FINAL ENVIRONMENTAL IMPACT STATEMENT

Volume 1: Executive Summary

For the

Proposed Reconstruction and Expansion of Jamaica Bus Depot

Project Location:

Jamaica, Queens, New York

SEPTEMBER 2019

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AASHTO	American Association of State Highway and Transportation Officials
ACM	Asbestos containing material
ACRIS	Automated City Register Information System
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act of 1990 Accessibility Guidelines
AEB	All-electric bus
ANSI	American National Standards Institute
APE	Area of Potential Effect
APP	Accident Prevention Program
AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
ATR	Automatic Traffic Recorder
BCCNY	Building Code of the City of New York
BCNYS	Building Code of New York State
BCP	Brownfield Cleanup Program
BTU	British Thermal Units
C&D	Construction and demolition
CAA	Clean Air Act
CBD	Central Business District
CBS	New York State Chemical Bulk Storage Site Listing
CEPP	Construction Environmental Protection Program
CEQR	City Environmental Quality Review
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CESQG	Federal Conditionally Exempt Small Quantity Generator
CHASP	Construction Health and Safety Plan
CO	Carbon monoxide
CORRACT	Federal Corrective Action Report
CP	NYSDEC Commissioner Policy
CRRA	Community Risk Resiliency Act
CSO	Combined sewer overflows
CTPP	Census Transportation Planning Products
CUNY	City University of New York
CZMA	Coastal Zone Management Act
dB	Decibel
dBA	A-weighted decibel
DEIS	Draft Environmental Impact Statement
DOF	New York City Department of Finance
DOL	New York State Department of Labor

DSD	Draft Scoping Document
DSNY	New York City Department of Sanitation
E NL	Existing Noise Level
E PCE	Existing Passenger Car Equivalents
EABP	Environmental Anticipatory Boring Program
EAF	Environmental Assessment Form
ECHO	Federal Enforcement & Compliance History Information
ECL	Environmental Conservation Law
EDR	Environmental Data Resources
EIS	Environmental Impact Statement
EJ	Environmental Justice
EMS	Federal Emergency Management System
ENB	Environmental Notice Bulletin
EO	Executive Order
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
F PCE	Future Passenger Car Equivalents
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FDNY	City of New York Fire Department
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FFRMS	Federal Flood Risk Management Standard
FINDS	Federal Facility Index System / Facility Registry System
FOIA	Freedom of Information Act
FRESH	Food Retail Expansion to Support Health
FSD	Final Scoping Document
FTA	Federal Transit Administration
GIS	Geographic Information System
gpd	Gallons Per Day
HASP	Health and Safety Plan
HCM	Highway Capacity Manual
HCP	Hazard Communication Program
HDDV	Heavy duty diesel vehicle
HRU	Heat Recovery Unit
HSWDS	New York State Hazardous Substance Waste Disposal Site Inventory
HVAC	Heating, Ventilation, and Air Conditioning
ICIS	Integrated Compliance Information System
JBD	Jamaica Bus Depot
KWH	Kilowatt Hours
LBP	Lead-based paint
LEED	Leadership in Energy and Environmental Design
LF	Landfill

LIRR	Long Island Railroad
LOS	Level of Service
LQG	Federal Large Quantity Hazardous Waste Generators
LT	Long-term
LTANKS	New York Leaking Storage Tank Incident Report
LWRP	Local Waterfront Revitalization Plans
mg/l	Milligrams per liter
MGP	Manufactured Gas Plants
MOU	Memorandum of Understanding
MOVES	Motor Vehicle Emissions Simulator
MPO	Metropolitan Planning Organization
MPT	Maintenance and Protection of Traffic
MTA	Metropolitan Transportation Authority
MW	Megawatt
na	Not available
NAA	Non-attainment areas
NAAQS	National Ambient Air Quality Standards
NB	Northbound
NFPA	National Fire Protection Association
NFRAP	No Further Remedial Action Planned
NHPA	National Historic Preservation Act
NICE	Nassau Inter-County Express
NJ	New Jersey
NLR	No Longer Reporting
NO_2	Nitrogen dioxide
NOI	Notice of Intent
NO_x	Nitrogen oxides
NPL	National Priority List for Superfund Cleanup
NWI	National Wetlands Inventory
NY	New York
NY SPILLS	New York Spills Information Database
NY SWRCY	New York State Registered Recycling Facilities
NYCDCP	New York City Department of City Planning
NYCDEP	New York City Department of Environmental Protection
NYCDOB	New York City Department of Buildings
NYCDOHMH	New York City Department of Health and Mental Hygiene
NYCDOT	New York City Department of Transportation
NYCDPR	New York City Department of Parks and Recreation
NYCLPC	New York City Landmarks Preservation Commission
NYCOER	New York City Office of Environmental Remediation
NYCT	New York City Transit
NYPD	City of New York Police Department
NYSDEC	New York State Department of Environmental Conservation

NYSDOS	New York State Department of State
NYSHPO	New York State Historic Preservation Office
NYSOPRHP	New York State Office of Parks, Recreation and Historic Preservation
O&M	Operations and Maintenance
OCMC	NYCDOT Office of Construction Mitigation and Coordination
OER	New York City Office of Environmental Remediation
OLM	Ozone Limiting Method
OSHA	Occupational Health and Safety Administration
PAH	Polycyclic aromatic hydrocarbons
PAL	Public Authorities Law
PCB	Polychlorinated biphenyls
PCE	Passenger Car Equivalents
PM	Particulate matter
PM_{10}	Particulate matter less than 10 microns in diameter
$PM_{2.5}$	Particulate matter less than 2.5 microns in diameter
ppb	Parts per billion
PPE	Personal protective equipment
ppm	Parts per million
PSD	Prevention of significant deterioration
RAP	Remedial Action Plan
RBO	Regional Bus Operations
RCRA	Resource Conservation and Recovery Act
RCRA-Non-Gen	RCRA Non-Generators
REC	Recognized Environmental Condition
S/NRHP	State/National Register of Historic Places
SB	Southbound
SBE	Standard Bus Equivalent
SCFWH	Significant Coastal Fish and Wildlife Habitat
SCO	Soil Cleanup Objective
SEQRA	New York State Environmental Quality and Review Act
sf	Square feet
SHWS	New York State Hazardous Waste Disposal Sites
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SPDES	State Pollutant Discharge Elimination System
SQG	Federal Small Quantity Hazardous Waste Generators
SSA	Sole Source Aquifer
SSCO	Supplemental Soil Cleanup Objective
STARS	Spill Technology and Remediation Series
SVOC	Semi-volatile organic compound
SWF	Solid Waste Facility
SWP	Safe Work Plan

SWPPP	Stormwater Pollution Prevention Plan
TAGM	Technical and Administrative Guidance Memorandum
TCE	Trichloroethene
TCLP	Toxicity Characteristics Leaching Procedure
TIP	Transportation Improvement Programs
TMC	Turning movement count
TRB	Transportation Research Board
TRIS	New York State Toxic Release Inventory System
TSCA	The Toxic Substance Control Act
TSD	Treatment, Storage, or Disposal Facilities
US AIRS	United States Air Emissions Data
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGBC	United States Green Building Council
USGS	United States Geological Survey
UST	Underground Storage Tank
v/c	Volume-to-capacity
VCP	Voluntary Cleanup Program
VEC	Vapor encroachment condition
VOC	Volatile organic compound
vph	Vehicles per hour
WB	Westbound
WRP	New York City Waterfront Revitalization Plan
ZoLa	Zoning and Land Use Map
µg	Microgram

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EXECUTIVE SUMMARY

ES.1 INTRODUCTION

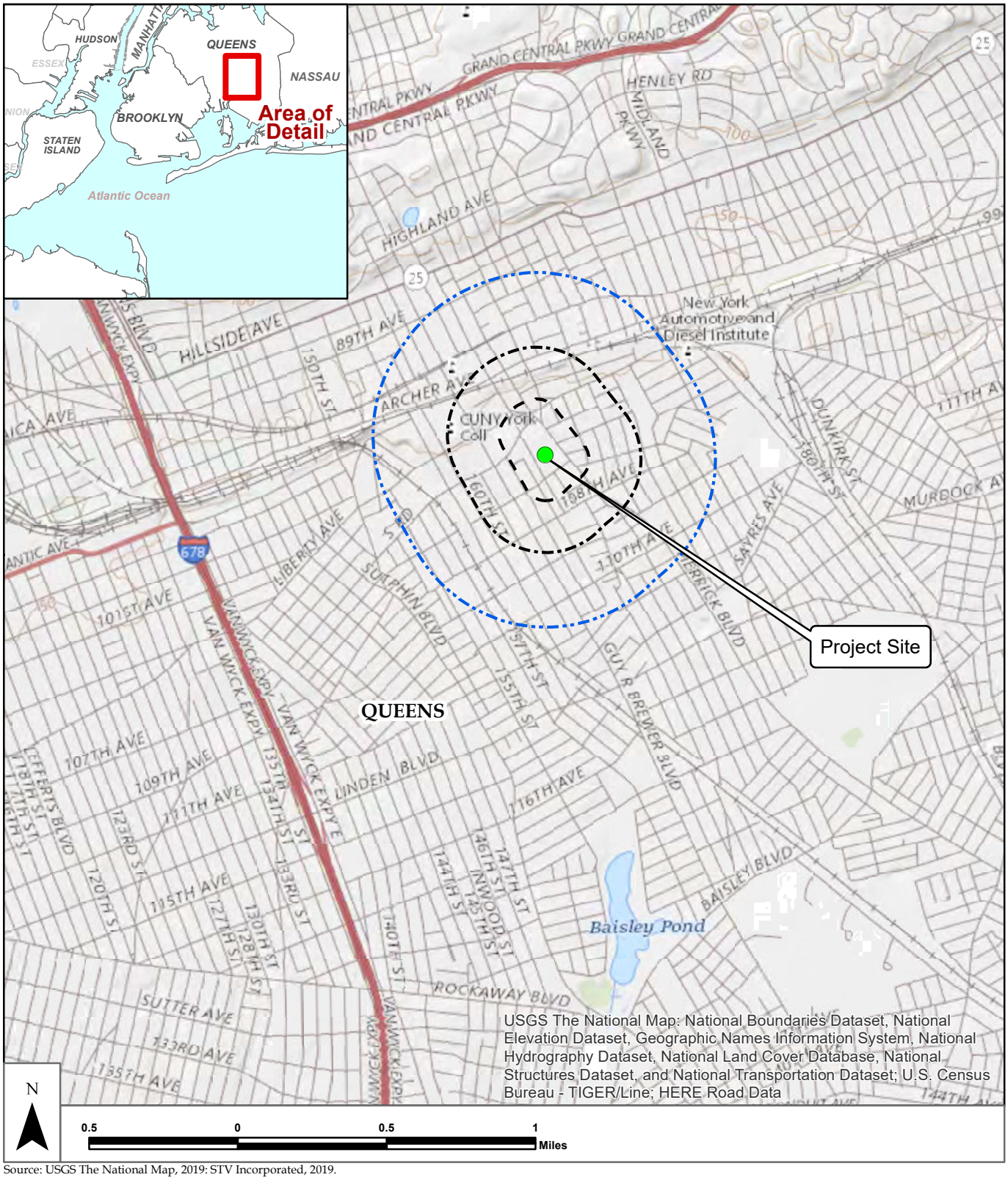
Metropolitan Transportation Authority (MTA) New York City Transit (NYCT) prepared this Final Environmental Impact Statement (FEIS) for the Proposed Reconstruction and Expansion of the Jamaica Bus Depot (***Proposed Action***).

The address of the existing and future reconstructed Jamaica Bus Depot (JBD) is 165-18 Tuskegee Airmen Way, Jamaica, New York 11433. The JBD is located on Queens Block 10164, Lots 46, 80, 84, 97, and 103. The site is bounded by Tuskegee Airmen Way to the north, Merrick Boulevard to the east, 107th Avenue to the south, and 165th Street to the west (**Figure ES-1: Project Location and Study Area**). The JBD has remained in operation since its construction in 1939 and, through the formation of Regional Bus Operations (RBO), has served as a critical component of the Queens Division bus depot network. It is one of eight depots in Queens that provide storage and servicing of the Queens Division bus fleet.

