#), the [Department of Energy and Environmental Protection](#) and the [Office of Policy and Management](#). The DECD also considered comments previously provided by the [State Historic Preservation Office](#) regarding EPA Clean-up Grants in a letter dated December 5, 2014. The DECD has taken those comments into consideration and has concluded that the project does not require the preparation of Environmental Impact Evaluation under CEPA.

The agency's conclusion is documented in a [Memo of Findings and Determination](#) and [Environmental Assessment Checklist](#).

**If you have questions about the project, you can contact the agency at:**

**Name:** Maya Loewenberg  
**Agency:** Department of Economic and Community Development  
**Address:** 505 Hudson Street, Hartford, CT 06106  
**Phone:** 860-270-8155  
**Fax:** 860-760-5740  
**E-Mail:** maya.loewenberg@ct.gov

**What happens next:** The DECD expects the project to go forward. This is expected to be the final notice of the project to be published in the *Environmental Monitor*.

## EIE Notices

After Scoping, an agency that wishes to undertake an action that could significantly affect the environment must produce, for public review and comment, a detailed written evaluation of the expected environmental impacts. This is called an Environmental Impact Evaluation (EIE).

**The following EIE Notice has been submitted for publication in this edition.**

### 1. Notice of EIE for Norwalk River Railroad Bridge (Walk Bridge) Replacement

**Municipality where project is proposed:** Norwalk, Connecticut

**Address of Possible Project Location:** New Haven Line Railroad Bridge (Walk Bridge), Bridge No. 42.88R; Mile Post (MP) 41.5 on the New Haven Line, Norwalk River, Norwalk, CT

**Project Description:** In cooperation with the Federal Transit Administration (FTA), the Connecticut Department of Transportation (Department) proposes to replace the Walk Bridge over the Norwalk River in South Norwalk. The purpose of the project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service; offer operational flexibility and ease of maintenance; and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Upgrades to the Walk Bridge, through rehabilitation or replacement, are needed to increase bridge reliability, incorporate bridge redundancy, and provide a sustainable bridge for significant weather events, thereby accommodating current and future rail and marine traffic.

The proposed project includes railroad approaches from the east and west, totaling approximately one-half-track-mile. Track, catenary, and signal work will be accomplished within the existing state right-of-way, and will extend from approximately the Washington Street Bridge in South Norwalk (Bridge No. 36.93R; MP

41.28) to approximately 300 feet east of the Fort Point Street Bridge in East Norwalk. The Fort Point Street Bridge (Bridge No. 41.31; MP 41.79) will be replaced as part of the project.

Multiple design variations within four groups of alternatives were investigated: No Build, Rehabilitation, Replacement (Movable Bridge), and Replacement (Fixed Bridge). The Department held multiple meetings with public agencies and project stakeholders, including the public, to identify concerns and requirements for the replacement bridge design and to obtain public and agency input. With input from those meetings, the Department determined that the Replacement Alternative (Movable Bridge) would be evaluated in the document and would include the options for a bascule bridge and a vertical lift bridge. The Department has determined that a Long Span Vertical Lift Bridge is the Preferred Alternative.

Since this project involves Federal funding, the environmental document is a joint Environmental Assessment (EA)/Environmental Impact Evaluation (EIE) to satisfy both the National Environmental Policy Act and the Connecticut Environmental Policy Act.

**There is a new date for comments on this EA/EIE. Comments will be accepted until the close of business on: Monday, December 5, 2016.** The Department will consider all oral and written comments received during the comment period.

**The public can view a copy of this EA/EIE at:** The Connecticut Department of Transportation Bureau of Policy and Planning (Room 2155), 2800 Berlin Turnpike, Newington, CT; Norwalk City Hall, Town Clerk Office, 125 East Avenue, Norwalk, CT; Norwalk Public Library, 1 Beldon Avenue, Norwalk, CT; East Norwalk Association Library, 51 Van Zant Street, Norwalk, CT; South Norwalk Branch Library, 10 Washington Street, Norwalk, CT; and the Western CT Council of Governments, 1 Riverside Road, Sandy Hook, CT.

Additionally, the public can view a copy of the project map, the proposed project alternatives, and a copy of the EA/EIE online at: [www.walkbridgect.com/environmental](http://www.walkbridgect.com/environmental)

It is also available online at: [www.ct.gov/environmentaldocuments](http://www.ct.gov/environmentaldocuments)

**There is a new date for the public hearing for this EA/EIE:**

**DATE:** Thursday, **November 17, 2016.** (Should there be inclement weather on November 17, the meeting will be rescheduled to November 28 at the same time and location.)

**TIME:** Open Forum at 6:00 p.m. and Formal Presentation at 7:00 p.m.

**PLACE:** Norwalk City Hall, Concert Hall, 125 East Avenue, Norwalk, CT

**NOTES:** The meeting facility is ADA accessible. Free language assistance or sign interpretation may be requested by contacting the Program's Public Information Office at (203) 752-1996 at least five (5) business days prior to the meeting. Efforts will be made to respond to requests for assistance.

**Additional information about this project can be found online at:** [www.walkbridgect.com](http://www.walkbridgect.com)

**Send your comments about this EA/EIE to:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director  
**Agency:** Connecticut Department of Transportation  
Bureau of Policy and Planning  
**Address:** 2800 Berlin Turnpike, Newington, Connecticut, 06131  
**E-Mail:** [info@walkbridgect.com](mailto:info@walkbridgect.com)

Please use the subject heading "Walk Bridge Project" for any comments

**If you have questions about the public hearing, or where you can review this EA/EIE, or similar matters, please contact:**

**Name:** Ms. Heather Cwikla  
**Agency:** WSP / Parsons Brinckerhoff  
**Address:** 424 Chapel Street, New Haven, CT 06511  
**E-Mail:** [info@walkbridgect.com](mailto:info@walkbridgect.com)  
**Phone:** (203) 785-0456 ext.137

**Other information:**

To be added to the Walk Bridge Program communications list or to submit a comment through the project website, please visit [www.walkbridgect.com/contact](http://www.walkbridgect.com/contact)

## State Land Transfer Notices

Connecticut General Statutes [Section 4b-47](#) requires public notice of most proposed sales and transfers of state-owned lands. The public has an opportunity to comment on any such proposed transfer. Each notice includes an address where comments should be sent. [Read more about the process.](#)

**The following Land Transfer Notice has been submitted for publication in this edition.**

## 1. Notice of Proposed Land Transfer, Stonington

**Complete Address of Property:** 37 Church Street, Stonington

**Commonly used name of property or other identifying information:** Formerly associated with Mystic Oral School

**Number of acres to be transferred:** 0.3 acres

[Click to view map of property location \(600 KB\)](#)

### Description of Property

Below is some general information about the property. It should not be considered a complete description of the property and should not be relied upon for making decisions. If only a portion of a property is proposed for transfer, the description pertains only to the portion being transferred.

**Brief Description of Historical and Current Uses:** residential

**The property to be transferred contains the following:**

**Structures:**  Buildings in use  Buildings not in use  No Structures  
**Other Features:**  Wooded land  Nonagricultural fields  Active agriculture  
 Paved areas  Ponds, streams, other water, wetlands  
**Water Supply:**  Public water supply  On-site well  Unknown  
**Waste Disposal:**  Served by sewers  On-site septic system  Unknown

[Click to view aerial view of property \(1.6 MB\)](#)

**The property is in the following municipal zone(s):**

Residential  Industrial  Commercial  Institutional  
 Other:  
 Not zoned  Not known

**Special features of the property, if known:** None

**Value of property, if known:**

If checked, value is not known.

**Type of Sale or Transfer:**

Sale or transfer of property in fee  
 Sale or transfer of partial interest in the property (such as an easement). Description of interest:

**Proposed recipient, if known:** Unknown

**Proposed use by property recipient, if known:** Unknown

**The agency is proposing to transfer the property with the following restrictions on future uses:**

If checked, the state is not currently proposing restrictions on future uses.

**Reason the State of Connecticut is proposing to transfer this property:** No longer meets the State's needs.

**Comments from the public are welcome and will be accepted until the close of business on November 3, 2016.**

**Comments may include (but are not limited to) information you might have about significant natural resources or recreation resources on the property, as well as your recommendations for means to preserve such resources.**

**Written comments\* should be sent to:**

Name: Patrick O'Brien  
 Agency: Office of Policy and Management  
 Address: 450 Capitol Avenue MS#52 ASP  
 Hartford, CT 06106-1379  
 E-Mail: [Patrick.Obrien@ct.gov](mailto:Patrick.Obrien@ct.gov)

Please send a copy of any comments to:

Name: Shane Mallory  
Agency: DAS - Leasing and Property Transfer  
Address: 165 Capitol Avenue, Room G-5  
Hartford, CT 06106  
E-Mail: [shane.mallory@ct.gov](mailto:shane.mallory@ct.gov)

**\*E-Mail submissions are preferred.  
(Comments from state agencies **must** be on agency letterhead and signed by agency head.  
Scanned copies are preferred.)**

#### **What Happens Next?**

To find out if this proposed transfer is the subject of further notices, check future editions of the Environmental Monitor. [Sign up for e-alerts](#) to receive a reminder e-mail on Environmental Monitor publication dates.

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The Adobe Reader is necessary to view and print Adobe Acrobat documents, including some of the maps and illustrations that are linked to this publication. If you have an outdated version of Adobe Reader, it might cause pictures to display incompletely. To download up-to-date versions of the free software, click on the Get Acrobat button, below. This link will also provide information and instructions for downloading and installing the reader.



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Susan D. Merrow  
Chair

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**November 22, 2016**

### Scoping Notices

1. Westbrook Village, Hartford
2. Montgomery Mills Project, Windsor Locks
3. Columbus Commons, New Britain
4. Rocky Ledge Area Water Main, Extension, Clinton
5. **NEW!** Middletown Boat House Redevelopment, Middletown

### Post-Scoping Notices: Environmental Impact Evaluation (EIE) Not Required

1. **NEW!** Dixwell Q House, New Haven

### Environmental Impact Evaluations

1. **REVISED!** Norwalk River Railroad Bridge (Walk Bridge) Replacement, Norwalk
2. Off Airport Tree Obstruction Removal for Waterbury-Oxford Airport, Oxford, Middlebury
3. Off Airport Tree Obstruction Removal for Bradley Airport, Windsor Locks, East Granby, Suffield
4. Off Airport Tree Obstruction Removal for Groton - New London Airport, Groton

### State Land Transfers

1. **NEW!** Hartford Turnpike Stage II, Vernon

The next edition of the Environmental Monitor will be published on **December 6, 2016**.  
[Subscribe to e-alerts](#) to receive an e-mail when the Environmental Monitor is published.

*Notices in the Environmental Monitor are written by the sponsoring agencies and are published unedited. Questions about the content of any notice should be directed to the sponsoring agency.*

### **Scoping Notices**

"Scoping" is for projects in the earliest stages of planning. At the scoping stage, detailed information on a project's design, alternatives, and environmental impacts does not yet exist. Sponsoring agencies are asking for comments from other agencies and from the public as to the scope of alternatives and environmental impacts that should be considered for further study. Send your comments to the contact person listed for the project by the date indicated.

**The following Scoping Notices have been submitted for review and comment.**

#### **1. Notice of Scoping for Westbrook Village**

**Municipality where proposed project might be located:** Hartford

**Address of Possible Project Location:** Multiple addresses near 47 Dillon Road, Hartford, CT

**Project Description:** Penrose Properties is seeking state financial assistance for the Westbrook Village project to be located at multiple addresses near 47 Dillon Road, Hartford, CT. The proposed Westbrook Village project consists of demolition of 360 existing housing units with a total development area of approximately 130,000 s.f. and new construction of 360 housing units with a total development area of approximately 180,000 s.f. on 65 acres. The proposed project will include construction of approximately 4,150 linear feet of new road to provide access to the development and would add an additional 344 parking spaces to the existing 250 parking spaces at the site.

**Project Maps:** [Click here to view a location map of the project area.](#) [Click here to view a Phase I site plan.](#) [Click here to view a Master Plan for the overall project.](#)

**Written comments from the public are welcomed and will be accepted until the close of business on: **December 8, 2016.****

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by **November 18, 2016.****

**Written comments and/or requests for a Public Scoping Meeting should be sent to:**

**Name:** Helen Muniz  
**Agency:** Department of Housing  
**Address:** 505 Hudson Street, Hartford, CT 06106  
**Fax:** 860-706-5741  
**E-Mail:** helen.muniz@ct.gov

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Helen Muniz  
**Agency:** Department of Housing  
**Address:** 505 Hudson Street, Hartford, CT 06106  
**Fax:** 860-270-8032  
**E-Mail:** helen.muniz@ct.gov

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## 2. Notice of Scoping for Montgomery Mills Redevelopment Project, Windsor Locks

**Municipality where proposed project might be located:** Town of Windsor Locks, CT

**Address of Project Location:** 25 Canal Bank Road, Windsor Locks, CT

**Project Description:** Beacon Communities is seeking state financial assistance to remediate and redevelop the historic Montgomery Mill buildings, located at 25 Canal Bank Road in Windsor Locks, CT into a mixed-income housing development with approximately 160 residential units. The property located less than quarter of a mile from the proposed Windsor Locks commuter rail station on the Hartford Line will be a transit-oriented development (TOD).

**Co-sponsoring Agencies:** Connecticut Department of Economic and Community Development (DECD) and the Connecticut Department of Housing (DOH).

**Project Maps:** [Click here to view a location map](#) of the project area. [Click here to view a site plan.](#)

**Written comments from the public are welcomed and will be accepted until the close of business on: **Thursday, December 8, 2016.****

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by Friday, **November 18, 2016.****

**Written comments and/or requests for a Public Scoping Meeting should be sent to:**

**Name:** Binu Chandy  
**Agency:** CT Dept. of Economic and Community Development  
**Address:** 505 Hudson Street, Hartford CT 06016  
**Fax:** 860.270.8154  
**E-Mail:** [binu.chandy@ct.gov](mailto:binu.chandy@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Binu Chandy  
**Agency:** CT Dept. of Economic and Community Development  
**Address:** 505 Hudson Street, Hartford CT 06016  
**Phone:** 860.270.8154  
**Fax:** 860.706.5740  
**E-Mail:** [binu.chandy@ct.gov](mailto:binu.chandy@ct.gov)

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### 3. Notice of Scoping for Columbus Commons

**Municipality where proposed project might be located:** New Britain

**Address of Possible Project Location:** 125 Columbus Boulevard, New Britain, CT

**Project Description:** Dakota Partners is seeking state financial assistance for the Columbus Commons project to be located at 125 Columbus Boulevard, New Britain CT. Phase I of project will consist of construction of a six-story structure that will include approximately 105,000 square feet of residential space within 80 units (30 one-bedroom and 50 two-bedroom) and approximately 11,000 square feet of commercial space. Floors 2 through 6 will consist of apartment units. The first floor will be limited to commercial space and common area. Phase I will consist of a total of approximately 116,000 square feet of floor space. Phase II will consist of construction of a second six-story structure that will include approximately 105,000 square feet of residential space within 80 and approximately 11,000 square feet of commercial space. The combined phase I/II project will consist of approximately 210,000 square feet of residential space within 160 apartment units and 22,000 square feet of commercial space as well as approximately 57 parking spaces on a 2.4 acre site.

**Project Maps:** [Click here to view a location map of the project area.](#) [Click here to view a site plan.](#)

**Written comments from the public are welcomed and will be accepted until the close of business on: **December 8, 2016.****

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by **November 18, 2016.****

**Written comments and/or requests for a Public Scoping Meeting should be sent to:**

**Name:** Edward LaChance  
**Agency:** Department of Housing  
**Address:** 505 Hudson Street, Hartford, CT 06106  
**Fax:** 860-706-5741  
**E-Mail:** [Edward.Lachance@ct.gov](mailto:Edward.Lachance@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

**Name:** Edward LaChance  
**Agency:** Department of Housing  
**Address:** 505 Hudson Street, Hartford, CT 06106  
**Fax:** 860-270-8099  
**E-Mail:** [Edward.Lachance@ct.gov](mailto:Edward.Lachance@ct.gov)

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### 4. Notice of Scoping for Town of Clinton (Indian River Recreational Complex)-Rocky Ledge Area Water Main Extension

**Municipality where proposed project might be located:** Clinton

**Addresses of Possible Project Location:** Killingworth Turnpike, Happy Acres, Woodland Drive, Margo Lane, Oakwood Lane, and Rocky Ledge Drive

**Project Description:** The Town of Clinton is seeking financial assistance under the Drinking Water State Revolving Fund (DWSRF) program for the extension of water main intended to serve approximately 300 residents which are currently served by private wells. A number of private wells in the project area were identified in the Preliminary Engineering Report (PER) as having drinking water that contains E.coli bacteria and elevated concentrations of nitrate. This water quality deterioration has been attributed to substandard on-site septic systems. The recommended action in the PER is to extend a water main to the project area to provide a safe and adequate drinking water supply and then properly abandon the on-site private wells. This action is a part of the Town's plan to abate groundwater pollution impacting public health and the environment as identified in a consent order with the Department of Energy and Environmental Protection.

It will protect public health by providing a safe and adequate supply of drinking water to the area. Abandonment of the drinking water wells will provide for additional space on the residential lots to make any necessary on-site septic system repairs. Because of the area's proximity to centralized public water infrastructure, the alternative of extending public water mains and abandoning the on-site drinking water wells was determined to be the most economical action to achieve the desired public health and environmental benefits and address the requirements of the DEEP Consent Order as it pertains to the Rocky Ledge Needs Area.

The proposed project will comprise of installation of new water main that will be connected to the existing distribution main of the Connecticut Water Company located near the intersection of Walnut Hill Road and Killingworth Turnpike. The new main will run northwest along Killingworth Turnpike and terminate between Rocky Ledge Drive and Hurd Bridge Road. The 12-inch pipe will be installed along Killingworth Turnpike while 8-inch diameter pipe will be used along the secondary roads (Happy Acres, Woodland Drive, Margo Lane, Oakwood Lane, and Rocky Ledge Drive). The water main has been minimally sized to meet the demands for domestic water use and satisfy fire protection requirements specified by the Town Fire Marshall for the intended service area.

**Project Map:** Click [here](#) to view a map of the project area.

**Written comments from the public are welcomed and will be accepted until the close of business on: **December 9, 2016.****

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by **November 18, 2016.****

**Written comments and/or requests for a Public Scoping Meeting should be sent to**

Mr. Eric McPhee  
Department of Public Health  
Drinking Water Section  
410 Capitol Avenue, MS #51WAT  
PO Box 340308  
Hartford, CT 06134-0308  
860-509-7359  
[DPH.SourceProtection@ct.gov](mailto:DPH.SourceProtection@ct.gov)

**If you have questions about the public meeting, or other questions about the scoping for this project, contact:**

Patricia Bisacky  
Department of Public Health  
Drinking Water Section  
410 Capitol Avenue, MS #51WAT  
PO Box 340308  
Hartford, CT 06134-0308  
860-509-7333  
860-509-7359  
[Patricia.Bisacky@ct.gov](mailto:Patricia.Bisacky@ct.gov)

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## 5. Notice of Scoping for Middletown Boat House Redevelopment

**Municipality where proposed project might be located:** Middletown

**Address of Possible Project Location:** Harbor Drive, Middletown, CT 06457

**Project Description:** The City of Middletown is seeking state financial assistance for the Middletown Boat House Redevelopment project to be located on Harbor Drive in Middletown, CT. The proposed project consists of demolition of the existing boat house and new construction of an approximately 82,000 square foot community rowing facility with a 300 person event space overlooking the Connecticut River on a 2.56 acre site. The purpose of the project is to spur economic development and attract people to the riverfront. This project will also include relocation of approximately 800 linear feet of Harbor Drive between the railroad crossing and Eastern Drive and reconfiguration of parking spaces. The project also includes a new playground in Harbor Park, bank stabilization activities, dock replacement, concrete ramp upgrades, and landscape architecture for the site.

**Project Maps:** [Click here to view a location map of the project area.](#) [Click here to view a site plan.](#)

**Written comments from the public are welcomed and will be accepted until the close of business**

on: **December 22, 2016.**

**Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting. Such requests must be made by **December 2, 2016.****

**Written comments and/or requests for a Public Scoping Meeting should be sent to:**

**Name:** Christine Marques  
**Agency:** Department of Economic and Community Development  
**Address:** 505 Hudson Street, Hartford, CT 06106  
**Phone:** 860-270-8050  
**Fax:** 860-760-5740  
**E-Mail:** Christine.Marques@ct.gov

**If you have questions about the public meeting, or other questions about the scoping for this project, contact Christine Marques at the address above.**

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## **Post-Scoping Notices: Environmental Impact Evaluation Not Required**

This category is required by the October 2010 revision of the [Generic Environmental Classification Document](#) for State Agencies. A notice is published here if the sponsoring agency, after publication of a scoping notice and consideration of comments received, has determined that an Environmental Impact Evaluation (EIE) does not need to be prepared for the proposed project.

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**The following Post-Scoping Notice has been submitted for publication in this edition.**

### **1. Post-Scoping Notice for Dixwell Q House Community Center Project, New Haven, CT**

**Municipality where project will be located:** New Haven, CT

**CEPA Determination:** On September 20, 2016, the Department of Economic and Community Development (DECD) published a [Notice of Scoping](#) to solicit public comments for this project in the *Environmental Monitor*. During the scoping period, the DECD received comments from the Department of Public Health ([Drinking Water Section](#)) and ([Environmental Health Section](#)); the [Department of Energy and Environmental Protection](#), and the [State Historic Preservation Office](#). The DECD has taken those comments into consideration and has concluded that the project does not require the preparation of Environmental Impact Evaluation under CEPA. The agency's conclusion is documented in a [Memo of Findings and Determination](#) and [Environmental Assessment Checklist](#).

**If you have questions about the project, you can contact the agency at:**

**Name:** Binu Chandy  
**Agency:** CT Dept. of Economic and Community Development  
**Address:** 505 Hudson Street, Hartford CT 06016  
**Phone:** 860.270.8154  
**Fax:** 860.706.5740  
**E-Mail:** [binu.chandy@ct.gov](mailto:binu.chandy@ct.gov)

**What happens next:** The DECD expects the project to go forward. This is expected to be the final notice of the project to be published in the *Environmental Monitor*.

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## **EIE Notices**

After Scoping, an agency that wishes to undertake an action that could significantly affect the environment must produce, for public review and comment, a detailed written evaluation of the expected environmental impacts. This is called an Environmental Impact Evaluation (EIE).

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**The following EIE Notice has been submitted for publication in this edition.**

### **1. Notice of EIE for Norwalk River Railroad Bridge (Walk Bridge)**

## Replacement

**Municipality where project is proposed:** Norwalk, Connecticut

**Address of Possible Project Location:** New Haven Line Railroad Bridge (Walk Bridge), Bridge No. 42.88R; Mile Post (MP) 41.5 on the New Haven Line, Norwalk River, Norwalk, CT

**Project Description:** In cooperation with the Federal Transit Administration (FTA), the Connecticut Department of Transportation (Department) proposes to replace the Walk Bridge over the Norwalk River in South Norwalk. The purpose of the project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service; offer operational flexibility and ease of maintenance; and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Upgrades to the Walk Bridge, through rehabilitation or replacement, are needed to increase bridge reliability, incorporate bridge redundancy, and provide a sustainable bridge for significant weather events, thereby accommodating current and future rail and marine traffic.

The proposed project includes railroad approaches from the east and west, totaling approximately one-half-track-mile. Track, catenary, and signal work will be accomplished within the existing state right-of-way, and will extend from approximately the Washington Street Bridge in South Norwalk (Bridge No. 36.93R; MP 41.28) to approximately 300 feet east of the Fort Point Street Bridge in East Norwalk. The Fort Point Street Bridge (Bridge No. 41.31; MP 41.79) will be replaced as part of the project.

Multiple design variations within four groups of alternatives were investigated: No Build, Rehabilitation, Replacement (Movable Bridge), and Replacement (Fixed Bridge). The Department held multiple meetings with public agencies and project stakeholders, including the public, to identify concerns and requirements for the replacement bridge design and to obtain public and agency input. With input from those meetings, the Department determined that the Replacement Alternative (Movable Bridge) would be evaluated in the document and would include the options for a bascule bridge and a vertical lift bridge. The Department has determined that a Long Span Vertical Lift Bridge is the Preferred Alternative.

Since this project involves Federal funding, the environmental document is a joint Environmental Assessment (EA)/Environmental Impact Evaluation (EIE) to satisfy both the National Environmental Policy Act and the Connecticut Environmental Policy Act.

**There is a new date for comments on this EA/EIE. Comments will be accepted until the close of business on: Friday, December 9, 2016.** The Department will consider all oral and written comments received during the comment period.

A Public Informational Meeting has been scheduled to discuss the evaluation of the various structure type alternatives - Fixed Bridge Alternatives, Movable Bridge Alternatives, and Rehabilitation. This meeting will take place on Monday, December 5, 2016 at the IMAX theater, 10 N. Water Street, Norwalk, CT 06854. An open forum will begin at 6:00 p.m. with the presentation starting at 6:30 p.m.

**The public can view a copy of this EA/EIE at:** The Connecticut Department of Transportation Bureau of Policy and Planning (Room 2155), 2800 Berlin Turnpike, Newington, CT; Norwalk City Hall, Town Clerk Office, 125 East Avenue, Norwalk, CT; Norwalk Public Library, 1 Beldon Avenue, Norwalk, CT; East Norwalk Association Library, 51 Van Zant Street, Norwalk, CT; South Norwalk Branch Library, 10 Washington Street, Norwalk, CT; and the Western CT Council of Governments, 1 Riverside Road, Sandy Hook, CT.

Additionally, the public can view a copy of the project map, the proposed project alternatives, and a copy of the EA/EIE online at: [www.walkbridgect.com/environmental](http://www.walkbridgect.com/environmental)

It is also available online at: [www.ct.gov/environmentaldocuments](http://www.ct.gov/environmentaldocuments)

**There is a new date for the public hearing for this EA/EIE:**

**DATE:** Thursday, **November 17, 2016.**

**TIME:** Open Forum at 6:00 p.m. and Formal Presentation at 7:00 p.m.

**PLACE:** Norwalk City Hall, Concert Hall, 125 East Avenue, Norwalk, CT

**NOTES:** The meeting facility is ADA accessible. Free language assistance or sign interpretation may be requested by contacting the Program's Public Information Office at (203) 752-1996 at least five (5) business days prior to the meeting. Efforts will be made to respond to requests for assistance.

**Additional information about this project can be found online at:** [www.walkbridgect.com](http://www.walkbridgect.com)

**Send your comments about this EA/EIE to:**

**Name:** Mr. Mark W. Alexander, Transportation Assistant Planning Director

**Agency:** Connecticut Department of Transportation  
Bureau of Policy and Planning

**Address:** 2800 Berlin Turnpike, Newington, Connecticut, 06131

**E-Mail:** [info@walkbridgect.com](mailto:info@walkbridgect.com)

Please use the subject heading "Walk Bridge Project" for any comments

**If you have questions about the public hearing, or where you can review this EA/EIE, or similar matters, please contact:**

**Name:** Ms. Heather Cwikla

**Agency:** WSP / Parsons Brinckerhoff

**Address:** 424 Chapel Street, New Haven, CT 06511

**E-Mail:** [info@walkbridgect.com](mailto:info@walkbridgect.com)

**Phone:** (203) 785-0456 ext.137

**Other information:** To be added to the Walk Bridge Program communications list or to submit a comment through the project website, please visit [www.walkbridgect.com/contact](http://www.walkbridgect.com/contact)

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## 2. Notice of EIE for the Connecticut Airport Authority (CAA) – Off-Airport Tree Obstruction Removal at the Waterbury-Oxford Airport

**Municipality where the project is proposed:** The Airport is located in the Town of Oxford approximately 7 miles southwest of Waterbury, CT. The very northern portion of the Airport is within the Town of Middlebury.

**Address of Possible Project Location:** The airport office is located at 300 Christian Street, off of State Route 188.

**Project Description:** Preparation of National Environmental Policy Act (NEPA) and Connecticut Environmental Policy Act (CEPA) environmental document as required to evaluate the potential impacts associated with tree obstruction removal in areas on, as well as both north and south of the Waterbury-Oxford Airport. The evaluation addresses obstruction removals associated with Federally-defined airspace surfaces surrounding the airport needed for the continued safe operation of aircraft. Objects that penetrate these surfaces are classified as obstructions, and should be removed to safely accommodate approaching and departing aircraft.

The project sponsoring agencies, the Connecticut Airport Authority (CAA), and Federal Aviation Administration (FAA) have identified that trees penetrate the airspace at the Airport, including locations beyond the southern airport property boundary. Per FAA practice, review of off-airport obstruction removal should be evaluated and documented via a NEPA Environmental Assessment (EA) and state CEPA Environmental Impact Statement (EIS). This project includes the identification of each affected property owner and associated parcels (both public and private) with anticipated obstruction removals.

**Project Map:** A project map can be found at the following location:

<http://waterburyairport.caa-analysis.com/project-documents/>

**Comments on this EIE will be accepted until the close of business on: Friday, December 2, 2016.**

A formal public hearing has not been scheduled. The sponsoring agency (CAA) is holding a **Public Informational Meeting on Tuesday, October 25, 2016 from 7:00 PM to 8:30 PM**, at the Oxford High School, in the Library Media Center (61 Quaker Farm Road: Oxford, CT 06478). Comments of the study may be submitted via email at the website above, or by sending written comments to Colin Goegel at the address below. The sponsoring agency (CAA) shall hold a public hearing on the draft evaluation if twenty-five persons or an association having not less than twenty-five persons requests such a hearing by **Friday, October 28, 2016**.

**The public can view a copy of this EIE at:** The Draft EA and EIE for this project are currently available for review at the Oxford Public Library (486 Oxford Road, Oxford, CT 06478), as well as at the website above.

**Send your comments about this EIE to:**

**Name:** Mr. Colin Goegel, Supervising Engineer

**Agency:** Connecticut Airport Authority  
334 Ella Grasso Turnpike, Suite 160  
Windsor Locks, CT 06096

**Phone:** (860) 254-5628

**E-Mail:** [cgoegel@ctairports.org](mailto:cgoegel@ctairports.org)

**If you have questions about the Public Informational Meeting, please contact:**

**Name:** Mr. Colin Goegel, Supervising Engineer

**Agency:** Connecticut Airport Authority  
334 Ella Grasso Turnpike, Suite 160  
Windsor Locks, CT 06096  
**E-Mail:** cgoegel@ctairports.org  
**Phone:** (860) 254-5628

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### 3. Notice of EIE for the Connecticut Airport Authority (CAA) – Off-Airport Tree Obstruction Removal at the Bradley International Airport

**Municipality where project is proposed:** The Airport is located primarily in the Town of Windsor Locks. Runway 15 extends into the Town of East Granby and Runway 24 extends into the Town of Suffield. The Airport is located 12 miles north of Hartford, CT and 16 miles south of Springfield, MA.

**Address of Possible Project Location:** The airport office is located on Schoephoester Road, off of State Route 20 in Windsor Locks, CT.

**Project Description:** Preparation of National Environmental Policy Act (NEPA) and Connecticut Environmental Policy Act (CEPA) environmental document as required to evaluate the potential impacts associated with tree obstruction removal in areas on, as well as both north and south of the Bradley International Airport. The evaluation addresses obstruction removals associated with Federally-defined airspace surfaces surrounding the airport needed for the continued safe operation of aircraft. Objects that penetrate these surfaces are classified as obstructions, and should be removed to safely accommodate approaching and departing aircraft.

The project sponsoring agencies, the Connecticut Airport Authority (CAA), and Federal Aviation Administration (FAA) have identified that trees penetrate the airspace at the Airport, including locations beyond the airport property boundary. Per FAA practice, review of off-airport obstruction removal should be evaluated and documented via a NEPA Environmental Assessment (EA) and state CEPA Environmental Impact Statement (EIS). This project includes the identification of each affected property owner and associated parcels (both public and private) with anticipated obstruction removals.

**Project Map(s):** Project maps can be found at the following location:

<http://bradleyairport.caa-analysis.com/project-documents/>

**Comments on this EA/EIE will be accepted until the close of business on: Friday, December 2, 2016.**

A formal public hearing has not been scheduled. The sponsoring agency (CAA) is holding a **Public Informational Meeting on November 9, 2016 from 7:00 PM to 8:30 PM**, at the Windsor Locks High School auditorium (50 South Elm Street, Windsor Locks, CT 06096). Comments of the study may be submitted via email at the website above, or by sending written comments to Colin Goegel at the address below. The sponsoring agency (CAA) shall hold a public hearing on the draft evaluation if twenty-five persons or an association having not less than twenty-five persons requests such a hearing by **Friday, October 28, 2016**.

**The public can view a copy of this EIE at:** The Draft EA and EIE for this project are currently available for review at the following libraries as well as at the website above:

East Granby Public Library  
24 Center Street  
East Granby, CT. 06026

Kent Memorial Library  
50 North Main Street  
Suffield, CT. 06078

Windsor Locks Public Library  
28 Main Street  
Windsor Locks, CT. 06096

Windsor Town Library  
323 Broad Street  
Windsor, Ct. 06095

**Send your comments about this EIE to:**

**Name:** Mr. Colin Goegel, Supervising Engineer  
**Agency:** Connecticut Airport Authority  
**Address:** 334 Ella Grasso Turnpike, Suite 160  
Windsor Locks, CT 06096  
**Phone:** (860) 254-5628  
**E-Mail:** [cgoegel@ctairports.org](mailto:cgoegel@ctairports.org)

**If you have questions about the Public Informational Meeting, please contact:**

**Name:** Mr. Colin Goegel, Supervising Engineer  
**Agency:** Connecticut Airport Authority  
**Address:** 334 Ella Grasso Turnpike, Suite 160  
Windsor Locks, CT 06096  
**E-Mail:** [cgoegel@ctairports.org](mailto:cgoegel@ctairports.org)  
**Phone:** (860) 254-5628

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#### 4. Notice of EIE for Off-Airport Tree Obstruction Removal at the Groton-New London Airport

**Municipality where project is proposed:** Groton

**Address of Possible Project Location:** The airport office is located at 155 Tower Avenue, off of U.S. Route 1.

**Project Description:** Preparation of National Environmental Policy Act (NEPA) and Connecticut Environmental Policy Act (CEPA) environmental document as required to evaluate the potential impacts associated with tree obstruction removal in areas on, and surrounding the Groton-New London Airport. The evaluation addresses obstruction removals associated with Federally-defined airspace surfaces surrounding the airport needed for the continued safe operation of aircraft. Objects that penetrate these surfaces are classified as obstructions, and should be removed to safely accommodate approaching and departing aircraft.

The project sponsoring agencies, the Connecticut Aviation Authority (CAA), and Federal Aviation Administration (FAA) have identified that trees penetrate the airspace at the Airport, including locations beyond the ends of each runway and the airport property boundary. Per FAA and CAA practice, review of off-airport obstruction removal should be evaluated and documented via a NEPA Environmental Assessment (EA) and state CEPA Environmental Impact Evaluation (EIE). This project includes the identification of each affected property owner and associated parcels (both public and private) with anticipated obstruction removals.

**Project Maps:** Project maps can be found at the following locations:

<http://grotonairport.caa-analysis.com/project-documents/>

**Comments on this EIE will be accepted until the close of business on: **Tuesday, January 24, 2017.****

**The public can view a copy of this EIE at:** The Draft EA and EIE for this project are currently available for review at the following Libraries as well as at the website listed above:

Groton Public Library

52 Newtown Road

Groton, CT 06340

Bill Memorial Library

240 Monument Street

Groton, CT 06340

**There is a formal public hearing scheduled for this EIE on:**

**DATE:** **December 8, 2016**

**TIME:** 7:00 PM to 8:30 PM (doors open at 6:30 PM)

**PLACE:** City of Groton Council Chambers, 295 Meridian Street, Groton, CT 06340

Comments of the study may be submitted via email at the website above, or by sending written comments to Colin Goegel at the address below.

**NOTES:** Free language assistance or sign interpretation may be requested by contacting Colin Goegel at the address below at least five (5) business days prior to the meeting. Efforts will be made to respond to requests for assistance.

**Send your comments or questions about this EIE via the project website or:**

**Name:** Mr. Colin Goegel, Supervising Engineer  
**Agency:** Connecticut Airport Authority  
334 Ella Grasso Turnpike, Suite 160  
Windsor Locks, CT 06096  
**Phone:** (860) 254-5628  
**E-Mail:** [cgoegel@ctairports.org](mailto:cgoegel@ctairports.org)

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## State Land Transfer Notices

Connecticut General Statutes [Section 4b-47](#) requires public notice of most proposed sales and transfers of state-owned lands. The public has an opportunity to comment on any such proposed transfer. Each notice includes an address where comments should be sent. [Read more about the process.](#)

**The Following Land Transfer Notice has been submitted for publication in this edition.**

### 1. Comments and OPM's Responses for Proposed Land Transfer in Vernon

**Complete address of property:** (Unknown number) Hartford Tpke. Vernon, CT

**Commonly used name of property or other identifying information:** not applicable

**Number of acres to be transferred:** 300 +/- sq. ft.

**Click to view [map](#) of property location**

**Click [here](#) to view the transfer notice from the Environmental Monitor**

**Click here to read the comments received from the public and state agencies regarding the proposed transfer of the property, and the [response](#) of the Office of Policy and Management (OPM) to the comments.**

#### WHAT HAPPENS NEXT?

[Sign up for e-alerts](#) to receive a reminder e-mail on Environmental Monitor publication dates.

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The Adobe Reader is necessary to view and print Adobe Acrobat documents, including some of the maps and illustrations that are linked to this publication. If you have an outdated version of Adobe Reader, it might cause pictures to display incompletely. To download up-to-date versions of the free software, click on the Get Acrobat button, below. This link will also provide information and instructions for downloading and installing the reader.



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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix D-2      Newspaper Notices and Affidavits**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**AFFIDAVIT OF PERFORMANCE**



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**Publication: El sol News**

**Insertion date: 10-14-2016**

**State: Connecticut - Westchester**

**Advertiser: WSP Parsons Brinckerhoff**

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**Affidavit completed by:**

**Name:** Claudia Arteaga      **Title:** Assistant Manager

**Signature** *Claudia Arteaga*      **Date** 10-14-2016

**AFFIDAVIT OF PERFORMANCE**



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**Publication: El sol News**

**Insertion date: 10-07-2016**

**State: Connecticut - Westchester**

**Advertiser: WSP Parsons Brinckerhoff**

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**Affidavit completed by:**

**Name:** Claudia Arteaga      **Title:** Assistant Manager

**Signature** *Claudia Arteaga*      **Date** 10-07-2016

**AFFIDAVIT OF PERFORMANCE**



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**Publication: El sol News**

**Insertion date: 09-09-2016**

**State: Connecticut - Westchester**

**Advertiser: WSP Parsons Brinckerhoff**

---

**Affidavit completed by:**

**Name:** Claudia Arteaga      **Title:** Assistant Manager

**Signature** *Claudia Arteaga R*      **Date** 09-09-2016

# UNICEF: 28 MILLONES DE NIÑOS HAN SIDO DESPLAZADOS POR CONFLICTOS

Unos 50 millones de niños viven actualmente lejos de su lugar de origen, obligados a escapar de la violencia o a migrar en busca de oportunidades, advirtió Unicef, que llamó la atención sobre el riesgo al que se enfrentan todos estos menores.

En un informe titulado "Desarraigados", la agencia de la ONU para la infancia analiza la situación de esos niños y demanda a los Gobiernos acciones concretas para mejorar su protección. Entre ellas figuran acabar con la detención de niños migrantes, mantener unidas a las familias para proteger a los menores y garantizar el acceso a la educación a todos ellos. "Los niños no tienen la culpa de las bombas y los tiroteos, de la violencia de las pandillas, de la persecución, de los campos de cultivo devastados ni de los salarios bajos que reciben sus familias y que los obligan a dejar sus hogares. A pesar de ello, la guerra, los conflictos, el cambio climático y la pobreza les afectan más que a

nadie", señala Unicef.

El informe apunta que entre 2005 y 2015 el número de niños refugiados se duplicó, mientras que el de niños migrantes aumentó un 21 %. En total, 31 millones de niños viven hoy fuera de sus países de nacimiento, incluidos 11 millones de refugiados y solicitantes de asilo, mientras hay unos 17 millones de menores que se encuentran desplazados dentro de sus propios Estados. "Los niños en estas situaciones se encuentran entre las personas más vulnerables del planeta, y esta vulnerabilidad es cada vez mayor. La cifra de niños refugiados que se encuentran bajo el mandato del Alto Comisionado de las Naciones Unidas para los Refugiados (ACNUR) se ha más que duplicado en solo 10 años", comenta la agencia de la ONU.

De esos casi 50 millones de menores alejados de sus hogares, más de la mitad (28 millones) se vieron forzados a huir por conflictos o violencia. Unicef destaca que los niños representan un "porcentaje desproporcionado y creciente"



Un reciente informe de la agencia de la ONU señala que casi 1 de cada 3 niños que viven fuera de sus países de nacimiento es un refugiado.

de todos los desplazados y suponen casi la mitad de todos los refugiados que hay en el mundo. Además, cada vez hay más menores que cruzan solos las fronteras,

pues en 2015 unos 100.000 niños no acompañados solicitaron asilo en 78 países, el triple que en 2014. "Las voces de los niños, su situación y las dificultades a las

que se enfrentan deben convertirse en un elemento esencial de los debates internacionales sobre la migración y el desplazamiento", insta el organismo regional.

These Bonds may not be sold, nor may offers to buy be accepted, prior to the time an Official Statement is delivered in final form. Under no circumstances shall this announcement constitute an offer to sell or a solicitation of an offer to buy, nor shall there be any sale of the Bonds in any jurisdiction in which an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities law of any such jurisdiction. The Bonds will only be sold by means of an Official Statement.

NEW MONEY/REFUNDING ISSUE

\$1,000,000,000\*



State of Connecticut

\$800,000,000\*

\$200,000,000\*

Special Tax Obligation Bonds Transportation Infrastructure Purposes, 2016 Series A

Special Tax Obligation Refunding Bonds Transportation Infrastructure Purposes, 2016 Series B

Honorable Denise L. Nappier  
Treasurer of the State of Connecticut

Retail Only Order Period  
September 12, 2016\*

Institutional Pricing  
September 13, 2016\*  
Expected Tax Status

Delivery Date  
September 28, 2016\*

Interest is exempt from federal income tax, and for Connecticut residents is also state tax-exempt.\*\*

Further information on these Bonds can be obtained online at:

[www.buyCTbonds.com](http://www.buyCTbonds.com)

or by calling 877-552-8266 or contact any of the firms listed below.

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888-768-6999

Citigroup  
855-644-7252

Goldman, Sachs & Co.  
917-343-7900

Raymond James  
877-295-9116

RBC Capital Markets  
860-243-2478

Barclays  
212-528-1061

Cabrera Capital Markets, LLC  
800-291-2388

Estrada Hinojosa & Company, Inc.  
800-676-5352

Fidelity Capital Markets  
800-544-5372

J.P. Morgan  
855-231-8873

Jefferies  
800-567-8567

Morgan Stanley  
877-937-6739

Piper Jaffray & Co.  
888-552-0614

Ramirez & Co., Inc.  
855-289-2663

Rice Financial Products Company  
800-740-7423

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866-287-3221

\*Preliminary, subject to change.

\*\*Before purchasing any Bonds, contact your tax advisor to determine any applicable federal, state and local tax consequences.



## Revisión y comentarios sobre el proyecto EA/EIE de la sustitución del paseo del puente de Norwalk

El Departamento del Transporte de Connecticut (CTDOT) está evaluando las mejoras propuestas para las vías del tren que están deterioradas sobre el puente del Río Norwalk en Norwalk CT.

De conformidad con los requerimientos de NEPA y CEPA, la Administración Federal de Tránsito (FTA) y CTDOT han publicado la evaluación ambiental/ la evaluación de la sección 4(f) / la evaluación del impacto ambiental (EA/EIE), las cuales presentan alternativas para la sustitución del paseo del puente. La EA/EIE se encuentra disponible para su revisión en el Connecticut Department of Transportation, Western Connecticut Council of Governments, Norwalk City Hall Town Clerk's Office y en bibliotecas públicas de Norwalk. También están disponibles en la programación de nuestra página web.

Se anima al público a ofrecer sus opiniones sobre la EA/EIE. Los comentarios pueden ser enviados en línea en [walkbridgect.com/contact/](http://walkbridgect.com/contact/), por correo electrónico a [info@walkbridgect.com](mailto:info@walkbridgect.com) o enviarlas por escrito a Mark Alexander a la dirección: 2800 Berlin Turnpike, Newington, CT, 06131. También pueden dar sus opiniones en persona en la audiencia pública que se llevará a cabo el:

**Jueves 6 de octubre de 2016 a las 6:00 Pm en el foro abierto; y a las 7:00 pm en la Audiencia Formal que se llevarán a cabo en el Norwalk City Hall, Concert Hall ubicado en el 125 East Ave, Norwalk, CT.**

La reunión cuenta con acceso al sistema ADA (para personas con discapacidades). Asistencia gratis de idiomas o interpretación del lenguaje de señas los cuales pueden ser solicitadas contactando a Program's Public Information Office llamando al (203) 752-1996 con un plazo no menor a cinco (5) días hábiles antes de la reunión.

Se harán todo los esfuerzos que sean necesarios para responder a las solicitudes de asistencia.

Las opiniones serán aceptadas hasta el 10/21/2016.



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**WALK BRIDGE PROGRAM**

**Revisión y comentarios sobre el proyecto EA/EIE de la sustitución del paseo del puente de Norwalk**

El Departamento del Transporte de Connecticut (CTDOT) está evaluando las mejoras propuestas para las vías del tren que están deterioradas sobre el puente del Río Norwalk en Norwalk CT.

De conformidad con los requerimientos de NEPA y CEPA, la Administración Federal de Tránsito (FTA) y CTDOT han publicado la evaluación ambiental/ la evaluación de la sección 4(f) / la evaluación del impacto ambiental (EA/EIE), las cuales presentan alternativas para la sustitución del paseo del puente. La EA/EIE se encuentra disponible para su revisión en el Connecticut Department of Transportation, Western Connecticut Council of Governments, Norwalk City Hall Town Clerk's Office y en bibliotecas públicas de Norwalk. También están disponibles en la programación de nuestra página web.

Se anima al público a ofrecer sus opiniones sobre la EA/EIE. Los comentarios pueden ser enviados en línea en walkbridgect.com/contact/, por correo electrónico a info@walkbridgect.com o enviarlas por escrito a Mark Alexander a la dirección: 2800 Berlin Turnpike, Newington, CT, 06111. También pueden dar sus opiniones en persona en la audiencia pública que se llevará a cabo en:

**Jueves 17 de Noviembre de 2016 a las 6:00 PM en el foro abierto; y a las 7:00 pm en la Audiencia Formal que se llevarán a cabo en el Norwalk City Hall, Concert Hall ubicado en el 125 East Ave, Norwalk, CT.**

La reunión cuenta con acceso al sistema ADA (para personas con discapacidades). Asistencia gratis de idiomas o interpretación del lenguaje de señas los cuales pueden ser solicitadas contactando a Program's Public Information Office llamando al (203) 752-1996 con un plazo no menor a cinco (5) días hábiles antes de la reunión.

Se harán todo los esfuerzos que sean necesarios para responder a las solicitudes de asistencia.

Las opiniones serán aceptadas hasta el 12/5/2016.

CONNECTICUT DEPARTMENT OF TRANSPORTATION  
 Federal Transit Administration

# Pronostican fuerte invierno en Connecticut

Ciudades como Hartford, Stamford, White Plains (Nueva York) y las zonas costeras de Connecticut y Nueva York podrían tener una acumulación de nieve de 15 a 20 pulgadas

NORWALK.- Las frecuentes tormentas en todo el noreste del país en este invierno pueden conducir a una temporada por encima de lo normal en lo que se refiere a las nevadas, según las previsiones de largo alcance de AccuWeather.

El meteorólogo Paul Pastelok, explicó que la acumulación puede ser limitada en las zonas al sur de la ciudad de Nueva York, como Filadelfia, Washington DC y Baltimore. Estas áreas verán un puñado de sistemas de cambio, donde la caída de nieve será en mayor porcentaje combinada con lluvia y aguanieve.

Pero las ciudades como Boston (Massachusetts), Hartford, Stamford, White Plains (Nueva York) y las zonas costeras de Connecticut y Nueva York po-

drían tener una acumulación de nieve entre 15 y 20 pulgadas, indicó Pastelok.

En general, AccuWeather predijo que la región totalizará un número inferior a lo normal de días bajo cero, aunque la temperatura tendrá un promedio de 3 a 5 grados Fahrenheit más bajos que el año pasado, por lo que el invierno será más fuerte que el registrado en los años anteriores.

En el invierno pasado se registraron temperaturas récord y este año no será la excepción, precisó Pastelok.

La National Oceanic and Atmospheric Administration (NOAA) declaró que la temperatura media de diciembre a febrero en los estados contiguos a Connecticut, el año pasado, fue de 36.8 a 4.6 grados Fahrenheit por encima del

promedio registrado en la década pasada.

Lo anterior supera el récord de 36.5 grados establecidos en el invierno 1999 a 2000. En el invierno 2016-2017, dichas cifras es posible que sean superadas, precisó la agencia.

La NOAA indicó que el fuerte fenómeno de "El Niño" en el Pacífico fue la fuerza impulsora para que en el invierno del año pasado no se sintieran temperaturas más frías.

La agencia indicó que también la temperatura promedio de diciembre a febrero en Connecticut en 2015 fue de 35 a 7.7 grados Fahrenheit por encima de lo normal. En este año, la NOAA pronosticó un número superior al registrado en 2015.

Connecticut también tuvo un registro superior



De acuerdo con AccuWeather, las frecuentes tormentas en todo el noreste del país en este invierno pueden conducir a una temporada por encima de lo normal en lo que se refiere a las nevadas.

por encima de la precipitación media, la mayor parte como lluvia, sin embargo, con 14.9 pulgadas de nieve en las zonas del sur, en ciudades como New Haven, Bridgeport, Norwalk y Stamford la región tuvo alrededor de 4 pulgadas más de nieve de lo

normal, se dio a conocer.

La mayor nevada de la temporada fue el 23 de enero de 2015, cuando más de un pie de nieve cayó sobre el suroeste de Connecticut, precisó la agencia.

Con 16 pulgadas, Greenwich tiene la mayor

cantidad de tormenta, seguido de Milford con 15.5 pulgadas y 14.5 pulgadas en Darien. Dichas cifras serán superadas este año.

La NOAA publicará su pronóstico completo del invierno 2016-17 a finales de este mes en la web [www.noaa.gov](http://www.noaa.gov).

## Abogada Gergana Genova, Esq.

### SOLICITE UNA CONSULTA GRATIS

LLÁMENOS HOY PARA APRENDER ACERCA DE "PERDONES"

- ✓ Inmigración
- ✓ Peticiones Familiares
- ✓ Deportaciones
- ✓ Ciudadanía
- ✓ DREAMers
- ✓ Divorcios\*
- ✓ Corte de Familia\*
- ✓ Manutención\*
- ✓ Custodias\*
- ✓ Defensa Criminal

\* (Servicios solo en NY)

**HABLAMOS  
ESPAÑOL**

16 King St. 3er. Piso • Port Chester, NY 10573  
(A media cuadra de la estación de trenes y a una cuadra de la North Main St.)

**914-481-8822**  
CONSULTA GRATIS



## Revisión y comentarios sobre el proyecto EA/EIE de la sustitución del paseo del puente de Norwalk

El Departamento del Transporte de Connecticut (CTDOT) está evaluando las mejoras propuestas para las vías del tren que están deterioradas sobre el puente del Río Norwalk en Norwalk CT.

De conformidad con los requerimientos de NEPA y CEPA, la Administración Federal de Tránsito (FTA) y CTDOT han publicado la evaluación ambiental/ la evaluación de la sección 4(f) / la evaluación del impacto ambiental (EA/EIE), las cuales presentan alternativas para la sustitución del paseo del puente. La EA/EIE se encuentra disponible para su revisión en el Connecticut Department of Transportation, Western Connecticut Council of Governments, Norwalk City Hall Town Clerk's Office y en bibliotecas públicas de Norwalk. También están disponibles en la programación de nuestra página web.

Se anima al público a ofrecer sus opiniones sobre la EA/EIE. Los comentarios pueden ser enviados en línea en [walkbridgect.com/contact/](http://walkbridgect.com/contact/), por correo electrónico a [info@walkbridgect.com](mailto:info@walkbridgect.com) o enviarlas por escrito a Mark Alexander a la dirección: 2800 Berlin Turnpike, Newington, CT, 06131. También pueden dar sus opiniones en persona en la audiencia pública que se llevará a cabo el:

**Jueves 6 de octubre de 2016 a las 6:00 Pm en el foro abierto;  
y a las 7:00 pm en la Audiencia Formal que se llevarán a cabo en el  
Norwalk City Hall, Concert Hall ubicado en el 125 East Ave, Norwalk, CT.**

La reunión cuenta con acceso al sistema ADA (para personas con discapacidades). Asistencia gratis de idiomas o interpretación del lenguaje de señas los cuales pueden ser solicitadas contactando a Program's Public Information Office llamando al (203) 752-1996 con un plazo no menor a cinco (5) días hábiles antes de la reunión.

Se harán todo los esfuerzos que sean necesarios para responder a las solicitudes de asistencia.

**Las opiniones serán aceptadas hasta el 10/21/2016.**



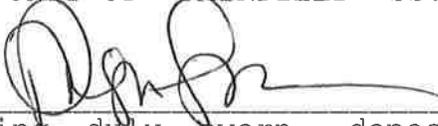
# The Hour

1 Selleck St., Norwalk CT 06855  
203-333-4151  
Fax 203-384-1158

WSP/PARSONS BRINCKEROFF  
424 CHAPEL STREET, & 2 GATEWAY  
CENTER, #18, NEWARK, NJ 07102  
NEW HAVEN CT 06511

## THE HOUR AFFIDAVIT OF PUBLICATION

STATE OF CONNECTICUT  
COUNTY OF FAIRFIELD SS. NORWALK

I,   
Being duly sworn, depose and say  
that I am a Representative in the  
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Subscribed and sworn to before me on  
this 12th Day of December, A.D.  
2016.

  
Sharon Boroskey/Notary Public

My commission expires on October 31,  
2021.

SHARON R BOROSKEY  
Notary Public, State of Connecticut  
My Commission Expires Oct 31, 2021

PO Number

Ad Caption

Ad Content Is EPS Creator: One

Publication

Norwalk Hour

Ad Number

0002194156-01

Publication Schedule

9/6/2016, 9/14/2016, 10/5/2016, 10/11/2016, 10/18/2016,  
11/15/2016

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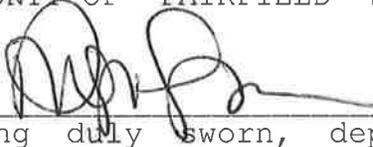
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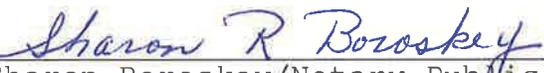
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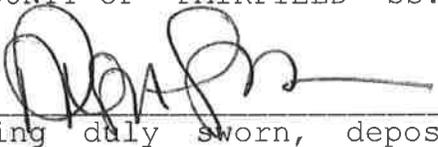
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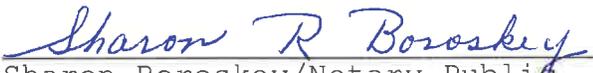
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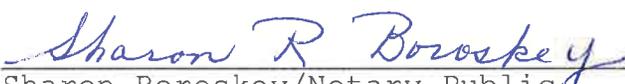
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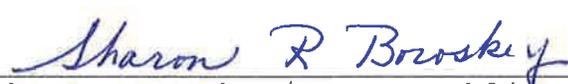
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Norwalk Hour

Ad Number

0002216350-01

Publication Schedule

12/2/2016, 12/5/2016 ✓

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Fax 203-384-1158

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Publication Schedule

12/2/2016, 12/5/2016 ✓

**PUBLIC NOTICES**

**NOTICE OF PUBLIC HEARING**

The Norwalk Redevelopment Agency will hold a Public Hearing on the Re-approval of the Wall Street Redevelopment Plan, West Avenue Corridor Redevelopment Plan, and Washington-South Main Urban Renewal Plan on Tuesday September 13, 2016 at 5:30pm in Room A-300, 3rd floor, Norwalk City Hall, 125 East Avenue, Norwalk, CT. All interested members of the public are encouraged to attend and submit comments at the Public Hearing. The various plans are available at <http://www.norwalkct.org/index.aspx?NID=652>. Oral language assistance for this meeting/hearing may be obtained by calling (203-854-7810 ext. 46787) or visiting our office at least 48 hours prior to the meeting/hearing.

**STATE OF CONNECTICUT  
SUPERIOR COURT  
Judicial District of FST  
at Stamford**

Plaintiff **FLORES, DELFINA**  
VS.  
**FLORES, HECTOR**

The Court has reviewed the Motion for Order of Notice and the Complaint/Application/Motion which asks for: **DIVORCE**

The Court finds that the current address of the party to be notified is unknown and that all reasonable efforts to find him/her have failed. The Court also finds that the last known address of the party to be notified was: **248 ELY AVE., APT. 1, NORWALK, CT 06854**

The Court Orders that notice be given to the party to be notified by having a State Marshal or other proper officer place a legal notice in: **Norwalk Hour** a newspaper circulating in **Norwalk, CT** containing a true and attested copy of this Order of Notice, and, if accompanying a Complaint for divorce (dissolution of marriage), complaint for dissolution of civil union, legal separation or annulment, or if accompanying an Application for custody or visitation, a statement that Automatic Court Orders have been issued in the case as required by Section 25-5 of the Connecticut Practice Book and are a part Of the Complaint/Application on file with the Court.

The notice should appear before September 8, 2016 and proof of service shall be filed with this Court.  
N.A. Roberts Assistant Clerk  
Date Signed 7/12/2016

**PUBLIC NOTICES**



**Review and Comment on the Walk Bridge Replacement Project EA/EIE!**

**The Connecticut Department of Transportation (CTDOT) is evaluating proposed improvements to the deteriorating railroad bridge over the Norwalk River in Norwalk, CT.**

In compliance with NEPA and CEPA requirements, the Federal Transit Administration (FTA) and CTDOT have published the Environmental Assessment/Section 4(f) Evaluation/Environmental Impact Evaluation (EA/ EIE), which presents alternatives for the replacement of the Walk Bridge. The EA/EIE is available for review at the Connecticut Department of Transportation, Western Connecticut Council of Governments, Norwalk City Hall Town Clerk's Office and Norwalk Public Libraries. It is also available on the Program's website.

The public is encouraged to provide comments on the EA/EIE. Comments may be submitted online at [walkbridgect.com/contact/](http://walkbridgect.com/contact/), emailed to [info@walkbridgect.com](mailto:info@walkbridgect.com), or sent in writing to Mark Alexander at 2800 Berlin Turnpike, Newington, CT, 06131. You may also submit your comments in person at the Public Hearing:

**Thursday, October 6, 2016**

**6PM Open Forum; 7PM Formal Hearing  
Norwalk City Hall, Concert Hall, 125 East Ave, Norwalk, CT**

The meeting facility is ADA accessible. Free language assistance or sign interpretation may be requested by contacting the Program's Public Information Office at (203) 752-1996 at least five (5) business days prior to the meeting. Efforts will be made to respond to requests for assistance.

**Comments will be accepted until 10/21/16.**



Federal Transit Administration

**WE CAN'T RUN  
ON EMPTY.**

**PLEASE  
DONATE  
BLOOD.**



**American  
Red Cross**

the Asthma Epidemic

[www.lungusa.org](http://www.lungusa.org) | 1-800-LUNG-USA

**Connecticut River:** Largemouth bass and smallmouth bass action is come and go. Most catches seem to be in the northern river (Windsor & Enfield area). Small to medium size baits were working well. Try 3- to 4-inch rubber worms on 3/8-ounce football jigs or 2.5-inch paddle tail worms.

**Local reports**

After a week-long layoff due to bad weather, Captain Sal Tardella of My Bonnie Charters in South Norwalk fished on Monday morning with Joseph Roberto of Ansonia. Although they had to deal with some winds, Joseph brought in some nice porgies and mid-sized bluefish and, of course, a ton of feisty sea robins that really loved the skipper's well-prepared bait treats.

At Fisherman's World, Jeremy first noted that the fluke picture is fading. Very few of the summer flatties are being reported. Everything else is all good from here on in. Porgy fishing remains outstanding, with lots of big platter-sized porgies and the bite running deep and shallow. Black sea bass also remain a good bottom bet, although many of the baby sea bass are now grabbing the baits before the bigger ones. The numbers offer a promise of great sea bass fishing in seasons ahead. They're mixing with the porgies but the best action is in about 50-feet of water.

Small harbor blues are showing up in more places and better numbers than last week and guys casting for them are also treated to bigger choppers on occasion.

**Deep marine fishing report**

**Striped Bass:** Fishing remains very good during low light conditions (overcast days). Live lining bunker (Atlantic menhaden) or an eel on the reefs at dawn and dusk is still producing some nice bass. Striper spots include the Charles Island area, lower Housatonic River, buoys 18 and 20 off Stratford Point, Stratford Shoal/Middle Ground, Milford Point, Penfield Reef, around the Norwalk Islands, and Cable and Anchor Reef.

**Bluefish:** Fishing is very good. Large numbers of bluefish are in the lower estuaries and rivers feeding on menhaden. The "top-water" bite has been phenomenal. Eastern Sound has seen much better fishing for "alligator-size" blues. Bluefish fishing spots include the reefs off Watch Hill, the Race, Thames River, Sluiceway, Plum Gut, Pigeon Rip, lower Connecticut River, Long Sand Shoal, Six-mile Reef, Falkner Island area, New Haven Harbor and upper reaches, lower Housatonic River, buoys 18 and 20 off Stratford Point, Stratford Shoal/Middle Ground, Penfield Reef, and Cable and Anchor Reef.

# CLASSIFIED

MARKETPLACE

203-354-1100

classified@thehour.com

Hours: 8:30 a.m.-5:00 p.m., M-F • Major Credit Cards Accepted

**PUBLIC NOTICES**



## Review and Comment on the Walk Bridge Replacement Project EA/EIE!

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Federal Transit Administration

Fighting Big Tobacco, Bad Air and the Asthma Epidemic



[www.lungusa.org](http://www.lungusa.org) | 1-800-LUNG-USA

APARTMENTS FOR RENT

ANNOUNCEMENTS

GENERAL HELP WANTED

LIQUOR PERMITS

**PUBLIC NOTICES**



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**Thursday, November 17, 2016**

**6PM Open Forum; 7PM Formal Hearing  
Norwalk City Hall, Concert Hall, 125 East Ave., Norwalk, CT**

The meeting facility is ADA accessible. Free language assistance or sign interpretation may be requested by contacting the Program's Public Information Office at (203) 752-1996 at least five (5) business days prior to the meeting. Efforts will be made to respond to requests for assistance.

**Comments will be accepted until 12/5/16.**



Federal Transit Administration

**PUBLIC NOTICES**

**NOTICE OF PUBLIC SALE OF PERSONAL PROPERTY**

Notice is hereby given that the undersigned will sell, to satisfy lien of the owner, at public sale by competitive bidding on Oct. 20th at 10:00 am, and subsequent days as may be necessary at the Norwalk Self Storage facility located at:

25 New Canaan Ave  
Norwalk, CT 06851  
203-845-9595

The personal goods stored within are classified as general household unless otherwise noted.

- Unit 4409 Russell Carmichael, Boxes, Misc. household items,
- Unit 4517 Anthony Ancona, Boxes, Misc. Household items,
- Unit 4801 Wesley Williams, Boxes, Misc. household items,
- Unit 4306 Matt Yost, Boxes, Misc. Household items,
- Unit 5133 Prospero Mendez , Boxes, Misc. Household items,
- Unit 3560 Dede Lane, Boxes, Misc. Household items

Purchases must be made with cash only and paid at the time of sale. All goods are sold as is and must be removed at the time of purchase. Norwalk Self Storage reserves the right to bid. Sale is subject to adjournment.

Thank you  
Norwalk Self Storage

**LEGAL NOTICE**

November 8, 2016 State Election

The Electors of the Town of Weston are hereby warned to meet at their respective polling places in said town on Tuesday, November 8, 2016, for the following purposes:

I. To cast their votes for Presidential and Vice-Presidential electors, United States Senator, Representative in Congress, State Senator, State Representative and Registrar of Voters.

Notice is hereby given that the location of the polling place is as follows:

Voting District    Location of Polling Place

**TAG / ESTATE / CRAFT FLEA MARKET SALES**

*Come On Over*

**NORWALK TAG SALE** Oct 8 & 9  
10-4, 52 Emerson St, furn, elctrs, collectibles, new items & more!

**HOUSES FOR SALE**

**FOR SALE BY OWNER**  
Norwalk Ranch, 2-3 BD, 1+ acre, very secluded, child safe, 2 car garage, Central Air, \$499,000  
203-536-7161

**APARTMENTS FOR RENT**

**1 BR** \$1300 + uts, lge efficiency  
\$1100 + uts, efficiency \$1000  
includ Heat / H.W. Rooms from \$550, Please Fone 203-866-7840

**2BDRM 1BA** for rent, no pets, no smking, osp, lr, dr, kitch, laundry hk-up, sec & bckgrmd ck req'd  
\$1500/m 203-853-9196

**3 BR APT. EAST NORWALK.**  
W/D & Dishwasher includ.  
No Pets. \$1750 + 1mo. sec.  
Utilities not includ. Completely Reneovated! Call 203-803-5633.

**CHARMING** South Norwalk 3brdm/1bth. Spacious LR, DR, 2nd flr. Near hwy/shop, OS park. Cable-ready, must see. No smoke/pets. \$1400/mo incl. water. 203-994-5500

**FURNISHED ROOM FOR** Rent in a private home. Rent to be paid weekly. Security Deposit. No Pets. No Smoking. \$170/week  
All Utilities Included.  
203 838-4216

**for Matthew**

here for a few more days. They are prized for their fighting abilities, but their presence in Long Island Sound is usually fleeting. If Matthew comes anywhere near the New England coast, they will likely flee.

Smaller blues remain plentiful and should be available into the first or second week in November, depending on weather. A large Nor'easter towards month's end could send them scurrying but not before blitzing area beaches.

Entering October, hurricanes and tropical storms notwithstanding, the weather in general is a day-to-day cause for caution. Weather fronts change rapidly, bringing strong winds and fluctuating temperatures. Fewer boats are on the water. When trouble pops up, help can take a while to arrive. Exercising caution becomes mandatory.

That said, those same weather fronts can turn fishing on and off by the hour. Fishing in advance of a large frontal system can be outstanding. Frequent strong winds accompanying these systems can cause bait schools to swim in the surf, often attracting hordes of migrating bass and bluefish well within casting range of shore.

Whether it's the Rhode Island beaches, or local surf spots like Frost Point in Westport or Penfield Reef in Fairfield or the mouth of the Housatonic in Stratford, fall surf fishing is where legends are made.

Bad weather days can sometimes be best. I've taken stripers from the surf in late October and early November snowstorms, I found good fishing at Bedford's when the winds barely let me cast 30 feet and at Compo Beach when the wind blew from the shore side, allowing me to reach breaking fish far beyond where I could normally cast.

If it's cloudy, toss a rod in the car and cruise the beaches. If it's raining, all the better. If you see fish breaking or birds diving to pick bait off the surface, bigger fish will be under the birds. At this time of year, even when the sun shines and no fish are showing, walking a stretch of beach and casting a variety of lures can pay off.

**Salt water**

Captain Sal Tardella of My Bonnie Charters out of South Norwalk finally had some good weather on Monday when he sailed in the early afternoon with Maria Rusacki of

**NOTICES**

**INTENT TO DEMOLISH**  
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**ABSOLUTELY FREE**



**FREE/ DONATION LARGE FLOATING CONCRETE DOCK**  
 In westport. Needs a little work.  
 Approx 56ft x 18 ft wide. Each  
 floating cube is 9ftx9ft (10 cubes  
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**FIREWOOD- \$190** a cord, 2/\$370,  
 Half/\$120, Clean, seasoned, split  
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**HEATING AND FIREWOOD**



**FIREWOOD FOR SALE, \$180/cord,**  
 half cords available, 203-939-3950.

**MERCHANDISE FOR SALE**

**RESTORATION HARDWARE**  
 curved brass fire screen, 41", \$80,  
 valued \$275, 203-268-8460.

**HOUSES FOR SALE**

For Sale By Owner  
 11 Mohawk Drive, Norwalk  
 \$419,900. Call Gerry Corry  
 203-378-6801 or 203-913-9700



Beautiful 3 bedroom split level on  
 gorgeous level 1/2 acre treed lot.  
 Just remodeled. Painted  
 throughout, refinished hardwood  
 floors, new bathroom, newly tiled  
 family room in lower level,  
 granite counters, new stove, vinyl  
 windows, vinyl sided, newer roof.  
 Don't miss this lovely new listing.  
 Will not last

**HOUSES FOR SALE**

**FOR SALE BY OWNER**  
 Norwalk Ranch, 2-3 BD, 1+ acre,  
 very secluded, child safe, 2 car  
 garage, Central Air, \$499,000  
 203-536-7161

**APARTMENTS FOR RENT**

**1 BR \$1300 + uts,** lge efficiency  
 \$1100 + uts, efficiency \$1000  
 Includ Heat / H.W. Rooms from  
 \$550, Please Fone 203-866-7840



**CHARMING** South Norwalk  
 3bdrm/1bth. Spacious LR, DR,  
 2nd flr. Near hwy/shop, OS park.  
 Cable-ready, must see. No  
 smoke/pets. \$1400/mo incl. water.  
 203-994-5500

**FURNISHED ROOM FOR** Rent in a  
 private home. Rent to be paid  
 weekly. Security Deposit. No Pets.  
 No Smoking. \$170/week  
 All Utilities Included.  
 203 838-4216

**RENTAL INFORMATION**

**BOAT/CAR PARKING SPACE**  
 on level lot at private home. \$85/mo  
 (203) 847-4171

**OFFICE SPACE**

**WILTON - Private office space** in  
 small private building for rent, 325  
 sq ft, fully furnished with 2 new  
 large work stations complete with  
 file cabinets, storage, separate en-  
 trance, and bathroom. \$875 in-  
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 sary - short or long term. Call Tony  
 203-834-1130

**ACCOUNTING / BOOKKEEPING**

**HOMES/SMALL OFFICE**  
 Set-up, Troubleshooting, network  
 internet, virus protection, repairs/  
 backup. Call Tom 203-348-5626

Place a Memoriam to remember  
 a loved one. Call 203-330-6306.  
 obituaries@hearthmediact.com

go  
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Thursday  
 re | Events

**PUBLIC NOTICES**

**Review and Comment on the Walk Bridge Replacement Project EA/EIE!**

**Connecticut Department of Transportation (CTDOT) is evaluating proposed improvements to the deteriorating railroad bridge over the Norwalk River in Norwalk, CT.**

In accordance with NEPA and CEPA requirements, the Federal Transit Administration (FTA) and CTDOT have published the Environmental Assessment/Evaluation/Environmental Impact Evaluation (EA/ EIE), which presents information for the replacement of the Walk Bridge. The EA/EIE is available for review at the Connecticut Department of Transportation, Western Connecticut State University, Norwalk City Hall Town Clerk's Office and Norwalk Public Information Office. A public hearing is also available on the Program's website.

Comments are encouraged to provide comments on the EA/EIE. Comments may be submitted online at walkbridgect.com/contact/, emailed to info@walkbridgect.com, or by writing to Mark Alexander at 2800 Berlin Turnpike, Newington, CT, 06111. You may also submit your comments in person at the Public Hearing:

**Thursday, November 17, 2016**

**6PM Open Forum; 7PM Formal Hearing**

**Norwalk City Hall, Concert Hall, 125 East Ave., Norwalk, CT**

The hearing facility is ADA accessible. Free language assistance or sign interpretation may be obtained by contacting the Program's Public Information Office at (203) 752-1996 at least five (5) days prior to the meeting. Efforts will be made to respond to requests for assistance.

Comments will be accepted until 12/5/16.



Federal Transit Administration

**DECLUTTER!**



**Have a tag sale or garage sale and advertise it here.**

**Call 203-333-4151**

**Monday-Friday  
 8:30 a.m. to 4:30 p.m.**

# SPORTS

## BA ANNOUNCES GUIDELINES

# Don't focus on just basketball before age 14

OCIATED PRESS

**NEW YORK** — The best thing young players can do for their basketball careers is not to play too much basketball.

They should participate in other sports that delay specializing in just basketball until they are at least 14 years old. They should also take at least one day off from organized competition each week and extend that to two days for the NBA's best player, LeBron James, perhaps the NBA's junior varsity player, played football through his junior year of high school. But those who focus on basketball too soon face some risks that are not well beyond their teen years.

There's a concern that single sport specialization may contribute to injuries that may also contribute to basically loss of interest in the sport from sort of the repetitive nature of incessant participation in one activity. DiFiore said, adding there are cases of young athletes developing overuse injuries

specific to a certain sport.

NBA Commissioner Adam Silver has made player health one of his biggest concerns, working to create a schedule that allows more time for rest and recovery. The league went further earlier this year by looking into the youth levels.

Working groups were created in the areas of health and wellness, playing standards and safety, and injury prevention.

DiFiore noted the guidelines apply only to organized competition, saying that individual practice time or pickup games are beneficial. They have been endorsed by numerous youth organizations, athletic apparel companies and supported by the NCAA.

"We're sending a message to families, young athletes, coaches about rethinking how we do things at the youth level," he said.

## A TOUR

# 'vulnerable' Steele enjoys promising start

OCIATED PRESS

**LA JOLLA, Calif.** — By the end of the open week of a new PGA Tour season, no one felt more vulnerable than Brendan

## GOVERNOR SIGNS STADIUM BILL

# NFL getting closer to Vegas

ASSOCIATED PRESS

**LAS VEGAS** — Nevada's governor signed a bill Monday clearing the way for a Las Vegas stadium that could be home to the Raiders, although NFL owners still need to approve the team's move from Oakland before Sin City becomes a football town.

Republican Gov. Brian Sandoval and Raiders owner

team would also use the 65,000-seat domed stadium. Cheerleaders shook pom-poms and a marching band launched into "Viva Las Vegas" after Sandoval inked the deal.

"Las Vegas is ready for this, Nevada is ready for this," Sandoval said in an interview afterward. "The best brand on the planet is coming together with one of the best brands in professional sports."

the Las Vegas area to raise \$750 million for a stadium and more than \$400 million to expand and upgrade the Las Vegas Convention Center. In raw dollars, it's the largest public contribution ever toward an NFL stadium, although the public's share of the total costs — 39 percent — is on par with stadiums in other similarly sized cities.

Billionaire casino mogul

Hours: 8:30 a.m. - 5:00 p.m., M-F • Major Credit Cards Accepted

## PUBLIC NOTICES



# Review and Comment on the Walk Bridge Replacement Project EA/EIE!

**The Connecticut Department of Transportation (CTDOT) is evaluating proposed improvements to the deteriorating railroad bridge over the Norwalk River in Norwalk, CT.**

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The public is encouraged to provide comments on the EA/EIE. Comments may be submitted online at [walkbridgect.com/contact/](http://walkbridgect.com/contact/), emailed to [info@walkbridgect.com](mailto:info@walkbridgect.com), or sent in writing to Mark Alexander at 2800 Berlin Turnpike, Newington, CT, 06111.

# Order Form

11/11/2016 2:42PM  
Est # 347589  
New York Jun11 C-DMA Nielsen Live Only

Client: WSP Parsons Brinckerhoff

Buyer:

Advertiser:

Product:

Sched Dates: 10/10/16 - 11/13/16

Lengths: 30  
Dayparts: EM

All-Week Average	Notes	Rate \$/00	Unit/Wk	Unit Tot	Unit Dur	Start Date	End Date	WK 1 - WK 5					WK 1 10/10 '16	WK 2 10/17 '16	WK 3 10/24 '16	WK 4 10/31 '16	WK 5 11/07 '16
								Households	Rtg	Imp	CPP \$	Rch %					
	New York Jun11 C-DMA Nielsen Live Only	\$550.00		5													
	0907, AP Zone 21	\$550.00		5													
	ADVP	\$550.00		5													
	News12.com	\$110.00		1	30												
	News12.com	\$550.00		5													
	Total			5													

### Broadcast Month Costs - Grand Total

Month	Stress Cost	Total Units
10/2016	\$330	3
11/2016	\$220	2
<b>Total</b>	<b>\$550</b>	<b>5</b>

This report has been prepared using STRATA NuMATH research.  
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Nielsen Audience Estimates Copyright ©2016 The Nielsen Company, used under license, all rights reserved

Adjustments: Network Insertability and Network Carriage have been factored into calculations.  
New York Jun11 C-DMA Nielsen Live Only  
Cable Zones: r, AP Zone 21

New York Jun11 C-DMA Nielsen Live Only  
ADVP: unrated station



## Interactive Performance Report

CLIENT:	WSP Parsons Brinckerhoff
Order ID:	717060
Month:	Oct 2016: 9/26/16 – 10/30/16

### News12.com

Impressions	Clicks	CTR
21,396	22	0.10%

### News12 Mobile

Impressions	Clicks	CTR
39,732	74	0.19%

### Pre-Roll

Video Plays	Clicks	CTR
-	-	-

Source: DoubleClick 2016

"-" Defines as not applicable for pertaining interactive product

**Impressions** - the number of times an advertisement is downloaded from a webpage and assumed to have been seen by a potential customer

**Click** - A measurement of an action performed by a user in which the user clicks on an ad element and is sent to a click-through URL.

**Click-through Percentage (Click Thru%)** - The number of clicks your ad receives divided by the number of times your ad is shown (impressions)

**News12 WAP(Mobile) Impressions** - the number of times an advertisement is downloaded from a webpage on your mobile device and assumed to have been seen by a potential customer

**VOD Play(Pre-Roll)** - The number of times registered every time your video is played

## Jounen selebrasyon liv ayisyen nan Connecticut *Suite*



Mèt ak Metrès seremoni: Rev. Jamsy Lagout (agoch), Bianca Bertier

Ane sa a, pami otè HAPAC te envite prezante travay yo se te: Dr. Jean Eddy Saint Paul, yon ekriyen, pwofesè e direktè Haitian Studies Institute ki baze nan Brooklyn College ; Katia D. Ulysse, yon ekriyen, pwofesè lekòl nan Maryland ; powèt Jean Dany Joachim ; Jacques Adler Jean Pierre, powèt, ekriyen ak prezantatè emisyon nan Radio-Télévision Caraïbes, epi Serge Valcourt, yon otè k ap viv nan Connecticut. Majistra Stamford la, David Martin, te patisipe nan yon resepsyon prive pou otè yo ak òganizatè jounen kiltirèl sa a.

Te genyen anpil jenn timoun ki te asiste festival la kote te gen prezantasyon an kreyòl, an franse e ann anglè. Daprè deklarasyon Dr. Williams Bertier, ki se fondatè HAPAC, festival liv sa a se pou ankouje moun tout laj li, fè promisy on kilti pèp ayisen an epi amelyore imaj pèp ayisyen an lòt moun genyen. Nan senk ane ki sot pase yo, nou remake gen plizyè lokalite nan peyi Etazini ki kòmanse fè menm travay sa a. Little Haiti ak Boston se de nan yo.

Angelucci Manigat Jr., ki kowòdonatè festival liv la depi premye edisyon l an oktòb 2000, fè remake kouman renonmen aktivite sa a byen solid. Li di : « Pami otè ak atis nou resevwa deja, nou ka nonmen: J.J. Dominique, Edwidge Danticat, Prof. Max Manigat, Jan Mapou, Marc Mathelier, Emmeline Michel, Jocelyne Dorismé, Charlot Lucien, Jeanie Bogart, Franz Benjamin, Dr. Frantz-Antoine Leconte ak John Steve Brunache. »



Dirijan HAPAC yo ak direksyon Ferguson Library South End Branch deja kòmanse preparasyon 18èm edisyon 2017 la k ap fèt samdi 14 oktòb. Moun ki enterese kapab kontakte HAPAC lan adrès imel li : hapacinc@yahoo.com oswa pa telefòn nan (203) 981-5836.

Jean Dany Joachim



### Revizyon ak Kòmantè sou EA/EIE Pwojè Ranplasman Walk Bridge!

Depatman Transpò Connecticut (Connecticut Department of Transportation, CTDOT) ap evalye amelyorasyon pwopoze nan pon ray tren k ap deteryore sou Norwalk River nan Norwalk, CT.

Annakò avèk egzijans NEPA ak CEPA, Administrasyon Federal Transpò Piblik (Federal Transit Administration, FTA) ak CTDOT te pibliye Evalyasyon sou Anviwònman an/Evalyasyon Seksyon 4(f)/Evalyasyon Enpak sou Anviwònman an (Environmental Assessment/Section 4(f) Evaluation/ Environmental Impact Evaluation, EA/EIE), ki prezante lòt posiblite pou ranplasman Walk Bridge. EA/EIE disponib pou revize nan Depatman Transpò Connecticut, Komite Gouvènman Western, Biwo Grefye Lameri Minisipalite Norwalk ak Bibliyotèk Piblik Norwalk. Li disponib tou sou sitwèb Pwogram nan.

Nou ankouraje piblik la pou bay kòmantè yo sou EA/EIE. Ou ka soumèt kòmantè ou sou sitwèb walkbridgect.com/contact/, ou ka imèl li nan info@walkbridgect.com, oswa ou ka voye li alekri ba Mark Alexander at 2800 Berlin Turnpike, Newington, CT 06111. Ou ka soumèt kòmantè ou tou fas-a-fas nan Odyans Piblik la:

**Jedi 17 Novanm 2016  
6 PM Deba Lib; 7 PM Odyans Fòmèl  
Norwalk City Hall, Concert Hall  
125 East Avenue, Norwalk CT**

Lokal reyinyon an gen aksè fasil pou ADA. Ou ka mande èd gratis nan lang oswa entèpretasyon langaj siy depi ou kontakte Biwo Enfòmasyon Piblik Pwogram sa a nan nimewo (203) 752-1996 omwen senk (5) jou ouvab anvan reyinyon an. N ap fè efò pou reponn demann pou èd yo.

**N ap aksepte kòmantè yo jouk 5 desanm 2016.**



### ANGELUCCI LEARNING CENTER LLC

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**Traduction • Interprétation  
Cours de langues  
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Publicité  
Relations Publiques  
Etc...**

1000 Lafayette Blvd, Suite 1100  
Bridgeport, CT 06604  
(203) 981-5527  
admin@haitianvoice.com



## Connecticut Haitian Civic Leaders Launch Disaster Relief Task Force (continued)

Enrichment Program, Efò Pa Nou and International Alliance for the Advancement of Children.

For information about donation and volunteer opportunities, please contact Fanel Merville at (203) 615-4825 or the office of The Haitian Voice at (203) 981-5527. They can also be reached through emails: fmerveille@immigrantdevelopment.org; admin@haitianvoice.com.

Founded in 2006, Connecticut Haitian Voice is a free monthly newspaper written in English, Haitian Creole and French. The Connecticut Haitian Voice prioritizes information that serves the Haitian-American population as well as conveys a message of pride, unity, tolerance, resilience and responsible leadership.

Our influence has been largely documented by national and local news organizations such as The Associated Press, Connecticut Post, The Stamford Advocate and The Norwich Bulletin.

The Connecticut Haitian Voice made history in December 2010 by becoming the first newspaper that is distributed free of charge in Haiti, where a subscription to a print publication is considered a luxury.

➤ More...

## ➤ CÉLÉBRATION DE L'INDÉPENDANCE D'HAÏTI À CONNECTICUT

BRIDGEPORT, CT.- Tandis que les tenants de l'espace politique haïtien, avec leurs cohortes d'exaltés, s'acharnent à souiller l'héritage historique des fondateurs de la nation, de nombreuses communautés haïtiano-américaines célèbrent fièrement chaque année l'indépendance d'Haïti. Ceci est aussi vrai à Bridgeport qu' à Hartford, dans le Connecticut.

Pendant quatre heures de temps, le 1er janvier écoulé, environ un millier de personnes ont commémoré chaleureusement le 212ème anniversaire de l'indépendance d'Haïti, dans l'enceinte de l'église Saint Charles, à Bridgeport . Cette célébration des prouesses d'esclaves fondant la première république noire au monde comptaient deux parties: une messe Te Deum dans

Fé Revizyon ak kòmantè sou Evalyasyon Anviwònman/Seksyon 4(f) Evalyasyon/Evalyasyon Enpak sou Anviwònman an pou Pwojè Ranplasman Walk Bridge!



Patisipe nan Odyans Piblik nan dat 17 Novanm  
Klike La a pou Jwenn Plis Enfòmasyon

➤ WASHINGTON, D.C ATTORNEY GENERAL TO DELIVER KEYNOTE ADDRESS AT THE HAITIAN VOICE'S GALA

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix D-3            Notices of Availability – Public Depositories**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



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

**TO:** Local, Regional and State Depositories

**FROM:** Mark W. Alexander  
*Mark W. Alexander*  
Transportation Assistant Planning Director  
Bureau of Policy and Planning

**DATE:** August 31, 2016

**SUBJECT:** Environmental Assessment/Section 4(f) Evaluation  
Environmental Impact Evaluation (EA/EIE)  
Walk Bridge Replacement Project, Norwalk, CT  
State Project No. 0301-0176

The Federal Transit Administration (FTA) and the Connecticut Department of Transportation (CTDOT) have prepared a combined Environmental Assessment (EA), Section 4(f) Evaluation, and Environmental Impact Evaluation (EIE) to evaluate proposed improvements to the New Haven Line railroad bridge over the Norwalk River (Walk Bridge – Bridge No. 04288R) in Norwalk, Connecticut. The purpose of the Project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service; offer operational flexibility and ease of maintenance; and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Enclosed is a copy of the EA/EIE, Volumes 1 and 2.

Please make this document available for public inspection during normal business hours. Also note that the EA/EIE also is provided online at:

[www.walkbridgect.com/environmental](http://www.walkbridgect.com/environmental).

Enclosed is a copy of the Notice of Public Availability for the EA/EIE. Written comments regarding this EA/EIE must be submitted to this office no later than October 21, 2016. Comments may be addressed to me by mail at 2800 Berlin Turnpike, Newington, CT 06131 (subject heading “Walk Bridge Project”) or by email at [info@walkbridgect.com](mailto:info@walkbridgect.com).

This document is submitted pursuant to 42 United States Code 4331 et.seq. and the Connecticut General Statutes, Sections 22a-1a to 1h.

Received by: *Richard A. McQuade*  
Title: Town Clerk  
Date: 9/1/2016  
Location: Room 102 Town Clerk

Enclosures



STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546  
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Received by:

Title:

Date:

Location:

*Luca Agostini*  
*Reference Librarian*  
*9/1/16*  
*Library*

Enclosures



STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



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

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Received by: *Kelli Lee*  
Title: *Library Assistant*  
Date: *9.1.16*  
Location: *South Norwalk Branch Library*

Enclosures



STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



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Received by:

Title:

Date:

Location:

*Muhammad Shrikh*  
*L. Pravia*  
*9-1-16*  
*East Norwalk, Ct*

Enclosures



STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



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Bureau of Policy and Planning  
**DATE:** August 31, 2016  
**SUBJECT:** Environmental Assessment/Section 4(f) Evaluation  
Environmental Impact Evaluation (EA/EIE)  
Walk Bridge Replacement Project, Norwalk, CT  
State Project No. 0301-0176

The Federal Transit Administration (FTA) and the Connecticut Department of Transportation (CTDOT) have prepared a combined Environmental Assessment (EA), Section 4(f) Evaluation, and Environmental Impact Evaluation (EIE) to evaluate proposed improvements to the New Haven Line railroad bridge over the Norwalk River (Walk Bridge – Bridge No. 04288R) in Norwalk, Connecticut. The purpose of the Project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service; offer operational flexibility and ease of maintenance; and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Enclosed is a copy of the EA/EIE, Volumes 1 and 2.

Please make this document available for public inspection during normal business hours. Also note that the EA/EIE also is provided online at:

[www.walkbridgect.com/environmental](http://www.walkbridgect.com/environmental).

Enclosed is a copy of the Notice of Public Availability for the EA/EIE. Written comments regarding this EA/EIE must be submitted to this office no later than October 21, 2016. Comments may be addressed to me by mail at 2800 Berlin Turnpike, Newington, CT 06131 (subject heading “Walk Bridge Project”) or by email at [info@walkbridgect.com](mailto:info@walkbridgect.com).

This document is submitted pursuant to 42 United States Code 4331 et.seq. and the Connecticut General Statutes, Sections 22a-1a to 1h.

Received by: *Patricia Payne*  
Title: *Sr. Financial Mngr.*  
Date: *9-1-2016*  
Location: *Western Connecticut Council of Governments*

Enclosures



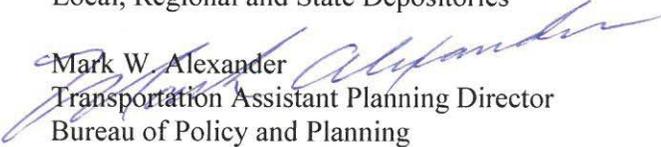
STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



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

Phone:

**TO:** Local, Regional and State Depositories

**FROM:**   
Mark W. Alexander  
Transportation Assistant Planning Director  
Bureau of Policy and Planning

**DATE:** September 30, 2016

**SUBJECT:** Extension of Comment Period and New Public Hearing Date  
Environmental Assessment/Section 4(f) Evaluation  
Environmental Impact Evaluation (EA/EIE)  
Walk Bridge Replacement Project, Norwalk, CT  
State Project No. 0301-0176

This notice is to advise you that the Connecticut Department of Transportation (CTDOT) is extending the public comment period and rescheduling the public hearing date at the request of the City of Norwalk to allow additional time for the City and stakeholders to review the Environmental Assessment/Section 4(f) Evaluation and Environmental Impact Evaluation (EA/EIE) for the Walk Bridge Replacement Project.

The public hearing, originally scheduled for October 6, 2016, will be held on **November 17, 2016**. The public comment period will now close on **December 5, 2016**.

Please include this notice and the enclosed tabletop placard with the EA/EIE (previously provided to you on September 1, 2016) that is available for public inspection during normal business hours. Also note that the EA/EIE also is provided online at:

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This notice is submitted pursuant to 42 United States Code 4331 et. seq. and the Connecticut General Statutes, Sections 22a-1a to 1h.

Received by:

Richard A. McQuaid

Title:

Town Clerk

Date:

10/3/2016

Location:

Room 102 - City Hall

Enclosure



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



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This notice is submitted pursuant to 42 United States Code 4331 et. seq. and the Connecticut General Statutes, Sections 22a-1a to 1h.

Received by:

Margaret Yorio

Title:

Librarian

Date:

10-3-16

Location:

East Norwalk Ct

Enclosure



STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



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

Phone:

**TO:** Local, Regional and State Depositories  
**FROM:** *Mark W. Alexander*  
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This notice is submitted pursuant to 42 United States Code 4331 et. seq. and the Connecticut General Statutes, Sections 22a-1a to 1h.

Received by: *Melvin Montano*  
Title: *Library Assistant*  
Date: *10-3-16*  
Location: *Norwalk Public Library*  
*1 Belden ave. Norwalk, Ct. 06850*

Enclosure



STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



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

Phone:

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This notice is submitted pursuant to 42 United States Code 4331 et. seq. and the Connecticut General Statutes, Sections 22a-1a to 1h.

Received by:

*Daniel R. Rodriguez*

Title:

*Library Assistant*

Date:

*10. 3. 16*

Location:

*SoNo Branch Library*

Enclosure



STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION



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

Phone:

**TO:** Local, Regional and State Depositories  
**FROM:** *Mark W. Alexander*  
Mark W. Alexander  
Transportation Assistant Planning Director  
Bureau of Policy and Planning  
**DATE:** September 30, 2016  
**SUBJECT:** Extension of Comment Period and New Public Hearing Date  
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This notice is submitted pursuant to 42 United States Code 4331 et. seq. and the Connecticut General Statutes, Sections 22a-1a to 1h.

Received by: Patricia Payne  
Title: Sr. Financial Mngr.  
Date: 10-3-16  
Location: 1 Riverside Rd.  
Sandy Hook, CT 06482

Enclosure

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix E: Walk Bridge Replacement Project EA/EIE Review Comments  
Includes PPublic HHearing TTranscript**

**Because of its size Appendix E has been provided on the attached CD  
It can also be found at [www.walkbridgect.com](http://www.walkbridgect.com)**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
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Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
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**Appendix F      Responses to Comments on the Walk Bridge Replacement  
Project EA/EIE**

**Appendix F-1      Rehabilitation Alternative**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
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## **Appendix F-1. Rehabilitation Alternative**

### **EA/EIE Comment:**

#### **Why didn't CTDOT select Rehabilitation as the Preferred Alternative?**

### **Summary Statement**

After thorough consideration and analysis, the Rehabilitation Alternative was not advanced for further evaluation beyond the initial screening process. The Rehabilitation Alternative would not meet the project Purpose and Need, primarily the resiliency and redundancy needs, which are very important given the long-term climate change predictions, including higher sea levels and storm surge flooding, greater storm

intensities, and temperature extremes. The Rehabilitation Alternative also would not meet other identified project needs such as incorporating updated safety standards and improving maintenance logistics. To strengthen the existing bridge while continuing to maintain rail service, the Rehabilitation Alternative would require construction of a temporary, two-track runaround bridge. As a result, the Rehabilitation Alternative would take substantially longer (12 to 24 months) to construct, would be more complicated, and would have a larger construction footprint than the Preferred Alternative (Option 11C). Consequently, the Rehabilitation Alternative would create more rail and marine transportation impacts during construction. Due to the extensive reconstruction required to extend the service life of the existing bridge, the Rehabilitation Alternative would likely produce an “Adverse Effect” on the historic bridge. Finally, despite the work that would be done to strengthen and repair deficiencies, the underlying structure would still be more than 120 years old. The original design is limited in its ability to accommodate the needs of a modern rail system. While the proposed construction costs of the Rehabilitation Alternative are comparable to Option 11C, due to its advanced age and the anticipated need to perform large-scale retrofits in the near term, the annual life cycle costs of the Rehabilitation Alternative would be more than double those of the Preferred Alternative. Relative to project needs, construction schedule, footprint, impacts, and risk, the Rehabilitation Alternative does not compare favorably with the Preferred Alternative.

### **F-1.1 Description of Rehabilitation Alternative**

As described in the Environmental Assessment/Environmental Impact Evaluation (EA/EIE), the Rehabilitation Alternative would require rehabilitation or replacement of the existing elements of Walk Bridge which would extend the bridge’s design life by an additional 100 years, which is comparable to the design life of a new bridge.

### **Background Data**

The Connecticut Department of Transportation (CTDOT) developed the Rehabilitation Alternative from previous inspection and load rating reports of the superstructure (bridge span, which directly receives the train load) and substructure (abutment, piers, and other support structures). In 2005, a comprehensive fatigue evaluation<sup>1</sup> was conducted to estimate cumulative fatigue damage in the main load-carrying members of the bridge, and a seismic analysis of the existing approach spans and swing span was performed to determine the vulnerability of the bridge to an earthquake. These evaluations focused on strengthening and replacement of a limited number of members (bridge components) throughout the bridge to prolong its

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<sup>1</sup> Fatigue occurs when the steel is subjected to repeated loading and unloading (train traffic). A comprehensive fatigue evaluation is an evaluation of the cumulative weakening of the steel due to repeatedly applied loads (train traffic) over time.

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service life by 25 years. Members scheduled for rehabilitation were identified based on as-inspected load ratings, estimates of remaining fatigue life, and seismic resistance. In April 2006, CTDOT produced an in-depth inspection report, followed by routine inspection reports in 2007 and 2009. Additional data was recorded in the most recent mechanical/electrical inspection report in November 2013 and an emergency repair and reliability report in July 2014. The most recent load rating report (2014) confirmed the bridge's reduced load-carrying capacity, underscoring the need for strengthening the existing bridge for modern-day rail traffic loading as part of a comprehensive rehabilitation strategy.

### **Requirements for Rehabilitation**

The Conceptual Engineering Report prepared for the Rehabilitation Alternative concluded that corrosion damage will continue to erode the remaining fatigue life, and significant substructure improvements will be required to bring the bridge up to current seismic design standards. To address corrosion and section loss, CTDOT's rehabilitation strategy would focus on a comprehensive structural steel strengthening and replacement program that would include the following:

- Strengthen all elements exhibiting minor section loss;
- Replace all elements exhibiting major section loss;
- Remove rivets and replace with high-strength bolts;
- Blast clean, metalize, and paint all structural steel;
- Repeat cleaning and coating at a frequency consistent with the anticipated lifespan of the coating system.

Recognizing that all tension elements of the bridge will fail in fatigue within the next 100 years, CTDOT's rehabilitation strategy to address cumulative fatigue damage in the Rehabilitation Alternative would include the following:

- Replace all stringers<sup>2</sup>;
- Replace all floor beams;
- Replace all tension diagonals and truss chords;
- Replace all gusset plates and connection elements to which these members are directly connected;
- Replace and/or strengthen compression members as required for live load capacity and seismic resistance.

To develop the Rehabilitation Alternative, CTDOT conducted a preliminary investigation into the requirements for a 100-year seismic retrofit of the substructure. Given the use of the granite masonry pier construction, it was determined that adequate seismic performance cannot be guaranteed, and that substantial damage to the pier and abutments can be expected for a very rare earthquake associated with Level 3 ground motion. Further, extensive condition inspection would be required for the existing pier timber piles to confirm that they can withstand earthquakes with Level 1 or Level 2 ground motion. CTDOT's rehabilitation strategy to conduct a 100-year seismic retrofit would include the following:

- Provide encasement around the existing pivot pier, rest piers, and abutments (as practicable) by installing drilled shafts and/or micropiles;
- Replace truss bearings;
- Widen abutments and pier caps to provide adequate truss bearing seat width.

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<sup>2</sup> Stringers are parallel steel beams supporting the span.

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Additional components of the Rehabilitation Alternative would include replacement of all operation machinery, along with much of the other mechanical systems; complete replacement of the electric service, including submarine cables; replacement of the machinery house at the pivot pier and the wedge machinery houses on both sides of the swing span; and replacement of the swing span pivot pier fender system. The existing high towers would require strengthening and replacement of portions of the towers, potential replacement of the tower foundations, and strengthening the existing retaining walls on the west side of the bridge. The Rehabilitation Alternative also would include installing continuous welded rail, along with new inner guard rails and concrete ties, for the length of the bridge.

## **F-1.2 Project Purpose and Need**

### **Background - Developing the Purpose and Need**

CTDOT worked closely with the Federal Transit Administration (FTA), as well as federal and state agencies and the City of Norwalk, in developing the project's Purpose and Need Statement:

The purpose of the Walk Bridge Project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service, offer operational flexibility and ease of maintenance, and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/ Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Upgrades to the Walk Bridge, through rehabilitation or replacement, are needed to increase bridge reliability, incorporate bridge redundancy, and provide a sustainable bridge for significant weather events, thereby accommodating current and future rail and marine traffic.

The transportation problems or deficiencies that the project will address – the project needs – are as follows:

- Structure age and deterioration;
- Decreasing reliability;
- Lack of resiliency;
- Safety standards;
- Lack of redundancy;
- Limited operational flexibility;
- Difficulty of maintenance;
- Reduced rail capacity and efficiency
- Reduced dependability and capacity for marine traffic;
- Lack of sustainability

Per National Environmental Policy Act (NEPA) guidance, FTA and CTDOT are jointly responsible for defining the project Purpose and Need. The project Purpose and Need is intended to be a clear and well-defined statement of the objectives of the proposed project.

The Purpose and Need of the Walk Bridge Replacement Project incorporates multiple objectives. The Purpose and Need statement incorporates the primary purpose of the project: to rectify the existing deficiencies of the existing bridge, including its age and deterioration, decreasing reliability, safety standards, and difficulty of maintenance. It incorporates federal and state transportation goals for the New Haven Line/Northeast Corridor (NHL/NEC), including those enumerated by the NEC Commission and CTDOT. By improving the bridge's operational flexibility, enhancing the safety and reliability of rail service, and providing for increased efficiencies of rail transportation along the NHL/NEC, the project will advance policies and goals established in federal, state, regional, and local transportation plans. The project Purpose and Need statement incorporates the legislative intent of the Transportation Emergency Relief Program, by including bridge redundancy and sustainability as priority project elements. It also incorporates a secondary purpose of the project: to maintain or improve the navigational capacity in the

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Norwalk River, which is consistent with federal legislation and which advances the policies, plans, and goals of federal, state, and local agencies, including land use, planning, and development goals.

Together with the two transportation-related goals and objectives of the project – to promote the regional economy and to preserve environmental quality - the project Purpose and Need statement provides the basis for establishing the range of alternatives evaluated in the EA/EIS, and for identifying the Preferred Alternative. In accordance with NEPA, an alternative that does not meet the project’s Purpose and Need can be removed from further consideration.

### **Assessment - Meeting the Purpose and Need**

Figure F-1.1 presents the existing conditions of the Rehabilitation Alternative Bridge and Table F-1.1 compares the Rehabilitation and the Preferred Alternative relative to meeting the project Purpose and Need. While the Rehabilitation Alternative would be a robust effort to strengthen and/or replace deteriorated elements of Walk Bridge, the accelerated deterioration rate of the existing structure, potential unforeseen conditions associated with a structural rehabilitation, and the difficulty of using modern technology on old infrastructure would be problematic with this alternative.

Rehabilitating Walk Bridge would not build a “**Resiliency Project**,” as defined in the Transportation Emergency Relief Program (49 CFR 7, Part 602). A Resiliency Project is a project which is:

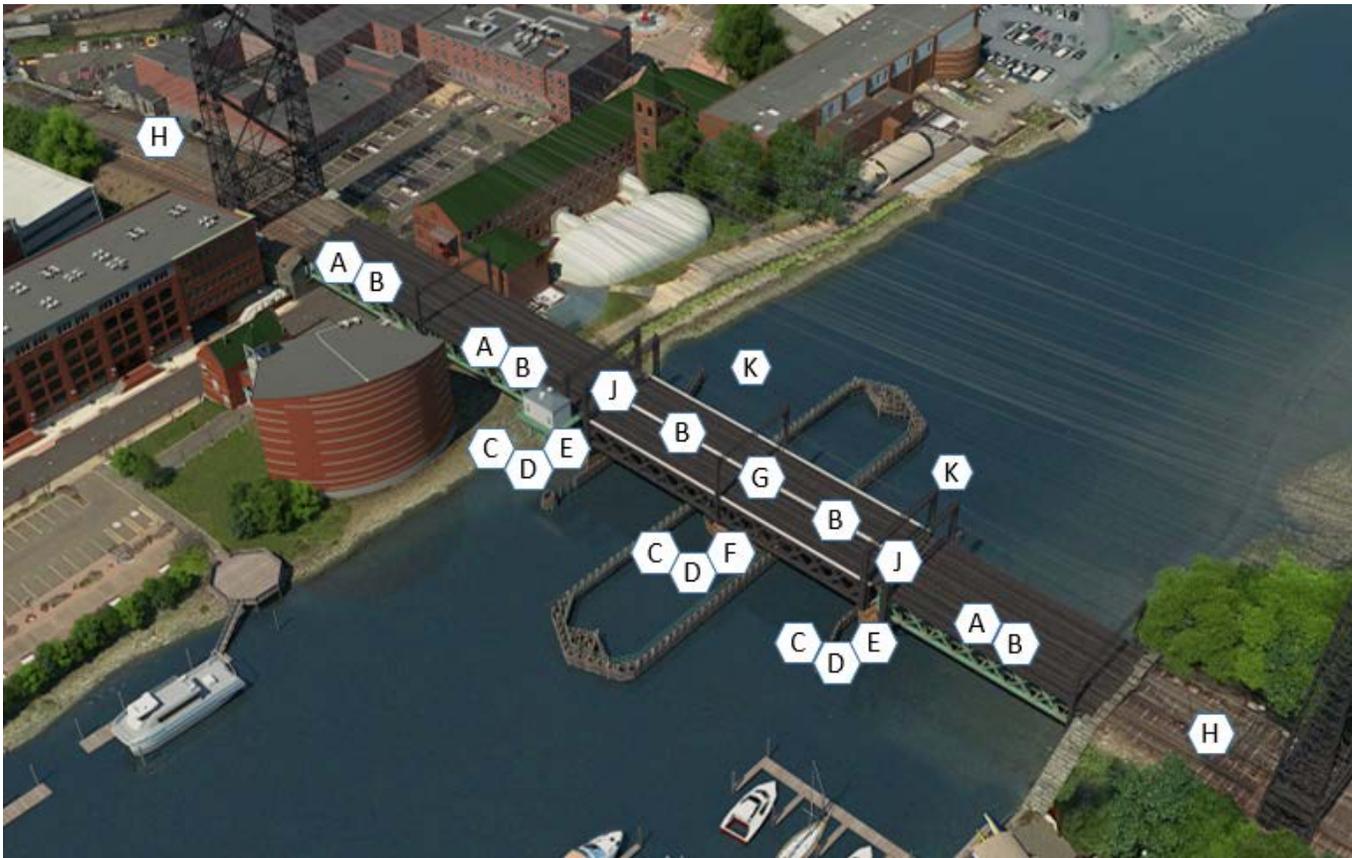
*“designed and built to address future vulnerabilities to a public transportation facility or system due to future recurrence of emergencies or major disasters that are likely to occur again in the geographic area in which the public transportation system is located; or projected changes in development patterns, demographics, or extreme weather or other climate patterns.”*

A Resiliency Project incorporates system resiliency and operational redundancy. System resiliency describes the ability to return the bridge to use, either partially or completely, in a relatively short time following a compromising event. It also refers to minimizing the vulnerability of critical elements of the bridge to facilitate its return to use. Operational redundancy means the ability to maintain train service on a limited number of tracks following an event that otherwise would have rendered all tracks inoperable.

Rehabilitating Walk Bridge would not improve its system resiliency. While certain bridge elements could be made more resilient, such as replacing the mechanical and electrical systems and adding a generator, the 120-year old structure would continue to be vulnerable to extreme weather conditions. The Rehabilitation Alternative would not meet the flood risk reduction strategy of the Federal Flood Risk Management Standard, as mandated by Executive Order (EO) 13690, which requires the location of “critical actions” (such as drive machinery and controls) at least three feet above the Federal Emergency Management Agency (FEMA) 100-year flood elevation (15 feet NAVD88). Based on the Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model developed by FEMA and the U.S. Army Corps of Engineers (USACE), most of the mechanical elements (critical actions) on the existing bridge would not be able to withstand hurricane inundation levels of Category 3 hurricanes and Category 4 hurricanes. While there is a possibility that some of the mechanical elements could be relocated in the Rehabilitation Alternative, this would present other challenges, including reconfiguring the entire operating system and drastically changing the historic character of the bridge.

Rehabilitating Walk Bridge would not provide operational redundancy. Operational redundancy consists of duplicating critical components of a system to increase its reliability in case of outages due to component.

Figure F-1.1 Rehabilitation Alternative – Purpose and Need



### Age-related Deterioration

- A Extensive section loss
- B Widespread fatigue damage
- C Excessive mechanical wear
- D Obsolete electrical systems

### Reliability

- E Support movement
  - Increasing frequency of failure to close

### Resiliency

- F Drive machinery and controls vulnerable
  - Bridge unable to operate after a flood

### Redundancy

- G All four tracks on a single bridge
  - Bridge failure cripples entire main line

### Marine Dependability

- Unpredictable performance
- K Vertical clearance restriction

### Operational Flexibility

- H Track geometry and spacing
- J Miter lift rails at movable span

Table F-1.1 Purpose and Need Assessment: Rehabilitation Alternative and Preferred Alternative

Project Needs/ Existing Bridge Deficiencies	Rehabilitation Alternative	Preferred Alternative (Option 11C)
Structure Age and Deterioration	⊙	✓
Decreasing Reliability	✗	✓
Lack of Resiliency	⊙	✓
Safety Standards	✗	✓
Lack of Redundancy (dual spans)	✗	✓
Limited Operational Flexibility	✗	✓
Difficulty of Maintenance	✗	✓
Reduced Rail Capacity & Efficiency	✗	✓
Reduced Dependability & Capacity for Marine Traffic	✗	✓
Lack of Sustainability	✗	✓

- ✓ Indicates that this project need/existing bridge deficiency would be met by the alternative.
- ⊙ Indicates that this project need/existing bridge deficiency would not be fully met by the alternative.
- ✗ Indicates that this project need/existing bridge deficiency would not be met by the alternative.

