

Brooklyn-Queens Expressway/Interstate 278 from Atlantic Avenue Interchange to Sands Street Interchange Kings County (Brooklyn), New York



# **Presentation Slides and Notes**







- The agenda starts with a project overview to give context on the role of the BQE in New York City and its current condition.
- Next, a summary of the National Environmental Policy Act, or NEPA, and how it affects this project.
- Then, the purpose, needs, and objectives that are driving this project forward.
- Finally, next steps and how you can continue to be involved in this process.





- NYC DOT's BQE Central Visioning process took place for two years, from Fall 2022 to Summer 2024. During that time, many of you joined NYC DOT at BQE Central focused meetings to learn about the history, explore current challenges at various locations along the study area, and share your thoughts on the future of the project and its impact in your neighborhoods. NYC DOT received valuable input that was used to develop high level conceptual designs.
- Now, NYC DOT is preparing for the federally-mandated environmental review process as well as state and city environmental review processes. As a team of Joint Lead Agencies, NYC DOT, NYS DOT, and FHWA are working to define the purpose, needs, and objectives for the project. The joint lead agencies held a series of meetings to explain the process and give the public an opportunity to comment.
- During environmental review, the public is invited to contribute in an official capacity. It will be a time for detailed study on a variety of topics such as design concepts, traffic, air quality, and construction mitigations. It is through these studies that the joint lead agencies will be able to provide answers to questions about how the project will be designed, engineered, and ultimately constructed.
- Public input will help shape the decisions on the final proposed plan.





- From 2022 to 2024, New York City DOT engaged with the community in a visioning process for BQE Central, including the meetings shown here.
- Now, as NYC DOT prepare tos enter into the Environmental Impact Statement stage of the project, they are joined by USDOT and NYSDOT to enter a formal, federally-mandated engagement process.
- The joint lead agencies will conduct detailed studies and publicly present the findings in a process outlined in NEPA.

# BQE Central Vision Public Engagement

Public Engagement meetings as part of independent, NYC-led BQE Central Vision process:

- September 2022 BQE Central Kickoffs
- October 2022 BQE Central Round 1 Workshops
- December 2022 BQE Central Round 2 Workshops
- February 2023 BQE Central Round 3 Workshops
- May 2023 Environmental Review Webinar
- June 2023 Atlantic Avenue Interchange Workshop
- June 2023 NYCHA Open Houses
- April 2024 Manhattan Bridge Interchange Workshops
- June 2024 Triple Cantilever Workshops

NYC DOT issued BQE Central Vision Summary Report in November 2024.





- As NYC DOT begins engagement, the goals are to:
  - Introduce the Joint Lead Agencies: to share who is involved;
  - Provide a Project Overview: to share what is part of the project;
  - Explain the National Environmental Policy Act: to share what to expect and how to participate during the environmental review;
  - Share the draft Needs, Purpose & Objectives: to share the reasons for pursuing this project; and finally,
  - Provide an opportunity for feedback on the draft needs, purpose & objectives to be considered during the environmental review process.

# **Pre-NOI Engagement**

Joint Lead Agencies (FHWA, NYSDOT, NYCDOT) are now conducting public engagement in preparation of the publication of a Notice of Intent to prepare an Environmental Impact Statement and beginning of the official NEPA environmental review process

As we begin engagement, our goals today include:

- Introduce the Joint Lead Agencies: so you know who is involved
- · Provide a Project Overview: so you understand what is part of the project
- Explain the National Environmental Policy Act: so you know what to expect and how to participate during the environmental review
- Share the draft Needs, Purpose & Objectives: so you understand the reasons for pursuing this project
- **Provide an opportunity for feedback:** so you can share your thoughts on the draft needs, purpose & objectives to be considered during the environmental review process









- The Brooklyn-Queens Expressway is an essential component of the region's transportation network.
- It is part of Interstate 278, a regional highway that connects New York and New Jersey. In New York City, it runs through Staten Island, Brooklyn, Queens and the Bronx.
- In Brooklyn, the BQE is a 12.1 mile section that runs the distance between the Verrazzano and Kosciuszko Bridges.
- This makes it a vital connection not only for New Yorkers, but for regional travel as well, carrying around 130,000 vehicles a day.
- The BQE also links to multiple crossings into Manhattan, including the Brooklyn, Manhattan, and Williamsburg Bridges.
- New York State owns the majority of the BQE in Brooklyn (10.6 miles), except for a smaller section between Atlantic Avenue and Sands Street that is owned and maintained by New York City. The City-owned section is the focus of our project, and is known as BQE Central.

# **BQE** Regional Context

- Interstate 278 is a regional highway that connects New York and New Jersey.
- In NYC, it runs through Staten Island, Brooklyn, Queens, and the Bronx.
- Links to regionally important highways and parkways (Belt Pkwy, Prospect Expwy, Long Island Expwy, Grand Central Pkwy)
- Connects to Manhattan crossings (Hugh L. Carey Tunnel and Brooklyn, Manhattan, Williamsburg, RFK Bridges)
- The 10.6 mile stretch in Brooklyn is largely owned by New York State, with a smaller section – known as BQE Central – owned and maintained by New York City.