The Proposed Action would result in an expanded and reconstructed JBD that could manage the operation/maintenance and on-site storage for up to 300 buses to serve the projected bus assignments and allow additional capacity for future service demands. As currently envisioned, MTA NYCT proposes to:

- ***Select*** a "Preferred Alternative" from among the three Candidate Alternatives that have been developed as a result of extensive engineering, economic and environmental planning by MTA NYCT through the State Environmental Quality Review Act (SEQRA) process;
- ***Allow*** award of a Design-Build contract in 2021 that would result in the operation of the future reconstructed JBD in the year 2025;
- ***Select***, with input from New York City Department of Transportation (NYCDOT), a preferred routing strategy for buses returning to the JBD from among three routes developed by MTA NYCT;
- ***Identify*** a preferred location(s) for the temporary storage of buses during the depot reconstruction period;
- ***Develop*** a management plan for the oil/petroleum spill (Spill No. 9010039) that exists at the JBD. The spill management plan will be implemented independent of the JBD reconstruction project and be consistent with New York State Department of Environmental Conservation (NYSDEC) Consent Order requirements; and,
- ***Secure*** Leadership in Energy and Environmental Design (LEED) Certification through the United States Green Building Council (USGBC).

The following sections summarize the condition of the existing JBD, the proposed expansion and reconstruction activities, the alternatives considered, and an evaluation of the effects of the Proposed Action.



Source: USGS The National Map, 2019; STV Incorporated, 2019.

Figure ES-1

Project Location and Study Area

400-ft Study Area

1/4-Mile Study Area

1/2-Mile Study Area

ES.2 PROJECT PURPOSE AND NEED (CHAPTER 1)

The ***purpose of the project*** is to develop an expanded and reconstructed JBD that can:

- ***Manage the operation/maintenance and on-site bus storage*** of up to 300 Standard Bus Equivalents (SBEs[1]) to serve the projected future bus assignments at this depot;
- ***Allow additional capacity*** to provide adequate bus service in the southeast section of Queens and the long-range outlook for new service demands, while accommodating potential route/depot assignment reconfigurations; and,
- ***Demonstrate the maximum potential***, from among the Candidate Alternatives, to minimize significant adverse effects/impacts to the community based on integrated consideration of engineering, economic, and environmental factors.

The ***need for the project*** results from the:

- ***growing demand for bus service*** which requires an increased number of buses and vehicle storage capacity;
- ***antiquated technology and facilities at the existing JBD*** which does not provide appropriate operation/maintenance services for a modern[2] bus fleet; and,
- ***long-term inability of NYCT for almost two decades[3] to secure a new property(ies)*** in the region to manage the current and estimated future bus demand capacity.

ES.3 PROCEDURAL AND ANALYTICAL FRAMEWORK (CHAPTER 2)

The proposed MTA NYCT Reconstruction and Expansion of the Jamaica Bus Depot in Jamaica, Queens, entails the planning, design and construction of a modern bus facility to service the surface transit demands in southeastern Queens. An **Identification, Description, and Comparative Analysis of Alternative Design Concepts[4]** was performed by the MTA NYCT in May 2016, which considered seven Potential Alternative facility design concepts. The seven Potential Alternatives were then evaluated further, and three Candidate Alternatives were identified for evaluation in this EIS process. The comparative alternative analysis is described in **Chapter 3: Alternatives** of this FEIS.

Chapter 2 of this FEIS identifies the approvals anticipated to be required for implementation of the Proposed Action and provides an overview of the analytical framework used to guide the technical analyses presented in subsequent chapters of the FEIS. This FEIS has been prepared consistent with the regulations of the ***State Environmental Quality Review Act (SEQRA)***.

[1] An SBE represents the space needed to park a standard 40-foot-long, single-unit bus.
[2] NYCT proposes to transition from a diesel bus fleet to electric bus fleet by 2040.
[3] See Final Scoping Document, dated March 2019, Appendix A: Alternative Sites Investigation.
[4] See Final Scoping Document, dated March 2019, Appendix B

ES.3.1 REQUIRED APPROVALS AND AGENCY COORDINATION

The Proposed Action would require a number of City and State approvals and coordination with various City and State agencies as listed below:

- MTA Board;
- New York State Department of Environmental Conservation (NYSDEC);
- New York Natural Heritage Program & U.S. Fish and Wildlife Service (USFWS);
- New York City Department of Transportation (NYCDOT);
- New York City Department of Environmental Protection (NYCDEP); and,
- New York City Department of Parks and Recreation (NYCDPR).

ES.3.2 ESTABLISHING A LEAD AGENCY

Per SEQRA, the "***lead agency***" is the public entity (i.e., MTA NYCT) responsible for conducting the environmental review. Usually, the lead agency is also the entity primarily responsible for carrying out, funding, or approving the Proposed Action. MTA NYCT issued its Notice of Intent to serve as lead agency on May 18, 2016. Other agencies with discretionary authority over portions of the Proposed Action are considered **"*involved*"** agencies under SEQRA. There are no involved agencies identified for the Proposed Action.

ES.3.3 DETERMINATION OF SIGNIFICANCE

The lead agency's first charge is to determine whether the Proposed Action might have a significant adverse impact on the environment. To make this determination, MTA NYCT prepared ***an Environmental Assessment Form (EAF)*** which is included as Appendix C of the May 2016 Draft Scoping Document and the March 2019 Final Scoping Document. Based on the information contained in the EAF, ***MTA NYCT determined that the Proposed Action had the potential to result in significant adverse environmental impacts and, thus, the Positive Declaration was issued on May 18, 2016 and included in the Final Scoping Document issued on March 13, 2019 as Appendix D.***

ES.3.4 SCOPING

"Scoping" *or* creating the scope of work for the preparation of the Environmental Impact Statement (EIS), focuses on the analyses required for the key issues to be studied in the EIS. MTA NYCT issued a ***Draft Scoping Document*** for the EIS on May 18, 2016. This was widely distributed to the public, interested parties/agencies, and other stakeholders. A ***Public Scoping Meeting*** was held for the Proposed Action on June 15, 2016 at Junior High School 8 (IS 8) Richard S. Grossley, at 108-35 167th Street, Queens, New York 11433. Written comments were accepted through July 8, 2016 and a ***Final Scoping Document***, reflecting comments made during scoping, was issued to the public on March 13, 2019.

ES.3.5 DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

The Proposed Action is classified as an Unlisted Action under the New York State Environmental Quality Review Act (SEQRA) (6 NYCRR Part 617.4(9)); as such, it is not included in statewide or individual agency lists of Type I or Type II actions. Typically, the reconstruction of a transportation facility is an

exempt action under SEQRA. However, because *bus storage during construction would be located off-site*, the Proposed Action must act in accordance with SEQRA. Pursuant to the SEQRA process, a Positive Declaration was issued on May 18, 2016 and included in Appendix D of the March 2019 Final Scoping Document.

The DEIS is part of the environmental review process that MTA NYCT is undertaking pursuant to the SEQRA requirements and all applicable state law and regulations. As stated in SEQRA (6 NYCRR 617):

> *"The basic purpose of SEQRA is to incorporate the consideration of environmental factors into the existing planning, review and decision-making processes of state, regional, and local government agencies at the earliest possible time. To accomplish this goal, SEQRA requires that all agencies determine whether the actions they directly undertake, fund or approve may have a significant impact on the environment, and, if it is determined that the action may have a significant adverse impact, prepare or request an environmental impact statement."*

The analyses conducted to support the environmental review are intended to identify potential significant adverse environmental impacts; these ***findings*** are presented in the DEIS, together with potential mitigation measures to address any identified significant adverse environmental impacts.

As the lead agency, MTA NYCT must review all aspects of the DEIS to determine its adequacy and adherence to the work effort outlined in the Final Scoping Document. Once MTA NYCT is satisfied that the DEIS is complete for the purposes of public review and comment, ***MTA NYCT must issue a Notice of Completion and circulate the DEIS for public review***.

ES.3.6 PUBLIC REVIEW

Publication of the DEIS and issuance of the Notice of Completion signal the beginning of the public comment period for the DEIS. During this period, ***which extends for a minimum of 30 days after publication of the DEIS, the public may review and comment on the DEIS, either in writing (mail or email) or at a Public Hearing convened for the purpose of receiving such comments.*** Notice of the Public Hearing was published in the ***NYSDEC's Environmental Notice Bulletin (ENB)***, on the MTA NYCT web site, in local newspapers, and on social media. In addition, "posters" were displayed in MTA NYCT facilities (subway stations, bus stops) announcing the Public Hearing of the Proposed Action. *Printed copies of the DEIS were made available for public review* at the same repositories used for the public review of the Final Scoping Document at the following locations:

- **Queens Community Board 12**, 9028 161st Street, Jamaica, NY 11432;
- **Queens Central Library**, 89-11 Merrick Boulevard, Jamaica, NY 11432; and,
- **South Jamaica Library**, 10841 Guy R. Brewer Boulevard, Jamaica, NY 11433.

The DEIS was also available on the MTA website (www.mta.info/) pursuant to the requirements in the 2005 amendment to SEQRA (Chapter 641 of the NYS Laws of 2005; "Ch. 641").

The Public Hearing for MTA NYCT's Reconstruction and Expansion of the Jamaica Bus Depot DEIS was held on June 27, 2019 and its date was advertised 14 days in advance.

The ***public comment period***, for interested parties, stakeholders, agencies, and the public to review and comment on the DEIS, was held open until July 19, 2019, 22 days after the Public Hearing. All substantive comments received on the DEIS, at the Public Hearing, or during the comment period have become part of the SEQRA record and are summarized and responded to by NYCT in the ***Final Environmental Impact Statement (FEIS)***.

ES.3.7 FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS)

Once the public comment period for the DEIS closed on July 19, 2019, the MTA NYCT prepared the **FEIS**. This document includes a summary of, and response to, each substantive comment made about the DEIS. Once MTA NYCT determines that the FEIS is complete, MTA NYCT will issue a Notice of Completion for publication in NYSDEC's ENB and in the local newspapers and circulate the FEIS. A printed copy of the FEIS will be made available for public review at the repositories used for the DEIS. A copy will also be available on the MTA NYCT website (www.mta.info/). After at least ten days from issuance of the FEIS, a written ***Findings Statement*** will be prepared by MTA NYCT and submitted to the MTA Board.

ES.3.8 STATEMENT OF FINDINGS

The *lead agency must adopt a formal set of written **findings** based on the FEIS*. In accordance with 6 NYCRR Part 617.11(d), the **SEQRA Findings Statement** issued in connection with a project approval must: *(i) **consider** the relevant environmental impacts, facts, and conclusions disclosed in the FEIS; (ii) **weigh and balance** relevant environmental impacts with relevant social, economic, and other considerations; (iii) **provide** the rationale for the agency's decision; (iv) **certify** that the requirements of 6 NYCRR Part 617 have been met; and (v) **certify** that, consistent with social, economic, and other essential considerations, and considering the reasonable alternatives available, **the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that adverse environmental impacts will be avoided or minimized to the maximum extent practicable** by incorporating as conditions to the decision, those mitigation measures identified as practicable.*

Once the Statement of Findings is adopted by the MTA Board, the SEQRA process is completed, then the lead agency will begin to approve and implement the Proposed Action ***or*** decide to not move forward with the project. This will be accomplished through ***a formal action by the MTA Board***.

ES.3.9 FRAMEWORK FOR ENVIRONMENTAL ANALYSIS

ES.3.9.1 SCOPE OF ENVIRONMENTAL ANALYSIS

As set forth in the Positive Declaration, MTA NYCT (the lead agency) has determined that the Proposed Action may result in one or more significant adverse environmental impacts and, thus, ***preparation of this FEIS is required***. This document follows methodologies and supplements the guidelines set forth by SEQRA. When SEQRA guidance is non-existent, other relevant and reasonable guidance is identified and used, to the extent practicable. For example, the *Federal Transit Administration (FTA)* and *NYSDEC guidance* could be used. In addition, *City Environmental Quality Review (CEQR) guidance* from the City of New York could be used to address traffic issues because *NYCDOT stipulations for the Maintenance and Protection of Traffic (MPT) plan* would be sought for the project in any event.

As described in the Final Scoping Document, this FEIS includes discussions and evaluations for the following:

- Transportation, including Traffic, Parking, Transit, and Pedestrians
- Air Quality
- Noise and Vibration
- Historic and Cultural Resources
- Social and Economic Conditions, including Land Use, Zoning, and Public Policy, Socioeconomics, Community Facilities and Services, Open Space/Parkland and Recreational Facilities, and Environmental Justice
- Urban Design and Visual Resources
- Shadows
- Neighborhood Character
- Natural Resources
- Coastal Zone
- Contaminated and Hazardous Materials
- Infrastructure, Energy, and Solid Waste
- Safety and Security
- Construction Methods and Activities
- Displacement and Relocation
- Secondary and Cumulative Effects
- Commitments to Mitigating Adverse Effects
- Irretrievable and Irreversible Commitment of Resources
- Unavoidable Adverse Effects
- Growth Inducing Aspects of the Proposed Projects
- Public Outreach

For each technical analysis section in the FEIS, the assessment includes: a description of existing conditions; an assessment of conditions in the future *without* the Proposed Action for the year(s) in which the action would be constructed and operational (No-Build Alternative); and, an assessment of conditions in the future *with* the proposed project for the years(s) in which the action would be constructed and operational. In addition, relevant standards and guidelines are identified and described.

