

DRAFT

SCOPING DOCUMENT

**REHABILITATION OR RECONSTRUCTION OF THE BROOKLYN-QUEENS
EXPRESSWAY
ATLANTIC AVENUE TO SANDS STREET
KINGS COUNTY
P.I.N. X730.56**

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I. INTRODUCTION

The Federal Highway Administration (FHWA), in cooperation with the New York State Department of Transportation (NYSDOT) as joint-lead agencies, will prepare an Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act of 1969 (NEPA), the State Environmental Quality Review Act (SEQRA), and the environmental review provisions of Section 6002 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) for the rehabilitation or reconstruction of an approximately 1.5 mile segment of the Brooklyn-Queens Expressway (BQE)/Interstate 278 (I-278) (the Project). The segment of the BQE/I-278 for which the EIS will be completed extends between Atlantic Avenue (on the west) and Sands Street (on the east) in Kings County, New York, with a significant portion of its length supported by a total of 21 structures, including a unique 0.4-mile long triple cantilever structure (see Figure 1). This segment of the BQE/I-278 is owned by the New York City Department of Transportation (NYCDOT). The Project would be the first major rehabilitation or reconstruction of this segment of the BQE/I-278 since its opening in 1954.

This Draft Scoping Document (DSD) outlines the scope of the studies proposed to be undertaken in evaluating the Project in accordance with NEPA, SEQRA and SAFETEA-LU. The public is invited to provide comment on this draft scope. A Final Scoping Document will be prepared based on consideration of the public and agency comments received on this DSD.

A major portion of the Project is located in the Brooklyn Heights neighborhood within Brooklyn Community District 2. The eastern terminus of the Project at Sands Street is located near the New York City Housing Authority (NYCHA)-owned Farragut Houses in Brooklyn Community District 2, while the western terminus of the Project at Atlantic Avenue is adjacent to the Cobble Hill neighborhood in Brooklyn Community District 6. The triple cantilever structure supports the Brooklyn Heights Promenade, an important local resource and is located immediately east of the approved site for the Brooklyn Bridge Park, currently under development by the Brooklyn Bridge Park Development Corporation (BBPDC). The Project primary study area encompasses the neighborhoods of Brooklyn Heights, DUMBO, Vinegar Hill, Downtown Brooklyn, portions

of the Fort Greene neighborhood, portions of Brooklyn Community Districts 2 and 6, and the site of the Brooklyn Bridge Park (see Figure 1).

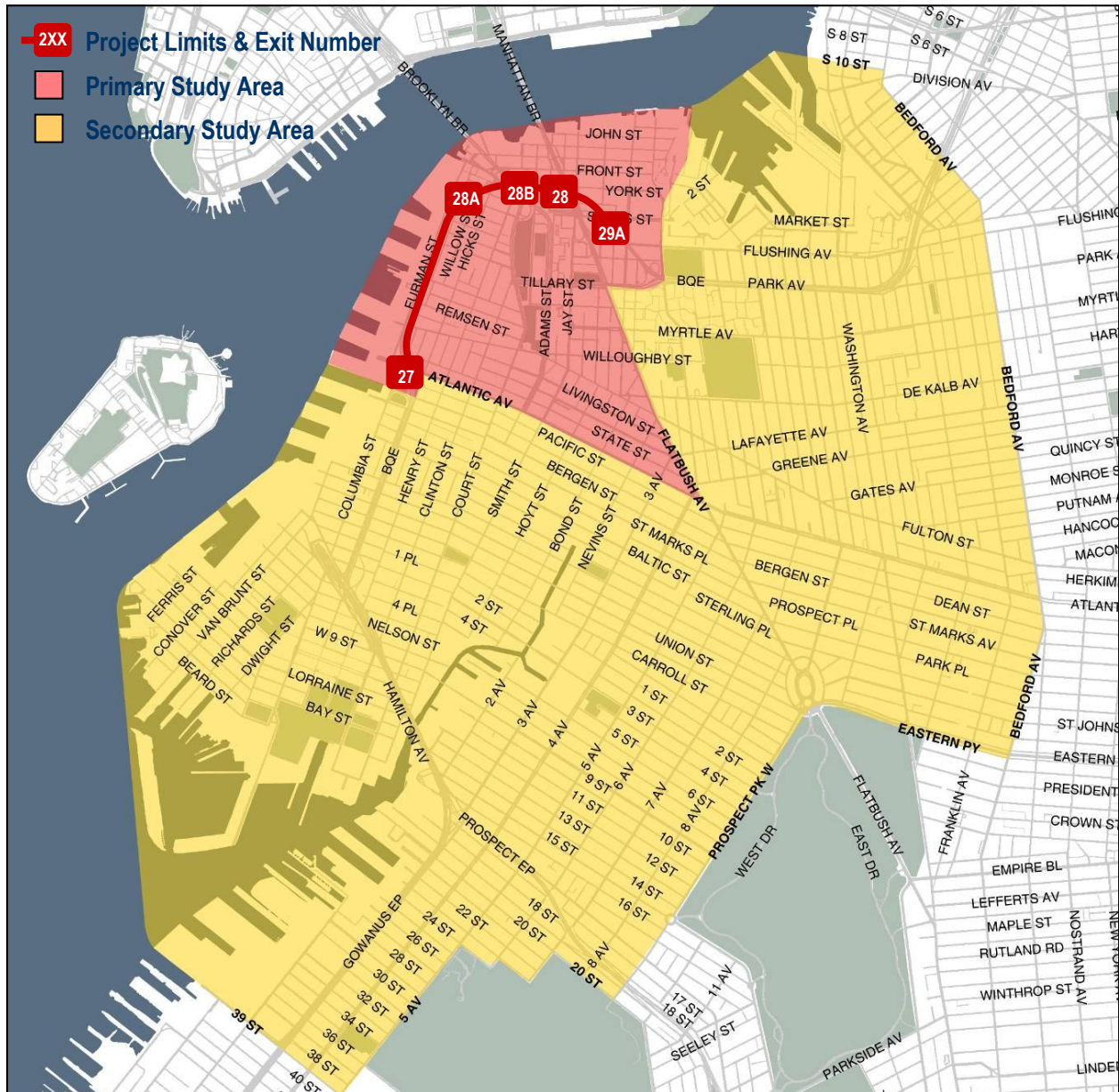
The FHWA and NYSDOT will use a tiered environmental review process, as provided for in 40 CFR 1508.28, to complete the environmental review for the Project. “Tiering” is a staged environmental review process applied to the completion of complex projects that results in the preparation of a series of environmental documents. In the case of this Project, the first tier will address broad corridor-level issues and proposals, while a subsequent tier will analyze, at a greater level of detail, narrower site-specific proposals based on decision made in Tier 1. The second tier will result in more detailed assessments on a range of build alternatives within the general corridor and alignment identified in the Tier 1 EIS.