 The full BQE Central project study area is shown here in red outline, from the Atlantic Avenue to the Sands Street Interchanges.

## **BQE Central: Project Overview**

**The BQE Central Project** encompasses the BQE between approximately the Atlantic Avenue and Sands Street interchanges





- In the BQE Central section, there are a total of 21 Bridges and other structures, which are owned and maintained by New York City DOT.
- During the visioning process, NYC DOT focused on five smaller study areas, each with both similar and unique characteristics. These include:
  - DUMBO and Manhattan Bridge Parks
  - Old Fulton Street and Anchorage Plaza
  - Columbia Heights and Adjacent
     Parks
  - Triple Cantilever and Furman Street
  - Atlantic Avenue interchange and Van Voorhees Park
- It's important to note that the study area also includes NYC parkland adjacent to the highway, including the Brooklyn Heights Promenade.

# **BQE Central: Project Overview**

- Total of 21 Bridges and structures, owned and maintained by New York City DOT
- BQE Central encompasses:
  - DUMBO and Manhattan Bridge Parks
  - Old Fulton Street and Anchorage Plaza
  - Columbia Heights and Adjacent Parks
  - Triple Cantilever and Furman Street
  - Atlantic Avenue interchange and Van Voorhees Park
- Includes NYC parkland adjacent to the highway, including the Brooklyn Heights Promenade





- One of the most iconic and complex parts of the BQE is the Triple Cantilever section. It's over 70 years old and features two levels of highway stacked above Furman Street, with the Brooklyn Heights Promenade resting on top.
- This section is critical, but faces some significant structural challenges.
- The cantilever is supported by a retaining wall that extends from the ground level to the top of the bluff, and is in proximity to important infrastructure that keep the city running, such as water pipes and MTA tunnels.
- The joint lead agencies will be reviewing our many options for how to approach the needs and objectives of BQE Central during environmental review.

# **BQE Triple Cantilever**

- A key feature of BQE Central: 0.4 mile-long from Columbia Heights to Joralemon Street
- Designated historic resource
- Safe and under continuous monitoring, but beyond design life (built 1944 1948)
- 2 levels of highway (Staten Island bound and Queens bound) and the Brooklyn Heights Promenade, elevated above a city street (Furman Street)
- Supported by a retaining wall that extends from ground-level to the top of the bluff.
- MTA Clark Street fan plant (and other MTA infrastructure) is integrated into the structure





# National Environmental Policy Act (NEPA) Overview



- NEPA is a federal law that requires federal agencies to consider the effects of their policies and programs on the built and natural environment.
- Signed into law in 1971, NEPA:
  - Directed federal agencies to consider the environmental effects of their decisions;
  - Established a process for agencies to document the environmental effects of their decisions; and
  - Established a Council on Environmental Quality under the Office of the President to "coordinate the federal government's efforts to improve, preserve, and protect America's public health and environment."

# What is the National Environmental Policy Act (NEPA)?



Sets forth a national policy to create and maintain harmony between the human and natural environment

Requires federal agencies to evaluate the potential impacts of federally funded projects, programs, and activities on the natural and built environment

Establishes a Council on Environmental Quality to oversee the process (part of Executive Branch)

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- NEPA is referred to as an "umbrella" statute because it encourages agencies to incorporate other environmental and historic preservation requirements into one analysis for a streamlined decision-making process.
- The slide shows federal laws that can be complied with through completion of the NEPA process.
- For BQE Central, our NEPA process will also address requirements of:
  - Section 106 of the National Historic Preservation Act
  - Clean Air Act
  - Endangered Species Act
  - Section 4(f) of the USDOT Act, which offers special protection of parklands and historic sites when implementing a transportation project.
  - Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" and related orders from USDOT and FHWA.
  - And others...





The EIS will include a comprehensive analysis of the social, economic, and environmental effects of the Project's alternatives. The categories of analysis most relevant for BQE Central include:

- Social conditions: the study of the built environment, including land uses, neighborhood character, demographic characteristics, schools, emergency services, property acquisition, and other related topics.
- Economic conditions: the study of potential effects on the local and regional economy, including access to businesses, the movement of goods and services, and effects on specific industries, employment, and tax revenues.
- Natural Resources: the study of a project's effects on water resources, coastal resources, floodplains and wetlands, habitats, and species, including threatened and endangered species.
- Historic and Cultural Resources: the study of potential effects on architectural resources that are listed on or eligible for listing on the National Register of Historic Places as well as state or locally designated landmarks. This section of the EIS also documents compliance with Section 106 of the National Historic Preservation Act.
- Parklands: the section that identifies recreational resources and whether the project could directly or indirectly affect these resources.



Visual Resources: the study of prominent view corridors, and if and how they might be altered by the implementation of project alternatives.