ES.3.9.2 ANALYSIS YEARS

An EIS analyzes the effects of a proposed action on its environmental setting. Typically, a proposed action, if approved, would take place in the future, thus the action's environmental setting is not the current environment but *the environment as it would exist at project completion in the future*. Therefore, future conditions must be projected. ***This projection is made for a particular year that is within the anticipated construction window, which is identified as the "analysis year" or the "build year". For this project, it is the year when the proposed JBD would be substantially operational.***

The proposed action could have potential significant adverse environmental impacts during its operational phase; therefore, ***the analysis year 2025 (representing, generally, "first day of operations"), is considered the operational year in this document for the*** **Proposed Action**. Conditions in the future *without* the proposed action, (i.e. the No-Build condition), have been evaluated to compare conditions in the future *with* the proposed action for the analysis year.

Construction is anticipated to begin in 2021 and would require approximately 42 to 48 months to complete, depending on which Candidate Alternative is selected to be the Preferred Alternative. ***The critical***

construction year – the period when construction activity has the greatest potential for environmental impacts – would vary depending on the resource category. For example, the ***greatest potential for transportation impacts*** has been determined to be in 2022 when the combination of construction-related trucking activity and number of construction workers would be at a peak (see **Chapter 17.0: Construction Methods and Activities**). ***For noise impacts***, the construction activities related to excavation and demolition activities would be considered the peak period, which would occur in 2021 for Phase I and 2023 for Phase II construction (see **Chapter 17.0: Construction Methods and Activities**).

ES.3.9.3 DEFINITION OF STUDY AREAS

Study areas *relevant for each analysis category* are defined in this FEIS and include *the geographic areas most likely to be potentially affected* by the Proposed Action for a given analysis category. It is anticipated that the *principal direct effects of the Proposed Action would occur within the project site and its immediate vicinity*. Appropriate study areas differ depending on the analysis category; the specific methods and study areas are discussed in the individual technical analysis chapters.

ES.3.9.4 DEFINITION OF BASELINE CONDITIONS AND THE NO-BUILD ALTERNATIVE

For each assessment, this FEIS provides the following descriptions: ***existing conditions*** for each analysis category; the ***No-Build condition***; and, ***future conditions with the Proposed Action***. The future conditions with the Proposed Action ***during the construction period*** are discussed in **Chapter 17.0: Construction Methods and Activities** for each analysis category.

The assessment of ***existing conditions*** establishes ***a baseline*** – not against which the proposed JBD is measured, but from which future conditions can be projected. The projection of future conditions begins with an assessment of existing conditions because these can be measured and observed.

The ***No-Build Alternative*** is evaluated for the same analysis year as the Proposed Action (i.e., 2025 for all analysis categories). The ***No-Build Alternative, or "future without the proposed project"*** condition, uses existing conditions as a baseline and adds changes that are known or expected to be in place at various times in the future. For many analysis categories, the No-Build Alternative condition incorporates known development projects that are likely to be built by the analysis year and provides a baseline of the future against which the incremental changes generated by a proposed action can be evaluated. This includes development currently under construction, or that which can be reasonably anticipated based on current development plans and public approvals.

ES.3.9.5 ALTERNATIVES

The range of alternatives for the Proposed Action was identified in both the Draft and the Final Scoping Document. From the range of alternatives, ***three Candidate Alternatives were identified in the Final Scoping Document*** and are described and assessed in **Chapter 3.0: Alternatives**. *SEQRA requires that a description and evaluation of the range of reasonable alternatives to a proposed action be included in an EIS* ***at a level of detail sufficient to allow a comparative assessment***. Alternatives and the rationale behind their selection are important in the disclosure of environmental effects of a proposed action and provide a framework for comparison of potential impacts and project objectives (6 NYCRR Part 617.9b (5)(v)). ***If the environmental assessment and consideration of alternatives identify a feasible alternative that eliminates or minimizes significant adverse impacts, the lead agency may want to consider adopting that alternative as the proposed action***. SEQRA also requires consideration of a No-Build Alternative that evaluates environmental conditions that are likely to occur in the future without the proposed action (6 NYCRR Part 617.9b (5)(v)).

ES.3.9.6 CUMULATIVE EFFECTS ASSESSMENT

Cumulative effects result from the incremental effect of the proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of which agency or person undertakes such actions. The objective of cumulative effects analysis is to identify and consider the *total and combined effects of multiple actions* that potentially would not be the same if each action and its associated impacts were evaluated in isolation.

ES.3.9.7 CONSTRUCTION ENVIRONMENTAL PROTECTION PLAN / ISO 14000 STANDARDS / STATE SMART GROWTH PUBLIC INFRASTRUCTURE POLICY ACT

A key element in the assessment of *potential construction generated impacts* is that MTA NYCT requires that contractors prepare a ***Construction Environmental Protection Plan (CEPP)*** *for MTA NYCT acceptance before construction initiates*. The ***CEPP*** must identify those commitments adopted by MTA NYCT that would contribute to *minimizing the Proposed Action's potential for adverse environmental impacts during construction, while reducing the Proposed Action's potential cumulative adverse effects (see Section 2.3.6: Cumulative Effects Assessment) in the study area*. The proposed mitigation consists of measures that would be implemented *proactively* in order to avoid or to minimize potential significant adverse environmental impacts that otherwise could potentially occur with the Proposed Action. These mitigation measures would be particularly focused on the resource categories that are the most sensitive to construction and operations, specifically:

- Noise and vibration
- Air quality
- Traffic and parking, transit and pedestrian movements
- Community disruption
- Urban design and visual resources
- Contaminated and hazardous materials
- Safety and security
- Cumulative effects

The CEPP would, thus, codify all commitments made in the EIS process and include those in the project construction specifications to assure conformance as described in Chapter 17.0: Construction Methods and Activities. Where applicable, the technical analysis chapters in the FEIS provide a discussion of how protective measures would be proactively implemented to minimize adverse effects on the environment in the form of mitigation measures and the anticipated benefit of those measures for the environment.

MTA NYCT Capital Program Management is ISO 14001 certified and the continuous improvement mandate that is an intrinsic aspect of its certification also applies to the continuous improvement of environmental performance and sustainability. This provides a further framework for implementing emission reduction measures. ISO 14001 registration requires evidence of implementation of ISO 14001, which includes: ***procedures*** *to maintain compliance to applicable laws;* ***commitment to continual improvement*** *(in a broad sense); and,* ***commitment to prevention of pollution*** *(e.g., recycling, process changes, energy efficiency, materials substitution).*

The ISO 14000 Series of International Standards addresses environmental areas including: management systems; auditing; labeling; performance evaluation; and life cycle assessment. *ISO 14000 comprises voluntary standards for the establishment of a common worldwide approach to management systems* that will lead to the protection of the earth's environment while spurring international trade and commerce.

They serve as tools to manage corporate environmental programs and provide an internationally recognized framework to measure, evaluate, and audit these programs. When implemented, these standards ensure consistency in environmental management practice, harmonize national environmental standards within a single system for all transnational subsidiaries, and offer guidelines for environmental excellence. Even though the standards do not prescribe performance levels, performance improvements will invariably be achieved by any business if its commitment to environmental care is emphasized and employees are trained and aware of the policies in place to protect the environment.

The ***State Smart Growth Public Infrastructure Policy Act of 2010***, passed by New York State in 2010, is a law that promotes Smart Growth and sustainable infrastructure investments. The act establishes 10 Smart Growth criteria in state law for infrastructure projects reviewed by the state. Projects must meet those criteria "to the extent practicable." Should the MTA Board approve the proposed JBD, this project would be in compliance with the State Smart Growth Public Infrastructure Policy Act of 2010. A summary of the 10 Smart Growth criteria used to review public infrastructure projects is provided below.

- **Maintenance and use of existing infrastructure –** similar to a "fix-it-first" policy, which focuses funding on repair and maintenance of existing infrastructure, rather than constructing new infrastructure.
- **Location in "municipal centers"** – development and re-development in existing or new centers of activities (e.g., downtowns, Main Streets, central business districts, brownfield areas, local waterfront revitalization areas, environmental justice areas, hardship/low-income areas and transit-oriented development, among others).
- **Infill Development** – redevelopment, rehabilitation, and development between existing buildings and on vacant, abandoned or underutilized properties.
- **Natural resource protection** – preserving, protecting, and enhancing water, air, agricultural land, forests, recreation, open spaces, scenic areas, and historic/archaeological resources.
- **Smart Growth planning and design principles** – includes density, mixed-uses, public spaces, diverse housing choices near employment, and other amenities and age and income-integration.
- **Mobility and transportation choices** – reducing car-dependence through walkable, bikeable, transit-friendly neighborhood design and street connectivity.
- **Inter-governmental coordination** – regional, inter-municipal, and state/local coordination.
- **Community-based planning** – projects that result from inclusive, bottom-up, stakeholder-driven planning processes.
- **Predictability and reliability in building and zoning codes** – clear codes that promote smart growth and are consistently and predictably applied.
- **Sustainability development** – projects that use existing resources in ways that do not compromise the needs of future generations (e.g., reducing greenhouse gas emissions, promoting broad-based public participation and adequate governance structures to ensure and maintain sustainability).

ES.3.9.8 USGBC LEED CERTIFICATION

The ***Leadership in Energy and Environmental Design (LEED)*** program is managed by the United States Green Building Council (USGBC). LEED certification is used ***to measure the sustainability and energy efficiency of new construction.*** The United Nations World Commission on Environment and Development defines sustainable development *as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."* MTA NYCT has registered the proposed project

for LEED certification with USGBC, and the final design will be required to meet LEED standards for certification at the highest level achievable.

LEED 2009 for New Building Design + Construction (NBD+C) applies to the design and construction of buildings that are being newly constructed or going through a major renovation. In order to measure that a Candidate Alternative has met the definition of a high-performance green building as defined by LEED, the LEED rating system has performance criteria in these major areas:

- **Sustainable Sites;**
- **Water Efficiency;**
- **Energy and Atmosphere;**
- **Materials and Resources;**
- **Indoor Environmental Quality;**
- **Innovation in Design; and**
- **Regional Priority.**

Within the LEED rating system, each sustainable category has LEED Credits and/or LEED Prerequisites. **Prerequisites are mandatory** project characteristics, measurements, qualities, values or functions as identified within the LEED rating system. Prerequisites do not earn a project any LEED points because they are "***required***" for the project to be considered. Each project must satisfy all prerequisites outlined in the LEED rating system under which it is registered. Failure to meet any prerequisite will render a project ineligible for certification.

The ***LEED NBD+C New Construction Prerequisites*** include:

- **Sustainable Sites Prerequisite** – Construction Activity Pollution Prevention
- **Water Efficiency Prerequisite** – Outdoor Water Use Reduction
- **Water Efficiency Prerequisite** – Indoor Water Use Reduction
- **Water Efficiency Prerequisite** – Building-level Water Metering
- **Energy and Atmosphere Prerequisite** – Fundamental Commissioning and Verification
- **Energy and Atmosphere Prerequisite** – Minimum Energy Performance
- **Energy and Atmosphere Prerequisite** – Building-level Energy Metering
- **Energy and Atmosphere Prerequisite** – Fundamental Refrigerant Management
- **Materials and Resources Prerequisite** – Storage and Collection of Recyclables
- **Materials and Resources Prerequisite** – Construction and Demolition Waste Management Planning
- **Indoor Environmental Quality Prerequisite** – Minimum Indoor Air Quality Performance
- **Indoor Environmental Quality Prerequisite** – Environmental Tobacco Smoke (ETS) Control

Credits are "optional" elements meaning it is a non-mandatory project characteristic, measurement, quality, value or function as identified within a LEED rating system. Project teams need to obtain enough credits to secure their desired certification level. Project teams can mix and match credits until they reach the desired number of points. All of the Candidate Alternatives will need to achieve enough credits to secure the certification level the project is seeking: ***"certified"*** (40-49 points); ***"silver"*** (50-59 points); ***"gold"*** (60-79 points); or ***"platinum"*** (80-100 points).

It is expected that credits for the *Sustainable Sites, Water Efficiency, Materials and Resources, Innovation in Design, and Regional Priority categories would be common and achievable for each of the Candidate Alternatives*.