Preparation of this DSD began with a series of informational meetings with Brooklyn Community Board 2; Brooklyn Community Board 6; the BBPDC; key local, State and federal elected officials whose jurisdictions encompass the Project study area; the New York City Economic Development Corporation (NYCEDC); the NYCDOT; MTA-New York City Transit (MTA-NYCT); New York City Department of Parks and Recreation (NYCDPR); the Brooklyn Bridge Park Conservancy; the Downtown Brooklyn Partnership; and the Brooklyn Heights Association. During these meetings, the NYSDOT provided an overview of the Project, its draft purpose and need, and preliminary schedule to complete the NEPA/SEQRA process. As detailed later in this DSD, the public will be afforded a number of opportunities to provide comments on the purpose and need for the Project, the alternatives to be considered, and the methodologies to be used in assessing each alternative in the EIS. To help facilitate public comment, this DSD:

- Describes the history of this segment of the BQE/I-278;
- Describes the current condition of this segment of the BQE/I-278, including its structural condition and operational characteristics;
- Provides a general description of the corridor in which the existing facility is located, and its nearby land uses;
- Identifies the draft purpose and need for the Project;
- Identifies the discretionary actions by the public that will be required to implement the Project;

- Outlines the Agency Coordination and Public Involvement Plans prepared for the Project, as mandated by NEPA, SEQRA, and Section 6002 of SAFETEA-LU;
- Describes the probable range of potential alternatives to be considered, including a “No Action” option;
- Describes the environmental impact assessment mechanism for the Project;
- Provides a description of the study areas and methodologies to be applied in assessing the potential impacts of the Project; and
- Describes the scoping process, including the mechanisms open to the public to provide comment on the scope of the EIS.

Figure 1



	<p>Henningson, Durham & Richardson Architecture and Engineering, P.C. in association with HDR Engineering, Inc. 500 Seventh Avenue New York, New York 10018</p>	<p>Rehabilitation of the BQE, Atlantic Avenue to Sands Street Brooklyn • New York</p>	<p>Figure 1</p>
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II. PROJECT PURPOSE AND NEED

Background

The segment of the BQE/I-278 within Project limits extends approximately 1.5 miles between Atlantic Avenue, on the west, and Sands Street, on the east, in Kings County, New York, and includes a unique triple-cantilever structure extending approximately between Orange Street and Remsen Street. The highway carries a daily traffic volume of approximately 140,000 vehicles, including a significant number of trucks, which is approximately 18 percent of the total traffic during the busiest peak hours. This volume of traffic is significantly greater than the volume of traffic for which the facility was designed. This segment of the BQE is a critical link of I-278, which is the sole interstate facility in Brooklyn connecting the Robert Kennedy Memorial Bridge (previously named the Triborough Bridge), the Bronx and other points to the east, and the Gowanus Expressway, Staten Island, New Jersey and other points to the west.

The Project includes a total of 21 bridges (i.e., 21 individual structures for which Bridge Identification Numbers have been established by NYSDOT). The most prevalent bridge type along this segment of the BQE/I-278 is reinforced concrete, including the unique triple cantilever structure. This multi-level structure carries six lanes of the BQE/I-278. The eastbound and westbound roadways, with three lanes each, are carried at separate levels. The eastbound lanes are located above the westbound lanes. Furman Street, an important local connector street, runs parallel to the highway at grade below the westbound lanes of the BQE/I-278. A third cantilever above the eastbound lanes of the highway supports the Brooklyn Heights Promenade, a key community resource that provides spectacular and protected views of the Brooklyn Bridge, East River, Lower Manhattan, and the Statue of Liberty. The remaining bridges within this segment of the BQE/I-278 are comprised of multi-girder steel and concrete-encased steel structures. Indirect and circuitous connections between the Brooklyn and Manhattan Bridges and the BQE/I-278 add to the complexity of this segment of highway.