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Environmental Justice is the study of whether a project would result in "disproportionately high and adverse" effects on low-income and minority populations. There is ample guidance on the study of environmental justice, and the federal agencies have greatly increased their consideration of environmental justice in recent years. In addition to the analysis prepared for the EIS, environmental justice includes specific outreach efforts to the populations that may be affected by the project.

- The EIS will include a study of **traffic operations**, including the highway and local streets near the highway. It will also consider travel by other modes, including buses, bicycles, and walking.
- Air quality: the study of airborne pollutants using criteria established by the US Environmental Protection



[continued] Agency. Our study will also incorporate requirements of the New York State Department of Environmental Conservation and the New York City Department of Environmental Protection.

- Climate change: the study of a project's consistency with federal, state, and local plans to address climate change as well as the resiliency of a project to withstand the projected effects of climate change.
- Noise: the study of the effects of traffic noise on nearby residences and other sensitive uses. The Federal Highway Administration, the New York State Department of Transportation, and the New York City Department of Environmental Protection have detailed methodologies that are used to study traffic noise.
- The contaminated materials study will identify any substantial sources of asbestos, lead, hazardous wastes, and other contamination in the vicinity of the project site and measures that will be implemented during and after construction to contain any project effects on the generation and transport of these materials.
- The EIS will examine the potential effects of construction activities on adjacent neighborhoods as well as the potential effects of construction on the movement of traffic through the area. NYC DOT will work with FHWA and



other agencies to identify measures to minimize construction effects. The EIS will identify any commitments needed to address specific construction effects.

- As shown on the prior slide, the NEPA umbrella includes federal laws, rules, and regulations. There are multiple federal agencies that have oversight responsibilities for ensuring the regulatory requirements are met or that permits are issued. NEPA includes provisions to ensure that these agencies participate in the process so the analysis and findings can meet their needs and that their expertise is considered.
  - The Lead agency has the primary responsibility for guiding a project through NEPA. It is typically the agency that is funding the project or must oversee the primary permit or approval for the project.
  - For BQE Central, the Federal Highway Administration, FHWA, will be the federal lead agency.
  - NYS DOT and NYC DOT will also play the role of joint lead agencies, in addition to other responsibilities:
  - The New York City Department of Transportation is the Project Sponsor, or the agency that will receive federal funds and build the project.
  - The New York State Department of Transportation will also be closely involved in this project. Under a stewardship and oversight agreement between FHWA and NYSDOT, NYSDOT receives funds from FHWA and disburses them

# What is NEPA?

Federal agencies must comply with NEPA before issuing approvals, funding, or permits for a proposed undertaking

 Image: Speak with the project
 Federal Lead Agency responsible for federal approvals

 Image: Speak with the project
 Joint Lead Agency responsible for disbursing federal funds and providing oversight of the project

 Image: Speak with the project
 Joint Lead Agency responsible for NYC approvals

 Image: Speak with the project
 Joint Lead Agency responsible for NYC approvals

 Image: Speak with the project
 Speak with the project

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to local government entities, including NYC DOT. They will also serve as primary oversight of this locally-sponsored and federally-aided project.



- The NEPA process must include a comprehensive review of the relevant social, economic, and environmental effects of an action.
  - NEPA requires agencies to consider approaches that can meet the identified purpose, needs, and objectives for the project, which are referred to as "reasonable alternatives." We have been and continue to look at reasonable alternatives for BQE Central.
  - When a project could adversely impact the built or natural environment, the lead agency must consider measures to avoid, minimize, or otherwise mitigate these impacts and disclose these measures in its NEPA findings. It is important to understand that NEPA does not require agencies to eliminate all adverse impacts of a project, but rather to disclose impacts and consider mitigation measures.
  - As part of the NEPA process, the lead agency must seek input from other agencies with an interest in, or expertise that is relevant to, the project. These are known as cooperating and participating agencies.
  - NEPA regulations identify opportunities for the involvement of the public in preparation of the EIS.
     We will talk more about this later.
  - Finally, and very importantly,



NEPA is a disclosure process. This means that decisions must be fully documented, and the lead agencies must consider the full NEPA record in makings its selection of a Preferred Alternative for a project.



- The preparation of an EIS officially begins with the publication of a Notice of Intent in the Federal Register. The federal lead agency is responsible for publishing the Notice of Intent. The Notice of Intent:
  - · Announces the project,
  - Discloses the lead agency or agencies for the project,
  - Identifies the purpose and needs for the project, alternatives under consideration, the studies that will be prepared to inform the lead agency's decision, and
  - Opportunities for the public to participate in the process.
  - It also identifies the principal points of contact for the project.
- However, work is done before issuing the Notice of Intent. This is called the pre-NOI phase, which we are currently in for BQE Central. During the pre-NOI phase, the project sponsor will provide information and studies to the federal lead agency to ensure that the project team is ready to enter the NEPA process and can meet mandated schedule timeframes.
  - For BQE Central, NYC DOT has been preparing documents required by FHWA, studying potential alternatives, preparing a traffic analysis, and conducting early field work that will support the existing conditions sections of the EIS. Most importantly, NYC DOT is using the public input received during the



BQE Corridor Vision to inform the NEPA process.