Regarding the *Energy and Atmosphere category, a preliminary review suggests that larger, partially open/principally enclosed facilities would require higher energy use than a principally open facility and, therefore, be less efficient. Similarly, for the Indoor Environmental Quality category, larger, partially open/principally enclosed facilities would likely require more extensive controls to maintain the indoor air quality levels required to match comparable levels in a principally open facility. Therefore, in considering the sustainability, resource utilization and cost impacts of each of the candidate alternatives, Candidate Alternative B (Partially Open Parking) and Candidate Alternative D (Principally Enclosed Parking), may more likely have adverse effects than Candidate Alternative A (Principally Open Parking).*

The LEED process begins with holding a ***Charrette***, where participants, ***including the public***, combine brainstorming, discussion, and strategy development to create a shared vision, goals and understanding of the next steps for a project, organization or community. (For more information see http://www.planning.dot.gov/PublicInvolvement/pi_documents/2b-b.asp Public Involvement Techniques Section 2.B.b: Charrettes.) This input would give the project the opportunity to be integrated into the community while helping designers and engineers determine how to minimize construction and environmental impacts to the community. During the ***Charette***, LEED goals are communicated to all team members, and LEED credit feasibility is evaluated.

ES.3.9.9 TRANSITION TO ELECTRIC BUSES

Typically, the attention to and analysis of *sustainable facility construction and operation* is applied to an enterprise that has certain *"fixed" features* (e.g., a new heating/ventilation system, a new building/structure, use of concrete versus steel, etc.) and is planned to exist in its original condition for a reasonably foreseeable time period. In the currently planned project, the situation is that:

- *in the proposed JBD operational year (2025),* the bus fleet would consist of 85% clean diesel fuel buses and 15% Electric Buses; and,
- ***beyond year 2025, through 2040, the fleet would transition to 100% Electric Buses***.

Thus, it is reasonable and important *to anticipate* that, throughout that 15-year transition period, changes would have to be made to the reconstructed depot over time to accommodate the increasing number of electric buses as related to, as for examples:

- installation of new energy sources and delivery systems (e.g., substation, cabling)
- deployment of charging equipment to store/apply the electric power to the electric buses
- installation of electric bus maintenance equipment

Therefore, to the extent practicable, the Preferred Alternative that is selected should be such as to allow for the necessary flexibility to*: progressively accommodate electric bus technology* and *ultimately support an* ***all-electric bus fleet***; and, *promote and provide a more resilient and sustainable* community facility and environment.

ES.3.9.10 MITIGATION

Mitigation measures for all significant adverse impacts identified in this FEIS are described in each chapter. SEQRA requires that any significant adverse impacts identified in the EIS process be minimized or avoided to the fullest extent practicable, and balanced against social, economic, and other considerations (6 NYCRR Part 617.11.d(5)). In the DEIS, options for mitigation, where necessary and appropriate, were presented for public review and discussion, ***that is prior to MTA NYCT's selecting the Preferred Alternative for***

implementation. Where feasible mitigation is not available or practicable, the FEIS discloses the potential for unavoidable significant adverse impacts.

ES.4 ALTERNATIVES (CHAPTER 3)

In mid-2014, MTA NYCT initiated engineering and economic planning for an expanded and reconstructed JBD at the existing JBD site. Focusing on the potential servicing needs for a nominal 300 buses, an array of different service sequencing opportunities within the project site were identified for such service elements as: bus washing; maintenance; and, fueling, traffic flow and circulation configurations. MTA NYCT engineers/architects/operations/cost control staff were involved, and over fifteen concept alternatives evolved. These were then critically compared, which resulted in seven being selected as Potential Alternatives that MTA NYCT believed would represent *a reasonable array of opportunities to evaluate in terms of: taking maximum engineering/operations advantage of the project site; utilizing current and emerging servicing technology; demonstrating an array of associated costs/capacities; and, reflecting a diversity of potential environmental effects/impacts related to their operating future*.

The seven Potential Alternatives were then evaluated further and ***three Candidate Alternatives (A, B and D) were identified for evaluation in the FEIS***. These three Candidate Alternatives represent conceptual depot designs that evaluated three potential bus parking configurations. The distinguishing aspects between these configurations are as follows:

- **CANDIDATE ALTERNATIVE A** is referenced herein as ***PRINCIPALLY OPEN*** **PARKING** (most bus parking would be outdoors in unenclosed space);
- **CANDIDATE ALTERNATIVE B** is referenced herein as the ***PARTIALLY OPEN*** **PARKING** (some bus parking would be provided outdoors in unenclosed space, with the remainder of the bus parking provided indoors, within enclosed and climate-controlled space); and,
- **CANDIDATE ALTERNATIVE D** is referenced herein as ***PRINCIPALLY ENCLOSED*** **PARKING** (most bus parking would be provided indoors, within enclosed and climate-controlled space).

The conceptual designs of these three Candidate Alternatives allowed for a reasonable range of proposed alternatives to be considered for comparative engineering, economic, and environmental evaluation in the FEIS. Specifically, a range of bus storage capacity, capital and annual operational energy costs, and potential environmental effects (preliminarily represented by the extent of indoor/outdoor bus parking) are captured by these Candidate Alternatives, which are described on the following pages in narrative and graphic form.

Upon completion of the planned SEQRA Scoping process, the resultant Candidate Alternatives were further analyzed, compared and documented in the FEIS. That process addresses engineering, economic, and environmental considerations related to both construction and operating features and characteristics of the Candidate Alternatives and, when appropriate, the identification of a Preferred Alternative. The Preferred Alternative which results from the EIS process will then be the basis for a Design-Build Contract which will result in the construction/operation of the new depot.

ES.4.1 CANDIDATE ALTERNATIVE A – PRINCIPALLY OPEN PARKING

This Candidate Alternative would meet the most recent MTA Unified Buses Planning and Design Guidelines, future bus storage capacity, and operation and maintenance requirements of the current and future bus fleet.

ES.4.1.1 DEPOT STRUCTURE

Candidate Alternative A would be a new one-story building positioned along Merrick Boulevard, and extend southward from Tuskegee Airmen Way to 107th Avenue, as shown in **Figure ES-2: Alternative A ("Principally Open") – Massing Diagram** and **Figure ES-3**: **Alternative A ("Principally Open") – Plan**[5]. Candidate Alternative A would include:

- *Candidate Alternative A consists of two buildings*. The main depot building (Building A) would be located along Merrick Boulevard and would extend from Tuskegee Airmen Way to 107th Avenue. An administrative building would be located along Tuskegee Airmen Way and would extend from 165th Street to Merrick Boulevard.
- *A three-story administrative building* would provide about 7,600 square feet (sf) of administrative space on the first and second floors, and the third floor would bridge over the at-grade bus parking area and extend to the main structure providing an additional 19,700 sf. The height of the administrative building would be approximately 43 feet, which would include a four-foot parapet wall.
- *The one-story depot building* would provide approximately 125,000 sf on the first floor.
- *The roof level of the main building* would be about 26 feet above the ground floor, with a 10-foot parapet wall on all sides. A ramp at the south end of the depot building would connect the ground floor to the rooftop parking level. The height of the ramp structure is approximately 15 feet above the roof level; therefore, the height of the depot building would range from 36 feet at the north end of the facility to a maximum building height of 51 feet at the south end of the building.
- *A surface parking area for buses* would be located west of the main depot building.
- *A 31-foot security/sound barrier wall* would be located on the west side of the depot, adjacent to the mostly residential buildings located along 165th Street. A 20-foot security/sound barrier wall would be constructed along the south side of the depot at 107th Avenue.
- Candidate Alternative A would have three fueling lanes, three bus wash lanes, two interior bus wash stations, one chassis wash station, and 15 maintenance bays.

[5] Plans and massing diagrams are presented for diagrammatic purposes only.

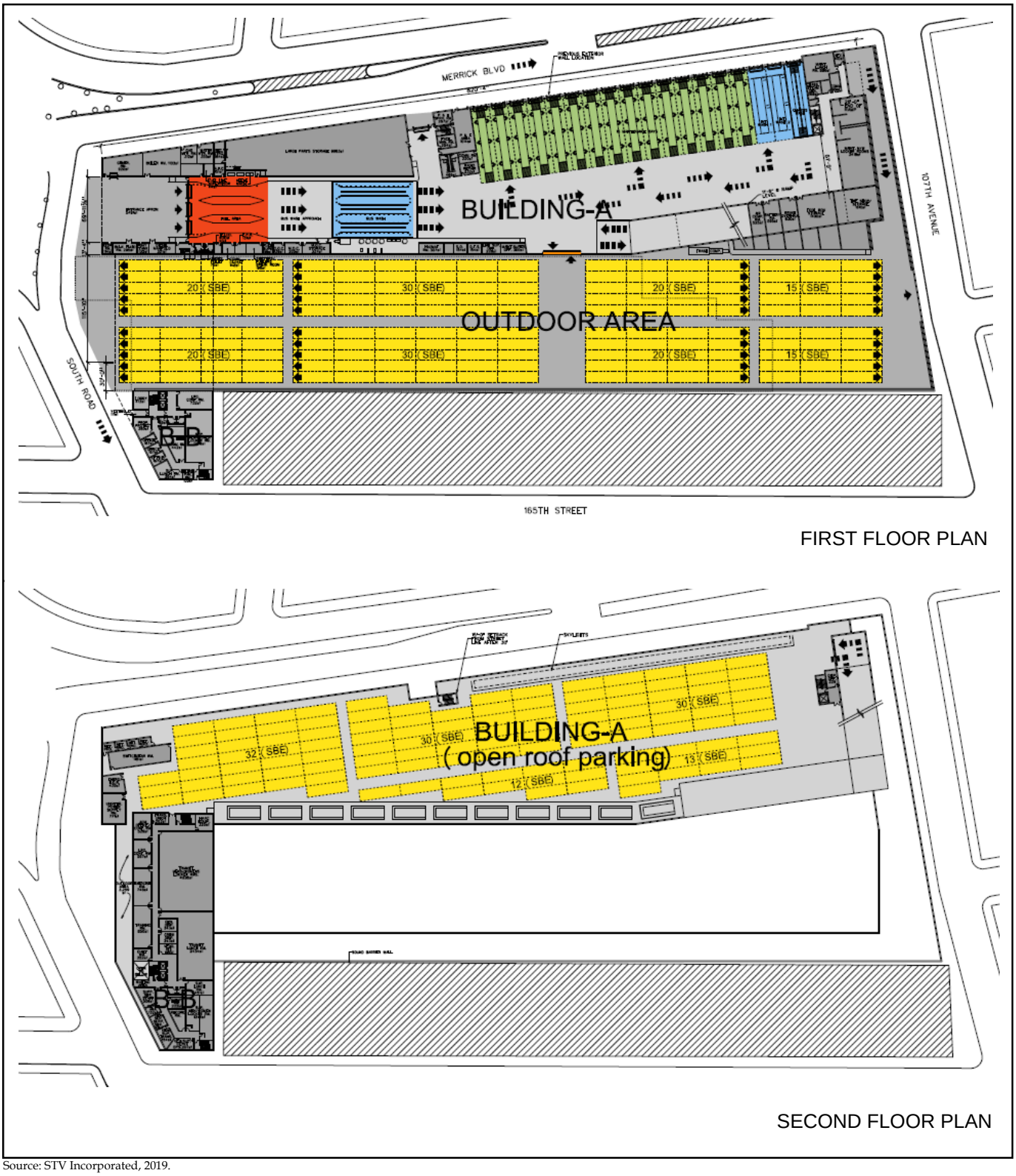
Note: Rendering has been updated to show a more accurate rendition of the height of the proposed security/sound barrier as presented at the Public Hearing on June 27.

Source: STV Incorporated 2019.

Figure ES-2

Alternative A ("Principally Open") - Massing Diagram

Reconstruction and Expansion of Jamaica Bus Depot



Source: STV Incorporated, 2019.

Figure ES-3

Alternative A ("Principally Open") - Plan

Reconstruction and Expansion of Jamaica Bus Depot

ES.4.1.2 PARKING

Candidate Alternative A would provide **305 SBE[6] parking spaces, of which**:

- 18 SBE parking spaces would be indoors on the first level of the main building;
- 170 SBE parking spaces would be outdoors on the west side of the property; and
- 117 SBE parking spaces would be outdoors on the roof.

Candidate Alternative A would meet the future bus storage capacity target of 300 SBEs.

ES.4.1.3 BUS CIRCULATION

Buses returning in the late afternoon or evening would enter the proposed JBD from either Tuskegee Airmen Way into one of the three fueling lanes to be fueled and to extract revenue or from an entrance driveway on Merrick Boulevard just north of 107th Avenue. (Buses entering from the Merrick Boulevard driveway would move to the north end of the depot property where they could turn into the fueling lanes using the depot's north apron area, separate from the Tuskegee Airmen Way sidewalk and pedestrians.) After refueling and revenue extraction, the buses would proceed to the bus wash area to be cleaned and parked on the roof or to the outdoor bus storage area. A ramp to the rooftop parking area would be located at the south end of the building.

The proposed depot would have several exits for buses. A driveway on the east side of the building, approximately midblock between Tuskegee Airmen Way and 107th Avenue, would allow buses to exit onto Merrick Boulevard. Buses could exit on the west side of the depot building to the outdoor parking area and exit the depot to the north on Tuskegee Airmen Way. An emergency exit would be located at 107th Avenue at the south end of the site.