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failure or for maintenance activities. Only the Replacement Alternative – which will provide two side-by-side spans across the river with two separate mechanical and electrical systems and controls – will ensure that the project will be operationally redundant.

Rehabilitating Walk Bridge would not meet other identified project needs, such as improving maintenance logistics, increasing rail efficiencies, incorporating updated safety standards, and maintaining or improving navigational capacity. Like existing conditions, certain maintenance activities in the Rehabilitation Alternative would continue to require a full bridge closure, presenting logistical difficulties for rail and marine traffic. Measurable improvements to efficiency, such as improved rail speeds on the bridge, can only be achieved under a replacement alternative, as the track spacing on the approaches and existing bridge is inadequate to safely accommodate increased speeds. The Rehabilitation Alternative would not be able to incorporate design standards which reflect improved safety aspects, such as 13-foot spacing between track centers on the railroad and a minimum 14-foot-6-inch vertical clearance over North Water Street. Despite the robust rehabilitation, the design of the 120-year-old structure is such that accommodating modern rail systems - including the rails, overhead contact system, and the trains - is problematic. Finally, the extensive encasement/retrofit required for the piers and abutments would encroach upon the existing navigation channel and permanently reduce the existing horizontal clearance.

### **F-1.3 Historic Impact Considerations**

The U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68) established standards for the treatment of historic properties, including rehabilitation. Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values. The regulations indicate that the Standards will be applied taking into consideration the economic and technical feasibility of the project.

The following identifies the rehabilitation standards (in italics) and an assessment of the likelihood that that standard could be met in the Rehabilitation Alternative:

1. *A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.*

This standard could be met. Walk Bridge would continue to be used for its historic purpose.

2. *The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.*

It is unlikely that this standard could be met. A movable bridge is both a civil engineering structure and a machine. As indicated in Section 2-2.1, most of the bridge components, including the historic truss members of the approach and swing span, would need to be replaced, compromising the bridge's integrity of materials and design. Similarly, replacement of the operating machinery would affect Walk Bridge's integrity because of the loss of its historical mechanical components.

3. *Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.*

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This standard could be met. The replacement machinery house and wedge machinery houses could be designed in a manner that is respectful of the unique historical character of Walk Bridge without creating a false sense of historic development.

4. *Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.*

It is unlikely that this standard could be met. The high towers, which have acquired historic significance, would require substantial strengthening and possible replacement of the foundations, impacting the historic significance of the towers and the historic retaining walls (also determined to be contributing elements to an historic linear district) at the west approach.

5. *Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.*

It is unlikely that this standard could be met. While the historic swing span, the defining historic feature of the bridge, would be preserved in the Rehabilitation Alternative, the mechanical machinery would be replaced. Should the mechanical elements be relocated to improve the resiliency of the bridge, the historic character of the bridge would be drastically altered. Additionally, the encasements required for the piers and abutments would cover the distinctive finishes on the piers and abutments.

6. *Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.*

It is unlikely that this standard could be met in its entirety. As indicated in Section 2-2.1, replacement of most of the bridge components would be required. CTDOT would seek to match the old in visual qualities, but it is unlikely that the materials used in the replacement would be similar.

7. *Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.*

This standard could be met. Sandblasting is rarely acceptable for wood and masonry but can be used to remove paint and rust from metal without causing damage, if appropriate grit and pressure are used.

8. *Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.*

This standard could be met. CTDOT would implement an Archaeological Treatment Plan for the protection and preservation of significant archaeological features.

9. *New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.*

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It is unlikely that this standard could be met. Architectural treatments of the existing operator house, the replacement machinery house and wedge machinery houses could be designed to protect the historic integrity of Walk Bridge. However, while the encasements required for the existing piers and abutments would not destroy the historic materials, they would cover the materials and destroy their architectural character.

10. *New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.*

It is unlikely that this standard could be met. Retrofit of the existing piers will require encasement with new material, significantly altering the appearance of the existing bridge. Once in place, these items would not be removable.

While the Rehabilitation Alternative ideally would retain the historic appearance of the existing structure, the extent of rehabilitation that would be required to extend the service life by 100 years could adversely affect many of the contributing structural elements of Walk Bridge and pose challenges to implement improvements in accordance with the Secretary's Standards for the rehabilitation of historic properties listed in, or eligible for listing in, the National Register of Historic Places. Review of recent practices clearly shows that State Historic Preservation Offices (SHPOs) find that substantial structural reinforcement of historic bridges results in a Finding of Adverse Effect. An adverse effect is defined as an effect that diminishes the bridge's integrity of design and materials, but is not necessarily so severe that it destroys that integrity, thereby voiding its National Register eligibility. Using the Secretary's Standards, in-kind replacement of components (such as the electrical system) or non-visible structural reinforcement (such as substitution of high-strength bolts for rivets) could be within the Standards and therefore would not trigger a Finding of Adverse Effect. Substantial structural reinforcement of the trusses, or replacement of the drive train could trigger a Finding of Adverse Effect, however. Given the extent of rehabilitation required for Walk Bridge, it is likely that the Rehabilitation Alternative would result in a Finding of Adverse Effect.

### **F-1.4 Constructability Considerations**

CTDOT determined that the maintenance of both rail and marine traffic is a key element to the overall success of the project. As construction advances, there are various points when certain tracks will be taken out of service and when the channel access for navigation traffic will be restricted. Construction impacts to rail operations are measured by the start and duration of two-track outages, where a pair of tracks (Tracks 2 and 4 or Tracks 1 and 3) is taken out of service for an extended period. Commuter and intercity train service could continue operating on two tracks. Construction impacts to marine operations are measured by: 1) the duration of (west navigation) channel impacts where the channel is closed and/or an activity during which no waterway traffic can transit through the bridge; and 2) horizontal restrictions, where the channel is partially blocked and waterway traffic is restricted. CTDOT determined that the Preferred Alternative most effectively minimizes the duration and extent of impacts to both rail and marine traffic.

The Rehabilitation Alternative would extend the duration and extent of impacts to both rail and marine traffic. It would have additional construction and would be more complex than the Preferred Alternative (Option 11C). The Rehabilitation Alternative would require the construction of a temporary two-track bridge on a runaround alignment north of the existing bridge. This would allow for continued rail traffic during rehabilitation of the swing span roller bearings, complete replacement of the drive machinery and electrical system, extensive structural steel strengthening and replacement, bridge cleaning and painting,

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and foundation strengthening and rehabilitation. The construction footprint within the Norwalk River therefore would be larger than that of the Preferred Alternative (Option 11C), which will not require a temporary runaround. For the duration of time that the temporary runaround would be used, marine traffic would be limited to those vessels able to fit under the runaround track structure and the existing swing span, which would be immobilized and secured in the closed position. While the temporary runaround structure would enable certain rehabilitation measures to be implemented while continuing train traffic at restricted speeds, the construction of the runaround bridge would increase project costs and schedule durations in comparison to the Preferred Alternative. Since the runaround structure would not bypass the entire bridge, some of the superstructure rehabilitation work in the west approach spans would have to be done under active rail traffic. Further, the temporary runaround would introduce risks to the existing 120-year old bridge foundations while the temporary bridge is constructed.

Rehabilitating the existing bridge would require more in-water work than the Preferred Alternative (Option 11 C), which is inherently riskier than work that is not in the water, and would increase channel impacts. For example, in the Rehabilitation Alternative, extensive steel truss member removal and replacement operations on the approach spans would require temporary supports along the full length of the bridge from North Water Street to the river. Rehabilitation needs include drilling piles into the ground to strengthen the pier and abutment foundations, strengthening the existing retaining walls, and replacing approximately 75 percent of the main truss members supporting the railroad. The risk associated with foundation installation under the existing bridge would be substantial, and would have the potential to extend the length of time that the swing span would be out of service. For cleaning and painting operations, the entire work area would have to be completely encapsulated for containment purposes, contributing to the closure period. Additionally, existing rivet and structural steel removal/replacement in the Rehabilitation Alternative would progress in stages to maintain rail service and most likely would require complete closure of North Water Street for 9 to 12 months on two separate occasions. In contrast, much of the construction of the Preferred Alternative will be constructed outside of the waterway and on the banks, limiting channel impacts and allowing for a more aggressive construction schedule.

Ancillary work associated with the Rehabilitation Alternative also would present construction challenges. The high tower foundations on the west approach are incorporated within the retained earth structure. Strengthening of these foundations would require temporary stabilization of the railroad to allow partial demolition and replacement of the retaining walls, work that would be hindered by access and right-of-way constraints.

In both the Rehabilitation Alternative and the Preferred Alternative, the construction schedule must comply with the schedule-restrictive rules of Metro-North Railroad and the Federal Railroad Administration, including performing work in between trains crossing the bridge. In the Preferred Alternative, many of the new bridge components will consist of pre-assembled parts that can be installed on site with minimal impacts to rail traffic. As cited previously, most of the construction activity will be located on the banks of the Norwalk River. Additionally, in Option 11C, Tracks 2 and 4 will be reconstructed approximately 13 feet south of their existing alignment, separating the new construction activity from the active tracks. In contrast, much of the rehabilitation and strengthening in the Rehabilitation Alternative would need to be implemented in place – within the waterway and with trains continuing to operate overhead. This construction method introduces additional public safety and worker safety risks, and extends the construction schedule.

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### **F-1.5 Construction Schedule and Schedule Risk**

Due to the complex nature of the rehabilitation, an extended construction schedule would be required for the Rehabilitation Alternative, negatively impacting both rail and marine traffic. Structural steel fabrication and installation is anticipated to take approximately 2.5 years. Retrofitting the existing substructure elements and building a temporary runaround structure also would take two years. It is estimated that rehabilitating the existing bridge would take approximately 52 to 64 months from the start of project construction until the restoration of four-track service, including multiple shifts of two-track service alternating between Tracks 1 & 3 and Tracks 2 & 4 to allow for construction of the runaround bridge. The Rehabilitation Alternative would be an estimated 12 to 24 months longer than the Preferred Alternative (Option 11C), which will not require a temporary runaround alignment.

Due to the nature of the work, the Preferred Alternative will allow for a more aggressive construction schedule than the Rehabilitation Alternative. Further, the Preferred Alternative will not impose long-term vertical restrictions during construction; CTDOT anticipates that the swing span will remain operational until shortly before its removal. In the Preferred Alternative, one or both channels will be open to navigation throughout most of the construction period, as the project footprint will not encroach upon the existing channels. Complete channel outages will be limited to existing span float-out and new span float-in activities.

In the Rehabilitation Alternative, the high rate of deterioration and the repetitive cycles of repair could present unforeseen conditions, necessitating additional repairs while implementing the planned rehabilitation measures. Additional “unknowns” would include installing and fitting new structural steel pieces on the existing structure and making field adjustments. The complexity of matching new material with existing material would make the superstructure rehabilitation labor intensive, expensive, and time consuming. The “unknowns” associated with the Rehabilitation Alternative could lead to increased schedule risk and increased costs.

As indicated in the EA/EIE, two NHL improvement projects will be constructed prior to the Walk Bridge Replacement Project. These projects, the CP-243 Universal Interlocking Project (on the NHL main line) and Danbury Dock Yard Improvements Project (on the Danbury Branch), have independent utility from the Walk Bridge Project, in that they are needed to improve operational flexibilities on this heavily-traveled corridor.<sup>3</sup> These projects also will benefit the Walk Bridge Project by reducing train delays and expediting construction during the required two-track outage. In the Preferred Alternative, bridge foundation, track, and retaining wall construction activities can start prior to the completion of the CP-243 Project, while four tracks are still operating. CTDOT selected Option 11C as the Preferred Alternative, because among the Movable Bridge options, Option 11C will maximize the amount of substructure work that can be conducted in the 13-month period of four-track operations anticipated between the start of the Walk Bridge Project and completion of the CP-243 Project and start of the two-track outage. In Option 11C, a two-track outage is anticipated for a total of 30 months. In the Rehabilitation Alternative, however, construction could not begin until completion of the CP-243 Project, as most of the work for the Rehabilitation Alternative would require a two-track outage. In the Rehabilitation Alternative, a two-track outage is anticipated for more than 51 months. This delay in construction start would prolong the Rehabilitation Alternative’s construction period and the period of impacts to commuters.

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<sup>3</sup> Descriptions of the CP-243 Universal Interlocking Project and the Danbury Dock Yard Improvements Project are provided in Appendix F-3.

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### **F-1.6 Cost Considerations**

The cost of rehabilitating Walk Bridge would be comparable to the cost of replacing the structure. As indicated in the EA/EIE, the program cost of the Rehabilitation Alternative is estimated to range between \$425 and \$475 million. While previous reports may have indicated the potential for lower costs, as well as the feasibility of rehabilitation, it is important to note that previous reports did not necessarily address the full system-wide rehabilitation needs and only assigned costs localized to known deficiencies. Holistic life cycle costs, which include the operator cost, annual inspection, maintenance, and supply costs, structural repair/replacement costs, electrical repair/replacement costs, and mechanical repair/replacement costs, would be approximately \$9.2 million per year (annualized over the 100-year life of the bridge). Major structural repair work is estimated to be needed every 25 years, major replacement work is estimated to be needed every 30 years, and minor structural work is estimated to be needed every 15 years.

In contrast, the estimated costs of the Preferred Alternative (Option 11C) are between \$425 and \$460 million, and the life cycle costs are estimated to be between \$3.7 million and \$4.2 million per year. On an annual basis, operating and maintaining the Preferred Alternative (Option 11C) will cost less than half the cost to operate and maintain the Rehabilitation Alternative.

### **F-1.7 Summary Findings**

Table F-1.2 presents a comparison between the Rehabilitation Alternative and the Preferred Alternative (Option 11C) relative to meeting constructability and cost considerations. The life cycle costs were developed based upon conceptual-level design plans, which is appropriate for an evaluation conducted in compliance with NEPA and the Connecticut Environmental Policy Act (CEPA). Cost and schedule estimates are based on conceptual-level designs, prevailing material costs, and estimated construction activity durations. Estimates also include preliminary assessments of operational and construction-related risks that are commensurate with the level of design development.

In summary, the Rehabilitation Alternative has the potential of increasing operational and construction-based risks. In contrast, the Preferred Alternative is the best alternative to mitigate operational and construction-based risks. Additionally, as design advances, Option 11C presents the best alternative for identifying opportunities for further reducing risk relative to costs and schedule.

Table F-1.2 Summary of Alternatives– Constructability & Cost

Project Requirements	Rehabilitation Alternative	Preferred Alternative (Option 11C)
Minimal Vertical Clearance above MHW – Closed Position	16 feet	27 feet
Minimal Vertical Clearance above MHW – Open Position	203 feet	60 feet
Property Needs (total full & partial parcels)	22	22
Overall Construction Duration	52-64 months	40 months
Two-Track Outage	>51 months	30 months
Temporary Run-Around (16' clearance)	required	not required
Channel Vertical Restrictions	>51 months (16')	minimal
Channel Horizontal Restrictions	18-24 months/ permanent	minimal
Life Cycle Costs (100 year annualized)	\$9.2 million/year	\$3.7-\$4.2 million/year
Construction Costs	\$425-\$475 million	\$425-\$460 million

Note: : Cost and schedule estimates are based on NEPA and CEPA conceptual-level designs, prevailing material costs, and estimated construction activity durations. Estimates also include preliminary assessments of operational and construction-related risks that are commensurate with the level of design development.

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**Acronyms and Abbreviations**

CEPA	Connecticut Environmental Policy Act
CP	Control Point
CTDOT	Connecticut Department of Transportation
EA/EIE	Environmental Assessment/Environmental Impact Evaluation
EO	Executive Order
FEMA	Federal Emergency Management Agency
NHL/NEC	New Haven Line /Northeast Corridor
NEPA	National Environmental Policy Act
SHPO	State Historic Preservation Office
SLOSH	Sea, Lake, and Overland Surges from Hurricanes
USACE	U.S. Army Corps of Engineers

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**Appendix F-2      Fixed Bridge Alternative**

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## Appendix F-2. Fixed Bridge Replacement Alternative

### EA/EIE Comment:

#### Why didn't CTDOT select a Fixed Bridge as the Preferred Alternative?

### Summary Statement

After thorough consideration and analysis, the Fixed Bridge Replacement Alternative options were not advanced for further evaluation beyond the initial screening process. Neither the Low-Level Fixed Bridge Option nor the Mid-Level Fixed Bridge Option would fully meet the project Purpose and Need. While the High-Level Fixed-Bridge Option is the only option that would comply with the project Purpose and Need, this

option also would result in the greatest impacts regarding cost, schedule, rail traffic, and environmental resources. Both the Mid-Level and High-Level Fixed Bridge options would result in an extended construction period and would require extensive reconstruction of the New Haven Line (NHL) mainline. Both options would introduce additional construction risk and create further environmental impacts, including substantial impacts to adjacent properties.

### F-2.1 Description of Fixed Bridge Alternative Options

As indicated in the Environmental Assessment/Environmental Impact Evaluation (EA/EIE), three fixed-span bridge replacement options were developed, evaluated, and not advanced for further consideration, consisting of a low-level fixed bridge, a mid-level fixed bridge, and a high-level fixed bridge. An additional scenario within the Low-Level Fixed Bridge option also was considered: a low-level fixed bridge rehabilitation option.

**Low-Level Fixed Bridge Replacement Option.** This option would be constructing a new replacement bridge on the existing horizontal and vertical alignments. New foundations (substructure) would be required, and the new bridge would extend approximately 30 feet beyond the existing east abutment and approximately 100 feet beyond the existing west abutment. To keep the depth of the new bridge substructure as shallow as possible, new bridge span lengths of approximately 100 feet or less were included as part of the conceptual design of the low-level replacement option. In this option, the railroad tracks of the replacement bridge would be elevated by four feet over existing conditions, providing a vertical clearance of 20 feet over mean high water (MHW). This option would not require the replacement of Fort Point Street Bridge, but it would require the construction of retaining walls totaling approximately 300 feet west of the bridge and approximately 500 feet southeast of the bridge.

**Low-Level Fixed Bridge Rehabilitation Option.** This option would be converting the existing swing span to a fixed structure and rehabilitating the existing bridge to promote the extended service life and reliability of the structure as a non-movable bridge. A rehabilitated low-level fixed bridge would provide the same vertical clearance as the existing bridge - 16 feet over MHW. This option would use the existing bridge foundations, and with the exception of the mechanical and electrical requirements of the swing span, it would have the same requirements as the Rehabilitation Alternative.<sup>1</sup>

**Mid-Level Fixed Bridge Option.** This option would be constructing a new replacement bridge near the existing horizontal alignment with a track profile approximately seven feet higher than the existing bridge.

<sup>1</sup> The Rehabilitation Alternative is described in Appendix F-1.

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In this option, the vertical navigation clearance would be 34 feet over MHW, which would be 18 feet higher than existing conditions when the swing span is closed. This option would require new foundations, and the new bridge would extend approximately 30 feet beyond the existing east abutment and approximately 100 feet beyond the existing west abutment. To keep the depth of the new bridge substructure as shallow as possible, new bridge span lengths of approximately 100 feet or less were included as part of the conceptual design of the mid-level replacement option. This option would require the replacement of Fort Point Street Bridge and construction of retaining walls totaling approximately 300 feet west of the bridge, approximately 1,200 feet northeast of the bridge, and approximately 500 feet southeast of the bridge.

**High-Level Fixed Bridge Option.** This option would be constructing a new replacement bridge on a new horizontal alignment. In this option, the replacement bridge would match the navigation vertical clearance of the upstream I-95 structure, at 60 feet over MHW based on consultation with the U.S. Coast Guard (USCG). This option would require a rail grade raise of 35 feet over the navigable channel, and would necessitate a rail grade raise at existing bridges and stations, resulting in lengthy viaduct bridge and retaining walls, replacement or relocation of multiple bridges on both the New Haven Main Line and the Danbury Branch, and impacts to the South and East Norwalk Stations. This option would necessitate reconstruction of the NHL mainline from a point west of South Norwalk Station to East Norwalk Station, reconstruction of the Danbury Branch north to Science Road, and replacement of the South Norwalk Station.

## **F-2.2 Project Purpose and Need**

### **Background – Developing the Purpose and Need**

CTDOT worked closely with the Federal Transit Administration (FTA), as well as federal and state agencies and the City of Norwalk, in developing the project’s Purpose and Need Statement:

The purpose of the Walk Bridge Project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of rail service, offer operational flexibility and ease of maintenance, and provide for increased capacity and efficiencies of rail transportation along the New Haven Line/ Northeast Corridor, while maintaining or improving navigational capacity and dependability for marine traffic in the Norwalk River. Upgrades to the Walk Bridge, through rehabilitation or replacement, are needed to increase bridge reliability, incorporate bridge redundancy, and provide a sustainable bridge for significant weather events, thereby accommodating current and future rail and marine traffic.

The transportation problems or deficiencies that the project will address – the project needs – are as follows:

- Structure age and deterioration;
- Decreasing reliability;
- Lack of resiliency;
- Safety standards;
- Lack of redundancy;
- Limited operational flexibility;
- Difficulty of maintenance;
- Reduced rail capacity and efficiency
- Reduced dependability and capacity for marine traffic;
- Lack of sustainability

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Per National Environmental Policy Act (NEPA) guidance, FTA and CTDOT are jointly responsible for defining the project Purpose and Need. The project Purpose and Need is intended to be a clear and well-defined statement of the objectives of the proposed project.

The Purpose and Need of the Walk Bridge Replacement Project incorporates multiple objectives. The Purpose and Need statement incorporates the primary purpose of the project: to rectify the existing deficiencies of the existing bridge, including its age and deterioration, decreasing reliability, safety standards, and difficulty of maintenance. The project Purpose and Need statement incorporates federal and state transportation goals for the New Haven Line/Northeast Corridor (NHL/NEC), including those enumerated by the NEC Commission and CTDOT. By improving the bridge's operational flexibility, enhancing the safety and reliability of rail service, and providing for increased efficiencies of rail transportation along the NHL/NEC, the project will advance policies and goals established in federal, state, regional, and local transportation plans. The project Purpose and Need statement incorporates the legislative intent of the Transportation Emergency Relief Program, by including bridge redundancy and sustainability as priority project elements. As a secondary purpose of the project, the Purpose and Need statement includes the maintenance or improvement of navigational capacity in the Norwalk River, which is consistent with federal legislation and which advances the policies, plans, and goals of federal, state, and local agencies, including land use, planning, and development goals.

Together with the two transportation-related goals and objectives of the project – to promote the regional economy and to preserve environmental quality - the project Purpose and Need statement provides the basis for establishing the range of alternatives evaluated and for identifying the Preferred Alternative. In accordance with NEPA, an alternative that does not meet the project's Purpose and Need, as established by the project proponent, can be removed from further consideration.

### **Assessment - Meeting the Purpose and Need**

Table F-2.1 presents a comparison among the Fixed Bridge Alternative options and the Preferred Alternative (Option 11C) relative to meeting the project Purpose and Need. The Low-Level Rehabilitation Option would fail to meet any of the objectives of the project Purpose and Need. While the Low-Level and Mid-Level Replacement options would meet nearly all the project objects, because these options would not fully meet the project Purpose and Need, they were not further advanced. Aside from not meeting the project Purpose and Need, these options would not necessarily result in lower costs or fewer construction and operational impacts, as discussed in Sections F-2.3 and F-2.4. While the High-Level Fixed Bridge Option would fully meet the project Purpose and Need, CTDOT did not advance evaluation of this option due to the adverse environmental impacts, including constructability and cost, as discussed in Section F-2.3.

The following sections present further evaluation of the Fixed Bridge Alternative relative to two important considerations in the project Purpose and Need statement: navigational requirements and redundancy/resiliency requirements.

#### ***Navigability Requirements***

The project Purpose and Need includes a clause to maintain or improve navigational capacity and dependability for marine traffic in the Norwalk River in recognition of the fact that the existing Walk Bridge crosses a federally-maintained and designated navigable waterway, and accommodating marine traffic is a transportation function that the project is intended to address, together with accommodating rail traffic.

Table F-2.1 Purpose and Need Assessment: Fixed Bridge Alternative and Preferred Alternative

Project Needs/ Existing Bridge Deficiencies	Low-Level Fixed-Replace	Low-Level Fixed-Rehab	Mid-Level Fixed	High-Level Fixed	Pref. Alt. (Option 11C)
Structure Age and Deterioration	✓	⊙	✓	✓	✓
Decreasing Reliability	✓	✗	✓	✓	✓
Lack of Resiliency	✓	⊙	✓	✓	✓
Safety Standards	✓	✗	✓	✓	✓
Lack of Redundancy (dual spans)	✓	✗	✓	✓	✓
Limited Operational Flexibility	✓	✗	✓	✓	✓
Difficulty of Maintenance	✓	✗	✓	✓	✓
Reduced Rail Capacity & Efficiency	✓	✗	✓	✓	✓
Reduced Dependability & Capacity for Marine Traffic	✗	✗	✗	✓	✓
Lack of Sustainability	✓	✗	✓	✓	✓

- ✓ Indicates that this project need/existing bridge deficiency would be met by the option.
- ⊙ Indicates that this project need /existing bridge deficiency would not be fully met by the option.
- ✗ Indicates that this project need /existing bridge deficiency would not be met by the option.

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Incorporating the need to maintain or improve navigation and navigation-related interests into the Walk Bridge Replacement Project is consistent with federal legislation and advances the policies, plans, and goals of federal, state, and local agencies. Recreational and commercial traffic on the river is a vital component of the local economy. Therefore, maintaining the navigability of the waterway at this location is critical and an important component of the project Purpose and Need.

The U.S. Army Corps of Engineers (USACE) began work on the Norwalk Harbor in 1872. The Norwalk River was authorized as a federal navigation channel by the Rivers and Harbors Act of March 2, 1919 and modified by the Rivers and Harbors Act of March 2, 1945. The USACE is responsible for maintaining the system of harbors and waterways as part of the nation's transportation system, including maintaining the Congressionally-authorized channel dimensions. Further, the USACE is charged with maintaining the “public interest” of the civil works project, which includes, among other interests, navigation (33 CFR 320.4). Any work affecting the Norwalk River and the federal navigation channel will require a permit from the USACE. The USACE is responsible for protecting the public interest, defined to include navigation, in its determination to issue permits

In addition to the USACE, the U.S. Coast Guard (USCG) also is responsible for maintaining the maritime interests of the United States, including maintaining navigation clearances provided by any bridge or other structure on the waterway. In its issuance of a permit for the replacement of Walk Bridge, the USCG will evaluate the navigation needs of the Norwalk river, including whether the project will provide "reasonably free, safe, and unobstructed passage for waterborne traffic while considering the needs of land [rail] transportation." Per USCG guidance, for the purposes of administering its Bridge Program, the USCG indicates that no distinction shall be made between commercial and recreational vessels in the administration and enforcement of laws (USCG Bridge Program, “Reasonable Needs of Navigation White Paper”).

The Connecticut Department of Energy and Environmental Protection (CTDEEP), through its policies protecting water-dependent uses, advocates for the maintenance and improvement of water-dependent uses. The Connecticut Coastal Management Act (CCMA) has multiple policies which promote coastal uses, including boating, navigation, ports and harbors, and water-dependent uses. Local and regional plans and policies, including the Norwalk Harbor Management Plan and the South Western Region Long Range Transportation Plan, support the maintenance, protection, and enhancement of water-dependent uses in Norwalk Harbor and the Inner Harbor Management Area, which includes Walk Bridge.

The Low-Level Fixed Bridge Option (both scenarios) would essentially prohibit all current navigation traffic requiring an opening of the Walk Bridge from transiting the channel. Although the vertical navigation clearance provided by the Mid-Level Fixed Bridge Option would provide an additional 18 feet of clearance relative to the existing swing span in the closed position, this option would not meet the current reasonable needs of navigation on the Norwalk River. The transit of tall-mast sail boats and other vessels with heights near, at, or exceeding 34 feet currently navigating the Norwalk River would be precluded in this alternative. Additionally, with a tidal range of approximately 7.5 feet, the tidal cycle and continually changing water conditions would further affect the vertical clearance safety margins of vessels that would transit the Mid-Level Fixed Bridge Option. Some vessels are also constrained by their draft and require passage at high tide, which would further complicate navigation, clearance challenges, and minimal safety margins in the Mid-Level Fixed Bridge Option. Because both the Low-Level and the Mid-Level fixed-bridge options would restrict or prohibit navigation through Walk Bridge, these options were not further advanced by CTDOT.

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***Redundancy and Resiliency Requirements***

All the options within the Fixed Bridge Alternative would meet the resiliency needs for extreme weather conditions and the operational redundancy needs, except for the Low-Level Fixed Bridge Rehabilitation Option. Simply converting the existing swing span to a fixed span would not alleviate the facility-wide rehabilitation needs of Walk Bridge. As indicated in the EA/EIE, facility-wide rehabilitation needs include, among other requirements, increasing the structural and seismic capacity of the existing bridge, portions of the existing retaining walls, and high tower structures; strengthening all elements of the superstructure exhibiting minor section loss; and replacing all elements of the superstructure exhibiting major section loss. Appendix F-1 provides further detail on the rehabilitation requirements of the existing bridge. Further, rehabilitating the existing bridge and welding shut the existing swing would not meet the resiliency goals of the Public Transportation Emergency Relief Program and the Disaster Relief Appropriations Act, nor would it meet the flood risk reduction strategy of the Federal Flood Risk Management Standard, as mandated by Executive Order (EO) 13690, which requires the location of “critical actions” (such as drive machinery and controls) at least three feet above the Federal Emergency Management Agency (FEMA) 100-year flood elevation (15 feet NAVD88).

**F-2.3 Constructability Considerations**

All the options of the Fixed Bridge Alternative would present challenges with respect to constructability, including rail and marine impacts and engineering complexity. A comparison among the Fixed Bridge Alternative options and the Preferred Alternative (Option 11C) relative to constructability, construction schedule, impacts, and risk demonstrates that the fixed bridge options fare much worse in these categories.

**Property Needs**

The number, size, and location of parcels required for construction of the bridge - to provide river access from all four sides of the bridge, rail and road access, construction staging areas to construct certain operations and to pre-assemble bridge components, and material storage areas - would be the same whether rehabilitating or replacing the existing structure. A total of 22 parcels (consisting of construction and permanent easements) are required for the project.<sup>2</sup> Property needs would be the same for the Low-Level and Mid-Level options of the Fixed Bridge Alternative. Property needs would be substantially greater for the High-Level Option, however. The large grade raise of the High-Level option would require a shift in the horizontal alignment, resulting in substantial right-of-way impacts, and would require replacement of five local bridges and alterations to the South and East Norwalk Stations. In this option, the New Haven Main Line relocation would impact 44 parcels and the Danbury Branch relocation would impact 9 parcels, more than double the requirements of the other Fixed Bridge options and the Preferred Alternative.

**Construction Challenges**

CTDOT determined that the maintenance of both rail and marine traffic is a key element to the overall success of the project. As construction advances, there are various points when certain tracks will be taken out of service and when the channel access for navigation traffic will be restricted. Construction impacts to rail operations are measured by the start and duration of two-track outages, where a pair of tracks (Tracks 2 and 4 or Tracks 1 and 3) is taken out of service for an extended period. Commuter and intercity train service could continue operating on two tracks. Construction impacts to marine operations are measured by: 1) the duration of (west navigation) channel impacts where the channel is closed and/or an activity

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<sup>2</sup> The EA/EIE indicated that 23 parcels would be required. After publication of the EA/EIE, it was determined that only 22 parcels would be required.

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during which no waterway traffic can transit through the bridge; and 2) horizontal restrictions, where the channel is partially blocked and waterway traffic is restricted. CTDOT determined that the Preferred Alternative is one which limits the duration and extent of impacts to both rail and marine traffic.

***Work Window Requirements***

In the Low- and Mid-Level Fixed Bridge options, the limited separation between construction operations and the active tracks would constrain much of the work to short-duration overnight work windows<sup>3</sup> to avoid fouling the tracks<sup>4</sup> and disrupting train service. As a result, activity durations would be extended by the number of days required to complete the operation in successive two- to three-hour shifts. For example, an operation that would typically be completed during an uninterrupted 10-hour shift in a single day would take three to four days to complete. The Preferred Alternative will provide adequate separation between construction activity and in-service tracks to avoid these constraints throughout the project limits, and will be subject to work window limitations only at the west and east tie-ins.

The Mid-Level Fixed Bridge Option would require raising the grade of the tracks along the west and east approaches to improve navigation clearance at the river. Accomplishing this in a staged construction environment means that two out-of-service tracks would be removed and rebuilt to a higher elevation near in-service tracks. The grade separation during the initial two-track outage would result in support of excavation (SOE) in the embankments and structural elements on the approach spans that would encroach upon the safe operating clearance envelope of the adjacent active track. A grade raise cannot be implemented without a phased shift of two-track service from Tracks 1 and 3 to Tracks 2 and 4, during which Track 1 service would shift to Track 4 service to allow completion of the proposed Track 2 to receive traffic from Track 3. Under these conditions, final work on Track 2 would be performed *between* active Tracks 3 and 4, introducing unique challenges and safety implications that would require work-window shifts as previously described.

***Rail Service Impacts***

An alternative would be reducing service to one track (Track 3) for a period to complete work on Track 2 after Track 1 is taken out of service, violating CTDOT's commitment to maintain two tracks (and thereby maintain intercity and commuter train service). The phased shift of two-track service and installation of a more robust SOE system to stabilize the elevated tracks after the shift would further extend the construction schedule of the Mid-Level option. Because the grade raise would extend west beyond the Danbury wye, a vertical tie-in would be necessary during Track 1 and 3 construction. This tie-in would require shutting down the Danbury Branch service for a period, negating the mainline operational benefits of upgrading the Danbury Branch in advance of the Walk Bridge construction. It should also be noted that a temporary runaround alignment would not bypass this area of the project limits and would not minimize the operational and construction-related challenges of raising the track grade in stages.

Implementing a track grade raise required for the Mid-Level Fixed Bridge Option would be complex and would risk substantially impacting rail traffic. Work at the west approach would be extended by 12 to 24 months (beyond the Preferred Alternative's projected 40 months) because retaining walls would have to be significantly modified or replaced, requiring support of excavation (SOE) between the interior tracks from the Danbury wye to North Water Street. To maintain intercity and commuter train service, installation of

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<sup>3</sup> Metro-North Railroad estimates an overnight work window to be approximately five hours, which includes a one-hour mobilization period and a one-hour demobilization period (to de-energize and re-energize the catenary).

<sup>4</sup> Fouling the track means the placement of an individual in such proximity to a track that the individual could be struck by a moving train or other on-track equipment, or in any case is within four feet of the nearest rail.

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the SOE would be limited to night-time work and would risk compromising the existing active interior track, potentially reducing service to a single track. In the temporary condition following SOE installation, the proposed interior track would be elevated close to the existing active interior track, potentially fouling the active track and limiting service to a single exterior track for the entire duration of the initial two-track phase of construction. While construction of a temporary runaround alignment could potentially avoid some of these construction challenges, it would extend the construction schedule and it would not meet all the construction-related needs (as previously noted).

***Marine Impacts***

In the Low-Level Replacement Option, a vertical restriction comparable to the existing bridge in the closed position would be imposed early in construction and on a permanent basis. In the Mid-Level Option, a temporary vertical restriction of approximately 30 months would be required. In both the Low-Level and Mid-Level options, the location of the new bridge foundations in the east and west navigation channels would result in navigation horizontal clearance restrictions during construction. The horizontal restrictions would be expected for 24 to 36 months for both options. Due to multiple structure removal and installation activities over the river, multiple complete channel closures would be required in both the Low-Level and Mid-Level replacement options. In the Low-Level rehabilitation option, both a long-term vertical restriction and substantially more complete channel closures would be expected.

In contrast, during construction, the Preferred Alternative (Option 11C) will not impose long-term vertical restrictions. Due to the location and nature of the work – outside of the waterway and on the banks - the Preferred Alternative will allow for a more aggressive construction schedule than that of the Fixed Bridge Alternative. In the Preferred Alternative, horizontal restrictions will be limited: one or both channels will be open to navigation throughout most of the 40-month construction period, as the project footprint will not encroach upon the existing channels. CTDOT anticipates that the swing span will remain operational until shortly before its removal. Further, complete channel outages for Option 11C will be limited to two times, for the existing span float-out and new span float-in activities.

**F-2.4 Construction Schedule and Schedule Risk**

The overall lower-bound construction schedule for the Low- and Mid-Level Fixed Bridge options is estimated to be between 52 and 64 months. If the temporary run-around alignment were used (an option for the Low-Level replacement and Mid-Level options, and a requirement for the Low-Level rehabilitation option), the estimated construction schedule for these options would be further extended by up to 10 months. In comparison, the overall construction schedule for the Preferred Alternative (Option 11C) is estimated to be 40 months. The Preferred Alternative will not require the temporary run-around alignment.

As indicated in the EA/EIE, all bridge options will require a two-track outage. The Low-Level and Mid-Level replacement options would require a minimum total two-track outage of 51 months. Both the Low-Level and Mid-Level Fixed Bridge options would present substantial risk to the construction schedule due to operational and construction-related issues. In both options, there would be inadequate work area to construct the work without either limiting the work periods to short night-time windows or taking an additional long-term track outage.

In contrast, CTDOT selected Option 11C as the Preferred Alternative, because among the Movable Bridge options, Option 11C will maximize the amount of substructure work that can be conducted in the 13-month period of four-track operations anticipated between the start of the Walk Bridge Project and completion of

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the CP-243 Universal Interlocking Project,<sup>5</sup> at which time a two-track outage can be implemented. In Option 11C, a two-track outage is anticipated for a total of 30 months.

### **F-2.5 Cost Considerations**

Due to the extensive property acquisitions required for the new alignment, the projected cost of the High-Level Fixed Bridge Option is more than double that of the Preferred Alternative (Option 11C). The construction cost of the Preferred Alternative is estimated to be comparable to that of the Low-Level Fixed rehabilitation option and higher than those of the Low-Level and Mid-Level replacement bridge options. Based on costs related to operation, maintenance, repair/replacement, and impacts to the waterway user<sup>6</sup>, the life cycle costs of Option 11C are estimated to be lower than those of the Low-Level and Mid-Level replacement bridge options and substantially lower those of the Low-Level Fixed rehabilitation alternative.

### **F-2.6 Summary Findings**

Table F-2.2 presents a comparison among the Fixed Bridge Alternative options and the Preferred Alternative (Option 11C) relative to meeting constructability and cost considerations. The life cycle costs were developed based upon conceptual-level design plans, which is appropriate for an evaluation conducted in compliance with NEPA and the Connecticut Environmental Policy Act (CEPA). Cost and schedule estimates are based on conceptual-level designs, prevailing material costs, and estimated construction activity durations. Estimates also include preliminary assessments of operational and construction-related risks that are commensurate with the level of design development.

In summary, the Fixed Bridge Alternative (including all options) has the potential of increasing operational and construction-based risks. In contrast, the Preferred Alternative is the best alternative to mitigate operational and construction-based risks. CTDOT determined that of the three Build options assessed in the EA/EIE, Option 11C would provide a the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Additionally, as design advances, Option 11C presents the best alternative for identifying opportunities for further reducing risk relative to costs and schedule.

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<sup>5</sup> The CP-243 Universal Interlocking project is described in Appendix F-3.

<sup>6</sup> Impacts to the waterway user would be applicable only in the Fixed Bridge options, and was determined based on the Walk Bridge opening schedule and estimated impacts to upstream commercial and recreational water-dependent users.

Table F-2.2 Summary of Alternatives – Constructability & Cost

Project Requirements	Low-Level Fixed Replace Option	Low-Level Fixed Rehab Option	Mid-Level Fixed Option	High-Level Fixed Option	Preferred Alternative (Option 11C)
Minimal Vertical Clearance (above MHW)	20 feet	16 feet	34 feet	60 feet	60 feet (open)
Property Needs (total full & partial parcels)	22	22	22	53	22
Overall Construction Duration	52-64 months	52-64 months	52-64 months	>72 months	40 months
Two-Track Outage	51 months	>51 months	51 months	>72 months	30 months
Temporary Run-Around (16' clearance)	optional	required	optional	not required	not required
Channel Vertical Restrictions	permanent (16')	permanent (16')	30 months (16')/ permanent (34')	>36 months (16')	minimal
Channel Horizontal Restrictions	24-36 months	18-24 months/ permanent	12-18 months	12-18 months	minimal
Life Cycle Costs (100 year annualized)	\$5.6-\$6.1 million/year	\$6.0-\$6.5 million/year	\$4.3-\$4.8 million/year	\$3.8-\$4.3 million/year	\$3.7-\$4.2 million/year
Construction Costs	\$290-\$340 million	\$410-\$460 million	\$320-\$370 million	>\$1 billion	\$425-\$460 million

Note: Cost and schedule estimates are based on NEPA and CEPA conceptual-level designs, prevailing material costs, and estimated construction activity durations. Estimates also include preliminary assessments of operational and construction-related risks that are commensurate with the level of design development.

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**Acronyms and Abbreviations**

CCMA	Connecticut Coastal Management Act
CEPA	Connecticut Environmental Policy Act
CTDEEP	Connecticut Department of Energy and Environmental Protection
CTDOT	Connecticut Department of Transportation
EA/EIE	Environmental Assessment/Environmental Impact Evaluation
EO	Executive Order
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
MHW	Mean high water
NHL	New Haven Line
NHL/NEC	New Haven Line/Northeast Corridor
NEPA	National Environmental Policy Act
SHPO	State Historic Preservation Office
SLOSH	Sea, Lake, and Overland Surges from Hurricanes
SOE	Support of Excavation
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard

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**Appendix F-3      Early-Action NHL Projects with Independent  
Utility**

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## **Appendix F-3. Early-Action NHL Projects with Independent Utility**

### **Summary Statement**

#### **EA/EIE Comments:**

**Why will CTDOT construct the CP-243 and Dock Yard Projects?**

**Why didn't CTDOT evaluate these projects in the Walk Bridge Replacement Project EA/EIE?**

**How will CTDOT mitigate for these project impacts?**

The Connecticut Department of Transportation (CTDOT) will be constructing two rail infrastructure upgrade projects near the Walk Bridge. The Control Point (CP)-243 Universal Interlocking Project and the Danbury Dock Yard Improvements Project have utility for the New Haven Line/Northeast Corridor (NHL/NEC) independent of the Walk Bridge Project. Both projects are identified on the Statewide Transportation Improvement Program (STIP), the state's multi-year transportation planning document. Because they facilitate track flexibility and streamline operations on the main line - by providing for track changes and reducing unnecessary train movements - both projects are needed to perform the extensive State of Good Repair (SGR)<sup>1</sup> and improvements projects that are planned for the NHL/NEC through 2020.

Both projects are undergoing environmental review. The environmental review of these two projects, as well as the Walk Bridge Replacement Project EA/EIE, address the cumulative impacts of these needed NHL infrastructure projects.

CTDOT is scheduling the construction of the CP-243 Universal Interlocking Project and Danbury Dock Yard Improvements Project as "early action" projects to minimize impacts to rail service during the Walk Bridge Project. By implementing both projects in advance of Walk Bridge, CTDOT will limit the number of train schedule adjustments needed during periods of two-track outages required for the Walk Bridge Replacement Project.

### **F-3.1 Background**

Walk Bridge is a critical piece of infrastructure on the NEC, carrying four tracks of the NHL of Metro-North Railroad commuter service. The NHL also is used by Amtrak for intercity and high-speed passenger service, and by Providence & Worcester Railroad for freight service. Maintaining efficient rail service is of critical local, regional, and national importance. Any improvements to the NHL/NEC must be made while minimizing impacts to current service. Table 3-1 of the Environmental Assessment/Environmental Impact Evaluation (EA/EIE) presents a list of infrastructure upgrades and capital investments proposed on the NHL in the next few years. The Regional Plan Association's blueprint for the NHL, "Getting Back on Track" (January 2014), identifies extensive SGR and improvement projects – many of which will require two-track outages – that are needed on the NHL through 2020. To minimize impacts to rail service during construction projects, CTDOT seeks to maximize train movement flexibility and streamline operations.

CTDOT is constructing the two projects to allow for train movement flexibility on the NHL main line during future periods of construction related to maintenance or upgrades along the corridor. These projects not only will provide long-term operational improvements to the NHL, but also will reduce train delays and

<sup>1</sup> State of Good Repair (SGR) applies to maintaining assets to a level where they provide efficient, reliable, and safe service.

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expedite construction projects that take tracks out of service. By timing these improvement projects in advance of Walk Bridge, as “early action” projects, CTDOT will minimize rail service impacts during the Walk Bridge Project.

**Providing for Flexibility in Train Movements.** Railroad corridors have limited and specific locations where trains can change the track on which they are moving. For over seven miles on the NHL, between South Norwalk Station (CP-241) and Southport (CP-248), trains are not able to change from track to track. This is the longest “block” on the NHL without the flexibility of track change movement, and it substantially increases the difficulty of performing maintenance or construction activities on those tracks while still safely accommodating train schedules and station stops. When one or multiple tracks must be taken out of service for maintenance or construction purposes within this area, the train capacity on the NHL is greatly reduced, causing bottlenecks similar to highway lane closures. If the distance of the railroad block between South Norwalk and Southport were reduced or cut in half to allow greater flexibility in train movements, the overall efficiency of the NHL could be improved.

**Eliminating Unnecessary Train Movements.** Currently, train conductors on the NHL in South Norwalk switch train directions on the main line, adding unnecessary train movements on the main line. By creating a location to stage trains and switch directions off the main line - at Dock Yard on the Danbury Branch - CTDOT will remove these operations from being performed on the main line itself, thereby reducing train movements and potential train traffic congestion on the NHL.

### **F-3.2 CP-243 Universal Interlocking (State Project No. 0301-0181)**

This project consists of a universal interlocking at CP-243 (State Project No. 0301-0181), located approximately one mile east of East Norwalk Station. The new interlocking will include track realignment and crossovers, new track switches, and overhead contact system (OCS) replacement on the New Haven Main Line from approximately Strawberry Hill Avenue to the Norwalk-Westport town line. The CP-243 Project also introduces upgrades to the signal and communication systems from approximately the South Norwalk Station to approximately 500 feet east of the Saugatuck River Railroad Bridge. Depending on location, these cables will be located aerially, within ballast, or in submarine conduits crossing the Norwalk and Saugatuck Rivers.

The Universal Interlocking at CP-243, with its series of railroad track crossovers, or switches, will provide full flexibility of providing train routings from any track west to any track east in both directions, facilitating “universal” moves to all tracks. The new interlocking also will support the ability of express trains to pass local trains, with limited time intervals (time headway) between trains. A close headway between trains means that there is greater capacity on the line to accommodate trains and increased ridership.

### **F-3.3 Danbury Dock Yard Improvements Project (State Project No. 0301-0180)**

CTDOT will construct improvements on the Danbury Branch Line at Dock Yard, from Mile Post (MP) 0, on the southern end of the Danbury Branch from the beginning of the Danbury Line in South Norwalk (where the Danbury Line splits off the NHL main line) to a distance approximately one-mile north, to MP 1.0, in the area known as the Dock Yard. Construction will include the installation of new storage tracks and track renewal within the limits of Dock Yard, replacement of existing catenary structures with a new OCS that extends the electrified territory, and upgrades to the fiber optic and signal systems. Additionally, CTDOT will reconstruct the grade crossing at the junction of Crescent Street and Science Drive.

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The Danbury Dock Yard Improvements Project will eliminate ten train movements per 24-hour period within the two-track outage area for Walk Bridge on the NHL.

### **F-3.4 Environmental Reviews and Project Commitments**

The CP-243 Universal Interlocking Project and the Danbury Dock Yard Improvements Project will be constructed with federal and state funding. Under the National Environmental Policy Act (NEPA), the Federal Transit Administration (FTA) separately reviewed each project as a documented Categorical Exclusion (CE) project. In addition to NEPA review, both projects required review pursuant to Section 106 of the National Historic Preservation Act. FTA, CTDOT, and CT State Historic Preservation Office (CTSHPO) signed a Section 106 Memorandum of Agreement (MOA) identifying mitigation measures for impacts to cultural and historic resources, including the removal of historic catenary support structures. CTDOT worked with local historic stakeholders, concurring parties to the MOA, to develop mitigation measures. Both projects also required review per Section 4(f) of the U.S. Department of Transportation Act of 1966. FTA issued Section 4(f) exemptions for the historic elements of the railroad with an Adverse Effect Finding (catenary support structures), pursuant to Section 11502(a) of the Fixing America's Surface Transportation (FAST) Act.

Federal and state reviews, permits, and approvals are required for the CP-243 Universal Interlocking Project and the Danbury Dock Yard Improvements Project prior to construction start. In coordination with federal and state agencies, CTDOT assessed the potential environmental impacts and identified appropriate mitigation measures for each project. For the CP-243 Universal Interlocking Project, federal reviews and permits include, but are not limited to, Section 404 State of Connecticut General Permits and Section 408 Civil Works project review from the U.S. Army Corps of Engineers (USACE); navigation reviews by the U.S. Coast Guard (USCG); and impact reviews under the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act by the National Marine Fisheries Service (NMFS). State reviews and permits include, but are not limited to, the following from the CT Department of Energy and Environmental Protection (CTDEEP): Natural Diversity Data Base review and a Construction Stormwater General Permit; and for each submarine crossing, a Structures, Dredge and Fill permit, Section 401 Water Quality Certification, Coastal Consistency review, and Flood Management General Certification. For the Danbury Dock Yard Improvements Project, state reviews and permits include the following from CTDEEP: Coastal Consistency Review and Flood Management General Certification.

Both the CP-243 and Danbury Dock Yard Improvement projects will have a limited construction footprint, as construction primarily will be restricted to the railroad right-of-way. Because of their limited footprints and the use of site-specific mitigation measures, CTDOT does not anticipate that these projects will result in adverse cumulative impacts. The following presents a summary of mitigation measures required for both projects. (Note that these lists of measures are not comprehensive.)

#### **Mitigation Measures for the CP-243 Universal Interlocking Project**

Mitigation measures to which CTDOT has committed during construction of the CP-243 Universal Interlocking Project include the following:

- Install the submarine cables from December through January, during the approved Time of Year (TOY) restrictions required by CTDEEP, USACE, and NMFS to minimize impacts to aquatic resources and navigation traffic. All channel closures will be coordinated with the USCG, USACE, CTDEEP, local Harbormasters and mariners.

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- Complete sediment testing and develop specifications for sediment removed for the submarine cable installation. Best Management Practices (BMPs) will be employed to reduce the potential for sediment and contaminant influx into the rivers during dredging/trenching and dewatering of the dredge spoils on the barges. Additionally, develop a barge mooring/positioning plan to ensure that construction barges do not become grounded on the shoreline, intertidal flats, the river bottom, or within other environmentally sensitive areas.
- Implement a site-specific Erosion and Sedimentation Control Plan (E&S Plan) and a Stormwater Pollution Control Plan (SWPCP) for land-based work.
- Implement BMPs that have been established to protect the peregrine falcon.
- Locate facilities used for outdoor storage of hazardous and/or flammable materials above the 500-year floodplain level to avoid impacts to floodplains or downstream areas.
- Implement mitigation measures to control impacts to air quality during construction, including complying with the CT idling regulation.
- Include noise abatement measures in construction specifications.
- Control invasive species in the small wetland impact area per CTDOT standard specifications.
- Determine whether previous documentation, entitled “New Haven Railroad Catenary System,” adequately represents the catenary support structures to be demolished as part of the project. If not, prepare additional written and photographic documentation of the structures for review and approval by FTA and CTSHP.
- Solicit interest in obtaining salvaged material from the project, to be used for public-education purposes, from interested educational institutions. If feasible, remove the salvaged material in as intact a condition as possible. Prior to the start of construction, notify the City of Norwalk regarding the availability of one entire catenary structure for use as a display in a public park.
- Implement the Archaeological Treatment Plan outlined for the project, as included in the MOA.

**Mitigation Measures for the Danbury Dock Yard Improvements Project**

Mitigation measures to which CTDOT has committed during construction of the Danbury Dock Yard Improvements Project include the following:

- Locate facilities used for outdoor storage of hazardous and/or flammable materials above the 500-year floodplain level to avoid impacts to floodplains or downstream areas.
- Develop a comprehensive E&S Plan for the project.
- Implement traffic mitigation measures (such as detours and public notifications) near Ann Street Bridge.
- Prepare written and photographic documentation of historic structures on the Danbury Line, addressing historic bridges, catenary support structures, retaining walls, and any historic trackside features such as mileposts. Submit to CTSHP for review and archiving.
- Contact the Danbury Railway Museum (the Museum) regarding the museum’s interest in acquiring the catenary support structures that are to be removed. Should the Museum wish to acquire one or more of the catenary support structures, remove the salvaged structures in as intact a condition as possible.
- Implement the Archaeological Treatment Plan outlined for the project, as included in the MOA.

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**Acronyms and Abbreviations**

BMP	Best Management Practice
CE	Categorical Exclusion
CP	Control Point
CTDEEP	CT Department of Energy and Environmental Protection
CTDOT	Connecticut Department of Transportation
CTSHPO	Connecticut State Historic Preservation Office
E&S	Erosion and Sedimentation Control
EA/EIE	Environmental Assessment/Environmental Impact Evaluation
FAST	Fixing America’s Surface Transportation
MOA	Memorandum of Agreement
MP	Mile Post
NEPA	National Environmental Policy Act
NHL/NEC	New Haven Line /Northeast Corridor
NMFS	National Marine Fisheries Service
OCS	Overhead Contact System
STIP	Statewide Transportation Improvement Program
SWPCP	Stormwater Pollution Control Plan
TOY	Time of Year
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard

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**Appendix F-4      Coordinating Construction with Osborne and  
East Avenue Projects**

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## **Appendix F-4. Coordinating Construction with Osborne Avenue Bridge and East Avenue Bridge and Roadway Projects**

### **EA/EIE Comment:**

**Why will CTDOT construct the Osborne Avenue and East Avenue Bridge Projects at the same time as the Walk Bridge Replacement Project?**

### **Summary Statement**

The Connecticut Department of Transportation (CTDOT) will expedite construction and minimize disruption to rail service on the New Haven Line (NHL) by using upcoming track outages planned for the Walk Bridge Replacement Project to construct other needed infrastructure upgrades on the NHL. Replacement of the Osborne Avenue Bridge (Bridge No. 08028R) and replacement of the East Avenue Bridge (Bridge No. 03691R) and ancillary roadway work, located just east of the Walk Bridge Project's eastern limit, have

independent utility from the Walk Bridge Replacement Project. They are included on CTDOT's list of proposed NHL infrastructure upgrades and capital investments, as cited in the State Rail Plan and CTDOT's Five Year Capital Plan. These adjacent projects are identified on the Statewide Transportation Improvement Program (STIP), the state's multi-year transportation planning document CTDOT has used this construction method - grouping projects in and proximate to the rail line - on previous railroad infrastructure projects and has been successful in minimizing disruptions to rail service and adjacent roadways while maximizing efficiencies in project construction.

### **F-4.1 Description of Projects**

The Osborne Avenue Bridge and the East Avenue Bridge each support four mainline tracks of Metro-North Commuter Line and Amtrak's Northeast Corridor. The Osborne Avenue Bridge was originally constructed in 1894 and underwent repairs in the 1920s. For the Osborne Bridge Project (State Project No. 0301-0161), CTDOT is completing design for replacing the bridge superstructure and making repairs to the bridge substructure. The East Avenue Bridge was originally constructed in 1905. For the East Avenue Bridge Project (State Project No. 0170-1375), CTDOT is completing design for a total bridge superstructure and substructure replacement. For the East Avenue Reconstruction Project (State Project No. 0102-0297), CTDOT will reconstruct approximately 1,625 linear feet of the roadway to a uniform width of 48 feet throughout the project limits, in conjunction with the replacement of the East Avenue Bridge. The project will include sidewalks, retaining walls, drainage improvements and modifications to existing traffic signals. East Avenue will be lowered under the railroad bridge to achieve a vertical clearance of 14-feet-3-inches.

### **F-4.2 Summary of Construction Coordination**

CTDOT previously has consolidated railroad-related construction projects to take advantage of planned track outages. Most recently, CTDOT has used this approach for replacing the Overhead Contact System (OCS) on the NHL.<sup>1</sup> As a result of combining individual catenary replacement projects with rehabilitating

<sup>1</sup> CTDOT Projects 56-248, 301-042, 301-044, 300-098, 300-099, 301-033, 301-054, and 301-056 combined catenary structure upgrades with bridge rehabilitation work. CTDOT Project 301-070 and 15-296 combined catenary structure upgrades with bridge rehabilitation and roadway improvements to take advantage of planned track outages.

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multiple bridges, CTDOT not only reduced the number of overall track outages, but also achieved substantial construction cost and time savings.

### **F-4.3 Overview of Environmental Reviews**

CTDOT is completing environmental reviews and obtaining environmental permits and approvals for the Osborne Avenue Bridge and East Avenue Bridge replacement projects, and the East Avenue Reconstruction Project. These projects will be constructed with federal and state funding. Under the National Environmental Policy Act (NEPA), FTA is reviewing the projects as Categorical Exclusion (CE) projects. In addition to NEPA review, the projects require review pursuant to Section 106 of the National Historic Preservation Act and Section 4(f) of the U.S. Department of Transportation Act of 1966. Prior to construction start, CTDOT will secure applicable permits and approvals in compliance with federal and state regulations. Through the environmental evaluation and permitting process, CTDOT and the regulatory agencies will identify and implement appropriate mitigation measures for the projects.

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**Acronyms and Abbreviations**

CE	Categorical Exclusion
CTDOT	Connecticut Department of Transportation
NEPA	National Environmental Policy Act
NHL	New Haven Line
OCS	Overhead Contact System
STIP	Statewide Transportation Improvement Program

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**Appendix F-5      Construction Period Coordination Plans**

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## **Appendix F-5. Construction Period Coordination Plans**

### **EA/EIE Comment:**

**How will CTDOT minimize  
disruption to the community  
during construction of the  
replacement bridge?**

### **Summary Statement**

To minimize and mitigate impacts to the community during construction of the Walk Bridge Replacement Project, the Connecticut Department of Transportation (CTDOT) has committed to working with the City of Norwalk and the local community to develop construction period coordination plans and other strategies. CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue

to work with stakeholders as design advances and the contractor's construction means and methods are defined. The Construction Period Coordination Plans will include a series of individual plans and strategies grouped into five categories: safety and security plans, resource protection plans, community mitigation plans, construction coordination strategies, and a regional transportation management plan. The plans will identify project-specific tasks and mitigation measures to minimize impacts. The CTDOT design and construction team will develop and update these plans working in close coordination with the City of Norwalk, the business community, residents, and other affected parties. Figure F-5.1 shows the anticipated development and implementation of the plans, prepared in coordination with the Walk Bridge Replacement Project planning, design and construction phases.

As the lead federal agency, the Federal Transit Administration (FTA) exercises continual oversight and independent review of the project. With the continual oversight from FTA through project completion, CTDOT will be responsible for implementing the mitigation and commitments identified in the Environmental Assessment/Environmental Impact Evaluation (EA/EIE), the Section 106 Memorandum of Agreement (MOA), the Connecticut Environmental Policy Act (CEPA) Record of Decision (ROD), and the National Environmental Policy Act (NEPA) Finding of No Significant Impact (FONSI). Per FTA guidance, the mitigation measures presented in the FONSI are binding. Further, some of CTDOT's proposed mitigation measures will be reviewed by federal and state regulators in the permitting process. CTDOT will use FTA's Project Management Plan to track the mitigation plans and permit conditions (developed in final design) to which CTDOT has committed, working in coordination with the City of Norwalk, the local community, and regulatory agencies.

### **F-5.1 Walk Bridge Project Management Plan**

As required by FTA, CTDOT has prepared a Project Management Plan (PMP) for the Walk Bridge Replacement Project. The PMP is the overarching project implementation plan that spans the entire project – from its initiation through construction. CTDOT will use the PMP as the umbrella plan to develop a series of individual project-specific plans and strategies, and then implement and manage mitigation measures. CTDOT will develop a project-specific mechanism for tracking the project's environmental mitigation measures and its commitments to the City of Norwalk. CTDOT will track the following tasks through final design and construction:

- Identify environmental requirements and commitments stipulated within the EA/EIE, MOA, ROD, FONSI, permits and approvals;

**Appendix F-  
Construction Period Coordination Plans  
Figure F- .1**

	Project Planning	Design	Construction	Operation
	Project Planning Phase			
		Project Final Design Phase		
			Mobilize	
			Pre 2-Track Outage	
			Construct Tracks 2 & 4	
			Construct Tracks 3 & 1	
				Project Operation Phase
<b>Plans and Activities</b>				
<b>Project Management Plan</b>		*		
<b>Safety and Security Plans</b>				
Safety and Security Management Plan		*		
Health and Safety Plan/Railroad Safety Plan		*		
Construction Site Safety & Security Plan/Emergency Response			*	
<b>Resource Protection Plans</b>				
Air Quality/Dust Control Plan		*		
Noise and Vibration Control Plan		*		
Water Quality Control Plan		*		
Dredged/Impacted Materials Management		*		
Stormwater Pollution Control Plan (SWPCP)		*		
Historic Building Protection Plan		*		
<b>Community Mitigation Plans</b>				
Communications Management Plan		*		
Business Coordination Plan		*		
Maritime Aquarium Coordination Plan		*		
<b>Construction Coordination Strategies</b>				
Transportation Management Plan		*		
Alternative/Replacement Parking Plan		*		
Marine Transportation Use Plan		*		
Water-Dependent Use/Waterfront Access Strategies		*		
<b>Regional Transportation Management Plan</b>		*		

Legend	
Plan Development	
★ = Plan Available	
Plan Implementation/Updates	
Project Planning Phase	
Project Design Phase	
Project Construction Phase	
Mobilization	
Construction Work Pre-Two-Track Outage (Access Platforms, Substructure Foundation, Track and Walls)	
Construct Track 2 & Track 4 (Foundation, Walls, Superstructure)	
Construct Track 3 & Track 1 (Foundation, Walls, Superstructure)	
Project Operation Phase	

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- Incorporate required commitments and mitigation measures in the design documents, contract documents, cost estimates and schedules;
- Define responsibilities and actions by CTDOT, design team, program manager, Construction Manager/General Contractor (CM/GC) and sub-contractors, and the Construction Engineering and Inspection (CE&I) team to comply with environmental requirements during final design and construction and to respond to situations and/or agency or public concerns;
- Establish procedures by CTDOT, design team, program manager, CM/GC and its sub-contractors, and CE&I team for communication, documentation, and review of environmental compliance activities for each construction contract;
- Ensure that all environmental documents, designs and plans, and certifications are submitted to regulatory authorities as required by the contract specifications and permits;
- Provide the means and methods to avoid or minimize impacts to the environment and the public in compliance with the contract documents and permits;
- Ensure that the work is monitored and reported in accordance with the environmental commitments contained within the federal and state regulatory rules and permit conditions;
- Establish mechanisms to correct mitigation measures which need to be modified;
- Ensure that post-construction and maintenance requirements are identified and implemented.

FTA will maintain continuous review and evaluation of CTDOT to ensure compliance with statutory, administrative, and regulatory requirements. FTA will regularly review the PMP at project milestones. Further, FTA will require that CTDOT continually update the PMP to maintain the project schedule and cost.

## **F-5.2 Safety and Security Plans**

CTDOT will be responsible for developing and implementing site-specific and community safety plans. Specific requirements for many of these plans will be based on CTDOT's Special Provisions and will be included in the contract specifications. The following provides a list of key safety and security plans for the project; this list is not comprehensive and will be supplemented as required.

### **Safety and Security Management Plan**

The Safety and Security Management Plan will be developed and prepared as part of the PMP, as required in 49 CFR Part 633.5 and FTA Circular 5800.1 (Safety and Security Management Guidance for Major Capital Projects, August 1, 2007). It is the overarching document for all safety and security aspects of the project over its' life-cycle, covering the design phase, construction phase and start-up. The Safety and Security Management Plan will define the following: scope and schedule requirements; responsibility and accountability requirements including organizational hierarchy, roles, and responsibilities; methods for identifying, evaluating, and resolving potential safety hazards and security vulnerabilities of the project; technical and management strategies for determining safety and security risk acceptance; hazard and vulnerability assessment processes; approach to safety and security certification, including the steps to certification; and reporting and documentation requirements.

### **Health and Safety Plan/Railroad Safety Plan**

The Health and Safety Plan will be prepared in accordance with CTDOT's Special Provision, "Environmental Health and Safety" (Item No. 0101000A, 08/24/04) and U.S. Occupational Safety and Health Administration (OSHA) safety regulations, and will establish protocols addressing the risk of exposure to documented hazards/regulated substances.

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In coordination with Metro-North Railroad, CTDOT will develop a Railroad Safety Plan for each stage of the project construction. The Railroad Safety Plan will focus attention on possible safety incidents on the rail line, identify risks and mitigation practices and activities and raise awareness to minimize incidents. The Railroad Safety Plan, a project-specific plan developed in coordination with CTDOT's passenger railroad System Safety Program Plan, per 49 CFR Part 270,<sup>1</sup> will be regularly updated in coordination with Metro-North Railroad.<sup>2</sup>

### **Construction Site Safety and Security Plan/Emergency Response Plan**

The Construction Site Safety and Security Plan and the Emergency Response Plan will address construction worker and site safety, site security, public safety, and emergency preparedness, including emergency communications and emergency response. The Construction Site Safety and Security Plan will establish protocols and provide procedures to protect the health and safety of employees and subcontractors, including elements for in-water safety for the use of construction barges and for working close to an active rail line. The Emergency Response Plan will incorporate emergency preparedness, operations and response plans for specific types of events, and overall operations, contingency or response plans. Types of emergency operations, contingency, or response plans will include specific plans for hazardous material; bomb threat; cyber incident response; business continuity planning, including continuity of operations, loss of communications and loss of power; pandemic planning; weather/natural disaster plans; special event plans; and evacuation plans.

The Construction Site Safety and Security Plan and the Emergency Response Plan will be developed as a high-priority activity in coordination with City of Norwalk's Police and Fire Departments, FTA, Metro-North Railroad and Metro-North Railroad Police, among others, with close attention paid to address the overlapping security and emergency preparedness/response responsibilities of the various agencies.

### **F-5.3 Resource Protection Plans**

As the project design is finalized and the contractor's construction means and methods are defined, resource protection plans will be developed. The following provides a list of key resource protection plans; this list is not comprehensive and will be supplemented as needed. As applicable, these plans will be based upon and supplement (as needed) CTDOT's Environmental Compliance specification.

#### **Air Quality/Dust Control Plan**

CTDOT will develop a construction-period air quality/dust control plan. It is anticipated that construction-related dust will be primarily controlled by using Best Management Practices (BMPs), and will build on the air quality/dust control measures identified for consideration in the EA/EIE (Section 5.3.15).

#### **Noise and Vibration Control Plan**

A construction-period noise and vibration control plan will be developed to address potential impacts of land-based and water-based noise. It is anticipated that the construction noise and vibration control plan

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<sup>1</sup> CTDOT's System Safety Program Plan meets the requirements of 49 CFR Part 270, effective 10/10/2016, which includes Federal requirements for establishing, implementing, and maintaining an effective System Safety Program Plan.

<sup>2</sup> CTDOT in cooperation with Metro-North Railroad, complies with 49 CFR Part 239.101(a)(4)(ii) for special circumstances (Other) including any required emergency notification(s) and emergency communications between the two agencies.

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will build on the noise and vibration control measures identified for consideration in the EA/EIE (Section 5.3.16).

### **Water Quality Control Plan**

Pursuant to the requirements of Section 401 Water Quality Certification and the National Pollutant Discharge Elimination System (NPDES) programs, CTDOT will develop a construction-period water quality control plan. It is anticipated that water quality control measures will include BMPs, and will build on the water quality control measures identified for consideration in the EA/EIE (Section 5.3.10). It is anticipated that some in-water work will be subject to seasonal time of year restrictions to avoid impacts to endangered, protected, and special concern species, as well as to aquatic organisms and habitats that are not endangered (such as shellfish and Essential Fish Habitats).

### **Dredged/Impacted Materials Management**

In accordance with CTDOT's Special Provisions for hazardous, controlled, and non-hazardous (including contaminated and non-contaminated) materials, specifications will be developed for management of these materials, including dredged material. As needed, an Asbestos Abatement Plan and Lead-Based Paint Plan will be developed and implemented.

### **Stormwater Pollution Control Plan (SWPCP)**

CTDOT will prepare a Stormwater Pollution Control Plan (SWPCP) as part of the project's Construction Stormwater General Permit. The SWPCP will identify potential pollutant sources areas and BMPs to be used for erosion and sedimentation control, temporary stormwater management, dust control, and site stabilization.

### **Historic Building Protection Plan**

CTDOT will develop an Historic Building Protection Plan in coordination with CTSHPO to minimize the effects of construction-period vibration upon nearby historic buildings. The Plan, which will be based on FTA's vibration threshold criteria, will consist of multiple elements, building on the outline of measures as identified in the EA/EIE (Section 5.3.17).

## **F-5.4 Community Mitigation Plans**

In coordination with the City of Norwalk, local businesses, residents, and other affected parties, CTDOT will develop and implement community mitigation plans specific to the construction of the Walk Bridge Replacement Project.

### **Communications Management Plan**

CTDOT has developed a Communications Management Plan which outlines the objectives of the communications and public involvement efforts for the Walk Bridge Program. Through the project website, [www.walkbridgect.com](http://www.walkbridgect.com), CTDOT provides continuous updates to the community on the Walk Bridge Replacement Project and nearby projects, including two New Haven Line (NHL) upgrade projects – the Danbury Dock Yard Improvements Project and the CP-243 Universal Interlocking Project – and other bridge replacement projects. The Communications Management Plan includes strategic approaches for communicating accurate and timely information to all involved agencies and stakeholders, including

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residents, businesses, visitors, and rail and maritime users. The Plan will be reviewed vigorously and updated as necessary to support transparency and proactively engage stakeholders as design and construction progress. A variety of outreach tools will be outlined in the Plan and utilized throughout the project to facilitate meaningful dialogue.

### **Business Coordination Plan**

A Business Coordination Plan will be developed to identify the concerns of the business community and address construction-related impacts. By developing and maintaining ongoing communication with local businesses, CTDOT seeks to establish a two-way communication system where the project schedule is communicated, business concerns are identified, and strategies are put in place to minimize disruptions to businesses. Initially, personal interviews will be conducted with businesses in the immediate project construction area to assess existing conditions, including employee and patron parking areas, delivery schedules, hours of operation, and shopping patterns. From these discussions, potential temporary impacts will be determined and mitigation measures will be developed in coordination with businesses in South Norwalk and East Norwalk. Mitigation measures will focus upon maintaining operations of restaurants and stores within the construction area by ensuring continuity of access and visibility of signage. Individual plans or strategies may be developed as required.

### **Maritime Aquarium Coordination Plan**

Due to the unique nature of the Maritime Aquarium at Norwalk, including the sensitivities of its resident animal populations, CTDOT is developing a specific coordination plan with the Maritime Aquarium. CTDOT is working with the City of Norwalk and the Maritime Aquarium at Norwalk to develop a plan to identify and address the impacts of the project upon the Aquarium's outdoor and indoor exhibits and its terrestrial and aquatic animals. As needed, the plan may include site-specific recommendations for implementation during construction.

## **F-5.5 Construction Coordination Strategies**

In coordination with the City of Norwalk, businesses, community groups, and residents, CTDOT will develop detailed plans to address construction period impacts to various resources, such as commuter and intercity rail, traffic, pedestrians and bicyclists, parking, and water-dependent uses. The plans will be developed during final design, and revised/updated through construction completion. Additional plans may be developed as needed.

### **Transportation Management Plan**

CTDOT is preparing a Transportation Management Plan (TMP) to accommodate the replacement of Walk Bridge and Fort Point Street Bridge in conjunction with the East Avenue Reconstruction project and the East Avenue Bridge and Osborne Avenue Bridge replacement projects. The TMP will evaluate the following:

- Existing conditions and potential impacts to intersections in East Norwalk and South Norwalk;
- Vehicle, pedestrian and bicycle detour plans for the stages of the project, including bridge construction;
- Temporary bus route and bus stop plans;
- Construction material (truck) haul routes for each phase of construction (as needed);
- Rail user schedule updates, including commuter education and outreach.

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Recommendations will be developed as needed, and will be reviewed with the City of Norwalk and other stakeholders as needed, such as Metro-North Railroad, Amtrak, and Providence and Worcester (P&W) Railroad. CTDOT will coordinate roadway closures with state and local police and fire departments and ambulance services to provide access for emergency vehicles through the affected project areas.

### **Alternative/Replacement Parking Plan**

CTDOT will work with the City of Norwalk, the Norwalk Parking Authority, and business community to develop an Alternative/Replacement Parking Plan. The Plan will identify replacement parking due to temporary closures of parking facilities (including the North Water Street Lot), and identify access to available parking facilities unaffected by the project.

### **Marine Transportation Use Plan and Water-Dependent Use/Waterfront Access Strategies**

CTDOT will develop a Marine Transportation Plan and a series of water-dependent use/waterfront access strategies, working in coordination with the affected marine-based businesses, the City of Norwalk, the Norwalk Harbor Management Commission, rowing organizations, the Norwalk Seaport Association, and the Maritime Aquarium. Included in the Plan will be protocols for safe rowing during the construction period. The Plan will address temporary impacts to water-based businesses, marina users, rowers, and ferry and vessel operations. The Marine Transportation Plan will be developed and updated as needed in cooperation with the U.S. Army Corps of Engineers (USACE) and the U.S. Coast Guard (USCG). It is anticipated that individual water-dependent use plans or waterfront access strategies may be developed with owners and water-users.

As a component of the Marine Transportation Use Plan, CTDOT will coordinate with the City of Norwalk Police and Fire Departments, water-dependent businesses, the Connecticut Department of Energy and Environmental Protection (CTDEEP), and the USCG to develop and update emergency preparedness, communications and response measures for businesses and properties upstream of Walk Bridge through the construction period.

## **F-5.6 Regional Transportation Management Plan**

There are multiple CTDOT-sponsored and local municipal and private projects planned for construction in the greater Norwalk area over the next six years (prior to and during the Walk Bridge Replacement Project). The EA/EIE identifies ongoing and proposed construction projects, including the SoNo Collection, Washington Village reconstruction, Maritime Village construction. Additionally, the City of Norwalk has several plans with proposed projects, including the Webster Street Master Plan, East Liberty park development, and the School Facilities Improvement Plan. The Walk Bridge Program website identifies approximately 30 projects which are ongoing and proposed in the city of Norwalk through 2022 ([http://www.walkbridgect.com/about\\_program/related\\_projects.aspx](http://www.walkbridgect.com/about_program/related_projects.aspx)). These projects, which are identified by year (2016 through 2022+) and location, will be updated and tracked on a regular basis.

To address the City's concern with the potential cumulative impacts of these projects, CTDOT is preparing a Regional Transportation Management Plan (Regional TMP) that includes Norwalk and surrounding communities (as shown on Figure F-5.2). The purpose of the Regional TMP is to address potential traffic impacts of the multiple projects, facilitate comprehensive public outreach efforts, and provide coordination with stakeholder agencies in the region. An early Regional TMP will be created that assesses viable mitigation strategies, prioritizes these based on the lead time required to implement them, identifies the responsible parties, and establishes coordination protocols for inter-agency coordination. CTDOT has

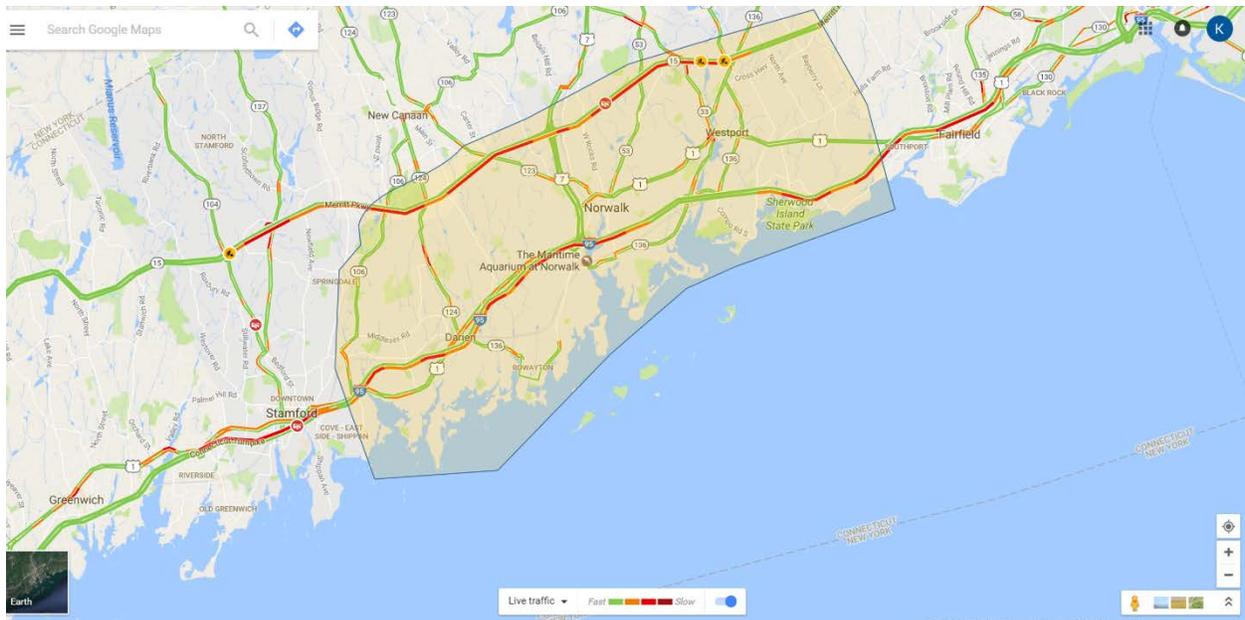
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initiated several Regional TMP tools for implementation in early 2017, including portable data collection units, Regional TMP coordination, website rollout, and public involvement strategies.

CTDOT will work with the City of Norwalk to determine appropriate traffic mitigation strategies for various stages of individual projects, as well as for projects with anticipated substantial impacts, using six traffic management categories:

- Construction and contracting,
- Traffic control and operations,
- Public information,
- Motorist information,
- Travel demand management (TDM), and
- Incident management.

From these categories, a list of potential strategies will be developed to mitigate traffic on the affected roadways. CTDOT will evaluate the strategies for fatal flaws, such as constructability issues, to result in a reasonable list of strategies for inclusion within an individual project's TMP. The strategies will be implemented through construction plans and specifications for each project.



**Figure F-5.2. Regional TMP Area Limits**

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**Acronyms and Abbreviations**

BMP	Best Management Practice
CEPA	Connecticut Environmental Policy Act
CTDEEP	Connecticut Department of Energy and Environmental Protection
CTDOT	Connecticut Department of Transportation
CM/GC	Construction Manager/General Contractor
CE&I	Construction Engineering and Inspection
EA/EIE	Environmental Assessment/Environmental Impact Evaluation
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NHL	New Haven Line
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration
P&W	Providence and Worcester
PMP	Project Management Plan
ROD	Record of Decision
SWPCP	Stormwater Pollution Control Plan
TDM	Travel demand management
TMP	Transportation Management Plan
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard

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**Appendix F-6      Commenter Index**

**Because of its size Appendix F-6 has been provided on the attached CD  
It can also be found at [www.walkbridgect.com](http://www.walkbridgect.com)**

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Alexander, Jack	Individual		
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		Alternatives	I-14.04
		Alternatives	I-14.05
		Navigation Status/Navigability	I-14.01
		Water-Dependent Uses and Marine Traffic	I-14.02
Bacal, Judith	Individual		
		Transportation and Traffic	I-12.01
Bisignano, C.J.	U.S. Coast Guard		
		Planning Consistency, Coordination, and Permitting	F-2.01
Bora, Douglas	Spinnaker Real Estate Partners, LLC		
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		Socio-Economics	B-10.01
		Water-Dependent Uses and Marine Traffic	B-10.04
Boucher, Toni	Connecticut State Senate		
		Socio-Economics	E-2.03
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Brescia, Dick	Norwalk Parking Authority		
		Transportation and Traffic	C-9.02
		Transportation and Traffic	C-9.01
		NEPA/CEPA Process	C-9.03
Brescia, Patsy	Lockwood-Mathews Mansion Museum		
		Historic Elements	O-15.07
		NEPA/CEPA Process	O-15.01
		Historic Elements	O-15.08
		Historic Elements	O-15.06
		Historic Elements	O-15.05
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		Historic Elements	O-15.09
Bryant, Tod	Norwalk Preservation Trust		
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		Alternatives	T-15.01
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		Historic Elements	O-9.08
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		Socio-Economics	I-26.06
		Socio-Economics	I-26.04
		Navigation Status/Navigability	I-26.02
Burns, Lisa	Norwalk Department of Public Works		
		Alternatives	C-4.01
		Transportation and Traffic	C-5.04
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		Property Acquisition/Land Use	C-4.03
		Property Acquisition/Land Use	C-4.04
		Visual/Design Elements	C-4.05
		Visual/Design Elements	C-4.06
		Visual/Design Elements	C-4.08
		Rail Transportation	C-4.07
		NEPA/CEPA Process	C-5.07
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		Property Acquisition/Land Use	C-5.06
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		Water Quality and Aquatic Resources	C-5.02
Cardamone, John	Public		
		Alternatives	I-13.01
Carter, Jim	Norwalk River Valley Trail		
		Pedestrian/Bicycle Facilities	O-3.01
Castelli, Ph.D., Amishi	U.S. Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir		
		Rail Transportation	F-4.08
		Visual/Design Elements	F-4.04
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Cherichetti, Alexis	Norwalk Conservation Office		
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Chimento, Bruce	Norwalk Department of Public Works		
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Condon, Matt	Coastwise Boatworks		
		Water-Dependent Uses and Marine Traffic	B-6.01
		Property Acquisition/Land Use	B-6.03
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Coppola, Mario	City of Norwalk Corporation Counsel		
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		Planning Consistency, Coordination, and Permitting	C-1.33
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		Socio-Economics	C-1.28
		Wetlands, Floodplains, and Natural Resources	C-1.11
		Wetlands, Floodplains, and Natural Resources	C-1.16
		Wetlands, Floodplains, and Natural Resources	C-1.14
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		Wetlands, Floodplains, and Natural Resources	C-1.10
		Water-Dependent Uses and Marine Traffic	C-1.04
		NEPA/CEPA Process	C-1.02
		NEPA/CEPA Process	C-1.03
		Pedestrian/Bicycle Facilities	C-1.09
		Planning Consistency, Coordination, and Permitting	C-1.29
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		Water Quality and Aquatic Resources	C-1.15
		Wetlands, Floodplains, and Natural Resources	C-1.26
		Water Quality and Aquatic Resources	C-1.42
		Water-Dependent Uses and Marine Traffic	C-1.23
		NEPA/CEPA Process	T-1.1
		Related Projects	T-1.2
Corkutt, Ursula	Individual		
		Alternatives	I-23.03
		Visual/Design Elements	I-23.04
		Navigation Status/Navigability	I-23.02
		Pedestrian/Bicycle Facilities	I-23.01
D'Andrea, Tony	Individual		
		Navigation Status/Navigability	T-10.01
		Socio-Economics	T-10.02
Davis, Brian	The Maritime Aquarium		
		Air Quality	O-12.11
		Air Quality	O-12.10
		Noise and Vibration	O-12.06
		Noise and Vibration	O-12.13
		Noise and Vibration	O-12.12

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		Socio-Economics	O-12.04
		Socio-Economics	T-5.01
		Socio-Economics	O-12.05
		Socio-Economics	O-12.03
		Socio-Economics	O-12.02
		Socio-Economics	O-12.01
		Transportation and Traffic	O-12.07
		Hazardous and Contaminated Materials	O-12.15
		Hazardous and Contaminated Materials	O-12.14
		Hazardous and Contaminated Materials	O-12.16
		Property Acquisition/Land Use	O-12.09
		Water-Dependent Uses and Marine Traffic	O-12.08
deRegt, John	Individual		
		Alternatives	I-3.01
Devine, Thomas	Devine Brothers Inc.		
		Alternatives	B-4.04
		Navigation Status/Navigability	B-4.02
		Socio-Economics	B-4.05
		Alternatives	B-4.01
		Water-Dependent Uses and Marine Traffic	B-4.03
DiMeglio, Fran	Norwalk Planning Commission		
		Planning Consistency, Coordination, and Permitting	T-7.01
Dobowski, Johnny	Individual		
		Alternatives	T-14.03
		Alternatives	T-14.04
		Socio-Economics	T-14.05
		NEPA/CEPA Process	T-14.01
		Project Purpose and Need	T-14.02
Edwardsen, Matthew	Spinnaker Real Estate Partners LLC		
		NEPA/CEPA Process	B-11.06
		Socio-Economics	B-11.05
		Socio-Economics	B-11.07
		Socio-Economics	B-11.03
		Socio-Economics	B-11.01
		Socio-Economics	B-11.02
		Socio-Economics	B-11.04
		Socio-Economics	B-11.09
		Transportation and Traffic	B-11.11
		Transportation and Traffic	B-11.13
		Transportation and Traffic	B-11.08
		Property Acquisition/Land Use	B-11.10
		Water Quality and Aquatic Resources	B-11.12
Einstein Bryant, Laura	Center for Contemporary Printmaking		
		Alternatives	O-11.01

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		Historic Elements	O-11.03
		Historic Elements	O-11.08
		Historic Elements	O-11.07
		Historic Elements	O-11.06
		Historic Elements	O-11.04
		Historic Elements	O-11.02
		Historic Elements	O-11.05
		Historic Elements	O-11.09
Fanning, Kevin	Individual		
		Alternatives	I-7.01
Fogel, David, AICP	Amtrak		
		Related Projects	F-5.09
		Alternatives	F-5.01
		Alternatives	F-5.03
		Alternatives	F-5.04
		Alternatives	F-5.05
		Alternatives	F-5.06
		Alternatives	F-5.07
		Planning Consistency, Coordination, and Permitting	F-5.02
		Planning Consistency, Coordination, and Permitting	F-5.08
Fowler, Clayton	Spinnaker Real Estate Partners LLC		
		Noise and Vibration	B-8.14
		Socio-Economics	B-8.07
		Socio-Economics	B-8.01
		Socio-Economics	B-8.15
		Socio-Economics	B-8.10
		Socio-Economics	B-8.08
		Socio-Economics	B-8.02
		Socio-Economics	B-8.05
		Socio-Economics	B-8.04
		Socio-Economics	B-8.06
		Socio-Economics	B-8.03
		Transportation and Traffic	B-8.13
		Socio-Economics	B-8.11
		Property Acquisition/Land Use	B-8.09
		Property Acquisition/Land Use	B-8.12
Fox, David	DEEP		
		Air Quality	S-2.17
		Air Quality	S-2.18
		Air Quality	S-2.19
		Air Quality	S-2.20
		Hazardous and Contaminated Materials	S-2.16
		Rail Transportation	S-2.10
		Wetlands, Floodplains, and Natural Resources	S-2.02
		Wetlands, Floodplains, and Natural Resources	S-2.03
		Water-Dependent Uses and Marine Traffic	S-2.08
		Navigation Status/Navigability	S-2.13

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		Alternatives	S-2.12
		Pedestrian/Bicycle Facilities	S-2.09
		Planning Consistency, Coordination, and Permitting	S-2.01
		Property Acquisition/Land Use	S-2.06
		Property Acquisition/Land Use	S-2.07
		Related Projects	S-2.14
		Water Quality and Aquatic Resources	S-2.15
		Water-Dependent Uses and Marine Traffic	S-2.05
		Water-Dependent Uses and Marine Traffic	S-2.11
		Water-Dependent Uses and Marine Traffic	S-2.04
Franklin, Daisy	Individual		
		Socio-Economics	T-21.03
		Transportation and Traffic	T-21.02
		Pedestrian/Bicycle Facilities	T-21.01
Goldstein, Debora	Individual		
		Alternatives	T-19.03
		Alternatives	T-19.02
		Project Purpose and Need	T-19.01
Green, David	Cultural Alliance of Fairfield County		
		Historic Elements	O-10.08
		Historic Elements	O-10.02
		Historic Elements	O-10.03
		Historic Elements	O-10.04
		Historic Elements	O-10.05
		Historic Elements	O-10.06
		Historic Elements	O-10.07
		Historic Elements	O-10.01
Griffin, Mike	State of Connecticut Harbor Master for Norwalk		
		Navigation Status/Navigability	T-8.04
		Water-Dependent Uses and Marine Traffic	T-8.03
		Water-Dependent Uses and Marine Traffic	T-8.01
		Water-Dependent Uses and Marine Traffic	T-8.02
Grundman, Danny	Individual		
		Alternatives	I-17.04
		Alternatives	I-17.01
		Alternatives	I-17.05
		Alternatives	I-17.07
		Navigation Status/Navigability	I-17.06
		NEPA/CEPA Process	I-17.02
		Rail Transportation	I-17.03
Hamilton, James	Individual		
		Visual/Design Elements	I-19.02
		Visual/Design Elements	I-19.01
		Visual/Design Elements	I-19.03
Hard, Robert	Individual		
		Alternatives	I-25.01
		Alternatives	I-25.02

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		Alternatives	I-25.06
		Alternatives	I-25.07
		Navigation Status/Navigability	I-25.03
		Navigation Status/Navigability	I-25.05
		Water-Dependent Uses and Marine Traffic	I-25.04
		Water-Dependent Uses and Marine Traffic	T-16.01
Horvath, Jo-Anne	Individual		
		Alternatives	I-21.01
hsg	Individual		
		Water-Dependent Uses and Marine Traffic	I-8.01
Igneri, John	Norwalk Common Council		
		Alternatives	E-6.01
		Socio-Economics	E-6.04
		NEPA/CEPA Process	E-6.05
		Socio-Economics	E-6.02
		Related Projects	E-6.03
Interested Voter	Individual		
		Water-Dependent Uses and Marine Traffic	I-4.01
Jellerette, Diane	Norwalk Historical Society		
		Historic Elements	O-13.02
		Historic Elements	O-13.07
		Historic Elements	O-13.06
		Historic Elements	O-13.05
		Historic Elements	O-13.03
		Historic Elements	O-13.01
		Historic Elements	O-13.04
		Historic Elements	O-13.08
Kimmel, Bruce	Norwalk Common Council		
		Transportation and Traffic	E-5.01
King, Shenton	King Industries		
		Alternatives	B-3.01
		Water-Dependent Uses and Marine Traffic	B-3.04
		Water-Dependent Uses and Marine Traffic	B-3.05
		Water-Dependent Uses and Marine Traffic	B-3.09
		Navigation Status/Navigability	T-20.01
		Navigation Status/Navigability	T-20.02
		Water-Dependent Uses and Marine Traffic	B-3.02
		Water-Dependent Uses and Marine Traffic	B-3.08
		Wetlands, Floodplains, and Natural Resources	B-3.03
		Water-Dependent Uses and Marine Traffic	B-3.06
		Water-Dependent Uses and Marine Traffic	B-3.07
Kleppin, Steve	Norwalk Planning Commission		
		Noise and Vibration	C-8.07
		Socio-Economics	C-8.02
		Socio-Economics	C-8.05
		Water-Dependent Uses and Marine Traffic	C-8.06
		Noise and Vibration	C-8.08
		Visual/Design Elements	C-8.03

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		NEPA/CEPA Process	C-8.01
		Pedestrian/Bicycle Facilities	C-8.04
		Water Quality and Aquatic Resources	C-8.09
Kornmeyer, Linda	Individual		
		Transportation and Traffic	B-1.01
Kousidis, Konstantinos	THINQ MAC, LLC.		
		Socio-Economics	B-12.01
Krupp, Fred	Individual		
		Alternatives	T-11.02
		Water-Dependent Uses and Marine Traffic	T-11.01
Kunkel, Robert	Norwalk Harbor Keeper		
		Alternatives	O-7.10
		Alternatives	O-7.16
		Alternatives	O-7.24
		Alternatives	O-7.17
		Alternatives	O-7.15
		Alternatives	O-7.14
		Alternatives	O-7.12
		Alternatives	O-7.11
		Alternatives	O-7.38
		Alternatives	O-7.08
		NEPA/CEPA Process	O-7.01
		Alternatives	O-7.02
		Alternatives	O-7.09
		Socio-Economics	O-7.33
		Socio-Economics	O-7.34
		Water Quality and Aquatic Resources	O-7.29
		Hazardous and Contaminated Materials	O-7.26
		Water Quality and Aquatic Resources	O-7.25
		Visual/Design Elements	O-7.13
		Wetlands, Floodplains, and Natural Resources	O-7.31
		Navigation Status/Navigability	O-7.07
		NEPA/CEPA Process	O-7.37
		Property Acquisition/Land Use	O-7.32
		Socio-Economics	O-7.35
		Property Acquisition/Land Use	O-7.36
		Alternatives	O-7.22
		Project Purpose and Need	O-7.21
		Project Purpose and Need	O-7.18
		Alternatives	O-7.20
		Project Purpose and Need	O-7.19
		Resiliency	O-7.23
		Water Quality and Aquatic Resources	O-7.27
		Water Quality and Aquatic Resources	O-7.28
		Water Quality and Aquatic Resources	O-7.30
		Water-Dependent Uses and Marine Traffic	O-7.05
		Water-Dependent Uses and Marine Traffic	O-7.06

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		Water-Dependent Uses and Marine Traffic	O-7.04
		Water-Dependent Uses and Marine Traffic	O-7.03
Lauricella, Diane	Individual		
		Socio-Economics	I-24.01
		NEPA/CEPA Process	I-24.03
		NEPA/CEPA Process	I-24.02
Lavielle, Gail	CT House of Representatives, 143 <sup>rd</sup> District		
		Alternatives	T-2.01
		NEPA/CEPA Process	T-2.02
		Alternatives	E-1.01
		Navigation Status/Navigability	E-1.02
		Property Acquisition/Land Use	E-1.03
Lazinsky, Diane	U.S. Department of Interior		
		Property Acquisition/Land Use	F-3.01
		Historic Elements	F-3.02
Lightfield, Jackie	Norwalk 2.0		
		Resiliency	O-2.07
		Resiliency	O-2.05
		Resiliency	O-2.06
		Alternatives	O-2.02
		Socio-Economics	O-2.08
		NEPA/CEPA Process	O-2.09
		NEPA/CEPA Process	O-2.01
		Water-Dependent Uses and Marine Traffic	O-2.03
		Resiliency	O-2.04
		Water-Dependent Uses and Marine Traffic	O-2.10
Lowenthal, Rick	Individual		
		Alternatives	I-9.01
McGuire, Michael	Individual		
		Socio-Economics	T-6.02
		Rail Transportation	T-6.03
		Socio-Economics	T-6.01
McPhee, Eric	CT Department of Public Health		
		Public Utilities	S-1.01
		Public Utilities	S-1.02
Mineo, Linda	Individual		
		Alternatives	I-16.01
		Alternatives	I-16.02
		Project Purpose and Need	I-16.03
Minikowski, Andrew	Connecticut Fund for the Environment		
		Water Quality and Aquatic Resources	O-5.03
		Water Quality and Aquatic Resources	O-5.04
		Water Quality and Aquatic Resources	O-5.02
		Water Quality and Aquatic Resources	O-5.01

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Mobilia, Anthony	Norwalk Harbor Management Commission		
		Planning Consistency, Coordination, and Permitting	C-3.26
		Socio-Economics	C-3.04
		Hazardous and Contaminated Materials	C-3.22
		Historic Elements	C-3.31
		Socio-Economics	C-3.08
		Wetlands, Floodplains and Natural Resources	C-3.23
		Navigation Status/Navigability	C-3.01
		Water-Dependent Uses and Marine Traffic	C-3.18
		Navigation Status/Navigability	C-3.25
		Navigation Status/Navigability	C-3.15
		Navigation Status/Navigability	C-3.24
		NEPA/CEPA Process	C-3.07
		Pedestrian/Bicycle Facilities	C-3.29
		Pedestrian/Bicycle Facilities	C-3.30
		Planning Consistency, Coordination, and Permitting	C-3.02
		Planning Consistency, Coordination, and Permitting	C-3.06
		Planning Consistency, Coordination, and Permitting	C-3.03
		Property Acquisition/Land Use	C-3.14
		Property Acquisition/Land Use	C-3.13
		Property Acquisition/Land Use	C-3.12
		Property Acquisition/Land Use	C-3.11
		Public Utilities	C-3.28
		Related Projects	C-3.05
		Water Quality and Aquatic Resources	C-3.21
		Water Quality and Aquatic Resources	C-3.10
		Water Quality and Aquatic Resources	C-3.27
		Water-Dependent Uses and Marine Traffic	C-3.32
		Water-Dependent Uses and Marine Traffic	C-3.17
		Water-Dependent Uses and Marine Traffic	C-3.16
		Water-Dependent Uses and Marine Traffic	C-3.09
		Water-Dependent Uses and Marine Traffic	C-3.20
		Water-Dependent Uses and Marine Traffic	C-3.19
		NEPA/CEPA Process	T-12.01
Moore, James M CIV	Agency: US Coast Guard		
		Planning Consistency, Coordination, and Permitting	F-2.02
Morque, Kim	Spinnaker Real Estate Partners LLC		
		Air Quality	B-7.05
		Noise and Vibration	B-7.06
		Noise and Vibration	B-7.04
		Transportation and Traffic	B-7.03
		Socio-Economics	B-7.01
		Socio-Economics	B-9.01

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		Socio-Economics	B-9.02
		Property Acquisition/Land Use	B-7.02
Musante, Edward	Greater Norwalk Chamber of Commerce		
		Socio-Economics	T-17.01
Neaderland, Adolph	Individual		
		Alternatives	I-20.01
Nelson, Eric	Individual		
		Visual/Design Elements	I-6.01
Obuchowski, Elsa	Individual		
		Property Acquisition/Land Use	I-2.01
Penna, Robin	Norwalk Harbor Keeper		
		Alternatives	T-9.01
		NEPA/CEPA Process	O-1.01
Peterson, Elsa	Individual		
		Project Purpose and Need	I-1.01
Price, Jeffrey	Individual		
		Property Acquisition/Land Use	B-2.01
Rilling, Harry	Mayor, City of Norwalk		
		Alternatives	E-3.01
		Socio-Economics	E-3.02
		Transportation and Traffic	E-3.03
Rosett, Nancy	Norwalk Mayor's Bike/Walk Task Force		
		Pedestrian/Bicycle Facilities	C-13.01
Saunders, CeCe	Historical Perspectives, Inc.		
		Historic Elements	O-14.01
		Historic Elements	O-14.02
		Historic Elements	O-14.03
		Historic Elements	O-14.04
		Historic Elements	O-14.05
		Historic Elements	O-14.06
		Historic Elements	O-14.07
		Historic Elements	O-14.08
Schmerch, Peter	Individual		
		Alternatives	I-22.03
		Navigation Status/Navigability	I-22.02
		Pedestrian/Bicycle Facilities	I-22.01
Schnierlein, Joseph	Individual		
		Alternatives	I-5.04
		Alternatives	I-5.06
		Alternatives	I-5.09
		Socio-Economics	I-5.12
		Water Quality and Aquatic Resources	I-5.18
		Water Quality and Aquatic Resources	I-5.17
		Noise and Vibration	I-5.19
		Water Quality and Aquatic Resources	I-5.08
		Wetlands, Floodplains, and Natural Resources	I-5.20
		Wetlands, Floodplains, and Natural Resources	I-5.07

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		Wetlands, Floodplains, and Natural Resources	I-5.10
		Wetlands, Floodplains, and Natural Resources	I-5.11
		Navigation Status/Navigability	I-5.02
		Resiliency	I-5.14
		Resiliency	I-5.15
		Resiliency	I-5.16
		Water Quality and Aquatic Resources	I-5.01
		Water-Dependent Uses and Marine Traffic	I-5.13
		Water-Dependent Uses and Marine Traffic	I-5.03
		Water-Dependent Uses and Marine Traffic	I-5.05
		Wetlands, Floodplains, and Natural Resources	T-13.01
		Wetlands, Floodplains, and Natural Resources	T-13.02
Sheehan, Timothy	Norwalk Redevelopment Agency		
		Socio-Economics	C-6.03
		Socio-Economics	C-6.01
		NEPA/CEPA Process	C-6.02
Sherman, Alex	Individual		
		Water-Dependent Uses and Marine Traffic	I-18.01
Simmons, David	US Fish and Wildlife Service, New England Fish and Wildlife Office		
		Wetlands, Floodplains, and Natural Resources	F-1.01
Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper		
		Alternatives	O-8.13
		Alternatives	O-8.16
		Project Purpose and Need	O-8.15
		Alternatives	O-8.12
		Alternatives	O-8.11
		Alternatives	O-8.08
		Alternatives	O-8.06
		Socio-Economics	O-8.26
		Socio-Economics	O-8.25
		Socio-Economics	O-8.24
		NEPA/CEPA Process	O-8.23
		NEPA/CEPA Process	O-8.21
		Water-Dependent Uses and Marine Traffic	O-8.09
		Water-Dependent Uses and Marine Traffic	O-8.10
		Water-Dependent Uses and Marine Traffic	O-8.05
		Water-Dependent Uses and Marine Traffic	O-8.04
		NEPA/CEPA Process	O-8.27
		NEPA/CEPA Process	O-8.01
		Project Purpose and Need	O-8.07
		Related Projects	O-8.18
		Related Projects	O-8.19
		Related Projects	O-8.17
		Related Projects	O-8.20
		Resiliency	O-8.14
		Water Quality and Aquatic Resources	O-8.22

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		Water-Dependent Uses and Marine Traffic	O-8.02
		Water-Dependent Uses and Marine Traffic	O-8.03
Smola, Richard	Individual		
		Alternatives	I-10.01
Sotnick, Paul	Norwalk Department of Public Works		
		Transportation and Traffic	C-12.05
		NEPA/CEPA Process	C-12.08
		Pedestrian/Bicycle Facilities	C-12.06
		Property Acquisition/Land Use	C-12.07
		Public Utilities	C-12.04
		Transportation and Traffic	C-12.02
		Related Projects	C-12.01
		Water Quality and Aquatic Resources	C-12.03
Stocker, Elizabeth	Economic Development Department		
		Socio-Economics	C-11.06
		Socio-Economics	C-11.09
		Socio-Economics	C-11.03
		Transportation and Traffic	C-11.05
		Transportation and Traffic	C-11.04
		Historic Elements	C-11.02
		Visual/Design Elements	C-11.10
		Socio-Economics	C-11.11
		Property Acquisition/Land Use	C-11.01
		Property Acquisition/Land Use	C-11.07
		Water-Dependent Uses and Marine Traffic	C-11.08
Third Taxing District	Norwalk's Third Taxing District		
		NEPA/CEPA Process	E-4.01
		Project Purpose and Need	E-4.11
		Socio-Economics	E-4.05
		Socio-Economics	E-4.07
		Socio-Economics	E-4.09
		Historic Elements	E-4.06
		Rail Transportation	E-4.02
		Water-Dependent Uses and Marine Traffic	E-4.03
		Rail Transportation	E-4.04
		Public Utilities	E-4.08
		Water Quality and Aquatic Resources	E-4.10
Thomson, Lisa	Individual		
		Rail Transportation	I-15.01
Tomko, Karen	United Marine		
		Alternatives	B-5.05
		Alternatives	B-5.03
		Water-Dependent Uses and Marine Traffic	B-5.04
		Alternatives	B-5.02
		Water-Dependent Uses and Marine Traffic	B-5.01
Vazquez, Linda	Individual		
		Visual/Design Elements	I-11.01

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Wagman, Bob	Individual		
		Project Purpose and Need	T-18.01
		Socio-Economics	T-18.02
Wallerstein, Susan	Norwalk Arts Commission		
		Visual/Design Elements	O-4.01
Washer, Louise	Norwalk River Watershed Association (NRWA)		
		Navigation Status/Navigability	O-6.08
		Pedestrian/Bicycle Facilities	O-6.11
		Related Projects	O-6.10
		Water Quality and Aquatic Resources	O-6.07
		Water Quality and Aquatic Resources	O-6.09
		Water Quality and Aquatic Resources	O-6.05
		Water Quality and Aquatic Resources	O-6.04
		Water Quality and Aquatic Resources	O-6.03
		Water Quality and Aquatic Resources	O-6.01
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		Water Quality and Aquatic Resources	O-6.06
Westmoreland, David	Norwalk Historical Commission		
		NEPA/CEPA Process	C-2.13
		Alternatives	C-2.01
		Socio-Economics	C-2.15
		Historic Elements	C-2.10
		Historic Elements	C-2.11
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		Historic Elements	C-2.05
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Widland, Michael	Individual		
		Socio-Economics	T-4.01
		Socio-Economics	T-4.02
		Socio-Economics	I-27.02
		NEPA/CEPA Process	I-27.01
		NEPA/CEPA Process	I-27.03
Wilms, Fred	State Representative, 142nd District		
		NEPA/CEPA Process	T-3.01
		Alternatives	T-3.02
		Socio-Economics	T-3.03
Wittchen, Bruce	Connecticut Office of Policy and Management		
		Project Purpose and Need	S-3.04

**State of Connecticut Department of Transportation**  
**Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut**  
**RECORD OF DECISION**

<b>Name</b>	<b>Organization</b>	<b>Topic</b>	<b>Comment ID</b>
		Alternatives	S-3.02
		Property Acquisition/Land Use	S-3.03
		Project Purpose and Need	S-3.01

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
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**Appendix F-7      Tables of Responses to Comments**

**Because of its size Appendix F-7 has been provided on the attached CD  
It can also be found at [www.walkbridgect.com](http://www.walkbridgect.com)**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
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Letter #	Comment #	Last Name	Organization	EA/EIE Section	Comment	Response
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## Air Quality

C-1	C-1.20	Coppola	City of Norwalk Corporation Counsel	5.3.15	<p>During construction, short term increases in dust and equipment related emissions will occur. Will those increases be monitored? What are the strategies CTDOT and FTA are considering and will commit to in order to reduce emissions from the older diesel engines likely to be used during construction?</p> <p>Because some of the materials to be demolished may contain lead-based paint, asbestos and Polychlorinated biphenyls (EA/EIE, p. 5-24), what measures will be taken to prevent exposure to workers and the community? Where will materials (including soils) be stored such that the risk of air pollution (and storm water runoff) with contaminants is mitigated from disturbance?</p>	<p>To minimize impacts to the community during construction, CTDOT is developing multiple construction period coordination plans, as described in Appendix F-5. The Construction Site Safety and Security Plan and the Emergency Response Plan will address construction worker and site safety, site security, public safety, and emergency preparedness, including emergency communications and emergency response. Resource protection plans include an air quality/dust control plan and a noise and vibration control plan. As design advances and the contractor's construction means and methods are defined, CTDOT will develop the plan details, including monitoring requirements.</p> <p>CTDOT will include provisions in the contract specifications for the use of new or retrofitted construction equipment that meets the air quality/emissions standards of the US Environmental Protection Agency (USEPA).</p> <p>CTDOT will develop specifications for materials excavation, handling, management, and disposal in accordance with its Special Provisions for hazardous, controlled, and non-hazardous materials. If determined to be required during final design, CTDOT will develop and implement an Asbestos Abatement Plan and Lead-Based Paint Plan. A Health and Safety Plan will be developed in accordance with CTDOT's Special Provision for Environmental Health and Safety. Further, CTDOT will utilize its own Environmental Compliance specifications, which address standards for air quality control and management and disposal of contaminated and/or hazardous materials.</p>
B-7	B-7.05	Morque	Spinnaker Real Estate Partners LLC	5.3.15	The dust ... from the contractor's activities within the construction easement will almost certainly severely affect our tenants' quiet enjoyment of their premises. These are significant impacts and issues for our tenants and threaten the economic viability of the facility and will severely affect if not destroy its economic value.	As design advances and the contractor's construction means and methods are further defined, CTDOT will develop a construction-period air quality/dust control plan. It is anticipated that the plan will build on the air quality/dust control measures identified for consideration in the EA/EIE (Section 5.3.15). Air quality control measures will be developed in accordance with CTDEEP regulations and CTDOT's Environmental Compliance specifications, including developing a vehicle emissions mitigation plan for areas where extensive work will be performed less than 50 feet from sensitive receptors; developing a transportation management plan; and enforcing the state's existing regulations regarding vehicle idling. Note that Section 22a-174-18(b)(3)(C) of the RCSA, limiting mobile vehicle idling
O-12	O-12.10	Davis	The Maritime Aquarium	5.3.15	Air Quality: The Aquarium will require additional detail on the Project's impacts on air quality from construction vehicle and equipment emissions in the vicinity of the Aquarium to ensure the safety of its animals, employees and volunteers and visitors.	
O-12	O-12.11	Davis	The Maritime Aquarium	5.3.15	Appropriate testing should be conducted to determine current baseline emissions, and continuous emissions monitoring/perimeter monitoring should be conducted throughout the Project to monitor for any emissions that will need to be addressed.	