- After the Notice of Intent is published, the lead agency or agencies must conduct public scoping.
  - As specified by NEPA regulations, public scoping is a period "to engage State, local and tribal governments and the public in the early identification of concerns,

potential impacts, relevant effects of past actions and possible alternative actions."

- For large or complex projects, the public scoping period typically includes one or more public open houses and meetings.
- The lead agencies, project sponsor, and the design and environmental teams will consider all the feedback they

receive from the public and agencies as they prepare and review the Draft EIS.

- Preparation of the Draft EIS is typically the step in the process with the longest duration. It involves developing all the relevant technical studies needed to identify the potential effects of a project on the built and natural environment.
  - Preparation of the preliminary Draft EIS will involve a team of



- [continued] consultants and representatives from the project sponsor to study the project effects and write the EIS.
- Then, representatives of the lead agencies and cooperating agencies will review the preliminary Draft EIS to ensure that its findings are accurate and complete.
- Once the federal lead agency is confident that any issues are resolved, it will approve the public release of the Draft EIS by publishing a Notice of Availability of the EIS.
- The Notice of Availability of the Draft EIS begins a formal public review period.
  - The lead agencies must give the public at least 45 days to read the document and provide comments through formal channels of communication.
  - The public review period includes a public hearing where oral comments are heard.
  - Written comments are accepted throughout the public comment period.
- Following the close of the public comment period, the federal lead agency and project sponsor, including its team of consultants, will organize and respond to the comments received on the Draft EIS.
  - In accordance with NEPA regulations, "all substantive



comments must be considered, either individually or collectively, to help decisionmakers make informed decisions."

 If necessary, the federal lead agency will request that the project sponsor and its consultants prepare additional analyses to respond to agency and public comments. The comments, responses, and new analysis, if any, are incorporated into a Final EIS.

- In accordance with recent NEPA regulations, FHWA is encouraged to publish its NEPA findings alongside the Final EIS, which is known as a combined FEIS/ROD.
  - The ROD is the agency's Record of Decision on the project. In the ROD, FHWA will identify the Selected Alternative for the Project and identify any

necessary mitigation commitments to address adverse impacts of the Project.

 The ROD is the final step in the NEPA process. Once the ROD is issued, the various agencies can issue the necessary approvals and the project sponsor can move forward with the Project.



- Public involvement is critical to the NEPA process. At a minimum:
  - The lead agencies and project sponsor must seek public input on the scope of the EIS and alternatives under consideration during the public scoping phase.
  - It must also seek public review of the Draft EIS, which must include a public hearing.
- These public involvement opportunities are the minimum required for a NEPA EIS, but the joint lead agencies plan to do additional outreach so the public can remain informed and have meaningful opportunity to contribute to project development.
- Published documents will be made available on the Project's website and at libraries.

## **Public Involvement**

Public review is required by NEPA, including public involvement during scoping and a public hearing on the Draft EIS.

**For BQE Central**, the joint lead agencies will host multiple public meetings and open houses, in addition to the Draft EIS hearing.





- SEQR is New York State's process for determining what effect, if any, a discretionary action approved, funded, or undertaken by a State agency may have upon the environment.
  - Both NYSDOT and NYC DOT must comply with SEQR.
  - NYSDOT has its own SEQR regulations (17 NYCRR Part 15):
  - When a Federal EIS is prepared, NYSDOT shall follow the procedures for compliance with NEPA.
  - Joint Lead Agencies will prepare the NEPA FEIS; FHWA and NYSDOT will prepare a Joint NEPA/SEQR Record of Decision (ROD) and SEQR Findings Statement.
- NYSDOT provides methodology and guidance for its assessment of projects in its Transportation Environmental Manual.
- NYC DOT will comply with SEQR through its compliance with the City Environmental Quality Review process.

# New York State Environmental Quality Review (SEQR)

- New York State's process for determining what effect, if any, a discretionary action approved, funded, or undertaken by a State agency may have upon the environment
  - NYSDOT and NYC DOT must comply with SEQR
- NYSDOT has its own SEQR regulations (17 NYCRR Part 15)
  - When a Federal EIS is prepared, regulations specify that NYSDOT shall follow the procedures for compliance with NEPA
  - Joint Lead Agencies will prepare the NEPA FEIS; FHWA and NYSDOT will prepare a Joint NEPA/SEQR Record of Decision (ROD) and SEQR Findings Statement
- NYSDOT provides methodology and guidance for its assessment of projects in its Transportation Environmental Manual
- NYC DOT will comply with SEQR through its compliance with the City Environmental Quality Review (CEQR) process



- The City of New York will provide funding for construction of BQE Central, and the project will require approvals by various City agencies, the City Planning Commission, and the City Council. Therefore, NYC DOT must comply with City Environmental Quality Review (CEQR).
- The CEQR process is similar to NEPA in terms of its intent. However, certain steps are different, and it has specific guidance that agencies must follow. If a NEPA EIS is being prepared for a Project, CEQR allows City agencies to adopt the findings of the NEPA EIS so long as they are sufficient to make CEQR findings.
- NYC DOT intends to coordinate the CEQR and NEPA processes for BQE Central.