ES.4.1.4 CONSTRUCTION

Modest construction phasing would be required to prevent interruption to bus operation and maintenance during the *42-month construction period*. Candidate Alternative A proposes to construct Building A between the existing building and Merrick Boulevard and, once completed, transfer bus operations and maintenance to the new structure. At which time, the existing building would be demolished to allow for construction of the surface parking lot.

ES.4.1.5 COSTS

Total project costs are estimated to be $385,000,000, while the ***annual operational energy costs are estimated to be $1,050,000***.

[6] An SBE represents the space needed to park a standard 40-foot-long, single-unit bus. A 60-foot-long articulated bus is considered as 1.5 SBEs and a 45-foot-long express bus is considered as 1.15 SBEs.

ES.4.2 CANDIDATE ALTERNATIVE B – PARTIALLY OPEN PARKING

This Candidate Alternative would meet the most recent MTA Unified Planning and Design Guidelines, future bus storage capacity, and operation and maintenance requirements of the current and future bus fleet.

ES.4.2.1 DEPOT STRUCTURE

As shown in **Figure ES-4: Alternative B ("Partially Open") – Massing Diagram** and **Figure ES-5A: Alternative B ("Partially Open") – First and Second Floor Plan** and **Figure ES-5B: Alternative B ("Partially Open") – Roof Plan,** Candidate Alternative B would be a two-level building positioned along Merrick Boulevard and would include:

- *Candidate Alternative B consists of two buildings*. The main depot building would consist of two structures, the first structure (Building A) would be located along Merrick Boulevard and would extend from Tuskegee Airmen Way to 107th Avenue. The second structure (Building B) would be connected to the northern portion of Building A to the west. An administrative building would be located along Tuskegee Airmen Way and would extend from 165th Street to Merrick Boulevard.
- *The administrative building* would provide about 11,000 sf of administrative space on the first and second floors and 22,000 sf on the third floor. The height of the administrative building would be approximately 50 feet, which would include a four-foot parapet wall.
- *The first floor of the main depot building* would be approximately 161,000 sf for bus operation/ maintenance and parking. The second level of the main building would be 160,000 sf for indoor parking and the roof would provide 82,000 sf of outdoor parking.
- *The roof height of the main building* would be about 46 feet above street level, with a 10-foot parapet wall on three sides (north, east, and west). A ramp at the south end of the main building would connect the ground level to the second level and rooftop parking. The height of the ramp structure is approximately 15 feet above the roof level; therefore, the height of the depot building would range from 56 feet at the north end of the facility to a maximum building height of 61 feet at the south end of the building.
- *A surface parking area for buses* would be located west of the main depot building.
- *A 20-foot security/sound barrier wall* would be located on the west and south sides of the depot, adjacent to the principally residential properties located along 165th Street and 107th Avenue, respectively.
- Candidate Alternative B would have three fueling lanes, three bus wash lanes, two interior bus wash stations, one chassis wash station, and 15 maintenance bays.

ES.4.2.2 PARKING

Candidate Alternative B would provide **309 SBE parking spaces, of which**:

- 60 SBE parking spaces would be indoors on the first floor of the main building;
- 130 SBE parking spaces would be indoors on the second floor of the main building; and
- 119 SBE parking spaces would be outdoors on the roof.

Candidate Alternative B would meet the future bus storage capacity target of 300 SBEs.

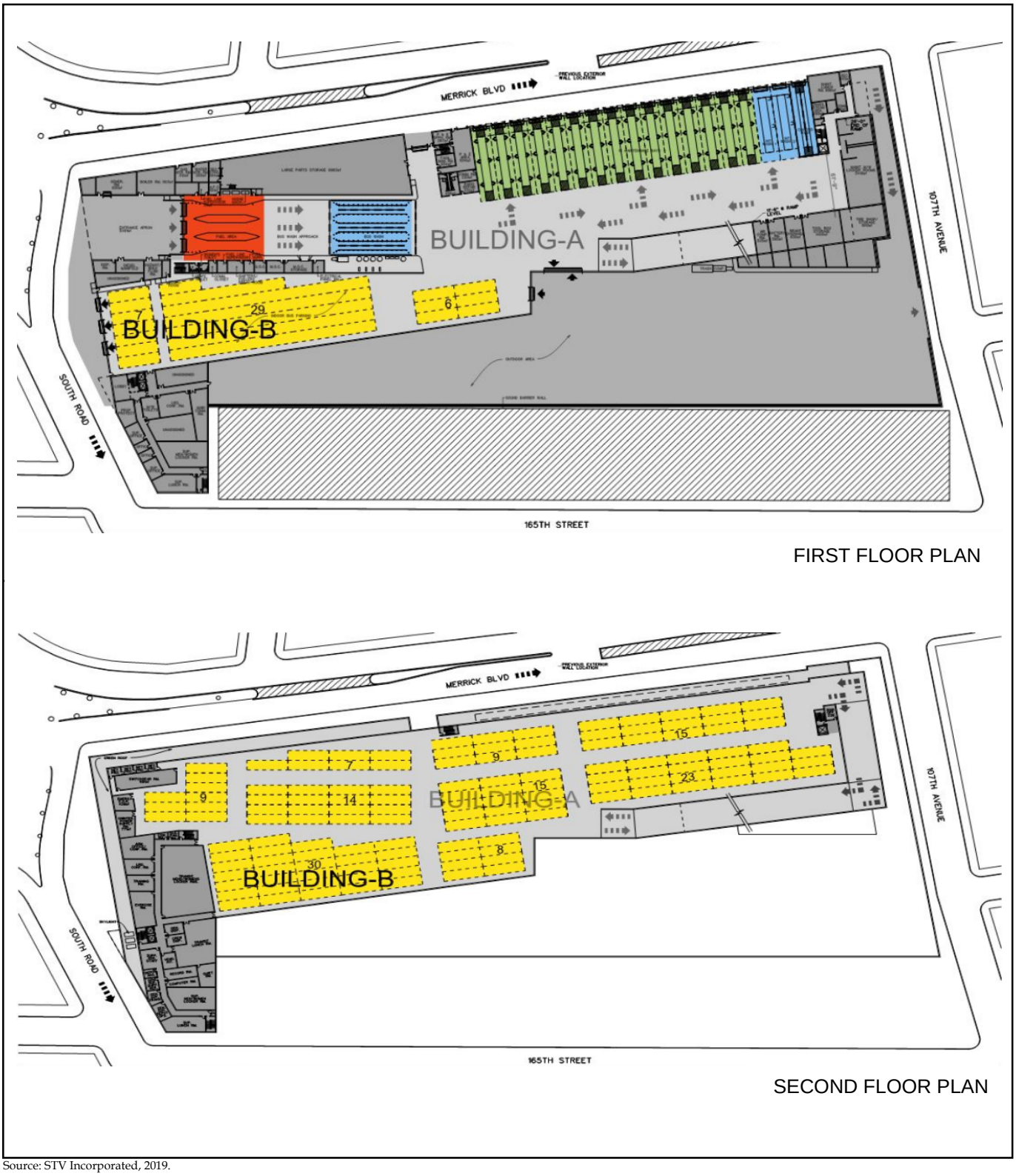
Note: Rendering has been updated to show a more accurate rendition of the height of the proposed security/sound barrier as presented at the Public Hearing on June 27.

Source: STV Incorporated, 2019.

Figure ES-4

Alternative B ("Partially Open") - Massing Diagram

Reconstruction and Expansion of Jamaica Bus Depot

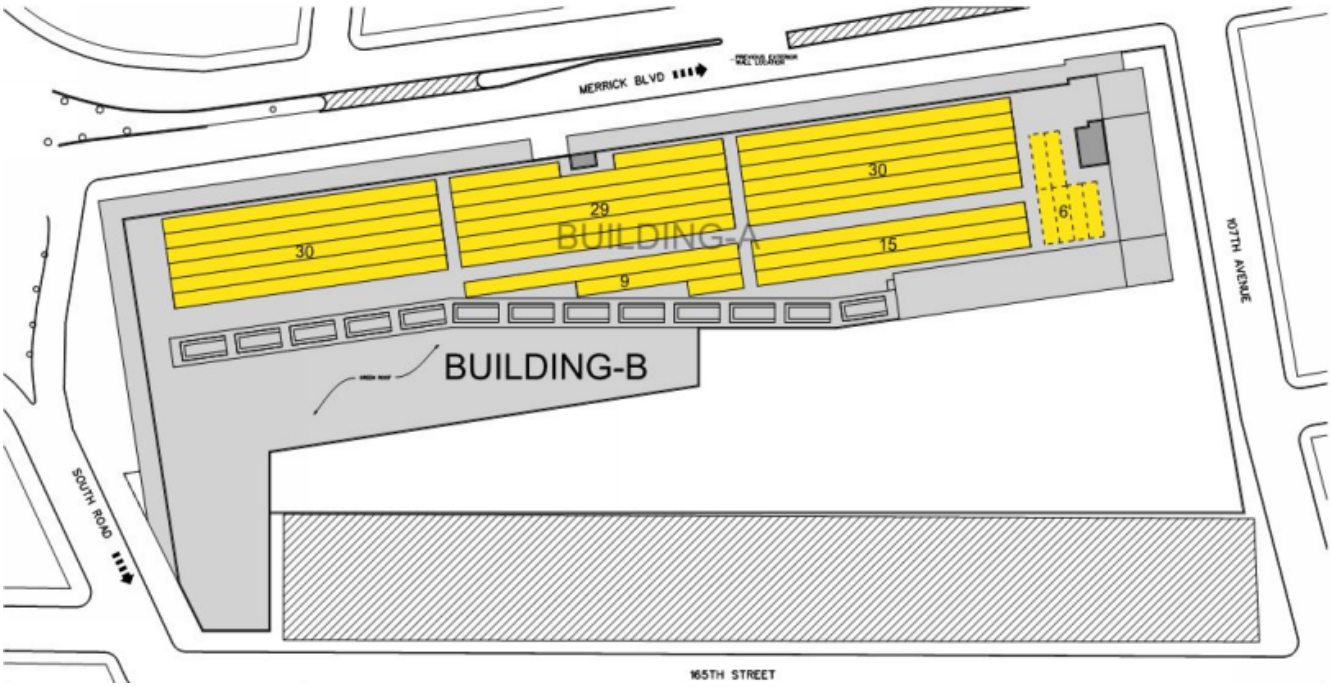


Source: STV Incorporated, 2019.

Figure ES-5A

Alternative B ("Partially Open") - First & Second Floor Plan

Reconstruction and Expansion of Jamaica Bus Depot



ROOF PLAN

Source: STV Incorporated, 2019.

Figure ES-5B

Alternative B ("Partially Open") - Roof Plan

Reconstruction and Expansion of Jamaica Bus Depot

ES.4.2.3 BUS CIRCULATION

Buses returning in the late afternoon or evening would enter the proposed JBD from either Tuskegee Airmen Way into one of the three fueling lanes to be fueled and to extract revenue from an entrance driveway on Merrick Boulevard just north of 107th Avenue. (Buses entering from the Merrick Boulevard driveway would move to the north end of the depot property where they could turn into the fueling lanes using the depot's north apron area, separate from the Tuskegee Airmen Way sidewalk and pedestrians.) After refueling and revenue extraction, the buses would proceed to the bus wash area to be cleaned and then parked indoors on the second level of the building or outdoors on the roof. A ramp to the second level and rooftop parking areas would be provided at the south end of the building.

The proposed JBD would have several exits for buses. A driveway on the east side of the building, approximately midblock between Tuskegee Airmen Way and 107th Avenue, would allow buses to exit onto Merrick Boulevard. Buses could exit on the west side of the depot building to the outdoor parking area and exit the depot to the north on Tuskegee Airmen Way. An emergency exit would be located at 107th Avenue at the south end of the site.

ES.4.2.4 CONSTRUCTION

Modest construction phasing would be required to prevent interruption to bus operation and maintenance during the *46-month construction period*. Candidate Alternative B proposes to construct Building A between the existing building and Merrick Boulevard and, once completed, transfer bus operations and maintenance to the new structure. At which time, the existing building would be demolished to allow for construction of Building B.

ES.4.2.5 COSTS

Total project costs are estimated to be approximately $493,000,000, while the ***annual operating energy costs are estimated to be $1,550,000.***

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ES.4.3 CANDIDATE ALTERNATIVE D – PRINCIPALLY ENCLOSED PARKING

This Candidate Alternative would meet the most recent MTA Unified Buses Planning and Design Guidelines, future bus storage capacity, and operation and maintenance requirements of the current and future bus feet.