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**Air Quality continued**

S-2	S-2.17	Fox	DEEP	5.3.15	Page 5-20 discusses potential mitigation measures to reduce emissions from construction equipment that include, among other strategies, using newer vehicles, retrofitting older vehicles, and reducing idling, all of which were recommended in our scoping comment. The document concludes that "CTDOT will consider including the measures on a voluntary or mandatory basis." The Department urges that these measures be made a mandatory specification in project construction contracts.	<p>time to three minutes, is incorporated into CTDOT's Environmental Compliance specifications. Further, per CTDOT's Environmental Compliance specifications, staging zones will be established for vehicles that are waiting to load or unload at the project areas. The staging zones will be located where vehicle emissions will have minimum impact on abutters and the general public.</p> <p>CTDOT will include provisions in the contract specifications for the use of new or retrofitted construction equipment and on-road vehicles that meet the air quality/emissions standards of the US Environmental Protection Agency (USEPA). Accordingly, CTDOT does not propose to conduct emissions monitoring before, during, or after construction.</p>
S-2	S-2.18	Fox	DEEP	5.3.15	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.	
S-2	S-2.19	Fox	DEEP	5.3.15	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.	
S-2	S-2.20	Fox	DEEP	5.3.15	Additionally, Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. Adhering to the 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 limit is recommended. It should be noted that only DEEP can enforce Section 22a-174-18(b)(3)(C) of the RCSA. Therefore, it is recommended that the project sponsor 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.	

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## Alternatives

### Rehabilitation Alternative

C-2	C-2.01	Westmoreland	Norwalk Historical Commission	2.3	After reviewing the EA/EIE, we do not believe that the option to repair the bridge was sufficiently and realistically analyzed and is largely being disqualified because of new, unspecified resiliency requirements that the Connecticut Department of Transportation (DOT) has applied in their analysis.	<p>After thorough consideration and analysis, the Rehabilitation Alternative was not advanced for further evaluation beyond the initial screening process. The Rehabilitation Alternative would not meet the project Purpose and Need, primarily the resiliency and redundancy needs, which are very important given the long-term climate change predictions, including higher sea levels and storm surge flooding, greater storm intensities, and temperature extremes. The Rehabilitation Alternative also would not meet other identified project needs such as incorporating updated safety standards and improving maintenance logistics. To strengthen the existing bridge while continuing to maintain rail service, the Rehabilitation Alternative would require construction of a temporary, two-track runaround bridge. As a result, the Rehabilitation Alternative would take substantially longer (12 to 24 months) to construct, would be more complicated, and would have a larger construction footprint than the Preferred Alternative (Option 11C). Consequently, the Rehabilitation Alternative would create more rail and marine transportation impacts during construction. Despite the work that would be done to strengthen and repair deficiencies, the underlying structure would still be more than 120 years old. The original design is limited in its ability to accommodate the needs of a modern rail system. While the proposed construction costs of the Rehabilitation Alternative are comparable to Option 11C, due to its advanced age and the anticipated need to perform large-scale retrofits in the near term, the annual life cycle (maintenance) costs of the Rehabilitation Alternative would be more than double those of the Preferred Alternative. Relative to project needs, construction schedule, footprint, impacts, and risk, the Rehabilitation Alternative does not compare favorably with the Preferred Alternative. Refer to Appendix F-1.</p> <p>CTDOT determined that the parcels required for construction and operation of the bridge would be needed regardless of the Build alternative, including the Rehabilitation Alternative. The number, size, and location of parcels are required for construction of the bridge to provide river access from all four sides of the bridge, rail and road access, construction staging areas, and material storage areas.</p> <p>CTDOT recognizes the importance of the historic Walk Bridge to the community. While the project will result in the loss of the</p>
I-3	I-3.01	deRegt	Individual	2.3.1	It seems that the cost/time/displacement of businesses out-weigh the so-called benefits of the current plan. I'd like to understand why the current structure won't be rehabilitated. There are many examples of older bridges being re-furbished and giving many decades of added service.	
I-16	I-16.01	Mineo	Individual	2.3.3	I believe that replacing our walk bridge with a new modern bridge would be a disservice to the town of Norwalk. Some of our small businesses would be losing their property and the town might be losing those businesses. Replacement changes the historic look and feel of our community. This bridge is part of our history and enjoyed by decades of children and adults alike. It has been a resilient and reliable bridge for 120 years and can still be for another 120 years as it meets the needs of the people in our future. Even if the entire bridge had to be re-built from the bottom up it would be worth the money to save this piece of creative history and our community as we know it, instead of spending the same or more for a new design that will not last 120 years and will probably need more money to repair in 50 years or less. The current walk bridge has already proven itself reliable, resilient, and safe. In fact it's failures have only been the result of a lack of maintenance even though monies were spent for that purpose. The most recent bridge fail was due to damage caused by a Metro North rail replacement of a different size that bent part of the bridge when it was opened. This was in no way the fault of the bridge or it's age or design.	
I-16	I-16.02	Mineo	Individual	2.3.3	As for ease of maintenance; we should have more faith in modern technology and engineering. I believe with a little pride and determination that they can come up with an adjustment to make maintenance for that difficult section easier.	
I-17	I-17.01	Grundman	Individual	2.3	<p>I-17 includes a schematic drawing of a Proposed Bridge with a reconstructed center section and, on the east and west sides, reconstructed abutments and new prefabbed lift sections. Rehabilitation of the center pivot pier and rehabilitation of the east and west abutments are major elements of this design.</p> <p>ADVANTAGES AND KEY POINTS OF THIS PROPOSED BRIDGE:</p> <ol style="list-style-type: none"> <li>1. Most of the old bridge will remain intact after being reconstructed as necessary.</li> <li>2. No change to the elevation or grading of RR track.</li> <li>3. The towers remain in place.</li> <li>4. No destruction of the areas around the bridge, not in South Norwalk, not in East Norwalk.</li> </ol>	

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Alternatives continued

					<p>5. The new prefabricated sections, with swift opening and closing capability, will allow marine traffic to use both of the 120-year-old deep water channels. These new prefabricated sections will swiftly close to allow rail traffic. They will also provide greater clearance in the channels for marine traffic.</p> <p>6. Using the same deep water channels that have been used for 120 years will keep to a minimum any damage to the Norwalk River and the surrounding land environment.</p> <p>7. The major advantage of this proposal is that the center section of the present bridge (which sits on the center island) can be reconstructed while the bridge remains in service.</p> <p>8. When that reconstruction is finished the center section will be turned 90 degrees permanently, where it will be able to support the two new prefabricated opening sections. These sections would be brought in by barge and lifted into place by crane. The old channel crossing sections would be removed.</p> <p>9. This will keep the Norwalk River open for dredging, commerce, and future use.</p>	<p>historic bridge, CTDOT has coordinated with the Federal Transit Administration (FTA), Connecticut State Historic Preservation Office (CTSHPO) and local historic stakeholders to develop mitigation measures that will include public education programs and cultural amenities that could reach a widespread audience. The Section 106 Memorandum of Agreement includes twelve individual stipulations that address the loss of the historic bridge. Refer to Appendix B. Further, CTDOT has committed to working with the Design Advisory Committee, as well as historic stakeholders, on the design elements of the replacement bridge.</p>
I-17	I-17.07	Grundman	Individual	2.3.3	<p>Would it be feasible to reconstruct sections of the present bridge and have two Bascule bridges, one over each of the existing channels? Another alternative would be one Bascule bridge opening over the West channel with the counterweights on the West side of the current bridge and the leaf section supported by the reconstructed center section. These simpler alternatives would not require raising the railroad grading or removing the Towers.</p>	
I-25	I-25.01	Hard	Individual	2.3.3	<p>The small comment--In your summary of alternatives in Table 2-1, you list the deficiencies of the "no-build/do nothing" alternative. Evidently, the precise same wording was cut-and-pasted for the first alternative, rehabilitation. This must be an act of carelessness, since it is absurd on its face to assert that rehabilitation would have no impact on structural integrity and the many age-related problems with the current bridge. Rehabilitation may not achieve all your goals (e.g. redundancy), but it would clearly meet most of them. To suggest it would meet none of your objectives for a reliable bridge is simply illogical.</p>	
O-9	O-9.01	Bryant	Norwalk Preservation Trust	2.3	<p>We respectfully request that the repair and retention of the existing bridge be given further study in the hopes that demolition can be avoided.</p>	
O-11	O-11.01	Einstein Bryant	Center for Contemporary Printmaking	2.3.1	<p>As Executive Director of the Center for Contemporary Printmaking and a leasee of the Historic Carriage House of Lockwood-Mathews Mansion, I am writing to you in response to Norwalk's Historic Walk Bridge. CCP requests that the renovation be done with respect and best attempts to secure first-rate engineering studies in order to maintain the integrity of the City of Norwalk and its history. The Walk Bridge is an important part of this history.</p>	
T-15	T-15.01	Bryant	Norwalk Preservation Trust	2.3.3	<p>So, I would urge you to actually look again. I didn't expect to say this. Look again at any alternative that might preserve the Bridge and the High Towers.</p>	
T-19	T-19.03	Goldstein	Individual	2.3.3	<p>Considering all of the impacts here, the permanent loss of a historical structure, the pain, the businesses that are being impacted, the permanent restructuring of the neighborhood, I think it obligates you to go back and look</p>	

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Alternatives continued

					at this report again and check your assumptions about the costs of doing a rehab in-place. I realize that there are some new standards that need to be met but this is a massive undertaking, and if you can do it for a tenth of the cost on top of everything else, that's a pretty...pretty big win.	
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T-19	T-19.02	Goldstein	Individual	2.3.3	And I will just go back and say that the EA did reference the Hardesty & Hanover Feasibility Study done in September of 2000 where all of those options were considered side for side for cost without preconceived notions about needing to do it quickly and meeting these other obligations or maybe getting Sandy funds, I don't know. And you'd have to translate these \$2000... your 2000 figures into today's dollars but I would argue that the ratios would probably hold. The No Build Option was \$3.4 million and the Rehabilitation In Place, which would give us the same functionality we have now, was \$34.5 million. The Super Structure Replacement was \$79.8 million. All of the replacement structures, which includes some of your 70 options up here, were in the range of \$153.8 million to \$200.2 million. So we're talking about multiples of the cost of rehabilitating the bridge.	<p>Previous studies, including a seismic analysis of the existing approach spans and swing span and a comprehensive fatigue evaluation conducted in 2005, focused on strengthening and replacement of a limited number of members of the bridge to prolong its service life by 25 years. The Rehabilitation Alternative for this project includes strengthening and replacing bridge members to prolong its service life by 100 years – equivalent to the service life of a replacement structure. Refer to Appendix F-1.</p> <p>Hardesty and Hanover, LLP performed engineering feasibility and an economic analysis study of the bridge in 2000, which considered a rehabilitation alternative. The report recommended a full replacement alternative over a rehabilitation alternative to implement a new, highly reliable structure, which is more easily maintained than the existing structure and offers improved operational flexibility.</p>
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Fixed Bridge Alternative

O-7	O-7.02	Kunkel	Norwalk Harbor Keeper	2.3	A Fixed Bridge Would Be Reasonable In Light of the Rapid and Continuing Decline of Commercial Traffic on the Upper Norwalk River. Although the Norwalk River is considered a navigable waterway under federal law, we are advised by our attorneys that a fixed bridge which imposes reasonable restrictions on navigational access is nevertheless lawful. Converting the Walk Bridge to a fixed bridge, either by repairing it in place or by replacing it with a new fixed bridge at the same height as the current one, would indeed impose some limited restrictions on navigation, as it would place a limit on the vertical clearance afforded to passing boats. Thus the question becomes whether this restriction would be reasonable. The answer is that such a restriction would plainly be reasonable in light of the current and likely future uses of the river.	The project Purpose and Need includes a clause to maintain or improve navigational capacity and dependability for marine traffic in the Norwalk River in recognition of the fact that the existing Walk Bridge crosses a federally-maintained and designated navigable waterway, and accommodating marine traffic is a transportation function that the project is intended to address, together with accommodating rail traffic. CTDOT developed the project Purpose and Need, working closely with the Federal Transit Administration (FTA), federal and state agencies, and the City of Norwalk, based upon an expectation of the continuation of marine traffic through the project area.
O-8	O-8.06	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	2.3	The Environmental Assessment Inadequately Analyzes Project Alternatives... With no further analysis or evidence provided, the Environmental Assessment completely drops consideration of fixed bridge designs and proceeds to evaluate only movable bridge designs. (EA/EIE 2-2). As this memorandum will explain in further detail below, this alternatives analysis is inadequate for several key reasons...By stipulating this parameter as part of the Project purpose and need, CTDOT and FTA have unreasonably "stacked the deck" in favor of replacing the Walk Bridge with another movable design. As noted above, CTDOT and FTA provide no reasonable empirical basis for why maintaining unlimited vertical navigational clearance to the Upper Norwalk River is socially useful in light of the rapid and continuing decline in maritime commerce there in recent decades.	CTDOT seeks to construct a sustainable project for the New Haven Line/Northeast Corridor (NHL/NEC) as well as for the Norwalk maritime community. Incorporating the need to maintain or improve navigation into the Walk Bridge Replacement Project is consistent with and advances the policies and goals of federal, state, and local agencies. The U.S. Army Corps of Engineers (USACE) work on Norwalk Harbor began in 1872; as such, the Norwalk River at Walk Bridge is a designated federally authorized Civil Works project. Any work affecting the Norwalk River and the federal navigation channel requires permits from the USACE and the U.S. Coast Guard (USCG).

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Alternatives continued

O-8	O-8.08	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.3.3	The Environmental Assessment's Alternatives Analysis Inadequately Assesses Navigational Considerations. The Environmental Assessment evidences numerous analytical flaws in how alternatives were considered and how the determination was reached to "screen out" the fixed bridge alternatives after only cursory review. The Environmental Assessment's alternatives analysis fails to adequately assess considerations relating to the commercial navigational needs on the Norwalk River. This issue is at heart of the document's inadequacy. The Environmental Assessment "screens out" from its alternatives analysis any fixed bridge alternative on the grounds that they would result in "reduced dependability and capacity for marine traffic." (EA/EIE 2-5). This rationale has no relationship to the determination of what a reasonable alternative might be, absent some documentation of what marine traffic is presently or might be in the future. However, the Environmental Assessment is completely bare of any study on whether a fixed bridge, in light of the minimal and declining maritime commerce on the Upper Norwalk River, would have any significant impact on marine traffic. The Environmental Assessment simply assumes and states this to be the case, but provides no means for the public to evaluate the basis for this conclusion.	The USACE is responsible for protecting the public interest, defined to include navigation, in its determination to issue permits. In addition to the USACE, the USCG also is responsible for maintaining the maritime interests of the United States, including maintaining navigation clearances provided by any bridge or other structure on the waterway. Per USCG guidance, for the purposes of administering its Bridge Program, no distinction shall be made between commercial and recreational vessels in the administration and enforcement of laws (USCG Bridge Program, "Reasonable Needs of Navigation White Paper"). The Connecticut Department of Energy and Environmental Protection (CTDEEP), through its policies protecting water-dependent uses, including those of the Connecticut Coastal Management Act, advocates for the maintenance and improvement of water-dependent uses. Additionally, the City of Norwalk's Norwalk Harbor Management Plan also advocates for the protection of water-dependent uses.
B-3	B-3.01	King	King Industries	2.0	Please find the attached document outlining my concerns regarding the replacement of the current moving bridge with a fixed bridge. This would change the waterway designation from navigable to non-navigable, and would in turn have a great deal of impact on the businesses up-river who depend on the navigable status. The only feasible option, speaking on behalf of the businesses and residents north of the WALK bridge, is to repair it, replace it with a lift style bridge or replacement "in kind".  As a member of the commercial waterfront community north of the bridge, I can speak for all of us (Devine, Untied Marine, United Illuminated, and others) when I say that we would strongly protest the replacement of the existing bridge with a fixed bridge of ANY height.	The EA/EIE includes a preliminary navigational evaluation, which addresses the requirements of the USCG Bridge Program's "Reasonable Needs of Navigation White Paper," October 5, 2012, Version 1.1. Section 3.2 of the EA/EIE includes, among other marine data, descriptions of existing commercial and recreational users, vessel type frequency, type and size of vessels using the waterway, annual cargo movements through Norwalk Harbor from 2008 through 2012 (the most recent data available at the time of EA/EIE publication), and recent reports of monthly bridge openings.  The EA/EIE indicates that the Movable Bridge Replacement Alternative (all three options) would provide for a vertical clearance of 60 feet. The bridge replacement options provide vertical and horizontal navigation clearances as prescribed by the USCG. Based on consultation with USCG, the I-95 (Yankee Doodle) Bridge, located .53 nautical mile upstream from Walk Bridge, establishes the 60-foot vertical clearance requirement for the replacement Walk Bridge.
B-4	B-4.01	Devine	Devine Brothers Inc.	2.3, 3.17	Devine Brothers needs a railroad bridge on the Norwalk River that opens in order to move its product. Not having a railroad bridge that opens; a low fixed bridge would have an extremely detrimental impact on our ability to run our business economically and efficiently. To replace the current Walk Bridge with a low closed bridge would in effect "close" the Norwalk River, the consequences of which would have an enormous impact on the value of real estate Devine Bros owns along the River as well as the entire loss of our water based business.	
B-5	B-5.02	Tomko	United Marine	3.6	Other local businesses share our concerns about losing access if the bridge were to be fixed and the diminished property values that will certainly result from such an obstruction. Speaking from personal experience, our property value would plummet if access to the river is cut off or significantly reduced as a result of the bridge or associated construction. Local businesses like ours need to be assured that river access will not be eliminated or impeded during or after the construction of the new bridge.	A potential change to marine commerce in Norwalk Harbor was not a factor in establishing the project Purpose and Need, and was not assessed in the EA/EIE. However, the EA/EIE indicates that the improved marine conditions and increased reliability of bridge operations would improve the attractiveness of the Inner Harbor for existing commercial and recreational marine users. Existing users would be more likely to retain or expand their business with improved navigability conditions. Additionally,

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Alternatives continued

					The fixed bridge option will almost certainly destroy our family-owned local business that has served boat owners since 1977. Even the mere mention of preventing or limiting access to the river has already caused a significant reduction in revenue. There can be no doubt that a fixed bridge option with insufficient clearance would certainly put an end to our business, our livelihood, and leave our patrons out in the cold. They would be forced to seek services elsewhere and perhaps leave Norwalk altogether.	new marine-based businesses may be more likely to locate to an area with reliable infrastructure.
I-5	I-5.06	Schnierlein	Individual	2.4	For the remaining part of this letter I will be referencing the Walk Bridge website section from the notification I received on 9/7/16, "Environmental Assessment/Environmental Impact Evaluation for the Walk Bridge Replacement Project, it appears that there are other bridge options they are looking at: a long span vertical lift, a short span vertical lift and still a bascule bridge but in all cases, each will be composed of two sections with each section containing two tracks so that if the bridge fails open, hopefully they can close one section and have some railroad service. What is listed under section 2.3 "alternatives not advanced for further evaluation" is replacement of the fixed bridge. The reason stated: " Would not meet purpose and need with regard to dependability and capacity for marine traffic". Are you kidding me?! What is more dependable than a fixed bridge? As for capacity for marine traffic – this is the Norwalk River – not the Hudson or Connecticut River. We are going to create a bridge so that a few recreation boaters can go up river and have it cost the taxpayers money for construction as well as maintenance. The boats with tall masts will have the ability to find slips in other marinas. All of the present power boats will be able to pass under the bridge if the replacement bridge is constructed with the support structure above the railroad bed.	
I-13	I-13.01	Cardamone	Individual	2.3.2	Why not buy out Devine Bros. and thereby eliminate need for new bridge. Just weld it in place and clear up the riverfront. They're building all those condos which I don't approve of but that seems to be the future.	
I-25	I-25.02	Hard	Individual	2.3.3	Longer comment with respect to a fixed span. My suggestion is to use the same basic layout you are proposing for your long-span (240-foot) vertical lift, but don't make it movable. Skip the lifting towers. Skip the span-move machinery and controls. Just take advantage of the opportunity to add a small grade from the Danbury line connection eastwards. You should then have a vertical clearance on the order of 30 feet at high water, which can accommodate virtually all current and foreseeable maritime uses except the relatively small number of sail craft that go up for repairs and winter storage.	
O-7	O-7.22	Kunkel	Norwalk Harbor Keeper	1.4	The limited commercial traffic can be accommodated with a fixed bridge option.	
O-7	O-7.38	Kunkel	Norwalk Harbor Keeper	2.3	In my opinion, the movable feature of the bridge should be eliminated in favor of a fixed bridge composed of modern spans that would allow for barges to pass beneath with a low-profile prime mover.	
I-10	I-10.01	Smola	Individual	2.3	Why not fix the bridge as is, repair and renovate and buy the entities that cause the bridge to need to be opened?	

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B-5	B-5.03	Tomko	United Marine	5.3.4	This (the fixed bridge option) would certainly harm numerous, non-marine businesses such as restaurants and marine goods stores, which derive substantial revenue from boaters.	CTDOT agrees that a fixed bridge option would likely have additional secondary economic effects extending beyond the immediate effects upon water-based businesses.
B-10	B-10.03	Bora	Spinnaker Real Estate Partners, LLC	2.3.3	There may be more cost effective and faster alternatives that will ensure a reliable, safe and resilient new bridge. One example is a fixed bridge that would essentially close the under-used waterway north of the bridge as a navigable waterway. It would be far cheaper, faster and cause less impairment to local businesses and the environment...	<p>After thorough consideration and analysis, none of the options of the Fixed Bridge Alternative (including the low-level, mid-level, and high-level options) were advanced for further evaluation beyond the initial screening process. Neither the Low-Level Fixed Bridge Option nor the Mid-Level Fixed Bridge Option would fully meet the project Purpose and Need. The project Purpose and Need includes clauses to accommodate both rail and marine traffic. The existing Walk Bridge crosses a federally-maintained and designated navigable waterway, and accommodating marine traffic is a transportation function that the project is intended to address, together with accommodating rail traffic. CTDOT developed the project Purpose and Need, working closely with the Federal Transit Administration (FTA), federal and state agencies, and the City of Norwalk, based upon an expectation of the continuation of marine traffic through the project area. While the High-Level Fixed-Bridge Option is the only option that would comply with the project Purpose and Need, this option also would result in the greatest impacts regarding cost, schedule, rail traffic, and environmental resources. Both the Mid-Level and High-Level Fixed Bridge options would result in an extended construction period and would require extensive reconstruction of the New Haven Line (NHL) mainline. Both options would introduce additional construction risk and create further environmental impacts, including substantial impacts to adjacent properties. Refer to Appendix F-2.</p> <p>CTDOT determined that the parcels required for construction of the bridge would be needed regardless of the Build alternative, including the Fixed Bridge Alternative. The number, size, and location of parcels are required for construction of the bridge to provide river access from all four sides of the bridge, rail and road access, construction staging areas, and material storage areas. To reduce the construction time and impacts, CTDOT will use Accelerated Bridge Construction (ABC) techniques, such as constructing bridge components offsite and rapidly assembling them in place.</p> <p>CTDOT concurs that a fixed bridge option would remove all risk of failure during opening and closing of the bridge. However, CTDOT dismissed the Fixed Bridge Alternative because it would not meet the project Purpose and Need. CTDOT analysis shows that a replacement movable bridge will not reduce future rail</p>
E-1	E-1.01	Lavielle	CT House of Representatives	2.3.2, 3.2	Request for document related to project: All study/analytical documents regarding the various fixed-bridge alternatives so far considered in determining the appropriate design for the bridge. These would presumably include, among other things, various height alternatives, pros and cons in terms of structure, impacts of the various choices on surrounding areas and the community both during and after construction, rail schedule disruption, and estimated cost in each case.	
F-5	F-5.04	Fogel, AICP	Amtrak	2.3	While Amtrak understands the environmental justification of a movable bridge option, it also recognizes the apparent operational benefits and reduced annual O&M costs of a fixed bridge option. We would like to review the documentation that was the basis for the elimination of the Mid-Level Fixed Bridge Option in further detail.	
F-5	F-5.05	Fogel, AICP	Amtrak	2.3	The fixed bridge option should be further documented since it would result in substantially more benefits for Amtrak and Metro-North users of the New Haven Line. A fixed bridge option would offer improved operational flexibility and increased throughput than the movable bridge options. Since the movable bridge options would only benefit a limited number of taller vessels, it appears that the benefits of a fixed bridge that maximizes vertical clearances for maritime traffic and minimizes adjacent land and community impacts would be a candidate for being designated the preferred alternative. Regarding taller vessels that do not fit under the bridge, the EA should estimate use and impact of relocation to a marina that is not impacted by any of the fixed-bridge alternatives.	
F-5	F-5.07	Fogel, AICP	Amtrak	2.3	We understand that the High-level Fixed Bridge Alternative would require a 60' vertical clearance with the resulting adverse community and property impacts. But potentially, a lower fixed bridge in conjunction with a marina or taller vessel relocation with result in significant benefits that may outweigh adverse impacts.	
I-14	I-14.04	Alexander	Individual	2.3.3	Here is an idea on the replacement with a fixed bridge. Build the new bridge on land near the old Norwalk Walk Bridge. Complete the work on new piers and retaining walls. After these steps are completed, close rail traffic for the few weeks it takes to dismantle the old bridge and move the new bridge into place. This will avoid building a temporary bridge and temporary access tracks on both sides of the river which will dislocate and inconvenience real estate interests on both sides of the river. Rail passengers will shuttle by bus from/to terminals on both sides of the river during the few weeks it takes for the	

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					replacement bridge to be moved into place. Rail passengers will be compensated for their inconvenience.	service reliability. On the contrary, the replacement bridge will improve rail service reliability by improving the reliability of the bridge. Furthermore, the operational redundancy provided by the replacement bridge also will improve rail service reliability. It is likely that upon completion of the project, the USCG will maintain a bridge opening schedule that accommodates the rail service commuting periods, as discussed in EA/EIE Section 3.2.2, by restricting openings during commuting periods to emergencies only.
I-5	I-5.04	Schnierlein	Individual	2.3.2	<p>Not shown at meeting: Weld present bridge in place, build support system above and around the bridge (truss work) as well as new cross members under the bridge. Cut out old support system which will provide an extra 10 to 15 feet of clearance. Either buy a tug for Devine bros. to pull barge to their business – leave it north of the bridge – or compensate them for the additional cost for trucking material. Compensate United Marine for a loss of revenue based on business the last 10 years.</p> <p>a. Pro’s: Cannot fail open! Would require less seizure of property by eminent domain. Would cost about the same as a single lift bridge. Should not require a loss of Metro North service as construction could take place during service. Would reduce dredging, and have less of an environmental impact. Once the old supports under the bridge are removed the greater majority of the 250 boats up river will easily pass under the bridge and not need it open (most do not need it open now)! Could be done mostly from the river and on the existing bridge. Would require the least maintenance. Because no additional tracks are needed, less eminent domain seizures are needed. Zero maintenance for mechanisms to open and close bridge as well as energy costs to open and close bridge. Could use existing foundations if reinforced. Presently at high tide there is about 12 feet of bridge clearance for a vessel passing underneath, this construction method could add another 10 feet or more of clearance at high tide. Would not require moving overhead power lines.</p> <p>b. Con’s: would cost as much to build as the other bridges – but less for eminent domain. Accommodations would need to be made for the vessels requiring more height south of the bridge in the available marinas, I doubt if it is more than 20.</p>	
I-5	I-5.09	Schnierlein	Individual	2.3	<p>Throughout the “Environmental Assessment/Environmental Impact Evaluation for the Walk Bridge Replacement Project, there are sections titled “No Build Alternative” and “Build Alternatives”. Again, I find it beyond logic wondering why total replacement of the bridge in place, girder by girder is not considered! If you look at how minimal the impact will be, it makes no sense, Yet on table 2-1 listed under “Alternatives Not Advanced” for High Level option fixed bridge it states “High environmental impacts” and “High Costs”. If no new piers are required, no removal of salt marshes, and minimal dredging to how would that have more environmental impact? And, how could a fixed bridge not be dependable?</p> <p>For Mid-level option for fixed bridge it would meet the purpose of most of the marine traffic and would be more dependable than a moving bridge as nothing has to move and if the support system takes place above the bridge, the clearance for vessels should be over 25 feet. ! I do not understand how they say it would not meet needs for dependability – it doesn’t have to move!</p>	
I-9	I-9.01	Lowenthal	Individual	2.3.2	I realize it's all complicated vis a vie the Coast Guard FED funding, Navigable Rivers designation/status, et al. I have commented/questioned the need for a anything other than a fixed bridge and all the money, time, properties that	

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					would be involved. I have just returned from my first European River Trip and having passed under 50? fixed bridges with all kinds of barges carrying sand, gravel, grain, etc. In addition, there were many sailboats with pivoting masts, pleasure yachts, scores of similar 200? passenger river boats plying the river way. Europe seems to manage just fine with fixed bridges in most locations. I am requesting, one more time, without full understanding of the funding restrictions, for some common sense rethinking of the fixed bridge solution. Frankly, also fixed bridges are more pleasing to the eye rather than a 100 ft? tall opening steel superstructure. I can only assume the long term maintenance and manpower required to monitor an opening bridge would considerably less with a fixed bridge. RETHINK to a fixed bridge - please.	
I-14	I-14.05	Alexander	Individual	2.3.3, 5.3	All this (a fixed bridge) can be done with much less cost and less inconvenience than the present plan of replacing the Walk Bridge with two lift bridges.	
I-20	I-20.01	Neaderland	Individual	2.3.2	The one area that might be open was the suggestion of a fixed "mid- height" bridge if the channel was dredged deep enough for barge traffic to pass amid tide. Given a reasonable cost for dredging, including a cost for a renewable 5 year silt removal, a fixed bridge on the same piers designed for the lift bridge would appear to have the lowest cost for both initial build and annual operating cost.	
I-25	I-25.06	Hard	Individual	2.3.3	In summary, a fixed bridge with a vertical clearance on the order of 30 feet at high water would: 1) Allow for twin span redundancy 2) Be more resilient than any movable span ever could be 3) Accommodate 95% of all maritime users 4) Radically improve the channel alignment between the Walk and Straffolino bridges, improving marine safety 5) Eliminate the annual operating and maintenance costs of a manned, movable span 6) Save tens of millions in construction costs, and trim several months off the completion schedule 7) Ease a serious scheduling burden for Metro North, and improve train travel reliability and safety.	
I-26	I-26.01	Burnham	Individual	2.3	What I do dispute is the lack of transparency in quantifying the cost and delineating the obstacles of leaving and securing the bridge "in place" at its current height with no swing or lift capacity.  In summary, I ask for full disclosure on why the current bridge or a new fixed bridge with attendant costs cannot be left in place or rebuilt with no opening capacity. The Aquarium and community deserves as much in a frank discussion under full transparency.	
I-26	I-26.03	Burnham	Individual	General	1) The significantly lower and true cost in leaving the bridge "in place" and relocating the three affected companies up stream to a coastal Long Island site...a certainly less expensive project than the taking of businesses, residences and institutional structures including the IMAX and the cost for the build of a vertical lift bridge.	

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O-2	O-2.02	Lightfield	Norwalk 2.0	2.3.2	Specifically, the report fails to: Adequately explain how a fixed bridge at the same height is not feasible.	
O-7	O-7.09	Kunkel	Norwalk Harbor Keeper	2.3.2	Additionally, a fixed bridge would provide a more reliable platform for the usage of trains, imposing fewer operational costs and uncertainties than a movable bridge. As noted in the Environmental Assessment, the Walk Bridge serves Amtrak and Metro-North trains along one of the busiest rail corridors in the country. Indeed, Norwalk Harbor Keeper members were present at a public information meeting in Norwalk on May 11, 2016, at which a CTDOT spokesperson admitted that Amtrak and Metro-North would prefer a fixed bridge for reliability reasons. Given the regional importance of this train corridor, the benefits of a fixed bridge to reliability for train access cannot be discounted.	
O-7	O-7.20	Kunkel	Norwalk Harbor Keeper	1.4	A fixed bridge option completely removes the risk of failure during opening and closing and therefore provides the best reliability and minimizes required maintenance.	
I-14	I-14.03	Alexander	Individual	2.3.3	These business and residences will have to be compensated. The cost of compensation will be small compared with the huge saving by replacing the Walk Bridge with a fixed bridge instead of two lift bridges. Very small boats will still be able to move under a new fixed bridge.	
S-2	S-2.12	Fox	DEEP	2.3.2, 3.17.5	There appears a public perception that a fixed bridge would be less impacting overall to the community, but based on discussions with CTDOT we understand that keeping the current bridge as a fixed bridge is not an option, and replacing it with a fixed bridge would require a higher vertical clearance and more extensive approach work, and necessitate comparable cost, construction time and footprint to moveable bridges. The Record of Decision should detail the reasons for rejecting this alternative. Further, the CCMA water-dependent use policy specifically addresses not only the active water-dependent users to the north of the bridge, but state policy protects and promotes future use of waterfront sites for such uses, both of which would be jeopardized by a fixed bridge.	
T-2	T-2.01	Lavielle	State Representative, 143rd District	8.3.5	So because of that disconnect, you've heard from the City all of the different areas of concerns people have. I assure you that those are profound and that lots of residents and businesses in this City have them all, but above all you will notice that there is a persistent uncertainty and concern that perhaps the Fixed Bridge options have not been adequately explored. I hope you'll be addressing that on December 5th. But it remains and I think Mayor Rilling and his staff are taking the appropriate steps to get consultation and advice on these various areas.	
S-3	S-3.02	Wittchen	Connecticut Office of Policy and Management	2.3	OPM is aware of what appears to be a growing local concern about the proposed bridge and interest in a fixed bridge, perhaps even just permanently locking the existing bridge in place and making any needed repairs to the bridge structure. Not only might that be preferred locally, the cost of such approaches could be considerably less than DOT's preferred alternatives, even after compensating those affected by the loss of maritime navigation capacity. OPM recognizes that the state has received \$161 million of federal funding	

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					towards the Walk Bridge project but, given the cost of CTDOT's preferred alternative, the state would still pay a majority of the costs.	
T-11	T-11.02	Krupp	Individual	2.3.3	Well, in 2016, we can get by with a low Fixed Bridge, either a new one or the existing one welded shut. Either of these options would dramatically minimize the environmental impacts and the economic disruption.	
O-7	O-7.08	Kunkel	Norwalk Harbor Keeper	2.3.2	A Fixed Bridge Would Be Likely Be Significantly Less Expensive than Movable Options. An additional reason why it is inappropriate for the Environmental Assessment to refuse to study the fixed bridge option is that a fixed bridge would likely be much less expensive than the movable options. This is so because the installation of a new moving mechanism would be unnecessary and a fixed bridge would have far lower operations and maintenance costs over the length of its operational life, as there would be no moving mechanism to maintain and no crews required to operate the bridge.	Appendix F-2 includes a comparison among the Fixed Bridge Alternative options and the Preferred Alternative (Option 11C) relative to meeting constructability and cost considerations. Costs were developed based upon conceptual-level design, which is appropriate for an evaluation conducted in compliance with the National Environmental Policy Act (NEPA) and the Connecticut Environmental Policy Act (CEPA) and allows for informed decision-making at a planning (NEPA/CEPA) level. Cost and schedule estimates are based on conceptual-level designs, prevailing material costs, and estimated construction activity durations. Estimates also include preliminary assessments of operational and construction-related risks that are commensurate with the level of design development.  Note that the cost variations among the Preferred Alternative and the Low-Level and Mid-Level options of the Fixed Bridge Alternative are not significant. The construction cost of the Preferred Alternative (Option 11C) is estimated to be comparable to that of the Low-Level Fixed rehabilitation option and higher than those of the Low-Level and Mid-Level replacement bridge options. Based on costs related to operation, maintenance, repair/replacement, and impacts to the waterway user (applicable only in the Fixed-Bridge Alternative), the life cycle costs of Option 11C are estimated to be lower than those of the Low-Level and Mid-Level replacement bridge options and substantially lower those of the Low-Level Fixed rehabilitation alternative.  Estimated costs for the options of the Fixed Bridge Alternative include costs that are unique to the fixed-bridge aspects of the replacement bridge and would not be required for the Movable Bridge Alternative. These unique costs include staged construction for raising two tracks at a time (for the mid- and high-level options) and extensive property acquisition (for the high-level option). Additionally, construction of a temporary run-around span would be required for all three options of the Fixed-Bridge Alternative. A temporary run-around would not be required for Option 8A or the Preferred Alternative (Option 11C), and would be optional for Option 4C.
O-7	O-7.17	Kunkel	Norwalk Harbor Keeper	2.3	The Environmental Assessment's Cost Estimates for Fixed Options Are Inflated.	
O-7	O-7.24	Kunkel	Norwalk Harbor Keeper	2.3	An accurate comparison of fixed bridge options would take into account a cost benefit and life cycle analysis, including factoring the favorability of not removing a 120 year-old structure in a marine environment. At a minimum, an adequate cost analysis must take into account: The cost for removal of all machinery and equipment necessary for the opening and closing of the bridge; The decreased risk of environmental damage; Any operating costs concerning a "bridge operator"; Need for a staging area; Construction time differentials; and The necessity to remove the current overhead wires and supporting electrical systems. An adequate baseline cost and engineering analysis, incorporating the above factors, must be completed to determine which option has the lowest cost and impacts on the Norwalk community.	
O-8	O-8.12	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	2.3.3	A fixed bridge, which has no motorized mechanism that needs to be operated or maintained, and no 24-7 crew to oversee operations, would almost certainly have a much lower initial and life-cycle cost, while having higher resiliency to extreme weather and only minimal impacts on maritime traffic.	
T-14	T-14.04	Dobowski	Individual	2.3.3, 3.2.2	A review of the actual maritime traffic north of the bridge and a viable cost effectiveness comparison of viable alternatives is also essential in order to make accurate determinations of the overall project's resiliency.	

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						All the options of the Fixed Bridge Alternative have the potential of increasing operational and construction-based risks. In contrast, the Preferred Alternative (Option 11C) is the best alternative to mitigate operational and construction-based risks. Additionally, as design advances, Option 11C presents the best alternative for identifying opportunities for further reducing risk relative to costs and schedule.
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T-9	T-9.01	Penna	Norwalk Harbor Keeper	2.3.3	However, the environmental assessment completely lacks any analysis comparing the resiliency of a different fixed versus a movable bridge. That's a fatal flaw and I'd like to have some public comment on the full range of reasonable alternatives. Public transit resiliency priorities as required by the Sandy Grant Program, these federal funds may be rescinded and the Environmental Assessment must be revised to include an adequate resiliency analysis of the Fixed Bridge options.	CTDOT has consulted guidance documents produced at the federal, regional, and state government levels regarding its resiliency efforts. The EA/EIE identifies resiliency guidance provided by FTA and CTDEEP and Executive Order (EO) 13690 regarding critical actions and flood protection. CTDOT is coordinating project planning, design and development with the U.S. Coast Guard and U.S. Army Corps of Engineers, including submitting permit plans for review and approval. The EA/EIE compares the existing bridge with the three movable bridge replacement alternatives (Options 4C, 8A, and 11C) with respect to two measures: the critical elevation, as established for Walk Bridge by the criteria of EO 13690, and hurricane inundation levels.  Appendix F-2 provides an assessment of the Fixed Bridge Alternative relative to meeting the project Purpose and Need, including its resiliency requirements.
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F-5	F-5.06	Fogel, AICP	Amtrak	3.2	An analysis of current and projected taller vessel openings would be useful to help determine the optimum vertical navigation clearance. For example, how many of the marine traffic openings between 2013 and 2016 were for taller vessels that required a vertical clearance greater than the 34' vertical clearance of the Mid-level Fixed Bridge Alternative. In addition, there is a potential to maximize vertical clearances through the integration of new construction material technologies (e.g., thinner structural members, thinner deck structure, etc.).	The EA/EIE indicates that the Build Alternative (all three options) would provide for a vertical clearance of 60 feet. The bridge replacement options provide vertical and horizontal navigation clearances as prescribed by the U.S. Coast Guard (USCG). Based on consultation with USCG, the governing limitation for navigation is the I-95 (Yankee Doodle) Bridge, located .53 nautical mile upstream from Walk Bridge, with a 60-foot vertical clearance.  As design advances, CTDOT will investigate opportunities to maximize the vertical clearance through the integration of new construction technologies.
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**Movable Bridge Alternative/Preferred Alternative**

B-4	B-4.04	Devine	Devine Brothers Inc.	2.3.4	Therefore, Devine Bros is in support of the preferred build alternative 11c - described by the EA/EIE as the "Long-Span Vertical Lift Bridge."	CTDOT concurs with the importance of replacing the existing bridge with a new resilient structure that will serve the New Haven Line/Northeast Corridor (NHL/NEC) and marine users of the Norwalk River. The replacement bridge has a design life of
B-5	B-5.05	Tomko	United Marine	2.3	We believe option "11C" will allow our waterways to remain open for future generations of Norwalk and Connecticut boaters and we look forward to	

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					Norwalk having a new, modern, functional WALK Bridge which will serve the community and allow the Norwalk River to remain a Navigable Channel, thus promoting a lively and active marine community.	100 years, which is intended to keep the navigation of the Norwalk River viable.
C-4	C-4.01	Burns	Norwalk Department of Public Works	2.4.2	From various meetings on the replacement program, although not specifically decided, the 240-foot through truss vertical lift span bridge type appears to be the preferred option by the CTDOT and its designers and construction manager. The DRC concurs with the selection of the main lift span	CTDOT determined that of the three Build options assessed in the EA/EIE, Option 11C would provide a the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Option 11C would have the shortest construction duration, resulting in the least disruption to rail traffic on the New Haven Line/Northeast Corridor (NHL/NEC), the least disruption to marine traffic on the Norwalk River, and the least environmental impacts, including community disruption. As a result, CTDOT determined that Option 11C is the Preferred Alternative.
E-3	E-3.01	Rilling	Mayor, City of Norwalk	2.4.2	We understand that the Walk Bridge needs to be replaced. It has stood as an iconic symbol of our City since 1896. It carries our residents and residents of our neighboring towns over four tracks on the New Haven line. It is in need of substantial repair and/or total replacement. We understand why we are here and we support the why. It is long overdue for our City, the region, and the traveling public.	
F-5	F-5.01	Fogel, AICP	Amtrak	2.4	CTDOT selected the Replacement Alternative – Movable Bridge, Long Span Vertical Lift Bridge (Option 11C), as the Preferred Alternative. The Preferred Alternative appears to be moveable bridge option that is the most constructible and least disruptive to existing New Haven Line service, and therefore acceptable to Amtrak from an operational perspective.	
E-6	E-6.01	Igneri	Norwalk Common Council	2.3	I would like to see replacement of the aged and iconic Walk Bridge with a new important, resilient structure that can serve both the Norwalk community and the entire Northeast rail corridor. I appreciate the challenges with building this new bridge and commend the Governor for moving the replacement up the State's priority list through the Emergency Declaration. I have advised DPW staff to work with you to the best of their ability to make sure your project is a success as well.	
I-7	I-7.01	Fanning	Individual	General	I think that this is a great use of public money and happy to be supporting this project.	
I-21	I-21.01	Horvath	Individual	2.3.4	I am in favor of the 240-foot Vertical Lift Span as the best bridge design to replace the aging Walk Bridge. My reasons for this are listed below: A. It will provide maximum clearance to all vessels that use the Norwalk River. B. It will be built far enough away from the current bridge in case the old bridge fails while construction is on-going and the old bridge needs repair. C. It will line up with the Stroffolino Bridge just a short distance away which would be beneficial to boat traffic. D. It would take the shortest time to build.	
I-22	I-22.03	Schmerch	Individual	2.3.4	The preferred long span bridge seems to be the best way to keep trains running and the harbor working.	
I-23	I-23.03	Corkutt	Individual	2.3.4	I agree with your presentation that the long span lift bridge is the best option of those presented.	
I-25	I-25.07	Hard	Individual	2.3.4	For these reasons I urge you to reconsider your current preferred alternative of a wasteful and unnecessary vertical lift bridge.	
O-8	O-8.16	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	2.3.3	Selection of the Preferred Alternative of a Vertical Lift Movable Bridge Would Be Arbitrary and Capricious...Here, as the record indicates that a fixed bridge at the current height would i) have no significant impacts on maritime commerce,	

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					ii) be more cost-effective, iii) be more resilient to climate change, and iv) be more safe for rail traffic, and the record is also bare of any support for the determination that current and future maritime commerce requires a movable bridge, the selection of the Environmental Assessment's preferred alternative of a vertical lift movable bridge for implementation would be arbitrary and capricious.	same construction constraints. The property takings that are required for the construction and operation of the project would generally be the same regardless of the selected Build alternative (including the Fixed-Bridge Alternative and the Rehabilitation Alternative).
T-3	T-3.02	Wilms	State Representative, 142nd District	2.3.3	...There's a gap right now between I think where you're at and where a lot of the public is at. For a lot of the public, the view is well, why do we need to have a Cadillac when we can have a Chevy? Why do we have to do this elaborate, you know, long-span lift bridge, you know, that's probably, you know, going to win some engineering award for, you know, complexity and elaborateness? Why can't we just do something simple? Something straightforward? Something like a rehab or the Fixed Bridge? Candidly, I know you have technical reasons and engineering reasons for wanting to pursue the more complex option. Respectfully, it's your responsibility to bring us there. If you strongly believe that you need to pursue the lift bridge as the course of action, I applaud the December 5th meeting but you need to bring us along and explain exactly why that needs to happen.	The differences among the alternatives consist in the differences in construction duration. CTDOT determined that of the three Build options assessed in the EA/EIE, the long span vertical lift bridge (Option 11C) would provide the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Option 11C would be more conducive to construction in this restrictive environment. As indicated in EA/EIE Section 2.5, Option 11C would offer the greatest opportunity for maximum substructure construction prior to imposing the required two-track outage, thereby minimizing the remaining construction period once the outage takes effect. Additionally, Option 11C would have the least amount of in-water construction of the Build alternatives, thereby minimizing risk and impacts to the waterway. Option 11C would have the shortest construction duration of any of the alternatives, resulting in the least impacts to rail and marine operations, as well as to the community. As a result, Option 11C represents CTDOT's Preferred Alternative.
I-17	I-17.04	Grundman	Individual	2.3.3, 3.6	The DOT-preferred 240-foot vertical lift bridge would be a fine design for installation of a brand new railroad line where space is not a problem. Trying to shoehorn it into an existing confined footprint is something that should be reexamined.	
I-17	I-17.05	Grundman	Individual	5.3	The DOT proposal seems like too much over-engineering and too environmentally damaging.	As indicated in the EA/EIE, the environmental impacts of the Replacement Alternative design options are comparable. Impacts to tidal wetlands and intertidal flats will be mitigated through the restoration of invasive species/degraded tidal wetlands at a 4:1 ratio. Impacts to freshwater wetlands will be mitigated through the restoration or replacement in-kind, out-of-kind wetland creation, invasive species removal, or a combination. While there will be a loss of floodplain, there also will be improvements in hydraulic conditions. Additionally, there will be a net gain of subtidal habitat.  CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating Construction Period Coordination Plans in close coordination with the City of Norwalk and affected parties. The Construction Period Coordination Plans will include a series of individual plans and strategies focused on safety and security, noise and vibration

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						control, air quality/dust control, and traffic mitigation. Refer to Appendix F-5.
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Cost Analysis of Alternatives

F-5	F-5.03	Fogel, AICP	Amtrak	2.3	The EA should summarize the potential annual O&M costs for each alternative. It would be useful to also have a breakdown of the Life Cycle Cost Analysis table for the No-Build and for each Build alternative.	<p>Sections 2.3 and 2.4 of the EA/EIE present initial and life cycle costs of the Fixed Bridge Alternative (including the low-level, mid-level, and high-level options) and the three options of the movable bridge Replacement Alternative. Preliminary evaluations of geometry, bridge type and support locations were performed to develop the proposed design. These evaluations are documented in several engineering reports and technical memos. The costs presented in the EA/EIE are construction costs only; design costs are not included. Refer to Appendix F-1 for a comparison of the potential annual operations and maintenance (O&amp;M) costs of the Rehabilitation Alternative and Option 11C, the Preferred Alternative. Refer to Appendix F-2 for a comparison of the potential annual O&amp;M costs of the Fixed Bridge options (including the low-level replacement option) and Option 11C, the Preferred Alternative.</p> <p>Construction and life cycle costs were developed based upon conceptual-level design, which is appropriate for a planning-level evaluation conducted in compliance with the National Environmental Policy Act (NEPA) and the Connecticut Environmental Policy Act (CEPA) and allows for informed decision-making at a planning (NEPA/CEPA) level. Cost and schedule estimates are based on conceptual-level designs, prevailing material costs, and estimated construction activity durations. Estimates also include preliminary assessments of operational and construction-related risks that are commensurate with the level of design development. CTDOT is continuing to evaluate aesthetic treatment selections, including shapes, colors, finishes, and landscaping, with input from the City of Norwalk Design Advisory Committee and local historic stakeholders.</p> <p>CTDOT is utilizing a Construction Manager/General Contractor (CM/GC) project delivery method for the project. A CM/GC will advise CTDOT on schedule, phasing, constructability, materials availability, risk, and cost, and thereby expedite contractor selection and mobilization, improve construction sequencing, reduce construction duration, and ensure construction of the bridge at the least cost. As the design progresses, CTDOT, the CM/GC, and an independent cost estimator will continue to refine three separate estimates for the replacement bridge.</p>
O-7	O-7.10	Kunkel	Norwalk Harbor Keeper	2.3.2	Finally, as explained below, there are troubling indications in the Environmental Assessment that the true cost of the movable bridge alternatives are grossly underestimated, and a more detailed breakdown of estimated costs is necessary to allow the public a better understanding of the comparative costs of project alternatives. Although I am an engineer and have a background in building, neither I nor any other reasonable person would be able to ascertain the true costs of the bridge options based on the meager information discussed in Chapter 3 of the Environmental Assessment. Once more, we request that the Environmental Assessment be revised to incorporate and evaluate supporting data and analysis for these comparative figures.	
O-7	O-7.11	Kunkel	Norwalk Harbor Keeper	2.3	The Environmental Assessment's Cost Estimates for Movable Options Are Too Low...However, based on my review of the Environmental Assessment, it is clear that the costs of the proposed designs for the movable bridge designs are grossly underestimated	
O-7	O-7.12	Kunkel	Norwalk Harbor Keeper	2.3	The current information in the Environmental Assessment must separate the actual design costs from the construction costs. The cost of the selected bridge design, whether full span vertical lift, turnstile, or fixed, will not be based on the CTDOT's engineers estimates; they will be based on whatever cost the selected contractor is willing to build it for.	
O-7	O-7.14	Kunkel	Norwalk Harbor Keeper	3.2.2	The Environmental Assessment does not break down the estimated costs or present a cost comparison of bridge types considered under the generally acceptable categories of design and construction: <ul style="list-style-type: none"> <li>1. Horizontal and Vertical Geometry</li> <li>2. Super structure type</li> <li>3. Pier Support, placement and span placement</li> <li>4. Abutment placement and height</li> <li>5. Superstructure type</li> <li>6. Pier shape</li> <li>7. Abutment shape</li> <li>8. Color</li> <li>9. Texture and landscaping.</li> </ul>	
O-7	O-7.15	Kunkel	Norwalk Harbor Keeper	2.3	As a result of these missing cost comparisons, it is our opinion that the estimated costs are not fully developed and do not take into account material selections, delivery periods and associated delays and disruptions associated with the intent to move forward with construction prior to a complete design and construction specification approval. The reports do not include a life cycle	

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Alternatives continued

					analysis, nor do they include a cost benefit analysis normally developed for a project of this size.	These estimates that will then be used to determine the contracted construction price for the replacement bridge.
O-7	O-7.16	Kunkel	Norwalk Harbor Keeper	2.3	A complete, detailed comparison and analysis of design, construction, future maintenance, extended operating costs and total effects on the Norwalk Harbor environment must be presented if the Environmental Assessment is to serve its legally mandated purpose of providing a basis for informed public comment.	The final estimated costs of the replacement bridge will be fully developed in the final design phase of the project. Per FTA requirements (23 CFR 771.113), final design activities, which include final design costs, cannot be advanced until a NEPA decision has been issued.
O-8	O-8.11	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	2.3.3	The Environmental Assessment's Alternatives Analysis Inadequately Assesses Cost-Effectiveness Considerations.	CTDOT determined that of the three Build options assessed in the EA/EIE, Option 11C will provide the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Option 11C will have the shortest construction duration, resulting in the least disruption to rail traffic on the New Haven Line/Northeast Corridor (NHL/NEC), the least disruption to marine traffic on the Norwalk River, and the least environmental impacts, including community disruption. As a result, CTDOT determined that Option 11C is the Preferred Alternative. CTDOT has determined that the Preferred Alternative (Option 11C) is the best alternative to mitigate operational and construction-based risks. Additionally, as design advances, Option 11C presents the best alternative for identifying opportunities for further reducing risk relative to costs and schedule
O-8	O-8.13	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	2.3.3	The Environmental Assessment also fails to provide a breakdown of the cost estimates identifying the components of the estimates, issuing only lump sum total estimates for the construction costs and yearly operational costs. Such an opaque approach prevents public evaluation and comment on how those estimates were reached. It is impossible to determine, for example, whether the cost of staff to operate the movable bridge mechanism is included in the lifecycle costs for the movable bridge alternatives. (EA/EIE 2-6; 2-21). Additionally, while for the movable bridge options, the Environmental Assessment specifies that the "year basis" for the cost estimates is 2020 dollars, there is no such specified year basis for the cost estimates for the fixed bridge options, rendering it impossible to perform a consistent side-by-side comparison of the alternatives. In sum, the Environmental Assessment contains only incomplete and opaque information on cost estimates for the different alternatives screened, which frustrates NEPA and CEPA's goal of facilitating informed public comment on project alternatives.	The operator cost (salary plus overhead) is included in the life cycle costs of the movable bridge replacement options. The construction costs for the fixed-bridge options are provided in 2020 dollars, and are noted in the EA/EIE Errata (Refer to Appendix A-2).
T-14	T-14.03	Dobowski	Individual	2.3.3	I recommend also the addition of a viable cost effectiveness analysis calculator to apply consistent economic and environmental costs and impacts to allow for the adequate comparison and consideration of all viable options for the Norwalk Bridge Project.	

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## Hazardous and Contaminated Materials

C-1	C-1.32	Coppola	City of Norwalk Corporation Counsel	3.6, 5.3.18	Has CTDEEP weighed in on plans for handling any contamination that is found during construction?	<p>CTDOT is continuing to evaluate and classify the sediments to be dredged or excavated from the Norwalk River for the project. In accordance with CTDOT's Special Provisions for hazardous, controlled, and non-hazardous materials, materials excavation, handling, management, and disposal specifications will be developed for impacted and non-impacted material, including dredged material. CTDOT is considering staging and managing dredged sediments at one of the nine parcels acquired for the project. Based upon preliminary sampling results, CTDOT anticipates that a portion of the sediments removed from the waterway will be contaminated and not suitable for re-use, and will be disposed in upland areas in accordance with state and federal disposal requirements and permits. Sediments located below the contamination may be suitable for re-use. Neither offshore open water disposal nor a CAD area are planned at this time.</p> <p>CTDEEP will review and evaluate CTDOT's plans for managing hazardous, controlled, and non-hazardous materials as part of its application review for permits, including (but not limited to) a Structures, Dredge and Fill permit, Water Quality Certification, and a General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activity.</p>
C-1	C-1.41	Coppola	City of Norwalk Corporation Counsel	5.3.18	Unclear whether sediments exposed and released into River are contaminated at all, and if they are, what CTDOT's plan is to contain/ clean up contamination. Where will excavated and dredged sediments be staged before removal to off-site facility?	
C-3	C-3.22	Mobililia	Norwalk Harbor Management Commission	3.14	Methods of dredging and dredged material disposal should be evaluated by CT DOT during the Project's design phase, including planning for a possible Confined Aquatic Disposal (CAD) area for disposal of any contaminated dredged material not suitable for open water disposal in Long Island Sound.	

O-7	O-7.26	Kunkel	Norwalk Harbor Keeper	2.4	The bridge was built during period in the nation's history where potential environmental impact or contamination from construction materials like lead was not well understood. The materials in the bridge likely contain toxic heavy metals that would be released into and harm the sensitive aquatic environment of Norwalk Harbor.	<p>CTDOT will conduct a detailed sampling and testing program as design advances, to verify contaminants and specify management practices for items requiring special handling, containment, and disposal. CTDOT's due diligence activities relative to contaminated material investigations include soil, sediment, groundwater, and other media. In accordance with CTDOT's Special Provisions for hazardous, controlled, and non-hazardous materials, specifications will be developed for management of these materials. As needed, specific material handling plans, such as an Asbestos Abatement Plan, a Lead-Based Paint Plan, and a PCB-testing and handling plan, will be developed and implemented.</p>
O-12	O-12.14	Davis	The Maritime Aquarium	5.3.18	Hazardous materials: The Aquarium will require additional detail on all suspected contaminants including asbestos, lead, polychlorinated biphenyls ("PCBs"), particulates, historical fill constituents and arsenic. The Aquarium will require CTDOT to implement and review, in coordination with the Aquarium, an official and thorough hazardous materials survey in advance of the design stage so that appropriate containment and remediation methods for all hazardous materials and other contaminants can be established. If any PCBs exist, a strategy needs to be carefully and proactively developed in coordination with the Aquarium.	
S-2	S-2.16	Fox	DEEP	5.3.18	Page 3-160 discusses contaminants associated with railroad maintenance and operations, but does not include PCBs, which are often associated with rail lines. Page 3-84 states that "CTDOT will conduct a sampling program during final design to characterize the river sediments at the bridge site." Testing for PCBs should be included in this sampling program in order to avoid cost overruns and delays later, if PCBs were to be found once the project is underway.	

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**Hazardous and Contaminated Materials**

O-12	O-12.15	Davis	The Maritime Aquarium	5.3.18	The Aquarium will require detailed information about the location of any stockpiles of hazardous materials or contaminants that may be located in the vicinity of the Aquarium, what those stockpiles will contain, and how they will be sampled, monitored and maintained in order to develop any required mitigation measures.	At this level of design, CTDOT does not have plans to stockpile any hazardous materials or contaminants near the Aquarium. CTDOT will abide by state and federal requirements for handling, stockpiling and disposal of hazardous and contaminated materials, and coordinate with the Aquarium should anything be temporarily stored nearby.
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O-12	O-12.16	Davis	The Maritime Aquarium	5.3.18	The Aquarium will require detailed information regarding any proposed dewatering activities in the vicinity of the Aquarium in order to develop any required mitigation measures.	At this level of design, CTDOT does not have plans to conduct dewatering activities in the vicinity of the Aquarium. Once the design is advanced and contractor's construction means and methods are established, CTDOT will have a better understanding of planned dewatering. Any dewatering activities will be subject to project specifications for handling and disposal.
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## Historic Elements

C-2	C-2.02	Westmoreland	Norwalk Historical Commission	3.22.1	However, in both reports, we believe that the Area of Project Effect (APE) is significantly understated and only addresses the historic districts that are immediately adjacent to the bridge....The APE area should include the other historic districts in the area such as the Golden Hill Historic District that are clearly in the view shed of the proposed massive lift bridge.	The Connecticut State Historic Preservation Office (CTSHPO) concurred with the Federal Transit Administration's (FTA's) determination of the project's Area of Potential Effect (APE) as defined in the EA/EIE. CTSHPO concurred with FTA's determination that the project constitutes an adverse effect to historic properties, identified in the EA/EIE as historic features associated with this portion of the rail corridor within the APE (consisting of Walk Bridge, Fort Point Street Bridge, masonry walls, high towers and catenary support structures). Additionally, CTSHPO concurred with the project's Memorandum of Agreement (MOA), which identifies twelve separate stipulations for the project.
C-2	C-2.03	Westmoreland	Norwalk Historical Commission	3.22.3	Included in Appendix 1 is a proposed MOA for mitigation of historical and archaeological resources. We deem this proposal to be entirely inadequate given the total destruction of the resource itself as well as the adverse impact the new bridge will have on the character of the Historic districts south of 1-95. ... We have included below a list of mitigation measures that we believe more adequately mitigates the total loss of the iconic Walk Bridge:	
C-11	C-11.02	Stocker	Economic Development Department	3.22	The report raises Section 106 concerns as it does not adequately address mitigation for the adverse impact of a lost historic asset nor does it factually identify the related historic assets that will be lost as a direct result of the project. Reference is to the high towers and red stone bridge abutments that must be removed in conjunction with the replacement of the Walk Bridge.... The Area of Project Effect (APE) identified in the report is significantly understated as it does not take into account the loss of the high towers or the nearby historic rail bridges (Ann Street, Fort Point Street, Osborne & East Avenues) that will be replaced/repared in conjunction with the replacement of the Walk Bridge. The report does not identify the impact that the loss of the towers or the Walk Bridge may have upon the adjacent historic areas or up river where views from the historic Mill Hill Park or Wall Street area will be impacted. The MOA that is included in the report does not provide adequate mitigation for the "adverse impact" from the loss of these historic assets. I wish to support the mitigation proposal set forth by the Norwalk Historical Commission. We ask that DOT work with together with the City and its representatives to develop a new iconic asset.	<p>The State Register-listed Golden Hill Historic District is located approximately one-half mile west of the proposed replacement bridge. The railroad right-of-way, in the form of the high towers, can be viewed from portions of the historic district, but it does not make up an important part of the district's overall setting, nor is the railroad closely related historically to the development of the district (the State Register documentation does not mention the railroad). Mill Hill Park and the Wall Street are located more than one mile north of the proposed replacement bridge. While the railroad right-of-way, in the form of the high towers, may be viewed from portions of these areas, it makes up a very small part of the viewshed, which includes a substantial amount of modern construction such as I-95 and recently constructed multistory buildings. In order to affect the historic resources in question, the railroad right-of-way would have to constitute a major part of the resources' setting, which is not the case. Other historic districts much closer to the project (Haviland and Elizabeth Streets-Hanford Place, Seaview Avenue) were evaluated for possible effects in the Historic Resources Evaluation Report (AHS, Inc., August 2016), but it was recommended that these districts be excluded from the APE because the possibility of indirect visual effects was so minimal. It can be reasonably expected that the visual effects of the project on the Golden Hill Historic District, upriver historic properties, and other similarly-distanced Norwalk historic properties will be even less, and therefore it was proper to exclude them from the APE.</p> <p>The Historic Resources Evaluation Report and Section 3.22 of the EA/EIE noted that the removal and replacement of Walk Bridge and the removal of the high towers will have an indirect (visual) Adverse Effect on the settings of two historic districts</p>

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						<p>immediately adjacent to the railroad right-of-way: the National Register-listed South Main and Washington Streets Historic District and the National Register-potentially eligible Industrial Buildings Historic District (the former Norwalk Lock Company buildings and the former Norwalk Iron Works complex). The report recommended that the visual effect of introducing new construction to the National Register-listed Historic District's setting would not be considered adverse if the design of the new bridge is such that it maximizes its visual compatibility with the historic district.</p> <p>Through participation in individual agency meetings and charrettes, CTDOT coordinated with local historic stakeholders, including the Norwalk Historical Commission; the Federal Transit Administration (FTA); and the Connecticut State Historic Preservation Office (CTSHPO) to finalize the mitigation measures to address adverse effects to above-ground resources, including the loss of the National Register-listed Walk Bridge and the adverse effects to railroad features contributing to an eligible linear historic district. Appendix B contains the final Section 106 MOA, which has been signed by CTDOT, CTSHPO and FTA as signatory parties and stakeholder groups and Tribal Historic Preservation Officers (THPOs) as invited concurring parties. The MOA for the project identifies twelve separate stipulations for the project. CTDOT will finalize the mitigation measures to address adverse effects to archaeological resources, should they be identified, based upon the continued investigations and assessment of underground resources as stipulated in the Archaeological Treatment Plan (Appendix A of the MOA).</p> <p>The Ann Street Bridge, Osborne Street Bridge, and East Avenue Bridge are not part of the Walk Bridge Replacement Project. The partial replacement of Ann Street Bridge is part of the Danbury Dock Yard Improvements Project (Refer to Appendix F-3). A separate Historic Resources Evaluation Report (AHS, Inc., October 2016), a recommended Effects Finding, and MOA have been prepared as part of that project. To take advantage of the planned two-track outages on the New Haven Line (NHL), CTDOT is coordinating construction activities of the Osborne Street Bridge and the East Avenue Bridge and associated roadway with the Walk Bridge Replacement Project (Refer to Appendix F-4). CTDOT is completing Section 106 reviews of both these projects independent of the Walk Bridge Replacement Project.</p>
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Historic Elements continued

C-2	C-2.04	Westmoreland	Norwalk Historical Commission	3.22.3	<p>Proposed Mitigation: Because of its direct association with the development of the railroad system in Connecticut, we are recommending that the Lockwood Mathews Mansion host exhibits and education programs associated with the Walk Bridge and the development of Connecticut's railroad system. The builder of the mansion, which is listed on the National Register of Historic Places and has "Landmark" status, LeGrand Lockwood developed the Danbury line and was a competitor of Cornelius Vanderbilt, who later gained control of the Lockwood Mathews Mansion by buying his mortgages.</p> <p>In order to accomplish this, we need the DOT to implement: the remaining phases of the State Historic Preservation Office approved Master Plan of Preservation for the Lockwood Mathews Mansion dated September 9, 2008, which includes mechanical upgrades electrical, HVAC, sprinklers, emergency lighting, etc.; to preserve and restore the existing finishes in the first floor rooms including the Billiards room, the Dining room, the grand staircase (first and second floor), the bathroom, the coatroom, all exterior doors; restoration of the gas lights on the first floor and in the servant's quarters; develop exhibits and education programs, including a model curriculum of the development of the railroad system in the state of Connecticut, to be hosted by the Lockwood Mathews Mansion, the SONO Switch Tower Museum, and the City of Norwalk Historical Commission; and provide for documentation and filming of the process of dismantling the old bridge and construction of the new bridge to be included in the exhibit and/or programs.</p>	<p>The Memorandum of Agreement (MOA) includes the development of exhibits for the project, one of which will focus on the history of the railroad, especially Walk Bridge. The MOA specifies that an exhibit will be developed that could be accommodated in any of the historical museums in the city of Norwalk. Refer to Appendix B.</p> <p>CTDOT acknowledges the relationship of LeGrand Lockwood to the development of railroads in the area. CTDOT has determined that to the maximum amount practicable, mitigation measures for the loss of the landmark structure will be public in their scope and availability to the Norwalk community, particularly the South Norwalk and East Norwalk neighborhoods. To that end, CTDOT has determined that Section 106 mitigation associated with the Lockwood-Mathews Mansion will be related to historic, publicly visible, and publicly accessible elements of the mansion and grounds (Mathews Park). CTDOT has determined that interior improvements or renovations of the Lockwood-Mathews Mansion or structures that are part of the estate are not appropriate mitigation measures for the project.</p>
O-10	O-10.01	Green	Cultural Alliance Of Fairfield County	3.22	<p>Because of its direct association with the development of the railroad system in Connecticut, we are recommending that the Lockwood Mathews Mansion host exhibits and education programs associated with the Walk Bridge and the development of Connecticut's railroad system. The builder of the mansion, which is listed on the National Register of Historic Places and has "Landmark" status, LeGrand Lockwood developed the Danbury line and was a competitor of Cornelius Vanderbilt, who later gained control of the Lockwood Mathews Mansion by buying his mortgages.</p> <p>In order to accomplish this, we need the DOT to implement: the remaining phases of the State Historic Preservation Office approved Master Plan of Preservation for the Lockwood Mathews Mansion dated September 9, 2008, which includes mechanical upgrades electrical, HVAC, sprinklers, emergency lighting, etc.; to preserve and restore the existing finishes in the first floor rooms including the Billiards room, the Dining room, the grand staircase (first and second floor), the bathroom, the coatroom, all exterior doors; restoration of the gas lights on the first floor and in the servant's quarters; develop exhibits and education programs, including a model curriculum of the development of the railroad system in the state of Connecticut, to be hosted by the Lockwood Mathews Mansion, the SONO Switch Tower Museum, and the City of Norwalk Historical Commission; and provide for documentation and filming of the</p>	

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					process of dismantling the old bridge and construction of the new bridge to be included in the exhibit and/or programs.	
O-11	O-11.02	Einstein Bryant	Center for Contemporary Printmaking	3.22.4	<p>Because of its direct association with the development of the railroad system in Connecticut, we are recommending that the Lockwood Mathews Mansion host exhibits and education programs associated with the Walk Bridge and the development of Connecticut's railroad system. The builder of the mansion, which is listed on the National Register of Historic Places and has "Landmark" status, LeGrand Lockwood developed the Danbury line and was a competitor of Cornelius Vanderbilt, who later gained control of the Lockwood Mathews Mansion by buying his mortgages.</p> <p>In order to accomplish this, we need the DOT to implement: the remaining phases of the State Historic Preservation Office approved Master Plan of Preservation for the Lockwood Mathews Mansion dated September 9, 2008, which includes mechanical upgrades electrical, HVAC, sprinklers, emergency lighting, etc.; to preserve and restore the existing finishes in the first floor rooms including the Billiards room, the Dining room, the grand staircase (first and second floor), the bathroom, the coatroom, all exterior doors; restoration of the gas lights on the first floor and in the servant's quarters; develop exhibits and education programs, including a model curriculum of the development of the railroad system in the state of Connecticut, to be hosted by the Lockwood Mathews Mansion, the SONO Switch Tower Museum, and the City of Norwalk Historical Commission; and provide for documentation and filming of the process of dismantling the old bridge and construction of the new bridge to be included in the exhibit and/or programs.</p>	
O-13	O-13.01	Jellerette	Norwalk Historical Society	3.22.4	<p>Because of its direct association with the development of the railroad system in Connecticut, we are recommending that the Lockwood Mathews Mansion host exhibits and education programs associated with the Walk Bridge and the development of Connecticut's railroad system. The builder of the mansion, which is listed on the National Register of Historic Places and has "Landmark" status, LeGrand Lockwood developed the Danbury line and was a competitor of Cornelius Vanderbilt, who later gained control of the Lockwood Mathews Mansion by buying his mortgages.</p> <p>In order to accomplish this, we need the DOT to implement: the remaining phases of the State Historic Preservation Office approved Master Plan of Preservation for the Lockwood Mathews Mansion dated September 9, 2008, which includes mechanical upgrades electrical, HVAC, sprinklers, emergency lighting, etc.; to preserve and restore the existing finishes in the first floor rooms including the Billiards room, the Dining room, the grand staircase (first and second floor), the bathroom, the coatroom, all exterior doors; restoration of the gas lights on the first floor and in the servant's quarters; develop exhibits and education programs, including a model curriculum of the development of the railroad system in the state of Connecticut, to be hosted by the Lockwood Mathews Mansion, the SONO Switch Tower Museum, and the City of Norwalk Historical Commission; and provide for documentation and filming of the</p>	

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					process of dismantling the old bridge and construction of the new bridge to be included in the exhibit and/or programs.	
O-14	O-14.01	Saunders	Historical Perspectives, Inc.	3.22.4	<p>Because of its direct association with the development of the railroad system in Connecticut, we are recommending that the Lockwood Mathews Mansion host exhibits and education programs associated with the Walk Bridge and the development of Connecticut's railroad system. The builder of the mansion, which is listed on the National Register of Historic Places and has "Landmark" status, LeGrand Lockwood developed the Danbury line and was a competitor of Cornelius Vanderbilt, who later gained control of the Lockwood Mathews Mansion by buying his mortgages.</p> <p>In order to accomplish this, we need the DOT to implement: the remaining phases of the State Historic Preservation Office approved Master Plan of Preservation for the Lockwood Mathews Mansion dated September 9, 2008, which includes mechanical upgrades electrical, HVAC, sprinklers, emergency lighting, etc.; to preserve and restore the existing finishes in the first floor rooms including the Billiards room, the Dining room, the grand staircase (first and second floor), the bathroom, the coatroom, all exterior doors; restoration of the gas lights on the first floor and in the servant's quarters; develop exhibits and education programs, including a model curriculum of the development of the railroad system in the state of Connecticut, to be hosted by the Lockwood Mathews Mansion, the SONO Switch Tower Museum, and the City of Norwalk Historical Commission; and provide for documentation and filming of the process of dismantling the old bridge and construction of the new bridge to be included in the exhibit and/or programs.</p>	
O-15	O-15.02	Brescia	Lockwood-Mathews Mansion Museum	3.22.4	<p>Because of its direct association with the development of the railroad system in Connecticut, we are recommending that the Lockwood Mathews Mansion host exhibits and education programs associated with the Walk Bridge and the development of Connecticut's railroad system. The builder of the mansion, which is listed on the National Register of Historic Places and has "Landmark" status, LeGrand Lockwood developed the Danbury line and was a competitor of Cornelius Vanderbilt, who later gained control of the Lockwood Mathews Mansion by buying his mortgages.</p> <p>In order to accomplish this, we need the DOT to implement: the remaining phases of the State Historic Preservation Office approved Master Plan of Preservation for the Lockwood Mathews Mansion dated September 9, 2008, which includes mechanical upgrades electrical, HVAC, sprinklers, emergency lighting, etc.; to preserve and restore the existing finishes in the first floor rooms including the Billiards room, the Dining room, the grand staircase (first and second floor), the bathroom, the coatroom, all exterior doors; restoration of the gas lights on the first floor and in the servant's quarters; develop exhibits and education programs, including a model curriculum of the development of the railroad system in the state of Connecticut, to be hosted by the Lockwood Mathews Mansion, the SONO Switch Tower Museum, and the City of Norwalk Historical Commission; and provide for documentation and filming of the</p>	

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C-2	C-2.05	Westmoreland	Norwalk Historical Commission	3.22.3	Mitigation: Salvage and reuse brownstone from abutments to be demolished in the new bridge construction in place of stamped concrete, even if just used as a veneer.	CTDOT will evaluate the feasibility of salvaging and reusing/repurposing the stone masonry from the existing bridge abutments that will be demolished in the construction of the replacement bridge. If reuse is not feasible, then CTDOT will attempt to solicit interest from the City of Norwalk or historic groups in obtaining the stone masonry to be used for public education purposes. A list of institutions that may be interested in obtaining salvaged materials from the project is included as Appendix B in the draft MOA. This mitigation measure is incorporated into the revised MOA. Refer to Appendix B.
O-9	O-9.02	Bryant	Norwalk Preservation Trust	3.22.4	If the bridge and its associated elements must be demolished, we request the following mitigation measures, as well as those suggested by other stakeholders, be implemented: 1. Leave historic granite or Portland, Connecticut, brownstone abutments in place whenever possible or remove and reuse them as part of the visible structure of new abutments.	
O-9	O-9.03	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 2. If the existing granite or brownstone structure must be replaced with concrete, face the concrete with the original rusticated stone to maintain the historic look of the abutment as much as possible.	
O-10	O-10.02	Green	Cultural Alliance Of Fairfield County	3.22	Salvage and reuse brownstone from abutments to be demolished in the new bridge construction in place of stamped concrete, even if just used as a veneer.	
O-11	O-11.03	Einstein Bryant	Center for Contemporary Printmaking	3.22.4	Salvage and reuse brownstone from abutments to be demolished in the new bridge construction in place of stamped concrete, even if just used as a veneer.	
O-13	O-13.02	Jellerette	Norwalk Historical Society	3.22.4	Salvage and reuse brownstone from abutments to be demolished in the new bridge construction in place of stamped concrete, even if just used as a veneer.	
O-14	O-14.02	Saunders	Historical Perspectives, Inc.	3.22.4	Salvage and reuse brownstone from abutments to be demolished in the new bridge construction in place of stamped concrete, even if just used as a veneer.	
O-15	O-15.03	Brescia	Lockwood-Mathews Mansion Museum	3.22.4	Salvage and reuse brownstone from abutments to be demolished in the new bridge construction in place of stamped concrete, even if just used as a veneer.	

C-2	C-2.06	Westmoreland	Norwalk Historical Commission	3.22.3	Mitigation: Provide for the funding and development of exhibits and education programs, incorporating the archaeological and geological findings from the project with the Norwalk Historical Society and the City of Norwalk Historical Commission. This could include a model curriculum for southwestern Connecticut geology and American Indian habitation to be used by other Historical Societies and educators in Connecticut.	CTDOT will provide resources for the development of a maximum of two (2) exhibits and/or education programs for institutions and educators in the community, including the Maritime Aquarium. Following consultation with and approval by FTA and CTSHPD, CTDOT shall oversee the development and implementation of the exhibits and/or education programs. One exhibit will focus on historic and current movable bridge engineering, including information about the extant Walk Bridge, earlier rail bridges at this location, and the new lift bridge. A second exhibit will focus on the history of the railroad in the city of Norwalk, especially Walk Bridge and the archaeological work conducted as part of the project. This mitigation measure is incorporated into the MOA. Refer to Appendix B.
O-9	O-9.06	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 5. Fully fund the creation of a curriculum that addresses the impact of the railroad on Norwalk and the rest of the Connecticut coast.	
O-9	O-9.08	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 7. Fully fund an exhibit at the Norwalk Historical Society Museum on the bridge, catenary system and high towers using HABS/HAER and other archival material, as well as new photography and other documentation.	

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Historic Elements continued

O-9	O-9.09	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 8. Fully fund a curriculum for Norwalk schools and an associated exhibit at the Norwalk Historical Society Museum based on archaeological work done on the site of the Native American site south of the bridge.	
O-9	O-9.14	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 13. Fully fund an exhibit at the Norwalk Historical Society Museum based on the findings at the train wreck site.	
O-10	O-10.03	Green	Cultural Alliance Of Fairfield County	3.22	Provide for the funding and development of exhibits and education programs, incorporating the archaeological and geological findings from the project with the Norwalk Historical Society and the City of Norwalk Historical Commission. This could include a model curriculum for southwestern Connecticut geology and American Indian habitation to be used by other Historical Societies and educators in Connecticut.	
O-11	O-11.04	Einstein Bryant	Center for Contemporary Printmaking	3.22.4	Provide for the funding and development of exhibits and education programs, incorporating the archaeological and geological findings from the project with the Norwalk Historical Society and the City of Norwalk Historical Commission. This could include a model curriculum for southwestern Connecticut geology and American Indian habitation to be used by other Historical Societies and educators in Connecticut.	
O-13	O-13.03	Jellerette	Norwalk Historical Society	3.22.4	Provide for the funding and development of exhibits and education programs, incorporating the archaeological and geological findings from the project with the Norwalk Historical Society and the City of Norwalk Historical Commission. This could include a model curriculum for southwestern Connecticut geology and American Indian habitation to be used by other Historical Societies and educators in Connecticut.	
O-14	O-14.03	Saunders	Historical Perspectives, Inc.	3.22.4	Provide for the funding and development of exhibits and education programs, incorporating the archaeological and geological findings from the project with the Norwalk Historical Society and the City of Norwalk Historical Commission. This could include a model curriculum for southwestern Connecticut geology and American Indian habitation to be used by other Historical Societies and educators in Connecticut.	
O-15	O-15.04	Brescia	Lockwood-Mathews Mansion Museum	3.22.4	Provide for the funding and development of exhibits and education programs, incorporating the archaeological and geological findings from the project with the Norwalk Historical Society and the City of Norwalk Historical Commission. This could include a model curriculum for southwestern Connecticut geology and American Indian habitation to be used by other Historical Societies and educators in Connecticut.	

C-2	C-2.07	Westmoreland	Norwalk Historical Commission	3.22.3	Mitigation: Restore the original iron fencing, gates, and associated masonry at the original entrance to the Lockwood Mathews Mansion along West Avenue.	CTDOT will provide resources for the restoration of the original iron fencing, gates, and associated masonry at the original entrance to the Lockwood-Mathews Mansion on West Avenue in Mathews Park (Norwalk). CTDOT will work with the City of Norwalk, the Norwalk Historical Commission, and the Lockwood Mathews Mansion Museum to develop the scope for the restoration of the original fencing, gates and associated masonry.
O-10	O-10.04	Green	Cultural Alliance Of Fairfield County	3.22	Restore the original iron fencing, gates, and associated masonry at the original entrance to the Lockwood Mathews Mansion along West Avenue.	

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Historic Elements continued

O-11	O-11.05	Einstein Bryant	Center for Contemporary Printmaking	3.22.4	Restore the original iron fencing, gates, and associated masonry at the original entrance to the Lockwood Mathews Mansion along West Avenue.	This mitigation measure is incorporated into the MOA. Refer to Appendix B.
O-13	O-13.04	Jellerette	Norwalk Historical Society	3.22.4	Restore the original iron fencing, gates, and associated masonry at the original entrance to the Lockwood Mathews Mansion along West Avenue.	
O-14	O-14.04	Saunders	Historical Perspectives, Inc.	3.22.4	Restore the original iron fencing, gates, and associated masonry at the original entrance to the Lockwood Mathews Mansion along West Avenue.	
O-15	O-15.05	Brescia	Lockwood-Mathews Mansion Museum	3.22.4	Restore the original iron fencing, gates, and associated masonry at the original entrance to the Lockwood Mathews Mansion along West Avenue.	

C-2	C-2.08	Westmoreland	Norwalk Historical Commission	3.22.3	Mitigation: Provide an elevator and ADA accessible bathroom at the Lockwood Mathews Mansion Carriage House.	CTDOT acknowledges the relationship of LeGrand Lockwood to the development of railroads in the area. CTDOT has determined that to the maximum amount practicable, mitigation measures for the loss of the landmark structure will be public in their scope and availability to the Norwalk community, particularly the South Norwalk and East Norwalk neighborhoods. To that end, CTDOT has determined that Section 106 mitigation associated with the Lockwood-Mathews Mansion will be related to historic, publicly visible, and publicly accessible elements of the mansion and grounds (Mathews Park). CTDOT has determined that interior improvements or renovations of the Lockwood-Mathews Mansion or structures that are part of the estate are not appropriate mitigation measures for the project.
O-10	O-10.05	Green	Cultural Alliance Of Fairfield County	3.22	Provide an elevator and ADA accessible bathroom at the Lockwood Mathews Mansion Carriage House.	
O-11	O-11.06	Einstein Bryant	Center for Contemporary Printmaking	3.22.4	Provide an elevator and ADA accessible bathroom at the Lockwood Mathews Mansion Carriage House.	
O-13	O-13.05	Jellerette	Norwalk Historical Society	3.22.4	Provide an elevator and ADA accessible bathroom at the Lockwood Mathews Mansion Carriage House.	
O-14	O-14.05	Saunders	Historical Perspectives, Inc.	3.22.4	Provide an elevator and ADA accessible bathroom at the Lockwood Mathews Mansion Carriage House.	
O-15	O-15.06	Brescia	Lockwood-Mathews Mansion Museum	3.22.4	Provide an elevator and ADA accessible bathroom at the Lockwood Mathews Mansion Carriage House.	
C-2	C-2.09	Westmoreland	Norwalk Historical Commission	3.22.3	Mitigation: Provide exterior ADA access to the Lockwood Mathews Mansion Gate Lodge.	
O-10	O-10.06	Green	Cultural Alliance Of Fairfield County	3.22	Provide exterior ADA access to the Lockwood Mathews Mansion Gate Lodge.	
O-11	O-11.07	Einstein Bryant	Center for Contemporary Printmaking	3.22.4	Provide exterior ADA access to the Lockwood Mathews Mansion Gate Lodge.	
O-13	O-13.06	Jellerette	Norwalk Historical Society	3.22.4	Provide exterior ADA access to the Lockwood Mathews Mansion Gate Lodge.	

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**Historic Elements continued**

O-14	O-14.06	Saunders	Historical Perspectives, Inc.	3.22.4	Provide exterior ADA access to the Lockwood Mathews Mansion Gate Lodge.	
O-15	O-15.07	Brescia	Lockwood-Mathews Mansion Museum	3.22.4	Provide exterior ADA access to the Lockwood Mathews Mansion Gate Lodge.	

C-2	C-2.10	Westmoreland	Norwalk Historical Commission	3.22.3	Mitigation: List Liberty Square on the National Register of Historic Places.	CTDOT will prepare documentation for listing the potentially eligible Liberty Square Historic District on the National Register of Historic Places. The Liberty Square Historic District to be listed is defined in Section 3.22.2 of the EA/EIE and consists of a row of late 19th-century and early 20th-century commercial buildings in East Norwalk. CTDOT shall submit the documentation to CTSHPD for submittal to the National Park Service in accordance with the requirements of the National Register of Historic Places. The documentation shall be available for permanent archiving and public accessibility. This mitigation measure is incorporated into the MOA. Refer to Appendix B.
O-9	O-9.04	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 3. Fully fund the listing of Liberty Square in the National Register of Historic Places.	
O-10	O-10.07	Green	Cultural Alliance Of Fairfield County	3.22	List Liberty Square on the National Register of Historic Places.	
O-11	O-11.08	Einstein Bryant	Center for Contemporary Printmaking	3.22.4	List Liberty Square on the National Register of Historic Places.	
O-13	O-13.07	Jellerette	Norwalk Historical Society	3.22.4	List Liberty Square on the National Register of Historic Places.	
O-14	O-14.07	Saunders	Historical Perspectives, Inc.	3.22.4	List Liberty Square on the National Register of Historic Places.	
O-15	O-15.08	Brescia	Lockwood-Mathews Mansion Museum	3.22.4	List Liberty Square on the National Register of Historic Places.	

C-2	C-2.11	Westmoreland	Norwalk Historical Commission	3.22.3	Mitigation: Provide interpretive signage regarding the Walk Bridge, development of the railroad in Norwalk and Connecticut located along DOT provided pedestrian and bike paths on both the east and west sides of the Norwalk river near the bridge	CTDOT will prepare permanent interpretive panels for outdoor display in the city of Norwalk that will be available for viewing by the public. It is anticipated that the subject of the panels will be related to the history of Walk Bridge, the railroad, railroad engineering and transportation history in Connecticut. CTDOT will consult with the City of Norwalk and the local historic stakeholders regarding the content and locations of the interpretive panels. A maximum of ten (10) panels will be prepared and installed. This mitigation measure is incorporated into the MOA. Refer to Appendix B.
O-9	O-9.11	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 10 Fully fund permanent interpretive plaques that illustrate the bridge and its construction to be placed in view of the new bridge.	
O-10	O-10.08	Green	Cultural Alliance Of Fairfield County	3.22	Provide interpretive signage regarding the Walk Bridge, development of the railroad in Norwalk and Connecticut located along DOT provided pedestrian and bike paths on both the east and west sides of the Norwalk river near the bridge	
O-11	O-11.09	Einstein Bryant	Center for Contemporary Printmaking	3.4.4	Provide interpretive signage regarding the Walk Bridge, development of the railroad in Norwalk and Connecticut located along DOT provided pedestrian and bike paths on both the east and west sides of the Norwalk river near the bridge	

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Historic Elements continued

O-13	O-13.08	Jellerette	Norwalk Historical Society	3.4.4	Provide interpretive signage regarding the Walk Bridge, development of the railroad in Norwalk and Connecticut located along DOT provided pedestrian and bike paths on both the east and west sides of the Norwalk river near the bridge	
O-14	O-14.08	Saunders	Historical Perspectives, Inc.	3.4.4	Provide interpretive signage regarding the Walk Bridge, development of the railroad in Norwalk and Connecticut located along DOT provided pedestrian and bike paths on both the east and west sides of the Norwalk river near the bridge.	
C-3	C-3.31	Mobilia	Norwalk Harbor Management Commission	3.4	Interpretive signage with information on the history and environment of the Norwalk River and Harbor, similar to the signage at Veteran's Park and the Heritage Park walkway, should be provided to enhance public use and enjoyment of the Bikeway and Linear Park in the vicinity of the railroad bridge.	
O-15	O-15.09	Brescia	Lockwood-Mathews Mansion Museum	3.4.4	Provide interpretive signage regarding the Walk Bridge, development of the railroad in Norwalk and Connecticut located along DOT provided pedestrian and bike paths on both the east and west sides of the Norwalk river near the bridge.	

E-4	E-4.06	Third Taxing District	Norwalk's Third Taxing District	3.22	<p>Historic and Cultural Resources: Though the project calls for the replacement of the bridge, which is listed on the National Register of Historic Places, this is not listed as a significant impact in the report.</p> <p>Mitigation for historical and archaeological impacts is limited working with historical "stakeholders" to develop mitigation plans. It may be inappropriate to demolish the Walk Bridge as a historic structure, especially if restoration could accomplish the goals and needs of the project at a lesser cost.</p>	<p>The term "significance" is defined differently under the National Environmental Policy Act (NEPA) and under Section 106 of the National Historic Preservation Act of 1966, as amended. (Section 106). Under NEPA, "significance" is used to describe the level of impact a proposed action may have; context and intensity have to be evaluated when assessing significance. Under Section 106, "significance" is used to describe the historic resource that has certain character-defining features that make it historically significant and therefore eligible for listing in the National Register of Historic Places. Per Section 106, an Adverse Effect is defined as an alteration to the characteristics of an historic property that qualify it for inclusion in the National Register in a manner that would diminish its integrity (such as demolition of that resource). CTDOT conducted an evaluation of the impact of the project upon existing historic resources in compliance with Section 106. The replacement of Walk Bridge is identified as an Adverse Effect upon Walk Bridge.</p> <p>Under Section 106, mitigation measures are developed with stakeholders, defined as parties that have consultative roles in the Section 106 process. Section 106 stakeholders include the CTSHPO, Tribal Historic Preservation Officers (THPOs); Indian Tribes, representatives of local governments; and individuals and organizations with a demonstrated interest in the undertaking or the affected historic property, such as the Norwalk Preservation Trust and the Norwalk Historical Society. The draft Memorandum of Agreement (MOA), which contains a list of mitigation measures, was included as Appendix 1 of the EA/EIE. The public's opportunity to review and comment upon the MOA</p>
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<b>Historic Elements continued</b>						
						<p>occurred during the public comment period. The final approved MOA is included in Appendix B.</p> <p>Regarding the restoration of the structure, after thorough consideration and analysis, the Rehabilitation Alternative was not advanced for further evaluation beyond the initial screening process. Refer to Appendix F-1.</p>
O-9	O-9.05	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 4. Fully fund the listing of the former Norwalk Lock Company building in the National Register of Historic Places	The former Norwalk Lock Company property was individually determined eligible for the National Register of Historic Places by the Connecticut State Historic Preservation Office (CTSHPO) in 2000. Consequently, the Memorandum of Agreement (MOA) does not include this request as a mitigation measure.
O-9	O-9.07	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 6. Fully fund a multi-day event to celebrate the bridge and the high towers to take place during or just before and after their demolition.	CTDOT is supportive of an event to commemorate Walk Bridge and the initiation of the Walk Bridge Replacement Project. CTDOT will explore opportunities for collaborating on an event with the City of Norwalk, local historic stakeholders, and the community as part of its ongoing community outreach efforts.
O-9	O-9.10	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 9. Make significant parts of the bridge, catenary system and high towers available for use by a qualified artist to create a work of art funded by the Connecticut Art in Public Spaces Program.	CTDOT is receptive to considering opportunities for salvaging certain architectural/engineering components of Walk Bridge for donation to the City of Norwalk, community organizations, and/or historic institutions. The MOA includes a stipulation that CTDOT will attempt to solicit interest from the City and historic groups in obtaining salvaged material from the project, such as the catenary structures, to be used for public education purposes. Refer to Appendix B.
O-9	O-9.13	Bryant	Norwalk Preservation Trust	3.22.4	Mitigation: 12 Carry out underwater archaeology at the site of the 1853 train wreck.	As presented in EA/EIE Section 3.22.3, CTDOT is conducting underwater archaeology testing as part of its cultural resources investigations. Figure 3-61 shows the proposed vibracore and hand-auger testing locations. CTDOT is evaluating the data to determine the potential for intact cultural resources in underwater, riverbank, and intertidal parcels identified for project use, and, as required, the need for additional archaeological assessments. Some of the areas proposed for testing are located within or close to the site of 1853 train wreck.
F-3	F-3.02	Lazinsky	U.S. Department of Interior	9.0	The measures to minimize harm must be explicitly consistent with the Memorandum of Agreement under development in consultation by the Federal Transit Administration, the Connecticut State Historic Preservation Office, and the Connecticut Department of Transportation	CTDOT developed mitigation measures for the adverse impacts to historic resources, in cooperation with the FTA, CTSHPO and local historic stakeholders. The measures to minimize harm are consistent with the signed Memorandum of Agreement (MOA), included in Appendix B. Additionally, the Measures to Minimize Harm section relative to the Section 4(f) Evaluation is explicitly consistent with the MOA.

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## Navigation Status/Navigability

B-4	B-4.02	Devine	Devine Brothers Inc.	3.17	It is vital, therefore, that the Norwalk River remain open in order to retain property values along its banks and continue as a designated Federal Navigable Channel so it can be used by interstate commerce as it has been for over 100 years.	<p>The project Purpose and Need includes a clause to maintain or improve navigational capacity and dependability for marine traffic in the Norwalk River in recognition of the fact that the existing Walk Bridge crosses a federally-maintained and designated navigable waterway, and accommodating marine traffic is a transportation function that the project is intended to address, together with accommodating rail traffic. CTDOT developed the project Purpose and Need, working closely with the Federal Transit Administration (FTA), federal and state agencies, and the City of Norwalk, based upon an expectation of the continuation of marine traffic through the project area.</p> <p>Other than during short periods during construction, the project does not include any provisions for restricting navigation of the Norwalk River. The project does not include any provisions for altering the designation of the river as a federal navigation project.</p>
I-22	I-22.02	Schmerch	Individual	3.2.2	I believe the river should be kept as a navigation channel.	
I-23	I-23.02	Corkutt	Individual	3.2.3	I believe it is important for Norwalk & property values that the bridge allows full navigation of the Norwalk River.	
C-3	C-3.01	Mobilia	Norwalk Harbor Management Commission	3.2	The EA/EIE incorrectly identifies the Walk Bridge as the northern boundary of Norwalk Harbor.	Section 3.2 of the EA/EIE states that Walk Bridge is located within the City of Norwalk's Inner Harbor and provides a definition of the Inner Harbor from the Norwalk Harbor Management Plan. Per the NHMP, the Norwalk Inner Harbor extends from just south of the Coast Guard Auxiliary Station at Calf Pasture Point to include all coves and embayments to the head of navigation at the Wall Street Bridge.
C-3	C-3.15	Mobilia	Norwalk Harbor Management Commission	5.3.12	Following completion of the Project, the harbor should be returned to its pre-construction conditions without any loss of water-dependent uses or significant adverse impacts on navigation conditions.	<p>It is anticipated that a pre-construction survey will be a permit condition of the U.S. Army Corps of Engineers (USACE) in its issuance of the Section 404 permit. Additionally, USACE requires data in its permit application which likely will require a pre-construction survey, including the existing depths and bottom materials. Barges used to facilitate dredging/construction will be moored away from intertidal flats or set on spuds, and will not be allowed to become grounded upon mudflats at any time during project construction.</p> <p>Navigation conditions are anticipated to improve following completion of the Project, due to the following: improved reliability of bridge operations; a wider horizontal clearance, which will facilitate easier barge and tow operations; and a straightened alignment between Walk Bridge and the Stroffolino Bridge.</p>
C-3	C-3.24	Mobilia	Norwalk Harbor Management Commission	3.2	CT DOT should be responsible for a pre-construction survey of the Norwalk Harbor federal navigation channel, including the entrance channel providing access to the bridge for construction equipment. This survey should establish a baseline of channel conditions to be restored, as necessary, following completion of the Project. No work barges should be permitted to sit on the bottom during any tide cycle; any adverse impacts on channel dimensions, including navigable depth, caused by work barges and other waterborne equipment should be corrected by CT DOT.	

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<b>Navigation Status/Navigability continued</b>						
						<p>CTDOT intends that most of the temporary easements will revert to their current uses. Of the nine parcels to be acquired, one parcel (11 Goldstein Place) is occupied by an existing water-dependent use.</p> <p>CTDOT is guided by Connecticut General Statutes when releasing excess property. Following project completion, any property determined to be in excess of CTDOT's needs will be sold and will be available for development. Regarding the sale of properties with existing water-dependent uses, CTDOT will market the excess property indicating the highest priority and preference for water-dependent use of the site. With approval from the Commissioner of the Department of Energy and Environmental Protection, CTDOT will select the highest bid that best demonstrates an integrated, quality, water-dependent use.</p>
O-7	O-7.07	Kunkel	Norwalk Harbor Keeper	3.2	But the projected growth and gentrification of the City of Norwalk and Fairfield County will force the opening of the Walk Bridge and Stroffolino Bridge to occur at a bare minimum in order to avoid added congestion and delays on both rail and roadway.	CTDOT analysis shows that a replacement movable bridge will not reduce future rail service reliability. On the contrary, the replacement bridge will improve rail service reliability by improving the reliability of the bridge. Furthermore, the operational redundancy provided by the replacement bridge also will improve rail service reliability. It is likely that upon completion of the project, the USCG will maintain a bridge opening schedule that accommodates the rail service commuting periods, as discussed in EA/EIE Section 3.2.2, by restricting openings during commuting periods to emergencies only. As the regulator of the Walk and Stroffolino bridges, the USCG coordinates the openings of both bridges.
C-3	C-3.25	Mobilia	Norwalk Harbor Management Commission	5.3.2	The Route 136 and WALK bridges should be operated in coordination with each other throughout the Project to accommodate vessel traffic in the most efficient manner.	The U.S. Coast Guard (USCG) is responsible for establishing the operating regulations of both bridges, and considers the schedule of the State Route 36 (Stroffolino) Bridge) when determining the opening schedule of Walk Bridge. It is anticipated that the Marine Transportation Plan, to be developed by CTDOT working in coordination with the affected marine-based businesses (Refer to Appendix F-5), will include a bridge opening coordination element. It is likely that upon completion of the project, the USCG will maintain a bridge opening schedule that accommodates the rail service commuting periods, as discussed in EA/EIE Section 3.2.2, by restricting openings during commuting periods to emergencies only.
E-1	E-1.02	Lavielle	CT House of Representatives	3.2, 3.17	Request for document related to project: All documents related to the question of maintaining or discontinuing the status of the waterway as navigable, including, but not limited to, impact on the opinions of the businesses that use the waterway, economic and environmental impacts of maintaining or discontinuing the status, administrative actions necessary for a	The Norwalk River at the Walk Bridge site is designated as a federally-authorized navigation channel. CTDOT did not evaluate the question of maintaining or discontinuing the navigability status of the Norwalk River.

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**Navigation Status/Navigability continued**

					change in status and their feasibility, and any conclusions reached regarding the matter.	<p>The determination to alter the current navigation conditions of the Norwalk River is not within the purview of CT DOT (or the State of Connecticut). The determination to alter the existing navigation conditions of the Norwalk River must be made at the federal level (via an act of US Congress). In 1824, the U.S. Supreme Court ruled that the Commerce Clause of the Constitution granted the federal government the authority not only to regulate navigation and commerce, but also to make necessary navigation improvements. Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) gave the U.S. Army Corps of Engineers (USACE) the responsibility for maintaining the system of harbors and waterways as part of the nation's transportation system. Under Section 14 of the Rivers and Harbors Act of 1899 (33 USC 408), the USACE is responsible for issuing a Section 408 permit for any alteration to the civil works project. Proposed alterations to the civil works project must not affect the project's ability to meet its "authorized purpose," nor can they be injurious to the "public interest." The USACE defines the public interest to include navigation, among other considerations (33 CFR 320.4).</p> <p>Both the USACE and the US Coast Guard (USCG) are charged with protecting and regulating the use of the federal channel: any work affecting the Norwalk River and the federal navigation channel requires permits from the USACE and the USCG. The USACE is responsible for protecting the public interest, defined to include navigation, in its determination to issue permits. In addition to the USACE, the USCG also is responsible for maintaining the maritime interests of the United States, including maintaining navigation clearances provided by any bridge or other structure on the waterway. Under the provisions of the General Bridge Act of 1946 (33 USC 525), which superseded Section 9 of the Rivers and Harbors Act, the USCG is responsible for the review and approval of a proposed structure over a navigable waterway as well as over any action applied toward existing bridges where the ability to meet the current and future needs of navigation may be negatively impacted by such action. As part of its review and approval process, the USCG will evaluate the navigation needs of the Norwalk River, including whether the project will "provide reasonably free, safe, and unobstructed passage for waterborne traffic while considering the needs of land [in this case, rail] transportation." Per USCG guidance, for the purposes of administering its Bridge Program, the USCG indicates that no distinction shall be made between commercial and recreational vessels in the administration and enforcement of laws (USCG Bridge Program, "Reasonable Needs of Navigation White Paper").</p>
I-14	I-14.01	Alexander	Individual	3.2, 2.3	These comprehensive studies and plans are flawed because they are based on the flawed premise that the Norwalk River must be navigable including the part of the river from the Walk Bridge to Wall Street a distance of about one half a mile.	
I-25	I-25.03	Hard	Individual	3.2, 3.17	I recognize that some legal changes may need to occur with respect to the north-of-bridge channel being Federal. But that's a "may" not a certainty, and Rep. Himes has indicated that such a change can be achieved in an event if the community thinks it useful.	
I-26	I-26.02	Burnham	Individual	3.2	The underlying argument here is that it would take an act of Congress to defederalize the upstream waterway. Such an argument is not defensible if our elected Congressional leaders knew the following:	

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Navigation Status/Navigability continued

I-17	I-17.06	Grundman	Individual	3.2	The current channels are about 55 and 58 feet wide. The River north of the Walk Bridge is only about 5 ½ feet deep at low tide. This has worked well for 120 years.	In January 2014, the U.S. Army Corps of Engineers (USACE) completed a three-phase maintenance dredging of the federal navigational channel, consisting of 12-, 10- and 6-foot channels and 10- and 6- foot anchorages, including Norwalk Harbor, Norwalk River, and East Norwalk. The federal channel is 12 feet deep beginning immediately south of the Stroffolino Bridge, extending downstream to the Outer Harbor. At the Stroffolino Bridge and extending upstream to the Wall Street Bridge (and including Walk Bridge), the federal channel is 10 feet deep.
I-5	I-5.02	Schnierlein	Individual	3.2	To start, are we putting the cart before the horse with this bridge project? Before any large-scale construction is planned the issue of dredging the Norwalk River needs to be examined and settled on. After the last dredging of the Norwalk Harbor in 2014, the members of the Harbor Commission were advised by the Army Corps of Engineers that the 2013-14 dredging was probably the last dredging that would be paid for with federal money due to a lack of commerce up river. If this is true, and the Feds, the City of Norwalk, CTDOT, nor anyone else are not going to pay for dredging, then there is no need to plan a movable bridge to last the next 100 + years as large vessels will not be able to go up river after 30 years that would require any opening!!! I don't know how much of a tax increase the Norwalk taxpayers are willing to take on to cover this cost for mostly recreational boaters and someone else's business. Dredging a river is much more expensive than paving a road and it needs to be done more frequently.	The Norwalk River at the Walk Bridge site is designated as a federally-authorized navigation channel. The current project was authorized by the Rivers and Harbors Act of March 2, 1919 and modified by the Rivers and Harbors Act of March 2, 1945.  The U.S. Army Corps of Engineers (USACE) is responsible for maintaining the Congressionally-authorized channel dimensions, including maintenance dredging of the Norwalk River. Further, the USACE is charged with maintaining the "public interest" of the civil works project, which includes, among other interests, navigation (33 CFR 320.4). In January 2014, the USACE completed maintenance dredging of over 500,000 cubic yards of material from the Norwalk River. Prior to this most recent dredging, the USACE conducted maintenance dredging in 1980-81. Future maintenance dredging of the Norwalk River is determined by the US Army Corps of Engineers. The Walk Bridge project will not change the navigational status of the Norwalk River, so federal decisions about dredging would not be affected by the Walk Bridge Replacement Project.
I-25	I-25.05	Hard	Individual	3.2	The ACoE has no intention of dredging north of the bridge for the foreseeable future. Their resources are much too scarce, budgets too tight, and competition elsewhere too fierce. There is no plausible cost-benefit analysis that supports such a dredging program on economic grounds. If we want it dredged (at a cost of about \$4 million, once every ten years), we simply have to find the resources ourselves.	The permanent condition of the Preferred Alternative will reduce constriction at the bridge and will not increase upstream or downstream flooding. The project is subject to Flood Management Certification (FMC) and will not be permitted if not compliant with FMC performance standards. Flood storage capacity will increase and therefore no mitigation is proposed.
S-2	S-2.13	Fox	DEEP	3.2	In addition, there is a perception that the federal government will never again pay for dredging north of the bridge; this should be researched and addressed.	
T-8	T-8.04	Griffin	State of Connecticut Harbor Master for Norwalk	3.2.4	When the Walk Bridge Project is complete, we cannot and must not face a Federal navigation project that no longer qualifies for Federal dredging dollars based on a reduction of river activity north of the Bridge and on the loss of water-dependent businesses. Please don't allow yourselves to think in parts, north or south of the Bridge. If the north upper river appears no longer to be functional, part of the Federal qualifying process will be damaged and we'll face this important question: will the Feds continue to support, with tax dollars, the dredging of our southern portion of the river also.	Dredging will be required at the bridge site to provide the minimum (10-foot) depth of the federally-maintained navigation channel. As shown in Figure 3-4 in the EA/EIE, shallow depths (less than 8 feet) exist at the site of the existing bridge center pivot pier. Removal of the center pivot pier and protective fender system will expose the shallow depths, presenting a hazard to navigation and restricting maneuverability of marine traffic. Therefore, dredging of the shallow depth area is necessary to provide a continuous and safe navigable channel.

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**Navigation Status/Navigability continued**

T-20	T-20.01	King	King Industries	2.3.4	And in the event that dredging is affected by whatever bridge you decide to erect, that actually before you even decide that, let's get a definitive answer on what's going to happen there related to dredging.	The EA/EIE indicates that portions of the river that are not maintained as part of the federal channel will be dredged to match the federal channel depth of ten feet and to tie into the existing 125-foot navigation channel, thereby making the full opening of the new long-span bridge fully navigable. Navigation channel modifications upstream and downstream of the bridge are not proposed.
T-20	T-20.02	King	King Industries	3.9.2	If dredging—and I'm not a biologist or a fluid flow dynamic engineer—if the lack of dredging would change the flow of the river and the flood plain over the course of 20, 30, 50 years, King Industries, we don't plan on moving so we'd be interested to know how that would be... how that would affect us.	
T-10	T-10.01	D'Andrea	Individual	2.3.3	But dredging as a reason to have a certain type of bridge is not right. That's not correct. And reasons for that is first, the Norwalk Navigation Project currently does not meet the Army Corps criteria for Federal funding today. So whether there's a bridge there or not, the cost/benefit analysis doesn't jibe out for the dollars to be spent by the Army Corps...And in the EIS documents, please consider the facts that the dredging cannot be one of the angles that you guys are using that there must be a bridge replacement of a certain type, because dredging payment from the Federal Government will not happen again in my lifetime.	
O-6	O-6.08	Washer	Norwalk River Watershed Association (NRWA)	2.4	NRWA also questions the need for the dredging of a wider navigation channel.	