# **City Environmental Quality Review (CEQR)**

New York City's process for determining what effect, if any, a discretionary action approved, funded, or undertaken by a City agency may have upon the environment.

When a NEPA EIS is prepared, NYC DOT has no obligation to prepare an additional EIS under CEQR, provided the NEPA EIS is sufficient to make CEQR findings.





# Draft Needs, Purpose & Objectives



- Establishing a sound project purpose, needs, and objectives is essential for NEPA. It establishes why the agency is proposing to undertake a project.
  - The needs are identified conditions or deficiencies that spur the agency's decision to move the project forward. These needs are derived by observing the transportation conditions in the project area. These may include physical, such as structural deficiencies, or operational, such as traffic flow.
  - The purpose is a brief statement of the justification for a project. It is developed by collectively taking into consideration the project needs.
  - The objectives are measurable outcomes that an alternative must meet to be considered reasonable.
     Objectives relate directly to the purpose and needs of a project, and reasonable alternatives should meet all of the project objectives.
  - The purpose and needs drive the process to consider alternatives, as well as for in-depth analysis, and ultimate selection of a Preferred Alternative. Without a well-defined, well-established, and well-justified purpose and needs, it will be difficult to determine which alternatives are reasonable, prudent, and practicable.

### Needs, Purpose, and Objectives

#### Needs

Deficiencies and other factors that the project must address

#### Purpose

A brief statement of the aim or intent of a project

#### Objectives

Outcomes and metrics that reasonable alternatives must achieve

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- For the BQE Central project, the joint lead agencies have identified the following purpose:
  - To address identified structural, geometric, and operational deficiencies of BQE Central (I-278 between approximately the Atlantic Avenue and Sands Street interchanges) and improve multimodal connectivity and mobility for those who travel across and along the BQE Central corridor.

### **Purpose Statement**

The purpose of the Project is to **address** identified **structural, geometric, and operational deficiencies** of BQE Central (I-278 between approximately the Atlantic Avenue and Sands Street interchanges) and **improve multimodal connectivity and mobility** for those who travel **across and along the BQE Central corridor**.





- Ahead of the formal EIS process, the joint lead agencies have also identified five needs that will be addressed by pursuing this project:
  - The need to address structural deterioration;
  - The need to address geometric and operational deficiencies;
  - The need to improve regional vehicular connectivity and mobility;
  - The need to improve local vehicular connectivity and mobility;
  - The need to improve bicycle and pedestrian connections across and along BQE Central.
- The next section highlights how these needs apply to the BQE Central project.





- The first is the need to address structural deterioration. The BQE is over 70 years old, and many of its structures are showing signs of significant wear.
- Since 2016, NYC DOT has been conducting technical investigations to ensure the safety of the structure, including vibration monitoring, load rating analysis, and structural health monitoring.
- In recent years, NYC DOT has completed interim repairs of the triple cantilever structure to extend its useful life. This allows for continued use of the structure while long-term fix plans are finalized.
- In addition, the city has implemented innovative Weigh-In-Motion technology that provides real time measurement of truck loads, designed to keep over-weight trucks off the cantilever, thus extending its life. Automated enforcement started in 2023.

# The need to address structural deterioration

#### Current State of the BQE

- BQE Central, with its 21 bridges and structures, was completed in 1954.
- Several technical investigations have been done since 2016, including:
  - Vibration monitoring
  - · Load rating analysis
  - Structural health monitoring
- NYC DOT completed interim repairs of the triple cantilever structure to extend its useful life. This allowed us to continue using the structure while long-term fix plans are finalized.
- Weigh-In-Motion technology provides real time measurement of truck loads. Automated enforcement started in 2023.



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- To prepare for environmental review, the City completed detailed assessments of each of the 21 bridges that comprise BQE Central. To maintain the health and integrity of the roadway, NYC DOT conducts service life analyses to estimate the remaining useful life of the structure.
  - NYC DOT also monitors vibrations on the structure;
  - Conducts quarterly inspections of walls, barrier, curb, and roadway at BQE Queensbound, BQE Staten Island Bound and Furman Street.
  - And finally, evaluated and assessed the condition of the concrete deck and retaining walls through a concrete coring program.
- To mitigate some of the deterioration, NYC DOT has implemented several measures, like using non-corrosive de-icing materials and reducing traffic loads. However, these are temporary fixes, and without a full rehabilitation or replacement, repair costs will continue to rise as the structure ages.
- There is a need to move beyond patchwork fixes toward long-term stability. NYC DOT's goal is to maintain the safety and usability of the BQE while planning for a more permanent solution to extend its lifespan. Continuing on a path of interim repairs will create ongoing local construction conditions and continuously create budget strain as new maintenance challenges arise.



