

**Section 106 FINDING DOCUMENTATION
PIN X720.46
Grand Street Bridge over Newtown Creek Project
Kings and Queens Counties, NY
SHPO Project Review 25PR07761**

March 9, 2026

Project Description

The New York City Department of Transportation (NYCDOT), in coordination with the Federal Highway Administration (FHWA), is progressing the subject transportation project with federal funds. This project is an undertaking subject to Section 106 of the Historic Preservation Act and its implementing regulation, 36 CFR 800: Protection of Historic Properties. This documentation has been prepared pursuant to the standards outlined in 36 CFR Part 800.11.

The Project is located on Grand Street in New York City and spans Newtown Creek, from its western approach in Kings County to the eastern approach in Queens County. The purpose of this project is to address structural deficiencies, geometric deficiencies, resiliency needs, and operational reliability of the Grand Street Bridge for multi-modal transportation uses, including cars, buses, trucks, pedestrians, bicycles, and marine vessels (Attachment A-1).

The preferred concept involves the replacement of the existing Grand Street Bridge with a two-span bridge, including a vertical (lift type) movable span over a navigation channel and a fixed span. To maintain traffic for the duration of the project construction, a temporary bridge and fender system will be constructed on the south side of the bridge with approaches that are aligned to tie in with Grand Street in Brooklyn and Grand Avenue in Queens.

Proposed Project Scope includes the following:

- Perform geotechnical and environmental borings for structural assessment
- Excavation and dredging associated with removal of old and installation of new bridge
- Construct temporary cofferdams and construct a temporary bridge south of the existing Grand Street Bridge
- Construct temporary cofferdams and demolish the existing bridge and fender system
- Construct temporary cofferdams and install new abutments, wingwalls, mid-channel pier in Newton Creek, retaining walls, bulkheads, superstructure, and approaches for the proposed Grand Street Bridge
- Construct new short span vertical lift bridge and fixed span bridge
- Replace miscellaneous utilities in approach roadways and regrade, repave and restripe the new Grand Street Bridge approaches

Majority of the project limits are within the NYCDOT Right-of-Way, with some areas requiring acquisitions in fee, temporary easements, and a permanent easement for staging and construction of the temporary bridge.

Area of Potential Effect (APE):

An area encompassing the locations where anticipated construction activities would occur, (including areas of physical alteration and excavation) has been delineated and identified as the project Limits. Based on the project limits, the Area of Potential Effect (APE) has been defined to provide an overview of known and potential historic properties, taking into consideration potential direct and indirect visual effects. Direct effects include physical alterations, damage, destruction, removal, or demolition of a

historic property, as well as visible and audible changes to a historic property's setting. The APE was also developed to encompass any indirect effects (i.e. noise, vibration, changes in visual quality and setting) resulting from the project's construction activities, potential temporary structures to detour traffic during construction, and potential permanent structures that would be part of the Project (Attachment A-2).

Project Alternatives

The following alternatives were considered for this project:

Bridge Avoidance Alternatives

- **No Build Alternative:** Under the No Build Alternative, the existing Grand Street Bridge would remain in operation, with continued routine maintenance and upkeep, and no major improvements would occur. For reasons of maintenance, geometry and operations, and safety, this alternative is not prudent. First, it would not meet the purpose and need for the Project or satisfy the project objectives because it would not eliminate existing structural, geometric, and operational deficiencies, nor would it improve the resilience of the bridge, thereby increasing safety concerns. Additionally, this approach could result in adverse social, economic, and environmental impacts related to the continued deterioration and, potentially, eventual closure of the bridge, which is not feasible nor prudent.
- **Bridge Rehabilitation / Bridge Repair Alternative:** This alternative would repair deficiencies and restore the existing Grand Street Bridge to an as-built/previous geometric condition, while maintaining and repairing previous structural modifications made over the life of the existing bridge (Attachment B-1 to B-2). Rehabilitation would include replacement of the steel stringers, replacement of the sidewalks that are outboard of the truss, repair of the existing trusses and transverse floor beams, repairs and re-pointing of the existing concrete and stone masonry abutments and pivot pier, replacement of mechanical and electrical equipment, and new submarine cables to provide power to the operating machinery. The existing Grand Street Bridge has multiple non-standard geometric, transportation, and design features related to the width of the structure including narrow lanes, lack of shoulders, inadequate lateral and vertical clearances, insufficient sidewalk width for pedestrians and no designated lanes for bicyclists. All of these non-standard features would have to be retained under a bridge rehabilitation concept. This concept would not address structural deficiencies, geometric deficiencies, inadequate and unsafe bicycle and pedestrian facilities, nor would it meet the objective to improve bridge resiliency. Therefore, this concept does not meet the purpose and needs of the Project.
- **Build in a New Location Alternative:** This alternative would construct a new bridge in a new location and leave the existing bridge in place. Any location for the new bridge would need to be far enough away from the existing bridge to remain operational for river traffic (175' minimum). The new permanent bridge cannot be located south of the existing bridge, as the main water channel bends west immediately to the south of existing bridge. The centerline of the new bridge would therefore have to be located at least 175 feet to the north to the existing bridge but still tie into the Grand Street/Grand Avenue roadway corridor to maintain traffic continuity. In turn this modification would trigger a complete reconfiguration of 47th Street to the north of the existing bridge, while still resulting in a permanent traffic flow disruption within the local street network. The existing bridge could be retained as a historical monument with a new function, such as a pedestrian bridge or a linear park, and NYC DOT would likely have to transfer the ownership of the bridge to another entity that would operate and maintain it to serve its new function. However, such an alternative would still require maintenance of the existing structure, and costs associated with such maintenance, to keep it operable to allow navigation on this section of the East Branch of Newtown Creek. In addition, this alternative would not meet the project purpose or objectives to address the structural and vehicular deficiencies of the crossing, maintain long term navigability along Newtown Creek, improve the resiliency of the bridge and provide a minimum

service life of 75 years using cost effective techniques to minimize the life cycle cost of maintenance and repair. Therefore, this alternative is not feasible or prudent.

Bridge Replacement Alternatives

All bridge replacement concepts include one 12-foot vehicular lane, a 1-foot shoulder, a 6-foot bicycle lane, and an 8-foot pedestrian sidewalk in each direction.

- **Concept 1 – Fixed Bridge:** This concept would replace the existing bridge with a new fixed bridge with fully standard roadway geometry. Both the west and east approaches would be modified and widened to tie in the bicycle lanes and pedestrian sidewalks from the bridge with those of the adjoining streets. The existing abutments would be reconstructed to meet current design and seismic standards. The profile of the new bridge cannot be raised more than 1 to 2 feet due to the required tie-in point at both approaches. Thus, the vertical clearance underneath a new fixed bridge would be limited to approximately 7 feet to 9 feet above mean high water, which is much lower than existing bridge. Therefore, this concept does not meet the purpose and needs of the Project.
- **Concept 2 – Symmetrical Swing Bridge:** This concept would replace the existing bridge with a symmetrical swing span. The existing pivot pier in Newtown Creek would be removed and replaced. Both the west and east approaches would be modified and widened to tie the bicycle lanes and pedestrian sidewalks from the bridge in with those of the adjoining streets. The existing abutments would be reconstructed or replaced, and a new fender system would be constructed to protect the bridge superstructure from vessel impact. To accommodate the geometry and new fender system, the new bridge would be approximately 25 feet wider, resulting in the encroachment into the current navigation channel, which is not part of proposed scope. Therefore, this concept does not meet the purpose and needs of the Project.
- **Concept 3 – Bobtail Swing Bridge:** This concept would replace the existing bridge with a bobtail swing span with unequal span lengths. The existing pivot pier in Newtown Creek would be removed, and a new pivot pier would be constructed off the bridge midpoint. Due to the unequal span lengths, a counterweight would be added to the shorter span, and a new fender system would be constructed to protect the bridge superstructure from vessel impact. To accommodate the unequal span lengths and new fender system, the new bridge would be approximately 25 feet wider, resulting in the encroachment into the current navigation channel, which is not part of proposed scope. Therefore, this concept does not meet the purpose and needs of the Project.
- **Concept 4 – Bascule Bridge:** This concept would replace the existing bridge with a new two-span bridge, including a movable span over the current 88-foot navigation channel. The existing pivot pier in Newtown Creek would be removed, and a new pit type bascule pier would be constructed. The west abutment would also be removed and replaced with a new pit type bascule pier. Under this concept, the pit piers would require excavation of a substantial amount of contaminated or hazardous material and would also constrict hydraulic flow in the creek. All mechanical and electrical components would be in the pit piers underneath the roadway, resulting in the operating machinery being susceptible to flooding which would not meet the objective of improving the resiliency of the bridge. Therefore, this concept does not meet the purpose and needs of the Project.
- **Concept 5A – Long Span Vertical Lift Bridge (Foundations on Land):** This concept would replace the existing bridge with a new vertical lift type movable bridge, spanning from abutment to abutment (approximately 235 feet) without a mid-channel pier. The existing pivot pier in Newtown Creek would be removed, increasing the width of the navigable channel at the bridge. However, due to the buildup of sediments at the existing fender system, dredging would be required in the easterly part of the channel to be made navigable. Several technical considerations, including operational reliability, ROW and dredging requirements, and traffic control at the bridge approaches were considered and it was determined that this concept does not meet the purpose and needs of the Project.

