RECORD OF DECISION

REPLACEMENT OF THE KOSCIUSZKO BRIDGE ACROSS THE NEWTOWN CREEK, MILE 2.1, BOROUGHS OF BROOKLYN AND QUEENS, KINGS AND QUEENS COUNTIES, NEW YORK P(7-13-1)

I. DESCRIPTION OF THE PROPOSED PROJECT

The New York State Department of Transportation (NYSDOT) proposes to replace the Kosciuszko Bridge across the Newtown Creek, mile 2.1, between the Boroughs of Brooklyn and Queens, Kings and Queens Counties, New York. The project would widen a 1.1-mile segment of the Brooklyn/Queens Expressway (BQE) and build two parallel bridges to replace the existing bridge. The replacement bridges would be located on a new alignment just south of the existing bridge, and would be built at a lower elevation to allow for reduced grades. The replacement bridges would be wider than the existing bridge to provide additional travel lanes and accommodate current standards for travel lane and shoulder widths. The westbound bridge would have four travel lanes and a new bikeway/walkway. The eastbound bridge would have five travel lanes. The approaches on both ends would also be replaced to accommodate the lower elevation of the replacement bridges. The project is part of a larger Federal Highway Administration (FHWA) project that includes street realignments, streetscape improvements and new parks in both Brooklyn and Queens.


On May 5, 2011, the FHWA concurred with a NYSDOT reevaluation statement dated January 24, 2011, concluding that no further environmental documentation is required for post-ROD design modifications. Changes since the FHWA ROD have not negated the FEIS conclusions.

The Coast Guard was a cooperating agency in preparing the environmental documents. Action by the Coast Guard consists of issuance or denial of a bridge permit for the proposed bridge replacement. Coast Guard NEPA responsibility is to assess the navigational and environmental impacts of construction, maintenance, and operation of the proposed bridge and demolition of the existing bridge.
II. DECISION

The Commander, First Coast Guard District, has recommended, and the Commandant, U.S. Coast Guard, has decided to approve, the location and plans for the proposed bridge. This decision is considered to be in the best public interest for satisfying project objectives with the least impacts on navigation and on the environment.

III. ALTERNATIVES CONSIDERED

Conceptual alternatives evaluated were 22 bridge alignments and three tunnel alignments. After a qualitative analysis, the project team carried 10 bridge alignments and one tunnel alignment forward for further analysis.

Following further analysis, the project team chose five build alternatives (Alternatives RA-5, RA-6, BR-2, BR-3, and BR-5) and the no build alternative for evaluation in the DEIS, together with several interchange configurations and alternatives for managing traffic during construction. Alternatives RA-5 and RA-6 would build a new parallel bridge at a lower elevation and rehabilitate the existing bridge. Traffic in one direction would be shifted onto the newly constructed bridge while the existing bridge is rehabilitated, half at a time. Alternatives BR-2, BR-3, and BR-5 would completely replace the existing bridge with new parallel bridges built at a lower elevation. Alternative BR-2 would build a new permanent bridge on the south side of the existing bridge and a temporary bridge on the north side to carry traffic during demolition of the existing bridge and construction of a new bridge in its place. Alternative BR-3 would build a new permanent bridge on each side of the existing bridge to carry traffic during demolition of the existing bridge and construction of a third bridge in its place. Alternative BR-5 would build two new permanent bridges on the south side of the existing bridge to carry traffic during demolition of the existing bridge and construction of a third bridge in its place.

The FHWA ROD is for Alternative BR-5 and this is the alternative evaluated in the post-ROD reevaluation dated January 24, 2011.

During the initial stage of Final Design, NYSDOT identified four structure types as suitable main span replacement options: Box Girder, Deck Arch, Through Arch and Cable-Stayed. The reevaluation examined the potential impacts each of structure type on the surrounding environment and identified the Cable-Stayed structure as the option that best meets the project objectives set forth in the Final EIS while minimizing environmental impacts. In addition, as a result of the additional studies conducted during the initial stage of Final Design, several modifications were made to the selected alternative since the Final EIS and ROD. The new bridge alignment was modified to consist of two parallel bridge structures instead of three – a five lane eastbound structure and a four lane westbound structure with a bikeway/walkway. The eastbound structure included a two lane roadway for vehicles remaining on the BQE (Mainline) and a three lane roadway for vehicles wishing to access the Long Island Expressway (LIE) and vehicles entering from the Vandervoort Avenue entrance ramp. Other modifications included: relocation of proposed parks; elimination of the proposed pedestrian portal in Brooklyn; reduction in the required private property acquisitions; and further
development of possible construction materials and equipment transport methods. These modifications reduce impacts and improve the project’s functionality.