ES.4.3.1 DEPOT BUILDING

As show in **Figure ES-6: Alternative D ("Principally Enclosed") – Massing Diagram and Figure ES-7A: Alternative D ("Principally Enclosed") – First and Second Floor Plan** and **Figure ES-7B: Alternative D ("Principally Enclosed") – Roof Plan.** Candidate Alternative D would consist of:

- *Candidate Alternative D consists of two buildings*. The main depot building would consist of two structures, the first (Building A) would be located along Merrick Boulevard and would extend from Tuskegee Airmen Way to 107th Avenue. The second structure (Building B) would be connected to Building A to the west. An administrative building would be located along Tuskegee Airmen Way and would extend from 165th Street to Merrick Boulevard.
- *The administrative building* would provide about 7,500 sf of administrative space on the first floor, 7,500 sf on the second floor, and 20,000 sf on the third floor. The height of the administrative building would be approximately 43 feet, which would include a four-foot parapet wall.
- *On the first level*, Building A would provide 125,000 sf for operation and maintenance space and Building B would provide 103,000 sf for indoor bus parking space. *On the second level*, Buildings A and B would provide 119,000 sf and 88,000 sf, respectively, for indoor bus parking space.
- *The roof heights of Buildings A and B* would be about 46 feet above the ground level, with a four-foot parapet wall on all sides, for a maximum building height of 50 feet. A ramp at the south end of the depot building would connect the first and second levels of the depot building.
- *A 20-foot security/sound barrier wall* would be located on the west and south sides of the depot, adjacent to the residential neighborhood on 165th Street and 107th Avenue, respectively.
- Candidate Alternative D would have three fueling lanes, three bus wash lanes, two interior bus wash stations, one chassis wash station, and 15 maintenance bays.

ES.4.3.2 PARKING

Candidate Alternative D would provide **338 SBE parking spaces, of which**:

- 18 and 128 SBE parking spaces would be indoors in Buildings A and B on the first level, respectively; and
- 90 and 102 SBE bus parking spaces would be indoors in Buildings A and B on the second level, respectively.

Candidate Alternative D would meet the future bus storage capacity target of 300 SBEs.

Note: Rendering has been updated to show a more accurate rendition of the height of the proposed security/sound barrier as presented at the Public Hearing on June 27.

Source: STV Incorporated, 2019.

Figure ES-6

Alternative D ("Principally Enclosed") - Massing Diagram

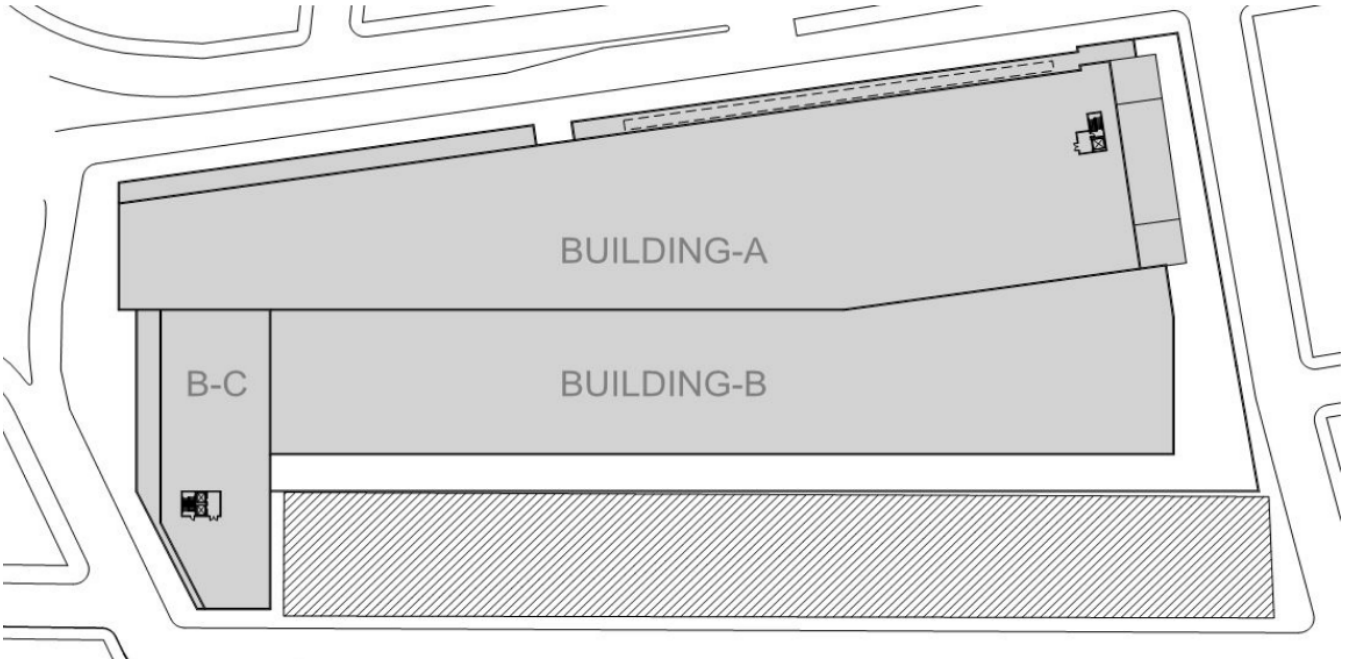
Reconstruction and Expansion of Jamaica Bus Depot

Source: STV Incorporated, 2019.

Figure ES-7A

Alternative D ("Principally Enclosed") - First & Second Floor Plan

Reconstruction and Expansion of Jamaica Bus Depot



ROOF PLAN

Source: STV Incorporated, 2019.

Figure ES-7B

Alternative D ("Principally Enclosed") - Roof Plan

Reconstruction and Expansion of Jamaica Bus Depot

ES.4.3.3 BUS CIRCULATION

Buses returning in the late afternoon or evening would enter the proposed JBD from either Tuskegee Airmen Way into one of the three fueling lanes to be fueled and to extract revenue or from an entrance driveway on Merrick Boulevard just north of 107th Avenue. (Buses entering from the Merrick Boulevard driveway would move to the north end of the depot property where they could turn into the fueling lanes using the depot's north apron area, separate from the Tuskegee Airmen Way sidewalk and pedestrians.) After refueling and revenue extraction, the buses would proceed to the bus wash area to be cleaned and parked indoors on the first level or second level. A ramp to the second level of parking would be located at the south end of Building A.

The proposed JBD would have several exits for buses. A driveway on the east side of the building, approximately midblock between Tuskegee Airmen Way and 107th Avenue, would allow buses to exit onto Merrick Boulevard. Buses could exit on the west side of the depot building to the outdoor parking area and exit the depot to the north on Tuskegee Airmen Way. An emergency exit would be located at 107th Avenue at the south end of the site

ES.4.3.4 CONSTRUCTION

Detailed and complex construction phasing would be required to prevent interruption to bus operation and maintenance during the *48-month construction period*. Candidate Alternative D proposes to construct Building A between the existing building and Merrick Boulevard and, once completed, transfer bus operations and maintenance to the new structure. At which time, the existing building would be demolished to allow for construction of Building B.

ES.4.3.5 COSTS

Total project costs are estimated to be approximately $519,000,000, while ***annual operating energy costs are estimated to be $1,950,000***.

ES.4.4 SELECTION OF THE PREFERRED ALTERNATIVE

The project goals are presented in **Chapter 1.4: Project Goals** of the FEIS as follows:

- parking for 300 standard bus equivalents (SBEs);
- 15 maintenance bays;
- 1 chassis wash station;
- 3 fueling lanes;
- 3 bus wash lanes;
- 2 interior bus wash stations;
- administrative spaces for Maintenance and Transportation Divisions;
- adequate storage spaces for equipment;
- support the operation/maintenance of a minimum of 60 electric buses on its opening day; and,
- continue ISO 14000 and USGBC quality performance.

The Preferred Alternative would represent the site design which, from among the Candidate Alternatives, demonstrates *the greatest potential to **minimize**, based on an integrated consideration of engineering, economic, and environmental factors, the effects/impacts of construction and operation of the Reconstructed Jamaica Bus Depot*.

Three Candidate Alternatives were selected from among the seven reasonable alternatives initially evaluated (see **Chapter 3.1: Introduction**), which MTA NYCT believed would represent a reasonable array of reconstruction and expansion opportunities to evaluate in terms of: taking the maximum advantage of the engineering/operations considerations of the site; utilizing current and emerging servicing/maintenance technology; demonstrating an array of associated costs/capacities; and, reflecting a diversity of potential environmental effects/impacts related to their future operations.

These Candidate Alternatives are feasible, reflect relevant/appropriate economic constraints, and also present the greatest opportunity to minimize environmental impacts. However, differences among the alternatives in terms of engineering and economic effects/impacts were judged by MTA NYCT to exist and required further evaluation in order to determine the Preferred Alternative. The comparative analysis to determine the Preferred Alternative from among Candidate Alternatives A, B, and D, as developed in detail in this FEIS and in accordance with the SEQRA process (see **Section 2.2.7**), is presented below. This selection of the Preferred Alternative satisfies the requirements of 6 NYCRR Part 617.11 (d), considers the relevant environmental impacts, facts, and conclusions disclosed in this FEIS, and balances/weighs the relevant environmental impacts with relevant social, economic, and other considerations.

The No Action Alternative would not fulfill the project goals, and was, therefore, not included in the comparative evaluation below. Candidate Alternative A was identified as the Preferred Alternative, for reasons described below and in the FEIS.

ES.4.4.1 COMPARATIVE EVALUATION OF CANDIDATE ALTERNATIVES A, B, AND D WITH REGARD TO ENVIRONMENTAL EFFECTS/IMPACTS

In terms of potential environmental effects/impacts, the FEIS evaluated Candidate Alternatives A, B, and D at a greater level of detail than was performed to select Alternatives A, B, and D from among the original array of reasonable alternatives (see **Chapter 3.0: Alternatives**). These analyses were, as appropriate, further refined in preparation of this FEIS. *Candidate Alternatives A, B, and D conform to all applicable laws and regulations*. The analyses demonstrated that there would be *no unavoidable adverse impacts* from any of the three Candidate Alternatives analyzed for both the operations and construction of the alternatives. The DEIS demonstrated that there are no differentiating environmental effects among the three alternatives evaluated.

The analyses demonstrated the following ***during the operational phase*** of the proposed JBD:

- **Transportation:** All three Candidate Alternatives would result in a significant traffic impact at the intersection of Tuskegee Airmen Way and 165th Street during the AM peak hour.
- **Noise and Vibration:** None of the three Candidate Alternatives would result in any significant mobile (from moving buses) or stationary (from the depot) noise impacts to sensitive noise receptors such as nearby residences and community facilities. Buses are rubber-tired vehicles; therefore, there would be no significant vibration effects to nearby vibration sensitive receptors such as residences and community facilities.
- **Displacement and Relocation:** Each Candidate Alternative would require the acquisition of six adjacent lots located on Merrick Boulevard and the permanent displacement of the occupants to permit the reconstruction of the depot. All property acquisition would be undertaken within the framework of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act and the New York State Eminent Domain Procedure Law.

For each Alternative, after construction, an up to 5-foot wide permanent easement may be required on adjoining 165th Street properties to accommodate the below ground foundation elements of the security/sound barrier wall.

The analyses demonstrated the following ***during the construction phase*** of the proposed JBD:

- **Noise and Vibration:** Construction of any of the three Candidate Alternatives would not result in *noise impacts* to sensitive noise receptors such as nearby residences and community facilities. The *levels of vibration* resulting from construction activities are projected to be below the FTA damage criteria at all vibration sensitive receptors except for one residential building (104-09 165th Street) where the northern façade of that building would be located approximately three feet from the construction zone.
- The FTA vibration annoyance criteria of 72 VdB (vibration decibels) would be exceeded at properties within approximately 80 feet of the construction zone. Exceedances would occur at some residential buildings along 165th Street and along 107th Street at the Allen Cathedral Senior Center. However, most of these potential impacts would occur during tasks associated with excavation. The duration of these events would be relatively short and intermittent and would represent a small segment of the total construction period.
- **Displacement and Relocation:** For each Candidate Alternative, a 10-foot wide temporary easement would be required on the adjoining 165th Street properties as a protective measure. These easements would be established by MTA NYCT in consultation with the property owners.