## The need to address structural deterioration

City completed detailed assessments of each of the 21 bridges that comprise BQE Central. NYC DOT's structural health monitoring included:



**Visual Inspections** 





- The current geometry of the BQE includes nonstandard features that increase the risk of crashes, delays, and congestion. Specific sections of the highway have safety and mobility issues that need correction to meet modern operational standards.
- Because the BQE is an interstate, it should comply with federal standards to the extent practicable. Addressing these deficiencies will reduce the frequency of crashes and improve overall traffic flow.

# The need to address geometric and operational deficiencies

#### What are "Geometric and Operational Deficiencies"?

- · Geometric deficiency: a feature that does not meet current design standards
  - · For example, low vertical clearance
- Operational deficiency: a nonstandard feature that contributes to crashes, delays, and congestion
  - · For example, narrow lane widths

#### Why Address Geometric and Operational Deficiencies?

- · Nonstandard features contribute to crashes, delays, and congestion.
- Highway is classified as an interstate and should comply with federal design standards for interstate highways to the extent practicable

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- Vertical clearance—the space between the road and overhead structures—is below modern standards on BQE Central in several sections. For example, on the BQE under the Columbia Heights bridge, the clearance is 13 feet 9 inches, while the minimum desirable is 14 feet 6 inches or more.
- Similarly, nonstandard curves and limited stopping sight distances make it difficult for drivers to stop safely, especially in emergencies. Nonstandard curves mean that the tight curves in areas like Congress Street to Joralemon Street do not meet current safety standards.
- This increases the risk of crashes, particularly in areas with both steep grades and sharp turns such as the section between Columbia Heights and Sands Street. Addressing these geometric deficiencies will improve driver safety and help smooth traffic flow.

# The need to address geometric and operational deficiencies



BQE Triple Cantilever at Brooklyn bridge - example of nonstandard vertical clearance



Curves and Limited Stopping Sight Distance from Congress Street to Joralemon Street

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- Some lanes on the BQE are narrower than the standard for interstate highways, which is 12 feet. In parts of the BQE, such as from Columbia Heights to Sands Street, lanes are as narrow as 10½ feet. Narrow lanes make it harder for larger vehicles to navigate and contribute to congestion and delays, especially in the event of a crash or breakdown. Expanding lanes where possible will reduce congestion and improve overall traffic safety.
- Acceleration and deceleration lanes, which allow vehicles to adjust speed when entering or exiting the highway, are inadequate on the BQE. This lack of space creates safety risks as vehicles cannot slow down or speed up properly when entering or exiting the highway. Improving these lanes will help reduce the risk of crashes at interchanges and improve traffic flow.

# The need to address geometric and operational deficiencies

#### **Challenges with Narrow Lanes**

- Standard lane width for interstate highways: 12 feet.
- BQE lanes Columbia Heights to Sands Street: 10<sup>1</sup>/<sub>2</sub> feet (nonstandard).
- Leads to congestion, delays, and diversion to local streets in the event of a crash or breakdown, especially with narrow or absent shoulders.

#### **Deficient Acceleration/Deceleration Lanes**

- Deceleration lanes are needed for safe speed transitions at entry and exit ramps.
- New lanes provided during two lane implementation project, but their current design does not fully address this deficiency.
- · Safety risks remain due to inadequate transitions.







- The BQE is a crucial route for northsouth travel, particularly for trucks and commercial vehicles. Traffic delays along the BQE cause backups beyond the project area, impacting regional traffic flow. Improving the BQE's connectivity will help streamline traffic movement across Brooklyn, Queens, and beyond, benefiting both local and regional transportation.
- In addition, connections between the BQE and major crossings, like the Brooklyn and Manhattan Bridges, are limited and inefficient. This forces drivers to navigate local streets, adding to congestion and delays. This project provides the opportunity to improve these connections and help traffic flow more smoothly between Brooklyn, Queens, and Manhattan.

# The need to improve regional vehicular connectivity and mobility

#### The Importance of Regional Connectivity

- The BQE is a primary north-south route for motorists traveling to, from, and through Brooklyn.
- No arterial roads or limited access highways provide a fully parallel and redundant route.
- Delays along BQE Central impede traffic flow along the BQE outside the project limits and impact the efficient movement of people, goods, and services.
- BQE Central connects boroughs with the Brooklyn and Manhattan Bridges.



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- Trucks deliver 90% of goods in New York City, and demand is only increasing. The BQE is the only direct truck route from Brooklyn to the Interstate 95 corridor, and it provides an alternate route to I-95. 81% of the trucks that are on the BQE are making stops within New York City.
- NYC DOT projected 68% growth of regional freight between 2012 and 2045, which will likely be even higher given recent upward trends in e-commerce services. To meet this demand, NYC DOT is exploring alternatives for freight delivery like waterway delivery and new vehicle types, but the BQE will remain a vital part of the city's freight network. Improving connectivity and mobility is critical to getting goods where they need to go.