An expanded description of the various alternatives and recommended (preferred) alternative, including the basis for the decision, is included in the FEIS. After considering responses to the Coast Guard Public Notice, the impacts associated with each alternative, and the present and future transportation needs, the Coast Guard has determined that the proposed project’s impacts of the selected (preferred) alternative cannot be avoided, and all planning and mitigation to minimize these impacts have been accomplished.

**PREFERRED ALTERNATIVE**

Each of the two parallel cable-stayed bridges would be supported by a single hollow reinforced concrete tower with two planes of cables. Each plane would have a total of 22 stay cables, 11 to the Main Span and 11 to the back span. The tower supporting the westbound roadway would be located in Queens and the tower for the eastbound structure in Brooklyn. The westbound bridge would have four travel lanes and a bikeway/walkway. The eastbound bridge would have five travel lanes. The Brooklyn and Queens approaches would be box girders supported by concrete filled steel pipe piles. The new bridges would extend from Varick Avenue in Brooklyn to 54th Drive in Queens. The project includes a temporary construction work bridge for each of the approaches and temporary barge docking platforms on Newtown Creek for delivering construction materials to the project site.

The preferred alternative is of cable-stayed design with the following vertical clearances through the corresponding horizontal window of the navigation span:

<table>
<thead>
<tr>
<th>Horizontal Clearance</th>
<th>250.0 feet bank-to-bank, normal to the axis of the channel (bridge clear spans the waterway) with 130.0 foot navigation channel.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical Clearance</td>
<td>Minimum 90.0 feet above Mean High Water (MHW) through the navigation span.</td>
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**IV. BASIS FOR DECISION**

After an independent review of the FHWA FEIS signed November 25, 2008 (FHWA-NY-EIS-07-01-F, dated September 2008); the FHWA ROD dated March 2009 and signed March 9, 2009; and the NYSDOT reevaluation statement dated January 24, 2011, and concurred with by the FHWA May 5, 2011, the Coast Guard has determined that the environmental documentation adequately assess the impacts of the proposed replacement bridge across the Newtown Creek, mile 2.1, between the Boroughs of Brooklyn and Queens, Kings and Queens Counties, New York. The Commander, First Coast Guard District, adopted the bridge-related portions of the FEIS and reevaluation statement on June 24, 2013.
The FEIS, ROD, and reevaluation statement contain an adequate detailed statement of the following: project description and purpose, probable impacts of the project, alternatives, unavoidable adverse environmental effects, and measures to minimize environmental harm. Based on the air quality analyses completed for the proposed overall project, the bridge would not contribute to any violation of the National Ambient Air Quality Standards. The proposal is consistent with the region's year 2035 regional transportation plan and is in the 2011-2015 metropolitan transportation improvement program. The project is also consistent with local planning goals.

V. MITIGATION

The preferred alternative would remove the existing creek-side piers and install one foundation outside the 100-year floodplain, on each side of the creek, to support each of the towers. The existing deteriorated bulkheads in the immediate area of the bridge would be replaced by riprap. The activities described above would result in a net increase in flood storage and no mitigation is needed. The New York State Department of Environmental Conservation (NYSDEC) has certified that the proposed project would comply with state water quality standards. Procedures related to conditions of the Water Quality Certificate will be followed during construction of the proposed bridge. The U.S. Army Corps of Engineers (USACE) has determined that the proposed project appears to be the least environmentally damaging practicable alternative and would satisfy the requirements of Section 404 of the Clean Water Act. The USACE permit is pending, and the Coast Guard has reasonable assurance that the permit will be issued.

The preferred alternative would temporarily impact 0.018 acres of littoral zone, 0.015 acres of open water, and 0.003 acres of tidal wetland adjacent areas. Approximately 0.032 acres of littoral zone, 0.067 acres of open water, and 0.037 acres of tidal wetland adjacent areas would be subject to temporary shading impacts from the barge docking platforms. Permanent impacts include approximately 103.7 cubic yards of riprap placement near the existing bridge piers and approximately 0.632 acres of shading impact from the new bridge structures. Overall there would be a net gain of 0.113 acres of littoral zone due to removal of existing bridge piers. The replacement of the deteriorated concrete bulkheads with riprap side slopes would provide mitigation for riparian impacts.

The project is located within the boundaries of the state coastal zone. The New York State Department of State (NYSDOS) has determined that the project is consistent with the general consistency criteria of the New York coastal management program.

Both the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) concluded that no federally threatened or endangered species are expected to be in the project area. The NMFS identified designated essential fish habitat in the immediate project vicinity for two species, Atlantic sea herring and winter flounder. Removal of the existing bridge piers would increase the aquatic habitat in the project area. The NYSDOT and FHWA have committed to implementing NMFS recommendations for conservation of essential fish habitat.