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## NEPA/CEPA Process

B-10	B-10.02	Bora	Spinnaker Real Estate Partners, LLC	General	A project that costs somewhere between \$460 million and \$1 billion that is forecasted to last from years to 4 years to 7 years needs to have an Environmental Impact Statement completed and vetted by all stakeholders. Sadly, DOT elected to skip this customary and critical step.	<p>National Environmental Policy Act (NEPA) and Connecticut Environmental Policy Act (CEPA) documents are planning-level documents that are prepared at the preliminary design level. This level of design can reasonably assess foreseeable impacts and provide recommendations for mitigating unavoidable impacts, thereby insuring that the environmental impacts of an action are considered by the agency before it issues a decision document and progresses on an action. In accordance with CTDOT's Environmental Classification Document, joint federal/state actions for which EAs are prepared pursuant to NEPA shall be recognized as meeting the CEPA requirements provided that such NEPA documents meet, and are circulated in accordance with, the CEPA document-equivalent requirements.</p> <p>Per FTA guidance (23 CFR 771.118), bridge replacement projects which involve new construction and occupy the same general footprint would normally require a documented Categorical Exclusion (CE), the most common type of NEPA approval that FTA processes. However, due to the nature of the project and potential impacts, CTDOT and FTA jointly determined that the appropriate documentation for the Walk Bridge Replacement Project is an Environmental Assessment (EA). The EA can result in a Finding of No Significant Impact (FONSI), requiring no further environmental evaluation in this first (planning/preliminary design) phase of the project, or it can identify significant impacts that require the preparation of an EIS. The FTA has ultimate authority in the determination of a FONSI or an EIS, based upon the effects reported in the document, public comments and responses to comments, and in consideration of the mitigation that would be implemented for the project. Per FTA guidance, the mitigation measures presented in the FONSI are binding.</p> <p>Note that an Environmental Impact Statement (EIS) is a planning-level document and would also be based upon preliminary design; consequently, there wouldn't necessarily be additional details provided in an EIS as compared to an EA.</p> <p>CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating Construction Period Coordination Plans in close coordination with the City of Norwalk and affected parties.</p>
C-1	C-1.02	Coppola	City of Norwalk Corporation Counsel	General	At this stage, the City does perceive impacts to be significant and substantial; however, the City and its staff are committed to working through the impacts such that when this EA/EIE process is near completion the CTDOT and the FTA may be in a position to issue a "Finding of No Significant Impact" (FONSI). If the City's concerns are not adequately addressed, the City does reserve its right to argue and claim that an Environmental Impact Statement (EIS) should be prepared. And, certainly, the City is not waiving any claims or arguments it may later have once the project begins to be permitted by or through any applicable governmental agency having jurisdiction over the project and as set forth in the EA/EIE, Section 7.	
C-1	C-1.03	Coppola	City of Norwalk Corporation Counsel	General	Many, if not all, of the comments identify perceived shortcomings in the EA/EIE. Indeed, the City believes that while the EA/EIE describes existing conditions well, the EA/EIE lacks sufficient detail on the impacts and mitigation measures. The City believes that more substantive work is needed prior to making any recommendation on a FONSI.	
C-2	C-2.12	Westmoreland	Norwalk Historical Commission	1.1	Additionally, it is quite concerning to us that the DOT is seeking a "Finding of No Significant Impact" from the Federal Transportation Administration (FTA), especially given where the DOT is currently in design, as they are unable to provide a substantive EA/EIE, as many impacts will not be able to be determined until a plan is actually completed. Not only is the planned project to result in the total destruction of the historic resource, a project of this magnitude in such a densely developed area, is likely to have prolonged, devastating economic consequences to the City of Norwalk. It is more than reasonable to expect that a thorough and detailed Environmental Impact Statement (EIS) should be developed to identify and mitigate the negative consequences to the City of Norwalk.	
C-3	C-3.07	Mobililia	Norwalk Harbor Management Commission	1.1	An EIS should be prepared to more completely identify and address Project impacts and mitigation measures. The DOT has informed the NHMC and the public that the extent of Project impacts will not be known until the Project design has reached sixty percent of completion, a milestone not expected until some point in 2017. As described throughout the EA/EIE, the DOT will continue to explore mitigation opportunities for addressing Project impacts, thereby indicating that Project mitigation measures currently are not fully developed. The NHMC therefore concludes that it is unreasonable to assert, based on information included in the EA/EIE, that the Project will not have a significant impact on the Norwalk Harbor and waterfront. Accordingly, it is the opinion of the NHMC that a FONSI pursuant to NEPA is unwarranted and illogical at this time. As a result of the above considerations, the NHMC recommends preparation of an EIS to more completely identify and address Project impacts and mitigation measures. The NHMC believes that the EIS will aid in designing	

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NEPA/CEPA Process continued

					the most cost-effective, least environmentally damaging Project. Although the NHMC recognizes that preparation of an EIS will delay Project implementation as currently planned by the DOT, the NHMC is of the opinion that the DOT's desired Project schedule should not be given more weight than the overall public interest that will be served by achieving full compliance with NEPA and CEPA requirements.	<p>CTDOT recognizes that the preliminary mitigation plans will require further development. As the project design is finalized and the contractor's means and methods are more defined, details of proposed mitigation measures also will be further defined. CTDOT will continue to finalize mitigation details with the City of Norwalk and affected parties. Per FTA requirements (23 CFR 771.113), final design activities cannot be advanced until a NEPA decision has been issued.</p> <p>As indicated in Section 7 of the EA/EIE, the project will require multiple federal and state permits. Some mitigation measures will be reviewed and approved by federal and state agencies prior to construction start, and as necessary, project permits will be conditional upon mitigation.</p> <p>For the Walk Bridge Replacement Project, CTDOT will use FTA's Project Management Plan to track mitigation plans and permit conditions (developed in final design) to which CTDOT has committed, working in coordination with the City of Norwalk, the local community, and regulatory agencies. As the lead federal agency, FTA exercises continual oversight and independent review of the project. Additionally, the project's commitment to mitigation measures will be reviewed by federal and state regulators. Refer to Appendix F-5 for a description of the Construction Period Coordination Plans and CTDOT's use of the Project Management Plan to track the implementation of mitigation commitments.</p>
C-5	C-5.07	Burns	Norwalk Department of Public Works	General	The Department of Public Works respectfully requests that a Finding of No Significant Impact is not issued until at the very least, the EA/EIE is revised and expanded upon to include these concerns and is prepared with outreach to all constituency groups to accurately understand the community impacts.	
C-6	C-6.02	Sheehan	Norwalk Redevelopment Agency	5.3.5	<p>These community impacts are foreseeable and can be planned for; yet neither the EA nor EIE has fully considered the totality of such impacts or put forth mitigation plans to address them. This points to a serious deficiency in the project planning process which, if left unaddressed, will exacerbate the extent and effect that the negative project impacts will have on businesses and residents during construction. To prevent this from occurring, an Environmental Impact Statement (EIS) must be undertaken. The EIS will more closely review and consider all the related project impacts, assess their significance and develop appropriate mitigation strategies.</p> <p>Given the scale of this project and its potential impact on SoNo, an EIS is required by the City and this project should not be allowed to advance without it. The information obtained through the EIS process will assist the DOT, City and those who will be negatively impacted by this project to better understand alternative approaches, and plan appropriate mitigation measures to ensure that SoNo is not made a State construction site for more than three years and that impacted businesses and residents are not left on their own to deal with the resulting economic isolation.</p>	
C-8	C-8.01	Kleppin	Norwalk Planning Commission	3,5	There are several sections within the EA/EIE, from a planning perspective, where the information provided is insufficient to properly conclude that there will not be significant negative impacts from the proposed bridge replacement.	
C-9	C-9.03	Brescia	Norwalk Parking Authority	5.3	Section 5.3.5., Socioeconomics of the Environmental Assessment does not adequately address the impacts on the Parking Authority. The Norwalk Parking Authority joins in asking for an Environmental Impact Statement to deal with these issues.	
C-12	C-12.08	Sotnick	Norwalk Department of Public Works	General	The Department of Public Works respectfully requests that a Finding of No Significant Impact is not issued for this project and that an EIS is prepared with outreach to all constituency groups to accurately understand community impacts.	
E-6	E-6.05	Igneri	Norwalk Common Council	General	A FONSI is not the appropriate foregone conclusion of this process as too many impacts have not been identified or fully vetted. I respectfully request that an Environmental Assessment be revised and expanded upon to address the concerns I mentioned, with community outreach and input, for the entire Walk Bridge program.	

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NEPA/CEPA Process continued

E-7	E-7.02	Common Council	Norwalk Common Council	3.27	We, therefore, strongly urge the state DOT to not conclude that a Finding of No Significant Impact (FONSI) is appropriate. Instead, we believe the state must further examine the economic and human impacts of the Walk Bridge Project in a broad and comprehensive context that includes the projects described below. The cumulative effects of all of these projects, including the Walk Bridge, will have a severe and possibly long term impact on the very heart of the city. To focus exclusively on the impacts of the Walk Bridge would be a disservice to the residents of Norwalk.	
I-24	I-24.02	Lauricella	Individual	General	I wholeheartedly agree with the Harbor Management Commission of Norwalk, Fred Krupp and others who feel that a more holistic Environmental Assessment be conducted BEFORE any decisions are made about the type of bridge that will be built.	
O-2	O-2.01	Lightfield	Norwalk 2.0	General	The Environmental Assessment is neither accurate or thorough, therefore from a legal sense it is defective.	
O-2	O-2.09	Lightfield	Norwalk 2.0	General	Thus, compliance with both NEPA (National Environmental Policy Act) and CEPA (Connecticut Environmental Policy Act) seems to be lacking. You can't say you meet the standards established by NEPA when you are ignoring things like joint environmental impact statements.	
O-7	O-7.37	Kunkel	Norwalk Harbor Keeper	General	The foregoing demonstrates the need to redraft the Environmental Assessment and then to evaluate the need for a full-blown Environmental Impact Statement.	
O-8	O-8.21	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.27	The Environmental Assessment Inadequately Analyzes Project Impacts. The Environmental Assessment's analysis of potential Project impacts also fails to meet the legal requirements of NEPA and CEPA. Both NEPA and CEPA require the Environmental Assessment to consider all of the Project's "direct" or "indirect" effects caused by the action. 40 C.F.R. § 1508.8; Conn. Gen. Stat. § 22a-1b(c). Under NEPA, "[e]ffects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative." Id.; see also 42 U.S.C. 4332(2)(C) (requiring a detailed statement on the adverse environmental effects of a potential agency action). CEPA requires the Environmental Assessment to set forth "the environmental consequences of the proposed action, including...direct and indirect effects which might result during and subsequent to the proposed action; any adverse environmental effects which cannot be avoided...[and] an analysis of the short term and long term economic, social and environmental costs and benefits of the proposed action." Conn. Gen. Stat. § 22a-1b(c); see also Conn. Agencies Regs. 22a-1a-7(g).	
O-8	O-8.23	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	5.3.4, 5.3.5	The Environmental Assessment Inadequately Analyzes the Project's Impacts from Displacing Businesses and Homes and Other Socioeconomic Impacts...The Environmental Assessment fails to meet the above NEPA and CEPA requirements, as it provides almost no analysis of the Project's potential negative socioeconomic impacts. This prevents the Environmental Assessment from being able to adequately prepare and consider mitigation plans that would reduce such impacts and prevents a full consideration of project alternatives. The Environmental Assessment's existing discussion of impacts	

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					also fails to address the impacts of permanently displacing existing businesses and homes.	
O-8	O-8.27	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	General	Due to the above-discussed deficiencies in information and analysis, the Environmental Assessment cannot serve its legally-mandated purpose under NEPA and CEPA of serving as a basis for public comment on the Project. As a result of these fatal flaws, the Environmental Assessment must be supplemented to fill these gaps, and it is only at this point whether the public will be able to discern whether or not the Project's impacts are significant and whether or not an Environmental Impact Statement may be required. Indeed, once all the necessary and connected Project actions are included in the environmental impact review, significant impacts will likely be seen. Until the revisions necessary to attain compliance with NEPA and CEPA are completed, no federal or state permit or funding may be issued to the Project.	
O-15	O-15.01	Brescia	Lockwood-Mathews Mansion Museum	General	We firmly believe that additional environmental impact evaluation is needed prior to finalizing replacement of the walk bridge.	
T-1	T-1.1	Coppola	City of Norwalk	General	As the city's lawyer, I want to remind you as to how significantly is defined under NEPA. It requires consideration of both context and intensity. Context means that the significance of the proposed action must be analyzed as a whole, the affected region, the affected interest and most importantly for us the locality. While we agree that the Walk Bridge is a hundred plus years old and certainly needs to be replaced, and that it is necessary for the traveling, commuting public in the region, the actions to be taken during this construction and the permanent changes to the city over the long term are site specific. Intensity refers to the severity of the impact.	
T-14	T-14.01	Dobowski	Individual	General	Placing the Walk Bridge project into even a basic review within this type of evaluation system reveals several foundational issues which would prevent the project from receiving approval from NEPA and CEPA requirements.	
I-27	I-27.03	Widland	Individual	General	As Co-Chairman of the Board of Trustees, I want to express our strong objection to the adequacy of the EIE and request that an EIS be undertaken to fill the many gaps and unknowns in the EIE. The EIE should not be a rush to a finding of no significant impact but rather a careful discourse of the environmental impacts of the proposed projects. In this case, the EIE's consistent emphasis on "planning to plan" is not sufficient and does not allow the Aquarium to meaningfully assess the potential environmental impacts of the Project. An EIS is necessary to provide the additional detail required so that the Aquarium can adequately plan to protect its animals, employees and volunteers, and, in turn, its future economic viability.	

O-7	O-7.01	Kunkel	Norwalk Harbor Keeper	2.3	As detailed below, we believe that the Environmental Assessment is flawed, because it neither considers the full range of reasonable alternatives nor adequately analyzes the potential impacts of project options under consideration. However, there is an even more fundamental problem with this document: the failure to carry out the law's mandate of furnishing the public	A NEPA document, regardless of whether it is a Categorical Exclusion (CE), an Environmental Assessment (EA), or an Environmental Impact Statement (EIS), is a planning-level document that is prepared at the preliminary design level. This level of design can reasonably assess foreseeable impacts and provide recommendations for mitigating unavoidable impacts,
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NEPA/CEPA Process continued

					with clear and adequate data, as opposed to the CTDOT's conclusions or summary descriptions of what it perceives to be the relevant facts.	thereby insuring that the environmental impacts of an action are considered by the federal agency before it issues a decision document and progresses on an action. CTDOT has prepared an EA/EIE that meets the requirements of NEPA and CEPA.
O-8	O-8.01	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	General	<p>The Environmental Assessment Does Not Conform to the Requirement for Full and Meaningful Disclosure of Environmental Impacts...The Environmental Assessment fails to meet these standards. It does not consider a reasonable range of Project alternatives, attempts to segment and delay review of necessary Project components until the future, and provides incomplete, opaque information concerning potential Project impacts and costs. Because of these deficiencies, the document is not able to fulfill its purpose, to provide information to the public that allows individual citizens to analyze and comment on the agency's proposed action. Accordingly, the Environmental Assessment cannot serve to fulfill the FTA's obligations under NEPA, and no federal funding or any of the required federal permits may be issued for the proposed Project...As such, this defective document must be redrafted in compliance with binding federal and state law before either FTA or CTDOT can take any further action to advance the Project.</p>	<p>CTDOT worked closely with the Federal Transit Administration (FTA), as well as federal and state agencies and the City of Norwalk, in developing the project's Purpose and Need Statement. Per National Environmental Policy Act (NEPA) guidance, FTA and CTDOT are jointly responsible for defining the project Purpose and Need. The project Purpose and Need is intended to be a clear and well-defined statement of the objectives of the proposed project.</p> <p>The Purpose and Need of the Walk Bridge Replacement Project incorporates multiple objectives. The Purpose and Need statement incorporates the primary purpose of the project: to rectify the existing deficiencies of the existing bridge, including its age and deterioration, decreasing reliability, safety standards, and difficulty of maintenance. It incorporates federal and state transportation goals for the New Haven Line/Northeast Corridor (NHL/NEC), including those enumerated by the NEC Commission and CTDOT. By improving the bridge's operational flexibility, enhancing the safety and reliability of rail service, and providing for increased efficiencies of rail transportation along the NHL/NEC, the project will advance policies and goals established in federal, state, regional, and local transportation plans. The project Purpose and Need statement incorporates the legislative intent of the Transportation Emergency Relief Program, by including bridge redundancy and sustainability as priority project elements. It also incorporates a secondary purpose of the project: to maintain or improve the navigational capacity in the Norwalk River, which is consistent with federal legislation and which advances the policies, plans, and goals of federal, state, and local agencies, including land use, planning, and development goals.</p> <p>Together with the two transportation-related goals and objectives of the project – to promote the regional economy and to preserve environmental quality - the project Purpose and Need statement provides the basis for establishing the range of alternatives evaluated and for identifying the Preferred Alternative. In accordance with NEPA, an alternative that does not meet the project's Purpose and Need can be removed from further consideration.</p> <p>CTDOT identified a reasonable range of alternatives, and</p>

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						<p>investigated them relative to multiple project parameters, including resiliency, redundancy, constructability, construction impacts, costs, and environmental considerations, among others. CTDOT focused upon four general categories: No Build Alternative, Rehabilitation Alternative, Replacement Alternative – Movable Bridge; and Replacement Alternative – Fixed Bridge. After thorough consideration and analysis, the Rehabilitation Alternative and the Fixed Bridge Replacement Alternative options were not advanced for further evaluation beyond the initial screening process. Refer to Appendices F-1 and F-2.</p> <p>As the project design is finalized and the contractor's means and methods are more defined, details of proposed mitigation measures also will be further defined. As it proceeds in final design, CTDOT will continue to finalize mitigation details with the City of Norwalk and affected parties.</p>
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C-1	C-1.01	Coppola	City of Norwalk Corporation Counsel	General	Given these commitments and the fact that CTDOT will be providing written responses as part of the discharge of its regulatory responsibilities, the City would appreciate, in the spirit of continuing to work together, that CTDOT provide the City with written responses to this submission and that an additional public session be conducted with CTDOT on the City's comments before CTDOT selects a design and renders its Record of Decision ("Record of Decision") to conclude this EA/EIE process.	CTDOT is committed to addressing the City's and stakeholders' concerns. CTDOT met with various City departments and stakeholder groups to discuss the City's comments, clarify procedures for the NEPA/CEPA process, and review its approach to responding to comments. Additionally, CTDOT provided the City with written responses to its comments on the EA/EIE.
T-2	T-2.02	Lavielle	State Representative, 143rd District	8.3.5	First off, really, if there are things you know and have investigated and you are sure of, and you have gone in-depth as you have with all these alternatives, I would urge you to share those with the public as quickly as you can and as thoroughly as you can. That will be viewed as a mark of respect and it will help in your dialog with the public which is necessary. Elizabeth Stocker touched on the schedule and the calendar—very important. Explain the constraints of Federal funding and all of the things that go into that—timing, reporting, process—because people don't know what those are. Also, the other projects that are going on in the same time in Norwalk and in Westport that are going to collide with each other, people need to know how that's going to work. And finally I would tell you to please be proactive.	CTDOT has initiated coordination with the City of Norwalk and other key stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to implementing the mitigation measures of the NEPA document and subsequent federal and state permits, whether an EA or EIS is required. CTDOT has developed several community outreach plans; these documents will be implemented and updated through the construction duration. The Communications Management Plan, initially developed in June 2016, presents strategic approaches for communicating accurate and timely information to all involved agencies and stakeholders, including residents, businesses, visitors, and rail and maritime users. A variety of outreach tools - including the project website ( <a href="http://www.walkbridgect.com">www.walkbridgect.com</a> ) - will be used throughout the project to facilitate meaningful dialogue.
T-3	T-3.01	Wilms	State Representative, 142nd District	8.3.5	The thing that you need to do that really helps make a project successfully implemented is to over-communicate. So I know you possess a lot of good knowledge, a lot of technical expertise, and I know candidly, I think you've done a good job of reaching out and I want to applaud you for what you've done. I think you should... whatever you think you should be doing, I think you should do a lot more. This model of communication did happen with the mall and I have to say that I think that moved forward in a way that no other redevelopment project has moved forward.	For the Walk Bridge Replacement Project, CTDOT will use FTA's Project Management Plan to track mitigation plans and permit conditions (developed in final design) to which CTDOT has committed, working in coordination with the City of Norwalk, the
B-11	B-11.06	Edvardsen	Spinnaker Real Estate Partners LLC	5.3	I fear similar oversights will occur with the Walk Bridge absent further public interaction and comment.	

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<b>NEPA/CEPA Process continued</b>						
C-2	C-2.14	Westmoreland	Norwalk Historical Commission	General	While we are appreciative of DOT's efforts to reach out to the historic community, various city departments and residents of Norwalk, recent projects with the CT DOT in Norwalk have been less than satisfactory, including no resolution to the dead landscaping installed as part of the 1-95 widening, ignoring the overwhelming strong public input regarding the widening and lowering of East Avenue under the East Ave train bridge, not honoring DOT's commitment to stripe a wider shoulder on the section of East Avenue just north of Route 1 that DOT recently repaved, and ignoring public input to implement a "Complete Streets" solution at the redesign of the intersection of Route 1 and Strawberry Hill, which has two major schools located nearby. Therefore, it is essential that a full EIS be developed which fully addresses the concerns of the community.	<p>local community, and regulatory agencies. As the lead federal agency, FTA exercises continual oversight and independent review of the project. Additionally, the project's commitment to mitigation measures will be reviewed by federal and state regulators. Per FTA guidance, the mitigation measures presented in the FONSI are binding.</p> <p>Refer to Appendix F-5 for a discussion of the methods that CTDOT will use to incorporate the mitigation measures into the project's final design and construction.</p>
C-2	C-2.13	Westmoreland	Norwalk Historical Commission	8.1	Equally concerning is that the City of Norwalk has not been able to participate in any of the face-to-face meetings the DOT has had with the FTA, which may lead to concerns and a perception of a potentially biased decision from the FTA.	<p>FTA is the lead federal oversight agency for the Walk Bridge Replacement Project and has taken an active role in the review of the project. CTDOT as the project sponsor routinely updates FTA on the status of the project's NEPA and Section 106 reviews, including providing technical reports, project correspondence, meeting summaries, etc. FTA participated in the agency scoping meeting and participates in meetings with federal agencies such as the U.S. Coast Guard and the U.S. Army Corps of Engineers. FTA participated in the development and review of the EA/EIE and the draft and final Memoranda of Agreement (MOAs), and has reviewed the project's cultural resources technical memoranda. Additionally, FTA has coordinated with the Connecticut State Historic Preservation Officer (CTSHPO) and the Tribal Historic Preservation Officers (THPOs). CTDOT is responsible for interactions with state and local stakeholders. FTA has attended and observed public meetings on the project.</p> <p>As the lead federal agency, FTA exercises continual oversight and independent review of the project. FTA has ultimate authority in the determination of a FONSI or EIS and Section 106 compliance, based upon the effects reported in the document, public comment and responses to comments, and in consideration of the mitigation that would be implemented for the project. As such, FTA is reviewing the document, public comments, and CTDOT's responses to comments for adequacy in complying with the intent of NEPA. Per FTA requirements (23 CFR 771.113), final design activities cannot be advanced until a NEPA decision has been issued.</p>
E-4	E-4.01	Third Taxing District	Norwalk's Third Taxing District	8	It should be noted that the residents and businesses of the Third Taxing District of the City of Norwalk, which comprise the neighborhood of East Norwalk were not collectively considered as stakeholders, though the TTD was consulted as a utility that must coordinate on construction.	In the broadest sense of the word, stakeholders of the Walk Bridge Replacement Project refer to potentially impacted entities who participate in some part of the NEPA process. NEPA stakeholders include members of the public (as both individuals

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NEPA/CEPA Process continued						
						and groups), business owners, non-governmental organizations, elected representatives, and local, state and federal governments. Not being individually listed in the EA/EIE as a stakeholder does not mean that residents and businesses of the TTD are not an important part of considerations, nor are they excluded from the greater City of Norwalk stakeholder group. Through the project website and various media, CTDOT encouraged the general public to participate in the review of the EA/EIE, including providing oral comments at the public hearing and written comments during the public review period. Additionally, following the public comment period, CTDOT met with the TTD to better understand its concerns. Through final design and construction of the project, CTDOT will continue to meet with project stakeholders, including members of the public, to apprise them of the status of the project and to solicit their concerns.
I-17	I-17.02	Grundman	Individual	General	Has the company, HNTB, and Mr. Chris Brown, the senior project manager, ever accomplished this before? If so, where and when?	Mr. Brown is an Associate Vice President and Senior Project Manager with HNTB. During his 22 years with HNTB, he has been involved in a wide variety of movable bridge feasibility, design and construction projects. Mr. Brown has been responsible for projects through their entire lifecycle, including environmental permitting, planning, preliminary and final design and construction phase services. He has worked closely with many agencies in the permitting and construction of river crossings, including the U.S. Coast Guard and the U.S. Army Corps of Engineers. Mr. Brown's specific area of expertise is in the design of movable bridges, having directly managed HNTB movable bridge projects for the last 15 years. He currently serves as HNTB's National Movable Bridge Practice Leader and is an instructor for Movable Bridge Design for the University of Wisconsin-Madison. Recent previous bridge experience includes the following: Jefferson Avenue Bascule Bridge Rehabilitation, Detroit, Michigan; South Park Bridge, King County Department of Transportation, Seattle, Washington; CP/DM & E Railroad Bridge, Sabula, Iowa; Cerritos Channel Railroad Bridge Preliminary Engineering and Environmental Studies/Documents, Long Beach, California.
I-24	I-24.03	Lauricella	Individual	General	I know that this is a major project so I hope that both state, local and City government realize that they need adequate number and qualified staff to give this project the attention it needs both before, during and after the construction.	CTDOT recognizes the magnitude of the project and has assembled a team of national engineering firms to complete this project. In addition to these experienced subject matter experts, CTDOT has also assigned significant internal resources to support and oversee the project.

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NEPA/CEPA Process continued

I-27	I-27.01	Widland	Individual	general	Given the many and significant issues and concerns you will hear tonight regarding the inadequacy of the EIE, we respectfully request that the deadline for written testimony be extended at least thirty days from the current December 5, 2016 deadline.	The public comment period for the EA/EIE opened on September 7, 2016 and was extended more than 45 days to December 9, 2016. This extension represents a substantial additional period for comments from the original closure date of October 22, 2016.
O-1	O-1.01	Penna	Norwalk Harbor Keeper	General	We kindly request an extension of the comment period of 60 additional days.	
T-12	T-12.01	Mobilia	Norwalk Harbor Management Commission	General	If necessary, the public comment period for the document should be extended for a reasonable period of time to accommodate the experts' evaluation and the Commission's subsequent comments. The Commission will present a formal statement of findings and recommendations to the DOT on or before the close of the public comment period.	

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## Noise and Vibration

B-7	B-7.04	Morque	Spinnaker Real Estate Partners LLC	5.3.16	The noise...from the contractor's activities within the construction easement will almost certainly severely affect our tenants' quiet enjoyment of their premises. These are significant impacts and issues for our tenants and threaten the economic viability of the facility and will severely affect if not destroy its economic value.	The EA/EIE noise analysis did not evaluate baseline noise conditions at the project site, although the document noted 170 trains currently use the site daily, which is the primary source of noise in the vicinity of the project site. The EA/EIE predicts noise impacts from construction as the primary effect of the project, and notes that mitigation measures will be further developed as design progresses and the contractor's means and methods of construction are established. As a critical infrastructure project with substantial rail activity, it is anticipated that noise impacts are unavoidable and will occur at various times and levels throughout the day and night.  During final design as the contractor's construction means and methods are further defined, CTDOT will develop a construction-period noise and vibration control plan to address potential impacts of land-based and water-based noise. Refer to Appendix F-5.
B-7	B-7.06	Morque	Spinnaker Real Estate Partners LLC	5.3.16	The vibrations... from the contractor's activities within the construction easement will almost certainly severely affect our tenants' quiet enjoyment of their premises. These are significant impacts and issues for our tenants and threaten the economic viability of the facility and will severely affect if not destroy its economic value.	
B-8	B-8.14	Fowler	Spinnaker Real Estate Partners LLC	5.3.16	5.3.16. Noise and Vibration, while the tables in this section are clear, it is not clear what the real impact is as there is no baseline information, particularly for the night when nearby residents are attempting to sleep. The impact here is obvious, people will leave the area and this must be adequately mitigated.	
C-1	C-1.21	Coppola	City of Norwalk Corporation Counsel	5.3.16	What measures will CTDOT and FTA commit to in order to reduce noise and vibration levels and effects, particularly in the residential areas and the Aquarium, such that the public during construction is not adversely and continuously affected?	
C-8	C-8.07	Kleppin	Norwalk Planning Commission	5.3.16	Construction-related noise or vibration damage: In reviewing comparable decibel levels to what is anticipated, there is reason to warrant further study of this issue. Considering the lack of a detailed construction schedule, including the possibility of day, evening and weekend construction and the close proximity of over 1,000 residences to the western portion of the project area, further analysis is warranted. The EA/EIE also indicates that further study is warranted, which is consistent with the city's request that more detail be provided.	
I-5	I-5.19	Schnierlein	Individual	5.3.16	There is no mention of the amount of acceptable noise both in the air and water. Please take a look at the environmental impact statement for the Tappan Zee bridge. They cover all of that.	
C-8	C-8.08	Kleppin	Norwalk Planning Commission	5.3.17	There are similar concerns related to noise and vibration regarding numerous historic buildings in the area, including, but not limited to, the former Norwalk Lock Company building and the former Norwalk Iron Works building (Maritime Center).	CTDOT will develop an Historic Building Protection Plan in coordination with Connecticut State Historic Preservation Office (CTSHPO) to identify and minimize the effects of construction-period vibration upon nearby historic buildings. The Plan will consist of multiple elements, building on the outline of measures as identified in the EA/EIE (Section 5.3.17). The Historic Building Protection Plan is included as part of the Construction Period Coordination Plans (Refer to Appendix F-5) and in the Section 106 Memorandum of Agreement (Refer to Appendix B).
O-12	O-12.06	Davis	The Maritime Aquarium	5.3.13	For each of the animals mentioned above, and any other animals identified by the Aquarium and its experts/consultants as being sensitive to noise and vibrations, there must be coordination between the Aquarium and CDOT to schedule construction in a way to minimize the impacts of the noise and vibration on the animals. This will require sequencing of construction phases	CTDOT is working with the Maritime Aquarium to develop a plan to identify and address the impacts of the project upon the Aquarium's outdoor and indoor exhibits and its terrestrial and aquatic animals. As project design is finalized and the contractor's construction means and methods are more defined,

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**Noise and Vibration continued**

					<p>and projects, including the sequencing of various construction equipment in a way that will minimize vibrations and maintain decibel levels at safe levels for all animals.</p> <p>The construction schedule must be specifically identified (daily, weekly, monthly, seasonally) and managed to conform to the needs of the various impacted animals.</p> <p>To plan for and mitigate the effects on animal sleep, training and reproductive schedules, the Aquarium will require a proposed and very detailed (daily, weekly, monthly, seasonally) construction plan for each phase of the Project that it can overlay with animal sleep and life cycle schedules and sensitivities to noise and vibration to determine the optimal construction schedule to maintain the welfare of all its animals. The timing of construction (morning, afternoon, evening, overnight), phasing of construction projects and phasing of the use of various construction equipment will need to be coordinated to align with the Aquarium's animals' sleep and life cycle schedules and account for the animals' well-being in terms of mitigating noise and vibrations to the greatest extent possible.</p> <p>The Aquarium will also need to be included in any discussions going forward regarding any anticipated changes in the construction schedule, as determined with the Aquarium's input, with sufficient advance notice to plan and alter plans. Any deviation from the agreed upon construction schedule may significantly affect the availability of suitable alternative homes for the animals and result in adverse impacts to their wellbeing.</p>	<p>details of the proposed work plan and schedule will be provided to the Maritime Aquarium. Utilizing the Construction Manager/General Contractor (CM/GC) delivery method provides CTDOT with valuable insight to the proposed construction means and methods. This information typically would not be known until much further in design for a project using the conventional Design, Bid, Build delivery method. At CTDOT's request, the CM/GC is advancing its planning and analysis to address these questions, so that mitigation measures can be developed that are specific to the unique operations of the Aquarium.</p>
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O-12	O-12.12	Davis	The Maritime Aquarium	5.3.16	Noise: The Aquarium will require additional detail on the anticipated noise levels from construction and construction equipment on humans: employees, volunteers, and visitors to ensure safe decibel levels are maintained.	<p>As design advances and the contractor's construction means and methods are defined, including the equipment to be used for the various phases, CTDOT will develop a construction-period noise and vibration control plan to address potential impacts of land-based and water-based noise and vibration. Additionally, CTDOT will develop an Historic Building Protection Plan in coordination with Connecticut State Historic Preservation Office (CTSHPO) to minimize the effects of construction-period vibration upon nearby historic buildings. Refer to Appendix F-5.</p> <p>CTDOT has committed to ongoing communication with the Maritime Aquarium through final design and construction, and will provide information to the Aquarium as it is available and required.</p>
O-12	O-12.13	Davis	The Maritime Aquarium	5.3.16	Vibrations: The Aquarium will require additional detail on the anticipated vibration levels from construction so that it may assess the potential impacts to its physical buildings and plan for appropriate mitigation measures.	

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## Pedestrian/Bicycle Facilities

C-3	C-3.29	Mobilia	Norwalk Harbor Management Commission	3.4	In coordination with the Project, opportunities for completion of the Norwalk River Bikeway and Linear Park along both banks of the Norwalk River in the vicinity of the bridge should be evaluated, including evaluation of: a) construction of a bikeway/walkway on the west side of the river to link the Maritime Aquarium on the north side of the bridge to the Imax Theater deck on the south side; b) construction of a bikeway/walkway on the east side of the river linking the existing walkway at the wastewater treatment plant to the marina property on the south side of bridge, and c) connection of the bikeway/walkway to Route 136.	CTDOT will include the extension of the Harbor Loop Trail on the east side of the Norwalk River in the Walk Bridge Replacement Project. CTDOT will work with the City of Norwalk, including the Norwalk River Valley Steering Committee, to determine the preferred routing from the proposed north-south connector, as shown on EA/EIE Figure 3-10 or as determined through discussions with project stakeholders.
C-5	C-5.05	Burns	Norwalk Department of Public Works	3.4	Pedestrian & Bicycle Facilities-Existing conditions do not reference Norwalk's plans to continue the Norwalk River Valley Trail (NRVT) or Harbor Loop Trail along the west-side-along the water-of the trail. The City has provided the CTDOT with its plan to route the trail in that location. The CTDOT has stated verbally that "permits would be hard to get" to accomplish this plan. The City of Norwalk subsequently provided documents to CTDOT from the Connecticut Department of Environmental & Energy Protection (DEEP) stating that it would not be an issue to get permits. The EA/EIE does not even mention this route or identify the permit needed to construct, nor does it show on the mitigation plan. This NRVT route seems to be intentionally left out of the document. Even if the CTDOT does not want to construct it as part of the project, it should be included in the EA/EIE as an existing condition.	The Norwalk River Valley Trail Routing Study and plans to extend the NRVT south of the Aquarium are identified in Section 3.4.2 of the EA/EIE. CTDOT is supportive of an extension of the NRVT on the west side of the Norwalk River, and intends to participate in the design and construction process with the City of Norwalk, in cooperation with CT Department of Energy and Environmental Protection (CTDEEP). The determination of the most appropriate location for this extension of the existing trail on the west side of the river will be made in coordination with the City, the Maritime Aquarium, and CTDEEP.  During construction, temporary use of the WWTP site (Parcel 3/2/3) and construction of an extension of this trail connection along the east river bank will temporarily affect the southernmost terminus of the existing Harbor Loop Trail. Additionally, due to the temporary use of the Norwalk Parking Authority site (Parcel 2/19/1), the portion of the NRVT adjacent to this parking lot may be closed to the public during portions of the construction. North Water Street and its sidewalks can be used by pedestrians and bicyclists. Prior to the start of construction, CTDOT will develop a transportation mitigation plan, which will include pedestrian and bicycle detour plans for the stages of the project, including bridge construction. CTDOT will restore the existing trails to pre-construction conditions following completion of construction.
C-7	C-7.03	Chimento	Norwalk Department of Public Works	3.4	Continuation of the Norwalk River Valley Trail and the Harbor Loop trail should be an important part of the project. Studies starting in 1970' s show the trails along the western side of the river under the Walk Bridge connecting at the Straffolino Bridge. This segment along the river behind the Maritime Aquarium includes a raised wooden boardwalk which will afford the public wonderful views of the harbor and river and complete the Norwalk River Valley Trail from Danbury. The Eastern segment (Harbor Loop Trail) runs from the WPCA Plant under the new bridge connecting with Constitution Park at the Stroffolino Bridge. Again this would lead to public enjoyment of the waterfront on the eastern side of the river. The Department of Public Works supports these trail segments under the new Walk Bridge, partially on the river bank and raised boardwalk over the water where necessary on both sides of the river.	
C-12	C-12.06	Sotnick	Norwalk Department of Public Works	3.4.4	Pedestrian & Bicycle Facilities - Existing conditions do not reference plans to continue the NRVT or Harbor Loop Trail along the west-side - along the water - of the trail. The City, on numerous occasions, has provided the DOT with its plan to route the trail in that location. The DOT has stated verbally that "permits would be hard to get" to accomplish this and the City subsequently provided documents to DOT from DEEP stating that it would not be an issue to get permits. The EA does not even mention this route or identify the permit needed to construct, nor does it show on the mitigation plan. This NRVT route seems to be intentionally left out of the document. Even if the DOT does not want to construct it as part of the project, it should be included in the EA as an existing condition.	Mitigation plans and details will be completed in final design, as the contractor means and methods are determined. State and federal permits, including detailed mitigation, will be prepared based upon 60 percent design. CTDOT is evaluating priority locations for tidal wetland mitigation, potentially involving restoration and/or invasive species remediation, including locations within Oyster Shell Park and Veterans Park. CTDOT will continue to coordinate with the City of Norwalk on the tidal wetland restoration locations.  CTDOT will develop a Marine Transportation Plan and a series of

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**Pedestrian/Bicycle Facilities continued**

C-13	C-13.01	Rosett	Norwalk Mayor's Bike/Walk Task Force	3.4	<p>The Mayor's Bike/Walk Task Force, representing the best interests of the public based on federal, state, and local coastal management goals and policies, strongly support the completion of the long-awaited "missing links" in the waterfront trails on both the east and west sides of the Norwalk River under the new Walk Bridge.</p> <p>These two missing links, with a length of approximately 900 feet on the "Aquarium" side and 300 feet on the eastern of "DPW Treatment Plant" side for a combined total of approximately 1,200 feet, must be included as part of the bridge replacement project to improve public safety, enhance the existing state and federal investment in this trail system, and maximize cost efficiency for permitting and construction.</p>	<p>water-dependent use/waterfront access strategies, working in coordination with the affected marine-based businesses, the City of Norwalk, the Norwalk Harbor Management Commission, rowing organizations, the Norwalk Seaport Association, and the Maritime Aquarium. Refer to Appendix F-5.</p>
I-23	I-23.01	Corkutt	Individual	3.3.2	Please allow the Harbor Loop Trail & NRUT Trail to continue under the bridge!	
O-3	O-3.01	Carter	Norwalk River Valley Trail	3.4	The Steering Committee of the Norwalk River Valley Trail (NRVT) strongly supports the long-awaited completion of the gap in the NRVT trail on the west bank of the Norwalk River under the new Walk Bridge. The NRVT Steering Committee also strongly supports completion of the companion Harbor Loop Trail on the east bank of the river under the new Walk Bridge.	
O-6	O-6.11	Washer	Norwalk River Watershed Association (NRWA)	3.4	We also want CTDOT to confirm that a pedestrian and bike pathway connecting the two trails segments, the Harbor Loop and NRVT, will be included in the plans.	
C-3	C-3.30	Mobilia	Norwalk Harbor Management Commission	3.4	In coordination with the Project, consideration should be given to opportunities for improvements to the existing walkway adjoining the river at the wastewater treatment plant.	
E-7	E-7.05	Common Council	Norwalk Common Council	3.4	Norwalk's vibrant Bike-Walk Task Force, working with our Department of Public Works, our Planning and Zoning Department, as well as local businesses, has produced a city-wide plan aimed at making Norwalk a bike and pedestrian friendly place to live and to work. This includes the introduction of special lanes in many of our streets, including those in South Norwalk, so that walking and bike riding not only increase, but become safer. We strongly urge the DOT to take the time to ensure that the Walk Bridge Project does not adversely impact decisions made by the task force.	
S-2	S-2.09	Fox	DEEP	3.4.4	Consistent with water-dependent use adverse impact policies, we strongly encourage the CTDOT to further analyze temporary and permanent walkway impacts and to increase the level of public walkway/bikeway development in addition to the east side walkway identified and shown on the EA/EIE maps. This is underscored by the City's comments regarding needs for River Valley Trail and Harbor Loop Trail improvements, such as extending the trails and improving safety by avoiding dead ends and exits onto unsafe roads.	
I-22	I-22.01	Schmerch	Individual	3.3.2	I am very concerned the BRIDGE WILL continue to block progress to continue the Harbor Loop Trail and the Norwalk River Valley Trail (NRVT). I believe both these trails are major quality of life improvements for Norwalk and this region!	

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**Pedestrian/Bicycle Facilities continued**

C-1	C-1.09	Coppola	City of Norwalk Corporation Counsel	3.4, 3.10, 5.3.3	Parks and Trails: Further detail needs to be provided (e.g., of the impacts to the trails, mitigation, design, alternatives) to substantiate the conclusions set forth in the EA/EIE.	
C-10	C-10.03	Cherichetti	Norwalk Conservation Office	3.4, 3.17	The Conservation Commission strongly encourages ConnDOT to commit to restoring and expanding Norwalk's pedestrian trail system, Norwalk's Maritime Aquarium, water-based recreational opportunities, and public access to the Norwalk River and its environment. Specifically lacking in the EA/EIE was an accurate depiction of the Norwalk River Valley Trail (NRVT) along the western bank of the Norwalk Harbor. Just as the Harbor Loop Trail on the eastern side of the harbor will be disrupted and then restored and improved, the same is strongly encouraged for the NRVT.	
C-8	C-8.04	Kleppin	Norwalk Planning Commission	3.4	While the proposed extension of the bike/pedestrian path is appreciated, the possibility of providing pedestrian and bike access across the bridge should also be explored.	For safety and logistical reasons, CTDOT is not considering the provision of pedestrian and/or bicycle access over the Norwalk River via the railroad bridge. The Norwalk River Valley Trail system (on-road portion) includes a crossing of the Norwalk River via the nearby Stroffolino Bridge.
T-21	T-21.01	Franklin	Individual	3.4.3	The use of the bridge for people when they get ready to, because you were always able to walk across the bridge. I also want that privilege of being able to walk across from South Norwalk to East Norwalk.	

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## Planning Consistency, Coordination, and Permitting

C-1	C-1.29	Coppola	City of Norwalk Corporation Counsel	3.5, 5.3.4	Very little is substantively discussed within the EA/EIE regarding land use patterns, zoning and future development. The City has a Plan of Conservation and Development, which is discussed in the EA/EIE. However it falls short to insure that the character of the City and historic preservation is preserved and is "used as a tool for economic revitalization and to promote tourism." The City Council has identified projects that are underway to enhance the character and livability of the City in SONO. How will these projects and the character of the area be preserved? These concerns are shared by the Norwalk Redevelopment Agency	As required by CEPA, CTDOT assessed the consistency of the project with the State Plan of Conservation and Development and the corresponding regional and municipal Plans of Conservation and Development (POCD) (EA/EIE Section 3.7.3). CTDOT determined that the project is consistent with the transportation and infrastructure goals of the Norwalk POCD.  The replacement of Walk Bridge will not alter existing zoning. The acquisition of eight parcels in South and East Norwalk will result in displacement of businesses and residences. [Note that the EA/EIE identifies nine parcels to be acquired; after further analysis of parcel needs, CTDOT determined that it will not require the acquisition of 217 Liberty Square (Parcel 3/1/8).] Following the completion of the project, and in accordance with State statute regarding the release of excess property, the parcels will be available for sale. Any property deemed in excess of CTDOT's needs will first be offered to other State Agencies in accordance with C.G.S. 4b-21. Thereafter, pursuant to C.G.S. 3-14b, the City will have an opportunity to purchase property deemed in excess of the State's needs, prior to being offered to the public. The future use and development of these properties is determined by municipal zoning, the City's Plan of Conservation and Development, permit approvals, and for properties within the coastal zone boundary, municipal coastal site plan review. Regarding the sale and development of waterfront parcels, CTDOT will market the excess property indicating the highest priority and preference for water-dependent use of the site. With approval from the Commissioner of the Department of Energy and Environmental Protection, CTDOT will select the highest bid that best demonstrates an integrated, quality, water-dependent use.
T-7	T-7.01	DiMeglio	Norwalk Planning Commission	3.7.3	Planning Commission comments and concerns as it relates to the City of Norwalk Plan of Conservation and Development, POCD, and the Walk Bridge Environment Assessment and Impact Evaluation: Page 10 – A114, Preserve and Enhance the Character of Norwalk. Page 10 – A127, Protect Water Dependent Uses; Page 13 – A416, Encourage Harbor Oriented Retail Visitor Development; Page 16 – B12, Protect Public Health and Safety; B22 – Support the Continuation of the Shell Fishing Industry; Page 18 – B33, Encourage all Efforts to Avoid or Reduce Siltation in Harbor; Page 25 – C224, Protect Existing Passive Recreation Areas from Improvements that would Diminish Their Natural Character; Page 33 – D713, Support the Maritime Aquarium, Stepping Stones Museum, the Switch Tower Museum and other City Museums as Educational Facilities and Tourist Attractions; Page 36 – E114, Participate in the Formulation of Regional Transportation Planning; E115, Regularly Maintain the Federal Navigation Project Consisting of Congressionally Authorized Channels and Anchorage Areas in Norwalk Harbor to Serve Commercial and Recreational Vessels, Provide Safe Navigation and Ensure the Continued Viability of Water Dependent Facilities and the Economic Advantages of Water Borne Transportation; Page 38 – E413, Minimize Impact Upon Neighborhoods and Development Designs that are Sensitive to the Community When Replacing Bridges; E414 – Bridges and Roadways Over Navigable Waterways Should be Maintained, Operated, Repaired, and Built to Avoid or Reduce Potential for Any Significant Adverse Impact on Navigation Safety, Environmental Quality. And lastly, Page 43 – F331, Continue to Actively Seek and Listen to Public Participation in the Preparation of Future Plans for the City or Any Part Thereof.	CTDOT has initiated meetings with the City of Norwalk's Design Advisory Committee to review design and solicit feedback on those design elements that would contribute to the aesthetics of the bridge, including (but not limited to) façade treatments, color, and landscaping. CTDOT has committed to working with the Design Advisory Committee, as well as local historic stakeholders, on the design elements of the bridge.  CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating

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Planning Consistency, Coordination, and Permitting continued

						Construction Period Coordination Plans in close coordination with the City of Norwalk and affected parties. Refer to Appendix F-5.
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C-3	C-3.02	Mobilia	Norwalk Harbor Management Commission	7	The State of Connecticut is exempt from local planning and zoning and other regulatory requirements. As a result, no City approvals are needed to implement the Project. However, in addition to the EA/EIE, state and federal coastal permits from DEEP and the U.S. Army Corps of Engineers will be needed. The NHMC will evaluate the applications for those permits. As required by DEEP and the Plan, all applicants for DEEP permits, including the DOT, are required to submit their project plans to the NHMC for preliminary review prior to including those plans in a formal permit application to DEEP. At such time as a public notice regarding that application is issued by DEEP or a public hearing is held, the NHMC will make a formal determination of the submitted application's consistency with the Plan.	CTDOT acknowledges that the Norwalk Harbor Management Commission (NHMC) will have an opportunity to review and comment upon the application for a Structures, Dredge and Fill permit from CT DEEP. The application for a Structures, Dredge and Fill permit will be prepared based upon 60 percent design plans, and will include more detailed information about impacts and mitigation with respect to water-dependent uses, water quality, and public access. As part of the application consultation process, CTDOT will submit plans to the NHMC for its assessment of consistency with the Norwalk Harbor Management Plan.
C-3	C-3.03	Mobilia	Norwalk Harbor Management Commission	3.7	In accordance with Sec. 22a-113n (b) of the CGS, a recommendation of the NHMC pursuant to the Plan shall be binding on any state official making a regulatory decision or undertaking or sponsoring development affecting the harbor, unless that official can show cause why a different course of action should be taken. In that context, any decisions by state officials concerning the EA/EIE and subsequent DOT permit applications that are contrary to a recommendation of the NHMC must be supported by specific findings, the soundness of which can be reviewed by the Connecticut courts.	Section 22a-113n (b) of the CGS defines the content of a Harbor Management Plan (Plan) regarding recommendations for use, development, and preservation of the harbor. As stated in the comment, the Plan, once approved and established by the Commissioner of Energy and Environmental Protection, is binding on officials of the state, municipality, or other political subdivision when making regulatory decisions or undertaking or sponsoring development affecting the area with in the Commission's jurisdiction. CTDOT has demonstrated considerable attention to maintaining and improving navigation in the harbor through the Walk Bridge to the extent of selecting a Preferred Alternative with the least disruption to navigation during construction. As a bridge replacement project that occupies the same footprint, CTDOT is confident that the project will demonstrate consistency with the Plan and any unavoidable effects of navigation or use will be entirely temporary and necessary to construct a critical rail infrastructure project.
C-3	C-3.06	Mobilia	Norwalk Harbor Management Commission	3.7.3	The EA/EIE lacks sufficient information to enable a favorable recommendation with respect to the Plan. Absent additional information on Project impacts, including impacts affecting water-dependent uses, water quality, public access to and along the harbor, and the quality of life in areas near the Walk Bridge, as well as additional discussion of mitigation measures, the NHMC is not able to determine the Project's consistency with the Plan, including the following Plan provisions. <ul style="list-style-type: none"> <li>Objective 3.1. Maintain and enhance opportunities for recreational boating and boating-related uses of the Harbor; support the continued operation, enhancement, and expansion of public, private, and commercial boating facilities, including marina, boatyard, and boat launching facilities, consistent with public needs and environmental protection objectives.</li> <li>Objective 4. 1 Encourage and support the development and continued operation of truly water-dependent land uses (including boat service facilities and commercial port facilities), as distinguished from nonwater-dependent and water-enhanced uses. (The NHMC is concerned about the Project's impact on existing recreational boating and commercial port facilities, including facilities upstream of the Walk Bridge and facilities located on properties acquired or otherwise utilized by the DOT for construction purposes.)</li> <li>Objective 5.5 Achieve and maintain the highest reasonably attainable quality of surface water in the Harbor. (The NHMC is concerned that the EA/EIE does not propose a pre-construction water quality sampling program to establish a</li> </ul>	

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Planning Consistency, Coordination, and Permitting continued

					<p>baseline of water quality conditions, nor does it propose an on-going program to monitor water quality conditions during construction.)</p> <ul style="list-style-type: none"> <li>• Objective 7.3 Encourage and support water-based tourism activities and the associated economic, recreational, and other benefits of those activities in Norwalk. (The NHMC is concerned about the Project's impact on the viability of the Maritime Aquarium, southwest Connecticut's principal tourism attraction and a facility providing substantial opportunities for public access to the harbor. Potential impacts on visitorship and living exhibits are not identified in the EA/EIE. In addition, the EA/EIE does not provide for the necessary relocation of the nearby docking facilities used by the Aquarium's research vessel and the Norwalk Seaport Association's Sheffield Island ferry service.)</li> <li>• Objective 10.1 Maintain and where feasible improve existing water access areas, including publicly owned properties and City-owned street ends, for beneficial public use. (The NHMC recognizes that the EA/EIE identifies Project-related opportunities for improvements to the Norwalk River Bikeway and Linear Park along both banks of the Norwalk River in the vicinity of the Walk Bridge. However, the NHMC is concerned that the potential loss of public access opportunities from the City-owned Maritime Aquarium property is not addressed in the EA/EIE.)</li> <li>• Policy 1. 7.1. All bridges crossing navigable water in Norwalk Harbor should be operated and maintained to avoid or reduce the potential for any significant adverse impacts on navigation, public safety, environmental quality, or any other beneficial uses and conditions in the Harbor.</li> </ul> <p>Policy 1. 7. 2. Any plans for bridge construction, replacement, or maintenance should be designed, reviewed, and implemented in compliance with all applicable State and Federal regulations and in a manner to avoid or minimize adverse impacts on beneficial uses and conditions in Norwalk Harbor. (The NHMC is concerned that absent a more detailed identification and evaluation of the economic, social, and environmental costs and benefits of the Project, the NHMC cannot be reasonably assured that significant adverse impacts will be avoided or adequately mitigated.)</p> <ul style="list-style-type: none"> <li>• Policy 5. 5.1 Activities in Norwalk Harbor and use and development of the waterfront should be carefully planned, reviewed, and regulated to avoid adverse impacts on the quality of life in waterfront neighborhoods. (The NHMC is concerned about the construction impacts of the Project, not identified in any detail in the EA/EIE, on the South Norwalk Historic District and other waterfront locations, including impacts on businesses that serve to enhance the vitality and attractiveness of the harbor and waterfront.)</li> </ul>	
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F-4	F-4.15	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of	3.7	Missing in this evaluation is consistency with Federal planning initiatives- specifically FRA's NEC FUTURE program. You may review the program goals and objectives at necfuture.com, but in summary, the FRA-led effort is a long-term planning study to plan and prioritize passenger rail investments on the NEC. On December 16th, FRA released the Tier 1 Final EIS that identifies a Preferred Alternative. At this time, I've offered some text (see below) for you to consider incorporating into this section - it gives background about NEC	The Tier 1 Final EIS for the NEC FUTURE program was not published at the time of the EA/EIE. However, the EA/EIE addresses the consistency of the project with Federal planning initiatives. Section 3.7 cites the consistency of the project with the NEC Commission plans and reports, including the <i>Northeast Corridor Five-Year Capital Plan</i> , the <i>NEC Infrastructure Master Plan</i> , <i>Critical infrastructure Needs on the NEC</i> , and the <i>NEC Five-</i>
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			Program Delivery, Envir		<p>FUTURE, and also explains that the Walk Bridge Build Alt is consistent with the NEC FUTURE Preferred Alternative. Please contact me if you'd like to discuss further. (**note that FTA is also a Cooperating Agency in the NEC FUTURE effort).</p> <p>TEXT The Federal Railroad Administration (FRA) is working with Northeast Corridor stakeholders to develop a long-range, integrated investment plan for the Northeast Corridor (NEC) between Washington, D.C., and Boston, Massachusetts. This planning effort, called NEC FUTURE, was initiated in early 2012 and is expected to be concluded in 2017. The purpose of the NEC FUTURE program is to upgrade aging infrastructure and to improve the reliability, capacity, connectivity, performance, and resiliency of passenger rail service on the NEC for both intercity and regional trips, while promoting environmental sustainability and economic growth.</p> <p>NEC FUTURE includes the identification and analysis of a broad program of service and infrastructure improvements that will be documented in a Tier 1 Environmental Impact Statement (Tier 1 EIS) and a Service Development Plan (SDP). For the NEC FUTURE program, FRA released a Tier 1 Final EIS that recommended a Preferred Alternative to represent FRA's vision for passenger rail in the Northeast. While FRA is using 2040 as the analysis year, the improvements are likely to meet the needs of the NEC beyond 2040. FRA is advancing the NEC FUTURE program concurrent with FTA's Walk Bridge Replacement project and as such, the future capacity requirements identified as part of NEC FUTURE should not be precluded in the alternatives considered for the replacement of the Walk Bridge. Upon review of the Preferred Alternative being considered by the FRA, FTA has found that all involve replacing the Walk Bridge in kind with four tracks. Within the 2040 timeframe or beyond, increased capacity in this area may be achieved with new segments. As such, the Build Alternative is consistent with the transportation and infrastructure goals of NEC FUTURE.</p>	<p><i>Year Capital Needs Assessment. The NEC Five-Year Capital Plan builds on prior planning efforts: the NEC Infrastructure Master Plan, 2010-2030 (May 2010); a January 2013 report, the Critical Infrastructure Needs on the NEC, which describes the underlying needs for the most critical upgrades on the NEC; and a September 2014 progress report, NEC Five-Year Capital Needs Assessment, Fiscal Years 2015 to 2019. The need to replace or rehabilitate Walk Bridge was cited as a critical investment needed to address state-of-good-repair, reliability and capacity issues. The replacement of Walk Bridge is included in the NEC Five-Year Capital Plan as a "Major Backlog and Service Preservation &amp; Improvement Project."</i></p> <p>Section 3.8.2 of the EA/EIE also describes the economic importance of the project relative to the NEC Commission's April 2014 report, "The Northeast Corridor and the American Economy." The April 2014 report estimated the economic impact of a one-day loss of the NEC rail network due to a large-scale disruption. The NEC Commission concluded that an unexpected system-wide shutdown of the NEC could cost up to \$100 million in productivity and transportation-related costs per weekday. The EA/EIE notes that a temporary shut-down of Metro-North service due to a failure of Walk Bridge would not be likely to impact the entire NEC, as Metro-North Service is primarily a commuter service to and from New York City. However, a temporary disruption to Amtrak service due to a bridge failure would produce adverse impacts on the entire NEC; a delay in one segment of the NEC network produces ripple effects along the entire network. In sum, the EA/EIE states that the project will have a beneficial, long-term economic impact on the region by increasing the reliability of rail service on the NEC, which is critical for the movement of people, goods, and services throughout the Washington to Boston metropolitan areas.</p>
F-5	F-5.08	Fogel, AICP	Amtrak	3.7	The EA should refer to the NEC FUTURE the NEC Tier I programmatic EIS). Given that it will take several years (at least) to secure funding and several other years to construct the bridge, consideration should be given to determine how the current preferred (Walk Bridge) alternative relates to the NEC FUTURE preferred alternative (i.e., No-Build Alternative).	In its review of the EA/EIE, FRA determined that the Build Alternative is consistent with the transportation and infrastructure goals of NEC FUTURE. Refer to F-4.15.
S-2	S-2.01	Fox	DEEP	3.16.3	In general, the Land & Water Resource Division (LWRD) has determined that the EA/EIS, as a planning level document, has included sufficient detail with regard to coastal resource impacts. At this stage in project development, it contains conceptual information regarding adverse impacts and required mitigation to tidal wetlands, intertidal flats, subtidal areas, water quality, and other resources due to dredging and filling necessitated by the project. However, additional permit level detail will be required with future Structures,	CTDOT acknowledges your determination for the EA/EIE and looks forward to continuing to work with CTDEEP Land & Water Resource Division (LWRD) staff in permit preparation.

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					Dredge and Fill, and Tidal Wetlands Permits. LWRD staff will continue to work with and guide CTDOT on required permit information, detail and analysis that will be necessary prior to submittal of a complete application to this office.	
F-2	F-2.01	Bisignano	U.S. Coast Guard	3.2	The document adequately addresses our bridge permit concerns regarding navigation. This office will provide a preliminary navigation determination to Connecticut Department of Transportation at a later date in accordance with the U.S. Coast Guard's "Bridge Permit Application Guide" (July 2016).	The request for a preliminary navigation determination will be included in the USCG Bridge Permit application.
F-2	F-2.02	Moore	Agency: US Coast Guard	7	We do have one comment regarding coordination relative to the project. On Page 2-21, it is noted that "state and federal permits from CTDEEP, OLISP, USCG, and ACOE will be required for dredging activities in the federal navigation channel." The Coast Guard does not permit dredging activities; therefore we request that "USCG" be struck from the particular sentence.	CTDOT has corrected this statement, which is provided in the EA/EIE Errata (Refer to Appendix A-2).
F-4	F-4.01	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	2.4	Most of the drawings and figures do not show the existing bridge. It is hard to visualize how the new bridge is going to be built while keeping the existing bridge operational. I am sure either USACE or USCG will ask for more information showing the construction phases or at least some schematic diagrams.	While the impact evaluation in the EA/EIE is based on preliminary design, the renderings of the bridges shown in Chapter 2 and Section 3.19 are based on conceptual design. Construction phasing plans are not presented in the EA/EIE. Subsequent design submissions (60 percent, 90 percent, and 100 percent) will show construction staging. Construction staging plans will be provided to the U.S. Army Corps of Engineers (USACE) and the the U.S. Coast Guard (USCG) with permit applications.
F-4	F-4.02	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	2.4	Overhead Contact Systems (OCS) are not shown for the new bridge. Do not see on the figures.	The bridge renderings shown in the EA/EIE are based on conceptual design. OCS typically is not shown in conceptual design. Subsequent design submissions (60 percent, 90 percent, and 100 percent) will show this detail, and will be included in the permit applications.
F-5	F-5.02	Fogel, AICP	Amtrak	2.4	With regard to constructability, Amtrak would like to review the drawings related to the construction of Option 11C with regards to the horizontal clearances of the swing bridge with the new moveable bridge and temporary run-around structure.	CTDOT will provide Amtrak with the construction sequencing drawings, which will be prepared as design advances. Note that Option 11C, the Preferred Alternative, would not require a temporary run-around structure.
C-3	C-3.26	Mobilia	Norwalk Harbor Management Commission	5.3.13	An emergency communications system including the Norwalk Police and Fire departments should be established similar to the system employed during the recent harbor dredging projects.	CTDOT will develop and implement site-specific and community safety plans. Specific requirements for many of these plans will be based on CTDOT's Special Provisions and will be included in the contract specifications. Key safety and security plans for the project, which will include emergency communications plans, include: a Safety and Security Management Plan, a Health and Safety Plan/Railroad Safety Plan, and Construction Site Safety
C-1	C-1.33	Coppola	City of Norwalk Corporation Counsel	5.3.19	Both the Police and Fire Departments will need to approve all emergency plans associated with the project.	

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C-1	C-1.34	Coppola	City of Norwalk Corporation Counsel	5.3.19	The Norwalk Building Department or State Building Inspector should also weigh in on the sufficiency of site safety plans	and Security Plan/Emergency Response Plan. CTDOT will work with the City of Norwalk Police and Fire Departments, as well as State and other City officials, as needed. Refer to Appendix F-5.
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## Project Purpose and Need

F-4	F-4.03	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration	1.4	Both superstructure and substructure inspection and load rating report should be prepared for this bridge. That will also make it a justifiable case in front of the taxpayers and the general public for the replacement option.	Superstructure and substructure inspection and load rating reports previously have been prepared for Walk Bridge. CTDOT used these previous reports as the basis for developing the Rehabilitation Alternative, including recommendations for general rehabilitation or replacement of the different elements of the bridge, and development of an overall system rehabilitation cost estimate.
O-7	O-7.18	Kunkel	Norwalk Harbor Keeper	1.4	It should be noted that current engineering documents do not indicate a "deteriorated" bridge structure. The issue is the failure of the operating system to open and close the existing bridge.	In April 2006, CTDOT produced an in-depth inspection report, followed by routine inspection reports in 2007 and 2009. Additional data was recorded in the most recent mechanical/electrical inspection report in November 2013 and an emergency repair and reliability report in July 2014. The most recent load rating report (2014) confirmed the bridge's reduced load-carrying capacity, underscoring the need for strengthening the existing bridge for modern-day rail traffic loading as part of a comprehensive rehabilitation strategy.
O-7	O-7.19	Kunkel	Norwalk Harbor Keeper	1.4	At no time has the bridge failed or affected the reliability of rail service in its fixed position. The reliability concerns are specific to the bridge's failures in opening and closing.	<p>In 2005 a seismic analysis of the existing approach spans and swing span was performed to determine the vulnerability of the bridge to an earthquake. Additionally, a comprehensive fatigue evaluation was conducted to estimate cumulative fatigue damage in the main load-carrying members of the bridge. These evaluations in 2005 focused on strengthening and replacement of a limited number of members throughout the bridge to prolong its service life by 25 years. Members scheduled for rehabilitation were identified based on as-inspected load ratings, estimates of remaining fatigue life, and seismic resistance. The 25-year rehabilitation assessment concluded that the bridge would be adequate to resist the reduced Ultimate Limit State Event with limited damage at the substructures. To increase the seismic resistance, however, it was determined that major reconstruction of the substructures would be required, resulting in prohibitive cost and operational disruptions.</p> <p>CTDOT determined that the cost of rehabilitating Walk Bridge would be comparable to the cost of replacing the structure. As indicated in the EA/EIE, the program cost of the Rehabilitation Alternative is estimated to range between \$425 and \$475 million. While previous reports may have indicated the potential for lower costs, as well as the feasibility of rehabilitation, it is important to note that previous reports did not necessarily address the full system-wide rehabilitation needs and only assigned costs localized to known deficiencies. Holistic life cycle costs, which include the operator cost, annual inspection,</p>

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**Project Purpose and Need continued**

						<p>maintenance, and supply costs, structural repair/replacement costs, electrical repair/replacement costs, and mechanical repair/replacement costs, would be approximately \$9.2 million per year (annualized over the 100-year life of the bridge). Major structural repair work is estimated to be needed every 25 years, major replacement work is estimated to be needed every 30 years, and minor structural work is estimated to be needed every 15 years. In contrast, the estimated costs of the Preferred Alternative (Option 11C) are between \$425 and \$460 million, and the life cycle costs are estimated to be between \$3.7 million and \$4.2 million per year. On an annual basis, operating and maintaining the Preferred Alternative (Option 11C) will cost less than half the cost to operate and maintain the Rehabilitation Alternative.</p> <p>Appendix F-1 describes the Rehabilitation Alternative, including these background reports, and CTDOT's determination to dismiss the Rehabilitation as a viable alternative. The FONSI, including Appendix F-1, is available for public review on the project website.</p> <p>Failure of the bridge opening mechanism has occurred and has adversely affected rail service, as documented in Section 1.4.2 of the EA/EIE. Failure to open and close properly affects rail traffic, marine traffic, or both.</p>
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E-4	E-4.11	Third Taxing District	Norwalk's Third Taxing District	2.3	<p>The TTD urges CDOT to go back and reconsider options that were discarded in 2014 and to fully vet them against the objectives for this project. For example:</p> <ul style="list-style-type: none"> <li>- New fixed bridge with truss work above the rails instead of underneath</li> <li>- Mini-tugs for Devine and O&amp;G</li> <li>- Let tall-mast pleasure boats moor in the outer harbor</li> <li>- Restoration in place of the existing bridge</li> </ul>	<p>CTDOT worked closely with the Federal Transit Administration (FTA), as well as federal and state agencies and the City of Norwalk, in developing the project's Purpose and Need Statement. Per National Environmental Policy Act (NEPA) guidance, FTA and CTDOT are jointly responsible for defining the project Purpose and Need.</p> <p>The project Purpose and Need is intended to be a clear and well-defined statement of the objectives of the proposed project. The Walk Bridge Replacement Project Purpose and Need was developed in consideration of existing rail transportation on the New Haven Line/Northeast Corridor and existing marine transportation on the Norwalk River, and it incorporates multiple objectives.</p> <p>The Purpose and Need statement incorporates the primary purpose of the project: to rectify the existing deficiencies of the existing bridge, including its age and deterioration, decreasing reliability, safety standards, and difficulty of maintenance. It incorporates federal and state transportation goals for the New Haven Line/Northeast Corridor (NHL/NEC), including those</p>
O-8	O-8.07	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	1.4	<p>Notwithstanding CTDOT's use of an artificially narrow purpose and need, federal courts have consistently ruled that an Environmental Assessment must analyze even those reasonable project alternatives which "partially" accomplish the goals set forth in the purpose and need. This is because the tradeoffs involved in partial accomplishment of the goals may be worthwhile to the public if costs and impacts are lower.</p>	
S-3	S-3.04	Wittchen	Connecticut Office of Policy and Management	2.3.3	<p>Although the EIE presents what appears to be a thorough review of movable bridge design options, OPM is of the opinion that it does not sufficiently consider and evaluate other project alternatives that many people appear to consider prudent and feasible.</p>	
T-18	T-18.01	Wagman	Individual	2.3.3	<p>I am here to express concern that I haven't heard about what went into the alternatives; the considerations that went into the alternatives. The bridge has been there for a hundred some odd years. It's been that turn bridge for that long. Aside from the fact that, I don't know, in 1880 a train dropped into the</p>	

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**Project Purpose and Need continued**

					river because somebody failed to press the PUSH button, it's been a safe construction. I don't know what considerations went into denying just replacing the rotating mechanism. I'm sure we wouldn't do it the same way with gears and levers, etc. but I'm sure there are pneumatic/hydraulic/electronic means to address that issue and I'd be concerned as to what kind of research went into those alternatives and into why they were rejected. And, of course, I would accept the professional opinions of those who made that decision.	enumerated by the NEC Commission and CTDOT. By improving the bridge's operational flexibility, enhancing the safety and reliability of rail service, and providing for increased efficiencies of rail transportation along the NHL/NEC, the project will advance policies and goals established in federal, state, regional, and local transportation plans. The project Purpose and Need statement incorporates the legislative intent of the Transportation Emergency Relief Program, by including bridge redundancy and sustainability as priority project elements.
T-19	T-19.01	Goldstein	Individual	2.3.3	I just wanted to speak briefly again about the fact that a lot of people here have enumerated the fact that there were options eliminated and it's really not clear to the public why. You speak of having gone through 70 or so options but only 4 or 5 of them really were in the realm of no build/rehabilitation or some version of a fixed bridge other than the one that's really unpopular.	<p>The Purpose and Need statement also incorporates a secondary purpose of the project: to maintain or improve the navigational capacity and dependability for marine traffic in the Norwalk River, in recognition of the fact that the existing Walk Bridge crosses a federally-maintained and designated navigable waterway, and accommodating marine traffic is a transportation function that the project is intended to address, together with accommodating rail traffic. CTDOT developed the project Purpose and Need, working closely with FTA, federal and state agencies, and the City of Norwalk, based upon an expectation of the continuation of marine traffic through the project area. Incorporating the need to maintain or improve navigation into the Walk Bridge Replacement Project is consistent with and advances the policies and goals of federal, state, and local agencies.</p> <p>Together with the two transportation-related goals and objectives of the project – to promote the regional economy and to preserve environmental quality - the project Purpose and Need statement provides the basis for establishing the range of alternatives evaluated and for identifying the Preferred Alternative. In accordance with NEPA, an alternative that does not meet the project's Purpose and Need can be removed from further consideration.</p> <p>CTDOT identified a reasonable range of alternatives, and investigated them relative to the project Purpose and Need, as well as other project parameters including resiliency, redundancy, constructability, construction impacts, costs, and environmental considerations, among others. CTDOT focused upon four general categories: No Build Alternative, Rehabilitation Alternative, Replacement Alternative – Movable Bridge; and Replacement Alternative – Fixed Bridge. After thorough consideration and analysis, the Rehabilitation Alternative and the Fixed Bridge Replacement Alternative options</p>

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						were not advanced for further evaluation beyond the initial screening process. Refer to Appendices F-1 and F-2.
O-8	O-8.15	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	2.3.3, 3.24	The Environmental Assessment's Alternatives Analysis Inadequately Assesses Railroad Safety Considerations...Yet, the Environmental Assessment's alternatives analysis completely fails to assess the relative railway safety implications of swing and lift bridges as opposed to a fixed bridge.	<p>Incorporating safety standards is part of the project Purpose and Need. Regardless of the selected alternative, the Walk Bridge Replacement Project will be designed and constructed to meet current safety standards.</p> <p>CTDOT is working in cooperation with Metropolitan Transit Authority/Metro-North Railroad and the Federal Railroad Administration to improve railroad safety on the New Haven Line/Northeast Corridor (NHL/NEC). By providing for multiple levels of redundancy, including mechanical and electrical system redundancy, the project will maximize railroad safety.</p>
S-3	S-3.01	Wittchen	Connecticut Office of Policy and Management	1.3	Please explain why CTDOT decided to modify the project purpose and need after the public scoping period to include the clause about maintaining and improving navigational capacity and dependability for marine traffic in the Norwalk River, instead of proceeding as OPM suggested in its scoping comments. Doing so not only raises procedural concerns; it also seems to inappropriately elevate marine navigation to a status higher than other things that could be impacted by the project. A moveable bridge, furthermore, would likely reduce future rail service reliability, which is contrary to a basic goal of this project.	<p>CTDOT refined the project Purpose and Need following the public scoping meeting in cooperation with FTA and in consideration of stakeholder input. The refinement to the project Purpose and Need included a clause to maintain or improve navigational capacity and dependability for marine traffic in the Norwalk River in recognition of the fact that the existing Walk Bridge crosses a federally-maintained and designated navigable waterway, and accommodating marine traffic is a transportation function that the project is intended to address, together with accommodating rail traffic</p> <p>CTDOT analysis shows that a replacement movable bridge will not reduce future rail service reliability. On the contrary, the replacement bridge will improve rail service reliability by improving the reliability of the bridge. Furthermore, the operational redundancy provided by the replacement bridge also will improve rail service reliability.</p>
I-16	I-16.03	Mineo	Individual	2.3.3	As for redundancy; I believe the need for it pertaining to the town of Norwalk, or Marine traffic is questionable at best. If there is proven reliability and resiliency as our walk bridge design has, there should not be a need for redundancy. However a new design without a proven record would have a greater need for this kind of insurance. This need only satisfies rail traffic alone because if one track were to be stuck closed instead of open it would affect only Marine traffic and redundancy will not help that. If this new bridge were to have this problem it would be of no concern to the DOT or Metro North because a closed bridge doesn't affect them and there would be no incentive to address that possible problem. It would end up falling on the backs of the tax payers of Norwalk.	<p>Incorporating resiliency and redundancy are part of the project Purpose and Need. Regardless of the selected alternative, the Walk Bridge Replacement Project will be designed to be both resilient and operationally redundant relative to rail operations. System resiliency refers to designing the bridge to withstand seismic events or flooding or storm events. Operational redundancy refers to the ability of the structure to maintain service on a limited number of tracks, such as during maintenance events or an event that could make all tracks inoperable.</p>
I-1	I-1.01	Peterson	Public	1.4	In your information slides about the Walk Bridge replacement (specifically the 3rd slide in the Display Boards <a href="http://www.walkbridgect.com/pdf/meetings/displayboards.pdf">http://www.walkbridgect.com/pdf/meetings/displayboards.pdf</a> ), you call the	

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<b>Project Purpose and Need continued</b>						
					new bridge a "redundant structure." It would be better and more understandable for the lay public if you called it a "resilient structure." I understand that in this context "redundant" means it will have multiple areas of strength so that if one area fails, the bridge will still stand. But many people may think "redundant" means "unnecessary", thus raising the question of why we are doing it if it's redundant.	
O-7	O-7.21	Kunkel	Norwalk Harbor Keeper	1.4	The efficiencies can only take into account current rail service. There is no provision in the design to provide compatibility with future high speed rail service. Any concern about efficiencies and delays due to the bridge's failure to open and close properly would be addressed with a fixed bridge, as there would be no such failures.	<p>Incorporating efficiencies of rail transportation while maintaining or improving navigational capacity are part of the project Purpose and Need.</p> <p>The Walk Bridge Replacement Project is consistent with Federal planning initiatives. Section 3.7 of the EA/EIE notes that the project is consistent with the NEC Commission plans and reports. The Federal Railroad Administration (FRA) concurs that CTDOT's Preferred Alternative is consistent with the transportation and infrastructure goals of NEC FUTURE (Refer to Comment F-4.15).</p> <p>CTDOT concurs that a fixed bridge option would remove all risk of failure during opening and closing of the bridge. However, CTDOT dismissed the Fixed Bridge Alternative because it would not meet the project Purpose and Need. CTDOT analysis shows that a replacement movable bridge will not reduce future rail service reliability. On the contrary, the replacement bridge will improve rail service reliability by improving the reliability of the bridge. Furthermore, the operational redundancy provided by the replacement bridge also will improve rail service reliability. It is likely that upon completion of the project, the USCG will maintain a bridge opening schedule that accommodates the rail service commuting periods, as discussed in EA/EIE Section 3.2.2, by restricting openings during commuting periods to emergencies only.</p>
T-14	T-14.02	Dobowski		1.3	The proposed recommendations for the Walk Bridge are based on a requirement for unlimited vertical clearance which is not an actual legal requirement.	<p>Incorporating efficiencies of rail transportation while maintaining or improving navigational capacity are part of the project Purpose and Need.</p> <p>The EA/EIE indicates that the Build Alternative (all three options) would provide for a vertical clearance of 60 feet. The bridge replacement options are required to provide vertical and horizontal navigation clearances as prescribed by the U.S. Coast Guard (USCG). Based on consultation with USCG, the I-95 (Yankee Doodle) Bridge, located .53 nautical mile upstream from Walk Bridge, establishes the 60-foot vertical clearance requirement for the replacement Walk Bridge.</p>

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## Property Acquisition/Land Use

B-2	B-2.01	Price	Individual	3.6	My 45-year-old Norwalk business, Artists Market, has patronized Liberty Square for decades, first using Nat Levy Glass, and for the past many years, Tony D'Andrea's Select Plastics. Tony has worked virtually his entire life to create a sustainable small business in a part of Norwalk that is drastically under-amortized. To destroy his life's work, and the livelihood of others, in order to provide construction access for a necessary bridge, is both short-sighted and unnecessary. There is river access and other alternatives. If we don't support Norwalk's indigenous businesses then Norwalk runs the risk of becoming another nondescript failed Connecticut town. Support Select Plastics and Liberty Square and you are supporting Norwalk's future.	Although the EA/EIE indicated that the property at 217 Liberty Square (Select Plastics) would be required for construction of the project, further analysis indicates that the use of this property will not be required and it will not be acquired for project construction. This change is noted in the EA/EIE Errata (Appendix A-2).
B-6	B-6.03	Condon	Coastwise Boatworks	3.6	With Coastwise Boatworks water front location being eliminated and no replacement location provided, Coastwise Boatworks would like to request that it be offered in contract form the first priority to reestablish our water front use at its present location upon completion of the bridge project. It is understood the portion of usable waterfront area is unable to be fully determined until the bridge project has been completed.	CTDOT evaluated options to acquire or lease properties required for the project, and determined that acquisition of the parcels would best meet the project needs. The proposed parcel acquisitions, temporary easements, and permanent easements reported in the EA/EIE (Table 3-5) were determined based upon the contractor's temporary construction needs and CTDOT's permanent maintenance needs. CTDOT determined that the property takings that are required for the construction and operation of the project would be needed regardless of the selected Build alternative (including the Fixed-Bridge Alternative and the Rehabilitation Alternative). The number, size, and location of parcels are required for construction of the bridge to provide river access from all four sides of the bridge, rail and road access, construction staging areas, and material storage areas.  Pursuant to Connecticut's Uniform Relocation Assistance Act and the federal Uniform Relocation and Real Property Acquisition Act, CTDOT is working with the Maritime Rowing Club and affiliates of SoNo Wharf, LLC who are relocating due to property acquisition.  Section 3.6.2 of the EA/EIE states that CTDOT will require permanent access to the replacement bridge for future operations and maintenance, including a portion of the land abutting the railroad right-of-way in the southeast quadrant of the bridge at 10-11 Goldstein Place (Parcels 3/1/30 and 3/1/25). The exact size of the maintenance access area will be determined as design advances. Note that a portion of the easement is intended for use by the bike/pedestrian trail extension of the Norwalk Harbor Loop Trail.
C-1	C-1.17	Coppola	City of Norwalk Corporation Counsel	3.6, 5.3.12	Water Dependent Uses: Some options are presented....very little detail is provided. When will those options be more fully developed? If reopening the closed marina is an option, who will do it? Who will run it? Who will obtain the permits, if needed?	
S-2	S-2.06	Fox	DEEP	3.6.3	The EA/EIE does not acknowledge LWRD's previous understanding, based on discussions with CTDOT, that one third of the Coastwise Marina site would be permanently turned over to CTDOT control and become permanently non-water dependent. (See attached water-dependent use fact sheet for specifically defined adverse impacts). This is a significant permanent water dependent use impact not addressed in the EA/EIE nor depicted on page 39 that will also require significant mitigation.	
S-2	S-2.07	Fox	DEEP	3.6.4	With regard to Coast Wise Marina and the rowing club takings, LWRD will be working with the CTDOT to preserve this site for an active water-dependent use in perpetuity through an appropriate permit condition involving deed restriction, consistent with CCMA policy to protect and preserve existing and future water-dependent uses.	
C-3	C-3.11	Mobilia	Norwalk Harbor Management Commission	3.6	Regarding CT DOT access to the bridge for construction purposes, CT DOT should give additional consideration as to whether to purchase/condemn properties of water dependent and water-enhanced businesses or lease the affected properties from the property owners for the duration of the Project. Under the latter approach, property owners who agree to be temporarily relocated by CT DOT would have the option of returning to their properties upon project completion without having to buy back their properties from CT DOT.	
S-3	S-3.03	Wittchen	Connecticut Office of Policy and Management	3.6.3, 2.3.3	OPM notes that even CTDOT's chosen alternative requires a significant number of property takings. One of those takings, furthermore, is a marina that apparently would not be affected if the existing bridge were to remain in place. The EIE suggests that the marina would likely become a marina again when	Regarding the sale of the property with existing water-dependent uses, CTDOT is working in coordination with CTDEEP's Land and Water Resource Division (LWRD) to preserve this site for an

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<b>Property Acquisition/Land Use continued</b>						
					CTDOT sells the property following construction, but points out that there would be no restriction at the time it resells the land and that the land use could change.	active water-dependent use. In accordance with Connecticut General Statutes, CTDOT will market the excess property indicating the highest priority and preference for water-dependent use of the site. With approval from the Commissioner of the Department of Energy and Environmental Protection, CTDOT will select the highest bid that best demonstrates an integrated, quality, water-dependent use. Water-dependent uses include, but are not limited to; marinas, recreational and commercial fishing and boating facilities, finfish and shellfish processing plants, waterfront dock and port facilities, shipyard and boat building facilities, and water-based recreational uses.
C-4	C-4.03	Burns	Norwalk Department of Public Works	3.22, 3.19	North Water Street New Piers - The DRC understands that new piers must be constructed on the east and west sides of North Water Street to facilitate bridge replacement. The DRC does not object to the piers, but will be providing comments in the near future on the aesthetics and programming requirements being evaluated by the City's Office of Economic Development/Redevelopment Agency. Water Street plays a vital role in connecting The Maritime Aquarium and the Maritime Garage, which is the district's primary parking resource, on the north side of the bridge, with the historic district on the south side. The potential use of the land to the west side of Water Street as parking for DOT personnel is inappropriate, given the importance of that connection. The large brownstone blocks that support the bridge structure are also a significant part of the historic fabric of the place, and there potential removal would be a loss.	Currently, there is CTDOT/Metro-North Railroad parking beneath the West Approach on North Water Street. CTDOT and Metro-North will continue to require access to the railroad right-of-way for routine operation, maintenance and inspection work which is anticipated to be an occasional use of some area for access/parking near the bridge. CTDOT is continuing to evaluate its parking needs and access, which in part is dependent upon the evolving design details and considerations of the City and local stakeholders. CTDOT will communicate its potential requirements to the City as the design progresses.  Re-use/repurposing of abutment stone blocks is discussed as a potential mitigation element in the revised Walk Bridge Section 106 Memorandum of Agreement. Refer to Appendix B.
C-4	C-4.04	Burns	Norwalk Department of Public Works	3.6	If there are any limitations as to how this space can be used, please forward them to my attention as soon as possible and I will distribute to the DRC.	
F-3	F-3.01	Lazinsky	U.S. Department of Interior	9.0	The Department concurs that there is no prudent and feasible alternative to the proposed use of 4(f) lands, which consist of the existing bridge, high electric towers, catenary support structures, stone retaining walls, Fort Point Street Railroad Bridge, and the Industrial Buildings historic district, all eligible for or listed on the National Register of Historic Places (NRHP).	CTDOT acknowledges your determination.
B-7	B-7.02	Morque	Spinnaker Real Estate Partners LLC	5.3.4	We understand that the contractor constructing the Walk Bridge Project will be using a construction easement for storage and construction "lay down" on the Lock Building lot. We have also been told that a large crane will be located on the construction easement and used in connection with the project, and that protective walls will be constructed within the easement area, which will adversely affect the view of a number of tenants and the availability of natural light	CTDOT will require a temporary construction easement at 18 Marshall Street (Parcel 2/24/8) for use of the parking area, to provide the contractor with access for construction of the bridge approach spans, removal of the high tower, and construction of new railroad abutment walls.  Table 3-22 in the EA/EIE is titled "Recommended Findings of

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**Property Acquisition/Land Use continued**

B-8	B-8.09	Fowler	Spinnaker Real Estate Partners LLC	3.6	Table 3-22 states that there is not impact on the use of the Lock Building from use of its parking lot. This needs serious re-evaluation as it is the life blood of the building to say nothing of the construction impacts use of the parking lot will have on the rights of the building's tenants to Quiet Enjoyment of their space as required in their leases!	Effects of Project on Listed, Eligible, and Potentially Eligible Properties.” The reported effect on the Lock Building in the table is specific to historic considerations pursuant to Section 106 of the National Historic Preservation Act. Per the findings in the EA/EIE, the project will result in an indirect (visual) adverse effect on the building’s historic setting. Regarding use of nearby areas for construction staging/access areas or permanent access areas, the EA/EIE reports no adverse effect conditional upon no damage. As design advances and the contractor’s construction means and methods are defined, CTDOT will investigate the potential impacts to tenants and, if needed, the requirement for protective walls within the easement area. CTDOT is continuing to evaluate alternatives to reduce construction period impacts as much as possible.
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B-11	B-11.10	Edvardsen	Spinnaker Real Estate Partners LLC	3.6	90 Water Street - the land area is inaccurate. The site is over double the stated acreage. I believe the City of Norwalk source data is accurate but that data for 70 Water and 90 Water Street is transposed.	The land acreage for 70 Water Street and 90 Water Street is transposed. The EA/EIE Errata (Appendix A-2) contains this correction.
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C-1	C-1.06	Coppola	City of Norwalk Corporation Counsel	3.6	The total assessed value of the properties to be acquired is approximately \$3.6 million, based on the City's 2014 property valuations. In 2016, the combined annual property tax revenue from these parcels was approximately \$91,000," EA/EIE, p. 3-51. What tax relief will be substituted? Will there be a payment in lieu of taxes?	CTDOT determined that the parcels required for construction and operation of the bridge would be needed regardless of the Build alternative (including the Fixed-Bridge Alternative and the Rehabilitation Alternative). The number, size, and location of parcels are required for construction of the bridge to provide river access from all four sides of the bridge, rail and road access, construction staging areas, and material storage areas. The parcels identified in Table 3-5 of the EA/EIE are those land areas anticipated to be required for the project, based upon the likely construction scenarios and regardless of the selected Build alternative, and were selected based on their size and proximity to Walk Bridge. CTDOT is continuing to evaluate uses of the sites as design advances and the contractor’s construction means and methods are further defined.  In accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), CTDOT will compensate property owners for the real property rights being acquired from them. If the acquisition results in the displacement of a family, business, or personal property, CTDOT will provide relocation assistance in accordance with the Uniform Act. As part of the advisory assistance that CTDOT provides, property displacees are advised of potential replacement properties and/or directed to real estate professionals (realtors,
C-1	C-1.07	Coppola	City of Norwalk Corporation Counsel	5.3.4	Temporary Easements will be required on 12 parcels during construction, and six will require displaced uses. What will happen to the displaced uses? Will the property owners be compensated for the temporary loss of use? While the Aquarium certainly will be impacted what are the plans for the mitigation for the Aquarium and the other businesses temporarily displaced?	
C-1	C-1.08	Coppola	City of Norwalk Corporation Counsel	3.6	What is the process under the Uniform Relocation Assistance Act? What aid is there to residences and the businesses and the City (for its property and the loss of its tax base)? What will the City's role be in determining the future ownership, used and development of these parcels such that they will be returned to productive, taxable use(s)? What planning will there be to take into account land use restrictions on certain parcels?	
C-1	C-1.22	Coppola	City of Norwalk Corporation Counsel	3.6	While economic benefits are projected to occur in the long term, the loss of revenue from property taken off the grand list and the loss of public parking revenue has not been adequately quantified. What (or who) will fill this gap so that the City can maintain its current level of services?	
C-11	C-11.07	Stocker	Economic Development Department	3.6	The City of Norwalk will experience a loss of revenue from privately owned real and personal property that will be and that has been taken off the grand list and from lost public parking revenue as a result of the project. The report does not adequately identify the direct loss in revenues or the secondary	

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**Property Acquisition/Land Use continued**

					loss in revenues. Additionally, any lost revenue will have to be made up in order for the City to maintain the level of services currently provided. It is requested that DOT identify the true value of such lost revenue and then work with the City to develop a plan for in kind or reciprocal improvements that are at least equal in value - dollar for dollar to the actual revenue lost. An example would be the improvement to any public infrastructure (drainage, landscaping, walkways, paving etc.) taken by DOT or that is impacted by the project where public parking areas (Liberty Square, South Norwalk), bike paths, Norwalk River Loop Trails, piers or boardwalks are currently located, be replaced in kind upon completion of the project. Additionally a commitment to reconstruct Goldstein Place after the project completion should be required.	<p>etc.) who may assist them in identifying replacement properties. CTDOT does not establish new locations for displaced businesses. The relocation decision resides with each business.</p> <p>CTDOT does not have statutory authority to compensate the City of Norwalk for the loss of tax revenue resulting from real property acquisitions. Following project completion, the properties will be sold, available for development, and returned to the Grand List.</p> <p>The use of the parcels for construction of the Walk Bridge Replacement Project is not expected to negatively affect their resale prospects or value, nor is their use expected to adversely affect surrounding properties. CTDOT is currently performing due diligence on these properties, including identifying potential on- and off-site areas of environmental concern that may have resulted in subsurface contamination at the site. Pending the results, additional investigation or active remediation may be required. During construction, the parcels will be maintained and fenced as practicable. Prior to project completion, CTDOT will be responsible for restoring and stabilizing the sites, including restoring the temporary easements to pre-project conditions and preparing the portions of the parcel no longer needed for transportation (excess property) for resale.</p>
C-1	C-1.39	Coppola	City of Norwalk Corporation Counsel	3.6, 5.3.4	Obtain information re: activities that will take place on these parcels during construction. Will these activities negatively affect prospect of resale? Will they negatively impact surrounding properties during project?	
E-1	E-1.03	Lavielle	CT House of Representatives	3.6	Request for document related to project: All documents related to consideration of Norwalk sites for staging during construction.	
O-7	O-7.36	Kunkel	Norwalk Harbor Keeper	3.6, 5.3.4	We are afraid that the government may be taking properties and displacing Norwalkers from their homes and residences with plans to sell those properties to the highest bidder in short order. We ask that the Environmental Assessment study these potential impacts and provide a plan for what CTDOT may do with the land it plans to take from Norwalk citizens after construction is complete.	
C-1	C-1.40	Coppola	City of Norwalk Corporation Counsel	3.6, 5.3.4	Obtain information re: available commercial spaces that displaced businesses can relocate to.	
C-3	C-3.14	Mobilis	Norwalk Harbor Management Commission	3.6	Consideration should be given to use of the decommissioned power plant site on Manresa Island as a construction staging and business relocation area, consistent with all applicable municipal land-use requirements.	<p>CTDOT is guided by Connecticut General Statutes when releasing excess property. Following project completion, any property determined to be in excess of CTDOT's needs will first be offered to other State Agencies in accordance with C.G.S. 4b-21. Thereafter, pursuant to C.G.S. 3-14b, the City will have an opportunity to purchase property deemed in excess of the State's needs, prior to being offered to the public for sale and development. The future use and development of these properties is determined by municipal zoning, the City's Plan of Conservation and Development, permit approvals, and for properties within the coastal zone boundary, municipal coastal site plan review.</p> <p>Regarding the use of the Manresa Island site as a construction staging area, CTDOT evaluated the site and determined that the current conditions proposed by the property owner are not cost-effective to serve as a construction staging site. Other areas closer to the Walk Bridge are preferred. The Manresa Island site is not entirely ruled out and could potentially be used by the contractor at some point during the construction. Should the contractor opt to use the Manresa Island site in the future, the</p>

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<b>Property Acquisition/Land Use continued</b>						
						contractor would be responsible for obtaining permits and approvals.
C-3	C-3.12	Mobilia	Norwalk Harbor Management Commission	3.6	As a possible alternative to construction related use of some of the properties now slated for acquisition by CT DOT on the south side of the railroad line in the Liberty Square area, including properties currently supporting water-dependent and water-enhanced businesses, CT DOT should evaluate opportunities for using City of Norwalk properties on the north side of the bridge in the vicinity of the Norwalk wastewater treatment plant. To the extent feasible, consideration should be given to possible use of the city's yard waste area and other Department of Public Works (DPW) properties.	As indicated in Table 3-5 of the EA/EIE, CTDOT is proposing to expand an existing CTDOT-easement at 60 South Smith Street, the site of the City's WWTP, as part of its overall permanent project right-of-way and temporary use needs. The determination of the parcels required for permanent and temporary use was based upon the contractor's temporary construction needs, CTDOT's permanent maintenance needs, and availability and condition of land area near the bridge. These requirements will continue to be refined as the design of the project progresses.
C-3	C-3.13	Mobilia	Norwalk Harbor Management Commission	3.6	CT DOT should clarify its plans for construction-related use of properties in the Norwalk Marine Commercial District along South Water Street, south of the Route 136 Bridge.	This area is currently identified as a contractor staging and waterfront access area during the bridge construction period.
C-5	C-5.06	Burns	Norwalk Department of Public Works	3.6	Property Acquisition-With regard to DPW controlled parcels listed in the property acquisition sections of this document for both temporary and permanent easements-the EA/EIE does not take into account land use restrictions on certain parcels and it states that, in some instances, there are no displaced permanent uses, when in actuality there are.	CTDOT has coordinated with the City to have the concrete storage barriers located within the proposed acquisition area moved to another location on site. There are no other relocations associated with this City-owned property. Any future use of the site after the completion of the project will occur in coordination with the City.
C-12	C-12.07	Sotnick	Norwalk Department of Public Works	3.6, 5.3.4	Property Acquisition - With regard to DPW controlled parcels listed in the property acquisition sections of this document for both temporary and permanent easements - the EA does not take into account land use restrictions on certain parcels and it states that, in some instances, there are no displaced permanent uses, when in actuality there are.	
O-7	O-7.32	Kunkel	Norwalk Harbor Keeper	5.3.4, 3.6	The Environmental Assessment Fails to Consider Socioeconomic Impacts. The construction work required for the preferred project alternative, which would last more than three years, will have devastating impacts to locally owned businesses in the area. It would require the permanent displacement of four existing small businesses and temporary easements on 12 parcels. Counsel informs us that such impacts must be analyzed in detail pursuant to legal requirements for an Environmental Assessment, quantifying details like the amount of business that would be lost due to interruptions in access and foot traffic lost from construction. We request that CTDOT study these impacts before finalizing the Environmental Assessment.	CTDOT has initiated coordination with the City of Norwalk and other stakeholders, including the Maritime Aquarium, to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating Construction Period Coordination Plans in close coordination with the City of Norwalk and affected parties. The Construction Period Coordination Plans will include a series of individual plans and strategies focused on safety and security, noise and vibration control, air quality/dust control, and traffic mitigation. Refer to Appendix F-5.  The EA/EIE considers long term impacts to be permanent impacts compared with temporary impacts representing construction period duration. While the comment suggests that construction effects would extend beyond the construction period, it is CTDOT's judgement that implementing the various Construction
B-8	B-8.12	Fowler	Spinnaker Real Estate Partners LLC	5.3.4, 5.3.5	In 5.3.4 DOT needs to realize a temporary easement of 3-5 years plus the led-in to the construction and the recovery time totaling 5-7 years begins to look more like a permanent impact than a temporary one, and in many cases, such may very well be the case. Appropriate allowance must be made for such instances, to wit, the historic Lock Building, the Ironworks Building, and the Maritime Aquarium	

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<b>Property Acquisition/Land Use continued</b>						
E-2	E-2.02	Boucher	Connecticut State Senate	5.3.4, 5.3.5	In the long-term the construction of the bridge would present difficulties for nearby businesses, whose property the DOT would have to acquire either permanently or temporarily in order to build the bridge. This includes the Norwalk Aquarium, which is directly adjacent to the existing Walk Bridge and whose popular IMAX theater would have to be taken over for the duration of the project. Should this prove necessary, I would hope that the DOT would provide assistance to the aquarium to have the theater relocated. It is vitally important that the DOT pursue a construction option that minimizes the damage to the nearby business environment.	<p>Period Coordination Plans as described in Appendix F-5 will minimize the potential direct and indirect project effects, and therefore minimize the extent and duration of potential effects.</p> <p>CTDOT is continuing to coordinate with the City of Norwalk and the Maritime Aquarium regarding the specific size and location of temporary and permanent easements that it will require relative to Parcel 2/19/2 and Parcel 2/193 (10 North Water Street). Construction Period Coordination Plans applicable to the Aquarium's operations include a business coordination plan, historic building protection plan, a transportation management plan, and an alternative/replacement parking plan. Due to the unique nature of the Maritime Aquarium at Norwalk, including the sensitivities of its resident animal populations, CTDOT is developing a specific coordination plan with the Maritime Aquarium. CTDOT is working with the City of Norwalk and the Aquarium to develop a plan to identify and address the impacts of the project upon the Aquarium's outdoor and indoor exhibits and its terrestrial and aquatic animals. In accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended, CTDOT will compensate the City of Norwalk for the property rights to be acquired. In connection therewith, CTDOT will provide the City of Norwalk and/or the Aquarium the assistance necessary to relocate the animals affected by the acquisition.</p> <p>CTDOT recognizes that the preliminary mitigation plans will require further development. As the project design is finalized and the contractor's means and methods are more defined, details of proposed mitigation measures also will be further defined. CTDOT will continue to finalize mitigation details with the City of Norwalk and affected parties as design advances. Per FTA requirements (23 CFR 771.113), final design activities cannot be advanced until a NEPA decision has been issued.</p>
O-12	O-12.09	Davis	The Maritime Aquarium	3.6	The Aquarium will need to continue to be included in discussions regarding the parameters of the proposed temporary and permanent easements so that it may assess the impact of these easements on the Aquarium's operations, and in particular with regard to the IMAX Theater and other non-animal exhibits that will or may be impacted.	
F-4	F-4.06	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	2.4	Curved building on the southwest corner is very close to the west tower footing. Not sure how the building is supported.	As presented in Table 3-5, CTDOT determined that it will require temporary and permanent easements at Parcels 2/19/2 and 2/19/3, 10 North Water Street. After the publication of the EA/EIE in August 2016, it was determined that the IMAX Theatre, the curved building on the southwest corner, will be relocated. CTDOT is working in coordination with the City of Norwalk and the Maritime Aquarium at Norwalk regarding the most appropriate relocation site.

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Property Acquisition/Land Use continued

C-11	C-11.01	Stocker	Economic Development Department	9.4.2	The report does not adequately identify or provide sufficient information for the City of Norwalk to quantify impacts necessary for a Section 4(f) exception for temporary use to trails and improvements to parks (wetland plantings/ trail construction) to various parks within the city.	<p>The Federal Transit Administration (FTA) approved the Draft Section 4(f) Evaluation included in the EA/EIE (Chapter 9), which includes a temporary occupancy of Section 4(f) lands due to the temporary construction impacts to trails and use of parks associated with tidal wetland restoration. The U.S. Department of Interior issued a concurrence to the Draft Section 4(f) Evaluation on November 17, 2016 (Refer to Comment F-3.1).</p> <p>Temporary use of the City's Wastewater Treatment Plant (WWTP) site (Parcel 3/2/3) and construction of an extension of this trail connection along the east river bank will temporarily affect the southernmost terminus of the existing Harbor Loop Trail. Additionally, due to the temporary use of the Norwalk Parking Authority site (Parcel 2/19/1), the portion of the Norwalk River Valley Trail (NRVT) adjacent to this parking lot may be closed to the public during construction. North Water Street and its sidewalks can be used by pedestrians and bicyclists. CTDOT will restore the existing trails to pre-construction condition following completion of construction. Prior to the start of construction, CTDOT will develop a Transportation Management Plan, which will include pedestrian and bicycle detour plans for the stages of the project, including bridge construction. Refer to Appendix F-5.</p> <p>CTDOT reported preliminary tidal wetland and intertidal area mitigation needs in the EA/EIE. Specific mitigation plans and details will be completed in final design, as the contractor means and methods are determined. State and federal permits, including detailed mitigation, will be prepared based upon 60 percent design. In coordination with CTDEEP and USACE, CTDOT is evaluating priority locations for tidal wetland mitigation, potentially involving restoration and/or invasive species remediation, including locations within Oyster Shell Park and Veterans Park. CTDOT will continue to coordinate with the City of Norwalk on the tidal wetland restoration locations.</p>
I-2	I-2.01	Obuchowski	Individual	3.6, 9.1	The public has not been given an explanation why Veterans Park can't be used for staging area instead of displacing businesses and demolishing IMAX theater. The only excuse given is that Norwalk promised a seasonal ice skating rink in Veterans Park, which is ridiculous. The skating rink could be put in after the bridge is finished. What is the real reason why you are not using Veterans Park as staging area?	Because the Walk Bridge is being funded in part by the Federal Transit Administration (FTA), the Walk Bridge Replacement Project must comply with Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. §303 and 23 U.S.C. §138), which provides federal protection of publicly owned and accessible parklands and recreation areas. Veterans Memorial Park is a City-owned park which is protected by Section 4(f). According to Section 4(f), FTA cannot approve the use of Veterans Memorial Park as a construction staging area for the

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**Property Acquisition/Land Use continued**

						<p>Walk Bridge Replacement Project unless the following occurs: there is no feasible and prudent avoidance alternative to the use of the park; and the project includes all possible means to minimize harm to the park resulting from the use; or the use, including any measures to minimize harm, will have a de minimis impact on the property.</p> <p>CTDOT identified "proximity to the bridge site" as one of its highest priorities in the site selection process for the construction staging parcels. As described in Section 3.6 of the EA/EIE, property takings for the construction and operation of the project are required for construction staging and for river, rail, and roadway access. Most of the construction staging parcels are located immediately adjacent to the bridge site to allow waterfront access. In comparison, Veterans Memorial Park is located over 1,000 feet from Walk Bridge by water and approximately one-half-mile by local roads. The parcels listed in Table 3-5 of the EA/EIE are deemed to be more feasible and prudent alternatives to the use of Veterans Memorial Park.</p>
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C-1	C-1.38	Coppola	City of Norwalk Corporation Counsel	3.6	FTA has approved early acquisition of the 9 parcels at Goldstein Place and Liberty Square, on the east side of the Norwalk River, under its Corridor Preservation Exemption - what does this mean?	As shown in Table 3-5 of the EA/EIE, all of the acquisition and permanent easement parcels and most of the temporary easement parcels qualified for early acquisition using the Corridor Preservation Exemption (CPE), 49 USC 5323(q). The CPE authorizes The Federal Transit Administration (FTA) to assist in the acquisition of right-of-way (ROW) before the completion of the NEPA environmental review process for transit projects that eventually will use the ROW. For the purposes of corridor preservation, ROW is defined as real property interest in a linear configuration needed for a core capacity improvement project or a capital project, as well as real property interests needed for facilities directly adjacent to the fixed guideway, such as the New Haven Line (NHL).
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## Public Utilities

C-3	C-3.28	Mobilia	Norwalk Harbor Management Commission	5.3.20	All underwater utilities should be properly identified and all appropriate care taken to avoid utility disturbance.	The contract specifications will include provisions for the identification and protection of underwater utilities.
C-5	C-5.03	Burns	Norwalk Department of Public Works	3.25, 5.3.20	<p>Public Utilities &amp; Service-The EA states that no public utilities will be impacted by the Walk Bridge construction project. It is impossible to believe that a project of this magnitude will have no public utility impacts. For example, the high tower demolition with the electric transmission lines will have no impact on public utilities? Additional flows to the stormwater pump station will have no public utility impacts? Temporary property acquisition at the wastewater treatment plant is not a public utility impact?</p> <p>The utility test pit program in itself currently being performed over the next 7 weeks in Norwalk (with traffic and infrastructure impacts) certainly indicates that there will be public utility impacts.</p>	The impact assessment and the mitigation plans presented in the EA/EIE are based upon 30 percent (preliminary) design plans. Per the National Environmental Policy Act (NEPA), this level of design can reasonably assess impacts and provide recommendations for mitigating unavoidable impacts. As the project design is finalized and the contractor's means and methods are more defined, details of proposed mitigation measures also will be further defined. As it proceeds in final design, CTDOT will continue to finalize mitigation details with the City of Norwalk and affected parties.
C-12	C-12.04	Sotnick	Norwalk Department of Public Works	5.3.20	Public Utilities & Service. The EA states that no public utilities will be impacted by the Walk Bridge construction project. It is impossible to believe that a project of this magnitude will have no public utility impacts. For example, the high tower demolition with the electric transmission lines will have no impact on public utilities? Additional flows to the stormwater pump station? Temporary property acquisition at the wastewater treatment plant? Roadway construction impacts from crane loadings?	In identifying impacts to utilities (Sections 3.25 and 5.3.20 of the EA/EIE), CTDOT assessed the effect of the project on utility services. Based upon the preliminary level of design and in consideration of established CTDOT practices for routinely working with utilities, no utility impact is foreseen by the project, as no loss or extended outage of utility service is anticipated.
C-1	C-1.37	Coppola	City of Norwalk Corporation Counsel	5.3.20	Norwalk Department of Public Works (and Water Pollution Control Authority, depending on the utility) should be included in all discussions involving utility relocations.	Note that the proposed property use at the site of the Wastewater Treatment Plan will not affect the utility or function of the treatment facility.
E-4	E-4.08	Third Taxing District	Norwalk's Third Taxing District	5.3.20	Public Utilities and Service: The report lists no impacts to public utilities. Both SNEW and TTD will be experiencing impacts, as electrical infrastructure decisions with permanent impacts to the maintenance and revenue needs of the districts are being made with little or no consultation with the districts. This includes moving the feeds from one side of the bridge to the other, burying electric feeds underground and/or placements of mono-poles within the district to accommodate overhead feeds. There has been no discussion of mitigating the losses of either utility.	<p>Should advanced design indicate a need for utility relocation, CTDOT will coordinate with the appropriate City department(s).</p> <p>Details regarding stormwater and drainage flows will be determined at the final design stage; such details are not available for the EA/EIE (30 percent level of design). The existing railroad and bridge are contributing surfaces in the overall stormwater functions in the area, and the proposed changes are anticipated to remain as contributing surfaces in the stormwater. CTDOT will evaluate the effects and needs of the stormwater system, and determine appropriate measures to avoid adversely affecting the existing stormwater system. As a component of design, drainage effects will be evaluated and mitigated if needed. Any changes to the existing stormwater system due to the project will be accommodated in design.</p> <p>Upon completion of the project, CTDOT will be responsible for restoring and stabilizing the sites used for construction, including</p>

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Public Utilities continued

						<p>restoring the temporary easements to pre-project conditions and preparing the acquired parcels for resale. CTDOT will be responsible for mitigating construction-related impacts to local roadways.</p> <p>The EA/EIE indicates that due to the demolition of the high towers, the existing Eversource Energy transmission lines will need to be relocated, which is an indirect impact of the project. That action is not anticipated to shut down the power or disrupt service, however. Eversource Energy, LLC, the utility owner, is responsible for the relocation of the lines and will be obtaining NEPA reviews and permits, including identifying impacts and mitigation measures. CTDOT is coordinating with Eversource Energy on the timing of its replacement project.</p> <p>Work to address the utility modifications associated with South Norwalk Electric and Water (SNEW) and the Third Taxing District (TTD) will be advanced in the final design of the project. At this preliminary planning stage, impacts are not fully identified. The EA/EIE Errata (Refer to Appendix A-2) clarifies that there could be project-related actions that warrant work on or affecting SNEW and TTD utilities. As design advances, CTDOT will coordinate with SNEW and TTD to perform site-specific adjustments.</p>
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S-1	S-1.01	McPhee	CT Department of Public Health	3.9	The Drinking Water Section (DWS) of the Department of Public Health has reviewed the abovementioned project for potential impacts to any sources of public drinking water supply. This project does not appear to be in a public water supply source water area; therefore, the DWS has no source water protection comments at this time.	CTDOT acknowledges this confirmation.
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S-1	S-1.02	McPhee	CT Department of Public Health	3.9	The EIE correctly notes that the public water service area for South Norwalk Electric and Water (PWSID #CT1030021) is within the project limits of the proposed bridge replacement. Please note that mapping available to the DWS indicates that the public water service area of the Norwalk First Taxing District also falls within the proposed project limits. It is recommended that the Department of Transportation contact the Norwalk First Taxing District (PWSID# CT0130011) to verify the limits of the water service area and coordinate activities to ensure that the public water system is not adversely impacted by the proposed project.	Comment acknowledged. As design advances, CTDOT will coordinate activities with the appropriate water service providers.
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## Rail Transportation

F-4	F-4.07	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	3.1	The Walk Bridge part of the NEC as well as the NHL (as currently written, it seems to imply it is not part of the NEC where it is part of the NHL, when in fact that portion is part of BOTH the NEC and NHL)? An explanation in the introduction of its role in the context of NEC operations, including Amtrak operations, also needs to be provided as well as impacts on Amtrak operations.	<p>The Executive Summary and Chapter 1 of the EA/EIE indicate that Walk Bridge is part of the Northeast Corridor (NEC). Section 3.1.2 describes the role of Walk Bridge in the context of Amtrak operations. Additionally, Section 3.7 describes the consistency of the project with the NEC Commission Plans, Section 3.8 describes the impact of a bridge failure on the NEC economy, and Section 6.2 describes the benefits of the project to the NEC.</p> <p>CTDOT determined that of the three Build options assessed in the EA/EIE, Option 11C would provide the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Option 11C would have the shortest construction duration, resulting in the least disruption to rail traffic on the New Haven Line/Northeast Corridor (NHL/NEC), including Amtrak's intercity service. As a result, CTDOT determined that Option 11C is the Preferred Alternative.</p> <p>In its review of the EA/EIE, Amtrak determined that the Preferred Alternative (Option 11C) appears to be moveable bridge option that is the most constructible and least disruptive to existing New Haven Line service, and therefore acceptable to Amtrak from an operational perspective (Refer to F-5.01).</p>
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F-4	F-4.08	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	8.1	If coordination is not already being conducted with Amtrak, it should be (for example, on page 3-9, I believe there are other lines besides just the NE Regional and Acela - Amtrak can clarify). They should review the EA for assertions re: impacts of [no build, preferred, and alts evaluated but dismissed] alternatives on rail operations.	<p>CTDOT submitted the EA/EIE to Amtrak for review and received comments from Amtrak's Planning, Technology and Public Affairs Department. Refer to Comment F-5 for Amtrak's comments and responses to comments.</p> <p>Table 3-2 and Table 3-3 present the total passenger rail traffic crossing Walk Bridge, including Amtrak intercity service. Amtrak's intercity service includes the Northeast Regional and Acela Express. Freight service over the bridge is limited, as indicated in Section 3.1.2.</p> <p>CTDOT recognizes the importance of maintaining inter-city and intra-city rail transportation on the New Haven Line/Northeast Corridor (NHL/NEC). CTDOT has selected the long-span moveable bridge option (Option 11C) as the Preferred Alternative which affords the shortest construction duration, and would be the least disruptive to rail transportation. Throughout nearly all of the construction period, CTDOT intends to maintain train service by keeping at least two tracks in service.</p>
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F-4	F-4.09	Castelli, Ph.D.	U.S Department of	3.1	In the 3rd paragraph, last line, could the speed reduction happen because of at-grade crossing? Or there are none in this segment?	There are no at-grade crossings on the New Haven Line nearby that affect train speeds on Walk Bridge.
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Rail Transportation continued

			Transportation, Federal Railroad Administration Office of Program Delivery, Envir			
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F-4	F-4.10	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	3.1	Reference can be made to NHML instead of NHL since Class 7 tracks are only on the mainline?	The New Haven Line within the project limits has both Class 3 and Class 4 track. There is no Class 7 track within the project limits. The line itself has a maximum of Class 5 track between MilePost 17.5 and MilePost 22.5.
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F-4	F-4.11	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	3.1	In the last paragraph on this page, freight capacity seems to be one of the main reasons for replacing the Walk Bridge but on Page 10 , under Freight Rail Service, it is not clear whether there is more demand now or in the future.	<p>The main reasons for replacing Walk Bridge are stated in the project Purpose and Need statement: to enhance the safety and reliability of rail service, offer operational flexibility and ease of maintenance, and provide for increased capacity and efficiencies of rail transportation on the NHL/NEC, while maintaining or improving navigational capacity and dependability for marine traffic.</p> <p>The EA/EIE reports that the existing rail service providers and freight rail system currently meet the service requirements of existing customers. However, there are multiple factors that impact future freight rail growth. In <i>Transportation in Connecticut: The Existing System (2014)</i>, the CTDOT Office of Strategic Planning and Projects, Bureau of Policy and Planning identifies multiple physical, operational and institutional factors that affect or have affected the volume of freight transported in Connecticut by rail. These factors include: rail connections to ports; freight rail access; 286,000 pound weight restrictions; clearance problems; small size of state; types and sizes of businesses and services in Connecticut; unbalanced traffic flows; manufacturing needs - the increase in the use of just-in-time delivery; fundamental changes in the way goods are manufactured, shipped, and received; freight trackage rights fees; and competitive access for Class 1 Carriers.</p> <p>While improving freight capacity is not one of the main reasons for replacing Walk Bridge, the project will benefit freight service. As indicated in EA/EIE Section 3.1.3, the replacements of Walk Bridge and Fort Point Street Bridge will be designed for Cooper E-</p>
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<b>Rail Transportation continued</b>						
						80 loading, which will allow for greater freight loads and will eliminate one of the factors limiting freight capacity: the 286,000 pound weight restrictions. Most freight and passenger lines in Connecticut, including Walk Bridge and Fort Point Street Bridge, are restricted to the lower 263,000 pound weight limit. Increasing to the more common 286,000 pound weight limit will enable local freight railroad to provide improved access to the national freight rail system. By removing the existing weight limit restrictions placed on freight shipments, the project will eliminate one of the operational factors currently limiting freight growth in the region.
F-4	F-4.12	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	3.1	In the second paragraph on page 10, it is not clear what the physical, operational, and institutional issues are in the region.	In its report, <i>Transportation in Connecticut: The Existing System (2014)</i> , the CTDOT Office of Strategic Planning and Projects, Bureau of Policy and Planning, identifies physical, operational and institutional issues in the region factors that affect or have affected the volume of freight transported in Connecticut by rail and may prevent the rail system from absorbing further freight growth. These include the following:  1) Location of Rail Freight Routes and Intermodal Terminals in Adjacent States. 2) Rail Connections to Ports. 3) 286,000 Pound Weight Restrictions. 4) Clearance Problems. 5) Small Size of State. 6) Types and Sizes of Businesses and Services in Connecticut. 7) Unbalanced Traffic Flows. 8) Manufacturing Needs: The Increase in the Use of Just-in-Time Delivery. 9) Fundamental Changes in the Way Goods are Manufactured, Shipped, and Received. 10) Freight Trackage Rights Fees. 11) Competitive Access for Class 1 Carriers.
F-4	F-4.13	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	3.1	3rd paragraph on this page, provide 'E-' before '80'	The corrected text is included in the EA/EIE Errata (Refer to Appendix A-2).
F-4	F-4.14	Castelli, Ph.D.	U.S Department of	3.1	In the same paragraph, the statement saying that "Per Cooper 80 Loading there is no limit to the maximum allowable car load" is incorrect. No bridge	The description of Cooper E-80 loading is with reference to the existing weight limit restrictions placed on freight shipments.