- **Concept 5B – Long Span Vertical Lift Bridge (Foundations in Waterway):** This concept would replace the existing bridge with a new vertical lift type movable bridge, spanning from abutment to abutment (approximately 165 feet) without a mid-channel pier. The new bridge abutments would be in front of the existing abutments. The existing pivot pier in Newtown Creek would be removed, increasing the width of the navigable channel at the bridge. However, due to the buildup of sediments at the existing fender system, dredging would be required in the easterly part of the channel to be made navigable. Several technical considerations, including operational reliability, ROW and dredging requirements, and traffic control at the bridge approaches were considered and it was determined that this concept does not meet the purpose and needs of the Project.
- **Concept 6 – Short Span Vertical Lift Bridge:** This concept would replace the existing bridge with a new two-span bridge, including a 120-foot vertical lift type movable span over the current 88-foot navigation channel at the bridge. This concept includes a vertical lift bridge spanning from the west abutment to a mid-channel pier and a fixed multi-girder span extending from a mid-channel pier to the east abutment. The final height of lift of the span would be established via coordination and input from the USCG. An intermediate pier would be constructed in Newtown Creek near the midpoint of the creek and would be offset from the existing bridge foundations to minimize the potential for interference during construction.

Maintenance and Protection of Traffic

Preferred concept includes constructing a temporary bridge to the south of existing Grand Street Bridge. The temporary bridge would provide adequate width to maintain one lane of traffic in each direction and protected space for pedestrians. This concept does not require any road closures or detours, but it does require temporary easements, a permanent easement, and a fee acquisition of portions of two private properties along the south side of Grand Street [Brooklyn Block 2948 Lot 13 – Feldman Lumber]/Grand Avenue [Queens Block 2611 Lots 93 and 95 – Western Beef]. The affected parts of the private properties are currently used for service access, parking, and/or storage. This concept would not result in any construction related traffic impacts. Due to the location of the temporary bridge immediately south of the existing bridge, no construction period traffic diversions are required and therefore no increases in network travel time or user costs would be incurred, thus addressing the project goals of maintaining and protecting traffic with adequate local access to businesses and minimizing detour travel time disruption during construction. Temporary bridge would be completely removed after construction completion and the location restored to its original state (Attachment B-3).

Preferred Alternative

Concept 6 – Short Span Vertical Lift Bridge was determined as the preferred alternative. This alternative would remove and replace the Grand Street Bridge, an important connection between the industrial sections on both sides of Newtown Creek. The Project would construct the bridge up to current standards, permanently improving the crossing for industrial and commercial vehicles as well as the traveling public. In addition, the Project would greatly improve bicycle and pedestrian facilities on the bridge and tie them into the existing bicycle and pedestrian network on both sides of the bridge, thus providing a valuable and safe bike and pedestrian connection and promoting active transportation and sustainable modes of traffic within the neighborhood (Attachment B-3 to B-6).