The Project is located within Brooklyn Community District 2, immediately adjacent to Brooklyn Community District 6 to the south, and within the Brooklyn Heights Historic District. Four other

historic districts are in the vicinity of the Project: Fulton Ferry, DUMBO, Vinegar Hill, and Cobble Hill. The Project is also located adjacent to and immediately east of the approved site of the 76-acre Brooklyn Bridge Park, currently under development by the BBPDC.

The segment of highway within the project limits is characterized by narrow lanes (10.5 feet), lack of shoulders, and short merge/weave distances near on-ramps and off-ramps that do not meet current highway design standards. These deficiencies, combined with vertical clearance constraints, and the approximately 140,000 vehicles using this segment of the highway each day, result in the highway operating at or above capacity during most of the day. Operational deficiencies are also reflected in severe congestion that occurs throughout much of the midday and the diversion of highway traffic, particularly truck traffic onto local streets as a consequence of vertical clearance limitations.

As documented in a Seismic Evaluation Report (SER) prepared for NYSDOT by Parsons Transportation Group in June 2002, which included detailed inspections of 14 of the 21 structures along the length of the Project, and subsequent on-site investigations, the current condition of the BQE/I-278 within the Project limits is safe for public use. However, corrective action will be required within the next 10 to 15 years to maintain the structures in a state of good repair. Although a number of the structures within the project limits have undergone limited structural rehabilitation since they opened for operation in 1954, deterioration has been noted especially in the concrete superstructures and substructures.

A number of interim repairs were completed in recent years by the NYCDOT to correct identified problems and to extend the life of the bridges. Recent inspections of the structures have indicated that, despite these aggressive maintenance efforts, the structural deficiencies are increasing. The frequent maintenance and repair efforts and their associated lane closures, while necessary to maintain the bridges, exacerbate the congestion and traffic diversion problems, and do not provide a long-term solution to the underlying deterioration problems of the structures.

Based on the SER and periodically scheduled inspections of the facility by NYSDOT and NYCDOT, the NYSDOT and FHWA convened an Accelerated Construction Technology

Transfer (ACTT) workshop in March 2006 attended by a broad range of public agency staff and private consultants to consider potentially viable options for rehabilitating or replacing the structures, and on ways to alleviate the long-standing congestion experienced by motorists in this segment of the BQE/I-278. Issues considered in identifying and evaluating possible alternatives during this review included constructability, environmental impacts, geometric design considerations, public involvement/concerns, structural considerations, traffic, safety, use of intelligent transportation systems (ITS), and work zone concerns. Although the ACTT workshop reached no final recommendation on a particular alternative, the results of the ACTT workshop confirmed the need for a more comprehensive examination of alternative rehabilitation or reconstruction options. The SER and ACTT workshop results will be considered in completing the environmental review process.

Need for the Project

Based on the observed conditions of this segment of the BQE/I-278, the need for the Project is demonstrated based on three major areas of concern:

- Infrastructure Deterioration
- Nonstandard Features, including Vertical and Horizontal Clearance Issues
- Safety and operational Concerns

Infrastructure Deterioration

Infrastructure deterioration for 14 of the 21 bridges within project limits is documented in the SER. Overall, the 21 bridges have undergone limited structural rehabilitation since their construction in the late 1940s and deterioration has been noted especially in the concrete superstructures and substructures. Signs of superstructure deterioration include scaling, efflorescence, transverse cracking, mapcracking, and spalling with exposed and corroded rebar at the underdeck. Furthermore, the lack of waterproofing membrane on cantilever structures allows permeation of water and de-icing salts into the concrete, accelerating deterioration. Water leakage through failed expansion joint seals has also led to structural deterioration.

A number of interim repairs to the structure were completed by NYCDOT in recent years to correct identified problems and to extend the life of the bridges. Frequent maintenance and repair efforts and their associated lane closures, while necessary to maintain the integrity of the bridges, exacerbate congestion on the BQE, require diversion of traffic to local streets, are costly, and do not provide a long-term solution to the underlying deterioration problems of the structures.

Nonstandard Features

The segment of the BQE within the project limits is in need of operational improvements. Nonstandard features in the existing design include the highway's narrow lanes (10.5 feet compared to the 12 feet standard for interstate roadways), lack of shoulders (compared to the interstate standard minimum of 10 feet for right shoulders and 4 feet for left shoulders), short merge/weave distances near on-ramps and off-ramps, nonstandard horizontal curvature, and limited safe stopping sight distances. Together, they do not allow this segment of the BQE to support the design speed for a roadway of this classification. Lack of shoulders adds to the level of congestion as a consequence of vehicle accidents and breakdowns, and other incidents.

At certain locations within project limits, the vertical clearance is lower than 14 feet – the minimum specified standard for interstate roadways. This results in the need to divert large trucks onto local streets contributing to congestion within those communities. Horizontal clearances also do not meet the standard specified for interstate roadways.