# The need to improve regional vehicular connectivity and mobility

#### A Vital Freight Corridor for the Region

- The BQE is the only direct truck route from Brooklyn to the Interstate 95 corridor, and it provides an alternative route to I-95.
- Trucks deliver 90% of goods in NYC and demand is increasing
- 81% of the trucks on the BQE make stops in the City
- NYC DOT is exploring alternatives to truckbased freight delivery such as using waterways and new vehicle types for last-mile delivery.
- Even so, the BQE will remain an important part of the freight network and important in keeping trucks off of local streets.





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 Heavy traffic on the BQE often spills onto local streets, especially near interchanges like the Manhattan Bridge and Atlantic Avenue. This increases congestion in neighborhoods, creating backups at key intersections and making local travel difficult. Addressing these bottlenecks will help ease traffic flow on both the BQE and adjacent local streets, improving quality of life.

# The need to improve local vehicular connectivity and mobility

#### Impact on Local Streets

- Increased congestion due to BQE traffic diverting vehicles to local streets.
- Heavy volumes of commercial vehicles, especially near interchanges such as the Manhattan Bridge.
- Traffic at the BQE interchange at Atlantic Avenue causes backups and congestion at intersections along Atlantic Avenue and adjacent streets.
- Increased local traffic increases the potential of vehicle-pedestrian conflicts and adds to local trip travel times.



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- The BQE also acts as a barrier to pedestrian and bicycle movement. Key areas with high foot traffic, like Atlantic Avenue and Sands Street, need more welcoming crossings. This project intends to reduce conflicts between vehicles, cyclists, and pedestrians by increasing the number and quality of cross-highway connections.
- In addition, the BQE separates several Brooklyn neighborhoods, including Fulton Ferry, DUMBO, and Vinegar Hill from Downtown Brooklyn. The project will look at reconnecting these neighborhoods through improved infrastructure that allows for safer and more convenient pedestrian and bicycle access.

## The need to improve bicycle and pedestrian connections across and along BQE Central

#### Improving Waterfront Connections

 Opportunity to add additional connections across the BQE – currently there are only four points to travel between the neighborhood and the waterfront.

#### Access to public space

 BQE Central and its entrance and exit ramps limit access to several parks along the highway corridor, often bisecting the parks such as Van Voorhees Park.




- From these five needs, the joint lead agencies have identified six project objectives:
  - Address structural deterioration of BQE Central to extend its service life and reduce maintenance costs;
  - Address geometric and operational deficiencies of BQE Central;
  - Improve regional connections served by BQE Central;
  - Improve vehicular mobility through BQE Central by addressing sources of travel delay;
  - Improve vehicular mobility and connectivity on local streets in the vicinity of BQE Central; and
  - Improve access across and along BQE Central for bicyclists and pedestrians, and reduce the potential for vehicular conflicts with bicyclists and pedestrians on local streets.
- The joint lead agencies are seeking the public's early input, including on the project's draft purpose, needs, and objectives, which serve as the foundation for our project.

# Project Objectives



Central to extend its service life and reduce maintenance costs

Address structural deterioration of BQE



Address geometric and operational deficiencies of BQE Central



- Improve vehicular mobility through BQE Central by addressing sources of travel delay
- Improve vehicular mobility and connectivity on local streets in the vicinity of BQE Central
- Improve access across and along BQE Central for bicyclists and pedestrians, and reduce the potential for vehicular conflicts with bicyclists and pedestrians on local streets

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- The identification, consideration, and analysis of alternatives are key to the NEPA process and the goal of balanced decision-making. An "alternative" refers to each reasonable and distinct concept being considered in the NEPA process.
- Joint Lead Agencies, over the course of environmental review, must:
  - Consider a reasonable range of alternatives;
  - Include what's called a "no-build" alternative, in which a project is not undertaken. Although the "no-build alternative" (which can include short-term minor activities) might not seem reasonable, it must always be included in the analysis. Generally, it serves as a baseline against which the other alternatives can be compared.
  - Consider each reasonable alternative, so that reviewers may evaluate their comparative merits.
  - And in the Draft EIS, identify the preferred alternative or alternatives, if one or more exists. As part of the Draft EIS, clearly disclose why and how the project alternatives were developed, including what kind of public and agency input was used. In addition, alternatives analysis should explain when, why, and how alternatives were eliminated from consideration - including the criteria and how they were established.
- NYC DOT is currently considering

### Developing and Evaluating Design Concepts/Preliminary Alternatives

#### What is a reasonable range of alternatives?

• As defined in Federal regulations, "A reasonable range of alternatives that are technically and economically feasible, and meet the purpose and need for the proposed action"



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design concepts such as maintaining the structure and policy approaches to address traffic demand; as well as removing the highway, replacing it with a boulevard, or tunneling of the highway; partial or full replacement, or rehabilitation. These will be presented during scoping.

Ultimately, after detailed analyses identified during the scoping phase and subsequently prepared and presented in the Draft EIS, and with consideration of public input, the Joint Lead Agencies will select a Preferred Alternative in the Final EIS and Record of Decision.

 During the pre-NOI phase, alternatives are known as "design concepts" or "preliminary alternatives". NYC DOT is developing materials and studies to support the eventual evaluation of alternatives during the NEPA phase. These include the development of preliminary design concepts, traffic analysis, and engineering studies.