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<b>Rail Transportation continued</b>						
			Transportation, Federal Railroad Administration Office of Program Delivery, Envir		can be designed for unlimited loading. A valid statement could be "unrestricted for free-running freight traffic.'	While it states that per Cooper 80 loading, there is no limit to the maximum allowable car load, it also states that in practice, the allowable maximum freight car load is generally 315,000 pounds.
F-4	F-4.16	Castelli, Ph.D.	U.S. Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	3.24	Second paragraph, recommended addition – after "FRA is responsible,..." add, passenger and freight railroad equipment safety, passenger train emergency preparedness under 49 CFR Part 239, and passenger railroad System Safety Program Plan compliance in accordance with 49 CFR Part 270.	Section 3.24 of the EA/EIE indicates that FRA is responsible for enforcing federal statutes and regulations related to railroad safety. While CTDOT concurs with FRA's comment, the intent of the statement in Section 3.24 is to indicate overall responsibility and not to enumerate all specific regulations.
F-4	F-4.17	Castelli, Ph.D.	U.S. Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	3.24	Regarding CTDOT System Safety Program Plan (SSPP), it is recommended that it be confirmed and noted that CTDOT is ensuring that their SSPP will meet the requirements of 49 CFR Part 270, which became effective on 10/10/2016, and, includes Federal requirements for establishing, implementing, and maintaining an effective SSPP.	The recommended text has been incorporated into the description of the Safety and Security Plans, which is included in the Construction Period Coordination Plans. Refer to Appendix F-5.
F-4	F-4.18	Castelli, Ph.D.	U.S. Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	3.24	Confirm and note that CTDOT in cooperation with MNCW is in compliance with 49 CFR Part 239.101 (a) (4) (ii), for special circumstances (Other) , including any required emergency notification(s) and emergency communications, between the two agencies.	
I-17	I-17.03	Grundman	Individual	5.3.1	How long will the railroad service be disrupted during the removal of the old bridge and the installation of the new one?	Throughout nearly all the construction period, CTDOT intends to maintain weekday passenger train service by keeping at least two tracks in service. Long-term two-track outages, where a pair of tracks is taken out of service (Tracks 2 and 4 or Tracks 1 and 3), and two tracks remain operational, will be required. CTDOT estimates that over the course of the approximate four-year construction period, a four-track outage will be required for limited periods of time. These limited four-track outage instances will be during the removal of the swing span, installation of temporary fixed spans, installation of new movable

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**Rail Transportation continued**

						spans, and final operational adjustments of the new bridge. Each four-track outage will be of short-duration.
E-4	E-4.04	Third Taxing District	Norwalk's Third Taxing District	3.1	Traffic, Transit and Parking: These are discussed only in terms of impacts and mitigation for this project. The report wholly fails to address any benefits of the bridge, such as reducing highway congestion due to increased ridership as a result of improved service to our community.	<p>As indicated in the EA/EIE, a long-time failure of one of the four movable bridges on the NHL, including Walk Bridge, could add 125,000 daily commuters to I-95 and other roads. Failure of Walk Bridge also would result in additional truck traffic to replace the existing marine freight traffic.</p> <p>By rectifying the existing deficiencies of the existing bridge, including its age and deterioration, decreasing reliability, safety standards, and difficulty of maintenance, the project incorporates federal and state transportation goals for the New Haven Line/Northeast Corridor (NHL/NEC), including those enumerated by the NEC Commission and CTDOT. By improving the bridge's operational flexibility, enhancing the safety and reliability of rail service, and providing for increased efficiencies of rail transportation along the NHL/NEC, the project will advance policies and goals established in federal, state, regional, and local transportation plans. The project incorporates the legislative intent of the Transportation Emergency Relief Program, by including bridge redundancy and sustainability as priority project elements. It also incorporates a secondary purpose of the project: to maintain or improve the navigational capacity in the Norwalk River, which is consistent with federal legislation and which advances the policies, plans, and goals of federal, state, and local agencies, including land use, planning, and development goals. The improved bridge reliability will benefit the city of Norwalk. The EA/EIE indicates that the improved marine conditions and increased reliability of bridge operations will improve the attractiveness of the Inner Harbor for existing commercial and recreational marine users. Existing users will be more likely to retain or expand their business with improved navigability conditions. Additionally, new marine-based businesses may be more likely to locate to an area with reliable infrastructure.</p>
E-4	E-4.02	Third Taxing District	Norwalk's Third Taxing District	3.1	Rail Traffic: Rail traffic for the Northeast corridor is extremely important, and all mitigation and improvement discussions revolve around this need; however, there has been scant attention paid to improving frequency of service specific to East and South Norwalk stations after the project is done—communities that will be suffering long term changes and all of the pain and disruption of this project.	Increasing the frequency of train service to East Norwalk and South Norwalk is not a purpose of this project and therefore was not evaluated in the EA/EIE. The purpose of the project is to restore or replace the existing deteriorated bridge with a resilient bridge structure which will enhance the safety and reliability of existing rail service and provide for increased capacities and efficiencies of rail transportation. In existing conditions, the safety, reliability, existing capacity, and efficiencies of rail service are hampered by the continual breakdowns and unreliability of the bridge.

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**Rail Transportation continued**

						<p>The EA/EIE did not identify negative effects to the rail service as a consequence of the Proposed Action. However, Section 3.8.2 of the EA/EIE indicated the potential negative effects to the New Haven Line/Northeast Corridor (NHL/NEC) of the No Build Alternative.</p> <p>CTDOT will be conducting a speed and capacity analysis of the New Haven Main Line and all three NHL branch lines. The need to increase rail service to East Norwalk and South Norwalk would be assessed as part of the Connecticut State Rail Plan (2012) and future updates.</p>
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C-4	C-4.07	Burns	Norwalk Department of Public Works	ES-11	Connectivity of Transit-Oriented Development - The DSC has reviewed the 60% Danbury Dockyard plans and would like the CTDOT to evaluate the feasibility of including a train stop platform as part of this project. There is a potential location for a 4-car train platform that could be located just north of Science Drive by the back side of Stepping Stones. This would service developments on both the north and south sides of I-95.	The EA/EIE addresses only the Walk Bridge Replacement Project. The proposed improvements that are associated with the Danbury Dock Yard Improvements Project are not included in the Walk Bridge EA/EIE, other than through discussions related to proposed rail improvements, acknowledgment of adjacent projects, secondary and cumulative effects, and construction coordination (EA/EIE Sections 3.1, 3.27, and 5.3.1).
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I-15	I-15.01	Thomson	Individual	General	Would the DOT consider reopening the Wall Street Station? It would be a rounding error in terms of cost (relative to the Walk Bridge) but as they say— "where this is rail there is progress." Please consider re-opening the Wall Street Line. It would be good for the city and ultimately for Hartford (via) \$.	The refurbishment of the Wall Street train station is not within the scope of the Walk Bridge Replacement Project. CTDOT currently is expanding the Merritt 7 Station on the Danbury Line, located approximately two miles north of Wall Street. Additionally, CTDOT will be conducting a speed and capacity analysis for the New Haven Main Line and branch lines, scheduled to begin in 2017, and continues to review and evaluate other regional rail transportation planning efforts.
S-2	S-2.10	Fox	DEEP	3.4.4	Refurbishing of the Wall Street train station would also complement these efforts by providing a walk/bike/intermodal transportation hub.	
T-6	T-6.03	McGuire	Individual	General	It would be reactivating the Wall Street Station. For all the reasons noted above and for many more, reactivating the Wall Street Train Station will have a dramatic positive impact on Norwalk and form the foundation of building a true live/work community which in fact is the Holy Grail of TOD...Utilizing the Mechanic Street parking lot and the exposed easily accessible rail siting that runs along the west side of this parking lot, a simple concrete rail platform can be installed extending from 16 River Street northward under the Burnell Bridge to the Norwalk River. If you wanted to include a small ticket office/waiting room, the lower level of 16 River Street would be ideal. Finally, since it's located directly next to the pulse point or the Pulse Point Bus Station on Burnell, you've now created an inter-modal transportation hub.	

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## Related Projects

C-1	C-1.25	Coppola	City of Norwalk Corporation Counsel	3.27	Eversource Energy high voltage transmission lines that cross the Norwalk River on the high towers will require relocation. Relocation of the utility functions on the high towers is not part of the project but CTDOT considers it an indirect effect thereof. EA/EIE, p. 3-171. Please explain further.	The removal of the high towers is determined to be a direct effect of the project; the location of the existing high towers conflicts with the replacement bridge and must be removed. As defined by NEPA, a direct effect is an effect (impact) that is caused by the action and occurs at the same time and place. As defined by NEPA, an indirect effect (impact) is an effect that is caused by the action but occurs later in time or in a different place. The replacement of the electric transmission lines located on the existing high towers is determined to be an indirect effect of the project.
C-3	C-3.05	Mobilia	Norwalk Harbor Management Commission	3.1	The EA/EIE improperly segments elements of the Project. The NHMC is concerned that essential elements of the Project without independent utility have been improperly segmented for review purposes, thereby precluding thorough evaluation of the Project's cumulative impacts. Described by the DOT, two other DOT projects must be conducted in advance of the Project to facilitate railroad operations and minimize impacts to passenger rail service. These are called the CP243 Interlocking project on the mainline between South Norwalk and Westport and the Danbury Branch Dockyard Electrification project on the lower Danbury Branch Line in Norwalk. In addition to track realignment and other work, the CP243 Interlocking project includes installation of a submarine fiber optic cable crossing of the Norwalk River just upstream of the Walk Bridge. Although these other DOT projects are made necessary by the Project, their potential impacts are not addressed in any detail in the EA/EIE. The DOT is also proceeding with designs for replacement and rehabilitation of the nearby East Avenue and Osborne Avenue bridges to be scheduled concurrently with the Project. In addition to the above-mentioned DOT projects, the Project will require relocation of the eight existing Eversource Energy electric transmission lines currently carried on two high towers over the bridge and harbor. This relocation is a significant indirect effect of the Project on the harbor but is not addressed in the EA/EIE other than to say that Eversource Energy will be responsible for relocating the lines and for the associated environmental evaluations and permits. In addition to uncertainties regarding Project impacts, the timing of the Eversource and DOT projects is unclear. The EA/EIE indicates that Walk Bridge construction would begin in April 2018. Information provided by Eversource Energy to City agencies and officials indicates that construction to relocate the electric transmission lines, including a submarine cable crossing of Norwalk Harbor, would begin in the second half of 2019.	Two planned New Haven Line (NHL) infrastructure upgrade projects - the CP-243 Universal Interlocking Project and the Danbury Dock Yard Improvements Project - are separate projects with independent utility. Both projects will improve operations on the NHL independent of the Walk Bridge Replacement Project. Refer to Appendix F-3.  To expedite the construction of the Walk Bridge, a two-track outage will be utilized. Two of the four existing tracks are taken out of service, and trains are restricted to operating on the two remaining tracks. To minimize the number and extent of future two-track outages required for this stretch of the NHL, CTDOT is coordinating the construction of planned nearby track and roadway improvement projects with the Walk Bridge Replacement Project. Refer to Appendix F-4.  The Walk Bridge Replacement Project requires the demolition of the existing high towers, which currently carry electric transmission lines. The relocation of the electric transmission lines will be an indirect impact of the Walk Bridge Replacement Project. Eversource Energy, LLC, the utility owner, is responsible for the relocation of the lines and will be obtaining NEPA reviews and permits, including identifying impacts and mitigation measures. CTDOT is coordinating with Eversource Energy on the timing of its replacement project.
C-5	C-5.01	Burns	Norwalk Department of Public Works	3.27	DPW is commenting on areas specific to our department's oversight only although the department deeply echoes comments made by others at the November 2016 Public Hearing that the EA/EIE does not recognize or acknowledge all of the construction and development activities going on within the City	

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Related Projects continued

					of Norwalk concurrent with the Walk Bridge program construction. The Walk Bridge EA/EIE only analyzes the impacts of the discrete Walk Bridge construction, Fort Point Bridge replacement, and iconic high tower demolition. It does not include impacts from the directly-required high tower line replacement (a \$20 million dollar project), the Osborne Avenue bridge replacement, East Avenue bridge replacement and roadway projects, Ann Street bridge replacement, electrification of the Danbury rail line from Washington Street to Jennings Place Crossing, or the rail improvements taking place from Norden Place to the Westport line. All of these components comprise one total project-the Walk Bridge's construction. The Norwalk DPW notes that this is also by the CTDOT as there is one special 'Walk Bridge' team for engineering, program management and construction management for all of the aforementioned projects. The EA/ EIE needs to include these projects to correctly determine human environmental impacts, despite the DOT and FTA's determinations that these other projects can be 'categorically Excluded'. In addition, the EA/ EIE document needs to appreciate, or at least mention, the hundreds of millions of dollars of other construction projects going on within the City by means of both private and public development. The EA/EIE is devoid of this information.	
C-10	C-10.01	Cherichetti	Norwalk Conservation Office	3.27	The City of Norwalk Conservation Commission acknowledges that the replacement of the Walk Bridge will be a massive undertaking with extensive adverse environmental impacts. We encourage ConnDOT to expand the EA/EIE document to include an assessment of all of the significant ancillary projects that are part of the Walk Bridge replacement. The existing EA/EIE document needs to mention and evaluate the full scope of work and impacts on Norwalk's environment.	
C-12	C-12.01	Sotnick	Norwalk Department of Public Works	3.27	We deeply echo the comments made by others here tonight that the August 2016 EA does not recognize or acknowledge all of the construction and development activities going on within the City of Norwalk concurrent with the Walk Bridge program construction. The Walk Bridge EA only analyzes the impacts of the discrete Walk Bridge construction, Fort Point Bridge replacement, and iconic high tower demolition. It does not include impacts from the directly-required high tower line replacement ( a \$20 million dollar project), Osborne Avenue Bridge replacement, East Avenue bridge replacement and roadway projects, Ann Street Bridge replacement, electrification of the Danbury rail line from Washington Street to Jennings Crossing, or the rail improvements taking place from Norden Place to the Westport line. All of these components comprise one total project - the Walk Bridge construction and this is also recognized by the DOT as there is one special "Walk Bridge" team for engineering, program management and construction for all of the aforementioned projects. This the EA/EIE needs to include these projects to correctly determine human environmental impacts, despite the DOT and FTA's determinations that these other projects can be "Categorically Excluded."	
O-8	O-8.17	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.1.2, 3.27	The Environmental Assessment Violates NEPA and CEPA By Unlawfully Segmenting Off Project Components for Separate Review. Another major flaw in the Environmental Assessment is that it engages in unlawful segmentation. NEPA and CEPA both prohibit segmentation of a project to delay environmental	

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Related Projects continued

					review of necessary project components and projects with no independent utility for purported future review. Accordingly, the Environmental Assessment must include complete analysis of the project's actual footprint...Agencies are also forbidden from segmenting off from project review any "connected" actions that have no "independent utility" other than to further the project.	
O-8	O-8.19	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	2.3.4, 3.27	The Environmental Assessment states that although the Project will require the removal and relocation of the towers for all project alternatives under consideration, the environmental review for the removal and location of the towers will be performed separately in the future. EA/EIE 2-21, stating that the tower relocation "will undergo a separate environmental evaluation and permitting process"). This is, by its own terms, a textbook example of an unlawful segmentation of a necessary and intrinsic project component.	
O-8	O-8.20	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.1.2, 3.27	The Environmental Assessment Improperly Segments Connected Projects with No Independent Utility from Review. Similarly, the Environmental Assessment improperly segments from review a number of related projects that would have no utility but for the Walk Bridge replacement. CTDOT's public information website contains a fact sheet for the Project discussing "a series of related projects needed for the replacement of the Walk Bridge," including the Danbury Branch Dockyard Project; the CP243 Interlocking Project; and the rehabilitation of the Osborne Avenue Bridge and the replacement of the East Avenue Bridge. (emphasis added). These projects are being undertaken in order to "facilitate rail operations during construction of the Walk Bridge" (Danbury Branch Dockyard Project) and "to allow for two-track Metro-North Railroad operations during reconstruction of the Walk Bridge" (CP243 Interlocking Project). The rationale for the Osborne Avenue and East Avenue Bridge work is not set forth in the fact sheet but the fact sheet clearly states they are necessary for the Project.	
T-1	T-1.2	Coppola	City of Norwalk Corporation Counsel	3.1	First, the Walk Bridge is the subject of this EA, as you know. However the project includes a variety of improvements to be completed beyond the Walk Bridge. For example, track replacement, the removal of existing high towers or construction of a new fender system and construction at the nearby Point Street Bridge are all part of this project. The EA goes very little... into very little detail about these projects including alternatives and impacts. The primary discussion in what has been provided so far by DOT is the... is related to the Walk Bridge project itself. These other projects are aspects of the overall project warrant further analysis and discussion. Second, two other projects are also proposed. The... I hope I get this right. THE CP243 interlocking project on the main line between South Norwalk and Westport and secondly, the Danbury Bridge Dockyard Electrification... it's been a long day already... project. I understand that these projects may proceed under a categorical exclusion under NEPA. However, we believe that all these projects should be taken together with the Walk Bridge project and analyzed. The city should be presented with an assessment of the cumulative effects of these projects and alternatives fairly presented and considered.	

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<b>Related Projects continued</b>						
E-6	E-6.03	Igneri	Norwalk Common Council	3.1, 3.27	On a high-level, the entire Walk Bridge program encompasses several more projects not included in this EA/ EIE - the City of Norwalk's position is that this is being done to make the DOT's project move more quickly. By slicing and dicing this large-scale project up and excluding the Danbury Dockyard project, CP243, East Avenue, Osborne Avenue and high tower relocation portions of the project from this process does a disservice to the community and fails to recognize the total stress on the human environment. Several of these projects have been identified by the DOT as high priority and need to be completed before construction of the bridge can commence, so they should be included in the environmental assessment. The document also does not acknowledge the incredible number of other public and private construction projects going on simultaneously to the Walk program - the City of Norwalk has another unbelievably 20 (!) DOT projects going on in addition to the Walk program as well as a number of large-scale developments in the immediate area of the project.	
O-6	O-6.10	Washer	Norwalk River Watershed Association (NRWA)	2.4	In order to ensure the plans for this project are forward- looking and the environmental impacts are fully explored, NRWA requests Eversource submit its EIE now for the public to consider in conjunction with the CTDOT EA/EIE.	Eversource Energy, LLC, the utility owner, currently is undergoing siting evaluations, and will be obtaining environmental reviews and approvals, including NEPA. CTDOT is coordinating with Eversource Energy, LLC regarding the timing of its replacement project.
S-2	S-2.14	Fox	DEEP	3.25.4	Timing is critical and every effort to coordinate early with Eversource should be attempted in order to minimize the overall duration of water-dependent impact.	
F-5	F-5.09	Fogel, AICP	Amtrak	3.1	Amtrak is supportive of the two related projects that will support train operations during the reduction in track capacity throughout the Norwalk Bridge replacement project. Two tracks will be removed from service under all three preferred options with duration of outages varying from 30 to 37 months.  <u>WALK INTERLOCKING:</u> The ability to cross over at interlockings located on either side of the bridge is paramount to limiting the impact of the track outage for bridge construction.  <u>DANBURY DOCKYARD TURN-TRACK:</u> The extension of catenary over the lower end of the Danbury Branch will provide an off the New Haven Line pocket to turn Norwalk short turn trains, thereby relieving the need to cross the bridge with non-revenue trips and freeing main tracks for through movements.	Comment acknowledged. Construction of the two NHL improvement projects will be started prior to the start of Walk Bridge Replacement Project construction activities. CTDOT selected Option 11C as the Preferred Alternative, because among the Movable Bridge options, Option 11C will maximize the amount of substructure work that can be conducted in the 13-month period of four-track operations anticipated between the start of the Walk Bridge Project and completion of the CP-243 Project and start of the two-track outage. This advance work will minimize the anticipated duration of the two-track outage: in Option 11C, a two-track outage is anticipated for a total of 30 months, as opposed to 34 months for Option 8A and 37 months for Option 4S.
O-8	O-8.18	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.1.3	The Environmental Assessment Fails to Analyze the Potential Impacts of Necessary Components of the Project. The Environmental Assessment also segments from review the potential impacts of a number of other necessary components of the Project, including replacement of the Fort Point Street Bridge and track, catenary and signal work. These are components that would be included in all of the three build alternatives considered. Yet, CTDOT fails to analyze their potential impacts as required by NEPA and CEPA, in fact	The EA/EIE indicates that the replacement of Fort Point Street Bridge and track, catenary, and signal work are part of the Walk Bridge Replacement Project. As shown in EA/EIE Figures 2-6, 2-10, and 2-14, from west to east, the project footprint in all Build alternatives extends from just east of the Washington Street Bridge in South Norwalk to just east of the Fort Point Street Bridge. The assessments focus on the anticipated impact areas.

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Related Projects continued

					appearing to ignore almost all of their potential impacts and reviewing the impacts solely from construction specifically on the Walk Bridge. This also violates the prohibition on segmentation by attempting to minimize the footprint of the Project in evaluating its impacts.	For some resources, such as wetlands, aquatic impacts, and floodplain, the impact assessments are generally confined to the area immediately at Walk Bridge or in the railroad right-of-way. For other resources, such as historic and visual resources, the assessments extend to and include Fort Point Street Bridge and existing railroad infrastructure.
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C-10	C-10.04	Cherichetti	Norwalk Conservation Office	5.3	Lastly, we remain concerned about the potential long duration of the physical project(s). The longer Norwalk is disrupted by this massive construction, the more negative will be the impact on our environment and quality of life. We strongly recommend an expedited construction process. ConnDOT must give Norwalk strong assurances this project can be completed in a priority time frame.	<p>Minimizing the construction duration was an important factor in selecting the Preferred Alternative. CTDOT determined that of the three Build options assessed in the EA/EIE, Option 11C would provide a the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Option 11C would have the shortest construction duration, resulting in the least disruption to rail traffic on the New Haven Line/Northeast Corridor (NHL/NEC), the least disruption to marine traffic on the Norwalk River, and the least environmental impacts, including community disruption. As a result, CTDOT determined that Option 11C is the Preferred Alternative. Figure 2-15 in the EA/EIE compares the replacement bridge options that were evaluated.</p> <p>CTDOT is expediting the construction of the Walk Bridge Replacement Project through several means: 1) CTDOT is utilizing a Construction Manager/General Contractor (CM/GC) project delivery method for the project to advise CTDOT on schedule, phasing, constructability, materials availability, risk, and cost, and thereby expedite contractor selection and mobilization, improve construction sequencing, and reduce construction duration; 2) CTDOT will use Accelerated Bridge Construction (ABC) techniques to reduce the construction time and impacts, such as constructing bridge components offsite and rapidly assembling them in place; and 3) CTDOT will take advantage of the construction of two NHL upgrade projects to expedite the construction of the Walk Bridge Project, as further described in Appendix F-3. Additionally, CTDOT is coordinating this project with other adjacent projects on the NHL and immediate area to take advantage of the two-track outages required for the Walk Bridge Replacement, as further described in Appendix F-4.</p>
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## Resiliency

F-4	F-4.19	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	4.2	Not sure what is the difference between 'damaging wind' (High Risk) vs 'severe wind' (Medium Risk)	The Natural Hazard Mitigation Plan, prepared by the Western Connecticut Council of Governments (WCCOG), identifies and rates hazards in WCCOG localities. Severe storms, which can include lightning, hail, and high wind [with sustained wind speeds of 40 miles per hour (mph) or greater lasting for one hour or longer, or winds of 58 mph or greater for any duration] were ranked as a high risk for the city of Norwalk. Severe wind, with winds generating gusts of 80 to 100 mph, were ranked as medium risk for the city of Norwalk.
F-4	F-4.21	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	4.3	Given the design recommendation is adding 3 feet on top of 500 year floodplain data, FRA is passing along, for consideration, both the NEC FUTURE climate change methodology and analysis and data set (note the latter is DRAFT FOR DISCUSSION ONLY, NOT YET PUBLICLY DISTRIBUTED). We suggest the design team review the analysis and the methodology (especially the Appendix) to see if it suggests modifying these elevations for the counties affected in the Walk Bridge project - if consistent with NEC FUTURE analysis, may be worth noting.	<p>Per FTA guidance, CTDOT incorporated Executive Order (EO) 13690, the Federal Flood Risk Management Standard (FFRMS) in the design for the Walk Bridge Replacement Project. EO 13690 was promulgated in January 2015 as the flood risk reduction strategy for federally funded projects, and is the governing directive at the time that this project was executed. The project recognizes the potential for continued sea level rise and fully adopts the measure set forth in the FFRMS. The FFRMS requires that agencies site, design, and construct in accordance with the changing nature of flood risks, including the risks of sea level rise. Agencies are directed to use one of three approaches for establishing the elevation and flood hazard area to account for the effects of climate change: 1) a science-informed approach, 2) Base Flood Elevation (BFE) plus a freeboard value, or 3) the 500-year floodplain. Because the area downstream of Walk Bridge is a coastal zone, the BFE plus freeboard value (which includes wave heights) governs and is used for design for this project. Per the FFRMS, critical actions, such as the mechanical system of the bridge, are to be designed and constructed at least three feet above the BFE. The critical action elevation for the replacement of Walk Bridge is 15 feet NAVD88, which is three feet above 12 feet NAVD88, the BFE at this location. (Note that the design recommendation is to add three (3) feet to the 100-year flood elevation, as opposed to the 500-year flood, as noted in the comment.)</p> <p>CTDOT reviewed the climate change analysis and methodology used for the NEC FUTURE and determined that the methodology established in the FFRMS is consistent with the International Panel on Climate Change (IPCC) data presented in the NEC FUTURE Appendix. The additional three (3) feet added to the 100-year base flood (including wave action) is consistent with the long-term 95th percentile IPCC value for the "very high greenhouse gas emissions" scenario, according to the IPCC, as noted in Appendix A, Table 1.</p>

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Resiliency continued

I-5	I-5.14	Schnierlein	Individual	4.2	Before we even start on analyzing this section we should be aware of the fact that with Tropical Storm Sandy, the tidal surge brought the water level up to within one foot of the tops of most pilings. If the storm had lasted one more hour, most of the docks, and boats attached to them would have all been floating loose and slamming into each other and what ever was in their way, including buildings, and bridges. Having stated that, please note that according to table 4-1, if we follow NOAA's high scenario, we should be prepared for a water level rise of 9 feet over the next 100 years.	The project Purpose and Need is established and focused on the Walk Bridge. Chapter 4 of the EA/EIE discusses resiliency requirements that CTDOT incorporated into the project. The resiliency measures, which focus on the replacement bridge, include measures defined in the Transportation Emergency Relief Program (49 CFR 7, Part 602) and Executive Order (EO) 13690, "Establishing a Federal Flood Risk Management Standard," which was issued in January 2015. The Preferred Alternative (Option 11C) will provide a resilient structure with operational redundancy to address significant weather events. Table 4-5 identifies other design elements for the project that incorporate system resiliency and redundancy. The existing railroad tracks on the New Haven Main Line within the limits of the project are located above the 100-year floodplain. Further elevation of the existing tracks is not part of this project.
I-5	I-5.15	Schnierlein	Individual	4.2	Now, add onto that another 15 to 20 foot tidal surge for a category 4 or 5 hurricane and the bridge and tracks will need to withstand the impact of the vessels. We have had four category 3 hurricanes hit Connecticut (1938, 1944, 1954 and 1985). If severity is going to increase as we are told to expect, we should have the same number in this next century, but they will be category 4. So, if one really wants sustainability – there needs to be an entire raising of the railroad bed, tracks and bridges or movement well above sea level.	
I-5	I-5.16	Schnierlein	Individual	4.2	As far as resiliency – the best way to get hazardous weather resiliency would be to run a parallel set of track along interstate 95, which for the most part, is elevated enough not to worry about coastal flooding. Having a second set of tracks next to the ones that should be impacted doesn't provide any resiliency. Having two sets of tracks on a bridge doubles the maintenance costs and if one set fails, yes the railroad might get through if the railroad beds are not wiped out, but not the vessels.	
O-2	O-2.04	Lightfield	Norwalk 2.0	4.3	The proposed use of Federal "Sandy" money is for shoreline resiliency and no mention of repairing the erosion of the Norwalk barrier islands is mentioned. It is a false assessment that those Federal funds could be used for a resiliency project on an inner harbor bridge...	The EA/EIE (Section 4.1) discusses the use of funds from the Disaster Relief Appropriations Act and the Public Transportation Emergency Relief Program for projects that reduce the risk of damage from future disasters in the areas impacted by Hurricane Sandy, including public transportation systems. Proposals were solicited for projects to address current and future vulnerabilities to a public transportation facility or system. The Walk Bridge Replacement Project was one of 61 eligible projects.
O-7	O-7.23	Kunkel	Norwalk Harbor Keeper	1.4.2	The existing bridge weathered Hurricane Sandy and is in one of the most protected zones of the Norwalk Harbor. The full vertical lift design under consideration exposes lifting mechanisms to weather at heights not before experienced with the existing bridge.	CTDOT has consulted agencies and guidance documents at the federal, regional, and state government levels regarding its resiliency efforts. The EA/EIE identifies resiliency guidance provided by FTA and CTDEEP and Executive Order 13690 regarding critical actions and flood protection. CTDOT is coordinating project planning, design and development with the FTA, the U.S. Coast Guard, and U.S. Army Corps of Engineers. Additionally, its resiliency planning is consistent with the International Panel on Climate Change (IPCC) data presented in the NEC FUTURE (Refer to response to Comment F-4.21).
O-8	O-8.14	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	4, 2.3.3	The Environmental Assessment's Alternatives Analysis Inadequately Assesses Resiliency Considerations, Thus Precluding Disbursement of the Sandy Funds... However, the Environmental Assessment completely lacks any analysis comparing the resilience of different fixed and movable Project alternatives. The lack of a resiliency analysis comparing movable bridge versus fixed bridge designs is a fatal flaw, one which must be corrected to enable informed public comment on the full range of reasonable alternatives. Perhaps even more	

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Resiliency continued

					critically, if the selected alternative for the Project is found not to advance public transit resiliency priorities as required by the Sandy grant program, those federal funds may be rescinded.	<p>The design for the Walk Bridge Replacement Project adheres to Executive Order (EO) 13690, the Federal Flood Risk Management Standard (FFRMS), promulgated in January 2015. EO 13690 requires that agencies site, design, and construct in accordance with the changing nature of flood risks, including the risks of sea level rise. The EA/EIE compares the existing bridge with the three movable bridge replacement alternatives (Options 4C, 8A, and 11C) with respect to two measures: the critical elevation, as established for Walk Bridge by the criteria of EO 13690 and hurricane inundation levels. As shown in Table 4-4 of the EA/EIE, the proposed elevations of key bridge elements of the Preferred Alternative (Option 11C) would be higher than the mandate of EO 13690 and would substantially improve the bridge's resistance to hurricane inundation levels.</p> <p>Appendix F-2 provides an assessment of the Fixed Bridge Alternative relative to meeting the project Purpose and Need, including its resiliency requirements. All the options within the Fixed Bridge Alternative would meet the resiliency needs for extreme weather conditions and the operational redundancy needs, except for the rehabilitated Low-Level Fixed rehabilitation option. Among the reasons that the Fixed Bridge Alternative was not advanced for further evaluation include the substantial constructability constraints it would impose, including substantial impacts upon rail and marine operations.</p>
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O-2	O-2.05	Lightfield	Norwalk 2.0	8.3.2, 4	The Coast Guard was not consulted on what resiliency efforts must be undertaken;	<p>CTDOT has consulted guidance documents produced at the federal, regional, and state government levels regarding its resiliency efforts. The EA/EIE identifies resiliency guidance provided by FTA and CTDEEP and an Executive Order mandate regarding flood protection.</p> <p>CTDOT is coordinating project planning, design and development with the U.S. Coast Guard and the U.S. Army Corps of Engineers, including submitting permit plans for review and approval. CTDOT has discussed the project with the Norwalk Harbor Management Commission (NHMC) during the project planning phase and will continue to coordinate with the Commission. As part of the application consultation process for a Structures, Dredge and Fill permit from CTDEEP, CTDOT will submit plans to the NHMC for its assessment of consistency with the Norwalk Harbor Management Plan.</p>
O-2	O-2.06	Lightfield	Norwalk 2.0	8.3.2, 4	The Army Corps of civil engineers was not consulted on what resiliency efforts must be undertaken;	
O-2	O-2.07	Lightfield	Norwalk 2.0	8.3.2, 4	The Norwalk Harbor Commission was not consulted on what resiliency efforts must be undertaken.	

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## Socio-Economics

B-8	B-8.03	Fowler	Spinnaker Real Estate Partners LLC	5.3, 3.5, 3.6	While Sections 3.2-3.6 state that there will be no "long-term impacts" on traffic, land use, properties, etc., we strongly suggest the opposite as a 5-7 year construction period and its associated disruptions is itself a LONG TERM IMPACT, and that impact itself will have yet a longer tail, potentially altering irreparably zoning, land use, public enjoyment, and value of the affected areas.	The EA/EIE considers long term impacts to be permanent impacts compared with temporary impacts, which represent construction period duration. While the comment suggests that construction effects would extend beyond the construction period, it is CTDOT's intent to minimize the extent and duration of potential direct and indirect project effects. CTDOT's Preferred Alternative, Option 11C, would have the shortest construction duration at 40 months and would minimize community impacts. Refer to Appendix F-5 for a discussion of ways that CTDOT will mitigate project socio-economic impacts.
B-8	B-8.05	Fowler	Spinnaker Real Estate Partners LLC	General	Incidentally, we note on Figure 3-12, "Locations of Proposed Parcel Use", that the aerial used is outdated as it does not show the new building, The Ironworks, that now exists on Parcel 2/24/10. What other information is incorrect or old?	Comment acknowledged.  The aerial image used for the EA/EIE figures was the version available at the time of the document production. Assessments of project impacts were not based solely upon the aerial images shown in the document, but were supplemented by a variety of other sources of information including other aerials, federal and state agency data, research materials, and other sources (as listed in EA/EIE Chapter 12).
B-8	B-8.07	Fowler	Spinnaker Real Estate Partners LLC	3.5	Note in Section 3.8.1 Existing Conditions description of the SONO area, the Ironworks Building is not a "reconstruction" but rather a new building and it is doubtful that any other new building will be constructed in the area during the projected 5-7 yr term of this project, and impact in itself.	Comment acknowledged.
B-9	B-9.02	Morque	Spinnaker Real Estate Partners LLC	5.3.5	An impartial and expert organization for CT DOT to consider for assistance with this is Smart Growth America.	Comment acknowledged. CTDOT appreciates the recommendation and will consider Smart Growth America when developing business coordination and mitigation plans as the project advances past the preliminary planning phase.
B-11	B-11.09	Edvardsen	Spinnaker Real Estate Partners LLC	5.3.3	1 North Water Street - this property is listed as commercial but is actually a mixed-use facility with 108 rental units apartments, about 21,000 square feet of commercial space and 200+ parking space garage. This garage is privately owned but publicly accessible. Many employees of the Lock Building tenants use this parking garage for weekday parking. Any pedestrian mobility restriction along North Water Street from this property to the Lock Building will impact such usage and most likely cause additional demand of the Maritime Garage which may impact capacity for other parking relocations envision during this project. The table also identifies displaced uses as "none". Even though numerous discussions and tours have occurred on the topic, I am concerned that this simplistic determination has not been fully vetted and does not consider indirect impacts noise and access restrictions amongst others will have on tenants of this building. We ask that mitigation measures be considered for such.	Comment acknowledged. The site is identified as mixed-use in the description of existing land uses in EA/EIE Section 3-5.2 and on Figure 3-11. The revision to this property description in Table 3-5 is included in the EA/EIE Errata (Refer to Appendix A-2).  In the EA/EIE Table 3-5, Proposed Parcel Use – Existing Conditions and Displaced Uses, Parcel 2/24/10 (1 North Water Street) is reported to have no displaced uses. That reported impact is relative to the discussion about permanent and temporary easements and property acquisitions. CTDOT is requiring a temporary easement for construction access to the railroad. Since no displaced land use is anticipated the reported impact in the table is "none" and solely focused on direct land use impacts.

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Socio-Economics continued

						Refer to Appendix F-5 for a discussion of ways that CTDOT will mitigate project socio-economic impacts, including the development of an Alternative/Replacement Parking Plan to identify replacement parking due to temporary closures of parking facilities, and identify access to available parking facilities unaffected by the project.
E-4	E-4.09	Third Taxing District	Norwalk's Third Taxing District	3.6	The TTD municipal district will be forced to absorb losses of almost \$60,000 per year in revenue from customers displaced by this project (not counting the three properties already demolished for East Avenue) and may not operate outside of the district to replace lost revenue. In addition, it is expected to be difficult to lure new businesses to the district for the duration of this and other CDOT construction projects, due to the disruption to traffic in the area.	In cooperation with the City of Norwalk, CTDOT is committed to developing a Business Coordination Plan to identify the concerns of the business community and address construction-related impacts. By developing and maintaining ongoing communication with local businesses, CTDOT seeks to establish a two-way communication system where the project schedule is communicated, business concerns are identified, and strategies are put in place to minimize disruptions to businesses. Personal interviews will be conducted with businesses in the immediate project construction area to assess existing conditions, including employee and patron parking areas, delivery schedules, hours of operation, and shopping patterns. Potential temporary impacts will be determined and mitigation measures will be developed in coordination with businesses in South Norwalk and East Norwalk. Mitigation measures will focus upon maintaining operations of restaurants and stores within the construction area by providing continuity of access and visibility of signage. Individual plans or strategies may be developed as required. The Business Coordination Plan will be developed during final design and updated as needed through project construction. Refer to Appendix F-5.
B-4	B-4.05	Devine	Devine Brothers Inc.	5.3.2, 5.3.12	Just as Devine Bros wants to be assured minimal to no disruption of maritime commerce during construction of a bridge, and compensation for when there is disruption, we hope those people and organizations that are located around the project get the utmost consideration for their inconveniences as well.	
B-7	B-7.01	Morque	Spinnaker Real Estate Partners LLC	5.3.6	We are, however, very concerned about the impacts on our commercial properties and the businesses in South Norwalk. We urge the CT DOT to seek outside experts to work with area stakeholders and the City of Norwalk to adopt a Business Impact and Mitigation Plan.	
B-12	B-12.01	Kousidis	THINQ MAC, LLC.	5.3.5	I am the owner of thing mac, which is a computer store right next to the train bridge, across the street from the IMAX theater. We will be severely impacted by this and would like to know more information on how this will affect business.	
C-1	C-1.24	Coppola	City of Norwalk Corporation Counsel	5.3.5	What is the impact to local businesses? What is the "business coordination plan" that is to be developed? How will local businesses survive and be reimbursed?	
C-11	C-11.06	Stocker	Economic Development Department	5.3.5	The report notes that DOT will prepare a business coordination plan. It is acknowledged that a plan of some sort is necessary as businesses in the areas surrounding the project are small businesses and start-ups that are sensitive to disruptive environments. The report does not provide a description of what a business coordination plan would include, how it will be implemented or when. It is recommended and requested that DOT fund the preparation and implementation of a plan, that City staff and a couple of business representatives be invited to work with DOT to help identify the scope for such a plan and that the process begin now in order for it to be completed at least one year before construction begins. The plan must include implementation of mitigation measures that will help area businesses identify and prepare now for potential business disruptions well in advance of such occurrences.	

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**Socio-Economics continued**

						residents displaced by property acquisition. CTDOT does not have the authority to reimburse for business loss; the federal regulations guiding CTDOT's right-of-way activities specifically identify business losses as ineligible for reimbursement. Note, however, that while it is anticipated that the project will result in temporary road closures, it is not anticipated that the businesses in either East Norwalk or South Norwalk will be inaccessible due to the temporary road closures.
B-11	B-11.03	Edvardsen	Spinnaker Real Estate Partners LLC	5.3	And the document ignores how this project has already impacted the community. The "dark cloud" this project has cast over the neighborhood (over 2 years now) has already resulted in damages to the community and individual property owners	<p>CTDOT acknowledges the importance of the neighborhoods surrounding Walk Bridge to the vitality of the City of Norwalk, and concern with disruption to the community during construction.</p> <p>Minimizing the construction duration was an important factor in selecting the Preferred Alternative. The differences among the alternatives consist in the differences in construction duration and impact. CTDOT determined that of the three Build options assessed in the EA/EIE, Option 11C will provide the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Option 11C will have the shortest construction duration of the alternatives evaluated in the EA/EIE, estimated to be 40 months. As a result, it will create the least disruption to rail traffic on the New Haven Line/Northeast Corridor (NHL/NEC), the least disruption to marine traffic on the Norwalk River, and the least environmental impacts, including community disruption. As a result, CTDOT determined that Option 11C is the Preferred Alternative. The impact assessment and the mitigation plans presented in the EA/EIE are based upon 30 percent (preliminary) design plans. Per the National Environmental Policy Act (NEPA), this level of design can reasonably assess impacts and provide recommendations for mitigating unavoidable impacts.</p> <p>CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating Construction Period Coordination Plans in close coordination with the City of Norwalk and affected parties. The Construction Period Coordination Plans will include a series of individual plans and strategies focused on safety and security, resource protection (including noise and vibration and air quality/dust control), community mitigation plans, construction coordination strategies, and regional transportation. Refer to Appendix F-5.</p>
C-8	C-8.02	Kleppin	Norwalk Planning Commission	3.5	Section 3.5.2 of the EA/EIE acknowledges that the historic SONO neighborhood has seen recent redevelopment through both private and public funding. This understates the vitality and importance this area plays in the City.	
B-8	B-8.01	Fowler	Spinnaker Real Estate Partners LLC	5.3.5	We have built much of what we term the Aquarium District in Reed Putnam in SONO and are most concerned about the viability of our neighborhood and our properties during the long-term disruption that this project entails.	
B-8	B-8.04	Fowler	Spinnaker Real Estate Partners LLC	5.3	It is interesting to note that in this section, Chapter 3 as in the even more acute construction impact section that the State only offers that mitigation plans will be developed as plans progress: "To the greatest extent possible, CTDOT will strive to minimize impacts." (P3-37) This not a mitigation plan, it is barely a promise and certainly provides no comfort to the community that the State is going to spend 5-7 years disrupting.	
B-8	B-8.08	Fowler	Spinnaker Real Estate Partners LLC	5.3.5	3.8 Potential Impacts Section clearly underestimates the economic impacts to the SONO area during the construction period and it does not take into account any recovery once the project is completed. SONO's vitality, always fragile, will be dealt a crushing blow from this construction intrusion from which it may take years to recover as economic and cultural activity move to surround neighborhoods and towns unaffected by the protracted construction period. Apparently the concept of Mitigation (Section 3.8.3) is so important as to deserve around 50 words.	
B-8	B-8.15	Fowler	Spinnaker Real Estate Partners LLC	5.3	In summary, while it is recognized that significant work will be conducted at the Walk Bridge site whether it is in the No-Build or Build instances, more information must be provided as to the actual construction impacts, both long and short, can be evaluated. To be sure, the DOT is working toward that point where specifics can be divulged and evaluated but in the meantime, nearby properties are already seeing the negative impacts of potential takings, condemnations, and degradation in local quality of life; it is hoped that the DOT and the rest of the State agencies involved will bring adequate thinking to a real plan of mitigation.	
B-11	B-11.01	Edvardsen	Spinnaker Real Estate Partners LLC	General	There is no doubt that the replacement of the Walk Bridge will negatively impact this community in a myriad of ways including but not limited to mobility (bicycle and pedestrian) restrictions, traffic, loss of parking resources, visual impacts, noise, vibration, dust and light pollution. Further, not only will the	

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					project stall the progressive momentum of the neighborhood but most likely undo much of the past "livability" efforts.	<p>CTDOT recognizes that the preliminary mitigation plans will require further development. CTDOT has developed mitigation measures for impacts to historic resources, working in coordination with FTA, the CT State Historic Preservation Office (CTSHPO) and local historic stakeholders. Refer to Appendix B.</p> <p>As the project design is finalized and the contractor's means and methods are more defined, details of proposed mitigation measures also will be further defined. CTDOT will continue to finalize mitigation details with the City of Norwalk and affected parties as design advances. Per FTA requirements (23 CFR 771.113), final design activities cannot be advanced until a NEPA decision has been issued.</p> <p>As indicated in Section 7 of the EA/EIE, the project will require multiple federal and state permits. Aquatic resource mitigation commitments identified in the EA/EIE address tidal wetlands, intertidal habitats and subtidal habitats. Further, the EA/EIE identifies the likely minimal effects on aquatic organisms based upon the limited areas of in-water work and containment requirements for work in the water. The potential effects on aquatic resources will be evaluated in greater detail during the final design and permitting phase, after a Build Alternative is selected, the design has advanced, and the contractor's means and methods of construction are established. Some mitigation measures will be reviewed and approved by federal and state agencies prior to construction start, and, as necessary, project permits will be conditional upon mitigation.</p> <p>CTDOT is complying with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended to address the relocation of businesses and residents displaced by the project. To date, CTDOT has performed a Relocation Survey and completed a Real Estate Acquisition Management Plan (RAMP) identifying the displacements and the approach to addressing their needs.</p> <p>CTDOT has held public meetings, has a website with updates about the status of work and activities, and is available to discuss questions when raised by the public to keep interested persons informed as this necessary project is being planned. Through the project website, <a href="http://www.walkbridgect.com">www.walkbridgect.com</a>, CTDOT will continue to provide continuous updates to the community on the Walk Bridge Replacement Project and nearby projects, including two</p>
C-2	C-2.15	Westmoreland	Norwalk Historical Commission	General	While we recognize the needs of the Northeast coastal region to have dependable train service, this project must be done in such a way that it minimizes the impacts to our many historical resources and does not permanently jeopardize the fragile economic conditions in South and East Norwalk. We hope to continue to work constructively with the DOT to minimize and mitigate impacts to both our historic resources as well as to the entire community of Norwalk while providing dependable train service for the northeast.	
C-8	C-8.05	Kleppin	Norwalk Planning Commission	5.3.5	However, further information is needed regarding the long-term viability of the existing businesses that will either be relocated or impacted as a result of the construction. Will the relocated businesses be viable in the future? Will the impacts of the construction, such as noise, dust and road closures impact the viability of existing restaurants and shops in the vicinity of the construction area? In addition, there are numerous water-dependent businesses north of the project site that rely on the Norwalk River for barge transport and must have access through the waterway in order to sustain operations.	
E-3	E-3.02	Rilling	Mayor, City of Norwalk	5.3	What we need to discuss and evaluate is how the Walk Bridge is going to be replaced. What is going to be put in its place? What is the effect on the City? Our residents, Our businesses?  What is the project going to be? How long is it going to last? What business and residents will be displaced? What will happen to them? What will happen to our parks, the aquarium, the sky line, and our public areas? What will the disruption be? How long will it last? What mitigation measures will be implemented? What are the long term direct and indirect effects?	
I-26	I-26.05	Burnham	Individual	5.3.5	3) The disruptive nature of the lift bridge construction over the 5-7 year term and the physical and psychological effects on residences adjacent to or in the path of the construction.	
O-9	O-9.12	Bryant	Norwalk Preservation Trust	5.3	Mitigation: 11. Minimize the impact of this project on neighborhoods outside of SONO and Liberty Square.	
T-10	T-10.02	D'Andrea	Individual	5.3.5	Please remember Liberty Square. Don't forget us. We hear a lot of talk about South Norwalk. Please remember Liberty Square.	
B-8	B-8.02	Fowler	Spinnaker Real Estate Partners LLC	5.3	While we understand the nature and complexity of the Walk Bridge Replacement Project and the large body of work that has already gone into and that will go into its planning, we are dismayed by the lack of specificity in the impacts that its prolonged construction will have on the community.	
B-11	B-11.02	Edvardsen	Spinnaker Real Estate Partners LLC	5.3	To that point, I don't believe the EA/EIE adequately examines how these construction period impacts will negatively alter and restrict the use and enjoyment of the community by ALL stakeholders and reduce the actual number of stakeholders (residents, business, patrons) of the neighborhood.	

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B-11	B-11.04	Edvardsen	Spinnaker Real Estate Partners LLC	5.3	Perhaps most importantly, the EA/EIE underestimates the lingering impact this project will have on the community. The time and expense needed for a community to heal and rejuvenate, economically and by way of reputation, from the wound(s) this project will create is not insignificant and any commentary on such is sorely lacking within the EA/EIE.	<p>New Haven Line (NHL) upgrade projects – the Danbury Dock Yard Improvements Project and the CP-243 Universal Interlocking Project – and other bridge replacement projects. CTDOT will continue to review and update its Communications Management Plan to support transparency and proactively engage stakeholders as design and construction progress. A variety of outreach tools will be outlined in the Plan and utilized throughout the project to facilitate meaningful dialogue.</p> <p>CTDOT recognizes the magnitude of the project and has assembled a team of national engineering firms to complete this project. In addition to these experienced subject matter experts, CTDOT has also assigned significant internal resources to support and oversee the project. CTDOT will use FTA's Project Management Plan to track mitigation plans and permit conditions (developed in final design) to which CTDOT has committed, working in coordination with the City of Norwalk, the local community, and regulatory agencies. As the lead federal agency, FTA exercises continual oversight and independent review of the project. Additionally, the project's commitment to mitigation measures will be reviewed by federal and state regulators. Refer to Appendix F-5 for a discussion of the methods that CTDOT will use to incorporate the mitigation measures into the project's final design and construction.</p>
T-17	T-17.01	Musante	Greater Norwalk Chamber of Commerce	5.3.5	So, we are not totally impressed with the depth of how you're going to handle keeping businesses going and nurturing them during this process in the EA/EIE document. We think there needs to be a lot more work done on that and we think that there needs to be very solid plans to ensure the long-term viability, not only of those immediately adjacent, but those in Liberty Square and those up and down the river and in the greater area, because we all know that the perception of being difficult to get there is all that you need to have. It can be... if the perception is bad, people won't go there and that will irreparably damage Norwalk in an area that is absolutely critical for the visibility of Norwalk in the future. So, we hope that you will treat that with greater care and present solutions that will be adequate to keep our businesses going for a long time.	
B-8	B-8.06	Fowler	Spinnaker Real Estate Partners LLC	5.3	In 3.7.4, Summary, it is stated that the mitigation measures proposed in Chapters 3 and 5 will be protective of the natural and build environment. This is a self-serving statement that is woefully deficient in specifics as to how that is to be accomplished regarding impacts such as noise, traffic circulation, economic and value loss both temporary and permanent in the South Norwalk community, loss of visitorship and tourism due to long-term construction impacts, and general loss of quality of life within the construction area.	
B-8	B-8.10	Fowler	Spinnaker Real Estate Partners LLC	5.3.4, 5.3.5	In Section 5.3.3, Impacts on local roadways, sidewalks, parking resources, and buildings need much more detailed evaluation before valid comments can be made. Suffice it to say, the impacts will be significant with adjoining businesses likely to see severe declines in visitors and revenues. This is no more true than for The Maritime Aquarium where significant declines in patron visits are probable.	
B-9	B-9.01	Morque	Spinnaker Real Estate Partners LLC	5.3.5	The EA/EIE did not adequately address the impacts on the surrounding neighborhood and businesses. A comprehensive study and economic impact mitigation plan should be prepared	
E-6	E-6.04	Igneri	Norwalk Common Council	5.3	The EA/EIE has not fully-vetted impacts in several areas including: traffic and parking; pedestrian and bicycle facilities; land use; property impacts; water quality; socioeconomic impacts; and secondary and cumulative impacts. I could go on, but I would like to emphasize the last two: socioeconomic and secondary and cumulative impacts. I've already gone over my concerns with excluding major portions of the project in relation to cumulative impacts. The socioeconomic section contains a bare understanding at best. As Chairman of the Public Works Committee, I can directly speak on behalf of my department and say that the economic impacts on the Department of Public Works alone will top millions of dollars throughout the course of this project.	
B-10	B-10.01	Bora	Spinnaker Real Estate Partners, LLC	5.3.5	The Environmental Assessment/Environmental Impact Evaluation that was prepared by DOT and the Federal Transit Administration did not provide	

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					sufficient and rigorous analysis of alternative solutions to minimize the negative impact on area businesses and the environment.	
O-2	O-2.08	Lightfield	Norwalk 2.0	5.3	Further, since no attempt was made to adequately consider such resiliency efforts the Environmental Assessment fails to adequately analyze the full impacts to shellfish (a major agriculture economic contributor to the City of Norwalk), socioeconomic impacts, and housing impacts.	
B-11	B-11.05	Edwardsen	Spinnaker Real Estate Partners LLC	5.3	I also believe that details matter. And this review process, conducted without the benefit of adequate plans for review (at least not made public) leaves much to be desired.	
I-26	I-26.04	Burnham	Individual	5.3	2) The undisclosed or, I might say, the understudied economic impact of the surrounding community on small businesses, residences and infrastructure.	
B-11	B-11.07	Edwardsen	Spinnaker Real Estate Partners LLC	5.3	I hope that as the project advances, that realistic expectations of the project's impacts evolve and that appropriate, holistic mitigation measures are contemplated. Without that, I believe the unnecessary, unmitigated damages inflicted upon the community will far exceed the public's cost of a well-designed impact alleviation and recovery plan. I know that the project management team that is currently in-place are extremely diligent and have a tremendous amount of relevant experience. However, I also know that this is a very complex, difficult project to undertake. As such, I ask that as the project advances and some of the uncertainty is resolved and any controversy perhaps subsides that the project team take a step back to consider a more comprehensive approach to these economic impacts and the long term survival, recovery and evolution of the community (and the individuals that make this community special).	
C-6	C-6.01	Sheehan	Norwalk Redevelopment Agency	5.3.5	The Norwalk Redevelopment Agency supports the Walk Bridge being replaced. However, the project Environmental Assessment (EA) and Environmental Impact Evaluation (EIE) do not sufficiently quantify the significant impacts associated with this project that either are or could be detrimental to the quality of the human environment immediately surrounding the project. Given that the Redevelopment Agency has worked for over six decades to improve Norwalk's urban context, it is particularly concerned with the socioeconomic impacts that this mammoth public infrastructure project will have on the residents and businesses in the SoNo neighborhood. SoNo is defined by its strong community of multi-family housing and small businesses. Some of these establishments and housing units have served the neighborhood for generations. The locally owned and operated restaurants, bars, beauty salons, florists, jewelry stores, studios, art galleries and the Norwalk Aquarium give this neighborhood a unique character that is essential to Norwalk's regional sense of place. While SoNo is strong in character, its economic underpinnings are fragile. The negative impacts to livability and business attributable to a development of this magnitude, if not appropriately planned for, will be devastating to SoNo.	

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E-6	E-6.02	Igneri	Norwalk Common Council	General	The August 2016 EA/EIE does not adequately assess nor wholly identify community impacts and thus, without fully assessing or understanding impacts, it is impossible to develop mitigation plans and measures. After reading the document, I came away wondering if the preparers had any first-hand knowledge of Norwalk or if they reached out to the community in any way to determine impacts. The document certainly checks the required boxes, but failed Norwalk.	
C-6	C-6.03	Sheehan	Norwalk Redevelopment Agency	5.3.5	Government developing construction mitigation plans and providing assistance to businesses and residents in the path of large-scale transit projects is not an uncommon occurrence throughout the United States and should not be foreign to the state of Connecticut. Mitigation plans are usually devised with the input of community members and business owners and put into place before the project starts. To prepare an effective mitigation plan, however, a complete assessment of the project related impacts is required. The documentation developed by CTDOT to date is insufficient in this regard.	
C-11	C-11.03	Stocker	Economic Development Department	5.3	There are several areas of concern that have not, in my opinion been adequately identified or addressed nor have clear mitigation measures been provided in the report. The following is a list of concerns for which a response from DOT is requested: <ul style="list-style-type: none"> <li>• The area where the project will take place is a densely populated urban community with residents and businesses sharing the limited river crossings. Any disruptions to traffic, utility services, maritime commerce or otherwise must be planned out, communicated and addressed before they occur.</li> </ul>	
O-8	O-8.24	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	5.3.5	The Environmental Assessment discusses how construction work "will potentially affect businesses in the area of construction as well as water-dependent businesses upstream from Walk Bridge." (EA/EIE ES-15). However, the Environmental Assessment merely mentions this potential impact without discussing what types of harm it would cause or attempting to quantify the impact.	
I-24	I-24.01	Lauricella	Individual	General	There are impacts that must be recognized, identified and resolved.	

T-4	T-4.01	Widland	Individual	5.3.13	Given the many and significant issues/concerns you'll hear tonight regarding the project, we respectfully request that the Department address all of these issues and concerns and work with the Aquarium and others to find appropriate solutions.	CTDOT is participating in ongoing discussions with the City and the Maritime Aquarium to better understand the potential impacts of the project and the timing of the mitigation measures, including relocation of outdoor animal exhibits and the IMAX Theatre. The City and the Aquarium are proponents of relocating the IMAX Theatre; relocation will facilitate the construction of the replacement bridge and will enable the Aquarium to upgrade its facilities.
T-4	T-4.02	Widland	Individual	5.3.13	We need more information about the Department of Transportation's specific construction plans to allow the Aquarium to meaningfully assess the potential environment impacts on the project. This requested information is required in order to provide the additional detail so that the aquarium can adequately plan to protect its animals, employees, volunteers and visitors, and in turn, its future economic viability.	
C-1	C-1.18	Coppola	City of Norwalk Corporation Counsel	5.3.13	Notably, the Aquarium...will be significantly impacted.... Further details and answers are needed to address the concerns and the losses that will result, which are readily identified in the EA/EIE (EA/EIE, p. 5-18-5-19).	CTDOT has initiated coordination with the City of Norwalk, the Maritime Aquarium, and other key stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating Construction Period

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					The significance of the Aquarium to the City cannot be overstated. The Walk Bridge Project will seriously affect the Aquarium and the impacts "present a grave risk to the economic viability and survival of the Aquarium." We appreciate the CTDOT's efforts to work with the Aquarium and that the State is committed to addressing the concerns. No project should move forward until the issues with the Aquarium are addressed. As the Aquarium states in its comments, they have "already initiated mitigation efforts but needs the information requested in these comments to be timely provided in order to continue those efforts." Dialogue and timely responses are needed such that proper planning may occur, the animals safely cared for, exhibits relocated and redeveloped and that the losses from its operations, including the IMAX theater, are addressed and compensation or proper redevelopment occurs.	Coordination Plans in close coordination with the City of Norwalk and other affected parties, including the Maritime Aquarium. Plans applicable to the Aquarium's operations include a business coordination plan, historic building protection plan, a transportation management plan, and a parking replacement plan. Due to the unique nature of the Maritime Aquarium, including the sensitivities of its resident animal populations, CTDOT is developing a specific coordination plan with the Maritime Aquarium. CTDOT is working with the City of Norwalk and the Aquarium to develop a plan to identify and address the impacts of the project upon the Aquarium's outdoor and indoor exhibits and its terrestrial and aquatic animals. Refer to Appendix F-5.
C-11	C-11.09	Stocker	Economic Development Department	5.3.5	The project is expected to impact the Maritime Aquarium and IMAX Theatre as well as access to the vessels owned by the Norwalk Seaport Association and the Aquarium. The study identifies "The Maritime Aquarium/IMAX Theatre as the economic anchor for the area" "The Maritime Aquarium and IMAX Theatre, hosting 500,000 visitors a year is the largest CT attraction within 100 miles of NYC." We expect to see a decrease in visitors to the Aquarium the IMAX Theatre and to the Seaport Association vessels as a direct result of the project. Area businesses are dependent upon these visitors who spend money here to enter the attractions, to park, to eat, to shop and to stay over. Some ride the train. These visitors help support local businesses and the local work force which in turn supports our local and State economy. The study completely lacks any quantification of and mitigation for such impacts that may be direct or secondary. DOT must develop true impacts and mitigation measures before, during and after construction to address the primary and secondary impacts of the project on the local economic viability of businesses and tourism in South Norwalk and East Norwalk and for the direct impacts to these two not for profit entities.	CTDOT recognizes that the preliminary mitigation plans identified in the EA/EIE will require further development. Utilizing the Construction Manager/General Contractor (CM/GC) delivery method provides CTDOT with valuable insight to the proposed construction means and methods. This information typically would not be known until much further in design for a project using the conventional Design, Bid, Build delivery method. At CTDOT's request, the CM/GC is advancing its planning and analysis so that meaningful mitigation measures can be developed that are specific to the unique operations of the Aquarium. CTDOT will continue to finalize mitigation details with the City of Norwalk and affected parties, including the Maritime Aquarium, as design advances. Per FTA requirements (23 CFR 771.113), final design activities cannot be advanced until a NEPA decision has been issued.
I-27	I-27.02	Widland	Individual	5.3	It is not our intention to stop the Project, but we are very concerned about the still unknown, unquantified, and in some instances, unexplored effects of the construction on the health and safety of the diverse and exotic resident animals in the Aquarium, and the Aquarium's employees and it volunteers.	In accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended, CTDOT will compensate the City of Norwalk for the property rights to be acquired. In connection, therewith, CTDOT will provide the City of Norwalk and/or the Aquarium with the assistance necessary to relocate the animals affected by the acquisition. The required easements and effects upon the Aquarium do not necessarily elevate the level of impacts to significance as defined by NEPA.
O-12	O-12.01	Davis	The Maritime Aquarium	5.3	However, despite our efforts, we remain very concerned about the still unknown, unquantified, and in some instances, unexplored effects of the construction on the health and safety of the diverse and exotic resident animals in the Aquarium, the Aquarium's employees and volunteers, visitors, and the Aquarium's physical buildings. We are concerned that many of the environmental impacts to the Aquarium from the proposed construction have not been adequately examined in the EIE to the level of detail that would allow the Aquarium and the Project decision makers to assess, eliminate, minimize or mitigate and plan for those impacts.	

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O-12	O-12.02	Davis	The Maritime Aquarium	5.3	While acknowledging the eventual need for rail upgrades, it is equally true that the Project impacts, both environmental and financial, present a grave risk to the economic viability and survival of the Aquarium. The cost, expense and business interruption resulting from the Project, if not properly addressed, threaten the Aquarium's ability to continue to operate, ensure the proper care and survival of its animals, provide safety for staff and visitors and provide an educational resource for the region that cannot be replaced.	
T-5	T-5.01	Davis	Maritime Aquarium at Norwalk	5.3.5, 5.3.13,	But as a non-profit institution which provides an annual economic support in excess of \$25 million to the City of Norwalk, and \$42 million to the State of Connecticut, and as well as hosting over 500,000 guests annually, we would like to see a more detailed information in relation to the project so that the environmental impacts of the construction can be evaluated and addressed.	
E-4	E-4.07	Third Taxing District	Norwalk's Third Taxing District	3.6	Similarly, the destruction and rebuilding of the Maritime IMAX theatre is also not discussed as a significant impact in the report. Taxpayers, who have already paid for the construction of the theater, should not be asked to pay for it twice more—once to purchase the structure, and again to build it a second time.	
I-26	I-26.06	Burnham	Individual	5.3.4, 5.3.5, 5.3.13	4) The irreparable economic, structural and perceptual harm to the Maritime Aquarium during and after construction...harm that might call into question the Aquarium's ability to operate as a going concern.	
O-7	O-7.34	Kunkel	Norwalk Harbor Keeper	3.6, 5.3.5	Another inexplicable omission is CTDOT's long-ongoing consideration of entirely dismantling the existing IMAX Theater, which the Environmental Assessment notes is "the largest Connecticut attraction within 100 miles of New York City," hosting 500,000 visitors a year. While the Environmental Assessment mentions that there are potential impacts to the IMAX Theater, nowhere does it discuss the possibility of closing and entirely dismantling the theater to use the land where it stands as a staging area. CTDOT has reportedly been considering the closure since at least January 2016. The potential closure of the theater, renovated only four years ago in 2012, is a significant concern for Norwalk citizens. No decision on the project should be made before evaluating the impacts from such a closure, such as loss of revenue, job loss, loss of tourism and visitors to Norwalk, and other major factors and considerations required to be studied by law.	
O-8	O-8.25	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	5.3.13, 5.3.4	Yet the Environmental Assessment fails to describe the actual expected impacts to the IMAX theater, with no quantification or other discussion beyond merely mentioning the potential for losses.	
O-12	O-12.03	Davis	The Maritime Aquarium	5.3	With the commitment, collaboration and support of all involved, the Aquarium believes that impacts and costs can be addressed with appropriate compensation and appropriate coordination in a way that allows the Aquarium to continue to thrive as a key institution in Norwalk and the region...With that commitment confirmed, we look forward to working with CDOT and other agencies to address all of the Aquarium's solutions and concerns as well as find appropriate solutions.	

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O-12	O-12.04	Davis	The Maritime Aquarium	5.3	To evaluate some of the Aquarium's concerns, it needs the Project team to provide a more detailed and fully developed construction plan for all phases of the Project so that it can overlay the plan with the daily and seasonal operations of the facility as well as the daily and seasonal patterns of animal behavior. This will allow the Aquarium to anticipate the steps required to determine not only the environmental, health and safety impacts but also the scheduling and costs associated with the protective measures that will be required to safeguard its animals, employees, volunteers and visitors. This information will also be necessary for the Aquarium to anticipate mitigation measures and costs in order to tailor its program, as necessary, to continue to provide the high quality program currently available to its visitors.	
O-12	O-12.05	Davis	The Maritime Aquarium	5.3.13	In short, significant advanced planning and coordination between the Aquarium and CTDOT, Federal Transit Administration, the City of Norwalk, Connecticut Department of Energy and Environmental Protection and other state agencies will be required to ensure the welfare of our animals; safety to employees, volunteers and visitors; integrity of our physical facilities; and continued viability as a key regional institution.  Consequently, the Aquarium must engage in advanced planning for these moves, and CDOT, Federal Transit Administration, the City of Norwalk, Connecticut Department of Energy and Environmental Protection and other state agencies must work collaboratively with the Aquarium during both the demolition and construction phases of the Project to ensure the continued safety and well-being of the Aquarium's animals.	
T-18	T-18.02	Wagman	Individual	5.3.13	You can't do anything to the Aquarium that would disrupt the operation of that particular facility.	
C-3	C-3.04	Mobilia	Norwalk Harbor Management Commission	ES-11	The EA/EIE fails to provide sufficient detail on Project impacts and mitigation measures. The NHMC finds that the EA/EIE fails to: 1) provide a sufficiently detailed identification and evaluation of the economic, social, and environmental costs and benefits of the Project as the Project would affect the Norwalk Harbor and waterfront over the anticipated bridge construction period of 40 to 47 months; and 2) provide a sufficiently detailed identification of measures to mitigate unavoidable Project impacts. For example, with respect to construction impacts, the NHMC is concerned that: (1) All conceptual construction sequences include a step to "float in" elements of the new bridge structure, yet there is no discussion of any requirements for in-water and/or waterfront staging areas and impacts to accomplish this; (2) The EA/EIE acknowledges adverse effects to marine users and water-dependent facilities during construction and notes that mitigation will be "varied and developed on a case-by-case basis," thereby indicating that mitigation strategies are not developed at this time; (3) The EA/EIE acknowledges that construction impacts will affect the Maritime Aquarium and include relocation and modifications to existing outdoor exhibits, and that the DOT will continue to work with the City and Aquarium to	(1) The "float in" elements of bridge construction are preliminary and will require use of the waterfront staging areas as well as short-term full channel closure. At this preliminary design stage, CTDOT anticipates minimal complete channel outages for existing span float-out and new lift span float-in activities. Channel outages will be limited to the shortest possible time. The CTDOT team, which included designers and the construction contractor, developed likely construction scenarios to identify areas that would be needed for construction staging and waterfront access (as identified in EA/EIE Table 3-5). The EA/EIE, a preliminary planning document based upon a 30 percent design, identified potential impacts and mitigation based on these preliminary plans. As design advances and the contractor's construction means and methods are more established, impacts will be more fully defined. Permit applications, which will be based on 60 percent design plans, will include details of the impacts and mitigation measures.  (2), (3), (5), (6) CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop

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Socio-Economics continued

					<p>determine the economic effects of the impacts and develop appropriate mitigation measures, thereby indicating that the effects are currently not known and that mitigation strategies are not developed at this time;</p> <p>(4) The discussion of water quality impacts and mitigation measures does not propose a pre-construction water quality sampling program to establish a baseline of water quality conditions as previously recommended by the NHMC, nor does it propose an on-going program to monitor water quality conditions during construction;</p> <p>(5) The EA/EIE acknowledges that displacement of existing water-dependent uses will occur, including displacement of an existing marina, the Sheffield Island ferry service, and Maritime Aquarium research vessel, and that the DOT will continue to explore mitigation opportunities, thereby indicating that mitigation strategies for the planned displacement are not developed at this time;</p> <p>(6) The EA/EIE acknowledges that construction noise and vibration may adversely affect living exhibits in the Maritime Aquarium and fish living/migrating in the Norwalk River and will develop mitigation measures in consultation with the Aquarium, DEEP, and National Marine Fisheries Service as design progresses, thereby indicating that mitigation strategies are not developed at this time;</p> <p>(7) While the EA/EIE asserts that generally there will be no effect on, or disruption to, local public utilities during construction, the EA/EIE also acknowledges that eight Eversource Energy electric transmission lines must be relocated before bridge construction commences, but the impacts of that relocation, made necessary by the Project, are not addressed (see no. 2 below); and</p> <p>(8) the EA/EIE acknowledges that as Project design progresses, property impacts will continue to be refined and that the contractor may opt to use other and/or additional parcels for construction staging, access, and/or equipment storage, and as a result the full extent of waterfront impacts are currently not known.</p>	<p>mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined.</p> <p>Based upon preliminary design plans, the EA/EIE identified mitigation measures to avoid, minimize, rectify, reduce or compensate for potentially adverse environmental impacts. CTDOT has worked closely with the City of Norwalk and other stakeholders to further identify plans to develop appropriate mitigation. The mitigation measures presented in the EA/EIE, and further defined in cooperation with the City of Norwalk and stakeholders (refer to Appendix B), are incorporated into the project to reduce environmental impacts. Refer to Appendix F-5 for a discussion of the methods that CTDOT will use to incorporate the mitigation measures into the project's final design and construction.</p> <p>CTDOT recognizes that the preliminary mitigation plans will require further development. As the project design advances and the contractor's construction means and methods are more defined, details of proposed mitigation measures also will be further defined. CTDOT will continue to finalize mitigation with the City of Norwalk and affected parties. Per FTA requirements (23 CFR 771.113), final design activities cannot be advanced until a NEPA decision has been issued.</p> <p>(4) For transportation construction projects such as this where an existing structure is being replaced by a similar structure, and measures to protect water quality are routinely employed, risks are low and water quality testing is rarely conducted before construction begins. Furthermore, in a tidal area where water is continuously circulating up and down river, and inputs from upstream and downstream sources contribute to overall quality, it is difficult to set a baseline condition as water chemistry readings are likely to fluctuate throughout the day and seasons, and from weather events. Stormwater outfall monitoring during construction will be conducted as part of the requirements of the Construction Stormwater General Permit and details regarding that testing will be evaluated in the permitting phase of this project.</p> <p>The EA/EIE identified opportunities to protect and improve water quality. CTDOT will further evaluate impacts and mitigation as the project proceeds into final design and the contractor's means and methods of construction are developed. Water quality</p>
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Socio-Economics continued

						<p>considerations are key elements of project permitting, and compliance with water quality standards will be conditions of state and federal permits. Some examples of Best Management Practices (BMPs) include using marine enclosures for work around piers during construction and demolition; adding protective enclosures for work on the bridge to contain materials that could potentially fall to the water; stabilizing land-based soils; using erosion control measures; following the requirements of the National Pollution Discharge Elimination System (NPDES) permitting; removing contaminated sediments from the river; and disposing of sediments following state regulations. Further, CTDOT utilizes its own Environmental Compliance specifications, which list specific BMPs for water pollution control, and address standards for the management and disposal of contaminated and/or hazardous materials.</p> <p>(7) The Walk Bridge Replacement Project requires the demolition of the existing high towers, which currently carry electric transmission lines. The relocation of the electric transmission lines will be an indirect impact of the Walk Bridge Replacement Project. Eversource Energy, LLC, the utility owner, is responsible for the relocation of the lines and will be obtaining NEPA reviews and permits, including identifying impacts and mitigation measures. CTDOT is coordinating with Eversource Energy on the timing of its replacement project.</p> <p>(8) CTDOT has identified all waterfront impacts that will occur in the Walk Bridge Replacement Project. The parcels that will be required to construct the project, including the total number of waterfront parcels, are identified in Table 3-5 in the EA/EIE.</p>
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E-7	E-7.04	Common Council	Norwalk Common Council	5.3	We should note that the city of Norwalk has worked diligently in recent years to expand its tax base and thereby lower the property tax burden on residents. We believe the state should seriously address whatever fiscal hardships the city experiences as a direct result of the Walk Bridge Project and that the city should be reimbursed accordingly. At the very least, everything possible should be done to minimize the fiscal toll on the city and our residents.	Connecticut's Uniform Relocation Assistance Act, based upon the federal Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended, applies only to businesses and residents displaced by property acquisition. However, as described in Appendix F-5, CTDOT has committed to working closely with the City of Norwalk and other stakeholders to further identify appropriate types of mitigation measures to avoid, minimize, rectify, reduce or compensate for potentially significant adverse environmental impacts. With continual oversight from FTA through project completion, CTDOT will be responsible for implementing these mitigation measures and commitments to minimize adverse impacts to the community.
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I-5	I-5.12	Schnierlein	Individual	5.3.5	In 3.1.3 – Potential Impacts, there is no mention as to an estimate for the loss of revenue to the businesses on Washington St., and North Water St. due to road closures.	The use of parcels for construction of the Walk Bridge Replacement Project is not expected to adversely affect surrounding properties. During construction, the parcels will be
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**Socio-Economics continued**

O-7	O-7.33	Kunkel	Norwalk Harbor Keeper	5.3.5, 5.3.3	The construction work will also affect the value of the property near the construction areas for the duration of the construction. South Norwalk rental properties like Ironworks SoNo, along with businesses and restaurants on Water Street, will have their property values negatively impacted by the construction work. Foot traffic access and availability of parking will be impacted, reducing the flow of potential customers and purchasers or renters of residences, and the waterfront views will be marred by construction. This will lessen the value of these properties that have played a pivotal role in gentrifying and reviving Norwalk.	<p>maintained and fenced as practicable. Upon completion of the project, CTDOT will be responsible for restoring and stabilizing the sites, including restoring the temporary easements to pre-project conditions and preparing the portions of the parcels no longer needed for transportation for resale.</p> <p>CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating Construction Period Coordination Plans in close coordination with the City of Norwalk and affected parties. The Construction Period Coordination Plans will include a series of individual plans and strategies focused on safety and security, noise and vibration control, air quality/dust control, and traffic mitigation. Refer to Appendix F-5.</p> <p>Connecticut's Uniform Relocation Assistance Act, based upon the federal Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended, applies only to businesses and residents displaced by property acquisition. CTDOT does not have the authority to reimburse for business loss; the federal regulations guiding CTDOT's right-of-way activities specifically identify business losses as ineligible for reimbursement.</p>
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O-7	O-7.35	Kunkel	Norwalk Harbor Keeper	3.6, 3.26	The project construction will require the taking of property including existing housing. Counsel informs us that such impacts to housing must be studied in some detail, including providing a breakdown of the residences who would be displaced by race and by income group, and analyze whether the action is consistent with state policy for housing and community development. The Environmental Assessment merely mentions that a few homes would be lost without providing such details, and should be amended to include these analyses.	<p>As indicated in Section 3.26, it is not known whether the affected businesses and residents in the Goldstein Place/Liberty Square neighborhoods include Environmental Justice (EJ) populations, but based upon U.S. Census tract/block group/block, there is potential that these businesses and residents may include EJ populations.</p>
O-8	O-8.26	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	5.3.5	The Environmental Assessment Inadequately Analyzes the Project's Housing Impacts. The Environmental Assessment's analysis of housing impacts is also deficient under CEPA. CEPA requires a detailed analysis of potential impacts on housing including (i) direct and indirect effects on existing housing, organized by income group and by race, and (ii) consistency of housing impacts to state policy for housing and community development. Conn. Gen. Stat. § 22a-1b(b)(7)(c) ("In the case of an action which affects existing housing, the evaluation shall also contain a detailed statement analyzing (A) housing consequences of the proposed action, including direct and indirect effects which might result during and subsequent to the proposed action by income group as defined in section 8-37aa and by race, and (B) the consistency of the	<p>In accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended, and the Connecticut Uniform Relocation Assistance Act, CTDOT will provide assistance to businesses and residents whose properties are acquired by the project. As part of the advisory assistance that CTDOT provides, property displaces are advised of potential replacement properties and/or directed to real estate professionals (realtors, etc.) who may assist them in identifying replacement properties.</p> <p>The project will replace an existing bridge on an existing rail corridor and will represent an overall benefit to the entire community and is important to the continued economic prosperity of the region. The improved accessibility and</p>

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**Socio-Economics continued**

					housing consequences with the state's consolidated plan for housing and community development prepared pursuant to section 8-37t.").	reliability of the proposed bridge and navigational opening will also benefit EJ communities, which comprise a substantial portion of the local community. An improved Walk Bridge will provide continued accessibility to rail, which provides economic opportunities for the local community. Most residents (75 percent) of Fairfield County commuting to Manhattan for work travel by rail, and an improved Walk Bridge will also benefit local businesses frequented by tourists, visitors, and residents. The revitalization occurring in the SoNo District adjoining the bridge will benefit from an improved bridge. The project will provide long-term benefits to not only the local EJ communities working, living near, or commuting to/from the project site, but also to EJ communities located regionwide that depend on the accessibility provided by the NEC and the regional economic benefits accruing from its continued usage.
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C-1	C-1.28	Coppola	City of Norwalk Corporation Counsel	3.26, 5.3.21	There will be visual effects, traffic detours, increases in noise, vibration, air quality - what are the plans such that our minority and low-income populations do not bear a disproportionate burden or affects while all these projects are being constructed? See Exhibit 9 requesting set asides for minority and women owned enterprises.	<p>The EA/EIE indicates that impacts of the project to Environmental Justice (EJ) populations will not be disproportionately adverse. CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders to develop construction coordination plans as design advances and the contractor's construction means and methods are defined. CTDOT's coordination efforts include the business community, residents, and other affected parties, including outreach to EJ communities. Refer to Appendix F-5.</p> <p>Regarding the requested set-asides for minority- and women-owned businesses, CTDOT will seek to designate five percent of the project construction costs to Disadvantaged Business Enterprises (DBEs).</p>
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B-8	B-8.11	Fowler	Spinnaker Real Estate Partners LLC	5.3.4, 5.3.5	We expect that mitigation plans, including economic restitution figured from a baseline condition will be discussed in the near future. There is no reason that a small population should bear the brunt of impact for a project that benefits an admittedly larger body without just compensation based on all factors of impact.	The replacement of Walk Bridge will be a sustainable project; it will contribute to the long-term, cultural, economic, and environmental health and vitality of the community. Walk Bridge meets the definition of a facility which is in the national interest: it is a critical piece of infrastructure on the NEC/NHL. A properly functioning Walk Bridge is important to both the local and regional economy. As indicated in the EA/EIE, a long-time failure of one of the four movable bridges on the NHL, including Walk Bridge, could add 125,000 daily commuters to I-95. Failure of Walk Bridge also would result in additional truck traffic to replace the existing marine freight traffic. The EA/EIE indicates that the improved marine conditions and increased reliability of bridge operations will improve the attractiveness of the Inner Harbor for
T-3	T-3.03	Wilms	State Representative, 142nd District	General	And we get that we need to do our civic duty on behalf of others but it would really be helpful, as part of us taking 100% of the burden, if you can work in some kind of side projects as compensation—two or three side projects that benefit Norwalk specifically that could be wrapped into this Walk Bridge Project to compensate us for the burden that we're going to be experiencing.	
T-6	T-6.01	McGuire	Individual	6.2	In the big picture, the Walk Street Bridge Project is a clear improvement to the existing rail operations, but I don't see it being a clear improvement to the City of Norwalk.	

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**Socio-Economics continued**

T-6	T-6.02	McGuire	Individual	General	What I hope, and I know I speak for many people here, is that MTA and DOT will invest in us, the Community of Norwalk, and in so doing leave Norwalk a better place than it is today.	existing commercial and recreational marine users. Existing users will be more likely to retain or expand their business with improved navigability conditions. Additionally, new marine-based businesses may be more likely to locate to an area with reliable infrastructure.
T-14	T-14.05	Dobowski	Individual	5.3.5	Resiliency as the basis for the project's primary funding also must include a more expansive consideration of the overall effects of the project on the community's resiliency.	
E-4	E-4.05	Third Taxing District	Norwalk's Third Taxing District	3.6	Socioeconomics: Benefits are discussed solely in terms of temporary construction jobs in connection with the project, and benefits to the Northeast corridor from improved rail service. Impacts are discussed only in the context of the abutting property owners, needs for easements, and the loss of property taxes to the City of Norwalk. Mitigation is limited only to assisting abutting property owners subject to easements. This utterly fails to address the impacts of losing a historical structure, the long-term maintenance costs of proposed infrastructure changes (such as placing electric feeds underground, demolishing the Maritime IMAX theatre, the loss of long-time residents and businesses in a primary commercial downtown area). The \$91,000 property tax losses from this project will be spread over 85,000 residents and all of the commercial properties in Norwalk.	<p>In accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended, and the Connecticut Uniform Relocation Assistance Act, CTDOT will provide assistance to businesses and residents whose properties are acquired by the project. CTDOT does not have the authority to reimburse for business loss; the federal regulations guiding CTDOT's right-of-way activities specifically identify business losses as ineligible for reimbursement. CTDOT will compensate the City of Norwalk for the easements it will require on Parcels 2/19/2 and 2/19/3 (10 North Water Street) in accordance with Connecticut's Uniform Relocation Assistance Act, based upon the federal Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended. Note that the relocation of the electric transmission lines will be an indirect impact of the Walk Bridge Replacement Project. Eversource Energy, LLC, the utility owner, is responsible for the relocation of the lines.</p> <p>CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating Construction Period Coordination Plans in close coordination with the City of Norwalk and affected parties. The Construction Period Coordination Plans will include a series of individual plans and strategies focused on safety and security, noise and vibration control, air quality/dust control, and traffic mitigation.</p> <p>Mitigation measures are incorporated into the project that will benefit the Norwalk community. The project will include extension of the Harbor Loop Trail on the east side of the Norwalk River. The EA/EIE identifies opportunities to improve water quality as part of the stormwater drainage system; these improvements will be refined as project design advances. While the project will result in the loss of the historic bridge, CTDOT has coordinated with FTA, CTSHPO and local historic stakeholders to develop mitigation measures that will include public education programs and cultural amenities that could reach a widespread audience. Additionally, CTDOT is working with the City's Design Advisory Committee to incorporate historic elements into the</p>

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<b>Socio-Economics continued</b>						
						<p>design of the replacement bridge. Due to the unique nature of the Maritime Aquarium at Norwalk, including the sensitivities of its resident animal populations, CTDOT is developing a specific coordination plan with the Maritime Aquarium. Mitigation developed for the Aquarium will improve its operations and exhibits, and benefit the community. Finally, CTDOT is developing a Regional Transportation Management Plan (TMP) that will identify and address traffic impacts due not only to the Walk Bridge Project, but also to other CTDOT-sponsored, local, and private projects planned for construction in the greater Norwalk area. The traffic improvement measures resulting from the Regional TMP will benefit residents, businesses, and travelers throughout the greater Norwalk area.</p> <p>Refer to Appendix F-5 for a description of the Construction Period Coordination Plans, including the Regional TMP.</p>
C-11	C-11.11	Stocker	Economic Development Department	7.1	The report does not discuss or address any set asides for art, minority or women owned enterprises or how such, if so required, will be addressed.	The environmental document is intended to address the project purpose and need, alternatives, anticipated impacts and potential mitigation measures of the project alternatives. Specific aspects of project funding allocations designated to art or Minority Business Enterprises/Women Business Enterprises (MBEs/WBEs) are not routinely described in NEPA/CEPA documents. CTDOT will seek to designate five percent of the project construction costs to Disadvantaged Business Enterprises (DBEs).
C-3	C-3.08	Mobilia	Norwalk Harbor Management Commission	8.3	Project funds should be allocated to enable the City to retain professional services to assist with Project review and management. Insofar as the Norwalk Department of Public Works does not have the personnel and expertise to evaluate and monitor all aspects of the proposed Project, the NHMC recommends that an independent expert or experts be retained by the City to: 1) evaluate the DOT's conclusions regarding the potential costs and benefits associated with the several bridge alternatives described in the EA/EIE; and 2) serve as a Project Oversight Monitor during the course of the Project with specific responsibilities for protecting the rights and interests of the City. The cost of these recommended services should be part of the DOT's Project cost.	<p>CTDOT appreciates the challenges the City may have with regards to available resources to review project documents. It is a large project, and we understand it will affect the community to a large degree. The City's cooperation and participation is very much appreciated as we advance the project; however, CTDOT doesn't provide funding to reimburse for municipal staff time spent in reviewing project documents or technical reviews.</p> <p>The Walk Bridge Program team is comprised of highly proficient structural, electrical, and civil engineers working within their prospective disciplines. In addition, CTDOT has peer reviewers, independent experts, a Contractor, and internal staff reviewing the plans for technical details and issues. These technical resources are also working in support of the City to address areas of concern. If the City raises a concern, these technical resources will perform the detailed work and analysis to address the concern. It is not our expectation, nor do we believe it is required, for the City to complete the technical analysis</p>
C-7	C-7.01	Chimento	Norwalk Department of Public Works	Es-11	I have asked and it has been rejected, to get funding for us to have consultants on hand to review the reports (EA/EIE or an EIS), plans and specifications for the Walk Bridge Project. It is inconceivable that a project of this magnitude can't come up with funding for the City to help with the review and construction management. We do not have the staff or the money to handle all of the necessary reviews.	

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Socio-Economics continued

						<p>themselves or to check the detailed analysis. The City should identify areas of concern or ask questions which will be addressed by the Program team.</p> <p>CTDOT will be happy to coordinate on-board reviews and other similar techniques with the City to maximize efficient use of your time, and we are available to answer any questions and provide any additional information that helps with your understanding of the project materials. If the City identifies a particular topic of local concern which is related to the Walk Bridge Program but won't be addressed as part of the EA/EIE or EIS, CTDOT is willing to discuss it to see if it is something that the State could participate in. This effort could include the selection of consultant services, to be procured by either the City or CTDOT, with involvement from the other party. As an aside, the Walk Bridge Program is already participating in substantial efforts with the Maritime Aquarium through CTDOT's rights-of-way process.</p>
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E-2	E-2.03	Boucher	Connecticut State Senate	2.5	I urge the department to carefully consider the long term impact of this project on the surrounding area, and pursue the build option with the least potential for disruption.	<p>Minimizing the construction duration was an important factor in selecting the Preferred Alternative. CTDOT determined that of the three Build options assessed in the EA/EIE, Option 11C would provide the most favorable balance of cost, operational redundancy, long-term reliability, and potential disruption. Option 11C would have the shortest construction duration, resulting in the least disruption to rail traffic on the New Haven Line/Northeast Corridor (NHL/NEC), the least disruption to marine traffic on the Norwalk River, and the least environmental impacts, including community disruption. As a result, CTDOT determined that Option 11C is the Preferred Alternative. Figure 2-15 in the EA/EIE compares the replacement bridge options that were evaluated.</p> <p>CTDOT is expediting the construction of the Walk Bridge Replacement Project through several means: 1) CTDOT is utilizing a Construction Manager/General Contractor (CM/GC) project delivery method for the project to advise CTDOT on schedule, phasing, constructability, materials availability, risk, and cost, and thereby expedite contractor selection and mobilization, improve construction sequencing, and reduce construction duration; 2) CTDOT will use Accelerated Bridge Construction (ABC) techniques to reduce the construction time and impacts, such as constructing bridge components offsite and rapidly assembling them in place; and 3) CTDOT will take advantage of the construction of two NHL upgrade projects to expedite the construction of the Walk Bridge Project, as further described in Appendix F-3. Additionally, CTDOT is coordinating this project</p>
T-21	T-21.03	Franklin	Individual	5.3	And I just want to bring that to your consideration – the time and how long this work will be done.	

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						with other adjacent projects on the NHL and immediate area to take advantage of the two-track outages required for the Walk Bridge Replacement, as further described in Appendix F-4.
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## Transportation and Traffic Parking

B-7	B-7.03	Morque	Spinnaker Real Estate Partners LLC	5.3.3	In addition, the on-site parking spaces within the area of construction easement are currently provided on a reserved, exclusive basis for senior executives of our tenants and the loss of these highly valued spaces may put some of our leases in technical default.	<p>CTDOT has initiated coordination with the City of Norwalk and other key stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is addressing traffic and transportation concerns at both a project-specific scale and a regional scale.</p> <p>CTDOT will develop an Alternative/Replacement Parking Plan in coordination with the City of Norwalk, including the Department of Public Works; the Norwalk Parking Authority; the Maritime Aquarium; and the business community. The Plan will identify replacement parking due to temporary closures of parking facilities, and identify access to available parking facilities unaffected by the project. Additional focus areas include pedestrian/bicycle mobility and business coordination. Refer to Appendix F-5.</p> <p>In accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended, and the Connecticut Uniform Relocation Assistance Act, CTDOT will provide assistance to businesses and residents whose properties are acquired for the project. CTDOT will compensate the Norwalk Parking Authority (NPA) for the temporary easement it will require on the NPA's North Water Street Lot (Parcel 2/19/1). CTDOT does not have the statutory authority to provide relief for NPA revenue loss; payment for damages is solely based on the direct impact of acquired property rights.</p>
B-8	B-8.13	Fowler	Spinnaker Real Estate Partners LLC	5.3.3	The statement that there is ample alternative parking available (Page 5-9) needs to be more closely evaluated due to various non-complementary periods of use, particularly as they intersect with peak periods at The Maritime Aquarium.	
B-11	B-11.08	Edwardsen	Spinnaker Real Estate Partners LLC	5.3.4, 3.6	18 Marshall Street - this property also serves as free evening and weekend parking for the general public but primarily Ironworks restaurant employee and patron parking. Any pedestrian mobility restriction along North Water Street from this property to Ironworks will impact such usage. And the proposed displaced "employee parking" use is more complicated than simply relocating such spaces. There are legal, convenient and economic ramifications to do so. And I think the project team should undertake a formal parking study / parking management plan to confirm some of the seemingly informal conclusions regarding parking availability in the area. Unless the assumption is that the project will dramatically impact visitation to the aquarium, I believe the EA/EIE is over allocating available spaces in the Maritime Garage based on past peak usage.	
C-9	C-9.01	Brescia	Norwalk Parking Authority	5.3.3	In trying to estimate the impact which the Walk Bridge project will bring to this area it is obvious that any construction and traffic problems spread over a prolonged period of time could negate the appeal of the Aquarium and reduce their attendance. That will also impact the revenue needed by the NPA to meet budgeted goals. Furthermore, the possible loss of the North Water Street lot will also have negative impact on our ability to serve the public and our revenue potential. Importantly, these negative "ripples" (less attendance, reduced parking options) can have dramatic impact on the entire business and residential communities of SONO.	
O-12	O-12.07	Davis	The Maritime Aquarium	5.3.5	<p>The Aquarium will need to be included in any discussions regarding partial or full street closures, detours, and appropriate signage so that it can determine and mitigate impacts of closures on its business by alerting employees, volunteers and visitors well in advance of such closures through its website and other social media/media sources, appropriate signage, etc.</p> <p>The Aquarium will need to be included in any discussions regarding parking lot/area closures and alternative parking arrangements, particularly when access to the Maritime and other garages typically used by Aquarium employees, volunteers, and visitors is compromised either by closures or overflow of others coming from parking areas that have been closed. This information is required so that the Aquarium can anticipate and mitigate impacts on its business by alerting employees, volunteers and visitors well in advance of such closures and/or the need to use alternative parking areas</p>	

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**Transportation and Traffic continued**

					through its website and other social media/media sources, appropriate signage, etc.	
C-1	C-1.36	Coppola	City of Norwalk Corporation Counsel	5.3.3	Norwalk Parking Authority and Department of Public Works should be included in all discussions involving shifting parking burdens to City lots.	
C-9	C-9.02	Brescia	Norwalk Parking Authority	5.3.3	We would be looking to the DOT to provide relief for NPA revenue loss as well as possible additional costs we might incur in serving the public with reduced parking options. An example of these costs would be the need to provide "jitney" or "circulator" service from the Maritime Garage to stores and restaurants in the Washington Street area.	

**Traffic and Transportation**

B-11	B-11.13	Edvardsen	Spinnaker Real Estate Partners LLC	5.3.3	Also, not specifically mentioned in the EA/EIE but any pedestrian mobility restrictions, even temporarily, along Ann Street that limits convenient access to the waterfront and Oyster Shell Park for residents living on Ann Street west of the Danbury Branch severely impacts their quality of life and the value of their real estate. Many residents and their pets use that area for exercise and recreation daily. This is a small detail considering the scale of the project...but solutions should be considered.	Comment acknowledged. The EA/EIE does not identify any impacts near Ann Street or Oyster Shell Park, other than potentially for tidal wetland mitigation along the shoreline. CTDOT will evaluate all project elements and effects on mobility of pedestrians as the project advances into final design and the contractor's means and methods of construction are developed. The Construction Period Coordination Plans describe in greater detail the plans to be developed to specifically accommodate bicycles, pedestrians, and traffic during construction to minimize disruptions and impacts. Refer to Appendix F-5.
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C-1	C-1.35	Coppola	City of Norwalk Corporation Counsel	5.3.3	The Department of Public Works and Police Department should be included in all discussions involving street closures.	The impact assessment and the mitigation plans presented in the EA/EIE are based upon 30 percent (preliminary) design plans. Per the National Environmental Policy Act (NEPA), this level of design can reasonably assess impacts and provide recommendations for mitigating unavoidable impacts. As the project design is finalized and the contractor's means and methods are more defined, details of proposed mitigation measures, including traffic routing details, also will be further defined. As it proceeds in final design, CTDOT will continue to finalize mitigation details with the City of Norwalk and affected parties.  CTDOT has initiated coordination with the City of Norwalk and other stakeholders to address concerns and develop mitigation plans, and will continue to work with stakeholders as design advances and the contractor's construction means and methods are defined. CTDOT is committed to developing and updating Construction Period Coordination Plans in close coordination with the City of Norwalk and affected parties. The Construction Period Coordination Plans will include a series of individual plans and
B-1	B-1.01	Kornmeyer	Individual	5.3.1, 5.3.3	We are a local business, concerned about road closures and rail schedules.	
I-12	I-12.01	Bacal	Individual	5.3.16	My concern is for the impact that it is going to have on the businesses and residences of South Norwalk (including Shorefront Park, Harborview, Harbor Shores and Village Creek). There's great concern that traffic will get tied up, there will be construction disruption (sound, dirt) and getting in and out will be a nightmare. We're concerned that visitors will stay away from South Norwalk because they hear about the construction, reducing business income and property values during the construction. Are there plans to alleviate this?	
B-11	B-11.11	Edvardsen	Spinnaker Real Estate Partners LLC	5.3.3	Mention of road closures and detours are a prevalent component of the EA/EIE. I suggest a comprehensive traffic study be conducted to determine the impacts on level of service caused by each road closure and on any combination of road closures. Any level of service reduced to unacceptable levels or significantly impacted from current operations should be examined for re-programming suggestions where necessary to maintain acceptable traffic flow.	

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**Transportation and Traffic continued**

C-1	C-1.05	Coppola	City of Norwalk Corporation Counsel	5.3.3, 5.3.12	At times North Water Street, Fort Point Street, and Goldstein Place may have partial or full lane closures. When? How long? Under what conditions? What are the impacts to the businesses projected to be? How will the businesses be aided? Parking lots may also close. Ferry docks will also be temporarily closed? When? Under what conditions? Where in Norwalk Harbor will such services be relocated? Pedestrian and bicycle circulation disruption may occur during construction. What are the alternative routes?	strategies focused on safety and security, resource protection (including noise and vibration and air quality/dust control), community mitigation plans, construction coordination strategies, and local and regional transportation.  CTDOT is addressing traffic and transportation concerns at both a project-specific scale and at a regional scale. CTDOT is preparing a Transportation Management Plan (TMP) to accommodate the replacement of Walk Bridge and Fort Point Street Bridge in conjunction with the East Avenue Reconstruction project and the Osborne Avenue Bridge replacement project. The TMP will include vehicle, pedestrian, and bicycle detour plans for the stages of the project; temporary bus routes and bus stop plans; rail user schedule updates, including commuter education and outreach; and construction material (truck) haul routes for each phase of construction (as needed). Recommendations will be developed as needed, and will be reviewed with the City of Norwalk (including the Police, Fire, and Public Works Departments) and other stakeholders as needed.
C-5	C-5.04	Burns	Norwalk Department of Public Works	5.3.3	Traffic-We have had an on-going dialogue with the CTDOT about the City's concerns about traffic. The Traffic, Transit and Parking section of the EA/EIE is about two-thirds of one page for all three topics. It is obvious that the traffic section of the EA/EIE is inadequate and it also conflicts with the socioeconomic section of the document.	CTDOT acknowledges the many ongoing or proposed construction projects in the city. Figure 3-14 in the EA/EIE identifies major developments proposed or under construction in the vicinity of the project site. Section 3.27 of the EA/EIE identifies public and private projects proposed in the vicinity of the project site. As noted in Appendix F-5, the Walk Bridge Program website identifies approximately 30 projects which are ongoing and proposed in the city of Norwalk through 2022. These projects, which are identified by year (2016 through 2022+) and location, will be updated and tracked on a regular basis. To address the City's concern with the number, size, and complexity of CTDOT-sponsored, local, and private projects planned for construction in the greater Norwalk area over the next six years (prior to and during the Walk Bridge Project), CTDOT is preparing a Regional Transportation Management Plan (Regional TMP) that includes Norwalk and surrounding communities. The Regional TMP will address potential traffic impacts, facilitate comprehensive public outreach efforts, and provide coordination with stakeholder agencies in the region. CTDOT will work with the City of Norwalk to determine appropriate mitigation strategies. Refer to Appendix F-5.
C-11	C-11.04	Stocker	Economic Development Department	3.27.3	There are a number of transportation related and development projects in the area of the Walk Bridge that are scheduled to be occurring simultaneously when the Walk Bridge project is scheduled. DOT has not adequately addressed these projects in the report in terms of identifying and preparing a means to coordinate the Walk Bridge project with all other state, local and private construction projects in the vicinity of this project. Assurances that local traffic controls and mitigation measures will be identified and put in place prior to any disruption are necessary. Details of who, when and where need to be provided to assure that the project will not disrupt circulation and business operations in the vicinity of the project.	
C-12	C-12.02	Sotnick	Norwalk Department of Public Works	3.27, 5.3.3	In addition, the EA/EIE document needs to appreciate, or at least mention, the hundreds of millions of dollars of other construction projects going on within the City by private and public development. The EA is devoid of this information.	
E-3	E-3.03	Rilling	Mayor, City of Norwalk	3.27.3	The evolution of the Walk Bridge and the other projects that will occur concurrently are an extremely important undertaking for the City, vital to the social, cultural, and economic growth of the City. Its impacts to economic development, land use patterns, cultural and historic resources, and social behavior (including our use of parks now and in the future) all require study. These impacts require thoughtful and careful consideration. The effects on our residents and businesses now, during construction, and thereafter should be carefully studied and considered by the agencies and not in any rushed way. Meaningful, thoughtful evaluation will lead to a successful project, and one that our current and future residents deserve.	
E-5	E-5.01	Kimmel	Norwalk Common Council	3.27	I believe it is extremely important that your department view the Walk Bridge Project and its various impacts on the city of Norwalk in a broad and comprehensive context that includes the other major projects that are now being implemented, or will begin shortly, in the vicinity of the Walk Bridge. To do otherwise would be a disservice to the residents of the city. Projects Include: a master plan for the park near Liberty Square, the SONO Collection, the Washington Village reconstruction, Maritime Village, Webster Street Master Plan.	