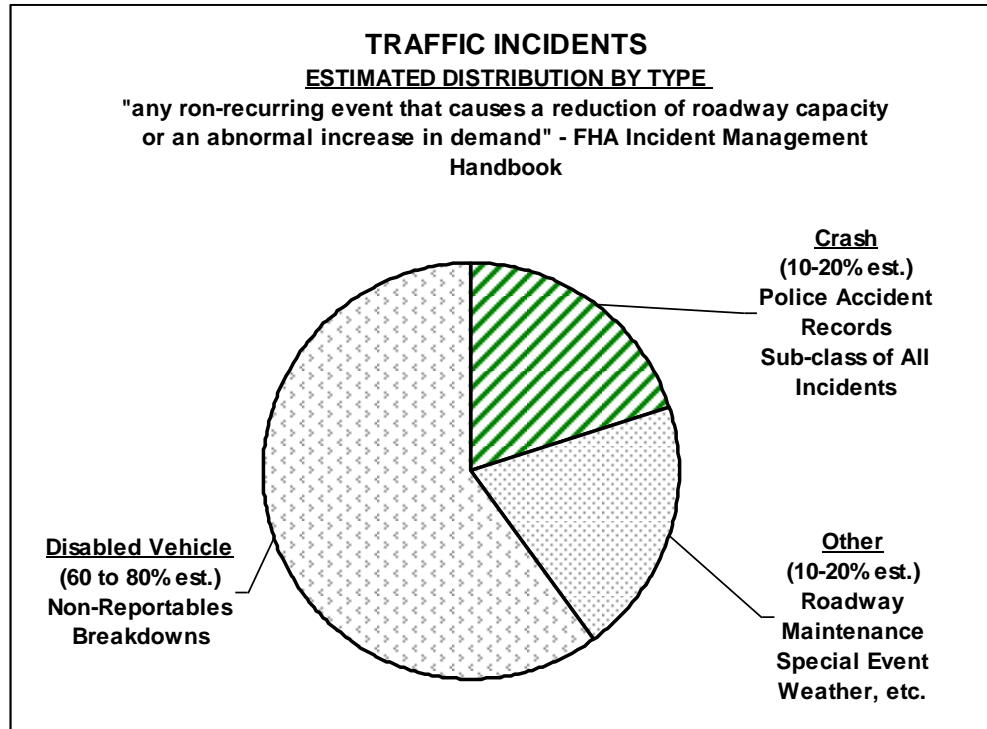
Safety and Operational Concerns

The accident rate within project limits exceeds the statewide average for this type of roadway. Accidents along this segment of roadway include high volume-related and merge-related rear-end and sideswipes accident types. These incidents result in harm to individuals, financial loss, a significant increase in congestion, delay along a substantial length of the BQE, and diversion of traffic onto the local street network. The diversion of large trucks to local streets due to inadequate vertical clearances also creates a hazard for pedestrians.

A detailed analysis of crash data was conducted for the study area based on police accident records available from the NYSDOT for the three-year period, July 1, 2004 through June 30, 2007. The study area extended along the BQE from Congress Street to Tillary Street and included all reported crashes along the mainline and ramps. A review of the accident history indicated a majority of locations within the study area experienced an accident rate that greatly exceeded the NYSDOT average rate for similar roadways. Over the three-year period a total of 369 crashes were report in the eastbound direction and 305 crashes were reported in the westbound direction of the BQE. These crashes were clustered around the points of entrance and exit to the highway and consisted of a significantly high-percentage of rear-end, sideswipe and fixed object crash types (approximately 93 percent). Additionally, further analysis indicates a high number of crashes occur during the typical periods of increased travel (between 6.00 am and 7.00 pm on weekday and 8.00 am to 4.00 pm on weekends). The data indicated that one crash is experienced approximately every three to four days per direction during the busiest travel periods.

Crash data does not capture all of the incidents creating delays for motorists traveling this section of the BQE. In addition to crashes, other incidents include events such as disabled vehicles and breakdowns, roadway maintenance, special events and adverse weather conditions. These events contribute significantly to overall delay and roadway congestion. As shown in Figure 2, crash data alone is generally estimated to comprise 10 to 20 percent of all incidents experienced within a study area. The project presents an opportunity to address both safety concerns and management of incidents resulting in delay. .

Figure 2



Purpose of the Project

Based on the description of need described above, the purpose of the Project, as currently defined, is to address the following:

- a. The deteriorating structural conditions of the 21 bridges within the project limits, as documented for the 14 bridges between Atlantic Avenue to Washington Street in the June 2002 SER and the results of subsequent on-site inspection reports for all 21 bridges.
- b. The nonstandard geometrics identified within this segment of highway, including narrow lanes, lack of shoulders, short merge/weave distances near on/off ramps which contribute to accident rates above the statewide average, and impact efficient operation

c. Deficient vertical clearances along this segment of the BQE which contribute to accidents and force larger trucks to exit the highway and traverse local streets, creating congestion in the local community and adversely affecting quality of life.

d. The deficient and/or discontinuous connectivity between the highway and key local arterials as well as the Brooklyn and Manhattan Bridge gateways to Manhattan. Currently the BQE within the project limits experiences a number of substandard highway design features that reduce the efficiency of the connectivity between the highway and key local arterials. These substandard features include tight turning radii on the ramps, limited or no acceleration and deceleration lanes at entrance and exit points, narrow travel lanes, and insufficient sight distances.

e. The evaluation of multimodal options including the potential for accommodation of either a dedicated (high-occupancy vehicle) HOV or Bus Rapid Transit (BRT) lane within the project alignment.