The DEIS identified the following ***mitigation measures*** to address the effects/impacts identified above:

- **Transportation:** There are two potential mitigation measures available to address the traffic impact at the intersection of Tuskegee Airmen Way and 165th Street during the AM peak hour during the operational period of the proposed JBD:
  - Installation of a traffic signal at this intersection would improve intersection operations to an acceptable Level of Service (LOS) C conditions or better for all approaches.
  - Reroute all AM peak hour buses that were originally assigned to exit the proposed JBD via Tuskegee Airmen Way to exit via Merrick Boulevard.
- **Noise and Vibration:** During construction, a condition survey of all buildings adjacent to the work would be conducted. For the house at 104-09 165th Street, MTA NYCT would use vibration control measures to minimize, to the extent practicable, the vibration levels for all properties near the construction site. Prior to construction, during construction, and after construction, vibration would be monitored at all buildings within a 200-foot radius of the project and if vibration measurements indicated the potential for the building to be damaged, alternative construction methods would be implemented. MTA NYCT and/or its contractors would be responsible for any vibration damage incurred during construction. NYCT would repair damage or provide equitable compensation to the property owners. Furthermore, all efforts would be made by the contractor to schedule vibration generating activities during the least intrusive times. In addition, the contractor would inform the occupants of adjacent buildings in advance of proceeding with work associated with equipment such as a jackhammer or backhoe.
- The designs for each of the Candidate Alternatives would incorporate security/sound barrier walls. For Alternative A, the height of the security/sound barrier wall adjacent to the primarily residential properties present along 165th Street would be increased to 31 feet so that noise levels from the proposed JBD would not exceed the FTA's threshold criteria level. Candidate Alternatives B and D would have 20-foot high security/sound barrier walls.
- **Displacement and Relocation:** Adequate notice for any relocation of the adjacent commercial businesses will be assured by written and verbal distribution of information that explains the relocation benefits (i.e., advisory services, moving costs, and reestablishment costs) and eligibility requirements.

Temporary and permanent easements would be established by MTA NYCT in consultation with the property owners.

Table ES-1: Comparative Evaluation with Regard to Environmental Effects/Impacts presents a comparative evaluation of the alternatives with regard to environmental effects/impacts. As noted in the table, the Candidate Alternatives were considered to have comparable potential for environmental effects/impacts.

TABLE ES-1: COMPARATIVE EVALUATION WITH REGARD TO ENVIRONMENTAL EFFECTS/IMPACTS

DOMAIN	ALTERNATIVES			NOTES
	Alternative A (principally open parking)	Alternative B (partially open parking)	Alternative D (principally enclosed parking)	
Conformance with Applicable Laws and Regulations	▲	▲	▲	All Candidate Alternatives conform to applicable laws and regulations.
Mitigation	–	–	–	Comparable mitigation measures are required for all three Candidate Alternatives.
Unavoidable Adverse Impacts	▲	▲	▲	No Unavoidable Adverse Impacts were identified for any of the three Candidate Alternatives.
Easements, Displacement, & Relocations	▼	▼	▼	Comparable easements and property acquisitions are required for all three Candidate Alternatives.
Summary	▲	▲	▲	

▲- Minor or No Impact

– - Moderate Impact

▼ – Major Impact

ES.4.4.2 COMPARATIVE EVALUATION OF CANDIDATE ALTERNATIVES A, B, AND D WITH REGARD TO ENGINEERING EFFECTS/IMPACTS

The DEIS evaluated the potential for engineering effects/impacts associated with Candidate Alternatives A, B, and D. The analyses demonstrated that there are differentiating engineering effects/impacts from the design and construction of the alternatives. As shown in **Table ES-2: Comparative Evaluation with Regard to Engineering Effects/Impacts**, the design complexity, construction complexity, and construction duration all increased as the proposed JBD building structure increased in size from Alternative A to Alternative B to Alternative D. As a result, Candidate Alternative A (followed by Alternative B and then Alternative D) was considered to have the lowest potential for engineering effects/impacts.

TABLE ES-2: COMPARATIVE EVALUATION WITH REGARD TO ENGINEERING EFFECTS/IMPACTS

DOMAIN	ALTERNATIVES			NOTES
	Alternative A (principally open parking)	**Alternative B (partially open parking)**	**Alternative D (principally enclosed parking)**	
Design Complexity	▲	–	▼	Design complexity would increase with the partially enclosed alternative ("B") and further increase with fully enclosed alternative ("D") giving these options a less-favorable rating.
Construction Complexity	▲	–	▼	Construction complexity would increase with the partially enclosed alternative ("B") and further increase with fully enclosed alternative ("D") giving these options a less-favorable rating.
Construction Duration	▲	–	▼	Construction duration would increase with the partially enclosed alternative ("B") and further increase with fully enclosed alternative ("D") giving these options a less-favorable rating.
Summary	▲	–	▼	

▲- Minor or No Impact

– - Moderate Impact

▼ – Major Impact

ES.4.4.3 COMPARATIVE EVALUATION OF CANDIDATE ALTERNATIVES A, B, AND D WITH REGARD TO ECONOMIC EFFECTS/IMPACTS

Table ES-3: Comparative Evaluation with Regard to Economic Effects/Impacts presents the construction, energy, and facility maintenance costs for each Candidate Alternative. As demonstrated by Table ES-3, the costs to construct, provide energy, and maintain the facilities for each of the Candidate Alternatives vary significantly, and Candidate Alternative A represents the least construction, energy, and facility maintenance costs.

TABLE ES-3: COMPARATIVE EVALUATION WITH REGARD TO ECONOMIC EFFECTS/IMPACTS

DOMAIN	ALTERNATIVES			NOTES
	Alternative A (principally open parking)	**Alternative B (partially open parking)**	**Alternative D (principally enclosed parking)**	
Construction Cost	▲	—	▼	Alternative A - $385M Alternative B - $493M Alternative D - $519M
Annual Energy Cost	▲	—	▼	Alternative A - $1.05M Alternative B - $1.55M Alternative D - $1.95M
Annual Facility Maintenance Cost	▲	—	—	Facility maintenance cost (e.g., HVAC & boiler) would relatively increase with the partially enclosed alternative ("B") and fully enclosed alternative ("D") given the larger interior building square footage.
Summary	▲	—	▼	

▲- Minor or No Impact

— - Moderate Impact

▼ – Major Impact

ES.4.4.4 COMPARATIVE EVALUATION OF CANDIDATE ALTERNATIVES A, B, AND D WITH REGARD TO OTHER CONSIDERATIONS

As required by 6 NYCRR Part 617.11(d), the SEQRA Findings Statement must weigh and balance relevant environmental impacts with relevant social, economic, and ***other considerations***. In the DEIS, the following other considerations were identified:

- Construction Environmental Protection Plan (CEPP) / ISO 14000 Standards / State Smart Growth Public Infrastructure Policy Act;
- USGBC LEED Certification; and,
- Transition to Electric Buses.

Table ES-4: Comparative Evaluation with Regard to Other Considerations presents a comparative evaluation of these other considerations.

The **CEPP** would codify all commitments made in the EIS process and include those in the project construction specifications to assure conformance as described in **Chapter 17.0: Construction Methods and Activities**. As each Candidate Alternative would comply with the CEPP, no distinction is made among the Alternatives for this criterion.

MTA NYCT Capital Program Management is **ISO 14001** certified and compliance with these standards ensures consistency in environmental management practice and provide guidelines for environmental excellence. As with the CEPP, each Candidate Alternative would comply with ISO 14000; therefore, no distinction is made among the Alternatives for this criterion.

The **State Smart Growth Public Infrastructure Policy Act** establishes 10 Smart Growth criteria in state law that apply to state infrastructure projects. Each of the Alternatives would be constructed in accordance with this Act; therefore, no distinction is made among the Candidate Alternatives for this criterion.

With respect to **USGBC LEED Certification**, each of the Candidate Alternatives would pursue the maximum practicable certification level; therefore, no distinction is made among the Alternatives for this criterion.

As presented in **Chapter ES.3.17: Transition to Electric Buses**:

> *"…to the extent practicable, the Preferred Alternative that is selected should be such as to allow for the necessary flexibility to: proactively accommodate electric bus technology and ultimately support an all-electric bus fleet; and, promote and provide a more resilient and sustainable community facility and environment."*

After further evaluation, it has been determined that the future electric bus operations/maintenance technology (e.g., means of energy distribution, type of charging equipment) has not been established because it is only emerging, and may be different from the technology that MTA NYCT is currently testing/piloting. Based on the electric bus technology available today, all alternatives would require additional space for a mini substation, sub panels, and overhead charging stations, which does not substantially favor one alternative as compared to another. This technology is anticipated to further develop during the next several years; therefore, the electric buses criterion was not considered in the selection of the Preferred Alternative as there is not sufficient information available at this time to make an informed decision.

TABLE ES-4: COMPARATIVE EVALUATION WITH REGARD TO OTHER CONSIDERATIONS

DOMAIN	ALTERNATIVES			NOTES
	Alternative A (principally open parking)	**Alternative B (partially open parking)**	**Alternative D (principally enclosed parking)**	
Construction Environmental Protection Plan / ISO 14000 / State Smart Growth Public Infrastructure Policy Act	▲	▲	▲	No difference between Alternatives as all Alternatives will comply with mitigation commitments and with MTA construction standards.
USGBC LEED Certification	▲	▲	▲	MTA NYCT has registered the proposed project for LEED certification and the final design for each Alternative will achieve the maximum practicable level of certification.
Transition to Electric Buses	N/A	N/A	N/A	This criterion was not considered in this evaluation as sufficient technological information to make an informed decision is not available at this time.
Summary	▲	▲	▲	

▲- Minor or No Impact

▬ - Moderate Impact

▼ – Major Impact

N/A – Not Analyzed

ES.4.4.5 PUBLIC COMMENTS ON THE ALTERNATIVES PRESENTED IN THE DEIS

Following the publication of the DEIS, the public review process generated comments relevant to the three Candidate Alternatives. Analysis of the public comments on the DEIS, provided in **Chapter 25: Response to DEIS Comments**, indicates that six individuals remarked on the DEIS, which included: one elected official; two representatives from Queens Community Board 12; the president of Amalgamated Transit Unit Local 1056; one resident; and one private citizen. In aggregate, MTA presented 24 detailed responses to the comments provided based on material previously given in the DEIS.

Review of the public comments indicates that several interests and concerns are expressed. Some of the comments agreed that a new bus depot is needed. One commenter noted that the depot needs to be renovated to accommodate articulated buses and the elected official noted that a new depot would improve access for Southeast Queens commuters and improve frequency of bus service.

Concerns that the commenters expressed were primarily focused on the immediate neighborhood, such as residents along 165th Street and in the Allen Cathedral Senior Residence located to the south of the property. These concerns included:

- Air pollution / adverse health impacts
- On-street parking of buses and employee parking
- Traffic congestion
- Construction duration and impacts
- Safety and health concerns
- Noise and vibration impacts

Several commenters preferred the partially (Alternative B) or fully enclosed parking (Alternative D) options. The Transportation Committee Chairwoman for Queens Community Board 12 noted that it would be "*deleterious to the people that live in that area to have an open depot*" and the elected official noted that Alternative D "*would demonstrate maximum potential in terms of minimizing adverse effects to the community*".

ES.4.4.6 IDENTIFICATION OF THE PREFERRED ALTERNATIVE

The Final Environmental Impact Statement (FEIS) has been completed and accepted by MTA NYCT. The FEIS was prepared consistent with the requirements of the New York State Environmental Quality Review Act (SEQRA) Article 8 of the New York State Environmental Conservation Law (ECL). SEQRA requires public agencies to conduct an environmental review of any construction project that has the potential for environmental impacts.

MTA NYCT reviewed fifteen potential alternatives for depot concepts and designs and narrowed down these alternatives to Candidate Alternatives. These options best met the future bus depot requirements for maintenance, operations, and bus storage capacity and were evaluated in the FEIS. The three (3) Candidate Alternatives are:

- Candidate Alternative A: has principally open parking. All bus parking would be outdoors on the roof and in an unenclosed paved area;
- Candidate Alternative B: has partially open parking. Some bus parking would be outdoors on the roof of the depot and the rest of the bus parking would be within an indoor, enclosed, and climate-controlled area of the depot; and,
- Candidate Alternative D: has principally enclosed parking. All bus parking would be indoors, within an enclosed and climate-controlled area of the depot facility.

The EIS analyses demonstrated that there would be no unavoidable significant adverse environmental impacts (i.e., Air Quality, Noise and Vibration, Traffic, etc.) from any of the three Candidate Alternatives for both the construction and operational conditions. However, the evaluation did demonstrate that, from engineering and economic perspectives, Candidate Alternatives B and D would be: more complex to design (larger buildings with more integrated systems) as one singular facility when operational); more difficult to construct (increasing construction duration, require more phasing of construction, more structural components); cost more to build (Alternative A = $385M, B = $493M, Alternative D = $519M) and maintain (more HVAC systems, air exchangers, heating, cooling); and, have higher ongoing energy usage (more equipment).

MTA/NYCT prepared and issued the DEIS on June 5, 2019 and held a Public Hearing on June 27, 2019. The associated comment period for the FEIS closed on July 19, 2019. During the DEIS comment period, six individuals submitted commentary to NYCT (in letters, on the website, and via oral and written testimony) and the commentary is presented in Volume 3 of the FEIS. MTA/NYCT reviewed, considered

and responded to all comments and presented our Response to Comments in Volume 2, Chapter 25 of the FEIS.