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**Transportation and Traffic continued**

E-7	E-7.01	Common Council	Norwalk Common Council	3.27	<p>We, the members of the Norwalk Common Council, are deeply disturbed by the absence of context in the EA/EIE documents. These documents examine various impacts of the Walk Bridge project in isolation; these documents pay little attention to the other large-scale projects that are already being implemented, or are set to soon begin, in the vicinity of the Walk Bridge, including:</p> <p>Liberty Square SONO Collection mall Reconstruction of Washington Village and the construction of Maritime Village Webster Street Master Plan, also several blocks from the Walk Bridge. SONO, especially Washington Street and sections of Main, Five-year school facilities plan, with two of the schools slated for either new construction or "as new" renovations are located in South Norwalk</p>	
C-7	C-7.02	Chimento	Norwalk Department of Public Works	5.3.3	As to the construction impacts to the City, we need to see and review the traffic studies that take into account the traffic routing and road closures in the central business district and various roads leading to and through Norwalk. The business impacted by these road closures could be severe.	
C-11	C-11.05	Stocker	Economic Development Department	5.3.3	In advance of the start of construction DOT must work directly with City staff to identify and develop a detailed plan for project sequencing so that local motor vehicle, bike, navigation and pedestrian traffic patterns that may be disrupted as a result of the project are identified in real time and adequate mitigation measures are identified and put in place before a disruption occurs. DOT must develop and implement a mitigation plan that will help guide traffic and relay to the public where and when circulation obstructions will take place and detours will be in place. Such mitigation shall include, at a minimum, road signage, traffic controls, digital media and public outreach.	
C-12	C-12.05	Sotnick	Norwalk Department of Public Works	5.3.3	Traffic - We have had an on-going dialogue with the DOT about the City's concerns about traffic. The Traffic, Transit and Parking section of the EA is about two-thirds of one page for all three topics. It is obvious that the traffic section of the EA is inadequate and it also conflicts with the socioeconomic section of the document.	
E-2	E-2.01	Boucher	Connecticut State Senate	5.3.3	<p>Thank you for the opportunity to discuss the replacement of the Walk Bridge in Norwalk. The replacement of this 120 year old bridge is a necessary and overdue investment in our transportation infrastructure. Repeated malfunctions have caused the bridge to periodically become stuck in the open position, causing frustrating delays to Metro-North passengers and prompting worrying questions about the its safety and longevity.</p> <p>The DOT's EA/EIE report is therefore a welcome sign of progress. However as the plans to replace the bridge move forward, it is important to bear in mind their immediate impact on travel in an already congested region and any long term impact on the health of the community and the local business environment.</p> <p>I hope that the DOT will pursue a course of action that will minimize the impact</p>	

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**Transportation and Traffic continued**

					on commuters. Construction will undoubtedly add to the daily commuting time, and travelers who elect to drive instead of taking the train will add themselves to our already congested highways. Since the replacement of the bridge would coincide with repairs and other projects on 1-95, replacing the Walk Bridge may also create a more difficult commuting environment for drivers as well as rail passengers.	
E-7	E-7.03	Common Council	Norwalk Common Council	5.3.3	With the Walk Bridge Project added to the SONO mix, we urge the state DOT to tread carefully, to ensure that all the progress made in SONO is not destroyed. Five years of gridlock, caused by the cumulative impact of a variety of projects, but most of all by the huge, costly, and complex Walk Bridge Project, would definitely lead to vacant storefronts and empty apartments in SONO. We believe the state should reimburse all business owners, and possibly residents, who suffer financially because of the long-period of construction that the Walk Bridge Project will require.	
T-21	T-21.02	Franklin	Individual	5.3.3	And then the transportation with the bus. That's going to bring a big inconvenience for people who take the bus. They are going to have to take the bus and take a longer route to get to where they have to go, workshop and whatever.	

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## Visual/Design Elements

F-4	F-4.04	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	2.4	Bascule bridge in open position does not seem like is fully open. The counterweights should go below the girders in the fully open position and in fact that is why more spacing needed between the internal tracks. Please clarify.	The rendering shows the maximum bridge opening that provides a vertical clearance of 60 feet, which meets the design criteria. For this maximum opening, the counterweights are not required to be located below the girders when the span opens. Moreover, there are transverse bracing members between the counterweights that should stay above the rail when the span opens. More spacing between the internal tracks is required because of the independent rack frame supporting each bascule span and the adequate clearance needed between the counterweights of each frame even when the span is in closed position. Note that the bridge clearance envelope would be the same for the Vertical Lift Span options and the Bascule Bridge option.
F-4	F-4.05	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	2.4	Could the control housing be located near the banks so that the operator could just park and walk?	CTDOT is continuing to evaluate the location of the control house based on maximum visibility and constructability issues. The control house will be located on the northeast side of the river. A separate walkway will be provided to allow the operator to access the control house from the east bank.
F-4	F-4.20	Castelli, Ph.D.	U.S Department of Transportation, Federal Railroad Administration Office of Program Delivery, Envir	4.2	Check the statement in the First Paragraph of Page 9. The long span vertical lift bridge (Option 11C) has been shown as tower driven in Chapter 2 (Alternatives). The short span shown as span driven as well (at least in the figures shown)	The statement is accurate. The Vertical Lift Span option could be designed as either a span-driven bridge or a tower-driven bridge. Both options are shown in the EA/EIE. CTDOT has determined that the Preferred Alternative is Option 11C with a tower-driven bridge.
C-1	C-1.19	Coppola	City of Norwalk Corporation Counsel	3.19	Certainly the view shed will change during construction. But, what will the views be like after construction? Has the CTDOT prepared any post-construction drawings to show what the areas will visually look like - especially with the removal of the Aquarium's tensile building?	As design advances, CTDOT will develop updated renderings of the replacement bridge and evolving design elements, from different viewpoints, including views without the Aquarium's tensile building, in coordination with the Design Advisory Committee and local historic stakeholders. Through the project website CTDOT will provide updates of the design elements of the bridge through final design, including renderings of the bridge.
I-19	I-19.01	Hamilton	Individual	3.19	I request that as the design of the lift towers and spans is advanced, that the DOT post updated renderings of the bridge in the historic building setting on the website.	

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Visual/Design Elements continued

C-1	C-1.27	Coppola	City of Norwalk Corporation Counsel	3.22	Cultural Resources - Historic Buildings/Districts. Although our boards and commissions have commented on these topics, further detail needs to be provided to identify the design as new design will change the aesthetic of Norwalk for years to come. This is a significant change to the iconic existing bridge and to our City's identity. The Walk Bridge is listed on the National Register of Historic Places for its engineering accomplishment. It will be demolished; therefore, a thorough and detailed analysis of the impacts as well as a full robust analysis of the new design is required.	<p>CTDOT recognizes the importance of the historic Walk Bridge to the community. CTDOT conducted a thorough analysis of the impacts of the project upon above-ground (standing) historic resources and archaeological (subsurface) resources. Technical reports were submitted to and approved by the Federal Transit Administration (FTA) and Connecticut State Historic Preservation Office (CTSHPO), submitted to local historic stakeholders, and posted on the project website. CTDOT worked extensively with the FTA, CTSHPO, and local historic stakeholders to develop mitigation measures for the loss of the historic Walk Bridge (Refer to Appendix B).</p> <p>CTDOT has initiated meetings with the City of Norwalk's Design Advisory Committee to review design and solicit feedback on those design elements that would contribute to the aesthetics of the replacement bridge, including (but not limited to) façade treatments, color, and landscaping. CTDOT has committed to working with the Design Advisory Committee, as well as local historic stakeholders, on the design elements of the bridge.</p> <p>The determination of design and aesthetic elements is ongoing and will be finalized as the project advances to final design. For example, at the preliminary design stage, the height of the bridge towers of the vertical lift span bridge is flexible. Bridge tower heights will be determined during final design and could range between approximately 100 and 150 feet above the top of the support piers.</p> <p>While the uniqueness of Walk Bridge, including the project setting in a densely developed urban area, does not readily compare to other recent CTDOT bridge replacement projects, CTDOT will provide examples of visual treatments and mitigation as part of its collaborative efforts with the Design Advisory Committee.</p>
C-1	C-1.43	Coppola	City of Norwalk Corporation Counsel	3.19.3	Ask CTDOT for visual examples of mitigation as they have been employed in similar projects in the past (before/after photos)	
C-4	C-4.02	Burns	Norwalk Department of Public Works	2.4.3	East & West-Side Approach Spans -The DRC strongly objects to the girder style bridge types being proposed for this span. In lieu of the (presumed) deck girder bridge, the committee unanimously suggests a through truss on the west-side as this area is of important historical and architectural significance and a through truss more closely mitigates the environmental impact of this replacement project in this area. Likewise, for balance, the DRC requests the same through truss on the east-side approach. The conceptual "dressed up" girder options shown at the Public Information meeting are not acceptable substitutes to replace the demolished North Water Street bridge and not in keeping with the historic community's vision for this area. The DRC also feels that the mass added to the bridge by including a through truss on the east and west approach will help mitigate the overall loss of the iconic high towers being demolished to accommodate the bridge's construction.	
C-4	C-4.05	Burns	Norwalk Department of Public Works	2.4.3	Structure & Finishes-The DRC's initial reaction to the main span design, in particular the vertical lift, is the towers should be "as light as possible" in appearance and mass. There is a desire to expose the mechanics of the bridge's operation and make the inner workings visible. All bridges and structures, with the possible exception of the East Avenue bridge should be ASTM Grade A 709 50WA588 (weathered steel) finish. The committee will be requesting additional finishes related to bridge lighting, the control tower, and possible high tower relocation as the project progresses.	
C-4	C-4.08	Burns	Norwalk Department of Public Works	3.18	The DRC and City of Norwalk are providing these early comments to the Walk Bridge program team to assist with streamlining the State Office of Historic Preservation's environmental review process by providing the community's desired mitigation measures for this historic project. The DRC requests that the bridge design be great, in that it makes South Norwalk a better place. The Brooklyn Bridge, the Golden Gate Bridge, and the Zakim Bridge (Boston) are examples of infrastructure projects that have positively contributed to their communities. Norwalk deserves no less. The City of Norwalk and its representatives on the review committee look forward to continuing this dialogue throughout the project for the benefit of all involved.	
C-8	C-8.03	Kleppin	Norwalk Planning Commission	3.19	While the bridge designs proposed to date are not unattractive, they fail to capture the prominence of the existing structure, whereas they could be designed to become an attraction as opposed to simply an instrument allowing trains to cross the Norwalk River...I do not believe it's the city's position that	

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**Visual/Design Elements continued**

					we should have architectural control over the design of the project, but we would like more assurance that the input from local stakeholders will be carefully and seriously considered...The new Walk Bridge has the potential to become a new landmark for Norwalk, adding to the skyline and serving as a focal point and economic anchor.	
C-11	C-11.10	Stocker	Economic Development Department	3.19	Mayor Harry Rilling formed a Walk Bridge Design Committee comprised of citizens and professionals who will work with DOT and its consultants to address the treatment of certain elements of the final bridge design. Design concerns include, but are not limited to the lift bridge structure, treatment of the bridge over North Water Street, the bridge abutments, programming of space under the bridge adjacent to North Water Street, high towers and control tower design. It is requested that the DOT commit to working with the Mayor's committee to address and concur on the details of the final bridge design.	
I-6	I-6.01	Nelson	Individual	3.18	Cost considerations and reliability aside, I prefer the rolling Bascule design for aesthetic reasons. Lift span is simply too large.	
I-11	I-11.01	Vazquez	Individual	3.19, 3.22	This old train bridge and new changes are important topics for locals.	
I-19	I-19.02	Hamilton	Individual	3.19	Please solicit comments from the local community on options for the color to be painted and overall appearance of the lift towers and spans as the design is advanced.	
I-19	I-19.03	Hamilton	Individual	3.19	I wouldn't suggest painting the Walk Bridge gold, but I would suggest considering a color scheme and lift tower configuration that complements the very prominent and historic setting at this crossing.	
I-23	I-23.04	Corkutt	Individual	3.19	I hope that the bridge design will be visually interesting and an enhancement to the area. More inspiring than the I95 bridge!	
O-7	O-7.13	Kunkel	Norwalk Harbor Keeper	3.19, 5.3.14	Beyond cost, the structure must be aesthetically and socially acceptable as it is part of an existing community and special waterfront environment.	

O-4	O-4.01	Wallerstein	Norwalk Arts Commission	3.18	The Norwalk Arts Commission formally requests the Walk Bridge project include 1 % funding for public art. It is our understanding that funding is available for projects such as this and we would like to ensure its availability. The Commission has the infrastructure and a proven track record working with other agencies, organizations and City departments on public art projects such as this.	<p>The one-percent set-aside for public art in State capital projects; Art in Public Spaces (AIPS) program [Public Act No. 08-78 replaced Section 4b-53 (formerly Section 4-131a)] is limited to buildings; the Walk Bridge Replacement Project does not qualify for this set-aside.</p> <p>CTDOT is working with stakeholder groups and the City of Norwalk to further identify mitigation. There may be project components where artistic elements could be incorporated. Opportunities will be better understood as the project design is advanced. CTDOT will investigate options to incorporate artistic elements into project elements, such as the pedestrian/bicycle trail, including the extension of the Norwalk Harbor Loop Trail; park improvements, and historic mitigation.</p>
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Visual/Design Elements continued

C-4	C-4.06	Burns	Norwalk Department of Public Works	2.4.3	Fort Point Bridge -The DRC concurs with Mayor Rilling's March 26, 2016 letter to Commissioner Redeker that the Fort Point Bridge be replaced in accordance with the 30% design plans dated March 11, 2016 prepared by HNTB which includes a much needed sight line improvement at the intersection of Fort Point and South Smith Streets.	Comment acknowledged.
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## Water Quality and Aquatic Resources

### Stormwater and Water Quality

B-11	B-11.12	Edwardsen	Spinnaker Real Estate Partners LLC	5. 3.6	The catch basins in the vicinity of the Walk Bridge as well as the Ann Street Bridge and the Marshall Street bridge are critically important and should be maintained and unobstructed at all times.	Comment acknowledged. As the project design proceeds beyond the preliminary level, all services and utilities will be accommodated in the project plans and specifications.
C-1	C-1.13	Coppola	City of Norwalk Corporation Counsel	5.3.6	The Norwalk River is impaired, but no mitigation measures to prevent further degradation are discussed. Storm water runoff impacts are projected but no downstream impacts are analyzed. Further detail needs to be provided to substantiate the conclusions set forth in the EA/EIE	The impact assessment and the mitigation plans presented in the EA/EIE are based upon 30 percent (preliminary) design plans. Per the National Environmental Policy Act (NEPA), this level of design can reasonably assess impacts and provide recommendations for mitigating unavoidable impacts.
C-1	C-1.15	Coppola	City of Norwalk Corporation Counsel	3.14, 5.3.10	Aquatic Resources: Further detail needs to be provided to identify the work proposed, the mitigation to the affected estuarine intertidal and estuarine subtidal habitats and to substantiate the conclusions set forth in the EA/EIE	
I-5	I-5.17	Schnierlein	Individual	5.3.6	Section 5 it states that CTDOT will employ best management practices (BMP's) during all the work on the water. Whose BMP's? Where will confined sediment be placed?	Aquatic resource mitigation commitments identified in the EA/EIE address tidal wetlands, intertidal habitats and subtidal habitats. Further, the EA/EIE identifies the likely minimal effects on aquatic organisms based upon the limited areas of in-water work and containment requirements for work in the water. The potential effects on aquatic resources will be evaluated in greater detail during the final design and permitting phase, after a Build Alternative is selected, the design has advanced, and the contractor's means and methods of construction are established.
I-5	I-5.18	Schnierlein	Individual	3.9.4, 5.3.6	If roundabouts are used, and wheel greasers are implemented, what will be used to minimize the petroleum that ends up on the ties and rails from getting in the water?	
O-5	O-5.01	Minikowski	Connecticut Fund for the Environment	3.9, 5.3.6	Upon review of the EA/EIE, CFE believes that the Department of Transportation ("DOT") must take a harder look at the project's proposed impacts on the Norwalk River and formulate stronger and more specific mitigation measures to ensure that the affected waters are not unduly degraded during the bridge replacement process.	The EA/EIE identifies opportunities to protect and improve water quality as shown in Sections 3.9.3 and 5.3.6; these measures will be evaluated further as design advances. Some of these measures are dependent upon the design of the approach spans; CTDOT is continuing to evaluate the types of approach spans in coordination with the City. As indicated in the EA/EIE (Section 3.9.3), CTDOT is subject to the Municipal Separate Stormwater Sewer Systems (MS4) General Permit requirements for linear transportation infrastructure, which includes the Walk Bridge Replacement Project.
O-6	O-6.01	Washer	Norwalk River Watershed Association (NRWA)	3.27	NRWA requests that the CTDOT conduct a new EA/EIE by a third party that includes an assessment of the cumulative effects, including increases in stormwater runoff, of the multiple CTDOT projects planned for the Norwalk River Watershed. This EA/EIE should offer a more detailed assessment of damage to water quality, wetlands, wildlife, wildlife habitat and aquatic life during construction and from stormwater runoff from the Walk Bridge project and other projects including the Yankee Doodle bridge project.	
O-6	O-6.03	Washer	Norwalk River Watershed Association (NRWA)	3.9	The current Walk Bridge EA/EIE does not go far enough in assessing impact; it simply states no permanent impact on water quality. The added stormwater outlets will result in increased runoff. It is hard to believe there will be no impact.	Water quality considerations are key elements of project permitting, and compliance with water quality standards will be conditions of state and federal permits. Some examples of Best Management Practices (BMPs) include using marine enclosures for work around piers during construction and demolition; adding protective enclosures for work on the bridge to contain materials that could potentially fall to the water; stabilizing land-based soils; using erosion control measures; following the requirements of the National Pollution Discharge Elimination System (NPDES) permitting; removing contaminated sediments from the river; and disposing of sediments following state regulations. CTDOT will incorporate its standard specifications and Special Provisions,
C-5	C-5.02	Burns	Norwalk Department of Public Works	3.9	Water Quality-The EA states that the Norwalk River is an impaired water body. The EA/EIE only provides cursory pre- and post-construction impacts and mitigation measures. No water quality improvements have been proposed for a project with a 100 year design life. Additional flows are proposed to the City of Norwalk stormwater pump station on North Water Street also with no water quality improvements. The City of Norwalk has several water quality guidelines and drainage standards that are imposed at even the homeowner level, that are not included in the EA/EIE or 90% design plans submitted for 2 of the early release projects (Danbury Dockyard and CP243). Further, additional storm	

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**Water Quality and Aquatic Resources continued**

					flows are being proposed into already overburdened waterways, with no downstream impacts having been analyzed.	<p>including its BMPs, into the contract specifications during in-water work. Further, CTDOT utilizes its own Environmental Compliance specifications, which list specific BMPs for water pollution control, and address standards for the management and disposal of contaminated and/or hazardous materials.</p> <p>The permits required for the project will address the full range of environmental considerations, including natural resources such as fish and wildlife, shellfish, water quality, protected species, wetlands, and water quality, as well as the human environment. The applications to CTDEEP for a Structures, Dredge and Fill Permit and Section 401 Water Quality Certification and to the USACE for a Section 404 Permit will be based on 60 percent design plans, and will include detailed information on the potential impacts of dredging, as well as interim and permanent conditions of the channel. The permits will identify mitigation measures to minimize impacts and compensate for unavoidable impacts. Some mitigation measures will be reviewed and approved by federal and state agencies prior to construction start, and, as necessary, project permits will be conditional upon mitigation.</p> <p>The EA/EIE only evaluates design elements specific to the Walk Bridge Replacement Project. The water quality elements of the two independent NHL-improvement projects – the Danbury Dock Yard Improvements Project and CP-243 Interlocking Project - are not reported in the EA/EIE. These projects are required to undergo separate state and federal permit reviews. Refer to Appendix F-3. Other projects, such as the Yankee Doodle Bridge, Stroffolino Bridge, Perry Avenue Bridge, and the Route 7/Route 15 Interchange, were not evaluated as part of the Walk Bridge Replacement Project. These separate and independent CTDOT projects will be undergoing separate permitting, including stormwater review.</p>
C-8	C-8.09	Kleppin	Norwalk Planning Commission	3.9, 5.3.6	Water Quality: Based upon the CTDOT's acknowledgment that additional mitigation measures will be considered, it would be prudent to have a further understanding of these issues prior to furthering the process.	
C-10	C-10.02	Cherichetti	Norwalk Conservation Office	5.3	Regarding the discrete Walk Bridge construction activity, we along with other city departments, have always worked to ensure the Norwalk River and its harbor remain a healthy, vibrant and dynamic resource. The Norwalk River is an attractive community resource that enhances quality of life, education, tourism and recreation. As this project moves forward, we strongly urge ConnDOT to actively avoid any actions likely to impair the natural environment. When such action is unavoidable we must demand robust mitigation and restoration of any impaired natural resources.	
C-12	C-12.03	Sotnick	Norwalk Department of Public Works	5.3.6	Water Quality - The EA states that the Norwalk River is an impaired water body. The EA/EIE only provides cursory, almost "check the box", pre- and post-construction impacts and mitigation measures. No water quality improvements have been proposed for a project with a 100 year design life. Additional flows are proposed to the City of Norwalk stormwater pump station on North Water Street also with no water quality improvements. The City of Norwalk has several water quality guidelines and drainage standards that are imposed at even the homeowner level, that are not included in the EA or 90% design plans submitted for 2 of the early release projects. Further, additional storm flows are being proposed into already overburdened waterways, with no downstream impacts analyzed.	
O-5	O-5.02	Minikowski	Connecticut Fund for the Environment	3.9.4, 5.3.6	Although DOT's current EA/EIE recognizes the potential for water quality impacts during the Walk Bridge replacement process, DOT must take a more definite and farsighted look at mitigation measures both during construction and afterwards. For example, the EA/EIE notes that once the replacement project begins, DOT will draft a Stormwater Pollution Prevention Plan and subsequently bolster it with additional mitigation and avoidance measures if necessary. Rather than develop mitigation strategies at a later date, DOT should begin exploring and developing those strategies now in order to minimize impacts to the greatest extent possible once the project begins in earnest. The EA/EIE observes that under the preferred alternative, more water will flow directly off of the bridge and into the Norwalk River rather than into a conveyance directed away from open water. Potential contaminants originating from railways include creosote, oil, synthetic lubricants, and various heavy metals, all of which have historically contributed to water pollution in the Norwalk River. Given the time frame of the replacement project, DOT should immediately begin formulating runoff mitigation for the construction phase and incorporating conveyances for bridge runoff into the proposed designs for the new Walk Bridge.	
O-5	O-5.04	Minikowski	Connecticut Fund for the Environment	3.27	Finally, it is necessary that DOT fully explore the implications of the Walk Bridge replacement project in the context of the numerous other infrastructure projects that are both currently occurring and will be occurring in the vicinity of the Norwalk River over the course of the project's lifespan. In addition to the	

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**Water Quality and Aquatic Resources continued**

					Walk Bridge replacement, there are nearby projects slated involving the Yankee Doodle Bridge, Stroffolino Bridge, Perry Avenue Bridge, and the Route 7/Route 15 Interchange. All of these projects will include impervious surfaces and have the potential to decrease water quality via increased runoff. The current EA/EIE recognizes that the combined cumulative impacts of these various projects have the potential to pose increased traffic management and congestion problems as well as environmental effects, such as impacts on water quality. The EA/EIE must, however, do more than just observe that the concentration of DOT projects in the immediate area may result in elevated environmental impacts. Rather, DOT should use the overall level of construction in the area as a lens through which to view the anticipated environmental impacts of the Walk Bridge replacement project itself. Thus, potential impacts to water quality in the Norwalk River should not be evaluated in the context of the Walk Bridge project in isolation, but in conjunction with the anticipated cumulative effects of the other projects occurring around the Norwalk River. Such an approach will more effectively and accurately identify potential water quality issues and provide DOT with ample advance notice to develop effective mitigation strategies.	
O-6	O-6.02	Washer	Norwalk River Watershed Association (NRWA)	5.3.6	The EA/EIE should also include more specific information regarding plans for mitigation of impact. ...We ask the CTDOT to clarify specific mitigation measures and erosion and sedimentation controls for the listed construction activities in and over the water. We would like the DOT to provide information on what best management practices will be employed and who will oversee adherence to those standards, including who will test water quality during construction and how often.	
O-6	O-6.04	Washer	Norwalk River Watershed Association (NRWA)	3.9	NRWA requests more specific plans for capturing runoff.	
O-6	O-6.05	Washer	Norwalk River Watershed Association (NRWA)	3.9, 3.27	We also request that the DOT add requirements for capturing runoff to its plans for the restoration of the Yankee Doodle Bridge north of Walk Bridge. The repair of the Walk and the Yankee Doodle bridges alone present the CTDOT with a unique opportunity to reduce the amount of contaminated stormwater runoff that enters the Norwalk River, the harbor and the Sound. A concrete commitment to capturing runoff from these two bridges should be the baseline from which the CTDOT is working.	
O-6	O-6.06	Washer	Norwalk River Watershed Association (NRWA)	5.3.6	The new EIE should include consideration of the permanent damage that four years of temporary impact can cause to water quality, wetlands and aquatic life.	
O-7	O-7.28	Kunkel	Norwalk Harbor Keeper	5. 3.10	These possible impacts to aquatic life from the Project need to be analyzed as a direct environmental effect in the Environmental Assessment pursuant to legal requirements, and an Environmental Assessment without this discussion is inadequate to meet legal requirements.	

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Water Quality and Aquatic Resources continued

I-5	I-5.01	Schnierlein	Individual	3.14, 5.3.10	<p>With the impending "Walk" bridge construction on the Norwalk River by the Norwalk Harbor, I feel compelled to write this letter as I could not stick my head in the sand on this project. The Environmental Assessment/Environmental Impact Evaluation (EA/EIE) immediately gives me the feeling that, due to its length, most will not read it and will be impressed just due to the length. That is far from the truth.</p> <p>The EA/EIE Section 4 (f) Evaluation Environmental Impact Evaluation made me absolutely cringe and was far from a professional job, except when discussing the railroad. I am sure researchers from the University of Connecticut or the CT DEEP could do a more accurate and superior job of identifying what organism can be found in the harbor as well as how the currents will be shifted by construction, and how dredging will affect the harbor. UCONN should seriously be considered to write the EA/EIE as they will approach it without a bias and are a skilled resource in our state and this can add to their knowledge of the State's waters and resources.</p>	<p>CTDOT investigated resources in the Norwalk River using a variety of sources that were appropriate for a planning-level NEPA/CEPA document. Information sources included site inspections by environmental scientists; consultation with Dr. Charles Yarish, Department of Ecology &amp; Evolutionary Biology and Department of Marine Sciences, University of Connecticut; data from the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA NMFS) Essential Fish Habitat Mapper; data from CTDEEP Natural Diversity Database; data from CTDEEP Fisheries Office; data from CT Department of Agriculture, Aquaculture Division; and reports from Harbor Watch on the Norwalk Harbor trawling program.</p>
C-3	C-3.10	Mobilia	Norwalk Harbor Management Commission	5.3.6	<p>The NHMC's construction-related recommendations, previously provided, should be re-considered by the DOT. In addition to the above-stated recommendation to consider enhancement of the Visitor's Dock, the DOT should re-consider the other recommendations previously provided by the NHMC to the DOT in the December 2, 2015 "Outline of Preliminary Recommendations Norwalk River Railroad Bridge (WALK Bridge) Project," including, but not limited to, recommendations concerning: a) establishing a pre-construction sampling program to establish a baseline of water quality conditions and inclusion of an ongoing water quality monitoring program during construction; b) conducting a pre-construction survey of the Norwalk Harbor federal navigation channel to establish a baseline of channel conditions to be restored, as necessary, following completion of the Project; and c) completion of the Norwalk River Bikeway and Linear Park along both banks of the Norwalk River in the vicinity of the bridge.</p>	<p>a) For transportation construction projects such as this where an existing structure is being replaced by a similar structure, and measures to protect water quality are routinely employed, risks are low and pre-construction water quality testing is rarely conducted. Furthermore, in a tidal area where water is continuously circulating up and down river, and inputs from upstream and downstream sources contribute to overall quality, it is difficult to set a baseline condition as water chemistry readings are likely to fluctuate throughout the day and seasons, and from weather events. Stormwater outfall monitoring during construction will be conducted as part of the requirements of the Construction Stormwater General Permit and details regarding that testing will be evaluated in the permitting phase of this project.</p>
C-3	C-3.21	Mobilia	Norwalk Harbor Management Commission	3.16	<p>A feasible plan should be developed and implemented for mitigating adverse impacts caused by the Project on coastal resources, including tidal wetlands, intertidal flats, shellfish resources, and water quality. Regarding water quality, CT DOT should a) undertake a pre-construction sampling program to establish a baseline of water quality conditions, and b) monitor water quality conditions during construction. All appropriate Best Management Practices (BMPs), including but not limited to, silt curtains and containment booms, should be planned by CT DOT and approved by OLISP.</p>	<p>b) It is anticipated that a pre-construction survey will be a permit condition of the US Army Corps of Engineers (USACE) in its issuance of the Section 404 permit. Additionally, the USACE requires data in its permit application which likely will require a pre-construction survey, including the existing depths and bottom materials.</p> <p>CTDOT will further evaluate impacts and mitigation as the project proceeds into final design and the contractor's means and methods of construction are developed. Water quality considerations are key elements of project permitting, and compliance with water quality standards will be conditions of state and federal permits. Some examples of Best Management Practices (BMPs) include using marine enclosures for work</p>

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**Water Quality and Aquatic Resources continued**

						<p>around piers during construction and demolition; adding protective enclosures for work on the bridge to contain materials that could potentially fall to the water; stabilizing land-based soils; using erosion control measures; following the requirements of the National Pollution Discharge Elimination System (NPDES) permitting; removing contaminated sediments from the river; and disposing of sediments following state regulations. Further, CTDOT utilizes its own Environmental Compliance specifications, which list specific BMPs for water pollution control, and address standards for the management and disposal of contaminated and/or hazardous materials</p> <p>c) CTDOT will include the extension of the Harbor Loop Trail on the east side of the Norwalk River in the Walk Bridge Replacement Project. CTDOT will work with the City of Norwalk, including the Norwalk River Valley Steering Committee, to determine the preferred routing from the proposed north-south connector, as shown on EA/EIE Figure 3-10 or as determined through discussions with project stakeholders. CTDOT is supportive of an extension of the NRVT on the west side of the Norwalk River. The determination of the most appropriate location for this extension of the existing trail on the west side of the river will be made in coordination with the City and the Aquarium.</p>
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C-3	C-3.27	Mobilia	Norwalk Harbor Management Commission	5.3.4	All construction debris should be removed from the harbor and waterfront in a timely manner during construction and following completion of the Project.	The contract specifications will include provisions for the timely removal of construction materials from the harbor and waterfront.
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E-4	E-4.10	Third Taxing District	Norwalk's Third Taxing District	5.3	Coastal Management Considerations: Though the report makes multiple non-specific references to mitigation for items like impacts to wetlands and water quality, the increased water speed from straightening the channel may have unforeseen impacts on the shellfish industry, the water quality and any attempts to mitigate increased erosion.	The EA/EIE indicates that dredging will be required to remove accumulated sediments at the pivot pier and rest piers of the existing bridge. These portions of the river that are not maintained as part of the federal channel will be dredged to match the federal channel depth of ten feet and to tie into the existing 125-foot navigation channel, thereby making the full opening of the new long-span bridge fully navigable. The EA/EIE notes that these channel alignment changes would result in "straightening" the navigation alignment relative to Strofollino Bridge. The EA/EIE does not indicate that increased water speeds in the Norwalk River would result from straightening the channel. The EA/EIE describes the constriction of the floodwater flow at the existing bridge, and indicates that the proposed replacement bridge would not constrict floodwater to the same extent, which in turn would reduce upstream flooding during major flooding events.
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**Water Quality and Aquatic Resources continued**

O-7	O-7.30	Kunkel	Norwalk Harbor Keeper	5.3.10	The EA/EIE must, at a minimum, include an approved U.S. Food and Drug Administration/Interstate Shellfish Sanitation Conference (FDA/ISSC) testing and collection site at the construction area, where sample shellfish can be raised and tested during the project period to meet the mandates of the National Shellfish Sanitation Program Model Ordinance (NSSP-MO). Beyond that testing site, an approved EPA plan to control, clean and mitigate any and all pollutants generated by the construction and measured at the testing site must be presented and made available to local commercial fishermen for their consideration and understanding.	<p>CTDOT will work within the requisite regulatory framework of the Clean Water Act (CWA) to meet the site's required Water Quality Criteria. The details of water quality analysis, testing, and CWA compliance will be determined via coordination with the U.S. Army Corps of Engineers (USACE), responsible for regulating dredging and construction related activity in navigable waters. The USACE seeks input from U.S. Environmental Protection Agency (USEPA) on any requisite testing / sampling plan that may be imposed as a permit condition. Such a plan would be designed to assure protection of state water quality standards. Several factors are considered by the regulatory agencies when determining the scope and requirements of water quality monitoring. Such factors typically include but are not necessarily limited to seasonal conditions, construction phasing/sequencing, construction duration, construction methods, and other site or project-specific factors. Water quality monitoring for in-water construction may or may not include one or more aspects of physical, chemical, or biological testing. The site-specific requirements for such testing and other requirements of a water quality plan will be established by USACE with input from the National Marine Fisheries Service (NMFS), USEPA, and Connecticut Department of Energy and Environmental Protection (CTDEEP).</p> <p>CTDOT will comply with the permit conditions of the CTDEEP-issued Structures, Dredge and Fill Permit, include requirements for a shellfish testing plan.</p>
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S-2	S-2.15	Fox	DEEP	5.3.10	The Inland Fisheries Division reports that the document correctly identifies the fisheries resources of the project area and includes general language that anticipates mitigation measures, including seasonal restrictions. Detailed mitigation measures will be identified when more specific plans and construction methods are available.	CTDOT acknowledges this confirmation from the Inland Fisheries Division. CTDOT will continue to coordinate with the Inland Fisheries Division as design advances and permit applications are prepared.
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**Dredging and Aquatic Resources**

O-7	O-7.27	Kunkel	Norwalk Harbor Keeper	5.3.10	In addition, the Environmental Assessment fails to discuss the potential impacts to shellfish from contaminants that would be released by dredging. While it briefly discusses potential habitat alteration from dredging work required for construction, the Environmental Assessment ignores the likely release of large amounts of heavy metals and other contaminants, which are settled in the sediment at the bottom of the Norwalk Harbor, into the water column. Those contaminants, which have accumulated in the sediment over decades of industrial releases into the harbor, would be disturbed and re-suspended into the water column by dredging. These contaminants could dramatically harm shellfish being cultivated in the area or render them unsafe for human consumption.	<p>The impact assessment and the mitigation plans presented in the EA/EIE are based upon 30 percent (preliminary) design plans. Per the National Environmental Policy Act (NEPA), this level of design can reasonably assess impacts and provide recommendations for mitigating unavoidable impacts. As the project design is finalized and the contractor's means and methods are more defined, details of proposed mitigation measures also will be further defined.</p> <p>Information on dredging volumes and time of year restrictions is presented in Tables 3-10 and 3-11 of the EA/EIE. Detailed</p>
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**Water Quality and Aquatic Resources continued**

O-8	O-8.22	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	5.3.10	The Environmental Assessment Inadequately Analyzes the Project's Impacts on Shellfish Natural Resources and Other Aquatic Life. ..However, the Environmental Assessment ignores how the dredging required for the bridge construction work would release large amounts of heavy metals and other contaminants contained in the sediment, exposing sensitive aquatic life to toxic chemicals...Thus, CTDOT is aware that there are likely hazardous materials in the soil that would be released from dredging and other construction work. However, the Environmental Assessment contains no attempt to analyze the scope of these impacts, beyond merely noting briefly their potential to occur. Given the historical significance of shellfish resources for this region, in particular, this omission is unreasonable. More detailed analysis would also be necessary to design appropriate mitigation. This potential impact to shellfish (and other aquatic life) from the potential release of large amounts of heavy metals and other contaminants from dredging must be more adequately analyzed, and the Environmental Assessment must be revised accordingly.	<p>information on the extent and depth of dredging will be identified during the final design and permitting phase as the design advances and the contractor's construction means and methods are defined. Areas that will be dredged will be limited to areas that are necessary to provide the minimum federal channel depth of ten feet (-10 feet MLLW) through the project site. Areas exceeding the minimum federal channel depth will not be modified and areas requiring dredging will not be dredged in excess of the federal channel requirements.</p> <p>CTDOT will conduct dredging during seasonal time-of-year restrictions as required by the U.S. Army Corps of Engineers (USACE), in cooperation with the National Marine Fisheries Service (NMFS) and Connecticut Department of Energy and Environmental Protection (CTDEEP). Generally, channel dredging containment is challenging and not practicable in most locations. Opportunities for containment of some portions of the overall dredging areas will be considered, and may be practicable at the center pier and rest pier removal sites.</p>
I-5	I-5.08	Schnierlein	Individual	3.9, 5.3.6	In the section on Water Quality, there is no mention of how dredging up the river bottom will release the industrial wastes buried there over the years that came from hat factories (mercury) as well as the drum recycling company and a chemical company and how it will impact shellfish beds further down stream and into the harbor as this material may not be stopped with a screen. It only mentions that they will be disposed of by existing guidelines (whose?) and it is mentioned later that screens will be used, but it does not mention to what degree they are efficient. And, it does not mention under what conditions will they cease dredging (if specific tolerances are exceeded).	<p>CTDOT has considerable experience and established methods to protect water quality and environmental resources during construction. By protecting the environment through the project design elements, Best Management Practices (BMPs), and mitigation measures, the Walk Bridge Replacement Project is not anticipated to cause or contribute to adverse water quality impacts. As described in the EA/EIE Section 3.9, CTDOT is continuing to evaluate opportunities to improve water quality relative to existing conditions, and will incorporate measures if practicable. Examples of BMPs include using marine enclosures for work around piers during construction and demolition and adding protective enclosures for work on the bridge to contain materials that could potentially fall to the water.</p>
O-7	O-7.25	Kunkel	Norwalk Harbor Keeper	5.3.10	The Environmental Assessment Fails to Adequately Analyze Potential Impacts to Natural Resources from the Release of Contaminants into the Norwalk Harbor. The Environmental Assessment fails to adequately analyze how the project may release large amounts of toxic contaminants into the Norwalk Harbor, harming the sensitive shellfish that many Norwalkers consume or rely on for their livelihood...Protecting the local habitat for oysters and shellfish is crucial for Norwalk residents and the local region, and the Environmental Assessment needs to take these considerations into account...Thus, our paramount concern with this project is the contamination of Norwalk Harbor's oyster beds and shellfish.	<p>As indicated in Section 7 of the EA/EIE, the project will require multiple federal and state permits. permits required for the project will address the full range of environmental considerations, including natural resources such as fish and wildlife, shellfish, water quality, protected species, wetlands, and water quality, as well as the human environment. Some mitigation measures will be reviewed and approved by federal and state agencies prior to construction start, and, as necessary, project permits will be conditional upon mitigation.</p>
O-7	O-7.29	Kunkel	Norwalk Harbor Keeper	2.3.3, 5.3.10	The possible release of heavy metals and other contaminants is the leading reason to consider a fixed bridge option utilizing a rehabilitated support structure at the center pivot point.	<p>CTDOT's Office of Environmental Compliance is conducting a detailed sediment sampling and testing program, to verify contaminants and investigate sediment management and</p>
C-1	C-1.42	Coppola	City of Norwalk Corporation Counsel	5.3.10	Maps of where dredging will take place; depth of channel now versus depth of dredging	
O-5	O-5.03	Minikowski	Connecticut Fund for the Environment	5.3.6, 5.3.10	DOT should take a more substantive look at the potential implications of dredging and explore methods in which to fully contain any dredging activities in a manner that will prevent contamination of surrounding waters. Dredging, particularly the disposal of dredged sediments, in Long Island Sound has proved to be a recent flashpoint for controversy amid the states and other organizations that use the Sound. Accordingly, effective prospective planning	

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**Water Quality and Aquatic Resources continued**

					for the management of dredging activities can both safeguard water quality and avoid future delay.	<p>disposal options, including upland, off-shore, or in-water methods. In accordance with CTDOT's Special Provisions for hazardous, controlled, and non-hazardous materials, specifications will be developed for management of these materials and incorporated into the contract specifications. CTDOT-owned Special Provisions which may be applicable to the project include provisions for environmental health and safety; hazardous material excavation; controlled materials handling; disposal of hazardous waste; disposal of controlled materials; management of reusable controlled material. Further, CTDOT utilizes its own Environmental Compliance specifications, which list specific BMPs for water pollution control, and address standards for air quality control, noise pollution control, and management and disposal of contaminated and/or hazardous materials. In addition to complying with permit conditions imposed by CTDEEP, CTDOT will comply with permit and approval conditions imposed by USACE and the NMFS.</p> <p>In January 2014, the USACE completed maintenance dredging of over 500,000 cubic yards of material from the Norwalk River. The open-water dredging was completed within approved environmental work windows. Except for a relatively small amount of material that was determined to be unsuitable for unconfined open water disposal, the U.S. Environmental Protection Agency (USEPA) determined that the dredged material was acceptable for open water disposal. The project obtained federal and state approvals, including review by the NMFS, U.S. Fish and Wildlife Service, and Water Quality Certification and Coastal Zone Management Consistency Concurrence from CTDEEP. CTDOT anticipates that the dredging actions attributable to the Walk Bridge Replacement Project will be substantially less extensive and permissible under state and federal laws.</p> <p>Due to its condition, reuse of the center pivot pier is not recommended in either a fixed-bridge or rehabilitated-bridge scenario. Refer to Appendices F-1 and F-2.</p>
O-6	O-6.07	Washer	Norwalk River Watershed Association (NRWA)	5.3.6	NRWA asks CTDOT to consult with both Harbor Watch, which currently conducts regular water quality testing in the river, and the Maritime Aquarium about how best to monitor impact during construction and protect wildlife habitat and water quality as well as the best ways to carry out mitigation efforts during and after construction.	
O-6	O-6.09	Washer	Norwalk River Watershed Association (NRWA)	5.3.10	If channel dredging is conducted, NRWA requests that instead of dredging when containment is not necessary from November to January, that containment be used.	

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## Water-Dependent Uses and Marine Traffic

### Water-Dependent Uses

B-3	B-3.02	King	King Industries	3.2	King Concerns: Fire boat accessibility River front accessibility for equipment	CTDOT recognizes the importance of maintaining navigation and waterfront accessibility for Norwalk River businesses. CTDOT has participated in discussions with water-dependent users to further understand their concerns and develop mitigation approaches. CTDOT has selected the long-span moveable bridge option (Option 11C) as the Preferred Alternative, which would have the shortest construction duration and would be the least disruptive to vessels and water-dependent uses.  River traffic will be accommodated throughout most of the 40-month construction period; one or both channels will be open to navigation, and the replacement bridge project footprint will not encroach upon the existing channels. It is anticipated that the swing span will remain operational until shortly before its removal.  CTDOT will develop a Marine Transportation Plan and a series of water-dependent use/waterfront access strategies, working in coordination with the affected marine-based businesses, the City of Norwalk, and the Norwalk Harbor Management Commission. The Plan will identify mitigation strategies to address temporary impacts to water-based businesses, marina users, rowers, and ferry and vessel operations. Individual plans or strategies may be developed with owners and water-users. Included in the Plan will be protocols for safe rowing during the construction period and procedures for coordinating channel restrictions and closures with the City of Norwalk, the Norwalk Harbor Master, Norwalk Harbor Management Commission, U.S. Coast Guard (USCG), the U.S. Army Corps of Engineers (USACE), as well as affected businesses. As a component of the Marine Transportation Plan, CTDOT will coordinate with the City of Norwalk Police and Fire departments, the USCG, CT Department of Energy and Environmental Protection (CTDEEP), and water-dependent businesses to develop and update emergency preparedness, communications and response measures for businesses and properties upstream of Walk Bridge through the construction period. The Marine Transportation Plan will be developed and updated as needed in cooperation with USACE and USCG. Refer to Appendix F-5.  Regarding access to the waterfront for pedestrians and bicyclists, during final design, CTDOT will develop pedestrian and bicycle detour plans as part of a Transportation Management Plan. The detour plans will be developed for each stage of project
B-3	B-3.04	King	King Industries	3.2	King Concerns: Maintenance of bulkhead – 1000 ft Historic oyster vessel HOPE navigation to and from the harbor Contracted industrial dock use (95 repair)	
B-3	B-3.05	King	King Industries	3.2, 3.17	Non-King Concerns: Fire and rescue accessibility for river front structures (residential and	
B-3	B-3.06	King	King Industries	3.2	Non-King Concerns: Crane operations to repair the Yankee Doodle (95) bridge	
B-3	B-3.07	King	King Industries	3.17	Non King Concerns: Metro North spur rail emergency water support / rescue	
B-3	B-3.08	King	King Industries	3.17	Non King Concerns: Long Island Sound power cable (New Haven, CT to Shoreham, LI) 25 mile long cable stored on Yankee Gas property King is the only access point through Harbor Ave. Power cable is only transported over commercially navigable waterways	
B-3	B-3.09	King	King Industries	3.2	Non King Concerns: Barge and tug navigation	
B-4	B-4.03	Devine	Devine Brothers Inc.	5.3.2	Also, it is equally vital that the channel stay open to such commerce during the period of construction of a new bridge. If not, then alternatives must be developed to be certain Devine Bros can continue to operate and run efficiently and economically.	
B-5	B-5.04	Tomko	United Marine	5.3.2	United Marine agrees that this option, "11C", would be preferable to the others so long as a minimal impact on clearance, both vertical and horizontal, is maintained during construction. We do want to express our concerns about the impact of the construction phase on our business as well as the other commercial businesses that use the river regularly.	
C-1	C-1.04	Coppola	City of Norwalk Corporation Counsel	5.3.12	But, during construction the marine users will be adversely impacted. What are those impacts? When full closure of the channel occurs, what are the options for marine traffic? How will the users recover? What will the benefits be to the users? Can it be quantified what the losses will be in the short term versus the long term benefits? Mitigation "will be varied and developed on a case by case basis" (EA/EIE p. 5-7). And examples are given. These examples need to be more fully developed - how will the work be done, who decides which measure, what is the role of the affected industry especially when commerce may be significantly affected.	
C-3	C-3.18	Mobilia	Norwalk Harbor	5.3.12	River traffic, including recreational boating and commercial barge traffic to the upper harbor, should be able to continue during construction. CT DOT should consider building a "pass-through" docking facility just upstream of the railroad	

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**Water-Dependent Uses and Marine Traffic continued**

			Management Commission		bridge from which a small tug can operate to push barges upstream that are passed under the bridge when the bridge cannot open.	<p>construction. The Walk Bridge Program website (<a href="http://www.walkbridgect.com">www.walkbridgect.com</a>) will be updated on a regular basis to advise the public of temporary closures and detour routes. Following completion of the project, CTDOT will restore the existing trails to pre-construction conditions. Waterfront access will be enhanced through the extension of the Norwalk River Harbor Loop Trail on the east side of the river.</p> <p>Note that CTDOT did not evaluate repairs on the I-95 bridge in the Walk Bridge Replacement Project EA/EIE. However, marine equipment access to the I-95 bridge will not be prevented due to the project construction.</p> <p>Access through the project site by shellfish industry vessels will be accommodated in the Marine Transportation Plan and a series of water-dependent use/waterfront access strategies. Protection of shellfish areas will be accomplished using standard Best Management Practices (BMPs) such as: containment and marine enclosures for bridge pier construction and demolition; removal of contaminated sediments for off-site upland handling and disposal; adherence to seasonal time of year restrictions for open water work such as dredging; and incorporation of water quality BMPs as appropriate in the new bridge design.</p>
C-3	C-3.17	Mobilia	Norwalk Harbor Management Commission	5.3.12	A feasible plan should be developed and implemented for relocation of the rowing club and marina now operating on the east side of the river between the rail road and Route 136 bridges to ensure no short-term or long-term loss of existing water-dependent uses. With respect to the rowing club, consideration should be given to temporary relocation to other suitable locations. Some possible locations to be investigated should include City parks such as Veteran's Park and Calf Pasture Beach, and the now-closed Ascension Beach Club.	
C-3	C-3.20	Mobilia	Norwalk Harbor Management Commission	5.3.12	An effective plan for maintaining safe rowing activities during the Project should be prepared and implemented with input from the affected rowing clubs.	
C-8	C-8.06	Kleppin	Norwalk Planning Commission	5.3	Furthermore, any loss of barge access will result in increased truck traffic, placing a burden on the existing street network as well as surrounding neighborhoods.	
C-11	C-11.08	Stocker	Economic Development Department	5.3.12	The Norwalk River is a resource that is highly valued within the community and impacts the socioeconomic viability of East and South Norwalk. Access to the river and water is a source of community pride. Before and during construction of the project visitors and residents will be denied access to the east and west sides of the river where they have enjoyed access to water craft and recreational activities throughout history. The report lacks any detail of mitigation for the loss of access. An alternative public access/education treatment during and following the construction period should be developed.	
I-5	I-5.13	Schnierlein	Individual	3.17, 5.3.12	Nor, the potential loss of the rowing program, which has made a significant contribution to the Olympic rowing program with three rowers coming from programs on the Norwalk River in the past 10 years. At least twenty seven have rowed in college, at least 8 have placed in world and national championships and over 20 have placed in junior national championships which probably opened their doors to NCAA competition. This is a major accomplishment, and could be impacted severely by construction. Rowers are required to row up to 3000 meters, and when training, this takes them from the river into the Harbor. The longer construction blocks this passage, the more it will cut into the training. It is being treated like they are just a bunch of recreational rowers out for a good time! Many of the present youth rowers have their future on the line and need to excel to be competitive on the NCAA or National level or Olympic level.	
I-8	I-8.01	hsg	Individual	5.3.12	and once again who are we accommodating with the walk bridge???? The rowing team? I do not think so	
I-18	I-18.01	Sherman	Individual	3.17, 5.3.12	I am concerned about the impact that this project will have on the active rowing community on the Norwalk River. If the bridge area is closed to water traffic, this will strand the rowers upriver with not enough room to train. The upriver portion is not long enough for training (less than 2,000 meters). It will also be unsafe with the large number of high school and middle school rowers on the river in the afternoon. This will not be as much of an issue if the bridge	

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**Water-Dependent Uses and Marine Traffic continued**

					area remains passable for rowing shells and the coaches launches (which do not need too much overhead clearance). Please ensure this is worked into the final design.	
S-2	S-2.04	Fox	DEEP	5.3.12	As a result, the EA/EIE, in general, lacks specific detail that will be needed for a full evaluation to completely identify impacts with regard to CCMA coastal consistency, most specifically water-dependent use and navigation impacts and necessary mitigation, both short term and long term. This is understood to be a planning level document, and once a more advanced design phase is complete, the level of missing information regarding these impacts and specific mitigation as well as a Water-dependent Use Action Plan to address impacts will be provided. Pro-active pre-planning; continuing meetings with water-dependent users and others, including the Maritime Center; and additional information on time frames for closure to upstream navigation as well as the exact extent of impacts anticipated to marinas, barge operations, public docks, public walkways, transient dockage, public waterfront parks, and upstream water-dependent uses will be required.	
S-2	S-2.05	Fox	DEEP	5.3.2, 5.3.12	While the EA/EIE notes that mitigation for navigation impacts are to be developed, the LWRD will need much more detail on precise mitigation. Some examples follow: How will individual upstream water-dependent users be compensated for the project's projected 16 month period of vertical bridge restriction (no opening)? Have preliminary negotiations taken place with these property owners and what are the results thus far? How will Norwalk's important shellfish industry and relay areas be protected?	
T-8	T-8.03	Griffin	State of Connecticut Harbor Master for Norwalk	5.3.2	Through our local knowledge and input, our goals will be to increase communication, improve public safety, and minimize channel restrictions and closures.	
S-2	S-2.08	Fox	DEEP	5.3.2	Early and in depth conversations should be conducted with both the Army Corps of Engineers and the U.S. Coast Guard to discuss vertical restriction impacts and how best to anticipate and plan for these effects. Including water-dependent users in the area in these discussions, along with appropriate city officials, would be helpful at an early stage.	
T-8	T-8.01	Griffin	State of Connecticut Harbor Master for Norwalk	5.3.2	Speaking to the safe and efficient use of Norwalk Harbor, I ask DOT and its related Walk Bridge contractors to focus on working closely with members of the United States Coast Guard regarding all scheduling of channel closures.	
T-8	T-8.02	Griffin	State of Connecticut Harbor Master for Norwalk	5.3.2	In addition, I strongly recommend that all applications for said closures be reviewed by Coast Guard individuals with input from myself as Harbor Master, members of the Norwalk Marine Police & Fire Units, and the Norwalk Harbor Management Commission.	
C-1	C-1.30	Coppola	City of Norwalk Corporation Counsel	5.3.2	Harbor Management Commission should be included in any discussions regarding channel closures and restrictions	

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**Water-Dependent Uses and Marine Traffic continued**

B-6	B-6.01	Condon	Coastwise Boatworks	3.17	Coastwise Boatworks, a Norwalk business for the past 13 years and a water dependent use, would like to note that it is being significantly impacted by the Norwalk Walk Bridge Project. In order for Coastwise to conduct operations it is reliant upon a water front property where it can haul and launch boats from the water's edge and manage boat slips for boaters. Section 22a-93 of the Connecticut Coastal Management Act describes a water dependent use as(16) "Water-dependent uses" means those uses and facilities which require direct access to, or location in, marine or tidal waters and which therefore cannot be located inland, including but not limited to: Marinas, recreational and commercial fishing and boating facilities, finfish and shellfish processing plants, waterfront dock and port facilities, shipyards and boat building facilities, water-based recreational uses..etc." The Connecticut Coastal Management Act was specifically designed to "protect water dependent uses" not extinguish them. We view the displacement of Coastwise without providing an alternative water front location to operate from as a direct violation of the Coastal Management Act.	<p>CTDOT recognizes that the impact to Coastwise Boatworks is an impact to the business as well as an identified water-dependent use. The EA/EIE reports the impacts in both the socioeconomics (Section 3.8) and water dependent uses (Section 3.17) sections of the EA/EIE. In accordance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, as amended, and the Connecticut Uniform Relocation Assistance Act, CTDOT will provide assistance to businesses and residents whose properties are acquired for the project.</p> <p>CTDOT acknowledges that the loss of water-dependent uses is not consistent with the objectives of CT Coastal Management Act. CTDOT determined that the parcels required for construction and operation of the bridge would be needed regardless of the Build alternative (including the Fixed-Bridge Alternative and the Rehabilitation Alternative). The number, size, and location of parcels are required for construction of the bridge to provide river access from all four sides of the bridge, rail and road access, construction staging areas, and material storage areas. CTDOT searched extensively and considered multiple areas for construction staging and access and found very limited areas where the construction could be practicably and most expeditiously conducted. Therefore, the use of the Coastwise Boatworks parcel and adjoining parcels for construction purposes is unavoidable.</p> <p>It is CTDOT's intent to return the parcel to a water-dependent use. Upon completion of the project, CTDOT will identify any excess property from the acquisition of the waterfront parcel(s), and will market the excess property indicating the highest priority and preference for water-dependent use of the site. With approval from the Commissioner of the Department of Energy and Environmental Protection, CTDOT will select the highest bid that best demonstrates an integrated, quality, water-dependent use. Water-dependent uses include, but are not limited to: marinas, recreational and commercial fishing and boating facilities, finfish and shellfish processing plants, waterfront dock and port facilities, shipyard and boat building facilities, and water-based recreational uses.</p>
B-6	B-6.02	Condon	Coastwise Boatworks	3.6, 5.3.12	We would like the environmental assessment/environmental impact evaluation documents to acknowledge how substantial the loss of a 60 slip water dependent use really is for the people of Norwalk, the city of Norwalk and the state of Connecticut.	
C-3	C-3.09	Mobilia	Norwalk Harbor Management Commission	5.3.12	The DOT should evaluate use of the Norwalk Visitor's Dock for relocation of displaced research and tourism vessels. To mitigate the adverse impacts to existing water-dependent uses caused by relocation of the Maritime Aquarium's research vessel and the Norwalk Seaport Association's Sheffield Island ferry service, the DOT should give consideration to opportunities for	For the duration of project construction, the Sheffield Island Ferry and the Maritime Aquarium research vessel will need to be relocated, as the current docking facilities will be temporarily removed due to anticipated project construction activities.

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<b>Water-Dependent Uses and Marine Traffic continued</b>						
					enhancement of the Norwalk Visitors' Dock and other water access facilities at the City's Veteran's Memorial Park. As previously recommended by the NHMC (see below), such enhancements should be considered for the purpose of relocating these vessels during Project construction. The NHMC recommends that the DOT should participate in discussions with the Norwalk Recreation and Parks Department and NHMC to evaluate opportunities for enhancement of the public boating facilities using Project funds and ensure that pursuit of any feasible opportunities are coordinated with ongoing implementation of the Recreation and Parks Department's ongoing implementation of the Veteran's Park Master Plan.	In cooperation with the City of Norwalk, including the Harbor Management Commission, CTDOT will work with the Norwalk Seaport Association and the Maritime Aquarium to provide assistance in relocating their respective vessels in accordance with Connecticut's Uniform Relocation Assistance Act and the federal Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended.
C-3	C-3.16	Mobilia	Norwalk Harbor Management Commission	5.3.12	CTDOT should investigate the need for relocation of the Seaport Ferry and Maritime Aquarium Research vessels for the duration of the Project and, if relocation is necessary, investigate feasible relocation sites for continuation of the normal operations of these vessels. Consideration should be given to relocating the vessels to the Norwalk Visitors Dock area and other suitable locations.	
C-3	C-3.32	Mobilia	Norwalk Harbor Management Commission	3.17, 5.3.12	Consideration should be given to opportunities for enhancement of the Norwalk Visitor's Dock and other water access facilities at Veteran's Park to temporarily accommodate the Maritime Aquarium and Seaport Association vessels during construction and to mitigate the temporary loss of water-dependent facilities during the Project.	
C-1	C-1.31	Coppola	City of Norwalk Corporation Counsel	5.3.12	Ferry Dock - Harbor Management Commission should be included in all discussions regarding relocation	
O-12	O-12.08	Davis	The Maritime Aquarium	5.3.12	The Aquarium will need to continue to be included in any discussions regarding the relocation of the research vessel dock it currently uses for its various educational programs, including any change of route, so that the Aquarium may assess the need for transportation from the Aquarium to the relocated dock, the need for any change in the cruise program curriculum, and changes to the information it provides regarding cruise options on its website and other marketing literature to continue to offer this valuable maritime experience, with the least amount of interruption, to its visitors.	
S-2	S-2.11	Fox	DEEP	3.17.5	Page 105 of Chapter 3 states that "the project will replace a commercial marina and community rowing facility, a water-dependent use, with another water-dependent use: access to the waterfront for demolition of the existing bridge and construction of the replacement bridge." Construction access is not a water dependent use.	Comment acknowledged. Revised text for Table 3-13 in the EA/EIE, "Preliminary Consistency Assessment: Potential Adverse Impacts on Water-Dependent Uses and Opportunities," is included in the EA/EIE Errata (Refer to Appendix A-2).
O-7	O-7.06	Kunkel	Norwalk Harbor Keeper	3.17, 5.3.12	The marina is a somewhat different story, as certain models of sailboats in common use at the marina have masts which are simply too tall to fit under a fixed bridge. But this is also a solvable problem, as the marina, as the only up-river commercial use which would be unavoidably impacted by a fixed bridge, could simply be relocated to a suitable location downriver. This would come at a far lower cost to Connecticut taxpayers than paying hundreds of millions of	Figure 3-25 in the EA/EIE identifies the water-dependent and waterfront uses in the Norwalk Upper Harbor. In addition to United Marine Boat Yard, there are several marinas including Norwalk Boat Club, Shore Points Marina, Connecticut Boat Club, and Greylock Marina.

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**Water-Dependent Uses and Marine Traffic continued**

					dollars unnecessarily for a moveable bridge to accommodate the marina's current location.	After thorough consideration and analysis, none of the options of the Fixed-Bridge Alternative were advanced for further evaluation beyond the initial screening process. Note that the costs variations among the Preferred Alternative and the Low-Level and Mid-Level options of the Fixed Bridge Alternative are not significant. The construction cost of the Preferred Alternative is estimated to be comparable to that of the Low-Level Fixed rehabilitation option and higher than those of the Low-Level and Mid-Level replacement bridge options. Based on costs related to operation, maintenance, repair/replacement, and impacts to the waterway user (applicable to the Fixed-Bridge Alternative only), the life cycle costs of Option 11C are estimated to be lower than those of the Low-Level and Mid-Level replacement bridge options and substantially lower than those of the Low-Level Fixed rehabilitation option. Refer to Appendix F-2.
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**Marine Traffic**

B-5	B-5.01	Tomko	United Marine	3.2	Since the local community has only two options for servicing sailboats, the loss of United Marine, in addition to severely compromising our livelihood, would cause irreparable harm to the local boating community and the Norwalk business community at large.	The project Purpose and Need includes a clause to maintain or improve navigational capacity and dependability for marine traffic in the Norwalk River in recognition of the fact that the existing Walk Bridge crosses a federally-maintained and designated navigable waterway, and accommodating marine traffic is a transportation function that the project is intended to address, together with accommodating rail traffic. CTDOT developed the project Purpose and Need, working closely with the Federal Transit Administration (FTA), federal and state agencies, and the City of Norwalk, based upon an expectation of the continuation of marine traffic through the project area.  Marinas and boating facilities located north of Walk Bridge are discussed in Section 3.2.2 of the EA/EIE. Figure 3-25 in the EA/EIE identifies the water-dependent and waterfront uses in the Norwalk Upper Harbor. Water-dependent commercial uses upstream of Walk Bridge include King Industries, Norwalk Marine Contractors, United Marine Boat Yard, Devine Brothers, and O&G Industries. Additionally, there are several marinas, including Norwalk Boat Club, Shore Points Marina, Connecticut Boat Club, and Greylock Marina. Uses of the river are cyclical in nature.  The EA/EIE includes a preliminary navigational evaluation, which addresses the requirements of the USCG Bridge Program's "Reasonable Needs of Navigation White Paper," October 5, 2012, Version 1.1. Section 3.2 of the EA/EIE includes, among other marine data, descriptions of existing commercial and recreational users, vessel type frequency, type and size of vessels using the
C-3	C-3.19	Mobilia	Norwalk Harbor Management Commission	5.3.12	CT DOT should provide for continuation of the existing boat storage and repair facility on the west side of the upper harbor, including continuation of storage and repair of tallmasted vessels.	
I-4	I-4.01	Interested Voter	Individual	2.3.2, 3.17	All the fuss is in relation to just one business that is up river of the project. It is also unreasonably accommodated on Commerce St, Norwalk.	
O-7	O-7.04	Kunkel	Norwalk Harbor Keeper	3.2, 3.17	Critically, the gravel plant does not even really need a movable bridge to be able to move its cargo up and down the river. Although the gravel plant is currently using a boat which has a height that requires the Walk Bridge to swing open for it, there are a variety of lower-profile boat designs, all readily available on the market, which would easily fit under the current height of the Walk Bridge. Under this approach, a low-profile tugboat can ferry a smaller non-mechanical vessel, such as a hopper barge, to carry necessary goods to the gravel plant via the Upper Norwalk River. This can be accomplished without requiring more vertical clearance than the existing Walk Bridge provides when completely closed.	
O-8	O-8.02	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.2.2, 3.17	One of the only two remaining active commercial maritime uses of the Upper Norwalk River is a gravel plant which occasionally uses barges propelled by tug boats that are too tall to fit under the Walk Bridge to bring gravel down the river, but more frequently employs trucks to transport gravel off-site. (Id.). Even this small-scale commercial use of the movable bridge is unnecessary, however, as tug boats with a wider, but less tall, profile would be a completely practical solution to shipping gravel under the Walk Bridge without requiring the bridge to open.	

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O-8	O-8.03	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.2.2, 3.17	The other remaining commercial use is a small marina located just past the Walk Bridge, which contains a few sail boats with masts too tall to fit under the Walk Bridge. These boats could easily be relocated to a site in Norwalk Harbor below the Walk Bridge, as no logistical or shipping considerations dictate its current location.	<p>waterway, cargo movements through Norwalk Harbor, bridges upstream and downstream of Walk Bridge, and current governing limitation for navigation (I-95 bridge with a 60-foot vertical clearance). Section 3.6 describes existing land use and zoning and Section 3.7 describes land use and harbor plans impacting future development of land abutting the Norwalk River. Section 3.17 provides additional information on water-dependent uses. Section 3.24 describes existing marine safety and security. In its review of the EA/EIE (Refer to Comment F-2.1), the USCG indicated that the document adequately addresses its bridge permit concerns regarding navigation, and that it will provide a preliminary navigation determination to CTDOT in accordance with its "Bridge Permit Application Guide."</p> <p>Section 3.2.2 in the EA/EIE indicates that the total freight cargo through Norwalk Harbor primarily consists of sand and gravel, used in the production of concrete and asphalt, and fuel oil, which presents a small percentage of total cargo. Table 3-4 presents the total vessel trips from 2008 to 2012 through Norwalk Harbor, which is defined as a point 4.5 miles below the Washington Street (Stoffolino) Bridge to the head of navigation at East Norwalk and Norwalk. Devine Brothers, located upstream of Walk Bridge, operates a cement plant and acts as a bulk petroleum, cement, sand, and gravel distributor. Follow-up contacts with Devine Brothers, including the company's comment on the EA/EIE (Refer to Letter B-4) further indicates the commercial traffic traveling through Walk Bridge to points north of the bridge.</p> <p>A potential change to marine commerce in Norwalk Harbor was not a factor in establishing the project Purpose and Need, and was not assessed in the EA/EIE. Additionally, the EA/EIE did not evaluate alternative means of transportation for commercial businesses located upstream from Walk Bridge, or their need to obtain alternative equipment to transport vessels through a lowered vertical clearance bridge.</p> <p>The EA/EIE indicates that the improved marine conditions and increased reliability of bridge operations would improve the attractiveness of the Inner Harbor for existing commercial and recreational marine users. Existing users would be more likely to retain or expand their business with improved navigability conditions. Additionally, new marine-based businesses may be more likely to locate to an area with reliable infrastructure.</p>
I-5	I-5.05	Schnierlein	Individual	3.17	To get a rough idea of how many sailboats there are up river so I would have an idea of usage other than Devine Brothers, I used Google Earth and came up with the following: April 2016 – 33 – mostly on shore at United Marine, Sept 2015 – 14, Sept 2014 – 15, Sept 2013 – 9, March 2012 – 51 – mostly on shore at United Marine, Aug. 2010 – 15 2011 photo's not sharp enough to identify power boats from sailboats. Note: United Marine mostly winter stores vessels on shore – only has slips for maybe 10 boats in summer depending on their size.	
I-14	I-14.02	Alexander	Individual	3.17	On the banks of the River, in the one half mile between the Walk Bridge and Wall Street, those affected by the change are two small businesses: a boat yard for pleasure craft and a sand, gravel, and cement plant. There are also private residences with docks that will be affected when the River is closed to navigation of large boats.	
O-7	O-7.03	Kunkel	Norwalk Harbor Keeper	3.2, 3.17	As a result of these trends, the number of active commercial uses of the Upper Norwalk River has dwindled to two: a gravel plant, operated by Devine Brothers, which occasionally uses barges to transport materials on the river, and a marina, United Marine, which provides berths and also performs repairs and modification to boats.	
T-11	T-11.01	Krupp	Individual	3.2.2	The Environmental Assessment must be revised to include analysis of the actual level of maritime commerce on the portion of the Norwalk River north of the Walk Bridge and must factor into that analysis, into an evaluation of whether a movable bridge still makes sense in 2016.	
B-10	B-10.04	Bora	Spinnaker Real Estate Partners, LLC	3.2.2	An Environmental Impact Statement would likely reveal that there's surprisingly little boat traffic north of the bridge.	
O-8	O-8.04	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.2.2	However, it is striking that the Environmental Assessment contains absolutely no empirical data concerning the rate or volume of commercial shipping on the Upper Norwalk River, that portion of the Norwalk River which extends north of the Walk Bridge. Instead, the Environmental Assessment relies solely on shipping data for traffic throughout all of Norwalk Harbor to claim that there is still non-de minimis commercial use of the Upper Norwalk River. (EA/EIE 3-18). The information concerning commercial maritime uses of the Upper Norwalk River is a table entitled "Domestic Commercial Traffic and Commerce through Norwalk Harbor, 2008-2012," which notes that as of 2012, 192 total vessel trips occurred in Norwalk Harbor	

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					(down from 288 trips in 2008). (Id.). The Environmental Assessment then states that "[b]ased upon a review of existing land uses around Norwalk Harbor, it is likely that the majority of vessels carrying cargo in Norwalk Harbor pass through Walk Bridge, traveling to distribution points north of the bridge." (Id.). No rational basis is furnished for this determination of "likelihood."	Note that the evaluation of marine use and assessment of potential effects of the project are required regardless of the National Environmental Policy Act (NEPA) Class of Action document; meaning that they were evaluated in the EA/EIE to the same extent as they would be in an EIS.
E-4	E-4.03	Third Taxing District	Norwalk's Third Taxing District	3.2	Marine Traffic: Straightening the channel and increasing horizontal and vertical clearances will have the effect of improving marine traffic as it exists today. There has been no discussion of what future marine traffic needs might be as a result of these changes, which a two-span redundancy would not resolve with a failure to open one of the spans.	A potential change to marine commerce in Norwalk Harbor was not a factor in establishing the project Purpose and Need, and was not assessed in the EA/EIE. The EA/EIE indicates that the improved marine conditions and increased reliability of bridge operations would improve the attractiveness of the Inner Harbor for existing commercial and recreational marine users. Existing users would be more likely to retain or expand their business with improved navigability conditions. Additionally, new marine-based businesses may be more likely to locate to an area with reliable infrastructure.  The EA/EIE discusses redundancy relative to the rail operations. The intent of the two-span (bridges) redundancy of the bridges is to provide the ability to maintain train service on a limited number of tracks while maintenance on the other span occurs, or following an event that would have otherwise rendered all tracks inoperable for a non-redundant bridge.
O-8	O-8.05	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.2.2	Although this documented juxtaposition of trend lines (increasing rail traffic and decreasing maritime traffic) is clear even on the face of the incomplete information furnished in the Environmental Assessment, the document nowhere engages with its implications for infrastructure planning. Given that a new bridge will likely be in use for at least 100 years into the future, the Environmental Assessment's failures in this regard are conspicuous.	Pursuant to Section 9 of the Rivers and Harbors Act and the General Bridge Act of 1946, CTDOT will apply for a permit from the U.S. Coast (USCG) for a permit to construct a new bridge over the Norwalk River. CTDOT will apply for the permit during the final design phase of the project. In its review of the EA/EIE, the USCG determined that the document adequately addresses its bridge concerns regarding navigation (Refer to EA/EIE Comment F-2.1). The USCG noted that it will provide CTDOT with a preliminary navigation determination in accordance with the bridge permit application.
O-8	O-8.09	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.2.2, 3.17	It is also unreasonable to exclude any analysis of future maritime commerce trends from the Environmental Assessment. As the Environmental Assessment itself recognizes, the Project will require a U.S. Coast Guard permit to reconstruct the bridge, and the permit requires the applicant to provide an analysis of future maritime trends. (EA/EIE 7-1, recognizing the need for a Rivers and Harbors Act Section 9 bridge permit from the U.S. Coast Guard). The U.S. Coast Guard instructs applicants to include in a Section 9 bridge permit application an analysis of the long-term navigational needs of the waterbody. U.S. Coast Guard, Bridge Permit Application Guide (October 2011) at 6.  As further explained in U.S. Coast Guard guidance, this evaluation is done by means of the Navigational Clearance Determination procedure, which involves detailed assessment and projections of maritime use patterns on the water body. U.S. Coast Guard, Reasonable Needs of Navigation White Paper (October 5, 2012). This analysis must include, among other considerations: Existing commercial users Existing recreational users	The project Purpose and Need includes a clause to maintain or improve navigational capacity and dependability for marine traffic in the Norwalk River in recognition of the fact that the existing Walk Bridge crosses a federally-maintained and designated navigable waterway, and accommodating marine traffic is a transportation function that the project is intended to address, together with accommodating rail traffic. CTDOT developed the project Purpose and Need, working closely with the Federal Transit Administration (FTA), federal and state agencies, and the City of Norwalk, based upon an expectation of the continuation of marine traffic through the project area.

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**Water-Dependent Uses and Marine Traffic continued**

					<p>Vessel trip frequency  All bridges upstream and downstream from the proposed bridge  Waterway layout and geometry  Waterway depth and elevation fluctuations  Type and size of vessels utilizing the waterway (or expected to utilize the waterway during the proposed bridge lifespan)  Review of annual cargo movements</p>	<p>With respect to future maritime and water-dependent uses, the EA/EIE indicates that the improved marine conditions and increased reliability of bridge operations would improve the attractiveness of the Inner Harbor for existing commercial and recreational marine users and would be consistent with and support municipal policy for future land uses along the Norwalk River. Existing users would be more likely to retain or expand their business with improved navigability conditions. Additionally, new marine-based businesses may be more likely to locate to an area with reliable infrastructure.</p>
O-8	O-8.10	Sive, Paget & Riesel, P.C.	Norwalk Harbor Keeper	3.2.2, 3.17	<p>The Environmental Assessment's lack of any analysis of future maritime use patterns renders its alternatives analysis meaningless, and the required projection analysis should be included in the Environmental Assessment to inform the public's ability to review and comment on the EA/EIE. More generally, in light of the fact that Project alternatives are being assessed for a 100-year operational life, it is simply unreasonable for the Environmental Assessment to omit any analysis of whether future maritime shipping trends justify the need for a movable bridge to allow for unlimited vertical clearance. (EA/EIE 2-6, describing assessment of project alternatives for a 100-year operational life).</p>	<p>Incorporating the need to maintain or improve navigation into the Walk Bridge Replacement Project is consistent with and advances the policies and goals of federal, state, and local agencies. The U.S. Army Corps of Engineers (USACE) work on Norwalk Harbor began in 1872; as such, the Norwalk River at Walk Bridge is a designated federally authorized Civil Works project. Any work affecting the Norwalk River and the federal navigation channel requires permits from USACE and the U.S. Coast Guard (USCG). The USACE is responsible for protecting the public interest, defined to include navigation, in its determination to issue permits. In addition to the USACE, the USCG also is responsible for maintaining the maritime interests of the United States, including maintaining navigation clearances provided by any bridge or other structure on the waterway. In permitting new or replacement bridges, the USCG evaluates whether the project will provide for the "reasonable needs of navigation," which includes current and reasonably foreseeable future navigation, and the USCG cannot permit a bridge to be built over navigable waters of the United States which does not provide for the reasonable needs of current and foreseeable future navigation. Per USCG guidance, for the purposes of administering its Bridge Program, the USCG indicates that no distinction shall be made between commercial and recreational vessels in the administration and enforcement of laws (USCG Bridge Program, "Reasonable Needs of Navigation White Paper").</p>
C-1	C-1.23	Coppola	City of Norwalk Corporation Counsel	3.2.3, 3.5.3	<p>Further detail is required here to understand better the potential for increases in marine based business, especially those upstream.</p>	
I-5	I-5.03	Schnierlein	Individual	3.7, 3.17	<p>Also, in Norwalk city planning, there are future plans to develop along the river and harbor, reducing the number of marinas.</p>	
I-25	I-25.04	Hard	Individual	3.17, 3.2	<p>I recognize that the Harbor Management Commission does not see it this way. However, they entertain what I see as a very unrealistic vision of re-industrialization of the north channel. They also, in their reports, chronically and wildly overstate the volumes of marine traffic that require a bridge that opens, using data that is ten or more years out of date, and do not evaluate the impact of a fixed bridge with a high-water clearance on the order of 30 feet. It would not be hard to find rather blatant conflicts of interest, either.</p>	
O-2	O-2.03	Lightfield	Norwalk 2.0	3.5.2, 3.7.2	<p>There is no plan from the City of Norwalk that suggests that the future development of the upper harbor is anything but a residential area and as such, would have no long term needs for an increase in bridge height.</p>	
O-2	O-2.10	Lightfield	Norwalk 2.0	3.2	<p>You are also privy to economic market assessments about the viability of the boating industry in Connecticut, which should factor into your assessment of the viability of any commercial boating traffic in the upper harbor.</p>	
T-16	T-16.01	Hard	Individual	3.7.2	<p>Secondly, I'd like to support the remarks of Mr. Krupp which was that this is not a growing industrial area. It is a declining, and it has been for decades. There's only a few businesses left and they are not expanding. And consequently this idea of that, oh, yes, we have to have this bridge that opens in order for us to, you know, stimulate this industrial development that's right around the corner is simply disingenuous. It is not going to happen.</p>	<p>Based upon a review of local and state plans and guidelines, it is likely that development of the waterfront in the city of Norwalk will include water-based uses, which could include both commercial and recreational uses. Development along the river and harbor is guided by the City of Norwalk Plan of Conservation and Development and the Norwalk Harbor Management Plan. Both of the plans indicate that water-dependent uses will be protected and encouraged at and upstream of Walk Bridge. The</p>

Letter #	Comment #	Last Name	Organization	EA/EIE Section	Comment	Response
<b>Water-Dependent Uses and Marine Traffic continued</b>						
						<p>Norwalk Harbor Management Plan, adopted in 1990 and most recently amended in 2009, serves as a guide for the City of Norwalk's use of the Norwalk Harbor for recreational, commercial, industrial, and other purposes. The Norwalk Mid-Harbor Planning Study, revised to June 2005, focuses on the development potential of the Middle Harbor (approximately one mile in length, from the I-95 Bridge south to and including Walk Bridge). Key recommendations of the Norwalk Mid-Harbor Planning Study include protecting water-dependent uses; extending the Harbor trail; and enhancing existing publicly owned shorelines. The Norwalk Harbor Management Commission has an "open-to-all on equal terms" policy for use of the channel and its encouragement and support of water dependent uses in the Harbor. As indicated in the EA/EIE (Section 3.7.3), the project will contribute to the Harbor Commission's policies of an "open-to-all on equal terms" approach for use of the channel, encouragement and support of water-dependent uses in the Harbor, and ensuring that bridge operations do not interfere with traffic of navigation. Development along the waterfront is also regulated by the Norwalk Building Zone Regulations and policies and guidelines of the CT Coastal Zone Management Act. As indicated in the EA/EIE (Section 3.17.3), the parcels located in immediate proximity to and upstream of the bridge are within Industrial Zone No. 1 District, which allows for water-dependent uses, including marinas, water-based public and private recreational uses, and docks and port facilities. The CT Coastal Zone Management Act identifies specific policies that encourage water-dependent uses and discourages non-water-dependent uses at sites suited for water-dependent uses.</p> <p>Regarding future development of upstream properties, land use development is contingent upon multiple factors, including real estate market conditions and state and municipal policies and approvals such as zoning and permits. The improved navigation conditions that will result from the project - improved reliability of the bridge and a wider navigation channel - will improve the likelihood that marine-based businesses will expand.</p>
O-7	O-7.05	Kunkel	Norwalk Harbor Keeper	3.17	Moreover, it is perhaps relevant to note for context that the majority of the current transportation of materials in and out of the gravel facility is by truck, a pattern which is expected to continue in the future.	Comment acknowledged. Regarding current transportation of materials by truck, refer to Comment B-4, in which it is noted that the industry is in negotiations with a new water-based supplier and is in caretaker status with the USCG.

Letter #	Comment #	Last Name	Organization	EA/EIE Section	Comment	Response
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## Wetlands, Floodplains, and Natural Resources

### Wetlands

C-1	C-1.10	Coppola	City of Norwalk Corporation Counsel	3.11	Freshwater Wetlands: Further detail needs to be provided to substantiate the conclusions set forth in the EA/EIE.	The project is anticipated to directly affect the entire area of one small state-jurisdiction inland (freshwater) wetland due to rail embankment fill. This is reported and shown in the EA/EIE. No offsite impacts to freshwater wetlands are anticipated due to the project location and absence of nearby freshwater wetlands. No upstream or downstream freshwater wetlands are present, so no off-site indirect impacts are anticipated.
C-1	C-1.11	Coppola	City of Norwalk Corporation Counsel	5.3.7	Temporary impacts are projected to tidal wetlands during construction. Once construction has occurred, the areas are stated as to be restored (EA/EIE, p. 5-13). No detail is given as to what vegetation will be impacted, what habitats may be lost and what/how it will be restored. More detail on impacts and mitigation and restoration is needed	Existing tidal wetlands are dominated by <i>Spartina alterniflora</i> and are typical of salt marsh vegetation along estuarine riverbanks in Connecticut. The areas of anticipated impacts are reported in the EA/EIE, and reestablishment is dependent upon the type of impacts (permanent or temporary), and other variables such as whether any construction period mitigation is utilized.  The impact assessment and the mitigation plans presented in the EA/EIE are based upon 30 percent (preliminary) design plans. Aquatic resource mitigation commitments identified in the EA/EIE address tidal wetlands, intertidal habitats and subtidal habitats. Further, the EA/EIE identifies the likely minimal effects on aquatic organisms based upon the limited areas of in-water work and containment requirements for work in the water. Per the National Environmental Policy Act (NEPA), this level of design can reasonably assess impacts and provide recommendations for mitigating unavoidable impacts.  Specifics of the tidal wetland and intertidal area mitigation will be developed as final design advances, the contractor's means and methods are determined, and the state and federal permitting process is underway. State and federal permits, including detailed mitigation, will be prepared based upon 60 percent design.  The Connecticut Coastal Management Act (CCMA) policy for mitigation of unavoidable impacts is noted and in-kind restoration will be the first choice/highest priority for mitigation to intertidal resource areas. CTDOT is evaluating priority locations for tidal wetland restoration and invasive species remediation, including locations along the Norwalk River within Oyster Shell Park and Veterans Memorial Park. CTDOT will continue the search for suitable compensation areas, working in conjunction with CTDEEP, City of Norwalk Harbor Management Commission and other local entities. CTDOT is coordinating with CTDEEP and USACE to finalize the conceptual wetland mitigation plan.
C-1	C-1.26	Coppola	City of Norwalk Corporation Counsel	3.10, 3.11, 3.14	Wetlands and Aquatic Resources: Further detail needs to be provided to identify the work proposed, the mitigation and to substantiate the temporary impacts and losses identified in the EA/EIE. Mitigation is proposed for the permanent losses, but more specification is required	
C-3	C-3.23	Mobilia	Norwalk Harbor Management Commission	3.10	To mitigate adverse impacts on intertidal areas, consideration should be given to enhancement of tidal wetlands adjoining Oyster Shell Park	
O-7	O-7.31	Kunkel	Norwalk Harbor Keeper	5.3.7	In addition, the construction of the preferred alternative will also have impacts on tidal wetlands, which was not studied in sufficient detail by the CTDOT. The wetland areas in Veteran's Memorial Park and in East Norwalk harbor will be affected by any outflow of contaminants from the construction into those wetlands. These impacts were not studied by the Environmental Assessment and constitutes an improper omission.	
S-2	S-2.03	Fox	DEEP	3.10.4	Page 86 of Chapter 3 notes that compensation for intertidal flat impacts will be tidal wetland restoration, which is not consistent with Connecticut Coastal Management Act (CCMA) policy to mitigate one resource impact by restoring the same resource, with larger ratio of replacement.	

Letter #	Comment #	Last Name	Organization	EA/EIE Section	Comment	Response
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**Wetlands, Floodplains, and Natural Resources continued**

S-2	S-2.02	Fox	DEEP	3.10.2	Page 63 of the EA/EIE states that “the primary value that the tidal wetlands and river in the project vicinity provide is the opportunity for recreation.” Tidal wetlands are one of the most biologically productive resources and are highly protected. Recreation is a minor value. Please see the attached tidal wetlands fact sheet for more information.	<p>A separate distinction should be made between the two resources. One of the primary values of the river is for recreation, as noted by the pleasure craft marinas, boating usage, riverside walking trails, and the frequent use of the river for fishing, crew, and sculling.</p> <p>The tidal wetlands provide shoreline stabilization, sediment/toxicant retention, and nutrient/pollutant retention/transformation and production export indicated in Section 3.10 of the EA/EIE. There is also some wildlife habitat value and fisheries value shared by both resources. The tidal wetlands and river resources also combine to provide production export to the estuary, and fisheries (shellfish and finfish) habitat.</p>
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**Floodplains**

B-3	B-3.03	King	King Industries	3.12.3	<p>King Concerns:</p> <p>100 &amp; 500 year flood level concerns</p> <p>Sandy and Irene both saw 100 year flood level at King</p> <p>One small office building of 6 people had flood damage</p> <p>Changes to the river may result in long term flood plain behavior with unknown impact on our production or warehouse buildings</p>	<p>Sections 3.12 and 5.3.8 of the EA/EIE present potential floodplain impacts and mitigation requirements. The permanent condition of the Preferred Alternative will reduce constriction at the bridge and will not increase upstream or downstream flooding. The project is subject to Flood Management Certification (FMC) and will not be permitted if not compliant with FMC performance standards. Due to the removal of the existing bridge piers and the replacement bridge piers having less hydraulic footprint, the flood storage capacity will increase and therefore no mitigation is proposed. For both the permanent and temporary/construction period, the project hydraulics will be modeled and permitting performance standards must be met. If mitigation is needed to comply with standards, the project design for construction period and permanent conditions will be modified accordingly. The details of the hydraulic modeling will be based upon 60 percent design.</p>
C-1	C-1.12	Coppola	City of Norwalk Corporation Counsel	5.3.8	Floodplains will be affected. How much? What is the impact on flooding? How will such impacts be mitigated? How will they be restored?	

**Species**

C-1	C-1.16	Coppola	City of Norwalk Corporation Counsel	5.3.11	<p>Endangered, Threatened and Special Concern Species: Study is certainly needed to further understand the impact to these species, particularly, the Peregrine Falcon, a state endangered species. What could the impacts be? Are the falcons affected by noise, dust, lights? What mitigation measures could be implemented?</p>	<p>CTDOT is aware of the potential impacts to Peregrine Falcon from construction-related activities, as this species has nested on a number of state transportation structures. Based on previous experience, CTDOT, working in conjunction with CT DEEP, has developed Best Management Practices (BMPs) to protect this species, including an Environmental Compliance specification to avoid, minimize, and otherwise mitigate potential impacts to this species, as follows:</p> <p>1) Proposed construction activities within 500 feet of a known nest shall be completed during non-nesting season (August through</p>
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Letter #	Comment #	Last Name	Organization	EA/EIE Section	Comment	Response
<b>Wetlands, Floodplains, and Natural Resources continued</b>						
						March); 2) No construction or inspection activities will be permitted between April 1st and July 31st; 3) The contractor must meet with an Environmental Inspector from CTDOT OEP at least 10 days prior to commencement of any construction activities to discuss proper protocol for maintaining environmental commitments established to protect this species and habitat; 4) Workers shall be notified of the existence of Peregrine Falcons in the area and be informed about the state and federal laws established to protect them; 5) Information sheets will be posted at the site and contact information provided. In the event that a Peregrine Falcon is observed within or proximal to the work area, the contractor will be required to report it immediately to CTDOT OEP.
F-1	F-1.01	Simmons	US Fish and Wildlife Service, New England Fish and Wildlife Office	3.13.2, 5.3.9	Therefore, we are unable to review the subject project and documents and provide comments. We recommend that your firm and/or the Connecticut Department of Transportation determine if listed species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service (Service) may be present in the project area by visiting the Service's Information for Planning and Conservation website ( <a href="https://ecos.fws.gov/ipac/">https://ecos.fws.gov/ipac/</a> ). This interactive website database will provide a list of species and critical habitats that may be present in the project area. You can use the list to determine if the subject activities may affect any listed species or critical habitat. Please contact our office for further coordination if any listed species or critical habitat may be affected by the proposed activities.	CTDOT reviewed the USFWS Information for Planning and Conservation (IPaC) website and conducted a project site screening for listed species and critical habitat during the preparation of the EA/EIE. The screening identified two species; red knot, <i>Calidris canutus rufa</i> , and northern long-eared bat, <i>Myotis septentrionalis</i> , (EA/EIE Section 3.15.2). CTDOT will coordinate with USFWS and CTDEEP as the project design advances and the contractor's means and methods of construction are developed, and as the project progresses into the permitting phase to protect the species and their critical habitats.
I-5	I-5.07	Schnierlein	Individual	3.14, 5.3.10	The Environmental Impact Statement (EIS) is probably the weakest EIS I have ever seen. It does not show any regard for the Norwalk environment and my high school marine biology students could have done a more accurate assessment of the animal assessment. Section 3 page 79 there is table 3-8 "Essential Fish Habitat in the Vicinity of Walk Bridge" taken from a NOAA Source, has species stated that are very misleading. The NOAA Fish Habitat Mapper v 3.0 is a regional mapper – NOT SPECIFIC to the Norwalk Harbor in the vicinity of the bridge. Indeed, it is way off as in the harbor we do not find Little Skate, Squid, Atlantic Mackerel, Atlantic Butterfish, and Atlantic Herring, Pollock, Ocean Pout, and Red Hake. We can, on occasion, find some of them outside the Harbor beyond the islands in more saline water – but they are just passing through the area. What are probably the most abundant in-harbor species are <i>Fundulus</i> sp. (mummichogs, killifish), Atlantic Silversides, Menhaden, cunner, tomcod, pipefish, sticklebacks and Tautog– and they are not even mentioned and are primary food sources for the larger fish species! These are all species that could be affected by silt, noise and changes in dissolved oxygen levels, as well as the fluke and flounder that they do mention.	The EA/EIE presents an overview of resources and representative species throughout the Norwalk River area, and is not intended to be a comprehensive listing of species. It references a variety of species to provide a general characterization of the Norwalk River area.  Tools that CTDOT used for obtaining high-level information included the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) website and the Essential Fish Habitat (EFH) Mapper. As indicated in Section 3.15.2, the USFWS review identifies 24 bird species of conservation concern with known distributional ranges overlapping the project area. The common loon and the peregrine falcon are included as State-listed species observed within the Norwalk River area (Section 3.15). Mitigation of potential impacts to the peregrine falcon is presented in Section 5.3.11. The Bald Eagle is included in Table 5-3, Selected List of Migratory Birds of Conservation Concern in the Vicinity of Walk Bridge. The blueback herring is identified as an existing species in Section 3.14.2. The common loon is included as State-listed species observed within the Norwalk River area (Section 3.15). Mitigation of potential impacts to the peregrine
I-5	I-5.10	Schnierlein	Individual	3.13, 3.15, 5.3.11	Pg. 3-82 in the list of birds actually seen on and in proximity of the "Walk" bridge, the list is missing: peregrine falcon, American coot, Brant, Cattle egret, Common Loon, Greater and lesser Scaup, Old Squaw (Long tail), and the past two years we had bald eagles fishing the river from late April to August.	

Letter #	Comment #	Last Name	Organization	EA/EIE Section	Comment	Response
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**Wetlands, Floodplains, and Natural Resources continued**

I-5	I-5.11	Schnierlein	Individual	3.14	On pg 3-83 under marine mammals, both ringed and harbor seals have been seen in the river by the bridge. Also, for marine turtle, the most commonly found in the area is the diamondback terrapin. Their young as well as snapping turtle young have been found on the banks of the river by the bridge.	falcon is presented in Section 5.3.11. The Bald Eagle and Snowy Egret are included in Table 5-3, Selected List of Migratory Birds of Conservation Concern in the Vicinity of Walk Bridge.
I-5	I-5.20	Schnierlein	Individual	3.14.2	In table 5-2 there is no mention of blue-back herring, northern diamondback terrapins, common Loon, great and snowy egrets, bald eagles (2 this year) seaside sparrow. Anyone who has spent a few hours on the shore here in the summer would be aware of the loons, egrets and sparrows.	CTDOT will obtain further information and seek additional consultation as the project design advances, the contractor's means and methods of construction are developed, and permit applications are prepared for the project. It is anticipated that there will be thorough reviews from the USFWS, the National Marine Fisheries Service (NMFS), CTDEEP, and the U.S. Army Corps of Engineers (USACE) relative to potential impacts of the project upon species and habitats. CTDOT will prepare permits utilizing more advanced (60 percent) design plans, which will include more details of the potential impacts of the project, including construction methods, and will identify specific mitigation measures to avoid and/or minimize impacts.

T-13	T-13.01	Schnierlein	Individual	5.3.11	We do have harbor seals that come into the actual harbor. They have come right up to the shores of the Aquarium. Back in the '80s we had a beluga whale. What are you going to do if they come into the harbor again while you're under construction?	<p>Harbor seals (<i>Phoca vitulina concolor</i>) are common in many developed and active waterfronts. If harbor seals enter the project area during construction, the methods that will be used during construction to protect the Norwalk River would similarly protect marine mammals. Details of protective measures will be further specified in permits and construction specifications, to be developed as design advances and the contractor's means and methods of construction are developed. If warranted, CTDOT will provide special procedures requiring the contractor to notify CTDEEP if marine mammals are observed in the construction area.</p> <p>CTDOT will incorporate its standard specifications and Special Provisions, including its Best Management Practices (BMPs), into the contract specifications during in-water work. Further, CTDOT utilizes its own Environmental Compliance specifications, which list specific BMPs for water pollution control.</p>
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**Natural Resources**

T-13	T-13.02	Schnierlein	Individual	3.14.2	The other asset that the Aquarium has is they have a database. How do I know that? It was my job to put it together. There's 6... 16 years most recently of data there and some of the data goes back to the early '90s. You can access it from your desk in Hartford. You don't even have to come down, and you can be linked up to it so you can see what you should see in the area and when it's here.	Comment acknowledged. CTDOT will collect additional information about resources in the Norwalk River as design advances and the project proceeds into the permitting phase. Data from the Maritime Aquarium and other sources will be included in this phase of the project, as applicable.
C-1	C-1.14	Coppola	City of Norwalk Corporation Counsel	5.3.9	The EA/EIE identifies reseeding. Will trees also be planted or other vegetation provided?	Vegetation reestablishment and landscaping commitments will be evaluated in detail during the final design and permitting phase. Opportunities to provide landscaping will be evaluated and

Letter #	Comment #	Last Name	Organization	EA/EIE Section	Comment	Response
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**Wetlands, Floodplains, and Natural Resources continued**

						coordinated with the City during the final design phase of the project.
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**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

**Appendix G                      Estimated Cost of Alternatives**

**Because of its size Appendix G has been provided on the attached CD  
It can also be found at [www.walkbridgect.com](http://www.walkbridgect.com)**

**State of Connecticut Department of Transportation  
Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**Appendix G                      Estimated Cost of Alternatives**

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Walk Bridge Replacement Project – Bridge No. 04288R - Norwalk, Connecticut  
RECORD OF DECISION**

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**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
FOR THE CONSTRUCTION OF**

CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/09/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Rehabilitation Alternative (WITH RUN-AROUND)**

DATE: 06/09/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
	<b>RUN-AROUND</b>													
0207000	BORROW	CY	2000										\$17.06	\$34,120.00
XXXXXXX	A TRACK REMOVAL	TF		2356									\$40.00	\$94,240.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		2356									\$340.00	\$801,040.00
XXXXXXX	A TRACK SHIFT (OTM)	TF		268									\$18.00	\$4,820.00
XXXXXXX	A CATENARY STRUCTURES (RUN-AROUND)	EA								9			\$6,767.00	\$60,900.00
0090028	A CATENARY POLE FOUNDATION TYPE A	EA								3			\$29,948.00	\$89,840.00
XXXXXXX	A FIXED TENSIONED CATENARY SYSTEM	LF								4000			\$74.50	\$298,000.00
070120X	A DRILLED SHAFT (8.0' DIAMETER)	LF				909							\$5,000.00	\$4,545,000.00
XXXXXXX	A CLASS "X" CONCRETE	CY				1122							\$700.00	\$785,400.00
0602000	A DEFORMED STEEL BARS	LBS				259016							\$1.50	\$388,520.00
0603064	A STRUCTURAL STEEL (SITE NO. 4)	LS				1							\$12,611,000.00	\$12,611,000.00
XXXXXXX	A REMOVAL OF RUN-AROUND STRUCTURE	LS				1							\$4,000,000.00	\$4,000,000.00
0603545	A STEEL GRATING	SF				2829							\$50.00	\$141,450.00
0506017	A RETAINING WALL (EAST WALL)	LS				1							\$3,000,000.00	\$3,000,000.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				1108							\$500.00	\$554,000.00
														<b>SUBTOTAL RUN-AROUND: \$27,409,000.00</b>
														<b>SUBTOTAL INCLUDING RUN-AROUND: \$174,913,000.00</b>
	MINOR ITEMS	15%												\$26,237,000.00
														<b>TOTAL: \$201,150,000.00</b>
	<b>ESTIMATED BASED ON % OF TOTAL CONTRACT COST</b>													
0201001	A CLEARING AND GRUBBING	2%												\$4,023,000.00
0975004	A MOBILIZATION AND PROJECT CLOSEOUT	6%												\$12,069,000.00
0980001	A CONSTRUCTION STAKING	1%												\$2,012,000.00
														<b>SUBTOTAL: \$219,254,000.00</b>
	DESIGN CONTINGENCY	25%												\$54,814,000.00
	CONSTRUCTION CONTINGENCY	10%												\$21,925,000.00
	INCIDENTAL COST	25%												\$54,814,000.00
	<b>TOTAL PRELIMINARY ESTIMATED COST (W/ RUN-AROUND) (2016)</b>													<b>\$350,807,000.00</b>
	<b>INFLATION AT MIDPOINT OF CONSTRUCTION 2020</b>													
	INFLATION AT 4% (5 YEARS OF INFLATION)													\$76,003,000.00
	<b>TOTAL PRELIMINARY ESTIMATED COST (W/ RUN-AROUND) AT MIDPOINT OF CONSTRUCTION (2020)</b>													<b>\$426,810,000.00</b>





**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
FOR THE CONSTRUCTION OF**

CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/12/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

Rehabilitation Alternative (WITH RUN-AROUND)

Rehabilitation Alternative Low Level Fixed (WITH RUN-AROUND)

DATE: 06/09/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
	<b>RUN-AROUND</b>													
0207000	BORROW	CY	2000										\$17.06	\$34,120.00
XXXXXXX	A TRACK REMOVAL	TF		2356									\$40.00	\$94,240.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		2356									\$340.00	\$801,040.00
XXXXXXX	A TRACK SHIFT (OTM)	TF		268									\$18.00	\$4,820.00
XXXXXXX	A CATENARY STRUCTURES (RUN-AROUND)	EA								9			\$6,767.00	\$60,900.00
0090028	A CATENARY POLE FOUNDATION TYPE A	EA								3			\$29,948.00	\$89,840.00
XXXXXXX	A FIXED TENSIONED CATENARY SYSTEM	LF								4000			\$74.50	\$298,000.00
070120X	A DRILLED SHAFT (8.0' DIAMETER)	LF				909							\$5,000.00	\$4,545,000.00
XXXXXXX	A CLASS "X" CONCRETE	CY				1122							\$700.00	\$785,400.00
0602000	DEFORMED STEEL BARS	LBS				259016							\$1.50	\$388,520.00
0603064	A STRUCTURAL STEEL (SITE NO. 4)	LS				1							\$12,611,000.00	\$12,611,000.00
XXXXXXX	A REMOVAL OF RUN-AROUND STRUCTURE	LS				1							\$4,000,000.00	\$4,000,000.00
0603545	A STEEL GRATING	SF				2829							\$50.00	\$141,450.00
0506017	A RETAINING WALL (EAST WALL)	LS				1							\$3,000,000.00	\$3,000,000.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				1108							\$500.00	\$554,000.00
														<b>SUBTOTAL RUN-AROUND: \$27,409,000.00</b>
														<b>SUBTOTAL INCLUDING RUN-AROUND: \$168,113,000.00</b>
	MINOR ITEMS	15%												\$25,217,000.00
														<b>TOTAL: \$193,330,000.00</b>
	<b>ESTIMATED BASED ON % OF TOTAL CONTRACT COST</b>													
0201001	A CLEARING AND GRUBBING	2%												\$3,867,000.00
0975004	MOBILIZATION AND PROJECT CLOSEOUT	6%												\$11,600,000.00
0980001	A CONSTRUCTION STAKING	1%												\$1,933,000.00
														<b>SUBTOTAL: \$210,730,000.00</b>
	DESIGN CONTINGENCY	25%												\$52,683,000.00
	CONSTRUCTION CONTINGENCY	10%												\$21,073,000.00
	INCIDENTAL COST	25%												\$52,683,000.00
	<b>TOTAL PRELIMINARY ESTIMATED COST (W/ RUN-AROUND) (2016)</b>													<b>\$337,169,000.00</b>
	<b>INFLATION AT MIDPOINT OF CONSTRUCTION 2020</b>													
	INFLATION AT 4% (5 YEARS OF INFLATION)													\$73,049,000.00
	<b>TOTAL PRELIMINARY ESTIMATED COST (W/ RUN-AROUND) AT MIDPOINT OF CONSTRUCTION (2020)</b>													<b>\$410,218,000.00</b>



**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
FOR THE CONSTRUCTION OF**

CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14A (WITH RUN-AROUND)**

**Low Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0007012	24" RCP CLASS V	LF	54										\$112.00	\$6,050.00
0063476	A TEMPORARY PLATFORM	LF												\$0.00
0090025	A DEMOLITION	LS				1							\$3,344,000.00	\$3,344,000.00
0090059	A BRIDGE PLATE	EA		64										\$0.00
0096065	A REMOVAL OF CATENARY	LF								11116			\$12.00	\$133,390.00
0096068	A REMOVAL OF CATENARY PORTAL STRUCTURE	EA								17			\$19,000.00	\$323,000.00
0096070	A REMOVAL OF CATENARY STRUCTURE FOUNDATION	EA								19			\$3,558.00	\$67,600.00
00900XX	A REMOVAL OF EXISTING HIGH TOWER	LS									1		\$1,094,500.00	\$1,094,500.00
00900XX	A REMOVAL OF EXISTING RETAINING WALL	LS				1							\$7,640,000.00	\$7,640,000.00
00900XX	A REMOVAL OF EXISTING CONDUCTOR	LS									1		\$652,400.00	\$652,400.00
0202000	EARTH EXCAVATION	CY	2400										\$18.86	\$45,270.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	170										\$4.91	\$830.00
0205001	TRENCH EXCAVATION 0'-4' DEEP	CY	570										\$10.72	\$6,110.00
0205003	TRENCH EXCAVATION 0'-10' DEEP	CY	860										\$14.28	\$12,280.00
0207000	BORROW	CY	10300										\$17.35	\$178,710.00
0219001	SEDIMENTATION CONTROL SYSTEM	LF	6550										\$4.88	\$31,990.00
0305001	PROCESSED AGGREGATE	CY	300										\$62.37	\$18,710.00
0406270	MILLING OF BITUMINOUS CONCRETE (0" TO 6")	SY	1100										\$13.72	\$15,090.00
0406170	HMA S1	TON	40										\$207.77	\$8,310.00
0406171	HMA S0.5	TON	360										\$153.80	\$55,370.00
0503001	A REMOVAL OF SUPERSTRUCTURE	LS				1							\$1,600,000.00	\$1,600,000.00
0503939	A REMOVAL OF EXISTING FENDER SYSTEM	LS				1							\$304,000.00	\$304,000.00
0507002	ABANDON CATCH BASIN	EA.	1										\$1,900.00	\$1,900.00
0507105	CONNECTION TO EXISTING MANHOLE AND/OR CATCH BASIN	EA.	2										\$4,500.00	\$9,000.00
0507201	TYPE "C-L" CATCH BASIN	EA.	3										\$3,212.67	\$9,640.00
0507601	MANHOLE	EA.	2										\$3,757.44	\$7,510.00
0507651	MANHOLE OVER 10' DEEP	EA.	1										\$4,920.83	\$4,920.00
0507771	RESET CATCH BASIN	EA.	1										\$926.01	\$930.00
0507777	REMOVE EXISTING MANHOLE	EA.	1										\$4,072.33	\$4,070.00
0507781	RESET MANHOLE	EA.	10										\$842.09	\$8,420.00
0601070	CLASS "S" CONCRETE	CY	54										\$9,265.85	\$500,360.00
0604526	A BRIDGE ELECTRICAL AND CONTROL SYSTEM	LS						0					\$3,930,000.00	\$0.00
0651631	18" CORR. PERF. HIGH DENSITY POLYETHYLENE PIPE	LF	550										\$48.33	\$26,580.00
0651717	6" DUCTILE IRON PIPE	LF	10										\$140.00	\$1,400.00
0651757	18" POLYVINYL CHLORIDE PIPE	LF	52										\$65.00	\$3,380.00
0651885	12" HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INTERIOR)	LF	4										\$60.00	\$240.00
0703012	MODIFIED RIPRAP	CY	6										\$120.36	\$720.00
0751713	12" UNDERDRAIN	LF	270										\$40.00	\$10,800.00
0822001	TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$43.77	\$15,760.00
0822002	RELOCATED TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$9.93	\$3,570.00
0913041	8' CHAIN LINK FENCE	LF	170										\$48.47	\$8,240.00
0913351	4' CHAIN LINK GATE 8' HIGH	EA.	1										\$1,036.67	\$1,040.00
0913889	12' CHAIN LINK DOUBLE GATE 8' HIGH	EA.	1										\$2,066.67	\$2,070.00
0921001	CONCRETE SIDEWALK	SF	1710										\$12.75	\$21,800.00
0925101	A RELAY BRICK WALK	SF	270										\$38.89	\$10,500.00
0950005	TURF ESTABLISHMENT	SY	9700										\$0.93	\$9,050.00
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER) (ESTIMATED COST)	EST	1										\$204,000.00	\$204,000.00
0970007	A TRAFFICPERSON (UNIFORMED FLAGGER)	HR.	1										TBD	TBD
0974414	A REMOVAL OF PIER 3	LS				1							\$300,000.00	\$300,000.00
0974500	A REMOVAL OF PIER 1	LS				1							\$100,000.00	\$100,000.00



**CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14A (WITH RUN-AROUND)  
Low Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0974501	A REMOVAL OF PIER 2	LS				1							\$300,000.00	\$300,000.00
0974XXX	A REMOVAL OF PIVOT PIER	LS				1							\$1,000,000.00	\$1,000,000.00
0978002	TRAFFIC DRUM	EA.	20										\$80.68	\$1,610.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA.	20										\$133.16	\$2,660.00
1118012	REMOVAL AND/OR RELOCATION OF TRAFFIC SIGNAL EQUIPMENT	LS	1										\$10,000.00	\$10,000.00
1118101	TEMPORARY SIGNALIZATION	LS	1										\$75,000.00	\$75,000.00
1131001	CHANGEABLE MESSAGE SIGN	DAY	120										\$52.36	\$6,280.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.34	\$70.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	24										\$4.49	\$110.00
1220027	CONSTRUCTION SIGNS	SF	360										\$20.53	\$7,390.00
1301020	RELOCATION OF 1" CURB STOP VALVE	EA.	1										\$1,500.00	\$1,500.00
1301303	1" COPPER PIPE (TYPE K)	LF	620										\$35.00	\$21,700.00
1303196	RELOCATE FIRE HYDRANT	EA.	1										\$3,813.27	\$3,810.00
1303222	METER PIT (WATER MAIN)	EA.	1										\$2,000.00	\$2,000.00
1303285	ABANDON WATER METER PIT	EA.	1										\$1,500.00	\$1,500.00
1303399	SERVICE CONNECTION (WATER MAIN)	EA.	1										\$2,500.00	\$2,500.00
1400101	6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER)	LF	600										\$52.05	\$31,230.00
1401237	6" DUCTILE IRON PIPE FORCE MAIN (SANITARY SEWER)	LF	24										\$320.00	\$7,680.00
1401662	SANITARY MANHOLE (4' DIA.) 0' TO 10' DEEP	EA.	2										\$4,000.00	\$8,000.00
1401947	REMOVE EXISTING PIPE (SANITARY SEWER)	LF	20										\$50.00	\$1,000.00
1403012	DROP MANHOLE OVER 10' DEEP (SANITARY SEWER)	EA.	1										\$7,535.60	\$7,540.00
1501234	6" HIGH DENSITY POLYETHYLENE GAS MAIN	LF	35										\$35.00	\$1,230.00
150123X	A 1" PVC GAS MAIN	LF	605										\$30.00	\$18,150.00
1807011	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 400 LB	EA.	2										\$407.26	\$810.00
1807012	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 700 LB	EA.	2										\$413.48	\$830.00
1807013	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 1400 LB	EA.	8										\$405.70	\$3,250.00
1807014	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 2100 LB	EA.	4										\$409.65	\$1,640.00
1807104	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (700 LB)	EA.	2										\$112.98	\$230.00
1807105	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (1400 LB.)	EA.	8										\$111.47	\$890.00
1807106	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (2100 LB)	EA.	4										\$126.41	\$510.00
1807108	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (400 LB)	EA.	2										\$116.06	\$230.00
1807200	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE B	EA.	2										\$14,000.00	\$28,000.00
XXXXXXX	A OPERATING MACHINERY (2 SPANS)	LS					0						\$6,800,000.00	\$0.00
XXXXXXX	A SPAN LOCKS (2 SPANS)	LS					0						\$840,000.00	\$0.00