III. PERMITS

The following permits may potentially be required to implement the Project:

- Nationwide Permit for Navigable Waters, US Army Corps of Engineers
- Section 401 Water Quality Certificate, NYS Department of Environmental Conservation
- Stormwater Pollutant Discharge Elimination System Permit, NYS Department of Environmental Conservation
- Coastal Zone Consistency Certificate, NYS Department of State
- Waterfront Revitalization Consistency Review, NYC Department of City Planning
- Permit for Construction on Waterfront Property, NYC Department of Small Business Services
- Curb-cut Permit, NYC Department of Transportation

IV. ALTERNATIVES

An Alternatives Analysis will be undertaken as part of the environmental review process. This will consider a wide range of alternatives designed to address the traffic, safety, and structural needs within the project limits. A comprehensive set of alternatives will be developed during the public scoping process with input from all stakeholders. Each alternative will be screened for its ability to meet the project's purpose and need. The alternatives analysis will focus on establishing the general alignment through which a selected alternative will be developed and identifying the most promising alternatives for consideration in subsequent tiers of the environmental review process. Alternatives for consideration are expected to fall into one of the following categories: Transit alternatives, Transportation Demand Management (TDM) alternatives, Transportation System Management (TSM) alternatives, rehabilitation alternatives and reconstruction alternatives. Where appropriate, alternative sets can be mixed and matched to achieve total system synergies. For example, transit alternatives may be folded into reconstruction and rehabilitation alternatives. As mandated under NEPA, a No Action alternative will be considered and serve as a baseline against which other alternatives will be evaluated.

As noted earlier, results of the ACTT workshop conducted in March 2006 will be considered in evaluating alternatives. Principles within the FHWA Highways for Life (HfL) pilot program will also be incorporated in the analysis. These include technology transfer initiatives, use of innovative technology such as prefabricated bridge elements and systems to improve safety and constructability, reduction of congestion due to construction, and overall improvement in quality and satisfaction for the public.

V. PUBLIC INVOLVEMENT AND AGENCY COORDINATION

Agency Coordination and Public Involvement Plans have been prepared for the Project, as mandated by Section 6002 of SAFETEA-LU.

Agencies identified in the Agency Coordination Plan (ACP) are expected to participate in developing the purpose and need statement, range of alternatives, methodologies, and the level of

detail for the analysis of alternatives. Section 6002 of SAFETEA-LU mandates agencies to identify, as early as practicable, issues of concern regarding the project's potential environmental or socioeconomic impacts, provide meaningful and timely input, and participate in the scoping process. Cognizant of the existing and potential sensitive land uses in the Project's proximity, the ACP includes the formation of a working group of technical specialists from agencies with facilities that would be potentially affected by the Project. Specialists from agencies and entities such as the Brooklyn Bridge Park Development Corporation will be identified to work directly with their counterparts on the Project team to provide guidance on measures to minimize potential impacts to important public and community resources within or immediately adjacent to the Project alignment. These resources include parks, historic resources, local roadways and transit infrastructure.

The Public Involvement Plan (PIP) has been prepared with the objective of identifying stakeholders and informing them of the project and proposed project scope, gathering information on the project context, and identifying potential community concerns. Central to the PIP is a Stakeholder's Committee, which includes representatives of Brooklyn Community Board 2, Brooklyn Community Board 6, responsible elected officials, interested neighborhood associations, and other interested parties. The Stakeholder Committee will provide advice and assistance to NYSDOT in alternatives development; serve as a liaison between the community and the project team; help to develop the project's purpose and need, screening criteria; review project data and findings; provide input on preliminary recommendations; and help plan the public outreach program.

Notice of Initiation of the Environmental Process and Request to Public Agencies to Become Participating Agencies in the Environmental Review Process:

As required by Section 6002 of SAFETEA-LU, letters have been sent to federal, State and local agencies, and to private organizations and citizens who have previously identified and/or expressed interest in the project, notifying them of the initiation of the environmental process and requesting that they be included as participating agencies or parties in the environmental review process. Once the DEIS for each tier of the process is certified as complete, it will be made available for further public and agency review and comment.

VI. ENVIRONMENTAL IMPACT ASSESSMENT

The FHWA and the NYSDOT will use a tiered process, as provided for in 40 CFR 1508.28, in the completion of the environmental review of the Project. “Tiering” is a process applied to the completion of environmental reviews for complex projects in which an initial (“Tier 1”) EIS is prepared that addresses broad corridor level issues and proposals and subsequent environmental evaluations focus on narrower site-specific proposals, related to the initial proposals, in a greater level of detail than in the initial EIS.

Although open to refinement based on public and agency review and comment, the Tier 1 assessment will result in a NEPA document with the appropriate level of detail for corridor level decisions and will address broad overall issues of concern, including but not limited to: confirm the purpose and need of the Proposed Action; determine the logical termini for the Proposed Action; define the study area appropriate to assess reasonable alternatives; identify a comprehensive set of goals and objectives for the corridor in conjunction with Stakeholders and Steering Committee members as defined in the PIP (these goals and objectives will be crafted to allow comprehensive evaluation of all aspects of the project to include alignment, mode, limits, etc.); identify the range of reasonable alternatives to be considered, including consideration of travel demand management, transportation systems management, and transit options consistent with the current and planned use of the corridor and the transit needs and existing services within and adjacent to the study area; develop criteria and screen alternatives to eliminate those that do not meet the purpose and need of the Proposed Action; identify the general alignment of the reasonable alternatives; identify right-of-way requirements for the reasonable alternatives; characterize the overall land use and environmental consequences of the reasonable alternatives; establish, as necessary, the timing and sequencing of independent actions to maintain a state of good repair; establish the environmental review process to be followed in completing subsequent tier evaluations of the proposed Project.

The 21 bridges within the project limits will be evaluated to update the findings of the SER and recent on-site inspection. Additional inspections and analyses will be conducted as needed to

determine the degree and nature of structural deficiencies and to determine the appropriate work needed for their rehabilitation or reconstruction.