The new cable-stayed bridge would increase the potential collision/mortality risk to migratory birds. Due to its greater height, the cable-stayed main span would have a
larger exposed area than the existing main span. Mitigation measures would include limiting the bridge superstructure height to less than 300 feet; using white strobe lights with the greatest permissible interval between flashes for obstruction lighting; limiting aesthetic lighting on the bridge structure; and increasing cable visibility.

Several invasive plant species have been found in the project area. NYSDOT will incorporate measures to control invasive species during construction operations, and could include the inspection and cleaning of construction equipment, commitments to ensure the use of invasive-free mulches, topsoil and seed mixes, and the development of control or eradication strategies should an invasion occur.

The proposed project would encounter contaminated soils and groundwater in excavation areas and contaminated sediment when dredging. The preferred cable-stayed structure would require less excavation in significantly contaminated areas than would be required for the other structure types considered. Mitigation measures include developing a Health and Safety Plan and a Spill Contingency Plan to be implemented during construction, and developing soil and groundwater management plans that prescribe methods for collecting, storing, and disposing of contaminated. If dredging is required, a closed-top clamshell bucket would be used to prevent dredged water and material from leaking or becoming re-suspended by spilling out of the bucket during the dredging operation, and silt curtains would be used to confine the dredged area. There are no long-term impacts associated with the proposed project.

The new cable-stayed bridge would be located on a new alignment just south of the existing bridge. The towers would extend approximately 190 feet above the proposed roadway, almost 125 feet above the top of the existing through truss, making it highly visible to the surrounding communities. During the EIS phase, the public expressed interest for a “signature” main span. This preference was reinforced at the February 2010 Open Houses, where the cable-stayed option received the strongest support. The new cable-stayed bridge will provide a dramatic visual experience for bridge users and the local communities, while meeting the public’s preferred choice for a new main span.

Noise receptors impacted by operation of the preferred alternative include the Sergeant William Dougherty Playground, the Old Calvary Cemetery and nearby residential areas. Noise levels would increase up to four decibels, approximately three decibels higher than the no-build alternative. Because the project is located in a highly developed urban area, no feasible mitigation measures could be identified. However, measures to reduce the perceived annoyance from roadway noise would be considered during the final design phase of the project. Construction noise levels would exceed current levels. Mitigation measures would include limiting construction hours with more restrictive hours for noisier activities, adhering to USEPA noise emission standards for construction equipment, and providing for receipt of noise complaints.

The proposed project would require the relocation of 43 businesses and three residences. All displaced tenants have already been relocated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. There are no long-term local or regional economic impacts anticipated due to these relocations.
The project would include land conversion at Sergeant William Dougherty Playground in Brooklyn. The project would also impact a one-foot strip of property owned by the New York City Department of Parks and Recreation. Mitigation includes reconstructing the Sergeant William Dougherty Playground and expanding it into the adjacent property, and creating new parks in both Brooklyn and Queens.

The preferred alternative would demolish the existing Kosciusko Bridge resulting in an adverse impact on the National Register of Historic Places (NRHP)-eligible resource. In addition, construction activities have the potential to disturb or destroy previously undocumented NRHP-eligible archaeological sites and ground vibrations during construction have the potential to impact contributing elements of the Old Calvary Cemetery. A Section 106 Memorandum of Agreement (MOA), dated 25 November 2008, was signed by the FHWA, NYSDOT, and the New York State Historic Preservation Offices. The project will be implemented in accordance with the stipulations identified in the MOA.

The proposed project is located along a flight path to LaGuardia Airport. The Federal Aviation Administration has determined that the preferred alternative would not present a hazard to navigation provided that obstruction lighting is provided on top of the towers.

The preferred alternative would not impact an American heritage river, wild and scenic river, coastal barrier resource, prime and unique farmland, or properties that were purchased using Land and Water Conservation Fund Act grants.

The preferred alternative is not expected to have disproportionate negative effects on low-income or minority populations, or adversely affect environmental justice concerns.

Minimization, avoidance or elimination of adverse impacts was a primary consideration throughout the project planning. All efforts have been made to minimize impacts on the environment and on navigation.

VI. CONCLUSION

Based on an independent Coast Guard review of all pertinent factors, including navigation and the human environment, the Coast Guard concludes that the proposed replacement bridge across the Newtown Creek would meet the reasonable needs of navigation with no unmitigated, significant impacts on the quality of the human environment.

Date: 21 August 2013

BRIAN L. DUNN
Chief, Office of Bridge Programs
U. S. Coast Guard
By direction of the Commandant