Steps Taken to Identify Historic Properties

Available information on historic properties listed or eligible for listing in the National Register of Historic Places (NRHP) within the APE, was obtained from the OPRHP's online database, the Cultural Resource Information System (CRIS) (Attachment C).

Early consultation with SHPO started with a Section 106 Pre-Initiation Package that was sent to SHPO on August 1, 2025. SHPO sent back the concurrence letter to NYSDOT on September 15, 2025, noting that the Grand Street Bridge (BIN 2-24039-0) is eligible to be listed in the State and National Register of Historic Places and stating that they agree with the findings in the Preliminary Cultural Resources Screening Report, which was included in the package.

On October 27, 2025, NYSDOT prepared the Section 106 Initiation package and sent to SHPO and four Tribal Nations (The Delaware Nation, the Delaware Tribe, Shinnecock Indian Nation and the Stockbridge-Munsee Community Band of Mohican Indians) for review and concurrence. SHPO replied on November 11, 2025, noting that the Grand Street Bridge (BIN 2-24039-0) is eligible to be listed in the State and National Register of Historic Places. They stated that they reviewed the Section 106 consultation initiation letter and documentation; that their office concurs with the proposed APE for the Project, that there are no other historic resources within the APE, and that their archeological unit has no concerns. At that time, SHPO did not recommend the completion of an architectural or archeological survey. The Stockbridge-Munsee Tribal Historic Preservation Office sent an email correspondence on August 11, 2025, and stated that they have no issue with the Project moving forward, with the following stipulations:

- If previously undocumented archaeological resources are encountered, please contact THPO promptly and follow the Inadvertent Discovery Policy on the Stockbridge-Munsee Community website: mohican.com/historic-preservation
- Please give due attention to the incidental or routine movement of heavy machinery both inside and outside the stated area of potential effect (APE) that may cause unintended or inadvertent impacts to cultural resources
- Should the proposed work be altered to expand beyond the current scope of work and/or APE, they asked to be notified

NYSDOT did not receive any response from the other Tribal nations to date.

Architectural Resources:

There is one NRHP eligible resource within the APE: Grand Street Bridge, BIN 2-24039-0, 1903 (USN Number 04701.014985). See Section 3: Evaluation of Project Impacts on Identified Historic Properties below, for additional information about this resource.

Based on review of Google Maps, there are no buildings within or near APE that are over 50 years old, with distinctive characteristics of a type, period or architectural style that would have the potential to be eligible for listing in the NRHP.

Archaeological Resources:

A review of the archaeological data available on CRIS indicates that portions of the project area on the northwest and southwest side of Grand Street are located within the archaeological sensitive areas. Archaeological sensitive areas represent buffers around known or reported archaeological resources. No reported archaeological sites are located within or immediately adjacent to the APE. There is no evidence of NRHP eligible or listed archaeological resources in the project APE and both SHPO and the Stockbridge-Munsee Community Band of Mohican Indians agreed that an archaeological survey is not needed.

Previous Ground Disturbance:

Newtown Creek is an artificial, banked channel that was created by landfilling over the surrounding wetlands. The soil within and surrounding the APE consists of introduced fill overlying natural wetland soils. Further disturbance to the soil is due to bridge and roadway construction, as well as the installation of underground utilities and ongoing dredging operation by EPA. Intact archaeological resources are very unlikely to be encountered within the project's APE; therefore, no archaeological survey was needed for the Project (Attachment B-7 and B-8).

Evaluation of Project Impacts on Identified Historic Properties

One historic property was identified within the APE:

Grand Street Bridge (BIN 2-24039-0) (USN-04701.014985)

The Grand Street Bridge, constructed in 1903, was determined eligible for listing on the NRHP under Criterion C for engineering as a distinctive example of early-twentieth-century bridge construction in New York City. The bridge is a camelback through truss swing bridge with a polygonal top chord formed by

five slopes. Contributing elements, still present, include the one-story hip roof, frame, operator's house (technically two-full stories with a lower level below grade at the ROW), the bridge's concrete fenders, and stone abutment walls. The bridge was initially evaluated in 1999; at that time, it was determined to retain a high level of integrity of location, design, setting, materials, workmanship, feeling, and association (Attachment E).