The Tier 1 EIS will assess the overall short-term (construction-related) and long-term (operation-related) consequences of the project alternatives on traffic and transportation, noise and vibration, air quality, water quality, coastal zone resources, land use and neighborhood character, community facilities, disadvantaged and minority populations, visual quality and significant views, park lands, historic and archaeological resources, hazardous materials, and utilities. In considering construction-period effects, the Tier 1 document will identify options for enhancing overall constructability of the project, including development of traffic diversion and conceptual maintenance and protection of traffic schemes that will allow for the continued safe operation of the BQE and safeguard nearby Brooklyn neighborhoods and community resources, including park lands (existing, planned, or under development).

Also included in the Tier 1 document will be an assessment of right-of-way requirements, potential associated needed improvements to connections with the local street system and potential opportunities to support other local initiatives, including improved connections to the Brooklyn Bridge Park, currently under development by the Brooklyn Bridge Park Development Corporation along the East River waterfront immediately west of this segment of the BQE.

Subsequent (Tier 2) assessment will include more detailed assessments of a range of build alternatives within the general corridor and alignment identified in the Tier 1 EIS. These evaluations will be based on a higher level of engineering detail and environmental analysis than in the Tier 1 evaluation. It is anticipated that the subsequent evaluation(s) will: incorporate by reference the data and evaluations included in the Tier 1 EIS; concentrate on the issues specific to the selected alternative identified in the Tier 1 EIS; provide a more detailed evaluation of transit accommodations if carried forward from Tier 1; screen the identified alternatives to determine the alternative that best meets the purpose and need for the Proposed Action; identify the environmental consequences at a higher level of detail than in the Tier 1 assessment and identify measures necessary to mitigate environmental impacts based on a higher level of

engineering detail than in the Tier 1 EIS; establish, as necessary, the timing and sequencing of independent actions to maintain a state of good repair.

VII. ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY AND STUDY AREAS

Guidelines

The methodologies to be followed in preparing the Tier 1 EIS will conform to FHWA Technical Advisory T6640.8A, *Guidance for Preparing and Processing Environmental and Section 4(f) Documents* (October 30, 1987), and the requirements of the NYSDOT *Environmental Procedures Manual*. The Tier 1 EIS will assess the overall consequences of the project alternatives on the impact categories listed below. The second tier of the environmental review process will further detail the anticipated consequences of project alternatives within the established alignment based on a higher level of engineering and environmental studies.

An initial phase interim product of the Tier 1 EIS will be a Project Scoping Report (PSR), which will be prepared in the format of a Preliminary Design Report/Environmental Impact Statement (DR/EIS) in accordance with the NYSDOT Project Development Manual (PDM). Based on the parameters of the environmental assessment stated in the scoping document, the PSR will provide an examination of existing conditions, needs and deficiencies, goals and objectives, design criteria, environmental considerations and non-standard features. As noted earlier, a range of alternatives will be developed during the public scoping process with input from all stakeholders. Feasible alternatives (see “Alternatives” section of this document) that meet the purpose and need of the Proposed Action will be identified and evaluated as part of this effort.

Affected Environment

Existing conditions (“affected environment”) within primary and secondary study areas (see Figure 1) nearby the segment of the BQE/I-278 under study will be described based on a review of published information supplemented by limited field investigations. The primary study area, for which detailed assessments will be completed, extends from Atlantic Avenue on the south to

Navy Street on the north, and the East River on the West and approximately Flatbush Avenue on the east. A secondary study area, also shown in Figure 1, for which more generalized assessments of existing conditions will be completed, will extend from Bedford Avenue on the north to 39th Street on the south, and East River on the west to Prospect Park and Greenwood Cemetery on the east.

Environmental Consequences

Assessments will be completed of the short-term (construction-related) and long-term (operation-related) effects of the Project for each of the environmental impact categories described below, for the same primary and secondary study areas as for the description of existing conditions.

Land Use and Zoning

The DEIS will include an assessment of existing land use and zoning, as well as a discussion of recent development trends in the project area. It will also identify any projects that are presently under construction or in various stages of planning or review by agencies. Existing and project design-year land uses will be determined with input from the New York City Department of City Planning, the Brooklyn Borough President's Office, and other agencies. Major employers and generators of truck trips will be identified and located. This information will be reviewed and summarized for use in estimation of traffic and goods movement impacts and trip generation, and will be available in a Geographic Information Systems (GIS) format for alternatives analysis and related environmental and engineering studies. Short-term impact for siting of the construction staging area will also be included. Anticipated land use changes will be evaluated for their consistency with existing plans.

Socioeconomic Conditions

Socioeconomic impacts can occur when a proposed action directly or indirectly changes economic activities or conditions in an area. The DEIS will evaluate both the direct economic benefit of employment, and the indirect effects due to potential disruptions on existing business operations based on available data. Economic activity on a more localized basis will be established through discussions with the New York City Department of City Planning. This

section will also assess whether any of the project alternatives would have a disproportionately high and adverse effect on minority or low-income populations, in accordance with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations.

The projected impacts of construction activities on the surrounding community, particularly those associated with traffic diversion onto local streets are expected be of central importance to communities and their elected officials, and will be addressed in the DEIS. Potential impacts on local businesses dependent on trucks for goods movement will also be addressed. Long-term implications of an improved highway for communities will be included. The study area for socioeconomic conditions will be generally delineated by adjusting the land use study area boundary to reflect boundaries of census tracts generally lying within that radius.