 At this time, NYC DOT is preparing structural assessments to better understand the



- [continued] condition of the retaining wall and other structures in the corridor, which will inform the evaluation of how to solve for current or anticipated structural deterioration.
- NYC DOT is also preparing a rehabilitation report, which explores rehabilitation concepts, and preparing traffic analyses to inform the development of the design concepts and to understand their effects on traffic operations.

### Developing and Evaluating Design Concepts/Preliminary Alternatives

#### What is a reasonable range of alternatives?

• As defined in Federal regulations, "A reasonable range of alternatives that are technically and economically feasible, and meet the purpose and need for the proposed action"





- Because the project is expected to receive federal funding, it is subject to Section 106 of the National Historic Preservation Act and must consider the effects of the undertaking on historic properties.
- Prior to NOI, NYC DOT is engaging with agencies with jurisdiction for historic resources. So far NYC DOT:
  - Hosted a site tour for agency representatives,
  - Provided and will provide preliminary project information to prepare the agencies for the upcoming environmental review
  - Will seek their input on the design concepts that are developed
  - Will Seek input on the forthcoming Section 106 process, and
  - Will conduct preliminary outreach to tribal nations.
- The public can get involved in this process by applying to serve as a section 106 consulting party. Consulting parties must have a demonstrated interest in the project, including a legal or economic interest, and are concerned with effects of the project on historic properties. Becoming a consulting party is subject to approval by FHWA.
- Consulting parties are invited to participate in Section 106 consultation meetings and review project documents about historic resources. The Section 106 process will begin after publishing the Notice of Intent.



## **Coordination with Historic Resource Agencies**

#### What is Section 106?

A section of the National Historic Preservation Act requiring federal agencies to consider the effects of their undertaking on historic and cultural resources, including the views of the public

#### What coordination are we doing before the NOI?

- Site tour for resource agencies
- Providing preliminary project information to resource agencies
- Seeking input on alternatives development
- Seeking input on forthcoming Section 106 consultation process
- Preliminary outreach to Tribal Nations

#### How can you get involved?

- Apply to serve as a Section 106 consulting party (toolkit available)
- Following the NOI, you will be invited to participate in Section 106 consultation meetings and to review project documents pertinent to historic resources

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Parties should express interest through the feedback form on nyc.gov/bqecentral.

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- Finally, NYC DOT is running 45 traffic models before NOI to understand how traffic is projected to behave in the study area and the final traffic model results will be used for noise and air quality analyses.
- This includes studying both 2 and 3 lane configurations, in both local and regional scales – and including cars, trucks, buses, pedestrians and cyclists.
- NYC DOT will also model existing and future years, at various times of day, and conduct a safety analysis for local streets and intersections and for the BQE mainline and ramps.
- These traffic studies incorporate congestion pricing.
- These preliminary results will be discussed during the scoping phase of the project.

## **Traffic Modeling Update**

NYC DOT is running **45 models** before NOI to understand study area traffic:

- Studying 2 lane & 3 lane configurations
- Regional & local traffic models including cars, trucks, buses, pedestrians & bicyclists
- Traffic in both existing and future years, with modeling performed for weekday AM, Midday, and PM peak hours
- Safety Analysis for Local Intersections/Streets and for BQE mainline and ramps
- Incorporates congestion pricing and Brooklyn Marine Terminal development

A discussion of preliminary traffic modeling results will be presented during scoping.



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- For the BQE Central Project, the plan is to issue the NOI in May 2025 which officially starts the 2-year NEPA clock. The intent is to publish the Draft EIS in Fall of 2026, and enter a public comment period before preparation of the FEIS/ROD in May 2027.
- On this schedule, field activities are anticipated to begin in Early 2029, and Construction activities in Mid 2029.





- Public feedback over the past two years has been instrumental in shaping the vision for the BQE Central project.
- At the meeting the joint lead agencies sought to solicit early input on the project, including the draft needs, purpose, and objectives, as well as any other feedback on the project.
- This will be the first of several opportunities to comment on the project.

## **Your Feedback**

Please provide your early feedback on the project, including the following topics discussed today:

- · The identified project needs
- · The project purpose
- · The project objectives





- Public feedback is welcomed.
- The comments received will become part of the official project record. The joint lead agencies will consider the comments in the ongoing development of project concepts and environmental analysis methodologies.
- To comment by postal mail, please see the addresses listed here.
- To comment on the web, please visit NYC DOT's website at nyc.gov/bqecentral
- Throughout the process, all materials will be hosted at nyc.gov/bqecentral.

### **Your Feedback**

 We invite you to make comments on the project, including (but not limited to) the needs, purpose, and objectives at the NYC DOT website: <u>nyc.gov/bqecentral</u>

To comment by postal mail, please address your letter to:

Department of Transportation BQE Central Project Team 55 Water Street, 9th Floor New York, NY 10041

· For more information, visit nyc.gov/bqecentral

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