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CITY OF: Norwalk  
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PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14A (WITH RUN-AROUND)  
Low Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A BALLASTED TRACK REMOVAL	TF		6393									\$40.00	\$255,720.00
XXXXXXX	A OPEN DECK TRACK REMOVAL	TF		2252									\$40.00	\$90,080.00
XXXXXXX	A BALLASTED TRACK RENEWAL (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		4257									\$345.00	\$1,468,670.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		8396									\$340.00	\$2,854,640.00
XXXXXXX	A OPEN DECK TRACK CONSTRUCTION (INCLUDES RAIL, TIES, HARDWARE, OTM)	TF		809									\$280.00	\$226,520.00
XXXXXXX	A MACHINERY ROOM	EA.			0								\$470,720.00	\$0.00
XXXXXXX	A CONTROL HOUSE	EA.			0								\$592,512.00	\$0.00
XXXXXXX	A GENERATOR BUILDING	EA.			0								\$300,000.00	\$0.00
XXXXXXX	A AQUARIUM TEMPORARY STAIR	EA.			1								\$180,095.00	\$180,100.00
XXXXXXX	A IMAX THEATRE EMERGENCY WALKWAY	LS			1								\$278,380.00	\$278,380.00
XXXXXXX	A AQUARIUM FIRE ESCAPE MODIFICATION	LS			1								\$151,125.00	\$151,130.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - EAST SIDE	LF									1000		\$847.49	\$847,490.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - WEST SIDE	LF									400		\$847.49	\$338,990.00
XXXXXXX	A 4" GRS CONDUIT EXPOSED (ON RETAINING WALL OR IN BRIDGE GIRDERS)	LF									19320		\$36.50	\$705,180.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS ON RETAINING WALL FOR 21 CONDUITS	EA									67		\$2,000.00	\$134,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (TEMPORARY)(2 SETS OF 11)	EA									88		\$1,000.00	\$88,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (FINAL)(3 SETS OF 7)	EA									132		\$600.00	\$79,200.00
XXXXXXX	A 16'X8' MANHOLE	EA									3		\$15,000.00	\$45,000.00
XXXXXXX	A 6'X4' MANHOLE	EA									8		\$8,800.00	\$70,400.00
XXXXXXX	A ARMORED SUBMARINE CABLE #2/0 AWG (S) - 15KV RATED COPPER	LF									2000		\$117.35	\$234,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE #4/0 AWG (F) - 25KV RATED COPPER	LF									2000		\$124.35	\$248,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE 500KCMIL (T, SPT & G) - 25KV RATED COPPER	LF									5000		\$149.35	\$746,740.00
XXXXXXX	A POWER CABLE 25KV #4/0AWG	LF									16600		\$14.00	\$232,400.00
XXXXXXX	A POWER CABLE 15KV #2/0AWG	LF									6640		\$10.00	\$66,400.00
XXXXXXX	A POWER CABLE 25KV #500KCMIL	LF									6640		\$22.00	\$146,080.00
XXXXXXX	A 15/25KV SUB-CABLE SPLICES	EA									36		\$3,055.56	\$110,000.00
XXXXXXX	A 15/25KV POWER CABLE SPLICES	EA									36		\$2,016.67	\$72,600.00
XXXXXXX	A CONSTRUCTION STAGING - TEMPORARY DOWN GUYS AND BRACING	EA										18	\$3,900.00	\$70,200.00
XXXXXXX	A SHIELD WIRE, OPGW - FINAL ALIGNMENT	LF									4104		\$7.00	\$28,730.00
XXXXXXX	A 115KV CONDUCTOR - FINAL ALIGNMENT	LF									24621		\$11.50	\$283,140.00
XXXXXXX	A SHIELD WIRE, 500 KCMIL COPPER - FINAL ALIGNMENT	LF									4103		\$11.50	\$47,180.00
XXXXXXX	A MONOPOLE FOUNDATION	LS									1		\$937,318.00	\$937,320.00
XXXXXXX	A STRUCTURAL STEEL (RISER STRUCTURES)	LBS									100000		\$4.00	\$400,000.00
XXXXXXX	A TAPERED STEEL MONOPOLES 90FT	EA									1		\$35,100.00	\$35,100.00
XXXXXXX	A TAPERED STEEL MONOPOLES 110FT	EA									10		\$36,040.00	\$360,400.00
XXXXXXX	A TAPERED STEEL MONOPOLES 127FT	EA									4		\$37,050.00	\$148,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 130FT	EA									4		\$38,050.00	\$152,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 137FT	EA									4		\$39,050.00	\$156,200.00
XXXXXXX	A 115kv TRANSMISSION TERMINATIONS - FINAL	EA									42		\$1,596.00	\$67,030.00
XXXXXXX	A 115kv TRANSMISSION JUMPERS - FINAL	LF									840		\$52.00	\$43,680.00
XXXXXXX	A 115kv TRANSMISSION SUSPENSION INSULATION - FINAL	EA									96		\$1,596.00	\$153,220.00
XXXXXXX	A OH STATIC WIRE TERMINATION - FINAL	EA									8		\$1,263.00	\$10,100.00
XXXXXXX	A OH STATIC WIRE CLAMPS - FINAL	EA									38		\$1,161.00	\$44,120.00
000081	A 115kv SURGE ARRESTORS	EA									12		\$3,092.00	\$37,100.00
XXXXXXX	A METRO-NORTH RAILROAD TERMINATION	LS									1		\$362,800.00	\$362,800.00
0090051	A LOWERING CATENARY	LF								6020			\$27.50	\$165,550.00
0090028	A CATENARY POLE FOUNDATION TYPE A	EA								12			\$29,748.00	\$356,980.00
0096064	A CATENARY GUY ANCHORS IN SOIL	EA								6			\$24,680.00	\$148,080.00
0096050	A AUTO-TENSIONED CATENARY	LF								8200			\$108.00	\$885,600.00
XXXXXXX	A TEMPORARY CATENARY CONSTRUCTION	LS								1			\$224,900.00	\$224,900.00



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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14A (WITH RUN-AROUND)**

**Low Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXXX	A MOVEABLE CONDUCTOR RAIL	LS								1			\$1,654,600.00	\$1,654,600.00
XXXXXXXX	A CATENARY STRUCTURES	EA								38			\$35,226.00	\$1,338,590.00
XXXXXXXX	A CONTROL HOUSE HVAC	LS					0						\$40,000.00	\$0.00
XXXXXXXX	A CONTROL HOUSE PLUMBING	LS					0						\$20,000.00	\$0.00
XXXXXXXX	A 48"x75"x 24" CASE	EA							1				\$5,320.00	\$5,320.00
XXXXXXXX	A 14"x14"x6" TERMINAL BOX	EA							4				\$52.00	\$210.00
XXXXXXXX	A PN-150B RELAY	EA							16				\$450.00	\$7,200.00
XXXXXXXX	A E & M EQUIPMENT CO PROXIMITY DETECTOR	EA							16				\$2,500.00	\$40,000.00
XXXXXXXX	A 12V DC TO DC CONVERTER	EA							8				\$250.00	\$2,000.00
XXXXXXXX	A 2C #6 CABLE	FT							800				\$1.60	\$1,280.00
XXXXXXXX	A 27C #14 CABLE	FT							800				\$3.20	\$2,560.00
XXXXXXXX	A 19C #14 CABLE	FT							1000				\$2.25	\$2,250.00
XXXXXXXX	A 5C #14 CABLE	FT							800				\$0.60	\$480.00
XXXXXXXX	A 6PR #14	FT							1500				\$1.45	\$2,180.00
XXXXXXXX	A 2" CONDUIT	FT							200				\$6.00	\$1,200.00
XXXXXXXX	A 144 STRAND DIRECT BURIAL F.O. CABLE	FT							2400				\$5.26	\$12,620.00
XXXXXXXX	A 144 STRAND ARMORED DOUBLE JACKETED F.O. CABLE	FT							1000				\$39.00	\$39,000.00
XXXXXXXX	A 24 STRAND DOUBLE JACKETED F.O. CABLE	FT							700				\$1.86	\$1,300.00
XXXXXXXX	A F.O. SPLICE CASES	EA							6				\$739.00	\$4,430.00
XXXXXXXX	A 100 PAIR 19 AWG COPPER COMMUNICATIONS CABLE	FT							1200				\$9.50	\$11,400.00
XXXXXXXX	A 100 PAIR 19 AWG COPPER SUBMARINE CABLE	FT							500				\$10.20	\$5,100.00
1114105	A 5/8" MESSENGER CABLE	FT							100				\$2.75	\$280.00
XXXXXXXX	A LASHING WIRE	FT							250				\$0.20	\$50.00
XXXXXXXX	A LASHING WIRE CLAMPS	EA							6				\$3.25	\$20.00
XXXXXXXX	A 4 INCH RGS CONDUIT	FT							150				\$23.40	\$3,510.00
XXXXXXXX	A CONDUIT MOUNTING HARDWARE	FT							20				\$55.00	\$1,100.00
XXXXXXXX	A 3 INCH RGS CONDUIT	FT							450				\$15.35	\$6,910.00
0701203	A DRILLED SHAFT (4.0' DIAMETER)	LF				2371							\$1,000.00	\$2,371,000.00
0701209	A DRILLED SHAFT (7.0' DIAMETER)	LF				972							\$5,000.00	\$4,860,000.00
0701211	A DRILLED SHAFT (8.0' DIAMETER)	LF				1620							\$5,000.00	\$8,100,000.00
0601201	CLASS "F" CONCRETE	CY				3360							\$700.00	\$2,352,000.00
XXXXXXXX	A CLASS "X" CONCRETE	CY				3045							\$700.00	\$2,131,500.00
XXXXXXXX	A PIER 1 FORMLINER	LS				1							\$111,900.00	\$111,900.00



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**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14A (WITH RUN-AROUND)**

**Low Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A PIER 2 FORMLINER	LS				1							\$129,800.00	\$129,800.00
0602000	DEFORMED STEEL BARS	LBS				1520132							\$1.50	\$2,280,200.00
0602006	DEFORMED STEEL BARS - EPOXY COATED	LBS				0							\$1.80	\$0.00
0714026	A TEMPORARY SHEET PILING	LBS				654750							\$2.00	\$1,309,500.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				16245							\$20.00	\$324,900.00
0701020	A FENDER SYSTEM	LS				1							\$4,000,000.00	\$4,000,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				0							\$0.00	\$0.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				0							\$0.00	\$0.00
0603446	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$3,604,189.00	\$3,604,190.00
0603062	A STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$29,462,713.00	\$29,462,710.00
0603063	A STRUCTURAL STEEL (SITE NO. 3)	LS				0							\$3,023,853.00	\$0.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				2756							\$500.00	\$1,378,000.00
XXXXXXX	A OPEN BRIDGE DECK	LF				0							\$500.00	\$0.00
0603545	A STEEL GRATING	SF				4134							\$50.00	\$206,700.00
XXXXXXX	A TRACK AND TREAD PLATES	LBS				0							\$0.00	\$0.00
XXXXXXX	A COUNTERWEIGHT CONCRETE	CY				0							\$0.00	\$0.00
0603367	A BALANCE BLOCKS	EA				0							\$0.00	\$0.00
XXXXXXX	A MITRE RAILS (WITH SPARE PARTS)	EA				0							\$0.00	\$0.00
0603169	A PROGRESS PHOTOGRAPHS	EA	TBD										TBD	TBD
													<b>SUBTOTAL:</b>	<b>\$98,905,800.00</b>
	<b>FORT POINT STREET</b>													
0202000	EARTH EXCAVATION	CY	410										\$28.44	\$11,660.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	620										\$3.38	\$2,100.00
0212000	SUBBASE	CY	280										\$56.03	\$15,690.00
0305001	PROCESSED AGGREGATE	CY	110										\$62.37	\$6,860.00
0406171	HMA S0.5	TON	160										\$175.51	\$28,080.00
0507771	RESET CATCH BASIN	EA	2										\$926.02	\$1,850.00
0811001	CONCRETE CURBING	LF	240										\$35.70	\$8,570.00
0921001	CONCRETE SIDEWALK	SF	2360										\$12.25	\$28,910.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA	20										\$133.17	\$2,660.00
1208929	PUBLIC INFORMATION SIGNS	SF	23										\$51.96	\$1,200.00
1210101	4" WHITE EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.33	\$70.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	460										\$0.93	\$430.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	340										\$4.10	\$1,390.00
1220027	CONSTRUCTION SIGNS	SF	233										\$22.86	\$5,330.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				2360							\$20.00	\$47,200.00
0714026	A TEMPORARY SHEET PILING	LBS				125400							\$2.00	\$250,800.00
XXXXXXX	A STEEL PILE HP 14X89	LF				7808							\$60.00	\$468,480.00
060100	CLASS "A" CONCRETE	CY				1052							\$70.00	\$736,400.00
0602000	DEFORMED STEEL BARS	LBS				300200							\$1.50	\$450,300.00
0216000	PERVIOUS STRUCTURE BACKFILL	CY				5160							\$35.00	\$180,600.00
0503905	REMOVAL OF EXISTING STRUCTURAL STEEL	LS				1							\$50,000.00	\$50,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$382,500.00	\$382,500.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$1,912,500.00	\$1,912,500.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				204							\$500.00	\$102,000.00
0603545	A STEEL GRATING	SF				430							\$50.00	\$21,500.00
0503029	A REMOVAL OF EXISTING CONCRETE SUBSTRUCTURE	CY				1040							\$350.00	\$364,000.00
0974005	A REMOVAL OF EXISTING RETAINING WALL	CY				780							\$350.00	\$273,000.00





**CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14B (WITH RUN-AROUND)**

**Mid Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0007012	24" RCP CLASS V	LF	54										\$112.00	\$6,050.00
0063476	A TEMPORARY PLATFORM	LF												\$0.00
0090025	A DEMOLITION	LS				1							\$3,344,000.00	\$3,344,000.00
0090059	A BRIDGE PLATE	EA		64										\$0.00
0096065	A REMOVAL OF CATENARY	LF								11116			\$12.00	\$133,390.00
0096068	A REMOVAL OF CATENARY PORTAL STRUCTURE	EA								17			\$19,000.00	\$323,000.00
0096070	A REMOVAL OF CATENARY STRUCTURE FOUNDATION	EA								19			\$3,558.00	\$67,600.00
00900XX	A REMOVAL OF EXISTING HIGH TOWER	LS									1		\$1,094,500.00	\$1,094,500.00
00900XX	A REMOVAL OF EXISTING RETAINING WALL	LS				1							\$7,640,000.00	\$7,640,000.00
00900XX	A REMOVAL OF EXISTING CONDUCTOR	LS									1		\$652,400.00	\$652,400.00
0202000	EARTH EXCAVATION	CY	2400										\$18.86	\$45,270.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	170										\$4.91	\$830.00
0205001	TRENCH EXCAVATION 0'-4' DEEP	CY	570										\$10.72	\$6,110.00
0205003	TRENCH EXCAVATION 0'-10' DEEP	CY	860										\$14.28	\$12,280.00
0207000	BORROW	CY	10300										\$17.35	\$178,710.00
0219001	SEDIMENTATION CONTROL SYSTEM	LF	6550										\$4.88	\$31,990.00
0305001	PROCESSED AGGREGATE	CY	300										\$62.37	\$18,710.00
0406270	MILLING OF BITUMINOUS CONCRETE (0" TO 6")	SY	1100										\$13.72	\$15,090.00
0406170	HMA S1	TON	40										\$207.77	\$8,310.00
0406171	HMA S0.5	TON	360										\$153.80	\$55,370.00
0503001	A REMOVAL OF SUPERSTRUCTURE	LS				1							\$1,600,000.00	\$1,600,000.00
0503939	A REMOVAL OF EXISTING FENDER SYSTEM	LS				1							\$304,000.00	\$304,000.00
0507002	ABANDON CATCH BASIN	EA.	1										\$1,900.00	\$1,900.00
0507105	CONNECTION TO EXISTING MANHOLE AND/OR CATCH BASIN	EA.	2										\$4,500.00	\$9,000.00
0507201	TYPE "C-L" CATCH BASIN	EA.	3										\$3,212.67	\$9,640.00
0507601	MANHOLE	EA.	2										\$3,757.44	\$7,510.00
0507651	MANHOLE OVER 10' DEEP	EA.	1										\$4,920.83	\$4,920.00
0507771	RESET CATCH BASIN	EA.	1										\$926.01	\$930.00
0507777	REMOVE EXISTING MANHOLE	EA.	1										\$4,072.33	\$4,070.00
0507781	RESET MANHOLE	EA.	10										\$842.09	\$8,420.00
0601070	CLASS "S" CONCRETE	CY	54										\$9,265.85	\$500,360.00
0604526	A BRIDGE ELECTRICAL AND CONTROL SYSTEM	LS						0					\$3,930,000.00	\$0.00
0651631	18" CORR. PERF. HIGH DENSITY POLYETHYLENE PIPE	LF	550										\$48.33	\$26,580.00
0651717	6" DUCTILE IRON PIPE	LF	10										\$140.00	\$1,400.00
0651757	18" POLYVINYL CHLORIDE PIPE	LF	52										\$65.00	\$3,380.00
0651885	12" HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INTERIOR)	LF	4										\$60.00	\$240.00
0703012	MODIFIED RIPRAP	CY	6										\$120.36	\$720.00
0751713	12" UNDERDRAIN	LF	270										\$40.00	\$10,800.00
0822001	TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$43.77	\$15,760.00
0822002	RELOCATED TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$9.93	\$3,570.00
0913041	8' CHAIN LINK FENCE	LF	170										\$48.47	\$8,240.00
0913351	4' CHAIN LINK GATE 8' HIGH	EA.	1										\$1,036.67	\$1,040.00
0913889	12' CHAIN LINK DOUBLE GATE 8' HIGH	EA.	1										\$2,066.67	\$2,070.00
0921001	CONCRETE SIDEWALK	SF	1710										\$12.75	\$21,800.00
0925101	A RELAY BRICK WALK	SF	270										\$38.89	\$10,500.00
0950005	TURF ESTABLISHMENT	SY	9700										\$0.93	\$9,050.00
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER) (ESTIMATED COST)	EST	1										\$204,000.00	\$204,000.00
0970007	A TRAFFICPERSON (UNIFORMED FLAGGER)	HR	1										TBD	TBD
0974414	A REMOVAL OF PIER 3	LS				1							\$300,000.00	\$300,000.00
0974500	A REMOVAL OF PIER 1	LS				1							\$100,000.00	\$100,000.00



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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14B (WITH RUN-AROUND)**

**Mid Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0974501	A REMOVAL OF PIER 2	LS				1							\$300,000.00	\$300,000.00
0974XXX	A REMOVAL OF PIVOT PIER	LS				1							\$1,000,000.00	\$1,000,000.00
0978002	TRAFFIC DRUM	EA.	20										\$80.68	\$1,610.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA.	20										\$133.16	\$2,660.00
1118012	REMOVAL AND/OR RELOCATION OF TRAFFIC SIGNAL EQUIPMENT	LS	1										\$10,000.00	\$10,000.00
1118101	TEMPORARY SIGNALIZATION	LS	1										\$75,000.00	\$75,000.00
1131001	CHANGEABLE MESSAGE SIGN	DAY	120										\$52.36	\$6,280.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.34	\$70.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	24										\$4.49	\$110.00
1220027	CONSTRUCTION SIGNS	SF	360										\$20.53	\$7,390.00
1301020	RELOCATION OF 1" CURB STOP VALVE	EA.	1										\$1,500.00	\$1,500.00
1301303	1" COPPER PIPE (TYPE K)	LF	620										\$35.00	\$21,700.00
1303196	RELOCATE FIRE HYDRANT	EA.	1										\$3,813.27	\$3,810.00
1303222	METER PIT (WATER MAIN)	EA.	1										\$2,000.00	\$2,000.00
1303285	ABANDON WATER METER PIT	EA.	1										\$1,500.00	\$1,500.00
1303399	SERVICE CONNECTION (WATER MAIN)	EA.	1										\$2,500.00	\$2,500.00
1400101	6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER)	LF	600										\$52.05	\$31,230.00
1401237	6" DUCTILE IRON PIPE FORCE MAIN (SANITARY SEWER)	LF	24										\$320.00	\$7,680.00
1401662	SANITARY MANHOLE (4' DIA.) 0' TO 10' DEEP	EA.	2										\$4,000.00	\$8,000.00
1401947	REMOVE EXISTING PIPE (SANITARY SEWER)	LF	20										\$50.00	\$1,000.00
1403012	DROP MANHOLE OVER 10' DEEP (SANITARY SEWER)	EA.	1										\$7,535.60	\$7,540.00
1501234	6" HIGH DENSITY POLYETHYLENE GAS MAIN	LF	35										\$35.00	\$1,230.00
150123X	A 1" PVC GAS MAIN	LF	605										\$30.00	\$18,150.00
1807011	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 400 LB	EA.	2										\$407.26	\$810.00
1807012	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 700 LB	EA.	2										\$413.48	\$830.00
1807013	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 1400 LB	EA.	8										\$405.70	\$3,250.00
1807014	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 2100 LB	EA.	4										\$409.65	\$1,640.00
1807104	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (700 LB)	EA.	2										\$112.98	\$230.00
1807105	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (1400 LB.)	EA.	8										\$111.47	\$890.00
1807106	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (2100 LB)	EA.	4										\$126.41	\$510.00
1807108	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (400 LB)	EA.	2										\$116.06	\$230.00
1807200	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE B	EA.	2										\$14,000.00	\$28,000.00
XXXXXXX	A OPERATING MACHINERY (2 SPANS)	LS					0						\$6,800,000.00	\$0.00
XXXXXXX	A SPAN LOCKS (2 SPANS)	LS					0						\$840,000.00	\$0.00



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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14B (WITH RUN-AROUND)**

**Mid Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A BALLASTED TRACK REMOVAL	TF		6393									\$40.00	\$255,720.00
XXXXXXX	A OPEN DECK TRACK REMOVAL	TF		2252									\$40.00	\$90,080.00
XXXXXXX	A BALLASTED TRACK RENEWAL (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		4257									\$345.00	\$1,468,670.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		8396									\$340.00	\$2,854,640.00
XXXXXXX	A OPEN DECK TRACK CONSTRUCTION (INCLUDES RAIL, TIES, HARDWARE, OTM)	TF		809									\$280.00	\$226,520.00
XXXXXXX	A MACHINERY ROOM	EA.			0								\$470,720.00	\$0.00
XXXXXXX	A CONTROL HOUSE	EA.			0								\$592,512.00	\$0.00
XXXXXXX	A GENERATOR BUILDING	EA.			0								\$300,000.00	\$0.00
XXXXXXX	A AQUARIUM TEMPORARY STAIR	EA.			1								\$180,095.00	\$180,100.00
XXXXXXX	A IMAX THEATRE EMERGENCY WALKWAY	LS			1								\$278,380.00	\$278,380.00
XXXXXXX	A AQUARIUM FIRE ESCAPE MODIFICATION	LS			1								\$151,125.00	\$151,130.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - EAST SIDE	LF									1000		\$847.49	\$847,490.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - WEST SIDE	LF									400		\$847.49	\$338,990.00
XXXXXXX	A 4" GRS CONDUIT EXPOSED (ON RETAINING WALL OR IN BRIDGE GIRDERS)	LF									19320		\$36.50	\$705,180.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS ON RETAINING WALL FOR 21 CONDUITS	EA									67		\$2,000.00	\$134,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (TEMPORARY)(2 SETS OF 11)	EA									88		\$1,000.00	\$88,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (FINAL)(3 SETS OF 7)	EA									132		\$600.00	\$79,200.00
XXXXXXX	A 16'X8' MANHOLE	EA									3		\$15,000.00	\$45,000.00
XXXXXXX	A 6'X4' MANHOLE	EA									8		\$8,800.00	\$70,400.00
XXXXXXX	A ARMORED SUBMARINE CABLE #2/0 AWG (S) - 15KV RATED COPPER	LF									2000		\$117.35	\$234,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE #4/0 AWG (F) - 25KV RATED COPPER	LF									2000		\$124.35	\$248,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE 500KCMIL (T, SPT & G) - 25KV RATED COPPER	LF									5000		\$149.35	\$746,740.00
XXXXXXX	A POWER CABLE 25KV #4/0AWG	LF									16600		\$14.00	\$232,400.00
XXXXXXX	A POWER CABLE 15KV #2/0AWG	LF									6640		\$10.00	\$66,400.00
XXXXXXX	A POWER CABLE 25KV #500KCMIL	LF									6640		\$22.00	\$146,080.00
XXXXXXX	A 15/25KV SUB-CABLE SPLICES	EA									36		\$3,055.56	\$110,000.00
XXXXXXX	A 15/25KV POWER CABLE SPLICES	EA									36		\$2,016.67	\$72,600.00
XXXXXXX	A CONSTRUCTION STAGING - TEMPORARY DOWN GUYS AND BRACING	EA										18	\$3,900.00	\$70,200.00
XXXXXXX	A SHIELD WIRE, OPGW - FINAL ALIGNMENT	LF									4104		\$7.00	\$28,730.00
XXXXXXX	A 115kV CONDUCTOR - FINAL ALIGNMENT	LF									24621		\$11.50	\$283,140.00
XXXXXXX	A SHIELD WIRE, 500 KCMIL COPPER - FINAL ALIGNMENT	LF									4103		\$11.50	\$47,180.00
XXXXXXX	A MONOPOLE FOUNDATION	LS									1		\$937,318.00	\$937,320.00
XXXXXXX	A STRUCTURAL STEEL (RISER STRUCTURES)	LBS									100000		\$4.00	\$400,000.00
XXXXXXX	A TAPERED STEEL MONOPOLES 90FT	EA									1		\$35,100.00	\$35,100.00
XXXXXXX	A TAPERED STEEL MONOPOLES 110FT	EA									10		\$36,040.00	\$360,400.00
XXXXXXX	A TAPERED STEEL MONOPOLES 127FT	EA									4		\$37,050.00	\$148,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 130FT	EA									4		\$38,050.00	\$152,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 137FT	EA									4		\$39,050.00	\$156,200.00
XXXXXXX	A 115kV TRANSMISSION TERMINATIONS - FINAL	EA									42		\$1,596.00	\$67,030.00
XXXXXXX	A 115kV TRANSMISSION JUMPERS - FINAL	LF									840		\$52.00	\$43,680.00
XXXXXXX	A 115kV TRANSMISSION SUSPENSION INSULATION - FINAL	EA									96		\$1,596.00	\$153,220.00
XXXXXXX	A OH STATIC WIRE TERMINATION - FINAL	EA									8		\$1,263.00	\$10,100.00
XXXXXXX	A OH STATIC WIRE CLAMPS - FINAL	EA									38		\$1,161.00	\$44,120.00
000081	A 115kV SURGE ARRESTORS	EA									12		\$3,092.00	\$37,100.00
XXXXXXX	A METRO-NORTH RAILROAD TERMINATION	LS									1		\$362,800.00	\$362,800.00
009051	A LOWERING CATENARY	LF								6020			\$27.50	\$165,550.00
009028	A CATENARY POLE FOUNDATION TYPE A	EA								12			\$29,748.00	\$356,980.00
009604	A CATENARY GUY ANCHORS IN SOIL	EA								6			\$24,680.00	\$148,080.00
0096050	A AUTO-TENSIONED CATENARY	LF								8200			\$108.00	\$885,600.00
XXXXXXX	A TEMPORARY CATENARY CONSTRUCTION	LS								1			\$224,900.00	\$224,900.00



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**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

Option 14B (WITH RUN-AROUND)

Mid Level Fixed Bridge Option

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXXX	A MOVEABLE CONDUCTOR RAIL	LS								1			\$1,654,600.00	\$1,654,600.00
XXXXXXXX	A CATENARY STRUCTURES	EA								38			\$35,226.00	\$1,338,590.00
XXXXXXXX	A CONTROL HOUSE HVAC	LS					0						\$40,000.00	\$0.00
XXXXXXXX	A CONTROL HOUSE PLUMBING	LS					0						\$20,000.00	\$0.00
XXXXXXXX	A 48"x75"x 24" CASE	EA							1				\$5,320.00	\$5,320.00
XXXXXXXX	A 14"x14"x6" TERMINAL BOX	EA							4				\$52.00	\$210.00
XXXXXXXX	A PN-150B RELAY	EA							16				\$450.00	\$7,200.00
XXXXXXXX	A E & M EQUIPMENT CO PROXIMITY DETECTOR	EA							16				\$2,500.00	\$40,000.00
XXXXXXXX	A 12V DC TO DC CONVERTER	EA							8				\$250.00	\$2,000.00
XXXXXXXX	A 2C #6 CABLE	FT							800				\$1.60	\$1,280.00
XXXXXXXX	A 27C #14 CABLE	FT							800				\$3.20	\$2,560.00
XXXXXXXX	A 19C #14 CABLE	FT							1000				\$2.25	\$2,250.00
XXXXXXXX	A 5C #14 CABLE	FT							800				\$0.60	\$480.00
XXXXXXXX	A 6PR #14	FT							1500				\$1.45	\$2,180.00
XXXXXXXX	A 2" CONDUIT	FT							200				\$6.00	\$1,200.00
XXXXXXXX	A 144 STRAND DIRECT BURIAL F.O. CABLE	FT							2400				\$5.26	\$12,620.00
XXXXXXXX	A 144 STRAND ARMORED DOUBLE JACKETED F.O. CABLE	FT							1000				\$39.00	\$39,000.00
XXXXXXXX	A 24 STRAND DOUBLE JACKETED F.O. CABLE	FT							700				\$1.86	\$1,300.00
XXXXXXXX	A F.O. SPLICE CASES	EA							6				\$739.00	\$4,430.00
XXXXXXXX	A 100 PAIR 19 AWG COPPER COMMUNICATIONS CABLE	FT							1200				\$9.50	\$11,400.00
XXXXXXXX	A 100 PAIR 19 AWG COPPER SUBMARINE CABLE	FT							500				\$10.20	\$5,100.00
1114105	A 5/8" MESSENGER CABLE	FT							100				\$2.75	\$280.00
XXXXXXXX	A LASHING WIRE	FT							250				\$0.20	\$50.00
XXXXXXXX	A LASHING WIRE CLAMPS	EA							6				\$3.25	\$20.00
XXXXXXXX	A 4 INCH RGS CONDUIT	FT							150				\$23.40	\$3,510.00
XXXXXXXX	A CONDUIT MOUNTING HARDWARE	FT							20				\$55.00	\$1,100.00
XXXXXXXX	A 3 INCH RGS CONDUIT	FT							450				\$15.35	\$6,910.00
0701203	A DRILLED SHAFT (4.0' DIAMETER)	LF				2371							\$1,000.00	\$2,371,000.00
0701209	A DRILLED SHAFT (7.0' DIAMETER)	LF				1004							\$5,000.00	\$5,020,000.00
0701211	A DRILLED SHAFT (8.0' DIAMETER)	LF				1276							\$5,000.00	\$6,380,000.00
0601201	CLASS "F" CONCRETE	CY				3858							\$700.00	\$2,700,600.00
XXXXXXXX	A CLASS "X" CONCRETE	CY				3885							\$700.00	\$2,719,500.00
XXXXXXXX	A PIER 1 FORMLINER	LS				1							\$124,600.00	\$124,600.00





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Mid Level Fixed Bridge Option

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0506017	A RETAINING WALL	LS				1							\$216,000.00	\$216,000.00
													<b>SUBTOTAL FORT POINT STREET: \$5,570,080.00</b>	
	<b>RUN-AROUND</b>													
0207000	BORROW	CY	2000										\$17.06	\$34,120.00
XXXXXXX	A TRACK REMOVAL	TF		2356									\$40.00	\$94,240.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		2356									\$340.00	\$801,040.00
XXXXXXX	A TRACK SHIFT (OTM)	TF		268									\$18.00	\$4,820.00
XXXXXXX	A CATENARY STRUCTURES (RUN-AROUND)	EA								9			\$6,767.00	\$60,900.00
0090028	A CATENARY POLE FOUNDATION TYPE A	EA								3			\$29,948.00	\$89,840.00
XXXXXXX	A FIXED TENSIONED CATENARY SYSTEM	LF								4000			\$74.50	\$298,000.00
070120X	A DRILLED SHAFT (8.0' DIAMETER)	LF				909							\$5,000.00	\$4,545,000.00
XXXXXXX	A CLASS "X" CONCRETE	CY				1122							\$700.00	\$785,400.00
0602000	DEFORMED STEEL BARS	LBS				259016							\$1.50	\$388,520.00
0603064	A STRUCTURAL STEEL (SITE NO. 4)	LS				1							\$12,611,000.00	\$12,611,000.00
XXXXXXX	A REMOVAL OF RUN-AROUND STRUCTURE	LS				1							\$4,000,000.00	\$4,000,000.00
0603545	A STEEL GRATING	SF				2829							\$50.00	\$141,450.00
0506017	A RETAINING WALL (EAST WALL)	LS				1							\$8,817,400.00	\$8,817,400.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				1108							\$500.00	\$554,000.00
													<b>SUBTOTAL RUN-AROUND: \$33,225,730.00</b>	
													<b>SUBTOTAL INCLUDING FORT POINT STREET AND RUN-AROUND: \$140,844,840.00</b>	
	MINOR ITEMS	15%												\$21,127,000.00
													<b>TOTAL: \$161,972,000.00</b>	
	<b>ESTIMATED BASED ON % OF TOTAL CONTRACT COST</b>													
0201001	A CLEARING AND GRUBBING	2%												\$3,239,000.00
0975004	MOBILIZATON AND PROJECT CLOSEOUT	6%												\$9,718,000.00
0980001	A CONSTRUCTION STAKING	1%												\$1,620,000.00
													<b>SUBTOTAL: \$176,549,000.00</b>	
	DESIGN CONTINGENCY	25%												\$44,137,000.00
	CONSTRUCTION CONTINGENCY	10%												\$17,655,000.00
	INCIDENTAL COST	25%												\$44,137,000.00
	<b>TOTAL PRELIMINARY ESTIMATED COST (W/ RUN-AROUND) (2016)</b>													<b>\$282,478,000.00</b>
	<b>INFLATION AT MIDPOINT OF CONSTRUCTION 2020</b>													
	INFLATION AT 4% (5 YEARS OF INFLATION)													\$61,200,000.00
	<b>TOTAL PRELIMINARY ESTIMATED COST (W/ RUN-AROUND) AT MIDPOINT OF CONSTRUCTION (2020)</b>													<b>\$343,678,000.00</b>



**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
FOR THE CONSTRUCTION OF**

CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14C (NO RUN-AROUND)  
High Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0007012	24" RCP CLASS V	LF	54										\$112.00	\$6,050.00
0063476	A TEMPORARY PLATFORM	LF												\$0.00
0090025	A DEMOLITION	LS				1							\$3,344,000.00	\$3,344,000.00
0090059	A BRIDGE PLATE	EA		64										\$0.00
0096065	A REMOVAL OF CATENARY	LF								11116			\$12.00	\$133,390.00
0096068	A REMOVAL OF CATENARY PORTAL STRUCTURE	EA								17			\$19,000.00	\$323,000.00
0096070	A REMOVAL OF CATENARY STRUCTURE FOUNDATION	EA								19			\$3,558.00	\$67,600.00
00900XX	A REMOVAL OF EXISTING HIGH TOWER	LS									1		\$1,094,500.00	\$1,094,500.00
00900XX	A REMOVAL OF EXISTING RETAINING WALL	LS				1							\$7,640,000.00	\$7,640,000.00
00900XX	A REMOVAL OF EXISTING CONDUCTOR	LS									1		\$652,400.00	\$652,400.00
0202000	EARTH EXCAVATION	CY	2400										\$18.86	\$45,270.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	170										\$4.91	\$830.00
0205001	TRENCH EXCAVATION 0'-4' DEEP	CY	570										\$10.72	\$6,110.00
0205003	TRENCH EXCAVATION 0'-10' DEEP	CY	860										\$14.28	\$12,280.00
0207000	BORROW	CY	10300										\$17.35	\$178,710.00
0219001	SEDIMENTATION CONTROL SYSTEM	LF	6550										\$4.88	\$31,990.00
0305001	PROCESSED AGGREGATE	CY	300										\$62.37	\$18,710.00
0406270	MILLING OF BITUMINOUS CONCRETE (0" TO 6")	SY	1100										\$13.72	\$15,090.00
0406170	HMA S1	TON	40										\$207.77	\$8,310.00
0406171	HMA S0.5	TON	360										\$153.80	\$55,370.00
0503001	A REMOVAL OF SUPERSTRUCTURE	LS				1							\$1,600,000.00	\$1,600,000.00
0503939	A REMOVAL OF EXISTING FENDER SYSTEM	LS				1							\$304,000.00	\$304,000.00
0507002	ABANDON CATCH BASIN	EA.	1										\$1,900.00	\$1,900.00
0507105	CONNECTION TO EXISTING MANHOLE AND/OR CATCH BASIN	EA.	2										\$4,500.00	\$9,000.00
0507201	TYPE "C-L" CATCH BASIN	EA.	3										\$3,212.67	\$9,640.00
0507601	MANHOLE	EA.	2										\$3,757.44	\$7,510.00
0507651	MANHOLE OVER 10' DEEP	EA.	1										\$4,920.83	\$4,920.00
0507771	RESET CATCH BASIN	EA.	1										\$926.01	\$930.00
0507777	REMOVE EXISTING MANHOLE	EA.	1										\$4,072.33	\$4,070.00
0507781	RESET MANHOLE	EA.	10										\$842.09	\$8,420.00
0601070	CLASS "S" CONCRETE	CY	54										\$9,265.85	\$500,360.00
0604526	A BRIDGE ELECTRICAL AND CONTROL SYSTEM	LS						0					\$3,930,000.00	\$0.00
0651631	18" CORR. PERF. HIGH DENSITY POLYETHYLENE PIPE	LF	550										\$48.33	\$26,580.00
0651717	6" DUCTILE IRON PIPE	LF	10										\$140.00	\$1,400.00
0651757	18" POLYVINYL CHLORIDE PIPE	LF	52										\$65.00	\$3,380.00
0651885	12" HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INTERIOR)	LF	4										\$60.00	\$240.00
0703012	MODIFIED RIPRAP	CY	6										\$120.36	\$720.00
0751713	12" UNDERDRAIN	LF	270										\$40.00	\$10,800.00
0822001	TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$43.77	\$15,760.00
0822002	RELOCATED TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$9.93	\$3,570.00
0913041	8' CHAIN LINK FENCE	LF	170										\$48.47	\$8,240.00
0913351	4' CHAIN LINK GATE 8' HIGH	EA.	1										\$1,036.67	\$1,040.00
0913889	12' CHAIN LINK DOUBLE GATE 8' HIGH	EA.	1										\$2,066.67	\$2,070.00
0921001	CONCRETE SIDEWALK	SF	1710										\$12.75	\$21,800.00
0925101	A RELAY BRICK WALK	SF	270										\$38.89	\$10,500.00
0950005	TURF ESTABLISHMENT	SY	9700										\$0.93	\$9,050.00
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER) (ESTIMATED COST)	EST	1										\$204,000.00	\$204,000.00
0970007	A TRAFFICPERSON (UNIFORMED FLAGGER)	HR.	1										TBD	TBD
0974414	A REMOVAL OF PIER 3	LS				1							\$300,000.00	\$300,000.00
0974500	A REMOVAL OF PIER 1	LS				1							\$100,000.00	\$100,000.00



**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14C (NO RUN-AROUND)  
High Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0974501	A REMOVAL OF PIER 2	LS				1							\$300,000.00	\$300,000.00
0974XXX	A REMOVAL OF PIVOT PIER	LS				1							\$1,000,000.00	\$1,000,000.00
0978002	TRAFFIC DRUM	EA.	20										\$80.68	\$1,610.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA.	20										\$133.16	\$2,660.00
1118012	REMOVAL AND/OR RELOCATION OF TRAFFIC SIGNAL EQUIPMENT	LS	1										\$10,000.00	\$10,000.00
1118101	TEMPORARY SIGNALIZATION	LS	1										\$75,000.00	\$75,000.00
1131001	CHANGEABLE MESSAGE SIGN	DAY	120										\$52.36	\$6,280.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.34	\$70.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	24										\$4.49	\$110.00
1220027	CONSTRUCTION SIGNS	SF	360										\$20.53	\$7,390.00
1301020	RELOCATION OF 1" CURB STOP VALVE	EA.	1										\$1,500.00	\$1,500.00
1301303	1" COPPER PIPE (TYPE K)	LF	620										\$35.00	\$21,700.00
1303196	RELOCATE FIRE HYDRANT	EA.	1										\$3,813.27	\$3,810.00
1303222	METER PIT (WATER MAIN)	EA.	1										\$2,000.00	\$2,000.00
1303285	ABANDON WATER METER PIT	EA.	1										\$1,500.00	\$1,500.00
1303399	SERVICE CONNECTION (WATER MAIN)	EA.	1										\$2,500.00	\$2,500.00
1400101	6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER)	LF	600										\$52.05	\$31,230.00
1401237	6" DUCTILE IRON PIPE FORCE MAIN (SANITARY SEWER)	LF	24										\$320.00	\$7,680.00
1401662	SANITARY MANHOLE (4' DIA.) 0' TO 10' DEEP	EA.	2										\$4,000.00	\$8,000.00
1401947	REMOVE EXISTING PIPE (SANITARY SEWER)	LF	20										\$50.00	\$1,000.00
1403012	DROP MANHOLE OVER 10' DEEP (SANITARY SEWER)	EA.	1										\$7,535.60	\$7,540.00
1501234	6" HIGH DENSITY POLYETHYLENE GAS MAIN	LF	35										\$35.00	\$1,230.00
150123X	A 1" PVC GAS MAIN	LF	605										\$30.00	\$18,150.00
1807011	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 400 LB	EA.	2										\$407.26	\$810.00
1807012	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 700 LB	EA.	2										\$413.48	\$830.00
1807013	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 1400 LB	EA.	8										\$405.70	\$3,250.00
1807014	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 2100 LB	EA.	4										\$409.65	\$1,640.00
1807104	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (700 LB)	EA.	2										\$112.98	\$230.00
1807105	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (1400 LB.)	EA.	8										\$111.47	\$890.00
1807106	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (2100 LB)	EA.	4										\$126.41	\$510.00
1807108	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (400 LB)	EA.	2										\$116.06	\$230.00
1807200	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE B	EA.	2										\$14,000.00	\$28,000.00
XXXXXXXX	A OPERATING MACHINERY (2 SPANS)	LS					0						\$6,800,000.00	\$0.00
XXXXXXXX	A SPAN LOCKS (2 SPANS)	LS					0						\$840,000.00	\$0.00



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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14C (NO RUN-AROUND)  
High Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A BALLASTED TRACK REMOVAL	TF		6393									\$40.00	\$255,720.00
XXXXXXX	A OPEN DECK TRACK REMOVAL	TF		2252									\$40.00	\$90,080.00
XXXXXXX	A BALLASTED TRACK RENEWAL (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		4257									\$345.00	\$1,468,670.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		8396									\$340.00	\$2,854,640.00
XXXXXXX	A OPEN DECK TRACK CONSTRUCTION (INCLUDES RAIL, TIES, HARDWARE, OTM)	TF		809									\$280.00	\$226,520.00
XXXXXXX	A MACHINERY ROOM	EA.			0								\$470,720.00	\$0.00
XXXXXXX	A CONTROL HOUSE	EA.			0								\$592,512.00	\$0.00
XXXXXXX	A GENERATOR BUILDING	EA.			0								\$300,000.00	\$0.00
XXXXXXX	A AQUARIUM TEMPORARY STAIR	EA.			1								\$180,095.00	\$180,100.00
XXXXXXX	A IMAX THEATRE EMERGENCY WALKWAY	LS			1								\$278,380.00	\$278,380.00
XXXXXXX	A AQUARIUM FIRE ESCAPE MODIFICATION	LS			1								\$151,125.00	\$151,130.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - EAST SIDE	LF									1000		\$847.49	\$847,490.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - WEST SIDE	LF									400		\$847.49	\$338,990.00
XXXXXXX	A 4" GRS CONDUIT EXPOSED (ON RETAINING WALL OR IN BRIDGE GIRDERS)	LF									19320		\$36.50	\$705,180.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS ON RETAINING WALL FOR 21 CONDUITS	EA									67		\$2,000.00	\$134,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (TEMPORARY)(2 SETS OF 11)	EA									88		\$1,000.00	\$88,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (FINAL)(3 SETS OF 7)	EA									132		\$600.00	\$79,200.00
XXXXXXX	A 16X8' MANHOLE	EA									3		\$15,000.00	\$45,000.00
XXXXXXX	A 6X4' MANHOLE	EA									8		\$8,800.00	\$70,400.00
XXXXXXX	A ARMORED SUBMARINE CABLE #2/0 AWG (S) - 15KV RATED COPPER	LF									2000		\$117.35	\$234,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE #4/0 AWG (F) - 25KV RATED COPPER	LF									2000		\$124.35	\$248,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE 500KCMIL (T, SPT & G) - 25KV RATED COPPER	LF									5000		\$149.35	\$746,740.00
XXXXXXX	A POWER CABLE 25KV #4/0AWG	LF									16600		\$14.00	\$232,400.00
XXXXXXX	A POWER CABLE 15KV #2/0AWG	LF									6640		\$10.00	\$66,400.00
XXXXXXX	A POWER CABLE 25KV #500KCMIL	LF									6640		\$22.00	\$146,080.00
XXXXXXX	A 15/25KV SUB-CABLE SPLICES	EA									36		\$3,055.56	\$110,000.00
XXXXXXX	A 15/25KV POWER CABLE SPLICES	EA									36		\$2,016.67	\$72,600.00
XXXXXXX	A CONSTRUCTION STAGING - TEMPORARY DOWN GUYS AND BRACING	EA										18	\$3,900.00	\$70,200.00
XXXXXXX	A SHIELD WIRE, OPGW - FINAL ALIGNMENT	LF									4104		\$7.00	\$28,730.00
XXXXXXX	A 115KV CONDUCTOR - FINAL ALIGNMENT	LF									24621		\$11.50	\$283,140.00
XXXXXXX	A SHIELD WIRE, 500 KCMIL COPPER - FINAL ALIGNMENT	LF									4103		\$11.50	\$47,180.00
XXXXXXX	A MONOPOLE FOUNDATION	LS									1		\$937,318.00	\$937,320.00
XXXXXXX	A STRUCTURAL STEEL (RISER STRUCTURES)	LBS									100000		\$4.00	\$400,000.00
XXXXXXX	A TAPERED STEEL MONOPOLES 90FT	EA									1		\$35,100.00	\$35,100.00
XXXXXXX	A TAPERED STEEL MONOPOLES 110FT	EA									10		\$36,040.00	\$360,400.00
XXXXXXX	A TAPERED STEEL MONOPOLES 127FT	EA									4		\$37,050.00	\$148,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 130FT	EA									4		\$38,050.00	\$152,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 137FT	EA									4		\$39,050.00	\$156,200.00
XXXXXXX	A 115kv TRANSMISSION TERMINATIONS - FINAL	EA									42		\$1,596.00	\$67,030.00
XXXXXXX	A 115kv TRANSMISSION JUMPERS - FINAL	LF									840		\$52.00	\$43,680.00
XXXXXXX	A 115kv TRANSMISSION SUSPENSION INSULATION - FINAL	EA									96		\$1,596.00	\$153,220.00
XXXXXXX	A OH STATIC WIRE TERMINATION - FINAL	EA									8		\$1,263.00	\$10,100.00
XXXXXXX	A OH STATIC WIRE CLAMPS - FINAL	EA									38		\$1,161.00	\$44,120.00
000081	A 115kv SURGE ARRESTORS	EA									12		\$3,092.00	\$37,100.00
XXXXXXX	A METRO-NORTH RAILROAD TERMINATION	LS									1		\$362,800.00	\$362,800.00
009051	A LOWERING CATENARY	LF								6020			\$27.50	\$165,550.00
009028	A CATENARY POLE FOUNDATION TYPE A	EA								12			\$29,748.00	\$356,980.00
009604	A CATENARY GUY ANCHORS IN SOIL	EA								6			\$24,680.00	\$148,080.00
0096050	A AUTO-TENSIONED CATENARY	LF								8200			\$108.00	\$885,600.00
XXXXXXX	A TEMPORARY CATENARY CONSTRUCTION	LS								1			\$224,900.00	\$224,900.00



**CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
F.A.P. No.: ----  
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PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14C (NO RUN-AROUND)**

**High Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXXX	A MOVEABLE CONDUCTOR RAIL	LS								1			\$1,654,600.00	\$1,654,600.00
XXXXXXXX	A CATENARY STRUCTURES	EA								38			\$35,226.00	\$1,338,590.00
XXXXXXXX	A CONTROL HOUSE HVAC	LS					0						\$40,000.00	\$0.00
XXXXXXXX	A CONTROL HOUSE PLUMBING	LS					0						\$20,000.00	\$0.00
0506017	A RETAINING WALL (EAST WALL)	LS				1							\$60,000,000.00	\$60,000,000.00
XXXXXXXX	A 48"x75"x 24" CASE	EA							1				\$5,320.00	\$5,320.00
XXXXXXXX	A 14"x14"x6" TERMINAL BOX	EA							4				\$52.00	\$210.00
XXXXXXXX	A PN-150B RELAY	EA							16				\$450.00	\$7,200.00
XXXXXXXX	A E & M EQUIPMENT CO PROXIMITY DETECTOR	EA							16				\$2,500.00	\$40,000.00
XXXXXXXX	A 12V DC TO DC CONVERTER	EA							8				\$250.00	\$2,000.00
XXXXXXXX	A 2C #6 CABLE	FT							800				\$1.60	\$1,280.00
XXXXXXXX	A 27C #14 CABLE	FT							800				\$3.20	\$2,560.00
XXXXXXXX	A 19C #14 CABLE	FT							1000				\$2.25	\$2,250.00
XXXXXXXX	A 5C #14 CABLE	FT							800				\$0.60	\$480.00
XXXXXXXX	A 6PR #14	FT							1500				\$1.45	\$2,180.00
XXXXXXXX	A 2" CONDUIT	FT							200				\$6.00	\$1,200.00
XXXXXXXX	A 144 STRAND DIRECT BURIAL F.O. CABLE	FT							2400				\$5.26	\$12,620.00
XXXXXXXX	A 144 STRAND ARMORED DOUBLE JACKETED F.O. CABLE	FT							1000				\$39.00	\$39,000.00
XXXXXXXX	A 24 STRAND DOUBLE JACKETED F.O. CABLE	FT							700				\$1.86	\$1,300.00
XXXXXXXX	A F.O. SPLICE CASES	EA							6				\$739.00	\$4,430.00
XXXXXXXX	A 100 PAIR 19 AWG COPPER COMMUNICATIONS CABLE	FT							1200				\$9.50	\$11,400.00
XXXXXXXX	A 100 PAIR 19 AWG COPPER SUBMARINE CABLE	FT							500				\$10.20	\$5,100.00
1114105	A 5/8" MESSENGER CABLE	FT							100				\$2.75	\$280.00
XXXXXXXX	A LASHING WIRE	FT							250				\$0.20	\$50.00
XXXXXXXX	A LASHING WIRE CLAMPS	EA							6				\$3.25	\$20.00
XXXXXXXX	A 4 INCH RGS CONDUIT	FT							150				\$23.40	\$3,510.00
XXXXXXXX	A CONDUIT MOUNTING HARDWARE	FT							20				\$55.00	\$1,100.00
XXXXXXXX	A 3 INCH RGS CONDUIT	FT							450				\$15.35	\$6,910.00
0701203	A DRILLED SHAFT (4.0' DIAMETER)	LF				0							\$1,000.00	\$0.00
0701209	A DRILLED SHAFT (7.0' DIAMETER)	LF				7028							\$5,000.00	\$35,140,000.00
0701211	A DRILLED SHAFT (8.0' DIAMETER)	LF				8932							\$5,000.00	\$44,660,000.00
0601201	CLASS "F" CONCRETE	CY				0							\$700.00	\$0.00
XXXXXXXX	A CLASS "X" CONCRETE	CY				27195							\$700.00	\$19,036,500.00



**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 14C (NO RUN-AROUND)  
High Level Fixed Bridge Option**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A PIER 1 FORMLINER	LS				7							\$124,600.00	\$872,200.00
XXXXXXX	A PIER 2 FORMLINER	LS				7							\$143,400.00	\$1,003,800.00
0602000	DEFORMED STEEL BARS	LBS				6000190							\$1.50	\$9,000,290.00
0602006	DEFORMED STEEL BARS - EPOXY COATED	LBS				0							\$1.80	\$0.00
0714026	A TEMPORARY SHEET PILING	LBS				4965975							\$2.00	\$9,931,950.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				114982							\$20.00	\$2,299,640.00
0701020	A FENDER SYSTEM	LS				7							\$4,000,000.00	\$28,000,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				7							\$0.00	\$0.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				7							\$0.00	\$0.00
0603446	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 2)	LS				7							\$4,530,234.00	\$31,711,640.00
0603062	A STRUCTURAL STEEL (SITE NO. 2)	LS				7							\$31,711,638.00	\$221,981,470.00
0603063	A STRUCTURAL STEEL (SITE NO. 3)	LS				7							\$0.00	\$0.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				19292							\$500.00	\$9,646,000.00
XXXXXXX	A OPEN BRIDGE DECK	LF				0							\$500.00	\$0.00
0603545	A STEEL GRATING	SF				28938							\$50.00	\$1,446,900.00
XXXXXXX	A TRACK AND TREAD PLATES	LBS				0							\$0.00	\$0.00
XXXXXXX	A COUNTERWEIGHT CONCRETE	CY				0							\$0.00	\$0.00
0603367	A BALANCE BLOCKS	EA				0							\$0.00	\$0.00
XXXXXXX	A MITRE RAILS (WITH SPARE PARTS)	EA				0							\$0.00	\$0.00
0603169	A PROGRESS PHOTOGRAPHS	EA	TBD										TBD	TBD
													<b>SUBTOTAL:</b>	<b>\$511,013,790.00</b>
	<b>MARTIN LUTHER KING, LOWE, OSBORE, EAST AND WATER STREET BRIDGES</b>													
0202000	EARTH EXCAVATION	CY	2870										\$28.44	\$81,620.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	4340										\$3.38	\$14,670.00
0212000	SUBBASE	CY	1960										\$56.03	\$109,820.00
0305001	PROCESSED AGGREGATE	CY	770										\$62.37	\$48,020.00
0406171	HMA S0.5	TON	1120										\$175.51	\$196,570.00
0507771	RESET CATCH BASIN	EA	14										\$926.02	\$12,960.00
0811001	CONCRETE CURBING	LF	1680										\$35.70	\$59,980.00
0921001	CONCRETE SIDEWALK	SF	16520										\$12.25	\$202,370.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA	140										\$133.17	\$18,640.00
1208929	PUBLIC INFORMATION SIGNS	SF	161										\$51.96	\$8,370.00
1210101	4" WHITE EPOXY RESIN PAVEMENT MARKINGS	LF	1400										\$0.33	\$460.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	3220										\$0.93	\$2,990.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	2380										\$4.10	\$9,760.00
1220027	CONSTRUCTION SIGNS	SF	1631										\$22.86	\$37,280.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				16520							\$20.00	\$330,400.00
0714026	A TEMPORARY SHEET PILING	LBS				877800							\$2.00	\$1,755,600.00
XXXXXXX	A STEEL PILE HP 14X89	LF				54656							\$60.00	\$3,279,360.00
060100	CLASS "A" CONCRETE	CY				7364							\$700.00	\$5,154,800.00
0602000	DEFORMED STEEL BARS	LBS				2101400							\$1.50	\$3,152,100.00
0216000	PERVIOUS STRUCTURE BACKFILL	CY				36120							\$35.00	\$1,264,200.00
0503905	REMOVAL OF EXISTING STRUCTURAL STEEL	LS				7							\$50,000.00	\$350,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				7							\$382,500.00	\$2,677,500.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				7							\$1,912,500.00	\$13,387,500.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				1428							\$500.00	\$714,000.00
0603545	A STEEL GRATING	SF				3010							\$50.00	\$150,500.00
0503029	A REMOVAL OF EXISTING CONCRETE SUBSTRUCTURE	CY				7280							\$350.00	\$2,548,000.00





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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (WITH RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0007012	24" RCP CLASS V	LF	54										\$112.00	\$6,050.00
0063476	A TEMPORARY PLATFORM	LF												\$0.00
0090025	A DEMOLITION	LS				1							\$3,344,000.00	\$3,344,000.00
0090059	A BRIDGE PLATE	EA		64										\$0.00
0096065	A REMOVAL OF CATENARY	LF								11116			\$12.00	\$133,390.00
0096068	A REMOVAL OF CATENARY PORTAL STRUCTURE	EA								17			\$19,000.00	\$323,000.00
0096070	A REMOVAL OF CATENARY STRUCTURE FOUNDATION	EA								19			\$3,558.00	\$67,600.00
00900XX	A REMOVAL OF EXISTING HIGH TOWER	LS									1		\$2,500,000.00	\$2,500,000.00
00900XX	A REMOVAL OF EXISTING RETAINING WALL	LS				1							\$7,640,000.00	\$7,640,000.00
00900XX	A REMOVAL OF EXISTING CONDUCTOR	LS									1		\$652,400.00	\$652,400.00
0202000	EARTH EXCAVATION	CY	2400										\$18.86	\$45,270.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	170										\$4.91	\$830.00
0205001	TRENCH EXCAVATION 0'-4' DEEP	CY	570										\$10.72	\$6,110.00
0205003	TRENCH EXCAVATION 0'-10' DEEP	CY	860										\$14.28	\$12,280.00
0207000	BORROW	CY	10300										\$17.35	\$178,710.00
0219001	SEDIMENTATION CONTROL SYSTEM	LF	6550										\$4.88	\$31,990.00
0305001	PROCESSED AGGREGATE	CY	300										\$62.37	\$18,710.00
0406270	MILLING OF BITUMINOUS CONCRETE (0" TO 6")	SY	1100										\$13.72	\$15,090.00
0406170	HMA S1	TON	40										\$207.77	\$8,310.00
0406171	HMA S0.5	TON	360										\$153.80	\$55,370.00
0503001	A REMOVAL OF SUPERSTRUCTURE	LS				1							\$1,600,000.00	\$1,600,000.00
0503939	A REMOVAL OF EXISTING FENDER SYSTEM	LS				1							\$304,000.00	\$304,000.00
0507002	ABANDON CATCH BASIN	EA.	1										\$1,900.00	\$1,900.00
0507105	CONNECTION TO EXISTING MANHOLE AND/OR CATCH BASIN	EA.	2										\$4,500.00	\$9,000.00
0507201	TYPE "C-L" CATCH BASIN	EA.	3										\$3,212.67	\$9,640.00
0507601	MANHOLE	EA.	2										\$3,757.44	\$7,510.00
0507651	MANHOLE OVER 10' DEEP	EA.	1										\$4,920.83	\$4,920.00
0507771	RESET CATCH BASIN	EA.	1										\$926.01	\$930.00
0507777	REMOVE EXISTING MANHOLE	EA.	1										\$4,072.33	\$4,070.00
0507781	RESET MANHOLE	EA.	10										\$842.09	\$8,420.00
0601070	CLASS "S" CONCRETE	CY	54										\$9,265.85	\$500,360.00
0604526	A BRIDGE ELECTRICAL AND CONTROL SYSTEM	LS						1					\$3,930,000.00	\$3,930,000.00
0651631	18" CORR. PERF. HIGH DENSITY POLYETHYLENE PIPE	LF	550										\$48.33	\$26,580.00
0651717	6" DUCTILE IRON PIPE	LF	10										\$140.00	\$1,400.00
0651757	18" POLYVINYL CHLORIDE PIPE	LF	52										\$65.00	\$3,380.00
0651885	12" HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INTERIOR)	LF	4										\$60.00	\$240.00
0703012	MODIFIED RIPRAP	CY	6										\$120.36	\$720.00
0751713	12" UNDERDRAIN	LF	270										\$40.00	\$10,800.00
0822001	TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$43.77	\$15,760.00
0822002	RELOCATED TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$9.93	\$3,570.00
0913041	8' CHAIN LINK FENCE	LF	170										\$48.47	\$8,240.00
0913351	4' CHAIN LINK GATE 8' HIGH	EA.	1										\$1,036.67	\$1,040.00
0913889	12' CHAIN LINK DOUBLE GATE 8' HIGH	EA.	1										\$2,066.67	\$2,070.00
0921001	CONCRETE SIDEWALK	SF	1710										\$12.75	\$21,800.00
0925101	A RELAY BRICK WALK	SF	270										\$38.89	\$10,500.00
0950005	TURF ESTABLISHMENT	SY	9700										\$0.93	\$9,050.00
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER) (ESTIMATED COST)	EST	1										\$204,000.00	\$204,000.00
0970007	A TRAFFICPERSON (UNIFORMED FLAGGER)	HR.	1										TBD	TBD
0974414	A REMOVAL OF PIER 3	LS				1							\$300,000.00	\$300,000.00
0974500	A REMOVAL OF PIER 1	LS				1							\$100,000.00	\$100,000.00



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CITY OF: Norwalk  
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TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (WITH RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0974501	A REMOVAL OF PIER 2	LS				1							\$300,000.00	\$300,000.00
0974XXX	A REMOVAL OF PIVOT PIER	LS				1							\$1,000,000.00	\$1,000,000.00
0978002	TRAFFIC DRUM	EA.	20										\$80.68	\$1,610.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA.	20										\$133.16	\$2,660.00
1118012	REMOVAL AND/OR RELOCATION OF TRAFFIC SIGNAL EQUIPMENT	LS	1										\$10,000.00	\$10,000.00
1118101	TEMPORARY SIGNALIZATION	LS	1										\$75,000.00	\$75,000.00
1131001	CHANGEABLE MESSAGE SIGN	DAY	120										\$52.36	\$6,280.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.34	\$70.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	24										\$4.49	\$110.00
1220027	CONSTRUCTION SIGNS	SF	360										\$20.53	\$7,390.00
1301020	RELOCATION OF 1" CURB STOP VALVE	EA.	1										\$1,500.00	\$1,500.00
1301303	1" COPPER PIPE (TYPE K)	LF	620										\$35.00	\$21,700.00
1303196	RELOCATE FIRE HYDRANT	EA.	1										\$3,813.27	\$3,810.00
1303222	METER PIT (WATER MAIN)	EA.	1										\$2,000.00	\$2,000.00
1303285	ABANDON WATER METER PIT	EA.	1										\$1,500.00	\$1,500.00
1303399	SERVICE CONNECTION (WATER MAIN)	EA.	1										\$2,500.00	\$2,500.00
1400101	6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER)	LF	600										\$52.05	\$31,230.00
1401237	6" DUCTILE IRON PIPE FORCE MAIN (SANITARY SEWER)	LF	24										\$320.00	\$7,680.00
1401662	SANITARY MANHOLE (4' DIA.) 0' TO 10' DEEP	EA.	2										\$4,000.00	\$8,000.00
1401947	REMOVE EXISTING PIPE (SANITARY SEWER)	LF	20										\$50.00	\$1,000.00
1403012	DROP MANHOLE OVER 10' DEEP (SANITARY SEWER)	EA.	1										\$7,535.60	\$7,540.00
1501234	6" HIGH DENSITY POLYETHYLENE GAS MAIN	LF	35										\$35.00	\$1,230.00
150123X	A 1" PVC GAS MAIN	LF	605										\$30.00	\$18,150.00
1807011	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 400 LB	EA.	2										\$407.26	\$810.00
1807012	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 700 LB	EA.	2										\$413.48	\$830.00
1807013	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 1400 LB	EA.	8										\$405.70	\$3,250.00
1807014	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 2100 LB	EA.	4										\$409.65	\$1,640.00
1807104	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (700 LB)	EA.	2										\$112.98	\$230.00
1807105	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (1400 LB.)	EA.	8										\$111.47	\$890.00
1807106	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (2100 LB)	EA.	4										\$126.41	\$510.00
1807108	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (400 LB)	EA.	2										\$116.06	\$230.00
1807200	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE B	EA.	2										\$14,000.00	\$28,000.00
XXXXXXX	A OPERATING MACHINERY (2 SPANS)	LS					1						\$6,800,000.00	\$6,800,000.00
XXXXXXX	A SPAN LOCKS (2 SPANS)	LS					1						\$840,000.00	\$840,000.00



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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (WITH RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A BALLASTED TRACK REMOVAL	TF		6393									\$40.00	\$255,720.00
XXXXXXX	A OPEN DECK TRACK REMOVAL	TF		2252									\$40.00	\$90,080.00
XXXXXXX	A BALLASTED TRACK RENEWAL (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		4257									\$345.00	\$1,468,670.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		8396									\$340.00	\$2,854,640.00
XXXXXXX	A OPEN DECK TRACK CONSTRUCTION (INCLUDES RAIL, TIES, HARDWARE, OTM)	TF		809									\$280.00	\$226,520.00
XXXXXXX	A MACHINERY ROOM	EA.			2								\$470,720.00	\$941,440.00
XXXXXXX	A CONTROL HOUSE	EA.			1								\$592,512.00	\$592,510.00
XXXXXXX	A GENERATOR BUILDING	EA.			1								\$300,000.00	\$300,000.00
XXXXXXX	A AQUARIUM TEMPORARY STAIR	EA.			1								\$180,095.00	\$180,100.00
XXXXXXX	A IMAX THEATRE EMERGENCY WALKWAY	LS			1								\$278,380.00	\$278,380.00
XXXXXXX	A AQUARIUM FIRE ESCAPE MODIFICATION	LS			1								\$151,125.00	\$151,130.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - EAST SIDE	LF									1000		\$847.49	\$847,490.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - WEST SIDE	LF									400		\$847.49	\$338,990.00
XXXXXXX	A 4" GRS CONDUIT EXPOSED (ON RETAINING WALL OR IN BRIDGE GIRDERS)	LF									19320		\$36.50	\$705,180.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS ON RETAINING WALL FOR 21 CONDUITS	EA									67		\$2,000.00	\$134,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (TEMPORARY)(2 SETS OF 11)	EA									88		\$1,000.00	\$88,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (FINAL)(3 SETS OF 7)	EA									132		\$600.00	\$79,200.00
XXXXXXX	A 16X8' MANHOLE	EA									3		\$15,000.00	\$45,000.00
XXXXXXX	A 6X4' MANHOLE	EA									8		\$8,800.00	\$70,400.00
XXXXXXX	A ARMORED SUBMARINE CABLE #2/0 AWG (S) - 15KV RATED COPPER	LF									2000		\$117.35	\$234,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE #4/0 AWG (F) - 25KV RATED COPPER	LF									2000		\$124.35	\$248,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE 500KCMIL (T, SPT & G) - 25KV RATED COPPER	LF									5000		\$149.35	\$746,740.00
XXXXXXX	A POWER CABLE 25KV #4/0AWG	LF									16600		\$14.00	\$232,400.00
XXXXXXX	A POWER CABLE 15KV #2/0AWG	LF									6640		\$10.00	\$66,400.00
XXXXXXX	A POWER CABLE 25KV #500KCMIL	LF									6640		\$22.00	\$146,080.00
XXXXXXX	A 15/25KV SUB-CABLE SPLICES	EA									36		\$3,055.56	\$110,000.00
XXXXXXX	A 15/25KV POWER CABLE SPLICES	EA									36		\$2,016.67	\$72,600.00
XXXXXXX	A CONSTRUCTION STAGING - TEMPORARY DOWN GUYS AND BRACING	EA										18	\$3,900.00	\$70,200.00
XXXXXXX	A SHIELD WIRE, OPGW - FINAL ALIGNMENT	LF									4104		\$7.00	\$28,730.00
XXXXXXX	A 115kV CONDUCTOR - FINAL ALIGNMENT	LF									24621		\$11.50	\$283,140.00
XXXXXXX	A SHIELD WIRE, 500 KCMIL COPPER - FINAL ALIGNMENT	LF									4103		\$11.50	\$47,180.00
XXXXXXX	A MONOPOLE FOUNDATION	LS									1		\$937,318.00	\$937,320.00
XXXXXXX	A STRUCTURAL STEEL (RISER STRUCTURES)	LBS									100000		\$4.00	\$400,000.00
XXXXXXX	A TAPERED STEEL MONOPOLES 90FT	EA									1		\$35,100.00	\$35,100.00
XXXXXXX	A TAPERED STEEL MONOPOLES 110FT	EA									10		\$36,040.00	\$360,400.00
XXXXXXX	A TAPERED STEEL MONOPOLES 127FT	EA									4		\$37,050.00	\$148,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 130FT	EA									4		\$38,050.00	\$152,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 137FT	EA									4		\$39,050.00	\$156,200.00
XXXXXXX	A 115kV TRANSMISSION TERMINATIONS - FINAL	EA									42		\$1,596.00	\$67,030.00
XXXXXXX	A 115kV TRANSMISSION JUMPERS - FINAL	LF									840		\$52.00	\$43,680.00
XXXXXXX	A 115kV TRANSMISSION SUSPENSION INSULATION - FINAL	EA									96		\$1,596.00	\$153,220.00
XXXXXXX	A OH STATIC WIRE TERMINATION - FINAL	EA									8		\$1,263.00	\$10,100.00
XXXXXXX	A OH STATIC WIRE CLAMPS - FINAL	EA									38		\$1,161.00	\$44,120.00
000081	A 115kV SURGE ARRESTORS	EA									12		\$3,092.00	\$37,100.00
XXXXXXX	A METRO-NORTH RAILROAD TERMINATION	LS									1		\$362,800.00	\$362,800.00
009051	A LOWERING CATENARY	LF								6020			\$27.50	\$165,550.00
009028	A CATENARY POLE FOUNDATION TYPE A	EA								12			\$29,748.00	\$356,980.00
009604	A CATENARY GUY ANCHORS IN SOIL	EA								6			\$24,680.00	\$148,080.00
0096050	A AUTO-TENSIONED CATENARY	LF								8200			\$108.00	\$885,600.00
XXXXXXX	A TEMPORARY CATENARY CONSTRUCTION	LS								1			\$224,900.00	\$224,900.00



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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (WITH RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A MOVEABLE CONDUCTOR RAIL	LS								1			\$1,654,600.00	\$1,654,600.00
XXXXXXX	A CATENARY STRUCTURES	EA								38			\$35,226.00	\$1,338,590.00
XXXXXXX	A CONTROL HOUSE HVAC	LS					1						\$40,000.00	\$40,000.00
XXXXXXX	A CONTROL HOUSE PLUMBING	LS					1						\$20,000.00	\$20,000.00
XXXXXXX	A 48"x75"x 24" CASE	EA							1				\$5,320.00	\$5,320.00
XXXXXXX	A 14"x14"x6" TERMINAL BOX	EA							4				\$52.00	\$210.00
XXXXXXX	A PN-150B RELAY	EA							16				\$450.00	\$7,200.00
XXXXXXX	A E & M EQUIPMENT CO PROXIMITY DETECTOR	EA							16				\$2,500.00	\$40,000.00
XXXXXXX	A 12V DC TO DC CONVERTER	EA							8				\$250.00	\$2,000.00
XXXXXXX	A 2C #6 CABLE	FT							800				\$1.60	\$1,280.00
XXXXXXX	A 27C #14 CABLE	FT							800				\$3.20	\$2,560.00
XXXXXXX	A 19C #14 CABLE	FT							1000				\$2.25	\$2,250.00
XXXXXXX	A 5C #14 CABLE	FT							800				\$0.60	\$480.00
XXXXXXX	A 6PR #14	FT							1500				\$1.45	\$2,180.00
XXXXXXX	A 2" CONDUIT	FT							200				\$6.00	\$1,200.00
XXXXXXX	A 144 STRAND DIRECT BURIAL F.O. CABLE	FT							2400				\$5.26	\$12,620.00
XXXXXXX	A 144 STRAND ARMORED DOUBLE JACKETED F.O. CABLE	FT							1000				\$39.00	\$39,000.00
XXXXXXX	A 24 STRAND DOUBLE JACKETED F.O. CABLE	FT							700				\$1.86	\$1,300.00
XXXXXXX	A F.O. SPLICE CASES	EA							6				\$739.00	\$4,430.00
XXXXXXX	A 100 PAIR 19 AWG COPPER COMMUNICATIONS CABLE	FT							1200				\$9.50	\$11,400.00
XXXXXXX	A 100 PAIR 19 AWG COPPER SUBMARINE CABLE	FT							500				\$10.20	\$5,100.00
1114105	A 5/8" MESSENGER CABLE	FT							100				\$2.75	\$280.00
XXXXXXX	A LASHING WIRE	FT							250				\$0.20	\$50.00
XXXXXXX	A LASHING WIRE CLAMPS	EA							6				\$3.25	\$20.00
XXXXXXX	A 4 INCH RGS CONDUIT	FT							150				\$23.40	\$3,510.00
XXXXXXX	A CONDUIT MOUNTING HARDWARE	FT							20				\$55.00	\$1,100.00
XXXXXXX	A 3 INCH RGS CONDUIT	FT							450				\$15.35	\$6,910.00
0701203	A DRILLED SHAFT (4.0' DIAMETER)	LF				2371							\$1,000.00	\$2,371,000.00
0701209	A DRILLED SHAFT (7.0' DIAMETER)	LF				974							\$5,000.00	\$4,870,000.00
0701211	A DRILLED SHAFT (8.0' DIAMETER)	LF				1752							\$5,000.00	\$8,760,000.00
0601201	CLASS "F" CONCRETE	CY				3360							\$700.00	\$2,352,000.00
XXXXXXX	A CLASS "X" CONCRETE	CY				5952							\$700.00	\$4,166,400.00
XXXXXXX	A PIER 1 FORMLINER	LS				1							\$110,900.00	\$110,900.00



**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (WITH RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A PIER 2 FORMLINER	LS				1							\$130,300.00	\$130,300.00
0602000	DEFORMED STEEL BARS	LBS				2163820							\$1.50	\$3,245,730.00
0602006	DEFORMED STEEL BARS - EPOXY COATED	LBS				308763							\$1.80	\$555,770.00
0714026	A TEMPORARY SHEET PILING	LBS				708750							\$2.00	\$1,417,500.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				21244							\$20.00	\$424,880.00
0701020	A FENDER SYSTEM	LS				1							\$4,000,000.00	\$4,000,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$2,623,704.00	\$2,623,700.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$18,365,928.00	\$18,365,930.00
0603446	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$1,552,237.00	\$1,552,240.00
0603062	A STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$10,865,659.00	\$10,865,660.00
0603063	A STRUCTURAL STEEL (SITE NO. 3)	LS				1							\$2,061,403.00	\$2,061,400.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				1892							\$500.00	\$946,000.00
XXXXXXX	A OPEN BRIDGE DECK	LF				1200							\$250.00	\$300,000.00
0603545	A STEEL GRATING	SF				9164							\$50.00	\$458,200.00
XXXXXXX	A TRACK AND TREAD PLATES	LBS				565950							\$8.00	\$4,527,600.00
XXXXXXX	A COUNTERWEIGHT CONCRETE	CY				1018							\$800.00	\$814,400.00
0603367	A BALANCE BLOCKS	EA				5600							\$200.00	\$1,120,000.00
XXXXXXX	A MITRE RAILS (WITH SPARE PARTS)	EA				8							\$150,000.00	\$1,200,000.00
0603169	A PROGRESS PHOTOGRAPHS	EA	TBD										TBD	TBD
													<b>SUBTOTAL:</b>	<b>\$128,392,460.00</b>
	<b>FORT POINT STREET</b>													
0202000	EARTH EXCAVATION	CY	410										\$28.44	\$11,660.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	620										\$3.38	\$2,100.00
0212000	SUBBASE	CY	280										\$56.03	\$15,690.00
0305001	PROCESSED AGGREGATE	CY	110										\$62.37	\$6,860.00
0406171	HMA S0.5	TON	160										\$175.51	\$28,080.00
0507771	RESET CATCH BASIN	EA	2										\$926.02	\$1,850.00
0811001	CONCRETE CURBING	LF	240										\$35.70	\$8,570.00
0921001	CONCRETE SIDEWALK	SF	2360										\$12.25	\$28,910.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA	20										\$133.17	\$2,660.00
1208929	PUBLIC INFORMATION SIGNS	SF	23										\$51.96	\$1,200.00
1210101	4" WHITE EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.33	\$70.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	460										\$0.93	\$430.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	340										\$4.10	\$1,390.00
1220027	CONSTRUCTION SIGNS	SF	233										\$22.86	\$5,330.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				2360							\$20.00	\$47,200.00
0714026	A TEMPORARY SHEET PILING	LBS				125400							\$2.00	\$250,800.00
XXXXXXX	A STEEL PILE HP 14X89	LF				7808							\$60.00	\$468,480.00
060100	CLASS "A" CONCRETE	CY				1052							\$70.00	\$736,400.00
0602000	DEFORMED STEEL BARS	LBS				300200							\$1.50	\$450,300.00
0216000	PERVIOUS STRUCTURE BACKFILL	CY				5160							\$35.00	\$180,600.00
0503905	REMOVAL OF EXISTING STRUCTURAL STEEL	LS				1							\$50,000.00	\$50,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$382,500.00	\$382,500.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$1,912,500.00	\$1,912,500.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				204							\$500.00	\$102,000.00
0603545	A STEEL GRATING	SF				430							\$50.00	\$21,500.00
0503029	A REMOVAL OF EXISTING CONCRETE SUBSTRUCTURE	CY				1040							\$350.00	\$364,000.00
0974005	A REMOVAL OF EXISTING RETAINING WALL	CY				780							\$350.00	\$273,000.00





CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT**  
**BRIDGE NO. 04288R/MP 41.5**

Option 4S (NO RUN-AROUND)

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0007012	24" RCP CLASS V	LF	54										\$112.00	\$6,050.00
0063476	A TEMPORARY PLATFORM	LF												\$0.00
0090025	A DEMOLITION	LS				1							\$3,344,000.00	\$3,344,000.00
0090059	A BRIDGE PLATE	EA		64										\$0.00
0096065	A REMOVAL OF CATENARY	LF								11116			\$12.00	\$133,390.00
0096068	A REMOVAL OF CATENARY PORTAL STRUCTURE	EA								17			\$19,000.00	\$323,000.00
0096070	A REMOVAL OF CATENARY STRUCTURE FOUNDATION	EA								19			\$3,558.00	\$67,600.00
00900XX	A REMOVAL OF EXISTING HIGH TOWER	LS									1		\$2,500,000.00	\$2,500,000.00
00900XX	A REMOVAL OF EXISTING RETAINING WALL	LS				1							\$7,640,000.00	\$7,640,000.00
00900XX	A REMOVAL OF EXISTING CONDUCTOR	LS									1		\$652,400.00	\$652,400.00
0202000	EARTH EXCAVATION	CY	2400										\$18.86	\$45,270.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	170										\$4.91	\$830.00
0205001	TRENCH EXCAVATION 0'-4' DEEP	CY	570										\$10.72	\$6,110.00
0205003	TRENCH EXCAVATION 0'-10' DEEP	CY	860										\$14.28	\$12,280.00
0207000	BORROW	CY	10300										\$17.35	\$178,710.00
0219001	SEDIMENTATION CONTROL SYSTEM	LF	6550										\$4.88	\$31,990.00
0305001	PROCESSED AGGREGATE	CY	300										\$62.37	\$18,710.00
0406270	MILLING OF BITUMINOUS CONCRETE (0" TO 6")	SY	1100										\$13.72	\$15,090.00
0406170	HMA S1	TON	40										\$207.77	\$8,310.00
0406171	HMA S0.5	TON	360										\$153.80	\$55,370.00
0503001	A REMOVAL OF SUPERSTRUCTURE	LS				1							\$1,600,000.00	\$1,600,000.00
0503939	A REMOVAL OF EXISTING FENDER SYSTEM	LS				1							\$304,000.00	\$304,000.00
0507002	ABANDON CATCH BASIN	EA.	1										\$1,900.00	\$1,900.00
0507105	CONNECTION TO EXISTING MANHOLE AND/OR CATCH BASIN	EA.	2										\$4,500.00	\$9,000.00
0507201	TYPE "C-L" CATCH BASIN	EA.	3										\$3,212.67	\$9,640.00
0507601	MANHOLE	EA.	2										\$3,757.44	\$7,510.00
0507651	MANHOLE OVER 10' DEEP	EA.	1										\$4,920.83	\$4,920.00
0507771	RESET CATCH BASIN	EA.	1										\$926.01	\$930.00
0507777	REMOVE EXISTING MANHOLE	EA.	1										\$4,072.33	\$4,070.00
0507781	RESET MANHOLE	EA.	10										\$842.09	\$8,420.00
0601070	CLASS "S" CONCRETE	CY	54										\$9,265.85	\$500,360.00
0604526	A BRIDGE ELECTRICAL AND CONTROL SYSTEM	LS						1					\$3,930,000.00	\$3,930,000.00
0651631	18" CORR. PERF. HIGH DENSITY POLYETHYLENE PIPE	LF	550										\$48.33	\$26,580.00
0651717	6" DUCTILE IRON PIPE	LF	10										\$140.00	\$1,400.00
0651757	18" POLYVINYL CHLORIDE PIPE	LF	52										\$65.00	\$3,380.00
0651885	12" HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INTERIOR)	LF	4										\$60.00	\$240.00
0703012	MODIFIED RIPRAP	CY	6										\$120.36	\$720.00
0751713	12" UNDERDRAIN	LF	270										\$40.00	\$10,800.00
0822001	TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$43.77	\$15,760.00
0822002	RELOCATED TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$9.93	\$3,570.00
0913041	8' CHAIN LINK FENCE	LF	170										\$48.47	\$8,240.00
0913351	4' CHAIN LINK GATE 8' HIGH	EA.	1										\$1,036.67	\$1,040.00
0913889	12' CHAIN LINK DOUBLE GATE 8' HIGH	EA.	1										\$2,066.67	\$2,070.00
0921001	CONCRETE SIDEWALK	SF	1710										\$12.75	\$21,800.00
0925101	A RELAY BRICK WALK	SF	270										\$38.89	\$10,500.00
0950005	TURF ESTABLISHMENT	SY	9700										\$0.93	\$9,050.00
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER) (ESTIMATED COST)	EST	1										\$204,000.00	\$204,000.00
0970007	A TRAFFICPERSON (UNIFORMED FLAGGER)	HR.	1										TBD	TBD
0974414	A REMOVAL OF PIER 3	LS				1							\$300,000.00	\$300,000.00
0974500	A REMOVAL OF PIER 1	LS				1							\$100,000.00	\$100,000.00



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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (NO RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0974501	A REMOVAL OF PIER 2	LS				1							\$300,000.00	\$300,000.00
0974XXX	A REMOVAL OF PIVOT PIER	LS				1							\$1,000,000.00	\$1,000,000.00
0978002	TRAFFIC DRUM	EA.	20										\$80.68	\$1,610.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA.	20										\$133.16	\$2,660.00
1118012	REMOVAL AND/OR RELOCATION OF TRAFFIC SIGNAL EQUIPMENT	LS	1										\$10,000.00	\$10,000.00
1118101	TEMPORARY SIGNALIZATION	LS	1										\$75,000.00	\$75,000.00
1131001	CHANGEABLE MESSAGE SIGN	DAY	120										\$52.36	\$6,280.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.34	\$70.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	24										\$4.49	\$110.00
1220027	CONSTRUCTION SIGNS	SF	360										\$20.53	\$7,390.00
1301020	RELOCATION OF 1" CURB STOP VALVE	EA.	1										\$1,500.00	\$1,500.00
1301303	1" COPPER PIPE (TYPE K)	LF	620										\$35.00	\$21,700.00
1303196	RELOCATE FIRE HYDRANT	EA.	1										\$3,813.27	\$3,810.00
1303222	METER PIT (WATER MAIN)	EA.	1										\$2,000.00	\$2,000.00
1303285	ABANDON WATER METER PIT	EA.	1										\$1,500.00	\$1,500.00
1303399	SERVICE CONNECTION (WATER MAIN)	EA.	1										\$2,500.00	\$2,500.00
1400101	6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER)	LF	600										\$52.05	\$31,230.00
1401237	6" DUCTILE IRON PIPE FORCE MAIN (SANITARY SEWER)	LF	24										\$320.00	\$7,680.00
1401662	SANITARY MANHOLE (4' DIA.) 0' TO 10' DEEP	EA.	2										\$4,000.00	\$8,000.00
1401947	REMOVE EXISTING PIPE (SANITARY SEWER)	LF	20										\$50.00	\$1,000.00
1403012	DROP MANHOLE OVER 10' DEEP (SANITARY SEWER)	EA.	1										\$7,535.60	\$7,540.00
1501234	6" HIGH DENSITY POLYETHYLENE GAS MAIN	LF	35										\$35.00	\$1,230.00
150123X	A 1" PVC GAS MAIN	LF	605										\$30.00	\$18,150.00
1807011	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 400 LB	EA.	2										\$407.26	\$810.00
1807012	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 700 LB	EA.	2										\$413.48	\$830.00
1807013	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 1400 LB	EA.	8										\$405.70	\$3,250.00
1807014	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 2100 LB	EA.	4										\$409.65	\$1,640.00
1807104	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (700 LB)	EA.	2										\$112.98	\$230.00
1807105	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (1400 LB.)	EA.	8										\$111.47	\$890.00
1807106	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (2100 LB)	EA.	4										\$126.41	\$510.00
1807108	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (400 LB)	EA.	2										\$116.06	\$230.00
1807200	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE B	EA.	2										\$14,000.00	\$28,000.00
XXXXXXX	A OPERATING MACHINERY (2 SPANS)	LS					1						\$6,800,000.00	\$6,800,000.00
XXXXXXX	A SPAN LOCKS (2 SPANS)	LS					1						\$840,000.00	\$840,000.00



**CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
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PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (NO RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A BALLASTED TRACK REMOVAL	TF		6393									\$40.00	\$255,720.00
XXXXXXX	A OPEN DECK TRACK REMOVAL	TF		2252									\$40.00	\$90,080.00
XXXXXXX	A BALLASTED TRACK RENEWAL (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		4257									\$345.00	\$1,468,670.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		8396									\$340.00	\$2,854,640.00
XXXXXXX	A OPEN DECK TRACK CONSTRUCTION (INCLUDES RAIL, TIES, HARDWARE, OTM)	TF		809									\$280.00	\$226,520.00
XXXXXXX	A MACHINERY ROOM	EA.			2								\$470,720.00	\$941,440.00
XXXXXXX	A CONTROL HOUSE	EA.			1								\$592,512.00	\$592,510.00
XXXXXXX	A GENERATOR BUILDING	EA.			1								\$300,000.00	\$300,000.00
XXXXXXX	A AQUARIUM TEMPORARY STAIR	EA.			1								\$180,095.00	\$180,100.00
XXXXXXX	A IMAX THEATRE EMERGENCY WALKWAY	LS			1								\$278,380.00	\$278,380.00
XXXXXXX	A AQUARIUM FIRE ESCAPE MODIFICATION	LS			1								\$151,125.00	\$151,130.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - EAST SIDE	LF									1000		\$847.49	\$847,490.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - WEST SIDE	LF									400		\$847.49	\$338,990.00
XXXXXXX	A 4" GRS CONDUIT EXPOSED (ON RETAINING WALL OR IN BRIDGE GIRDERS)	LF									19320		\$36.50	\$705,180.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS ON RETAINING WALL FOR 21 CONDUITS	EA									67		\$2,000.00	\$134,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (TEMPORARY)(2 SETS OF 11)	EA									88		\$1,000.00	\$88,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (FINAL)(3 SETS OF 7)	EA									132		\$600.00	\$79,200.00
XXXXXXX	A 16X8' MANHOLE	EA									3		\$15,000.00	\$45,000.00
XXXXXXX	A 6X4' MANHOLE	EA									8		\$8,800.00	\$70,400.00
XXXXXXX	A ARMORED SUBMARINE CABLE #2/0 AWG (S) - 15KV RATED COPPER	LF									2000		\$117.35	\$234,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE #4/0 AWG (F) - 25KV RATED COPPER	LF									2000		\$124.35	\$248,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE 500KCMIL (T, SPT & G) - 25KV RATED COPPER	LF									5000		\$149.35	\$746,740.00
XXXXXXX	A POWER CABLE 25KV #4/0AWG	LF									16600		\$14.00	\$232,400.00
XXXXXXX	A POWER CABLE 15KV #2/0AWG	LF									6640		\$10.00	\$66,400.00
XXXXXXX	A POWER CABLE 25KV #500KCMIL	LF									6640		\$22.00	\$146,080.00
XXXXXXX	A 15/25KV SUB-CABLE SPLICES	EA									36		\$3,055.56	\$110,000.00
XXXXXXX	A 15/25KV POWER CABLE SPLICES	EA									36		\$2,016.67	\$72,600.00
XXXXXXX	A CONSTRUCTION STAGING - TEMPORARY DOWN GUYS AND BRACING	EA										18	\$3,900.00	\$70,200.00
XXXXXXX	A SHIELD WIRE, OPGW - FINAL ALIGNMENT	LF									4104		\$7.00	\$28,730.00
XXXXXXX	A 115KV CONDUCTOR - FINAL ALIGNMENT	LF									24621		\$11.50	\$283,140.00
XXXXXXX	A SHIELD WIRE, 500 KCMIL COPPER - FINAL ALIGNMENT	LF									4103		\$11.50	\$47,180.00
XXXXXXX	A MONOPOLE FOUNDATION	LS									1		\$937,318.00	\$937,320.00
XXXXXXX	A STRUCTURAL STEEL (RISER STRUCTURES)	LBS									100000		\$4.00	\$400,000.00
XXXXXXX	A TAPERED STEEL MONOPOLES 90FT	EA									1		\$35,100.00	\$35,100.00
XXXXXXX	A TAPERED STEEL MONOPOLES 110FT	EA									10		\$36,040.00	\$360,400.00
XXXXXXX	A TAPERED STEEL MONOPOLES 127FT	EA									4		\$37,050.00	\$148,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 130FT	EA									4		\$38,050.00	\$152,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 137FT	EA									4		\$39,050.00	\$156,200.00
XXXXXXX	A 115kv TRANSMISSION TERMINATIONS - FINAL	EA									42		\$1,596.00	\$67,030.00
XXXXXXX	A 115kv TRANSMISSION JUMPERS - FINAL	LF									840		\$52.00	\$43,680.00
XXXXXXX	A 115kv TRANSMISSION SUSPENSION INSULATION - FINAL	EA									96		\$1,596.00	\$153,220.00
XXXXXXX	A OH STATIC WIRE TERMINATION - FINAL	EA									8		\$1,263.00	\$10,100.00
XXXXXXX	A OH STATIC WIRE CLAMPS - FINAL	EA									38		\$1,161.00	\$44,120.00
000081	A 115kv SURGE ARRESTORS	EA									12		\$3,092.00	\$37,100.00
XXXXXXX	A METRO-NORTH RAILROAD TERMINATION	LS									1		\$362,800.00	\$362,800.00
009051	A LOWERING CATENARY	LF								6020			\$27.50	\$165,550.00
009028	A CATENARY POLE FOUNDATION TYPE A	EA								12			\$29,748.00	\$356,980.00
009604	A CATENARY GUY ANCHORS IN SOIL	EA								6			\$24,680.00	\$148,080.00
0096050	A AUTO-TENSIONED CATENARY	LF								8200			\$108.00	\$885,600.00
XXXXXXX	A TEMPORARY CATENARY CONSTRUCTION	LS								1			\$224,900.00	\$224,900.00



**CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (NO RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXXX	A MOVEABLE CONDUCTOR RAIL	LS								1			\$1,654,600.00	\$1,654,600.00
XXXXXXXX	A CATENARY STRUCTURES	EA								38			\$35,226.00	\$1,338,590.00
XXXXXXXX	A CONTROL HOUSE HVAC	LS					1						\$40,000.00	\$40,000.00
XXXXXXXX	A CONTROL HOUSE PLUMBING	LS					1						\$20,000.00	\$20,000.00
0506017	A RETAINING WALL (EAST WALL)	LS				1							\$8,550,000.00	\$8,550,000.00
XXXXXXXX	A 48"x75"x 24" CASE	EA							1				\$5,320.00	\$5,320.00
XXXXXXXX	A 14"x14"x6" TERMINAL BOX	EA							4				\$52.00	\$210.00
XXXXXXXX	A PN-150B RELAY	EA							16				\$450.00	\$7,200.00
XXXXXXXX	A E & M EQUIPMENT CO PROXIMITY DETECTOR	EA							16				\$2,500.00	\$40,000.00
XXXXXXXX	A 12V DC TO DC CONVERTER	EA							8				\$250.00	\$2,000.00
XXXXXXXX	A 2C #6 CABLE	FT							800				\$1.60	\$1,280.00
XXXXXXXX	A 27C #14 CABLE	FT							800				\$3.20	\$2,560.00
XXXXXXXX	A 19C #14 CABLE	FT							1000				\$2.25	\$2,250.00
XXXXXXXX	A 5C #14 CABLE	FT							800				\$0.60	\$480.00
XXXXXXXX	A 6PR #14	FT							1500				\$1.45	\$2,180.00
XXXXXXXX	A 2" CONDUIT	FT							200				\$6.00	\$1,200.00
XXXXXXXX	A 144 STRAND DIRECT BURIAL F.O. CABLE	FT							2400				\$5.26	\$12,620.00
XXXXXXXX	A 144 STRAND ARMORED DOUBLE JACKETED F.O. CABLE	FT							1000				\$39.00	\$39,000.00
XXXXXXXX	A 24 STRAND DOUBLE JACKETED F.O. CABLE	FT							700				\$1.86	\$1,300.00
XXXXXXXX	A F.O. SPLICE CASES	EA							6				\$739.00	\$4,430.00
XXXXXXXX	A 100 PAIR 19 AWG COPPER COMMUNICATIONS CABLE	FT							1200				\$9.50	\$11,400.00
XXXXXXXX	A 100 PAIR 19 AWG COPPER SUBMARINE CABLE	FT							500				\$10.20	\$5,100.00
1114105	A 5/8" MESSENGER CABLE	FT							100				\$2.75	\$280.00
XXXXXXXX	A LASHING WIRE	FT							250				\$0.20	\$50.00
XXXXXXXX	A LASHING WIRE CLAMPS	EA							6				\$3.25	\$20.00
XXXXXXXX	A 4 INCH RGS CONDUIT	FT							150				\$23.40	\$3,510.00
XXXXXXXX	A CONDUIT MOUNTING HARDWARE	FT							20				\$55.00	\$1,100.00
XXXXXXXX	A 3 INCH RGS CONDUIT	FT							450				\$15.35	\$6,910.00
0701203	A DRILLED SHAFT (4.0' DIAMETER)	LF				2371							\$1,000.00	\$2,371,000.00
0701209	A DRILLED SHAFT (7.0' DIAMETER)	LF				974							\$5,000.00	\$4,870,000.00
0701211	A DRILLED SHAFT (8.0' DIAMETER)	LF				1752							\$5,000.00	\$8,760,000.00
0601201	A CLASS "F" CONCRETE	CY				3360							\$700.00	\$2,352,000.00
XXXXXXXX	A CLASS "X" CONCRETE	CY				5952							\$700.00	\$4,166,400.00



**CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 4S (NO RUN-AROUND)**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A PIER 1 FORMLINER	LS				1							\$110,900.00	\$110,900.00
XXXXXXX	A PIER 2 FORMLINER	LS				1							\$130,300.00	\$130,300.00
0602000	DEFORMED STEEL BARS	LBS				2163820							\$1.50	\$3,245,730.00
0602006	DEFORMED STEEL BARS - EPOXY COATED	LBS				308763							\$1.80	\$555,770.00
0714026	A TEMPORARY SHEET PILING	LBS				708750							\$2.00	\$1,417,500.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				21244							\$20.00	\$424,880.00
0701020	A FENDER SYSTEM	LS				1							\$4,000,000.00	\$4,000,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$2,623,704.00	\$2,623,700.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$18,365,928.00	\$18,365,930.00
0603446	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$1,552,237.00	\$1,552,240.00
0603062	A STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$10,865,659.00	\$10,865,660.00
0603063	A STRUCTURAL STEEL (SITE NO. 3)	LS				1							\$2,061,403.00	\$2,061,400.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				1892							\$500.00	\$946,000.00
XXXXXXX	A OPEN BRIDGE DECK	LF				1200							\$250.00	\$300,000.00
0603545	A STEEL GRATING	SF				9164							\$50.00	\$458,200.00
XXXXXXX	A TRACK AND TREAD PLATES	LBS				565950							\$8.00	\$4,527,600.00
XXXXXXX	A COUNTERWEIGHT CONCRETE	CY				1018							\$800.00	\$814,400.00
0603367	A BALANCE BLOCKS	EA				5600							\$200.00	\$1,120,000.00
XXXXXXX	A MITRE RAILS (WITH SPARE PARTS)	EA				8							\$150,000.00	\$1,200,000.00
0603169	A PROGRESS PHOTOGRAPHS	EA	TBD										TBD	TBD
													<b>SUBTOTAL:</b>	<b>\$136,942,460.00</b>
	<b>FORT POINT STREET</b>													
0202000	EARTH EXCAVATION	CY	410										\$28.44	\$11,660.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	620										\$3.38	\$2,100.00
0212000	SUBBASE	CY	280										\$56.03	\$15,690.00
0305001	PROCESSED AGGREGATE	CY	110										\$62.37	\$6,860.00
0406171	HMA S0.5	TON	160										\$175.51	\$28,080.00
0507771	RESET CATCH BASIN	EA	2										\$926.02	\$1,850.00
0811001	CONCRETE CURBING	LF	240										\$35.70	\$8,570.00
0921001	CONCRETE SIDEWALK	SF	2360										\$12.25	\$28,910.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA	20										\$133.17	\$2,660.00
1208929	PUBLIC INFORMATION SIGNS	SF	23										\$51.96	\$1,200.00
1210101	4" WHITE EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.33	\$70.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	460										\$0.93	\$430.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	340										\$4.10	\$1,390.00
1220027	CONSTRUCTION SIGNS	SF	233										\$22.86	\$5,330.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				2360							\$20.00	\$47,200.00
0714026	A TEMPORARY SHEET PILING	LBS				125400							\$2.00	\$250,800.00
XXXXXXX	A STEEL PILE HP 14X89	LF				7808							\$60.00	\$468,480.00
060100	CLASS "A" CONCRETE	CY				1052							\$700.00	\$736,400.00
0602000	DEFORMED STEEL BARS	LBS				300200							\$1.50	\$450,300.00
0216000	PERVIOUS STRUCTURE BACKFILL	CY				5160							\$35.00	\$180,600.00
0503905	REMOVAL OF EXISTING STRUCTURAL STEEL	LS				1							\$50,000.00	\$50,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$382,500.00	\$382,500.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$1,912,500.00	\$1,912,500.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				204							\$500.00	\$102,000.00
0603545	A STEEL GRATING	SF				430							\$50.00	\$21,500.00
0503029	A REMOVAL OF EXISTING CONCRETE SUBSTRUCTURE	CY				1040							\$350.00	\$364,000.00





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CITY OF: Norwalk  
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TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

Option 8A

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0007012	24" RCP CLASS V	LF	54										\$112.00	\$6,050.00
0063476	A TEMPORARY PLATFORM	LF												\$0.00
0090025	A DEMOLITION	LS				1							\$3,344,000.00	\$3,344,000.00
0090059	A BRIDGE PLATE	EA		64										\$0.00
0096065	A REMOVAL OF CATENARY	LF								11116			\$12.00	\$133,390.00
0096068	A REMOVAL OF CATENARY PORTAL STRUCTURE	EA								17			\$19,000.00	\$323,000.00
0096070	A REMOVAL OF CATENARY STRUCTURE FOUNDATION	EA								19			\$3,558.00	\$67,600.00
00900XX	A REMOVAL OF EXISTING HIGH TOWER	LS									1		\$1,094,500.00	\$1,094,500.00
00900XX	A REMOVAL OF EXISTING RETAINING WALL	LS				1							\$7,640,000.00	\$7,640,000.00
00900XX	A REMOVAL OF EXISTING CONDUCTOR	LS									1		\$652,400.00	\$652,400.00
0202000	EARTH EXCAVATION	CY	2400										\$18.86	\$45,270.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	170										\$4.91	\$830.00
0205001	TRENCH EXCAVATION 0'-4' DEEP	CY	570										\$10.72	\$6,110.00
0205003	TRENCH EXCAVATION 0'-10' DEEP	CY	860										\$14.28	\$12,280.00
0207000	BORROW	CY	10300										\$17.35	\$178,710.00
0219001	SEDIMENTATION CONTROL SYSTEM	LF	6550										\$4.88	\$31,990.00
0305001	PROCESSED AGGREGATE	CY	300										\$62.37	\$18,710.00
0406270	MILLING OF BITUMINOUS CONCRETE (0" TO 6")	SY	1100										\$13.72	\$15,090.00
0406170	HMA S1	TON	40										\$207.77	\$8,310.00
0406171	HMA S0.5	TON	360										\$153.80	\$55,370.00
0503001	A REMOVAL OF SUPERSTRUCTURE	LS				1							\$1,600,000.00	\$1,600,000.00
0503939	A REMOVAL OF EXISTING FENDER SYSTEM	LS				1							\$304,000.00	\$304,000.00
0507002	ABANDON CATCH BASIN	EA.	1										\$1,900.00	\$1,900.00
0507105	CONNECTION TO EXISTING MANHOLE AND/OR CATCH BASIN	EA.	2										\$4,500.00	\$9,000.00
0507201	TYPE "C-L" CATCH BASIN	EA.	3										\$3,212.67	\$9,640.00
0507601	MANHOLE	EA.	2										\$3,757.44	\$7,510.00
0507651	MANHOLE OVER 10' DEEP	EA.	1										\$4,920.83	\$4,920.00
0507771	RESET CATCH BASIN	EA.	1										\$926.01	\$930.00
0507777	REMOVE EXISTING MANHOLE	EA.	1										\$4,072.33	\$4,070.00
0507781	RESET MANHOLE	EA.	10										\$842.09	\$8,420.00
0601070	CLASS "S" CONCRETE	CY	54										\$9,265.85	\$500,360.00
0604526	A BRIDGE ELECTRICAL AND CONTROL SYSTEM	LS						1					\$8,000,000.00	\$8,000,000.00
0651631	18" CORR. PERF. HIGH DENSITY POLYETHYLENE PIPE	LF	550										\$48.33	\$26,580.00
0651717	6" DUCTILE IRON PIPE	LF	10										\$140.00	\$1,400.00
0651757	18" POLYVINYL CHLORIDE PIPE	LF	52										\$65.00	\$3,380.00
0651885	12" HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INTERIOR)	LF	4										\$60.00	\$240.00
0703012	MODIFIED RIPRAP	CY	6										\$120.36	\$720.00
0751713	12" UNDERDRAIN	LF	270										\$40.00	\$10,800.00
0822001	TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$43.77	\$15,760.00
0822002	RELOCATED TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$9.93	\$3,570.00
0913041	8' CHAIN LINK FENCE	LF	170										\$48.47	\$8,240.00
0913351	4' CHAIN LINK GATE 8' HIGH	EA.	1										\$1,036.67	\$1,040.00
0913889	12' CHAIN LINK DOUBLE GATE 8' HIGH	EA.	1										\$2,066.67	\$2,070.00
0921001	CONCRETE SIDEWALK	SF	1710										\$12.75	\$21,800.00
0925101	A RELAY BRICK WALK	SF	270										\$38.89	\$10,500.00
0950005	TURF ESTABLISHMENT	SY	9700										\$0.93	\$9,050.00
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER) (ESTIMATED COST)	EST	1										\$204,000.00	\$204,000.00
0970007	A TRAFFICPERSON (UNIFORMED FLAGGER)	HR.	1										TBD	TBD
0974414	A REMOVAL OF PIER 3	LS				1							\$300,000.00	\$300,000.00
0974500	A REMOVAL OF PIER 1	LS				1							\$100,000.00	\$100,000.00



**CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 8A**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0974501	A REMOVAL OF PIER 2	LS				1							\$300,000.00	\$300,000.00
0974XXX	A REMOVAL OF PIVOT PIER	LS				1							\$1,000,000.00	\$1,000,000.00
0978002	TRAFFIC DRUM	EA.	20										\$80.68	\$1,610.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA.	20										\$133.16	\$2,660.00
1118012	REMOVAL AND/OR RELOCATION OF TRAFFIC SIGNAL EQUIPMENT	LS	1										\$10,000.00	\$10,000.00
1118101	TEMPORARY SIGNALIZATION	LS	1										\$75,000.00	\$75,000.00
1131001	CHANGEABLE MESSAGE SIGN	DAY	120										\$52.36	\$6,280.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.34	\$70.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	24										\$4.49	\$110.00
1220027	CONSTRUCTION SIGNS	SF	360										\$20.53	\$7,390.00
1301020	RELOCATION OF 1" CURB STOP VALVE	EA.	1										\$1,500.00	\$1,500.00
1301303	1" COPPER PIPE (TYPE K)	LF	620										\$35.00	\$21,700.00
1303196	RELOCATE FIRE HYDRANT	EA.	1										\$3,813.27	\$3,810.00
1303222	METER PIT (WATER MAIN)	EA.	1										\$2,000.00	\$2,000.00
1303285	ABANDON WATER METER PIT	EA.	1										\$1,500.00	\$1,500.00
1303399	SERVICE CONNECTION (WATER MAIN)	EA.	1										\$2,500.00	\$2,500.00
1400101	6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER)	LF	600										\$52.05	\$31,230.00
1401237	6" DUCTILE IRON PIPE FORCE MAIN (SANITARY SEWER)	LF	24										\$320.00	\$7,680.00
1401662	SANITARY MANHOLE (4' DIA.) 0' TO 10' DEEP	EA.	2										\$4,000.00	\$8,000.00
1401947	REMOVE EXISTING PIPE (SANITARY SEWER)	LF	20										\$50.00	\$1,000.00
1403012	DROP MANHOLE OVER 10' DEEP (SANITARY SEWER)	EA.	1										\$7,535.60	\$7,540.00
1501234	6" HIGH DENSITY POLYETHYLENE GAS MAIN	LF	35										\$35.00	\$1,230.00
150123X	A 1" PVC GAS MAIN	LF	605										\$30.00	\$18,150.00
1807011	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 400 LB	EA.	2										\$407.26	\$810.00
1807012	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 700 LB	EA.	2										\$413.48	\$830.00
1807013	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 1400 LB	EA.	8										\$405.70	\$3,250.00
1807014	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 2100 LB	EA.	4										\$409.65	\$1,640.00
1807104	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (700 LB)	EA.	2										\$112.98	\$230.00
1807105	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (1400 LB.)	EA.	8										\$111.47	\$890.00
1807106	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (2100 LB)	EA.	4										\$126.41	\$510.00
1807108	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (400 LB)	EA.	2										\$116.06	\$230.00
1807200	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE B	EA.	2										\$14,000.00	\$28,000.00
XXXXXXX	A SPAN DRIVE LIFT SPAN OPERATING MACHINERY	LS					1						\$9,540,000.00	\$9,540,000.00
XXXXXXX	A SUSPENSION ROPES AND SOCKETS (SPAN DRIVE)	LS					1						\$3,380,000.00	\$3,380,000.00