Traffic

The DEIS will include a detailed analysis of existing and future traffic conditions with and without the proposed action. Potential impacts will be identified for the BQE mainline and the local street network. The traffic analysis will also be conducted to assist in the development of alternatives as well as assess any impacts to the local street network during the construction phase. The process will include coordination with the New York Metropolitan Transportation Council (NYMTC) and application of the Best Practices Model (BPM) for the New York City Metropolitan Region maintained by NYMTC. The BQE mainline will be analyzed using the VISSIM traffic simulation model. The local street network will be analyzed using Synchro 7 traffic signal simulation software. Both models will be used to simulate existing and design year traffic conditions.

Noise and Vibration

A scoping-level noise study will be conducted to identify locations where potential noise impacts could occur and to provide a preliminary, qualitative assessment of potential noise abatement measures. Additional noise and vibration analysis, including more detailed, quantitative assessments of both impacts and mitigation measures, will be included in the Tier 2 environmental review. This would include potential changes in ambient sound levels during

construction and upon completion of the project. Noise levels will be measured at sensitive receptor locations such as residences and parks, and existing loudest-hour conditions would be determined as a baseline for comparison with future noise conditions.

Air Quality

The air quality analysis will be limited to a review of regulatory requirements to determine if a detailed air quality analysis is needed since the project may only include rehabilitation or reconstruction of the existing facility and not result in any changes in capacity. This will be accomplished through coordination with the New York State Department of Environmental Conservation (NYSDEC), the New York City Department of Environmental Protection (NYCDEP), and the U.S. Environmental Protection Agency. This will include identification of the status of the project area regarding attainment of the National Ambient Air Quality Standards (NAAQS) attainment status. Included will be a qualitative assessment of construction period effects, including identification of measures to reduce or avoid such effects.

General Ecology and Endangered Species

A field investigation will be conducted to determine existing terrestrial and aquatic ecological characteristics in the existing and proposed right-of-way. The nature, extent, and significance of potential impacts, including impacts during construction, of each project alternative on fish and wildlife habitat will be evaluated. General determinations of the amount and type of vegetation to be disturbed, special habitats that might be damaged, and possible interruption of fish and wildlife movements will be included. Appropriate avoidance, minimization of harm, and mitigation measures to compensate for project impacts will also be determined.

Surface Water Bodies and Wetlands

The DEIS will evaluate the effects of construction activities on surface water bodies and designated wetlands, including projected changes to surface water bodies and wetlands, and appropriate avoidance and mitigation measures. Sources of surface water pollution could include sediment from erosion and surface water drainage.

Ground Water Quality

The DEIS will evaluate the potential impact on the groundwater system of the project area. This includes short-term construction impacts, long-term project impacts, and the development of appropriate avoidance and mitigation measures.

Coastal Zone Management

Each alternative will be evaluated for its consistency with or advancement of coastal policies of the New York Department of State (DOS) and the New York City Waterfront Revitalization Program. The need for a Rivers and Harbors Act approval from the U.S. Army Corps of Engineers will be identified.

Floodplain Evaluation

The DEIS will discuss the proximity of the project to designated floodplains and the impacts that would result from each alternative. The Federal Emergency Management Agency (FEMA) floodplain boundaries for a 100-year flood will be determined. The analysis will be completed in accordance with the requirements of the NYSDOT *Environmental Procedures Manual*.

Cultural, Historic, and Recreational Resources

The project is located within or in the vicinity of several designated historic districts, Brooklyn Bridge Park and several other public parks. The DEIS will evaluate impacts of each project alternative on historic, archaeological, and public parkland sites. The analysis will include a review of known historic and archaeological resources in the project area and an assessment of the extent to which these resources could be potentially affected by any of the proposed alternatives during construction and after completion. An assessment of the required direct taking, if any, of significant cultural, historic and recreational resources; an assessment of the change in context of significant cultural, historic and recreational that would occur with proposed alternatives, a qualitative assessment of construction period impacts, and identification of measures that could be incorporated into the project design to avoid or reduce operational and construction period effects will be included in the analysis.

Mapped parklands and recreational facilities accessible by the public, in the vicinity of the project will be identified. Size, condition, facilities, and usage levels will be established through field observations and from discussions with staff members of appropriate agencies and organizations. The DEIS will include evaluations, as needed, of potential impacts on public parks or historic properties, per federal regulations – Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303), Section 6(f)(3) of the Land and Water Conservation Fund Act (16 U.S.C. § 4601-4) and Section 106 of the National Historic Preservation Act (36 CFR Part 800). The level of detail for these evaluations will depend on the nature and extent of the impacts, if any. Avoidance and mitigation measures will be included.

Hazardous Waste/Contaminated Materials

Relying on available field reviews, government databases, and appropriate mapping, the DEIS will document the location of potential sites of concern with relation to hazardous waste and contaminated materials. These could include aboveground or underground storage tanks, sites with historical use or storage of hazardous materials, sites of hazardous materials spills, or other physical indicators of possible contamination. Sites of potential concern will be determined in conformance with the NYSDOT *Environmental Procedures Manual*.

Asbestos Assessment

Available utility plans and records will be reviewed to assess the potential presence of asbestos containing materials. Any in-depth investigations that are deemed necessary will take place during the final design phase for the project.