Historic photographs and documentation indicate that the bridge has undergone material loss and change since its initial construction. The original deck was wood plank with trolley tracks, which has been replaced by a steel deck. The ornate guardrails and fencing have been replaced, and rehabilitation work was undertaken on the fender in the 1930s, replacing the earlier fender with a wood frame crib filled with earth. A rehabilitation project undertaken in 1972 included, but was not limited to, replacement and strengthening of stringers and diaphragms, strengthening of floor beams, and replacement of the steel grid decking. Other repairs to replace operating equipment damaged by Superstorm Sandy in 2012 were completed in 2019. The bridge house, constructed in 1903, was re-clad in vinyl and the doors, windows, and shingles were replaced as part of the Hurricane Sandy repair efforts. NYCDOT regularly makes repairs to the bridge as issues are identified.

Based on the project's needs and purpose, the preferred alternative proposes to remove the bridge and its contributing elements, including the operator's house, which suffered damage by Superstorm Sandy in 2012. It was re-clad in vinyl, and its doors, windows and shingles were replaced as part of the Hurricane Sandy repair efforts.

Basis for Recommended Project Finding

The NYSDOT has applied the Criteria of Adverse Effect (36 CFR 800.5(a)) to all historic properties within the project's APE. Based on the information provided in this Section 106 Finding Document, NYSDOT's Regional Cultural Resource Coordinator, in coordination with the FHWA, finds that this undertaking will have an Adverse Effect on the Grand Street Bridge (04701.014985/BIN 2-24039-0) because it will be demolished and replaced with a new bridge.

Continued consultation with the SHPO and FHWA will be required to mitigate the adverse effects from this project. The NYSDOT proposes the development of a Memorandum of Agreement (MOA) for the Project, in accordance with 36 CFR 800.6(c).

Tribal Nations, Consulting Parties, and Public Involvement

Early consultation started on August 1, 2025, with a Section 106 Pre-Initiation Package that was sent to SHPO. SHPO sent back the concurrence letter to NYSDOT on September 15, 2025, noting that the Grand Street Bridge (BIN 2-24039-0) is eligible to be listed in the State and National Register of Historic Places and stating that they agree with the findings in the Preliminary Cultural Resources Screening Report, which was included in the package.

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- Should the proposed work be altered to expand beyond the current scope of work and/or APE, they asked to be notified

The NYSDOT did not receive any response from the other Tribal nations to date. Consultation with SHPO and four Tribal Nations (The Delaware Nation, the Delaware Tribe, Shinnecock Indian Nation and the Stockbridge-Munsee Community Band of Mohican Indians) is ongoing (Attachment F).

There are no additional consulting parties on this project, however the interagency meetings have been and will continue to be held with the following agencies: United States Army Corps of Engineers (USACE), United States Environmental Protection Agency (USEPA), United States Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA), Federal Highway Administration (FHWA), United States Coast Guard (USCG), New York Metropolitan Transportation Council (NYMTC), Metropolitan Transportation Authority (MTA), Department of Citywide Administrative Services (DCAS), New York State Department of State (NYSDOS), FHI/IMEG, Newtown Creek Alliance, New York City Department of Environmental Protection (NYCDEP), CDM Smith, New York City Department of Sanitation (DSNY), New York State Department of Environmental Conservation (NYSDEC), and Mayor's Office of Climate & Environmental Justice (MOCEJ).

This project has been and will continue to be coordinated with the public. The NYCDOT will post a notice on the public project website that the Project is subject to Section 106 review. The notice will include a link to the Finding Document and provide contact information should any entities request participation as a consulting party. Any new/additional consulting parties approved by the FHWA will be included in future consultation, including review of the Draft MOA.

The project team met with the Queens Community Board 5 in November 2024 and Brooklyn Community Board 1 in January 2025. The project team also held public information meetings in Queens and Brooklyn on April 28th, 2025, and April 30th, 2025, respectively. The next round of public information meetings will be planned for spring 2026.

Attachments

Attachment A: Project Location Map and APE Map

Attachment B: Existing and Proposed Plans and Dredging Plans

Attachment C: CRIS Map

Attachment D: Historic Photos and Site Photos

Attachment E: Grand Street Bridge Determination of Eligibility

Attachment F: Project Correspondence