**CONCEPTUAL ENGINEERING REPORT  
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CITY OF: Norwalk  
F.A.P. No.: ----  
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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 8A**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A OPERATING ROPES (SPAN DRIVE)	LS					1						\$1,200,000.00	\$1,200,000.00
XXXXXXX	A SPAN DRIVE SHEAVES SHAFTS AND BEARINGS	LS					1						\$12,840,000.00	\$12,840,000.00
XXXXXXX	A BALLASTED TRACK REMOVAL	TF		6393									\$40.00	\$255,720.00
XXXXXXX	A OPEN DECK TRACK REMOVAL	TF		2252									\$40.00	\$90,080.00
XXXXXXX	A BALLASTED TRACK RENEWAL (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		4257									\$345.00	\$1,468,670.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		8396									\$340.00	\$2,854,640.00
XXXXXXX	A OPEN DECK TRACK CONSTRUCTION (INCLUDES RAIL, TIES, HARDWARE, OTM)	TF		809									\$280.00	\$226,520.00
XXXXXXX	A MACHINARY ROOM	EA.			2								\$470,720.00	\$941,440.00
XXXXXXX	A CONTROL HOUSE	EA.			1								\$592,512.00	\$592,510.00
XXXXXXX	A GENERATOR BUILDING	EA.			1								\$300,000.00	\$300,000.00
XXXXXXX	A AQUARIUM TEMPORARY STAIR	EA.			1								\$180,095.00	\$180,100.00
XXXXXXX	A IMAX THEATREEMERGENCY WALKWAY	LS			1								\$278,380.00	\$278,380.00
XXXXXXX	A AQUARIUM FIRE ESCAPE MODIFICATION	LS			1								\$151,125.00	\$151,130.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - EAST SIDE	LF									1000		\$847.49	\$847,490.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - WEST SIDE	LF									400		\$847.49	\$338,990.00
XXXXXXX	A 4" GRS CONDUIT EXPOSED (ON RETAINING WALL OR IN BRIDGE GIRDERS)	LF									19320		\$36.50	\$705,180.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS ON RETAINING WALL FOR 21 CONDUITS	EA									67		\$2,000.00	\$134,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (TEMPORARY)(2 SETS OF 11)	EA									88		\$1,000.00	\$88,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (FINAL)(3 SETS OF 7)	EA									132		\$600.00	\$79,200.00
XXXXXXX	A 16X8' MANHOLE	EA									3		\$15,000.00	\$45,000.00
XXXXXXX	A 6X4' MANHOLE	EA									8		\$8,800.00	\$70,400.00
XXXXXXX	A ARMORED SUBMARINE CABLE #2/0 AWG (S) - 15KV RATED COPPER	LF									2000		\$117.35	\$234,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE #4/0 AWG (F) - 25KV RATED COPPER	LF									2000		\$124.35	\$248,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE 500KCMIL (T, SPT & G) - 25KV RATED COPPER	LF									5000		\$149.35	\$746,740.00
XXXXXXX	A POWER CABLE 25KV #4/0AWG	LF									16600		\$14.00	\$232,400.00
XXXXXXX	A POWER CABLE 15KV #2/0AWG	LF									6640		\$10.00	\$66,400.00
XXXXXXX	A POWER CABLE 25KV #500KCMIL	LF									6640		\$22.00	\$146,080.00
XXXXXXX	A 15/25KV SUB-CABLE SPLICES	EA									36		\$3,055.56	\$110,000.00
XXXXXXX	A 15/25KV POWER CABLE SPLICES	EA									36		\$2,016.67	\$72,600.00
XXXXXXX	A CONSTRUCTION STAGING - TEMPORARY DOWN GUYS AND BRACING	EA									18		\$3,900.00	\$70,200.00
XXXXXXX	A SHIELD WIRE, OPGW - FINAL ALIGNMENT	LF									4104		\$7.00	\$28,730.00
XXXXXXX	A 115kV CONDUCTOR - FINAL ALIGNMENT	LF									24621		\$11.50	\$283,140.00
XXXXXXX	A SHIELD WIRE, 500 KCMIL COPPER - FINAL ALIGNMENT	LF									4103		\$11.50	\$47,180.00
XXXXXXX	A MONOPOLE FOUNDATION	LS									1		\$937,318.00	\$937,320.00
XXXXXXX	A STRUCTURAL STEEL (RISER STRUCTURES)	LBS									100000		\$4.00	\$400,000.00
XXXXXXX	A TAPERED STEEL MONOPOLES 90FT	EA									1		\$35,100.00	\$35,100.00
XXXXXXX	A TAPERED STEEL MONOPOLES 110FT	EA									10		\$36,040.00	\$360,400.00
XXXXXXX	A TAPERED STEEL MONOPOLES 127FT	EA									4		\$37,050.00	\$148,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 130FT	EA									4		\$38,050.00	\$152,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 137FT	EA									4		\$39,050.00	\$156,200.00
XXXXXXX	A 115kV TRANSMISSION TERMINATIONS - FINAL	EA									42		\$1,596.00	\$67,030.00
XXXXXXX	A 115kV TRANSMISSION JUMPERS - FINAL	LF									840		\$52.00	\$43,680.00
XXXXXXX	A 115kV TRANSMISSION SUSPENSION INSULATION - FINAL	EA									96		\$1,596.00	\$153,220.00
XXXXXXX	A OH STATIC WIRE TERMINATION - FINAL	EA									8		\$1,263.00	\$10,100.00
XXXXXXX	A OH STATIC WIRE CLAMPS - FINAL	EA									38		\$1,161.00	\$44,120.00
000081	A 115kV SURGE ARRESTORS	EA									12		\$3,092.00	\$37,100.00
XXXXXXX	A METRO-NORTH RAILROAD TERMINATION	LS									1		\$362,800.00	\$362,800.00
0090051	A LOWERING CATENARY	LF									6020		\$27.50	\$165,550.00
0090028	A CATENARY POLE FOUNDATION TYPE A	EA									12		\$29,748.00	\$356,980.00
0096064	A CATENARY GUY ANCHORS IN SOIL	EA									6		\$24,680.00	\$148,080.00



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CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

Option 8A

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0096050	A AUTO-TENSIONED CATENARY	LF								8200			\$108.00	\$885,600.00
XXXXXXX	A TEMPORARY CATENARY CONSTRUCTION	LS								1			\$224,900.00	\$224,900.00
XXXXXXX	A MOVEABLE CONDUCTOR RAIL	LS								1			\$1,654,600.00	\$1,654,600.00
XXXXXXX	A CATENARY STRUCTURES	EA								38			\$35,226.00	\$1,338,590.00
XXXXXXX	A CONTROL HOUSE HVAC	LS					1						\$40,000.00	\$40,000.00
XXXXXXX	A CONTROL HOUSE PLUMBING	LS					1						\$20,000.00	\$20,000.00
0506017	A RETAINING WALL (EAST WALL)	LS				1							\$3,420,000.00	\$3,420,000.00
XXXXXXX	A 48"x75"x 24" CASE	EA							1				\$5,320.00	\$5,320.00
XXXXXXX	A 14"x14"x6" TERMINAL BOX	EA							4				\$52.00	\$210.00
XXXXXXX	A PN-150B RELAY	EA							16				\$450.00	\$7,200.00
XXXXXXX	A E & M EQUIPMENT CO PROXIMITY DETECTOR	EA							16				\$2,500.00	\$40,000.00
XXXXXXX	A 12V DC TO DC CONVERTER	EA							8				\$250.00	\$2,000.00
XXXXXXX	A 2C #6 CABLE	FT							800				\$1.60	\$1,280.00
XXXXXXX	A 27C #14 CABLE	FT							800				\$3.20	\$2,560.00
XXXXXXX	A 19C #14 CABLE	FT							1000				\$2.25	\$2,250.00
XXXXXXX	A 5C #14 CABLE	FT							800				\$0.60	\$480.00
XXXXXXX	A 6PR #14	FT							1500				\$1.45	\$2,180.00
XXXXXXX	A 2" CONDUIT	FT							200				\$6.00	\$1,200.00
XXXXXXX	A 144 STRAND DIRECT BURIAL F.O. CABLE	FT							2400				\$5.26	\$12,620.00
XXXXXXX	A 144 STRAND ARMORED DOUBLE JACKETED F.O. CABLE	FT							1000				\$39.00	\$39,000.00
XXXXXXX	A 24 STRAND DOUBLE JACKETED F.O. CABLE	FT							700				\$1.86	\$1,300.00
XXXXXXX	A F.O. SPLICE CASES	EA							6				\$739.00	\$4,430.00
XXXXXXX	A 100 PAIR 19 AWG COPPER COMMUNICATIONS CABLE	FT							1200				\$9.50	\$11,400.00
XXXXXXX	A 100 PAIR 19 AWG COPPER SUBMARINE CABLE	FT							500				\$10.20	\$5,100.00
1114105	A 5/8" MESSENGER CABLE	FT							100				\$2.75	\$280.00
XXXXXXX	A LASHING WIRE	FT							250				\$0.20	\$50.00
XXXXXXX	A LASHING WIRE CLAMPS	EA							6				\$3.25	\$20.00
XXXXXXX	A 4 INCH RGS CONDUIT	FT							150				\$23.40	\$3,510.00
XXXXXXX	A CONDUIT MOUNTING HARDWARE	FT							20				\$55.00	\$1,100.00
XXXXXXX	A 3 INCH RGS CONDUIT	FT							450				\$15.35	\$6,910.00



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**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 8A**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0701203	A DRILLED SHAFT (4.0' DIAMETER)	LF				2371							\$1,000.00	\$2,371,000.00
0701209	A DRILLED SHAFT (7.0' DIAMETER)	LF				974							\$5,000.00	\$4,870,000.00
0701211	A DRILLED SHAFT (8.0' DIAMETER)	LF				636							\$5,000.00	\$3,180,000.00
XXXXXXX	A DRILLED SHAFT (12.0' DIAMETER)	LF				612							\$7,000.00	\$4,284,000.00
0601201	CLASS "F" CONCRETE	CY				3360							\$700.00	\$2,352,000.00
XXXXXXX	CLASS "X" CONCRETE	CY				7703							\$700.00	\$5,392,100.00
XXXXXXX	A PIER 1 FORMLINER	LS				1							\$110,900.00	\$110,900.00
XXXXXXX	A PIER 2 FORMLINER	LS				1							\$130,300.00	\$130,300.00
0602000	DEFORMED STEEL BARS	LBS				2602519							\$1.50	\$3,903,780.00
0602006	DEFORMED STEEL BARS - EPOXY COATED	LBS				327694							\$1.80	\$589,850.00
0714026	A TEMPORARY SHEET PILING	LBS				708750							\$2.00	\$1,417,500.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				21244							\$20.00	\$424,880.00
0701020	A FENDER SYSTEM	LS				1							\$4,000,000.00	\$4,000,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$4,266,667.00	\$4,266,670.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$29,866,669.00	\$29,866,670.00
0603446	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$1,578,885.00	\$1,578,890.00
0603062	A STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$11,052,192.00	\$11,052,190.00
0603063	A STRUCTURAL STEEL (SITE NO. 3)	LS				1							\$0.00	\$0.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				2008							\$500.00	\$1,004,000.00
XXXXXXX	A OPEN BRIDGE DECK	LF				672							\$250.00	\$168,000.00
0603545	A STEEL GRATING	SF				17048							\$50.00	\$852,400.00
XXXXXXX	A TRACK AND TREAD PLATES	LBS				0							\$8.00	\$0.00
XXXXXXX	A COUNTERWEIGHT CONCRETE	CY				1090							\$800.00	\$872,000.00
0603367	A BALANCE BLOCKS	EA				6600							\$200.00	\$1,320,000.00
XXXXXXX	A MITRE RAILS (WITH SPARE PARTS)	EA				8							\$150,000.00	\$1,200,000.00
XXXXXXX	A ELEVATORS	EA				2							\$400,000.00	\$800,000.00
0603169	A PROGRESS PHOTOGRAPHS	EA	TBD										TBD	TBD
													<b>SUBTOTAL:</b>	<b>\$162,564,480.00</b>
	<b>FORT POINT STREET</b>													
0202000	EARTH EXCAVATION	CY	0										\$28.44	\$0.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	0										\$3.38	\$0.00
0212000	SUBBASE	CY	0										\$56.03	\$0.00
0305001	PROCESSED AGGREGATE	CY	0										\$62.37	\$0.00
0406171	HMA S0.5	TON	0										\$175.51	\$0.00
0507771	RESET CATCH BASIN	EA	0										\$926.02	\$0.00
0811001	CONCRETE CURBING	LF	0										\$35.70	\$0.00
0921001	CONCRETE SIDEWALK	SF	0										\$12.25	\$0.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA	0										\$133.17	\$0.00
1208929	PUBLIC INFORMATION SIGNS	SF	0										\$51.96	\$0.00
1210101	4" WHITE EPOXY RESIN PAVEMENT MARKINGS	LF	0										\$0.33	\$0.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	0										\$0.93	\$0.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	0										\$4.10	\$0.00
1220027	CONSTRUCTION SIGNS	SF	0										\$22.86	\$0.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				0							\$20.00	\$0.00
0714026	A TEMPORARY SHEET PILING	LBS				0							\$2.00	\$0.00
XXXXXXX	A STEEL PILE HP 14X89	LF				0							\$60.00	\$0.00
060100	CLASS "A" CONCRETE	CY				0							\$700.00	\$0.00
0602000	DEFORMED STEEL BARS	LBS				0							\$1.50	\$0.00





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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 11C**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0007012	24" RCP CLASS V	LF	54										\$112.00	\$6,050.00
0063476	A TEMPORARY PLATFORM	LF												\$0.00
0090025	A DEMOLITION	LS				1							\$3,344,000.00	\$3,344,000.00
0090059	A BRIDGE PLATE	EA		64										\$0.00
0096065	A REMOVAL OF CATENARY	LF								11116			\$12.00	\$133,390.00
0096068	A REMOVAL OF CATENARY PORTAL STRUCTURE	EA								17			\$19,000.00	\$323,000.00
0096070	A REMOVAL OF CATENARY STRUCTURE FOUNDATION	EA								19			\$3,558.00	\$67,600.00
00900XX	A REMOVAL OF EXISTING HIGH TOWER	LS									1		\$1,094,500.00	\$1,094,500.00
00900XX	A REMOVAL OF EXISTING RETAINING WALL	LS				1							\$7,640,000.00	\$7,640,000.00
00900XX	A REMOVAL OF EXISTING CONDUCTOR	LS									1		\$652,400.00	\$652,400.00
0202000	EARTH EXCAVATION	CY	2400										\$18.86	\$45,270.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	170										\$4.91	\$830.00
0205001	TRENCH EXCAVATION 0'-4' DEEP	CY	570										\$10.72	\$6,110.00
0205003	TRENCH EXCAVATION 0'-10' DEEP	CY	860										\$14.28	\$12,280.00
0207000	BORROW	CY	10300										\$17.35	\$178,710.00
0219001	SEDIMENTATION CONTROL SYSTEM	LF	6550										\$4.88	\$31,990.00
0305001	PROCESSED AGGREGATE	CY	300										\$62.37	\$18,710.00
0406270	MILLING OF BITUMINOUS CONCRETE (0" TO 6")	SY	1100										\$13.72	\$15,090.00
0406170	HMA S1	TON	40										\$207.77	\$8,310.00
0406171	HMA S0.5	TON	360										\$153.80	\$55,370.00
0503001	A REMOVAL OF SUPERSTRUCTURE	LS				1							\$1,600,000.00	\$1,600,000.00
0503939	A REMOVAL OF EXISTING FENDER SYSTEM	LS				1							\$304,000.00	\$304,000.00
0507002	ABANDON CATCH BASIN	EA.	1										\$1,900.00	\$1,900.00
0507105	CONNECTION TO EXISTING MANHOLE AND/OR CATCH BASIN	EA.	2										\$4,500.00	\$9,000.00
0507201	TYPE "C-L" CATCH BASIN	EA.	3										\$3,212.67	\$9,640.00
0507601	MANHOLE	EA.	2										\$3,757.44	\$7,510.00
0507651	MANHOLE OVER 10' DEEP	EA.	1										\$4,920.83	\$4,920.00
0507771	RESET CATCH BASIN	EA.	1										\$926.01	\$930.00
0507777	REMOVE EXISTING MANHOLE	EA.	1										\$4,072.33	\$4,070.00
0507781	RESET MANHOLE	EA.	10										\$842.09	\$8,420.00
0601070	CLASS "S" CONCRETE	CY	54										\$9,265.85	\$500,360.00
0604526	A BRIDGE ELECTRICAL AND CONTROL SYSTEM	LS						1					\$8,000,000.00	\$8,000,000.00
0651631	18" CORR. PERF. HIGH DENSITY POLYETHYLENE PIPE	LF	550										\$48.33	\$26,580.00
0651717	6" DUCTILE IRON PIPE	LF	10										\$140.00	\$1,400.00
0651757	18" POLYVINYL CHLORIDE PIPE	LF	52										\$65.00	\$3,380.00
0651885	12" HIGH DENSITY POLYETHYLENE PIPE (SMOOTH INTERIOR)	LF	4										\$60.00	\$240.00
0703012	MODIFIED RIPRAP	CY	6										\$120.36	\$720.00
0751713	12" UNDERDRAIN	LF	270										\$40.00	\$10,800.00
0822001	TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$43.77	\$15,760.00
0822002	RELOCATED TEMPORARY PRECAST CONCRETE BARRIER CURB	LF	360										\$9.93	\$3,570.00
0913041	8' CHAIN LINK FENCE	LF	170										\$48.47	\$8,240.00
0913351	4' CHAIN LINK GATE 8' HIGH	EA.	1										\$1,036.67	\$1,040.00
0913889	12' CHAIN LINK DOUBLE GATE 8' HIGH	EA.	1										\$2,066.67	\$2,070.00
0921001	CONCRETE SIDEWALK	SF	1710										\$12.75	\$21,800.00
0925101	A RELAY BRICK WALK	SF	270										\$38.89	\$10,500.00
0950005	TURF ESTABLISHMENT	SY	9700										\$0.93	\$9,050.00
0970006	TRAFFICPERSON (MUNICIPAL POLICE OFFICER) (ESTIMATED COST)	EST	1										\$204,000.00	\$204,000.00
0970007	A TRAFFICPERSON (UNIFORMED FLAGGER)	HR.	1										TBD	TBD
0974414	A REMOVAL OF PIER 3	LS				1							\$300,000.00	\$300,000.00
0974500	A REMOVAL OF PIER 1	LS				1							\$100,000.00	\$100,000.00



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DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 11C**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0974501	A REMOVAL OF PIER 2	LS				1							\$300,000.00	\$300,000.00
0974XXX	A REMOVAL OF PIVOT PIER	LS				1							\$1,000,000.00	\$1,000,000.00
0978002	TRAFFIC DRUM	EA.	20										\$80.68	\$1,610.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA.	20										\$133.16	\$2,660.00
1118012	REMOVAL AND/OR RELOCATION OF TRAFFIC SIGNAL EQUIPMENT	LS	1										\$10,000.00	\$10,000.00
1118101	TEMPORARY SIGNALIZATION	LS	1										\$75,000.00	\$75,000.00
1131001	CHANGEABLE MESSAGE SIGN	DAY	120										\$52.36	\$6,280.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	200										\$0.34	\$70.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	24										\$4.49	\$110.00
1220027	CONSTRUCTION SIGNS	SF	360										\$20.53	\$7,390.00
1301020	RELOCATION OF 1" CURB STOP VALVE	EA.	1										\$1,500.00	\$1,500.00
1301303	1" COPPER PIPE (TYPE K)	LF	620										\$35.00	\$21,700.00
1303196	RELOCATE FIRE HYDRANT	EA.	1										\$3,813.27	\$3,810.00
1303222	METER PIT (WATER MAIN)	EA.	1										\$2,000.00	\$2,000.00
1303285	ABANDON WATER METER PIT	EA.	1										\$1,500.00	\$1,500.00
1303399	SERVICE CONNECTION (WATER MAIN)	EA.	1										\$2,500.00	\$2,500.00
1400101	6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER)	LF	600										\$52.05	\$31,230.00
1401237	6" DUCTILE IRON PIPE FORCE MAIN (SANITARY SEWER)	LF	24										\$320.00	\$7,680.00
1401662	SANITARY MANHOLE (4' DIA.) 0' TO 10' DEEP	EA.	2										\$4,000.00	\$8,000.00
1401947	REMOVE EXISTING PIPE (SANITARY SEWER)	LF	20										\$50.00	\$1,000.00
1403012	DROP MANHOLE OVER 10' DEEP (SANITARY SEWER)	EA.	1										\$7,535.60	\$7,540.00
1501234	6" HIGH DENSITY POLYETHYLENE GAS MAIN	LF	35										\$35.00	\$1,230.00
150123X	A 1" PVC GAS MAIN	LF	605										\$30.00	\$18,150.00
1807011	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 400 LB	EA.	2										\$407.26	\$810.00
1807012	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 700 LB	EA.	2										\$413.48	\$830.00
1807013	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 1400 LB	EA.	8										\$405.70	\$3,250.00
1807014	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE 2100 LB	EA.	4										\$409.65	\$1,640.00
1807104	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (700 LB)	EA.	2										\$112.98	\$230.00
1807105	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (1400 LB.)	EA.	8										\$111.47	\$890.00
1807106	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (2100 LB)	EA.	4										\$126.41	\$510.00
1807108	RELOCATION OF TEMPORARY IMPACT ATTENUATION SYSTEM TYPE A MODULE (400 LB)	EA.	2										\$116.06	\$230.00
1807200	TEMPORARY IMPACT ATTENUATION SYSTEM TYPE B	EA.	2										\$14,000.00	\$28,000.00
XXXXXXX	A #REF!	LS					1						\$10,740,000.00	\$10,740,000.00
XXXXXXX	A #REF!	LS					1						\$4,060,000.00	\$4,060,000.00



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**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

Option 11C

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
XXXXXXX	A #REF!	LS					0						\$1,200,000.00	\$0.00
XXXXXXX	A #REF!	LS					1						\$16,260,000.00	\$16,260,000.00
XXXXXXX	A BALLASTED TRACK REMOVAL	TF		6393									\$40.00	\$255,720.00
XXXXXXX	A OPEN DECK TRACK REMOVAL	TF		2252									\$40.00	\$90,080.00
XXXXXXX	A BALLASTED TRACK RENEWAL (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		4257									\$345.00	\$1,468,670.00
XXXXXXX	A BALLASTED TRACK CONSTRUCTION (INCLUDES RAIL, TIES, BALLAST, HARDWARE, OTM)	TF		8396									\$340.00	\$2,854,640.00
XXXXXXX	A OPEN DECK TRACK CONSTRUCTION (INCLUDES RAIL, TIES, HARDWARE, OTM)	TF		809									\$280.00	\$226,520.00
XXXXXXX	A MACHINERY ROOM	EA.			2								\$470,720.00	\$941,440.00
XXXXXXX	A CONTROL HOUSE	EA.			1								\$592,512.00	\$592,510.00
XXXXXXX	A GENERATOR BUILDING	EA.			1								\$300,000.00	\$300,000.00
XXXXXXX	A AQUARIUM TEMPORARY STAIR	EA.			1								\$180,095.00	\$180,100.00
XXXXXXX	A IMAX THEATREEMERGENCY WALKWAY	LS			1								\$278,380.00	\$278,380.00
XXXXXXX	A AQUARIUM FIRE ESCAPE MODIFICATION	LS			1								\$151,125.00	\$151,130.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - EAST SIDE	LF									1000		\$847.49	\$847,490.00
XXXXXXX	A 30-4" PVC CONDUITS IN CONCRETE ENCASED DUCTBANK - WEST SIDE	LF									400		\$847.49	\$338,990.00
XXXXXXX	A 4" GRS CONDUIT EXPOSED (ON RETAINING WALL OR IN BRIDGE GIRDERS)	LF									19320		\$36.50	\$705,180.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS ON RETAINING WALL FOR 21 CONDUITS	EA									67		\$2,000.00	\$134,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (TEMPORARY)(2 SETS OF 11)	EA									88		\$1,000.00	\$88,000.00
XXXXXXX	A EXPOSED CONDUIT SUPPORTS UNDER BRIDGE (FINAL)(3 SETS OF 7)	EA									132		\$600.00	\$79,200.00
XXXXXXX	A 16X8' MANHOLE	EA									3		\$15,000.00	\$45,000.00
XXXXXXX	A 6X4' MANHOLE	EA									8		\$8,800.00	\$70,400.00
XXXXXXX	A ARMORED SUBMARINE CABLE #2/0 AWG (S) - 15KV RATED COPPER	LF									2000		\$117.35	\$234,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE #4/0 AWG (F) - 25KV RATED COPPER	LF									2000		\$124.35	\$248,700.00
XXXXXXX	A ARMORED SUBMARINE CABLE 500KCMIL (T, SPT & G) - 25KV RATED COPPER	LF									5000		\$149.35	\$746,740.00
XXXXXXX	A POWER CABLE 25KV #4/0AWG	LF									16600		\$14.00	\$232,400.00
XXXXXXX	A POWER CABLE 15KV #2/0AWG	LF									6640		\$10.00	\$66,400.00
XXXXXXX	A POWER CABLE 25KV #500KCMIL	LF									6640		\$22.00	\$146,080.00
XXXXXXX	A 15/25KV SUB-CABLE SPLICES	EA									36		\$3,055.56	\$110,000.00
XXXXXXX	A 15/25KV POWER CABLE SPLICES	EA									36		\$2,016.67	\$72,600.00
XXXXXXX	A CONSTRUCTION STAGING - TEMPORARY DOWN GUYS AND BRACING	EA										18	\$3,900.00	\$70,200.00
XXXXXXX	A SHIELD WIRE, OPGW - FINAL ALIGNMENT	LF										4104	\$7.00	\$28,730.00
XXXXXXX	A 115kV CONDUCTOR - FINAL ALIGNMENT	LF										24621	\$11.50	\$283,140.00
XXXXXXX	A SHIELD WIRE, 500 KCMIL COPPER - FINAL ALIGNMENT	LF										4103	\$11.50	\$47,180.00
XXXXXXX	A MONOPOLE FOUNDATION	LS										1	\$937,318.00	\$937,320.00
XXXXXXX	A STRUCTURAL STEEL (RISER STRUCTURES)	LBS										100000	\$4.00	\$400,000.00
XXXXXXX	A TAPERED STEEL MONOPOLES 90FT	EA										1	\$35,100.00	\$35,100.00
XXXXXXX	A TAPERED STEEL MONOPOLES 110FT	EA										10	\$36,040.00	\$360,400.00
XXXXXXX	A TAPERED STEEL MONOPOLES 127FT	EA										4	\$37,050.00	\$148,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 130FT	EA										4	\$38,050.00	\$152,200.00
XXXXXXX	A TAPERED STEEL MONOPOLES 137FT	EA										4	\$39,050.00	\$156,200.00
XXXXXXX	A 115kV TRANSMISSION TERMINATIONS - FINAL	EA										42	\$1,596.00	\$67,030.00
XXXXXXX	A 115kV TRANSMISSION JUMPERS - FINAL	LF										840	\$52.00	\$43,680.00
XXXXXXX	A 115kV TRANSMISSION SUSPENSION INSULATION - FINAL	EA										96	\$1,596.00	\$153,220.00
XXXXXXX	A OH STATIC WIRE TERMINATION - FINAL	EA										8	\$1,263.00	\$10,100.00
XXXXXXX	A OH STATIC WIRE CLAMPS - FINAL	EA										38	\$1,161.00	\$44,120.00
000081	A 115kV SURGE ARRESTORS	EA										12	\$3,092.00	\$37,100.00
XXXXXXX	A METRO-NORTH RAILROAD TERMINATION	LS										1	\$362,800.00	\$362,800.00
0090051	A LOWERING CATENARY	LF										6020	\$27.50	\$165,550.00
0090028	A CATENARY POLE FOUNDATION TYPE A	EA										12	\$29,748.00	\$356,980.00
0096064	A CATENARY GUY ANCHORS IN SOIL	EA										6	\$24,680.00	\$148,080.00



**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
FOR THE CONSTRUCTION OF**

CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

Option 11C

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0096050	A AUTO-TENSIONED CATENARY	LF								8200			\$108.00	\$885,600.00
XXXXXXX	A TEMPORARY CATENARY CONSTRUCTION	LS								1			\$224,900.00	\$224,900.00
XXXXXXX	A MOVEABLE CONDUCTOR RAIL	LS								1			\$1,654,600.00	\$1,654,600.00
XXXXXXX	A CATENARY STRUCTURES	EA								38			\$35,226.00	\$1,338,590.00
XXXXXXX	A CONTROL HOUSE HVAC	LS					1						\$40,000.00	\$40,000.00
XXXXXXX	A CONTROL HOUSE PLUMBING	LS					1						\$20,000.00	\$20,000.00
0506017	A RETAINING WALL (EAST WALL)	LS				1							\$3,420,000.00	\$3,420,000.00
XXXXXXX	A 48"x75"x 24" CASE	EA							1				\$5,320.00	\$5,320.00
XXXXXXX	A 14"x14"x6" TERMINAL BOX	EA							4				\$52.00	\$210.00
XXXXXXX	A PN-150B RELAY	EA							16				\$450.00	\$7,200.00
XXXXXXX	A E & M EQUIPMENT CO PROXIMITY DETECTOR	EA							16				\$2,500.00	\$40,000.00
XXXXXXX	A 12V DC TO DC CONVERTER	EA							8				\$250.00	\$2,000.00
XXXXXXX	A 2C #6 CABLE	FT							800				\$1.60	\$1,280.00
XXXXXXX	A 27C #14 CABLE	FT							800				\$3.20	\$2,560.00
XXXXXXX	A 19C #14 CABLE	FT							1000				\$2.25	\$2,250.00
XXXXXXX	A 5C #14 CABLE	FT							800				\$0.60	\$480.00
XXXXXXX	A 6PR #14	FT							1500				\$1.45	\$2,180.00
XXXXXXX	A 2" CONDUIT	FT							200				\$6.00	\$1,200.00
XXXXXXX	A 144 STRAND DIRECT BURIAL F.O. CABLE	FT							2400				\$5.26	\$12,620.00
XXXXXXX	A 144 STRAND ARMORED DOUBLE JACKETED F.O. CABLE	FT							1000				\$39.00	\$39,000.00
XXXXXXX	A 24 STRAND DOUBLE JACKETED F.O. CABLE	FT							700				\$1.86	\$1,300.00
XXXXXXX	A F.O. SPLICE CASES	EA							6				\$739.00	\$4,430.00
XXXXXXX	A 100 PAIR 19 AWG COPPER COMMUNICATIONS CABLE	FT							1200				\$9.50	\$11,400.00
XXXXXXX	A 100 PAIR 19 AWG COPPER SUBMARINE CABLE	FT							500				\$10.20	\$5,100.00
1114105	A 5/8" MESSENGER CABLE	FT							100				\$2.75	\$280.00
XXXXXXX	A LASHING WIRE	FT							250				\$0.20	\$50.00
XXXXXXX	A LASHING WIRE CLAMPS	EA							6				\$3.25	\$20.00
XXXXXXX	A 4 INCH RGS CONDUIT	FT							150				\$23.40	\$3,510.00
XXXXXXX	A CONDUIT MOUNTING HARDWARE	FT							20				\$55.00	\$1,100.00
XXXXXXX	A 3 INCH RGS CONDUIT	FT							450				\$15.35	\$6,910.00



**CONCEPTUAL ENGINEERING REPORT  
DESIGN ESTIMATE  
FOR THE CONSTRUCTION OF**

CITY OF: Norwalk  
F.A.P. No.: ----  
TOWN No.: 301  
PROJ. No.: 301-176  
DATE: 06/15/17

**WALK BRIDGE REPLACEMENT PROJECT  
BRIDGE NO. 04288R/MP 41.5**

**Option 11C**

DATE: 06/15/17

Item No.	Description	Unit	Civil Quantity	RTS Quantity	ARC Quantity	STR Quantity	MECH Quantity	ELEC Quantity	C&S Quantity	OCS Quantity	TP Quantity	Eversource bypass Quantity	Unit Price	Amount
0701203	A DRILLED SHAFT (4.0' DIAMETER)	LF				2371							\$1,000.00	\$2,371,000.00
0701209	A DRILLED SHAFT (7.0' DIAMETER)	LF				974							\$5,000.00	\$4,870,000.00
0701211	A DRILLED SHAFT (8.0' DIAMETER)	LF				292							\$5,000.00	\$1,460,000.00
XXXXXXX	A DRILLED SHAFT (12.0' DIAMETER)	LF				612							\$7,000.00	\$4,284,000.00
0601201	CLASS "F" CONCRETE	CY				3360							\$700.00	\$2,352,000.00
XXXXXXX	CLASS "X" CONCRETE	CY				7080							\$700.00	\$4,956,000.00
XXXXXXX	A PIER 1 FORMLINER	LS				1							\$110,900.00	\$110,900.00
XXXXXXX	A PIER 2 FORMLINER	LS				1							\$130,300.00	\$130,300.00
0602000	DEFORMED STEEL BARS	LBS				2533376							\$1.50	\$3,800,060.00
0602006	DEFORMED STEEL BARS - EPOXY COATED	LBS				282653							\$1.80	\$508,780.00
0714026	A TEMPORARY SHEET PILING	LBS				708750							\$2.00	\$1,417,500.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				21244							\$20.00	\$424,880.00
0701020	A FENDER SYSTEM	LS				1							\$4,000,000.00	\$4,000,000.00
0603445	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$6,650,145.00	\$6,650,000.00
0603061	A STRUCTURAL STEEL (SITE NO. 1)	LS				1							\$46,550,250.00	\$46,550,000.00
0603446	A PAINTING FOR NEW STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$1,361,867.00	\$1,361,870.00
0603062	A STRUCTURAL STEEL (SITE NO. 2)	LS				1							\$9,533,066.00	\$9,533,070.00
0603063	A STRUCTURAL STEEL (SITE NO. 3)	LS				1							\$0.00	\$0.00
XXXXXXX	A BALLASTED BRIDGE DECK	LF				1732							\$50.00	\$866,000.00
XXXXXXX	A OPEN BRIDGE DECK	LF				960							\$250.00	\$240,000.00
0603545	A STEEL GRATING	SF				17516							\$50.00	\$875,800.00
XXXXXXX	A TRACK AND TREAD PLATES	LBS				0							\$8.00	\$0.00
XXXXXXX	A COUNTERWEIGHT CONCRETE	CY				1262							\$800.00	\$1,009,600.00
0603367	A BALANCE BLOCKS	EA				8000							\$200.00	\$1,600,000.00
XXXXXXX	A MITRE RAILS (WITH SPARE PARTS)	EA				8							\$150,000.00	\$1,200,000.00
XXXXXXX	A ELEVATORS	EA				2							\$400,000.00	\$800,000.00
0603169	A PROGRESS PHOTOGRAPHS	EA	TBD										TBD	TBD
													<b>SUBTOTAL:</b>	<b>\$182,029,110.00</b>
	<b>FORT POINT STREET</b>													
0202000	EARTH EXCAVATION	CY	0										\$28.44	\$0.00
0202529	CUT BITUMINOUS CONCRETE PAVEMENT	LF	0										\$3.38	\$0.00
0212000	SUBBASE	CY	0										\$56.03	\$0.00
0305001	PROCESSED AGGREGATE	CY	0										\$62.37	\$0.00
0406171	HMA S0.5	TON	0										\$175.51	\$0.00
0507771	RESET CATCH BASIN	EA	0										\$926.02	\$0.00
0811001	CONCRETE CURBING	LF	0										\$35.70	\$0.00
0921001	CONCRETE SIDEWALK	SF	0										\$12.25	\$0.00
0979003	CONSTRUCTION BARRICADE TYPE III	EA	0										\$133.17	\$0.00
1208929	PUBLIC INFORMATION SIGNS	SF	0										\$51.96	\$0.00
1210101	4" WHITE EPOXY RESIN PAVEMENT MARKINGS	LF	0										\$0.33	\$0.00
1210102	4" YELLOW EPOXY RESIN PAVEMENT MARKINGS	LF	0										\$0.93	\$0.00
1210105	EPOXY RESIN PAVEMENT MARKINGS, SYMBOLS AND LEGENDS	SF	0										\$4.10	\$0.00
1220027	CONSTRUCTION SIGNS	SF	0										\$22.86	\$0.00
0203000	A STRUCTURE EXCAVATION - EARTH (COMPLETE)	CY				0							\$20.00	\$0.00
0714026	A TEMPORARY SHEET PILING	LBS				0							\$2.00	\$0.00
XXXXXXX	A STEEL PILE HP 14X89	LF				0							\$60.00	\$0.00
060100	CLASS "A" CONCRETE	CY				0							\$700.00	\$0.00
0602000	DEFORMED STEEL BARS	LBS				0							\$1.50	\$0.00



**Walk Bridge Replacement**  
**CTDOT Project No. 0301-0176**

**Life cycle O&M Costs**

**Option : Rehab**  
**Description : Walk Bridge Rehabilitation**

Assumptions :-

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval															Summary of O&M Costs - Present Worth				Year		
	Calendar Year	#REF!	Every 1 Year			Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2016 Costs	4% Inflated Costs	5% P/F Factor		Present Worth	
			Operator	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Repair	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs						Electrical Repairs
1	2016	1.000	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 1,250,000	1.0000	\$ 1,250,000	1
2	2017	1.040	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 1,746,472	0.9524	\$ 1,663,307	2
3	2018	1.082	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 1,352,000	0.9070	\$ 1,226,304	3
4	2019	1.125	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 1,888,984	0.8638	\$ 1,631,776	4
5	2020	1.170	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000										\$ 2,255,000	\$ 2,638,031	0.8227	\$ 2,170,315	5
6	2021	1.217	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 2,043,125	0.7835	\$ 1,600,842	6
7	2022	1.265	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 1,581,649	0.7462	\$ 1,180,251	7
8	2023	1.316	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 2,209,844	0.7107	\$ 1,570,495	8
9	2024	1.369	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 1,710,711	0.6768	\$ 1,157,877	9
10	2025	1.423	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000										\$ 2,684,300	\$ 3,820,596	0.6446	\$ 2,462,790	10
11	2026	1.480	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 1,850,305	0.6139	\$ 1,135,927	11
12	2027	1.539	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 2,585,205	0.5847	\$ 1,511,516	12
13	2028	1.601	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 2,001,290	0.5568	\$ 1,114,593	13
14	2029	1.665	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 2,796,158	0.5303	\$ 1,482,862	14
15	2030	1.732	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000	\$ 800,000	\$ 1,950,000								\$ 5,005,000	\$ 8,667,041	0.5051	\$ 4,377,444	15
16	2031	1.801	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 3,024,324	0.4810	\$ 1,454,752	16
17	2032	1.873	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 2,341,227	0.4581	\$ 1,072,543	17
18	2033	1.948	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 3,271,109	0.4363	\$ 1,427,174	18
19	2034	2.026	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 2,532,271	0.4155	\$ 1,052,211	19
20	2035	2.107	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000										\$ 2,684,300	\$ 5,655,415	0.3957	\$ 2,238,040	20
21	2036	2.191	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 2,738,904	0.3769	\$ 1,032,264	21
22	2037	2.279	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 3,826,735	0.3589	\$ 1,373,577	22
23	2038	2.370	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 2,962,398	0.3418	\$ 1,012,696	23
24	2039	2.465	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 4,138,997	0.3256	\$ 1,347,539	24
25	2040	2.563	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000			\$ 10,000,000	\$ 10,000,000	\$ -					\$ 22,255,000	\$ 57,046,334	0.3101	\$ 17,688,238	25
26	2041	2.666	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 4,476,739	0.2953	\$ 1,321,993	26
27	2042	2.772	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 3,465,587	0.2812	\$ 974,464	27
28	2043	2.883	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 4,842,041	0.2678	\$ 1,296,933	28
29	2044	2.999	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 3,748,379	0.2551	\$ 956,188	29
30	2045	3.119	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000	\$ 800,000	\$ 1,950,000								\$ 15,759,300	\$ 49,147,764	0.2429	\$ 11,940,268	30
31	2046	3.243	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 4,054,247	0.2314	\$ 938,061	31
32	2047	3.373	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 5,664,503	0.2204	\$ 1,248,227	32
33	2048	3.508	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 4,385,073	0.2099	\$ 920,279	33
34	2049	3.648	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 6,126,726	0.1999	\$ 1,224,564	34
35	2050	3.794	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000										\$ 2,255,000	\$ 8,556,183	0.1904	\$ 1,628,711	35
36	2051	3.946	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 6,626,667	0.1813	\$ 1,201,350	36
37	2052	4.104	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 5,129,916	0.1727	\$ 885,718	37
38	2053	4.268	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 7,167,403	0.1644	\$ 1,178,576	38
39	2054	4.439	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 5,548,517	0.1566	\$ 868,927	39
40	2055	4.616	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000										\$ 2,684,300	\$ 12,391,711	0.1491	\$ 1,848,199	40
41	2056	4.801	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 6,001,276	0.1420	\$ 852,455	41
42	2057	4.993	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 8,384,848	0.1353	\$ 1,134,316	42
43	2058	5.193	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 6,490,980	0.1288	\$ 836,295	43
44	2059	5.400	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 9,069,052	0.1227	\$ 1,112,813	44
45	2060	5.617	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000	\$ 800,000	\$ 1,950,000								\$ 5,005,000	\$ 28,110,658	0.1169	\$ 3,285,049	45
46	2061	5.841	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 9,809,086	0.1113	\$ 1,091,717	46
47	2062	6.075	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 7,593,528	0.1060	\$ 804,889	47
48	2063	6.318	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 10,609,508	0.1009	\$ 1,071,021	48
49	2064	6.571	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 8,213,160	0.0961	\$ 789,631	49
50	2065	6.833	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000			\$ 10,000,000	\$ 10,000,000	\$ -					\$ 22,684,300	\$ 155,009,747	0.0916	\$ 14,193,299	50

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-0176**

**Life cycle O&M Costs**

**Option : Rehab**  
**Description : Walk Bridge Rehabilitation**

Assumptions:

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval															Summary of O&M Costs - Present Worth				Year		
	Calendar Year	#REF!	Every 1 Year			Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years			Every 15 Years			Every 30 Years			Sum 2016 Costs	4% Inflated Costs	5% P/F Factor	Present Worth			
			Operator	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical/Electrical Inspection	Structural Inspection	Structural Repair	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs						Mechanical Repairs	Electrical Repairs
51	2066	7.107	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 8,883,354	0.0872	\$ 774,662	51
52	2067	7.391	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 12,411,623	0.0851	\$ 1,030,800	52
53	2068	7.687	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 9,608,236	0.0791	\$ 759,976	53
54	2069	7.994	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 13,424,412	0.0753	\$ 1,011,259	54
55	2070	8.314	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000										\$ 2,255,000	\$ 18,747,651	0.0717	\$ 1,345,008	55
56	2071	8.646	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 14,519,844	0.0683	\$ 992,089	56
57	2072	8.992	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 11,240,277	0.0651	\$ 731,436	57
58	2073	9.352	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 15,704,663	0.0620	\$ 973,282	58
59	2074	9.726	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 12,157,484	0.0590	\$ 717,570	59
60	2075	10.115	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000	\$ 800,000	\$ 1,950,000							\$ 15,759,300	\$ 159,405,735	0.0562	\$ 8,860,563	60	
61	2076	10.520	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 13,149,534	0.0535	\$ 703,967	61
62	2077	10.940	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 18,372,235	0.0510	\$ 936,731	62
63	2078	11.378	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 14,222,536	0.0486	\$ 690,622	63
64	2079	11.833	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 19,871,409	0.0462	\$ 918,973	64
65	2080	12.306	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000										\$ 2,255,000	\$ 27,751,104	0.0440	\$ 1,222,264	65
66	2081	12.799	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 21,492,916	0.0419	\$ 901,552	66
67	2082	13.311	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 16,638,356	0.0399	\$ 664,686	67
68	2083	13.843	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 23,246,738	0.0380	\$ 884,462	68
69	2084	14.397	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 17,996,046	0.0362	\$ 652,086	69
70	2085	14.973	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000										\$ 2,684,300	\$ 40,191,245	0.0345	\$ 1,386,979	70
71	2086	15.572	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 19,464,523	0.0329	\$ 639,724	71
72	2087	16.194	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 27,195,395	0.0313	\$ 851,246	72
73	2088	16.842	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 21,052,828	0.0298	\$ 627,597	73
74	2089	17.516	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 29,414,540	0.0284	\$ 835,109	74
75	2090	18.217	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000	\$ 800,000	\$ 1,950,000	\$ 10,000,000	\$ 10,000,000	\$ -				\$ 25,005,000	\$ 455,305,858	0.0270	\$ 12,316,458	75	
76	2091	18.945	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 31,814,766	0.0258	\$ 819,278	76
77	2092	19.703	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 24,628,831	0.0245	\$ 604,028	77
78	2093	20.491	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 34,410,851	0.0234	\$ 803,747	78
79	2094	21.311	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 26,638,544	0.0222	\$ 592,577	79
80	2095	22.163	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000										\$ 2,684,300	\$ 59,492,861	0.0212	\$ 1,260,405	80
81	2096	23.050	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 28,812,249	0.0202	\$ 581,344	81
82	2097	23.972	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 40,255,829	0.0192	\$ 773,563	82
83	2098	24.931	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 31,163,328	0.0183	\$ 570,324	83
84	2099	25.928	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 43,540,704	0.0174	\$ 758,898	84
85	2100	26.965	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000										\$ 2,255,000	\$ 60,806,086	0.0166	\$ 1,009,560	85
86	2101	28.044	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 47,993,628	0.0158	\$ 744,512	86
87	2102	29.165	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 36,456,686	0.0151	\$ 548,905	87
88	2103	30.332	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 50,936,466	0.0143	\$ 730,398	88
89	2104	31.545	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 39,431,552	0.0137	\$ 538,500	89
90	2105	32.807	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300	\$ 925,000	\$ 80,000	\$ 800,000	\$ 1,950,000							\$ 15,759,300	\$ 517,016,163	0.0130	\$ 6,724,446	90	
91	2106	34.119	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 42,649,167	0.0124	\$ 528,292	91
92	2107	35.484	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 59,588,460	0.0118	\$ 702,969	92
93	2108	36.903	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 46,129,339	0.0112	\$ 518,277	93
94	2109	38.380	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 64,450,879	0.0107	\$ 689,643	94
95	2110	39.915	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000										\$ 2,255,000	\$ 90,007,861	0.0102	\$ 917,247	95
96	2111	41.511	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 69,710,070	0.0097	\$ 676,569	96
97	2112	43.172	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 53,964,802	0.0092	\$ 498,813	97
98	2113	44.899	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 400,000	\$ 229,300												\$ 1,679,300	\$ 75,398,412	0.0088	\$ 663,743	98
99	2114	46.695	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -												\$ 1,250,000	\$ 58,368,330	0.0084	\$ 489,357	99
100	2115.000	48.562	\$ 240,000	\$ 400,000	\$ 60,000	\$ 350,000	\$ 200,000	\$ -	\$ 925,000	\$ 80,000			\$ 10,000,000	\$ 10,000,000	\$ -				\$ 22,255,000	\$ 1,080,757,329	0.0080	\$ 8,629,539	100	

Annualized P/W =

Interval	Lifecycle P/W	P/A	Annualized
25	\$ 55,235,100	0.071	\$ 3,919,100
50	\$ 108,839,300	0.055	\$ 5,861,900
100	\$ 181,743,100	0.050	\$ 9,156,800

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-176**

**Lifecycle Operation, Maintenance & Waterway Users Costs**

**Option : 14A**  
**Description : Low Level Fixed Bridge**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval															Summary of O&M Costs - - Present Worth				Year					
			Every 1 Year				Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2016 Costs	4% Inflated Costs		5% P/F Factor	Present Worth			
	Calendar Year	#REF!	Waterway Users Cost	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs						Electrical Repairs		
1	2016	1.000	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,798,000	\$ 1,798,000	1.0000	\$ 1,798,000	1	
2	2017	1.040	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,861,000	\$ 1,935,440	0.9524	\$ 1,843,276	2
3	2018	1.082	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,798,000	\$ 1,944,717	0.9070	\$ 1,763,915	3
4	2019	1.125	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 1,868,399	0.8638	\$ 1,613,993	4
5	2020	1.170	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,746,000	\$ 2,042,573	0.8227	\$ 1,680,430	5
6	2021	1.217	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 2,020,860	0.7835	\$ 1,583,397	6
7	2022	1.265	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 2,021,980	0.7462	\$ 1,508,832	7
8	2023	1.316	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 2,185,763	0.7107	\$ 1,553,381	8
9	2024	1.369	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 2,186,973	0.6768	\$ 1,480,230	9
10	2025	1.423	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,809,000	\$ 2,574,771	0.6446	\$ 1,659,720	10
11	2026	1.480	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 2,365,430	0.6139	\$ 1,452,169	11
12	2027	1.539	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 2,557,033	0.5847	\$ 1,495,044	12
13	2028	1.601	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 2,558,449	0.5568	\$ 1,424,640	13
14	2029	1.665	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 2,765,687	0.5303	\$ 1,466,703	14
15	2030	1.732	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,912,000	\$ 3,310,965	0.5051	\$ 1,672,263	15
16	2031	1.801	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 2,991,367	0.4810	\$ 1,438,899	16
17	2032	1.873	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 2,993,024	0.4581	\$ 1,371,139	17
18	2033	1.948	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 3,235,463	0.4363	\$ 1,411,622	18
19	2034	2.026	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 3,237,255	0.4155	\$ 1,345,146	19
20	2035	2.107	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,809,000	\$ 3,811,290	0.3957	\$ 1,508,257	20
21	2036	2.191	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 3,501,415	0.3769	\$ 1,319,646	21
22	2037	2.279	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 3,785,034	0.3589	\$ 1,358,609	22
23	2038	2.370	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 3,787,130	0.3418	\$ 1,294,630	23
24	2039	2.465	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 4,093,893	0.3256	\$ 1,332,854	24
25	2040	2.563	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 3,411,000	\$ 8,743,431	0.3101	\$ 2,711,057	25
26	2041	2.666	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 4,427,954	0.2953	\$ 1,307,587	26
27	2042	2.772	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 4,430,407	0.2812	\$ 1,246,011	27
28	2043	2.883	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 4,789,275	0.2678	\$ 1,282,799	28
29	2044	2.999	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 4,791,928	0.2551	\$ 1,222,390	29
30	2045	3.119	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 2,775,000	\$ 8,654,258	0.2429	\$ 2,102,520	30
31	2046	3.243	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 5,182,949	0.2314	\$ 1,199,218	31
32	2047	3.373	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 5,602,775	0.2204	\$ 1,234,624	32
33	2048	3.508	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 5,605,878	0.2099	\$ 1,176,484	33
34	2049	3.648	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 6,059,961	0.1999	\$ 1,211,220	34
35	2050	3.794	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,746,000	\$ 6,624,876	0.1904	\$ 1,261,077	35
36	2051	3.946	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 6,554,454	0.1813	\$ 1,188,259	36
37	2052	4.104	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 6,558,084	0.1727	\$ 1,132,302	37
38	2053	4.268	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 7,089,297	0.1644	\$ 1,165,733	38
39	2054	4.439	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 7,093,224	0.1566	\$ 1,110,837	39
40	2055	4.616	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,809,000	\$ 8,351,006	0.1491	\$ 1,245,536	40
41	2056	4.801	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 7,672,031	0.1420	\$ 1,089,779	41
42	2057	4.993	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 8,293,475	0.1353	\$ 1,121,955	42
43	2058	5.193	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 8,298,069	0.1288	\$ 1,069,120	43
44	2059	5.400	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 8,970,223	0.1227	\$ 1,100,686	44
45	2060	5.617	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,912,000	\$ 10,738,777	0.1169	\$ 1,254,948	45
46	2061	5.841	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 9,702,193	0.1113	\$ 1,079,820	46
47	2062	6.075	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 9,707,567	0.1060	\$ 1,028,970	47
48	2063	6.318	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 1,661,000	\$ 10,493,892	0.1009	\$ 1,059,350	48
49	2064	6.571	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -															\$ 1,598,000	\$ 10,499,704	0.0961	\$ 1,009,464	49
50	2065	6.833	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -															\$ 3,474,000	\$ 23,739,056	0.0916	\$ 2,173,641	50

**Walk Bridge Replacement**  
CTDOT Project No. 0301-176

**Lifecycle Operation, Maintenance & Waterway Users Costs**

**Option : 14A**  
**Description : Low Level Fixed Bridge**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval																Summary of O&M Costs - - Present Worth				Year			
			Every 1 Year				Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2016 Costs	4% Inflated Costs	5% P/F Factor		Present Worth		
	Calendar Year	#REF!	Waterway Users Cost	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs						Electrical Repairs	
51	2066	7.107	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -													\$ 1,598,000	\$ 11,356,480	0.0872	\$ 990,327	51	
52	2067	7.391	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 12,276,369	0.0831	\$ 1,019,567	52
53	2068	7.687	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 12,283,169	0.0791	\$ 971,554	53
54	2069	7.994	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 13,278,121	0.0753	\$ 1,000,239	54
55	2070	8.314	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -				\$ 148,000	\$ -									\$ 1,746,000	\$ 14,515,920	0.0717	\$ 1,041,412	55
56	2071	8.646	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 14,361,615	0.0683	\$ 981,278	56
57	2072	8.992	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 14,369,570	0.0651	\$ 935,068	57
58	2073	9.352	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 15,533,523	0.0620	\$ 962,676	58
59	2074	9.726	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 15,542,127	0.0590	\$ 917,342	59
60	2075	10.115	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -				\$ 148,000	\$ -	\$ -	\$ 166,000			\$ 800,000	\$ -	\$ -		\$ 2,775,000	\$ 28,069,198	0.0562	\$ 1,577,834	60
61	2076	10.520	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 16,810,365	0.0535	\$ 899,952	61
62	2077	10.940	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 18,172,025	0.0510	\$ 926,523	62
63	2078	11.378	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 18,182,090	0.0486	\$ 882,891	63
64	2079	11.833	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 19,654,862	0.0462	\$ 908,959	64
65	2080	12.306	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -				\$ 148,000	\$ -									\$ 1,746,000	\$ 21,487,107	0.0440	\$ 946,374	65
66	2081	12.799	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 21,258,699	0.0419	\$ 891,728	66
67	2082	13.311	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 21,270,474	0.0399	\$ 849,735	67
68	2083	13.843	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 22,993,409	0.0380	\$ 874,823	68
69	2084	14.397	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 23,006,145	0.0362	\$ 833,626	69
70	2085	14.973	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -				\$ 148,000	\$ -									\$ 1,809,000	\$ 27,085,632	0.0345	\$ 934,711	70
71	2086	15.572	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 24,883,446	0.0329	\$ 817,824	71
72	2087	16.194	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 26,899,036	0.0313	\$ 841,970	72
73	2088	16.842	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 26,913,935	0.0298	\$ 802,320	73
74	2089	17.516	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 29,093,998	0.0284	\$ 826,009	74
75	2090	18.217	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -				\$ 148,000	\$ -	\$ -	\$ 166,000	\$ 1,665,000	\$ -	\$ -				\$ 3,577,000	\$ 65,160,746	0.0270	\$ 1,761,886	75
76	2091	18.945	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 31,468,068	0.0258	\$ 810,350	76
77	2092	19.703	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 31,485,498	0.0245	\$ 772,189	77
78	2093	20.491	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 34,035,862	0.0234	\$ 794,988	78
79	2094	21.311	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 34,054,714	0.0222	\$ 757,551	79
80	2095	22.163	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -				\$ 148,000	\$ -									\$ 1,809,000	\$ 40,093,352	0.0212	\$ 849,411	80
81	2096	23.050	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 36,833,579	0.0202	\$ 743,190	81
82	2097	23.972	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 39,817,145	0.0192	\$ 765,133	82
83	2098	24.931	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 39,839,199	0.0183	\$ 729,102	83
84	2099	25.928	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 43,066,224	0.0174	\$ 750,628	84
85	2100	26.965	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -				\$ 148,000	\$ -									\$ 1,746,000	\$ 47,080,898	0.0166	\$ 781,526	85
86	2101	28.044	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 46,580,428	0.0158	\$ 736,399	86
87	2102	29.165	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 46,606,228	0.0151	\$ 701,721	87
88	2103	30.332	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 50,381,391	0.0143	\$ 722,439	88
89	2104	31.545	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 50,409,296	0.0137	\$ 688,418	89
90	2105	32.807	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -				\$ 148,000	\$ -	\$ -	\$ 166,000			\$ 800,000	\$ -	\$ -		\$ 2,775,000	\$ 91,039,567	0.0130	\$ 1,184,084	90
91	2106	34.119	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 54,522,695	0.0124	\$ 675,368	91
92	2107	35.484	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 58,939,101	0.0118	\$ 695,308	92
93	2108	36.903	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 58,971,747	0.0112	\$ 662,565	93
94	2109	38.380	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 63,748,532	0.0107	\$ 682,127	94
95	2110	39.915	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -				\$ 148,000	\$ -									\$ 1,746,000	\$ 69,691,231	0.0102	\$ 710,205	95
96	2111	41.511	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 68,950,412	0.0097	\$ 669,196	96
97	2112	43.172	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 68,988,603	0.0092	\$ 637,683	97
98	2113	44.899	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 126,000	\$ -														\$ 1,661,000	\$ 74,576,766	0.0088	\$ 656,510	98
99	2114	46.695	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -														\$ 1,598,000	\$ 74,618,072	0.0084	\$ 625,594	99
100	2115.000	48.562	\$ 1,500,000	\$ 25,000	\$ 10,000	\$ -	\$ 63,000	\$ -				\$ 148,000	\$ -			\$ 1,665,000	\$ -	\$ -				\$ 3,411,000	\$ 165,646,518	0.0080	\$ 1,322,640	100

Interval	Lifecycle P/W	P/A	Annualized
25	\$ 39,087,900	0.071	\$ 2,773,400
50	\$ 70,162,200	0.055	\$ 3,843,300
100	\$ 113,683,100	0.050	\$ 5,727,700

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-176**

**Lifecycle Operation, Maintenance & Waterway Users Costs**

**Option : 14B**  
**Description : Mid Level Fixed Bridge**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval															Summary of O&M Costs - - Present Worth				Year				
			Every 1 Year				Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years		Every 30 Years			Sum 2016 Costs	4% Inflated Costs	5% P/F Factor		Present Worth			
	Calendar Year	#REF!	Waterway Users Cost	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs						Electrical Repairs		
1	2016	1.000	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -													\$ 1,799,625	\$ 1,799,625	1.0000	\$ 1,799,625	1	
2	2017	1.040	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,864,250	\$ 1,938,820	0.9524	\$ 1,846,495	2
3	2018	1.082	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,799,625	\$ 1,946,474	0.9070	\$ 1,765,510	3
4	2019	1.125	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 1,534,596	0.8638	\$ 1,325,641	4
5	2020	1.170	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -												\$ 1,453,000	\$ 1,699,804	0.8227	\$ 1,398,433	5
6	2021	1.217	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 1,659,819	0.7835	\$ 1,300,511	6
7	2022	1.265	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 1,644,440	0.7462	\$ 1,227,107	7
8	2023	1.316	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 1,795,260	0.7107	\$ 1,275,858	8
9	2024	1.369	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 1,778,627	0.6768	\$ 1,203,844	9
10	2025	1.423	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -												\$ 1,517,625	\$ 2,160,054	0.6446	\$ 1,392,390	10
11	2026	1.480	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 1,923,762	0.6139	\$ 1,181,023	11
12	2027	1.539	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 2,100,200	0.5847	\$ 1,227,944	12
13	2028	1.601	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 2,080,741	0.5568	\$ 1,158,635	13
14	2029	1.665	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 2,271,577	0.5303	\$ 1,204,666	14
15	2030	1.732	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -	\$ -	\$ 167,700										\$ 1,620,700	\$ 2,806,528	0.5051	\$ 1,417,487	15
16	2031	1.801	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 2,456,937	0.4810	\$ 1,181,829	16
17	2032	1.873	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 2,434,173	0.4581	\$ 1,115,123	17
18	2033	1.948	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 2,657,423	0.4363	\$ 1,159,425	18
19	2034	2.026	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 2,632,802	0.4155	\$ 1,093,984	19
20	2035	2.107	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -												\$ 1,517,625	\$ 3,197,407	0.3957	\$ 1,265,323	20
21	2036	2.191	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 2,847,638	0.3769	\$ 1,073,245	21
22	2037	2.279	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 3,108,809	0.3589	\$ 1,115,883	22
23	2038	2.370	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 3,080,006	0.3418	\$ 1,052,900	23
24	2039	2.465	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 3,362,488	0.3256	\$ 1,094,730	24
25	2040	2.563	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -			#####	\$ -	\$ -							\$ 3,177,750	\$ 8,145,540	0.3101	\$ 2,525,671	25
26	2041	2.666	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 3,636,867	0.2953	\$ 1,073,977	26
27	2042	2.772	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 3,603,171	0.2812	\$ 1,013,358	27
28	2043	2.883	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 3,933,636	0.2678	\$ 1,053,618	28
29	2044	2.999	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 3,897,190	0.2551	\$ 994,148	29
30	2045	3.119	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -	\$ -	\$ 167,700										\$ 2,500,325	\$ 7,797,642	0.2429	\$ 1,894,408	30
31	2046	3.243	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 4,215,200	0.2314	\$ 975,302	31
32	2047	3.373	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 4,601,797	0.2204	\$ 1,014,050	32
33	2048	3.508	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 4,559,161	0.2099	\$ 956,814	33
34	2049	3.648	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 4,977,304	0.1999	\$ 994,826	34
35	2050	3.794	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -												\$ 1,453,000	\$ 5,513,142	0.1904	\$ 1,049,453	35
36	2051	3.946	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 5,383,452	0.1813	\$ 975,968	36
37	2052	4.104	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 5,333,573	0.1727	\$ 920,881	37
38	2053	4.268	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 5,822,742	0.1644	\$ 957,466	38
39	2054	4.439	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 5,768,793	0.1566	\$ 903,424	39
40	2055	4.616	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -												\$ 1,517,625	\$ 7,005,912	0.1491	\$ 1,044,918	40
41	2056	4.801	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 6,239,526	0.1420	\$ 886,298	41
42	2057	4.993	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 6,811,784	0.1353	\$ 921,509	42
43	2058	5.193	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 6,748,672	0.1288	\$ 869,496	43
44	2059	5.400	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 7,367,626	0.1227	\$ 904,040	44
45	2060	5.617	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -	\$ -	\$ 167,700										\$ 1,620,700	\$ 9,102,686	0.1169	\$ 1,063,752	45
46	2061	5.841	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 7,968,824	0.1113	\$ 886,902	46
47	2062	6.075	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 7,894,991	0.1060	\$ 836,843	47
48	2063	6.318	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -														\$ 1,364,250	\$ 8,619,080	0.1009	\$ 870,089	48
49	2064	6.571	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -														\$ 1,299,625	\$ 8,539,223	0.0961	\$ 820,979	49
50	2065	6.833	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -			#####	\$ -	\$ -							\$ 3,242,375	\$ 22,156,281	0.0916	\$ 2,028,716	50

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-176**

**Lifecycle Operation, Maintenance & Waterway Users Costs**

**Option : 14B**  
**Description : Mid Level Fixed Bridge**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval															Summary of O&M Costs - - Present Worth				Year		
			Every 1 Year				Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years		Every 30 Years			Sum 2016 Costs	4% Inflated Costs	5% P/F Factor		Present Worth	
	Calendar Year	#REF!	Waterway Users Cost	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs						Electrical Repairs
51	2066	7.107	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 9,236,023	0.0872	\$ 805,416	51
52	2067	7.391	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 10,083,104	0.0831	\$ 837,414	52
53	2068	7.687	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 9,989,683	0.0791	\$ 790,147	53
54	2069	7.994	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 10,905,886	0.0753	\$ 821,539	54
55	2070	8.314	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -										\$ 1,453,000	\$ 12,079,972	0.0717	\$ 866,650	55
56	2071	8.646	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 11,795,806	0.0683	\$ 805,965	56
57	2072	8.992	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 11,686,516	0.0651	\$ 760,474	57
58	2073	9.352	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 12,758,344	0.0620	\$ 790,686	58
59	2074	9.726	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 12,640,136	0.0590	\$ 746,058	59
60	2075	10.115	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -	\$ -	\$ 167,700					\$ 815,000	\$ -	\$ -	\$ 2,500,325	\$ 25,290,853	0.0562	\$ 1,421,657	60
61	2076	10.520	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 13,671,571	0.0535	\$ 731,915	61
62	2077	10.940	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 14,925,458	0.0510	\$ 760,993	62
63	2078	11.378	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 14,787,171	0.0486	\$ 718,040	63
64	2079	11.833	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 16,143,375	0.0462	\$ 746,566	64
65	2080	12.306	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -										\$ 1,453,000	\$ 17,881,310	0.0440	\$ 787,561	65
66	2081	12.799	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 17,460,675	0.0419	\$ 732,414	66
67	2082	13.311	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 17,298,899	0.0399	\$ 691,074	67
68	2083	13.843	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 18,885,466	0.0380	\$ 718,530	68
69	2084	14.397	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 18,710,489	0.0362	\$ 677,974	69
70	2085	14.973	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -										\$ 1,517,625	\$ 22,722,959	0.0345	\$ 784,157	70
71	2086	15.572	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 20,237,264	0.0329	\$ 665,121	71
72	2087	16.194	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 22,093,324	0.0313	\$ 691,546	72
73	2088	16.842	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 21,888,625	0.0298	\$ 652,513	73
74	2089	17.516	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 23,896,139	0.0284	\$ 678,436	74
75	2090	18.217	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -	\$ -	\$ 167,700	\$ 1,724,750	\$ -	\$ -					\$ 3,345,450	\$ 60,942,694	0.0270	\$ 1,647,834	75
76	2091	18.945	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 25,846,064	0.0258	\$ 665,575	76
77	2092	19.703	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 25,606,596	0.0245	\$ 628,008	77
78	2093	20.491	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 27,955,102	0.0234	\$ 652,958	78
79	2094	21.311	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 27,696,094	0.0222	\$ 616,103	79
80	2095	22.163	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -										\$ 1,517,625	\$ 33,635,530	0.0212	\$ 712,596	80
81	2096	23.050	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 29,956,095	0.0202	\$ 604,423	81
82	2097	23.972	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 32,703,516	0.0192	\$ 628,436	82
83	2098	24.931	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 32,400,512	0.0183	\$ 592,965	83
84	2099	25.928	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 35,372,123	0.0174	\$ 616,523	84
85	2100	26.965	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -										\$ 1,453,000	\$ 39,180,152	0.0166	\$ 650,377	85
86	2101	28.044	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 38,258,488	0.0158	\$ 604,836	86
87	2102	29.165	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 37,904,017	0.0151	\$ 570,697	87
88	2103	30.332	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 41,380,381	0.0143	\$ 593,370	88
89	2104	31.545	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 40,996,985	0.0137	\$ 559,878	89
90	2105	32.807	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -	\$ 153,375	\$ -	\$ -	\$ 167,700					\$ 815,000	\$ -	\$ -	\$ 2,500,325	\$ 82,028,291	0.0130	\$ 1,066,881	90
91	2106	34.119	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 44,342,339	0.0124	\$ 549,265	91
92	2107	35.484	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 48,409,193	0.0118	\$ 571,086	92
93	2108	36.903	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 47,960,673	0.0112	\$ 538,852	93
94	2109	38.380	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 52,359,383	0.0107	\$ 560,260	94
95	2110	39.915	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -										\$ 1,453,000	\$ 57,996,196	0.0102	\$ 591,024	95
96	2111	41.511	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 56,631,908	0.0097	\$ 549,639	96
97	2112	43.172	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 56,107,204	0.0092	\$ 518,616	97
98	2113	44.899	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 129,250	\$ -												\$ 1,364,250	\$ 61,253,072	0.0088	\$ 539,220	98
99	2114	46.695	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -												\$ 1,299,625	\$ 60,685,552	0.0084	\$ 508,785	99
100	2115.000	48.562	\$ 1,200,000	\$ 25,000	\$ 10,000	\$ -	\$ 64,625	\$ -	\$ 153,375	\$ -			\$ 1,724,750	\$ -	\$ -					\$ 3,177,750	\$ 154,319,326	0.0080	\$ 1,232,196	100

Annualized P/W =

Interval	Lifecycle P/W	P/A	Annualized
25	\$ 33,403,300	0.071	\$ 2,370,000
50	\$ 59,314,500	0.055	\$ 3,249,100
100	\$ 95,567,800	0.050	\$ 4,815,000

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-176**

**Lifecycle Operation, Maintenance & Waterway Users Costs**

**Option : 14C**  
**Description : High Level Fixed Bridge**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval															Summary of O&M Costs - - Present Worth				Year				
			Every 1 Year				Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2016 Costs	4% Inflated Costs		5% P/F Factor	Present Worth		
	Calendar Year	#REF!	Waterway Users Cost	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs							
1	2016	1.000	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -													\$ 2,036,500	\$ 2,036,500	1.0000	\$ 2,036,500	1	
2	2017	1.040	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 2,338,000	\$ 2,431,520	0.9524	\$ 2,315,733	2
3	2018	1.082	\$ 1,700,000	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 2,036,500	\$ 2,202,678	0.9070	\$ 1,997,894	3
4	2019	1.125	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 717,663	0.8638	\$ 619,944	4
5	2020	1.170	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -									\$ 1,083,000	\$ 1,266,957	0.8227	\$ 1,042,329	5
6	2021	1.217	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 776,225	0.7835	\$ 608,192	6
7	2022	1.265	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 425,780	0.7462	\$ 317,723	7
8	2023	1.316	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 839,564	0.7107	\$ 596,663	8
9	2024	1.369	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 460,523	0.6768	\$ 311,700	9
10	2025	1.423	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -									\$ 1,384,500	\$ 1,970,575	0.6446	\$ 1,270,250	10
11	2026	1.480	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 498,102	0.6139	\$ 305,792	11
12	2027	1.539	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 982,172	0.5847	\$ 574,255	12
13	2028	1.601	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 538,747	0.5568	\$ 299,995	13
14	2029	1.665	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 1,062,317	0.5303	\$ 563,369	14
15	2030	1.732	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -	\$ -	\$ 778,000							\$ 1,861,000	\$ 3,222,650	0.5051	\$ 1,627,657	15
16	2031	1.801	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 1,149,002	0.4810	\$ 552,690	16
17	2032	1.873	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 630,258	0.4581	\$ 288,729	17
18	2033	1.948	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 1,242,761	0.4363	\$ 542,212	18
19	2034	2.026	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 681,687	0.4155	\$ 283,255	19
20	2035	2.107	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -									\$ 1,384,500	\$ 2,916,933	0.3957	\$ 1,154,329	20
21	2036	2.191	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 737,313	0.3769	\$ 277,885	21
22	2037	2.279	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 1,453,854	0.3589	\$ 521,850	22
23	2038	2.370	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 797,478	0.3418	\$ 272,618	23
24	2039	2.465	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 1,572,489	0.3256	\$ 511,957	24
25	2040	2.563	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -		\$ 8,820,000	\$ -	\$ -					\$ 9,903,000	\$ 25,384,401	0.3101	\$ 7,870,888	25
26	2041	2.666	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 1,700,804	0.2953	\$ 502,252	26
27	2042	2.772	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 932,936	0.2812	\$ 262,380	27
28	2043	2.883	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 1,839,589	0.2678	\$ 492,731	28
29	2044	2.999	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 1,009,064	0.2551	\$ 257,406	29
30	2045	3.119	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -	\$ -	\$ 778,000							\$ 5,887,500	\$ 18,361,060	0.2429	\$ 4,460,752	30
31	2046	3.243	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 1,091,403	0.2314	\$ 252,526	31
32	2047	3.373	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 2,152,059	0.2204	\$ 474,227	32
33	2048	3.508	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 1,180,462	0.2099	\$ 247,739	33
34	2049	3.648	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 2,327,667	0.1999	\$ 465,237	34
35	2050	3.794	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -									\$ 1,083,000	\$ 4,109,245	0.1904	\$ 782,214	35
36	2051	3.946	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 2,517,605	0.1813	\$ 456,417	36
37	2052	4.104	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 1,380,973	0.1727	\$ 238,435	37
38	2053	4.268	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 2,723,041	0.1644	\$ 447,765	38
39	2054	4.439	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 1,493,661	0.1566	\$ 233,915	39
40	2055	4.616	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -									\$ 1,384,500	\$ 6,391,359	0.1491	\$ 953,258	40
41	2056	4.801	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 1,615,543	0.1420	\$ 229,481	41
42	2057	4.993	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 3,185,573	0.1353	\$ 430,949	42
43	2058	5.193	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 1,747,372	0.1288	\$ 225,131	43
44	2059	5.400	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 3,445,516	0.1227	\$ 422,780	44
45	2060	5.617	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -	\$ -	\$ 778,000							\$ 1,861,000	\$ 10,452,335	0.1169	\$ 1,221,474	45
46	2061	5.841	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 3,726,670	0.1113	\$ 414,765	46
47	2062	6.075	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 2,044,178	0.1060	\$ 216,676	47
48	2063	6.318	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 4,030,766	0.1009	\$ 406,903	48
49	2064	6.571	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 2,210,983	0.0961	\$ 212,569	49
50	2065	6.833	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -		\$ 8,820,000	\$ -	\$ -					\$ 10,204,500	\$ 69,730,914	0.0916	\$ 6,384,835	50

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-176**

**Lifecycle Operation, Maintenance & Waterway Users Costs**

**Option : 14C**  
**Description : High Level Fixed Bridge**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval															Summary of O&M Costs - - Present Worth				Year				
			Every 1 Year				Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2016 Costs	4% Inflated Costs		5% P/F Factor	Present Worth		
	Calendar Year	#REF!	Waterway Users Cost	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs						Electrical Repairs	
51	2066	7.107	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -													\$ 336,500	\$ 2,391,399	0.0872	\$ 208,539	51	
52	2067	7.391	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 4,715,427	0.0831	\$ 391,622	52
53	2068	7.687	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 2,586,537	0.0791	\$ 204,586	53
54	2069	7.994	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 5,100,205	0.0753	\$ 384,198	54
55	2070	8.314	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -									\$ 1,083,000	\$ 9,003,861	0.0717	\$ 645,961	55
56	2071	8.646	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 5,516,382	0.0683	\$ 376,915	56
57	2072	8.992	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 3,025,883	0.0651	\$ 196,903	57
58	2073	9.352	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 5,966,519	0.0620	\$ 369,769	58
59	2074	9.726	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 3,272,795	0.0590	\$ 193,170	59
60	2075	10.115	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -	\$ -	\$ 778,000				\$ 3,725,000	\$ -	\$ -	\$ 5,887,500	\$ 59,552,218	0.0562	\$ 3,347,567	60
61	2076	10.520	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 3,539,855	0.0535	\$ 189,508	61
62	2077	10.940	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 6,979,983	0.0510	\$ 355,883	62
63	2078	11.378	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 3,828,707	0.0486	\$ 185,915	63
64	2079	11.833	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 7,549,550	0.0462	\$ 349,136	64
65	2080	12.306	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -									\$ 1,083,000	\$ 13,327,914	0.0440	\$ 587,012	65
66	2081	12.799	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 8,165,593	0.0419	\$ 342,518	66
67	2082	13.311	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 4,479,045	0.0399	\$ 178,934	67
68	2083	13.843	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 8,831,905	0.0380	\$ 336,025	68
69	2084	14.397	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 4,844,535	0.0362	\$ 175,541	69
70	2085	14.973	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -									\$ 1,384,500	\$ 20,729,717	0.0345	\$ 715,372	70
71	2086	15.572	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 5,239,850	0.0329	\$ 172,214	71
72	2087	16.194	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 10,332,080	0.0313	\$ 323,406	72
73	2088	16.842	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 5,667,421	0.0298	\$ 168,949	73
74	2089	17.516	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 11,175,178	0.0284	\$ 317,275	74
75	2090	18.217	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -	\$ -	\$ 778,000	\$ 8,820,000	\$ -	\$ -				\$ 10,681,000	\$ 194,571,409	0.0270	\$ 5,261,031	75
76	2091	18.945	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 12,087,072	0.0258	\$ 311,260	76
77	2092	19.703	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 6,630,081	0.0245	\$ 162,604	77
78	2093	20.491	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 13,073,378	0.0234	\$ 305,360	78
79	2094	21.311	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 7,171,096	0.0222	\$ 159,522	79
80	2095	22.163	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -									\$ 1,384,500	\$ 30,685,045	0.0212	\$ 650,088	80
81	2096	23.050	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 7,756,257	0.0202	\$ 156,498	81
82	2097	23.972	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 15,294,003	0.0192	\$ 293,892	82
83	2098	24.931	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 8,389,168	0.0183	\$ 153,531	83
84	2099	25.928	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 16,541,993	0.0174	\$ 288,321	84
85	2100	26.965	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -									\$ 1,083,000	\$ 29,203,100	0.0166	\$ 484,761	85
86	2101	28.044	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 17,891,820	0.0158	\$ 282,855	86
87	2102	29.165	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 9,814,140	0.0151	\$ 147,765	87
88	2103	30.332	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 19,351,792	0.0143	\$ 277,493	88
89	2104	31.545	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 10,614,974	0.0137	\$ 144,964	89
90	2105	32.807	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -				\$ 746,500	\$ -	\$ -	\$ 778,000				\$ 3,725,000	\$ -	\$ -	\$ 5,887,500	\$ 193,151,514	0.0130	\$ 2,512,179	90
91	2106	34.119	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 11,481,156	0.0124	\$ 142,216	91
92	2107	35.484	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 22,638,860	0.0118	\$ 267,072	92
93	2108	36.903	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 12,418,018	0.0112	\$ 139,520	93
94	2109	38.380	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 24,486,191	0.0107	\$ 262,009	94
95	2110	39.915	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -									\$ 1,083,000	\$ 43,227,722	0.0102	\$ 440,523	95
96	2111	41.511	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 26,484,264	0.0097	\$ 257,042	96
97	2112	43.172	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 14,527,325	0.0092	\$ 134,280	97
98	2113	44.899	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 603,000	\$ -														\$ 638,000	\$ 28,645,380	0.0088	\$ 252,170	98
99	2114	46.695	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -														\$ 336,500	\$ 15,712,754	0.0084	\$ 131,735	99
100	2115.000	48.562	\$ -	\$ 25,000	\$ 10,000	\$ -	\$ 301,500	\$ -				\$ 746,500	\$ -			\$ 8,820,000	\$ -	\$ -				\$ 9,903,000	\$ 480,913,944	0.0080	\$ 3,839,961	100

Annualized P/W =

Interval	Lifecycle P/W	P/A	Annualized
25	\$ 26,764,400	0.071	\$ 1,899,000
50	\$ 47,457,200	0.055	\$ 2,599,600
100	\$ 75,632,800	0.050	\$ 3,810,600

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-0176**

**Life cycle O&M Costs**

**Option : 4S**  
**Description : 168' Through Truss Rolling Bascule**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval																	Summary of O&M Costs - - Present Worth				Year	
	Calendar Year	4% Inflation Factor (F/P)	Every 1 Year				Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2014 Costs	4% Inflated Costs	5% P/F Factor	Present Worth		
			Operator	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs						
1	2014	1.000	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 524,595	1.0000	\$ 524,595	1	
2	2015	1.040	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 710,380	0.9524	\$ 676,552	2	
3	2016	1.082	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 567,402	0.9070	\$ 514,651	3	
4	2017	1.125	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 768,347	0.8638	\$ 663,727	4	
5	2018	1.170	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 749,703	\$ 877,047	0.8227	\$ 721,548	5	
6	2019	1.217	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 831,044	0.7835	\$ 651,145	6	
7	2020	1.265	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 663,781	0.7462	\$ 495,323	7	
8	2021	1.316	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 898,857	0.7107	\$ 638,801	8	
9	2022	1.369	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 717,945	0.6768	\$ 485,933	9	
10	2023	1.423	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 908,165	\$ 1,292,602	0.6446	\$ 833,223	10	
11	2024	1.480	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 776,529	0.6139	\$ 476,722	11	
12	2025	1.539	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 1,051,536	0.5847	\$ 614,811	12	
13	2026	1.601	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 839,894	0.5568	\$ 467,684	13	
14	2027	1.665	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 1,137,341	0.5303	\$ 603,156	14	
15	2028	1.732	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 1,292,426	\$ 2,238,064	0.5051	\$ 1,130,374	15	
16	2029	1.801	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 1,230,148	0.4810	\$ 591,722	16	
17	2030	1.873	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 982,557	0.4581	\$ 450,121	17	
18	2031	1.948	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 1,330,528	0.4363	\$ 580,505	18	
19	2032	2.026	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 1,062,734	0.4155	\$ 441,588	19	
20	2033	2.107	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 908,165	\$ 1,913,367	0.3957	\$ 757,184	20	
21	2034	2.191	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 1,149,453	0.3769	\$ 433,217	21	
22	2035	2.279	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 1,556,530	0.3589	\$ 558,704	22	
23	2036	2.370	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 1,243,248	0.3418	\$ 425,004	23	
24	2037	2.465	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 1,683,543	0.3256	\$ 548,113	24	
25	2038	2.563	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 221,620	\$ 3,488			25	
26	2039	2.666	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 1,820,920	0.2953	\$ 537,723	26	
27	2040	2.772	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 1,454,425	0.2812	\$ 409,044	27	
28	2041	2.883	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 1,969,507	0.2678	\$ 527,529	28	
29	2042	2.999	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 1,573,106	0.2551	\$ 401,289	29	
30	2043	3.119	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 9,612,702	\$ 29,978,668	0.2429	\$ 7,283,207	30	
31	2044	3.243	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 1,701,471	0.2314	\$ 393,682	31	
32	2045	3.373	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 2,304,044	0.2204	\$ 507,718	32	
33	2046	3.508	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 1,840,311	0.2099	\$ 386,219	33	
34	2047	3.648	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 2,492,054	0.1999	\$ 498,093	34	
35	2048	3.794	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 749,703	\$ 2,844,611	0.1904	\$ 541,485	35	
36	2049	3.946	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 2,695,406	0.1813	\$ 488,651	36	
37	2050	4.104	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 2,152,904	0.1727	\$ 371,715	37	
38	2051	4.268	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 2,915,351	0.1644	\$ 479,388	38	
39	2052	4.439	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 2,328,581	0.1566	\$ 364,668	39	
40	2053	4.616	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 908,165	\$ 4,192,424	0.1491	\$ 625,291	40	
41	2054	4.801	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 2,518,593	0.1420	\$ 357,755	41	
42	2055	4.993	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 3,410,548	0.1353	\$ 461,384	42	
43	2056	5.193	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 2,724,111	0.1288	\$ 350,973	43	
44	2057	5.400	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 3,688,849	0.1227	\$ 452,638	44	
45	2058	5.617	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 221,620	\$ 3,488			45	
46	2059	5.841	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 1,292,426	\$ 7,258,930	0.1169	\$ 848,288	46	
47	2060	6.075	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 683,058	\$ 3,989,859	0.1113	\$ 444,057	47	
48	2061	6.318	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 524,595	\$ 3,186,824	0.1060	\$ 337,793	48	
49	2062	6.571	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 683,058	\$ 4,315,432	0.1009	\$ 435,639	49	
50	2063	6.833	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 524,595	\$ 3,446,869	0.0961	\$ 331,389	50	
																					\$ 221,620	\$ 3,488			
																					#####	\$ 1,400,000	\$ -		
																					\$ 4,852,306	\$ 33,157,503	0.0916	\$ 3,036,031	50

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-0176**

**Life cycle O&M Costs**

**Option : 4S**  
**Description : 168' Through Truss Rolling Bascule**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval																	Summary of O&M Costs - - Present Worth				Year
	Calendar Year	4% Inflation Factor (F/P)	Every 1 Year			Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2014 Costs	4% Inflated Costs	5% P/F Factor	Present Worth		
			Operator	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs					Electrical Repairs	
51	2064	7.107	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 3,728,133	0.0872	\$ 325,107	51
52	2065	7.391	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 5,048,445	0.0831	\$ 419,279	52
53	2066	7.687	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 4,032,349	0.0791	\$ 318,944	53
54	2067	7.994	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 5,460,398	0.0753	\$ 411,331	54
55	2068	8.314	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -	\$ 221,620	\$ 3,488										\$ 749,703	\$ 6,232,893	0.0717	\$ 447,165	55
56	2069	8.646	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 5,905,966	0.0683	\$ 403,533	56
57	2070	8.992	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 4,717,278	0.0651	\$ 306,966	57
58	2071	9.352	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 6,387,893	0.0620	\$ 395,884	58
59	2072	9.726	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 5,102,208	0.0590	\$ 301,147	59
60	2073	10.115	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050	\$ 221,620	\$ 3,488	\$ 300,000	\$ 242,723					\$ 1,161,814	\$ -	\$ 7,000,000	\$ 9,612,702	\$ 97,232,737	0.0562	\$ 5,465,676	60
61	2074	10.520	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 5,518,548	0.0535	\$ 295,438	61
62	2075	10.940	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 7,472,932	0.0510	\$ 381,016	62
63	2076	11.378	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 5,968,862	0.0486	\$ 289,838	63
64	2077	11.833	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 8,082,723	0.0462	\$ 373,794	64
65	2078	12.306	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -	\$ 221,620	\$ 3,488										\$ 749,703	\$ 9,226,204	0.0440	\$ 406,357	65
66	2079	12.799	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 8,742,273	0.0419	\$ 366,708	66
67	2080	13.311	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 6,982,724	0.0399	\$ 278,953	67
68	2081	13.843	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 9,455,643	0.0380	\$ 359,756	68
69	2082	14.397	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 7,552,514	0.0362	\$ 273,665	69
70	2083	14.973	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050	\$ 221,620	\$ 3,488										\$ 908,165	\$ 13,597,696	0.0345	\$ 469,249	70
71	2084	15.572	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 8,168,799	0.0329	\$ 268,477	71
72	2085	16.194	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 11,061,764	0.0313	\$ 346,246	72
73	2086	16.842	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 8,835,373	0.0298	\$ 263,388	73
74	2087	17.516	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 11,964,404	0.0284	\$ 339,682	74
75	2088	18.217	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -	\$ 221,620	\$ 3,488	\$ 300,000	\$ 242,723	\$ 2,544,141	\$ 1,400,000	\$ -					\$ 5,236,567	\$ 95,392,394	0.0270	\$ 2,579,322	75
76	2089	18.945	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 12,940,700	0.0258	\$ 333,242	76
77	2090	19.703	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 10,336,137	0.0245	\$ 253,496	77
78	2091	20.491	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 13,996,661	0.0234	\$ 326,925	78
79	2092	21.311	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 11,179,566	0.0222	\$ 248,691	79
80	2093	22.163	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050	\$ 221,620	\$ 3,488										\$ 908,165	\$ 20,127,912	0.0212	\$ 426,426	80
81	2094	23.050	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 12,091,818	0.0202	\$ 243,976	81
82	2095	23.972	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 16,374,114	0.0192	\$ 314,648	82
83	2096	24.931	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 13,078,511	0.0183	\$ 239,351	83
84	2097	25.928	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 17,710,241	0.0174	\$ 308,683	84
85	2098	26.965	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -	\$ 221,620	\$ 3,488										\$ 749,703	\$ 20,215,748	0.0166	\$ 335,574	85
86	2099	28.044	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 19,155,397	0.0158	\$ 302,831	86
87	2100	29.165	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 15,300,008	0.0151	\$ 230,363	87
88	2101	30.332	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 20,718,477	0.0143	\$ 297,091	88
89	2102	31.545	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 16,548,488	0.0137	\$ 225,996	89
90	2103	32.807	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050	\$ 221,620	\$ 3,488	\$ 300,000	\$ 242,723					\$ 1,161,814	\$ -	\$ 7,000,000	\$ 9,612,702	\$ 315,364,418	0.0130	\$ 4,101,711	90
91	2104	34.119	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 17,898,845	0.0124	\$ 221,711	91
92	2105	35.484	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 24,237,688	0.0118	\$ 285,933	92
93	2106	36.903	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 19,359,391	0.0112	\$ 217,508	93
94	2107	38.380	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 26,215,483	0.0107	\$ 280,513	94
95	2108	39.915	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -	\$ 221,620	\$ 3,488										\$ 749,703	\$ 29,924,246	0.0102	\$ 304,950	95
96	2109	41.511	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 28,354,667	0.0097	\$ 275,195	96
97	2110	43.172	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 22,647,749	0.0092	\$ 209,340	97
98	2111	44.899	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 188,824	\$ 64,050												\$ 683,058	\$ 30,668,408	0.0088	\$ 269,979	98
99	2112	46.695	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -												\$ 524,595	\$ 24,495,805	0.0084	\$ 205,372	99
100	2113	48.562	\$ 240,000	\$ 65,000	\$ 10,000	\$ 115,183	\$ 94,412	\$ -	\$ 221,620	\$ 3,488			\$ 2,544,141	\$ 1,400,000	\$ -					\$ 4,693,844	\$ 227,944,561	0.0080	\$ 1,820,072	100

Interval	Lifecycle P/W	P/A	Annualized
25	\$ 18,015,100	0.071	\$ 1,278,200
50	\$ 38,886,700	0.055	\$ 2,130,100
100	\$ 67,253,200	0.050	\$ 3,388,400

**Walk Bridge Replacement**  
CTDOT Project No. 0301-0176

**Life cycle O&M Costs**

Option : 8A

Description : 168' Through Truss Vertical Lift Span (Span Drive)

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval																	Summary of O&M Costs - - Present Worth				Year			
	Calendar Year	4% Inflation Factor (F/P)	Every 1 Year			Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2014 Costs	4% Inflated Costs	5% P/F Factor	Present Worth					
			Operator	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs					Electrical Repairs				
1	2014	1.000	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 535,647	1.0000	\$ 535,647	1			
2	2015	1.040	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 674,777	0.9524	\$ 642,645	2			
3	2016	1.082	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 579,356	0.9070	\$ 525,493	3			
4	2017	1.125	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 729,839	0.8638	\$ 630,463	4			
5	2018	1.170	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 735,267	\$ 860,158	0.8227	\$ 707,654	5			
6	2019	1.217	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 789,394	0.7835	\$ 618,511	6			
7	2020	1.265	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 677,765	0.7462	\$ 505,758	7			
8	2021	1.316	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 853,809	0.7107	\$ 606,786	8			
9	2022	1.369	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 733,070	0.6768	\$ 496,171	9			
10	2023	1.423	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 848,444	\$ 1,207,601	0.6446	\$ 778,430	10			
11	2024	1.480	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 792,889	0.6139	\$ 486,765	11			
12	2025	1.539	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 998,835	0.5847	\$ 583,998	12			
13	2026	1.601	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 857,588	0.5568	\$ 477,537	13			
14	2027	1.665	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 1,080,340	0.5303	\$ 572,928	14			
15	2028	1.732	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 1,167,990	\$ 2,022,580	0.5051	\$ 1,021,540	15			
16	2029	1.801	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 1,168,496	0.4810	\$ 562,067	16			
17	2030	1.873	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 1,003,257	0.4581	\$ 459,604	17			
18	2031	1.948	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 1,263,845	0.4363	\$ 551,412	18			
19	2032	2.026	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 1,085,123	0.4155	\$ 450,891	19			
20	2033	2.107	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 848,444	\$ 1,787,544	0.3957	\$ 707,392	20			
21	2034	2.191	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 1,173,669	0.3769	\$ 442,343	21			
22	2035	2.279	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 1,478,520	0.3589	\$ 530,704	22			
23	2036	2.370	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 1,269,440	0.3418	\$ 433,958	23			
24	2037	2.465	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 1,599,168	0.3256	\$ 520,643	24			
25	2038	2.563	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 4,261,408	\$ 10,923,284	0.3101	\$ 3,386,960	25			
26	2039	2.666	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 1,729,660	0.2953	\$ 510,773	26			
27	2040	2.772	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 1,485,066	0.2812	\$ 417,661	27			
28	2041	2.883	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 1,870,800	0.2678	\$ 501,091	28			
29	2042	2.999	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 1,606,247	0.2551	\$ 409,743	29			
30	2043	3.119	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 11,406,981	\$ 35,574,398	0.2429	\$ 8,642,669	30			
31	2044	3.243	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 1,737,317	0.2314	\$ 401,976	31			
32	2045	3.373	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 2,188,571	0.2204	\$ 482,272	32			
33	2046	3.508	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 1,879,082	0.2099	\$ 394,356	33			
34	2047	3.648	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 2,367,159	0.1999	\$ 473,130	34			
35	2048	3.794	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 735,267	\$ 2,789,835	0.1904	\$ 531,059	35			
36	2049	3.946	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 2,560,319	0.1813	\$ 464,161	36			
37	2050	4.104	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 2,198,260	0.1727	\$ 379,546	37			
38	2051	4.268	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 2,769,241	0.1644	\$ 455,362	38			
39	2052	4.439	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 2,377,638	0.1566	\$ 372,351	39			
40	2053	4.616	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 848,444	\$ 3,916,729	0.1491	\$ 584,172	40			
41	2054	4.801	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 2,571,653	0.1420	\$ 365,292	41			
42	2055	4.993	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 3,239,620	0.1353	\$ 438,261	42			
43	2056	5.193	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 2,781,500	0.1288	\$ 358,367	43			
44	2057	5.400	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 3,503,973	0.1227	\$ 429,953	44			
45	2058	5.617	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 1,167,990	\$ 6,560,032	0.1169	\$ 766,614	45			
46	2059	5.841	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 3,789,897	0.1113	\$ 421,802	46			
47	2060	6.075	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 3,253,962	0.1060	\$ 344,909	47			
48	2061	6.318	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 648,824	\$ 4,099,153	0.1009	\$ 413,806	48			
49	2062	6.571	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -												\$ 535,647	\$ 3,519,485	0.0961	\$ 338,371	49			
50	2063	6.833	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765												\$ 526,141	\$ 3,000,000	\$ -	\$ 4,374,585	\$ 29,893,067	0.0916	\$ 2,737,126	50

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-0176**

**Life cycle O&M Costs**

**Option : 8A**

**Description : 168' Through Truss Vertical Lift Span (Span Drive)**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval																	Summary of O&M Costs - - Present Worth				Year			
	Calendar Year	4% Inflation Factor (F/P)	Every 1 Year			Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2014 Costs	4% Inflated Costs	5% P/F Factor	Present Worth					
			Operator	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs					Mechanical Repairs		Electrical Repairs		
51	2064	7.107	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 3,806,675	0.0872	\$ 331,956	51		
52	2065	7.391	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 4,795,429	0.0831	\$ 398,266	52		
53	2066	7.687	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 4,117,300	0.0791	\$ 325,663	53		
54	2067	7.994	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 5,186,736	0.0753	\$ 390,716	54		
55	2068	8.314	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 735,267	\$ 6,112,873	0.0717	\$ 438,554	55		
56	2069	8.646	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 5,609,974	0.0683	\$ 383,309	56		
57	2070	8.992	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 4,816,658	0.0651	\$ 313,433	57		
58	2071	9.352	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 6,067,748	0.0620	\$ 376,043	58		
59	2072	9.726	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 5,209,698	0.0590	\$ 307,492	59		
60	2073	10.115	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765	\$ 190,620	\$ 9,000	\$ 200,000	\$ 232,723					\$ 1,125,814	\$ -	\$ 9,000,000	\$ 11,406,981	\$ 115,381,915	0.0562	\$ 6,485,883	60			
61	2074	10.520	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 5,634,809	0.0535	\$ 301,662	61		
62	2075	10.940	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 7,098,406	0.0510	\$ 361,921	62		
63	2076	11.378	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 6,094,609	0.0486	\$ 295,944	63		
64	2077	11.833	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 7,677,636	0.0462	\$ 355,060	64		
65	2078	12.306	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -	\$ 190,620	\$ 9,000											\$ 735,267	\$ 9,048,545	0.0440	\$ 398,532	65		
66	2079	12.799	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 8,304,131	0.0419	\$ 348,329	66		
67	2080	13.311	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 7,129,831	0.0399	\$ 284,830	67		
68	2081	13.843	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 8,981,749	0.0380	\$ 341,726	68		
69	2082	14.397	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 7,711,625	0.0362	\$ 279,430	69		
70	2083	14.973	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765	\$ 190,620	\$ 9,000											\$ 848,444	\$ 12,703,508	0.0345	\$ 438,391	70		
71	2084	15.572	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 8,340,894	0.0329	\$ 274,133	71		
72	2085	16.194	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 10,507,375	0.0313	\$ 328,893	72		
73	2086	16.842	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 9,021,511	0.0298	\$ 268,936	73		
74	2087	17.516	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 11,364,777	0.0284	\$ 322,658	74		
75	2088	18.217	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -	\$ 190,620	\$ 9,000	\$ 200,000	\$ 232,723	\$ 526,141	\$ 3,000,000	\$ -						\$ 4,694,131	\$ 85,511,056	0.0270	\$ 2,312,140	75		
76	2089	18.945	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 12,292,143	0.0258	\$ 316,541	76		
77	2090	19.703	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 10,553,891	0.0245	\$ 258,837	77		
78	2091	20.491	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 13,295,182	0.0234	\$ 310,541	78		
79	2092	21.311	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 11,415,089	0.0222	\$ 253,930	79		
80	2093	22.163	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765	\$ 190,620	\$ 9,000											\$ 848,444	\$ 18,804,295	0.0212	\$ 398,384	80		
81	2094	23.050	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 12,346,560	0.0202	\$ 249,116	81		
82	2095	23.972	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 15,553,483	0.0192	\$ 298,878	82		
83	2096	24.931	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 13,354,039	0.0183	\$ 244,394	83		
84	2097	25.928	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 16,822,647	0.0174	\$ 293,213	84		
85	2098	26.965	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -	\$ 190,620	\$ 9,000											\$ 735,267	\$ 19,826,476	0.0166	\$ 329,113	85		
86	2099	28.044	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 18,195,375	0.0158	\$ 287,654	86		
87	2100	29.165	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 15,622,337	0.0151	\$ 235,216	87		
88	2101	30.332	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 19,680,117	0.0143	\$ 282,201	88		
89	2102	31.545	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 16,897,120	0.0137	\$ 230,757	89		
90	2103	32.807	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765	\$ 190,620	\$ 9,000	\$ 200,000	\$ 232,723								\$ 1,125,814	\$ -	\$ 9,000,000	\$ 11,406,981	\$ 374,229,415	0.0130	\$ 4,867,325	90
91	2104	34.119	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 18,275,925	0.0124	\$ 226,382	91		
92	2105	35.484	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 23,022,954	0.0118	\$ 271,603	92		
93	2106	36.903	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 19,767,241	0.0112	\$ 222,091	93		
94	2107	38.380	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 24,901,627	0.0107	\$ 266,454	94		
95	2108	39.915	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -	\$ 190,620	\$ 9,000											\$ 735,267	\$ 29,348,028	0.0102	\$ 299,078	95		
96	2109	41.511	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 26,933,599	0.0097	\$ 261,403	96		
97	2110	43.172	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 23,124,876	0.0092	\$ 213,750	97		
98	2111	44.899	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 132,824	\$ 46,765													\$ 648,824	\$ 29,131,381	0.0088	\$ 256,448	98		
99	2112	46.695	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -													\$ 535,647	\$ 25,011,865	0.0084	\$ 209,698	99		
100	2113.000	48.562	\$ 240,000	\$ 25,000	\$ 10,000	\$ 194,235	\$ 66,412	\$ -	\$ 190,620	\$ 9,000			\$ 526,141	\$ 3,000,000	\$ -					\$ 4,261,408	\$ 206,944,400	0.0080	\$ 1,652,392	100			

Interval	Lifecycle P/W	P/A	Annualized
25	\$ 17,236,300	0.071	\$ 1,223,000
50	\$ 38,871,100	0.055	\$ 2,129,200
100	\$ 68,270,400	0.050	\$ 3,439,700

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-0176**

**Life cycle O&M Costs**

**Option : 11C**

**Description : 240' Through Truss Vertical Lift Span (Tower Drive)**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval																	Summary of O&M Costs - - Present Worth				Year
	Calendar Year	4% Inflation Factor (F/P)	Every 1 Year			Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2014 Costs	4% Inflated Costs	5% P/F Factor	Present Worth		
			Operator	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs					Electrical Repairs	
1	2014	1.000	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 532,253	1.0000	\$ 532,253	1
2	2015	1.040	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 699,818	0.9524	\$ 666,493	2
3	2016	1.082	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 575,685	0.9070	\$ 522,163	3
4	2017	1.125	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 756,923	0.8638	\$ 653,858	4
5	2018	1.170	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 762,812	\$ 892,382	0.8227	\$ 734,165	5
6	2019	1.217	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 818,688	0.7835	\$ 641,463	6
7	2020	1.265	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 673,470	0.7462	\$ 502,553	7
8	2021	1.316	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 885,493	0.7107	\$ 629,303	8
9	2022	1.369	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 728,425	0.6768	\$ 493,027	9
10	2023	1.423	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 903,461	\$ 1,285,907	0.6446	\$ 828,907	10
11	2024	1.480	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 787,864	0.6139	\$ 483,680	11
12	2025	1.539	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 1,035,901	0.5847	\$ 605,670	12
13	2026	1.601	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 852,154	0.5568	\$ 474,511	13
14	2027	1.665	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 1,120,431	0.5303	\$ 594,188	14
15	2028	1.732	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 1,302,435	\$ 2,255,396	0.5051	\$ 1,139,128	15
16	2029	1.801	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 1,211,858	0.4810	\$ 582,924	16
17	2030	1.873	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 996,900	0.4581	\$ 456,691	17
18	2031	1.948	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 1,310,745	0.4363	\$ 571,874	18
19	2032	2.026	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 1,078,247	0.4155	\$ 448,034	19
20	2033	2.107	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 903,461	\$ 1,903,456	0.3957	\$ 753,262	20
21	2034	2.191	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 1,166,231	0.3769	\$ 439,540	21
22	2035	2.279	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 1,533,387	0.3589	\$ 550,397	22
23	2036	2.370	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 1,261,396	0.3418	\$ 431,208	23
24	2037	2.465	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 1,658,511	0.3256	\$ 539,964	24
25	2038	2.563	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 223,583	\$ 697,696			25
26	2039	2.666	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 506,019	\$ 4,000,000			26
27	2040	2.772	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 1,793,846	0.2953	\$ 529,728	27
28	2041	2.883	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 1,475,655	0.2812	\$ 415,014	28
29	2042	2.999	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 1,940,223	0.2678	\$ 519,686	29
30	2043	3.119	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 1,596,068	0.2551	\$ 407,147	30
31	2044	3.243	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 223,583	\$ 697,696			31
32	2045	3.373	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 1,302,435	\$ 2,255,396			32
33	2046	3.508	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 1,307,567			33
34	2047	3.648	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 9,500,000			34
35	2048	3.794	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 2,269,787	0.2204	\$ 500,169	35
36	2049	3.946	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 1,867,174	0.2099	\$ 391,857	36
37	2050	4.104	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 2,455,001	0.1999	\$ 490,687	37
38	2051	4.268	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 2,184,330	0.1727	\$ 377,141	38
39	2052	4.439	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 2,894,351	0.1904	\$ 550,954	39
40	2053	4.616	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 2,655,330	0.1813	\$ 481,385	40
41	2054	4.801	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 3,359,839	0.1353	\$ 454,524	41
42	2055	4.993	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 2,763,874	0.1288	\$ 356,096	42
43	2056	5.193	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 3,634,002	0.1227	\$ 445,908	43
44	2057	5.400	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 2,555,357	0.1420	\$ 362,977	44
45	2058	5.617	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 223,583	\$ 697,696			45
46	2059	5.841	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 1,302,435	\$ 7,315,145	0.1169	\$ 854,858	46
47	2060	6.075	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 3,930,536	0.1113	\$ 437,455	47
48	2061	6.318	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 3,233,341	0.1060	\$ 342,723	48
49	2062	6.571	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 672,902	\$ 4,251,268	0.1009	\$ 429,162	49
50	2063	6.833	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 532,253	\$ 3,497,182	0.0961	\$ 336,226	50
																				\$ 506,019	\$ 4,000,000			50

**Walk Bridge Replacement**  
**CTDOT Project No. 0301-0176**

**Life cycle O&M Costs**

**Option : 11C**

**Description : 240' Through Truss Vertical Lift Span (Tower Drive)**

Assumptions :

4%	Annual Inflation
5%	Discrete Compounding

Year	Period of Operation		Maintenance/Inspection Item and Interval																	Summary of O&M Costs - - Present Worth				Year
	Calendar Year	4% Inflation Factor (F/P)	Every 1 Year			Every 2 Years	Every 2 Years	Every 4 Years	Every 5 Years		Every 15 Years		Every 25 Years			Every 30 Years			Sum 2014 Costs	4% Inflated Costs	5% P/F Factor	Present Worth		
			Operator	Maintenance	Supplies	Mechanical & Electrical Service	Structural Inspection	Mechanical /Electrical Inspection	Structural Inspection	Structural Inspection	Mechanical Repairs	Electrical Repairs	Structural Repairs	Structural Repairs	Mechanical Repairs	Electrical Repairs	Structural Repairs	Mechanical Repairs					Electrical Repairs	
51	2064	7.107	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 3,782,552	0.0872	\$ 329,853	51
52	2065	7.391	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 4,973,383	0.0831	\$ 413,045	52
53	2066	7.687	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 4,091,208	0.0791	\$ 323,600	53
54	2067	7.994	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 5,379,211	0.0753	\$ 405,215	54
55	2068	8.314	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -	\$ 223,583	\$ 6,976										\$ 762,812	\$ 6,341,879	0.0717	\$ 454,984	55
56	2069	8.646	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 5,818,154	0.0683	\$ 397,534	56
57	2070	8.992	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 4,786,135	0.0651	\$ 311,447	57
58	2071	9.352	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 6,292,916	0.0620	\$ 389,998	58
59	2072	9.726	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 5,176,684	0.0590	\$ 305,543	59
60	2073	10.115	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710	\$ 223,583	\$ 6,976	\$ 300,000	\$ 239,623					\$ 1,307,567	\$ -	\$ 9,500,000	\$ 12,250,651	\$ 123,915,660	0.0562	\$ 6,965,584	60
61	2074	10.520	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 5,599,101	0.0535	\$ 299,751	61
62	2075	10.940	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 7,361,821	0.0510	\$ 375,351	62
63	2076	11.378	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 6,055,988	0.0486	\$ 294,068	63
64	2077	11.833	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 7,962,546	0.0462	\$ 368,236	64
65	2078	12.306	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -	\$ 223,583	\$ 6,976										\$ 762,812	\$ 9,387,531	0.0440	\$ 413,463	65
66	2079	12.799	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 8,612,289	0.0419	\$ 361,255	66
67	2080	13.311	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 7,084,649	0.0399	\$ 283,025	67
68	2081	13.843	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 9,315,052	0.0380	\$ 354,407	68
69	2082	14.397	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 7,662,757	0.0362	\$ 277,660	69
70	2083	14.973	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710	\$ 223,583	\$ 6,976										\$ 903,461	\$ 13,527,260	0.0345	\$ 466,819	70
71	2084	15.572	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 8,288,037	0.0329	\$ 272,396	71
72	2085	16.194	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 10,897,294	0.0313	\$ 341,097	72
73	2086	16.842	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 8,964,341	0.0298	\$ 267,232	73
74	2087	17.516	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 11,786,513	0.0284	\$ 334,631	74
75	2088	18.217	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -	\$ 223,583	\$ 6,976	\$ 300,000	\$ 239,623	\$ 506,019	\$ 4,000,000	\$ -					\$ 5,808,454	\$ 105,810,227	0.0270	\$ 2,861,011	75
76	2089	18.945	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 12,748,292	0.0258	\$ 328,288	76
77	2090	19.703	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 10,487,011	0.0245	\$ 257,196	77
78	2091	20.491	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 13,788,553	0.0234	\$ 322,064	78
79	2092	21.311	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 11,342,752	0.0222	\$ 252,321	79
80	2093	22.163	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710	\$ 223,583	\$ 6,976										\$ 903,461	\$ 20,023,650	0.0212	\$ 424,218	80
81	2094	23.050	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 12,268,320	0.0202	\$ 247,538	81
82	2095	23.972	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 16,130,657	0.0192	\$ 309,969	82
83	2096	24.931	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 13,269,415	0.0183	\$ 242,845	83
84	2097	25.928	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 17,446,918	0.0174	\$ 304,093	84
85	2098	26.965	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -	\$ 223,583	\$ 6,976										\$ 762,812	\$ 20,569,236	0.0166	\$ 341,442	85
86	2099	28.044	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 18,870,587	0.0158	\$ 298,329	86
87	2100	29.165	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 15,523,339	0.0151	\$ 233,725	87
88	2101	30.332	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 20,410,427	0.0143	\$ 292,673	88
89	2102	31.545	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 16,790,043	0.0137	\$ 229,294	89
90	2103	32.807	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710	\$ 223,583	\$ 6,976	\$ 300,000	\$ 239,623					\$ 1,307,567	\$ -	\$ 9,500,000	\$ 12,250,651	\$ 401,907,742	0.0130	\$ 5,227,316	90
91	2104	34.119	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 18,160,111	0.0124	\$ 224,948	91
92	2105	35.484	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 23,877,312	0.0118	\$ 281,682	92
93	2106	36.903	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 19,641,976	0.0112	\$ 220,683	93
94	2107	38.380	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 25,825,701	0.0107	\$ 276,342	94
95	2108	39.915	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -	\$ 223,583	\$ 6,976										\$ 762,812	\$ 30,447,494	0.0102	\$ 310,283	95
96	2109	41.511	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 27,933,078	0.0097	\$ 271,104	96
97	2110	43.172	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 22,978,333	0.0092	\$ 212,396	97
98	2111	44.899	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 139,878	\$ 70,710												\$ 672,902	\$ 30,212,417	0.0088	\$ 265,964	98
99	2112	46.695	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -												\$ 532,253	\$ 24,853,365	0.0084	\$ 208,369	99
100	2113	48.562	\$ 240,000	\$ 25,000	\$ 10,000	\$ 187,314	\$ 69,939	\$ -	\$ 223,583	\$ 6,976			\$ 506,019	\$ 4,000,000	\$ -					\$ 5,268,831	\$ 255,867,349	0.0080	\$ 2,043,028	100

Interval	Lifecycle P/W	P/A	Annualized
25	\$ 18,462,900	0.071	\$ 1,310,000
50	\$ 41,676,900	0.055	\$ 2,282,900
100	\$ 73,170,200	0.050	\$ 3,686,500