Energy

The DEIS will address both the direct and indirect energy requirements of each project alternative and will include mitigation measures to conserve energy. Direct energy impacts refer to the impacts of operating the facility after it is constructed, including energy consumed by vehicles using the facility. Indirect energy impacts include the energy required to construct and maintain the facility, substantial changes in energy consumption likely to result from project-induced land use changes or mode shifts, and any substantial changes in energy use associated

with vehicle operation, manufacturing, or maintenance due to increased or decreased automobile use. A qualitative assessment will be included of potential project effects on the emission of greenhouse gases.

Visual Impact

The DEIS will consider the extent to which any lighting or visual impacts associated with the proposed project will adversely affect important views and viewsheds. The analysis will identify viewer-groups within the project area and determine the exposure and sensitivity of each group to the project alternatives. The analysis will include recommendations of measures to avoid, minimize or mitigate adverse visual effects and to enhance project visual benefits. Conceptual design studies of potential aesthetic treatments of proposed structures and urban design alternatives will be included.

Indirect/Secondary and Cumulative Impacts

The DEIS will describe the likelihood that each alternative may induce secondary development and the projected positive and negative effects of this growth. In addition, the analysis will discuss the cumulative effects of each alternative, considering the direct effects, the secondary development effects, as well as the combined impact of the alternative and other reasonably anticipated projects in the area. The assessment of cumulative impacts will consider both the build and no-build conditions and will include projects not under the control or approved by NYSDOT.

Draft Section 4(f) Evaluation

It is national policy that special effort should be made to preserve public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) of the US Department of Transportation Act of 1966 stipulates that FHWA will not approve any program or project which requires the use of any publicly owned park, recreation area, or wildlife or waterfowl refuge, or any land from an historic site of national, state, or local significance unless there is no feasible and prudent alternative to the use, and all possible planning to minimize harm resulting from such use is included. The DEIS will identify the extent to which any of the project alternatives would affect parks and historic resources covered under Section 4(f). For each impacted

resource, detailed information about the size, location, and type of use will be provided, along with the extent to which it is impacted by project alternatives. Avoidance and impact minimization measures will also be discussed.

Draft Section 6(f)(3) Evaluation

Since it is not uncommon for recreational resources to receive the Land and Water Conservation Fund (L&WCF) funding, Section 6(f)(3) may be an integral part of Section 4(f) when recreational resources are involved. If applicable, the DEIS will include a Section 6(f)(3) evaluation. A Section 6(f)(3) evaluation is required when L&WCF-assisted properties are proposed to be converted for uses other than public outdoor recreation uses. Under Section 6(f)(3) of the L&WCF Act of 1965, such conversion cannot proceed unless all practical alternatives have been evaluated and the U.S. Department of Interior's National Park Service approves substitution property of reasonably equivalent usefulness and location and of at least equal fair market value.

Draft Section 106 Evaluation

Based on consultation with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), the DEIS will include an evaluation of the effects of project alternatives on historic properties under Section 106 of the National Historic Preservation Act, if applicable. The goal of consultation will be to identify historic properties potentially affected by project alternatives, determine whether the project will result in an adverse effect on such properties, and identify measures to avoid, minimize or mitigate any adverse effects.

VIII. SCOPING PROCESS

To assure that the full range of issues related to the proposed action is addressed and all significant issues identified, NYSDOT will undertake an extensive public "scoping process" that will allow the public and affected agencies to provide comment on the scope of the environmental review process. To facilitate public comment, this Draft Scoping Document has been prepared for public review and comment.

Copies of the DSD will be available at:

- NYSDOT, 47-40 21st Street, Long Island City, NY 11101, (718) 482-4526, Adam Levine
- HDR, 500 Seventh Avenue, 11th Floor, New York, NY 10018, (212) 545-5439, Kovid Saxena
- Brooklyn Community Board 6, 250 Baltic Street, Brooklyn, NY 11201, (718) 643-3027
- Brooklyn Community Board 2, 350 Jay Street, 8th Floor, Brooklyn, NY 11201, (718) 596-5410
- Brooklyn Borough President's Office, Borough Hall, 209 Joralemon Street, Brooklyn, NY 11201, (718) 802-3700
- Brooklyn Business Library, 280 Cadman Plaza West, Brooklyn, NY 11201, (718) 623-7000

Opportunities for comments on the DSD will be provided through a series of public participation activities. These include the following:

- Public scoping meeting and public information session: A combined public scoping meeting and public information session will be held on June 22, 2009 at the Dibner Building's Pfizer Auditorium, Polytechnic Institute of NYU, 5 MetroTech Center, Brooklyn, NY 11201, during which the public will be provided with a description of information included in the DSD and opportunity to comment on the scope of the DEIS. NYSDOT and consultant personnel will be available at the information session and scoping meeting to answer questions concerning the Project and proposed scope of the DEIS. The public will be provided the opportunity to submit either written or oral comments at the meeting. Written comments may be received by NYSDOT until 30 days after the public scoping meeting.
- Direct discussions with agencies and organizations with jurisdiction or interest in the project corridor and project area
- A project Web site (www.nysdot.gov/bqedowntownbrooklyn) that will allow the public to provide comment over the Internet.

Comments on the DSD may also be faxed to Mr. Fred Libove, P.E., Project Development Supervisor, NYSDOT, at (718) 482-6686 or e-mailed to FLIBOVE@dot.state.ny.us. Comments received from any of these activities will be considered in the development of the final scope of the environmental document. A public hearing will be held after publication of the Tier 1 DEIS to obtain comments on that document. Public notice will be given prior to the hearing regarding its time and location and process for submitting comment.