MTA NYCT has concluded that Candidate Alternative A is the Preferred Alternative because, it demonstrates *the greatest potential to minimize, based on an integrated consideration of engineering, economic, and environmental factors, the effects/impacts of construction and operation of the reconstructed Jamaica Bus Depot (see* ***Table 3-5: Comparative Evaluation with Regard to Environment, Engineering, and Economic Effects/Impacts****)*. As project design for the Preferred Alternative proceeds after the close of the EIS process, MTA NYCT will continue to work with: ***"…all appropriate parties…on a regular/routine basis…"*** as MTA NYCT has committed in this FEIS.

TABLE ES-5: COMPARATIVE EVALUATION WITH REGARD TO ENVIRONMENTAL, ENGINEERING, ECONOMIC EFFECTS/IMPACTS AND OTHER CONSIDERATIONS

DOMAIN	ALTERNATIVES		
	Alternative A (principally open parking)	Alternative B (partially open parking)	Alternative D (principally enclosed parking)
Environmental	▲	▲	▲
Engineering	▲	—	▼
Economic	▲	—	▼
Other Considerations	▲	▲	▲
Summary	▲	—	▼

▲- Minor or No Impact

— - Moderate Impact

▼ – Major Impact

To allow a greater understanding of potential environmental impacts and the basis for selecting Candidate Alternative A as the Preferred Alternative, the analyses presented in the balance of this FEIS continue to include Candidate Alternatives A, B, D, and the No Action Alternative.

ES.4.5 TEMPORARY BUS STORAGE

All three Candidate Alternatives have been conceived, and their respective construction planned, to ensure that the existing depot facilities remain operational throughout the construction period. Although it may be possible to store some buses on the project site during less intensive periods of construction, ***all three Candidate Alternatives would need to store approximately 170 buses off-site during the construction period. Thus, a critical component of the Proposed Action is the need to provide off-site/off-street bus storage throughout the construction period*** and therefore, a temporary bus storage location(s) must be

identified in advance of construction. The construction period would be expected to last approximately four years and the temporary bus storage would require moving buses between the depot and the off-site parking location(s), ***the related impacts/effects of bus movement to the off-site location(s) will also be analyzed. That analysis would be in a supplemental environmental document***.

MTA NYCT has determined that the off-site bus storage must be *sited within an approximate five-mile radius of the JBD*. This radius is defined according to the need to provide timely maneuvering of buses between the depot and the temporary bus storage location(s). That would minimize the logistical and economic complications of bus "deadheading" and employee movement without compromising routine bus services.

MTA NYCT has retained outside consultants to identify and secure such temporary bus storage property nearby the existing depot. To date, MTA NYCT has ***not*** identified suitable candidate location(s) for the temporary bus storage. When a location(s) is identified ***MTA NYCT will provide the necessary supplemental environmental documentation prior to the securing of the temporary bus storage location(s). Note that construction of the proposed JBD will not proceed until a temporary bus storage location is secured.***

ES.5 FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) REPORT FINDINGS

ES.5.1 TRANSPORTATION (CHAPTER 4)

ES.5.1.1 TRAFFIC AND PARKING

As described below, the Proposed Action would affect traffic volumes on the local street network as a result of:

- *increased number* of bus service and employee trips to/from the proposed JBD; and,
- *reconfiguration* of bus movements/bus circulation on the street and within the proposed JBD.

ES.5.1.2 INCREASED BUS TRIPS

Bus storage capacity and the number of employees would increase in the Build Year 2025 for all three Candidate Alternatives. Bus parking is defined in units of SBEs; *an SBE represents the space needed to park a standard 40-foot-long, single-unit bus*. NYCT also operates longer buses, such as express buses, *which are 45 feet long*, and articulated buses, *which are 60 feet long*. These longer buses require additional space to park; therefore, an express bus is 1.15 SBEs and an articulated bus is 1.5 SBEs for parking space calculations.

The existing JBD currently has a storage capacity for 200 standard buses (157 SBEs within the original JBD property and 43 SBEs within the newly acquired properties along Merrick Boulevard). All three Candidate Alternatives would be designed to accommodate express and articulated buses and provide operations and maintenance services and parking capacity for a minimum of 300 SBEs.

With the Proposed Action, ***the number of physical buses*** parked on-site would increase from 200 to: 240 buses for Candidate Alternative A; 244 buses for Candidate Alternative B; and, 266 buses for Candidate Alternative D. ***Note, the actual numbers of physical buses for the Candidate Alternatives are lower than***

the SBE totals because most of the buses to be maintained at the proposed action are anticipated to be the longer articulated and express bus types that require more space for parking than a standard bus.

The largest proposed bus storage capacity is Candidate Alternative D, which is estimated to accommodate storage for 66 more physical buses (*a 33 percent increase over the* number of buses currently stored at the existing JBD). The proposed JBD is estimated to employ additional bus operators, administrative staff, and vehicle maintainers. The number of additional daily employees was estimated to be 102 employees for Candidate Alternative A, 131 employees for Candidate Alternative B, and 165 employees for Candidate Alternative D, which would generate up to 30 new vehicle trips on the adjacent street network during the AM and PM peak hours.

The traffic analysis findings indicate that all three Candidate Alternatives would result in *a significant traffic impact at the intersection of Tuskegee Airmen Way and 165th Street during the AM peak hour.* This intersection is currently a two-way stop-controlled intersection, with STOP signs located on the east- and west-bound Tuskegee Airmen Way approaches. ***Installing a traffic signal at this intersection is one potential measure that would mitigate the adverse traffic impact***. The NYCDOT would require a comprehensive investigation of traffic conditions to determine the necessity for traffic signal installation. Studies conducted as part of this FEIS (see **Chapter 4: Transportation**) have determined that existing traffic and operational conditions at the intersection of Tuskegee Airmen Way at 165th Street intersection would meet traffic control signal requirements as per the *CEQR Traffic Signal Warrant Analysis* for Warrant 3: Peak Hour Traffic Volumes. Installing a traffic signal would improve intersection operations to an acceptable Level of Service (LOS) C conditions or better for all approaches.

An alternative mitigation option, which would limit the volume of future bus traffic through this intersection, and avoid creating a significant impact, *is to reroute all AM peak hour buses that were originally assigned to exit the proposed JBD via Tuskegee Airmen Way* ***to exit via Merrick Boulevard***. This mitigation option would require the removal of the raised center median on Merrick Boulevard opposite the driveway to be located midblock between Tuskegee Airmen Way and 107th Avenue so that buses could turn left onto Merrick Boulevard northbound. The final decision regarding the measures to be implemented to avoid this potential impact would be made in consultation with NYCDOT during design after the EIS process is complete.

ES.5.1.3 BUS ROUTING

As previously noted, buses returning to the existing JBD in the late afternoon or evening often form a queue in the existing bus storage area while waiting to enter the depot's main entrance for fueling and washing. The proposed JBD would have three fueling/washing lanes to service the buses. This is an increase from the two lanes at the existing JBD.

Three bus routing strategies to enter the fueling/wash lanes that prescribe a specific approach route and queue location for returning buses were examined. Based on the assessment, MTA NYCT analyzed a routing strategy that would direct all returning buses to southbound Merrick Boulevard to enter the proposed JBD via the Merrick Boulevard driveway; ***this routing strategy was preferred*** as all returning buses would be able to queue on the depot property when waiting to enter the fueling lanes. Buses would move to the north end of the depot property where they could turn into the fueling lanes using the depot's north apron area, separate from the Tuskegee Airmen Way sidewalk and pedestrians. This preferred routing strategy was used for the traffic analyses; however, the final decision regarding the preferred bus routing strategy will be made in consultation with NYCDOT during the post-EIS project design phase.

ES.5.1.4 INCREASED EMPLOYEE TRIPS

No significant parking impacts from employee parking would be expected on the streets within a ¼-mile radius of the proposed JBD. *The Proposed Action would potentially increase on-street parking demand by up to 32 vehicles for personal employee vehicles*, which would increase the shortfall *for available on-street parking to 34 spaces* in the study area on a typical weekday; however, this shortfall is not considered *a significant* impact due to the availability and proximity of public transit in the area. ***Furthermore, MTA NYCT encourages their employees to use public transit to commute to work by providing a MetroCard as part of their employee compensation package.*** Alternative travel modes are available for the JBD employees including six local NYCT bus routes that operate along Merrick Boulevard and Liberty Avenue. If feasible, and as noted in Response-to-Comments in the Final Scoping Document, future depot management may also identify opportunities to provide some on-site parking at the proposed JBD for employees during the day when buses are in service on their assigned bus routes.

ES.5.1.5 TRANSIT AND PEDESTRIANS

According to the *CEQR Technical Manual*, detailed transit analyses are required if a proposed action is projected to result in an increase of 200 or more passengers at a single subway station or on a single subway line or if a proposed action would result in 50 or more bus passengers being assigned to a single bus route (in one direction) during the AM and PM peak hours. Quantitative pedestrian analyses are required if a proposed action results in more than 200 new pedestrian trips.

The number of daily employees at the proposed JBD is projected to increase by up to a maximum of 165 new employees. Given that *the net increase in employees from current staff levels is less than 200 employees,* of which only a portion are expected to travel during the AM and PM peak hours (the proposed JBD would utilize a staggered shift schedule that is similar to current operations), transit and pedestrian related activities generated by the Proposed Action *would not exceed the CEQR Technical Manual* screening criteria. Therefore, *detailed analysis of transit and pedestrian conditions are not required*, and the ***Proposed Action would not result in any significant adverse transit or pedestrian impacts***.

ES.5.2 AIR QUALITY (CHAPTER 5)

For all three Candidate Alternatives, it was determined that *mobile and stationary sources* of carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter less than 10 microns in diameter (PM_{10}), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and sulfur dioxide (SO_2) ***would not exceed the USEPA's National Ambient Air Quality Standards (NAAQS) or the NYSDEC de minimis impact criteria.***

For ***mobile sources***, the *CEQR Technical Manual* traffic screening threshold for CO and PM_{10} would not be surpassed at any of the studied intersections; however, three intersections associated with Candidate Alternative D would exceed the *CEQR Technical Manual* screening criteria for $PM_{2.5}$ for increased heavy-duty diesel vehicle (HDDV) equivalents. As a result, *a detailed intersection analysis of $PM_{2.5}$ was conducted* for the intersection with the greatest potential to exceed the NYSDEC *de minimis* impact criteria. The results of the detailed intersection analysis conducted for $PM_{2.5}$ indicate that ***there would be no exceedance of the NYSDEC de minimis impact criteria***.

For ***stationary sources***, a detailed assessment of on-site emissions from bus parking and maintenance activities as well as the proposed JBD's heating and hot water systems was conducted for NO_2, SO_2 and $PM_{2.5}$. The results of the analyses indicate that ***none of the three Candidate Alternatives would have a significant adverse air quality impact at any of the nearby residences (sensitive receptors)***.

Concentrations of NO_2 and SO_2 would *not exceed* the USEPA's NAAQS criteria and $PM_{2.5}$ concentrations would *not exceed* the NYSDEC *de minimis* impact criteria.

The projected emission pollutant burdens calculated for each of the three Candidate Alternatives would result in annual emissions that would ***categorize the proposed JBD as a minor source and, as a result, it would be eligible for a state facility permit***.

ES.5.3 NOISE AND VIBRATION (CHAPTER 6)

The major sources of ***existing community noise*** come primarily from automobile traffic, which includes buses accessing the existing JBD. ***In addition to roadway noise, bus noise from the existing JBD may affect some nearby residents along 107th Avenue and 165th Street***. To determine the influence of existing traffic noise, noise measurements were conducted at five locations representative of existing sensitive receptor locations and were situated along roadways where the greatest increases in traffic volumes that could be generated by the proposed JBD are likely to occur. In addition to the short-term noise measurements, measurements were also taken at three locations to determine the 24-hour day-night average sound level (L_{dn}) within the proposed study area.

The Proposed Action would generate both stationary and mobile source noise. *Stationary source noise* would be generated by rooftop mechanical equipment, as well as by bus parking activities within the depot building. *Mobile source noise* would be generated *off-site* by buses and passenger vehicles driving to and from the proposed JBD.

For the three Candidate Alternatives being evaluated, the operation of the proposed JBD ***would not result in any significant mobile (from moving buses) or stationary (from the depot itself) noise impacts to sensitive noise receptors such as residences and community facilities in the vicinity of the*** Proposed Action. Noise from the proposed JBD ***would not exceed the Federal Transit Administration (FTA) noise criteria*** at adjacent sensitive noise receptors. In addition, the increase in the number of buses maintained at the proposed JBD would not result in any exceedance of the *CEQR Technical Manual* noise criteria at nearby sites along the local traffic network.

In addition, because buses are rubber-tired vehicles, there would be ***no significant vibration effects*** to any nearby vibration sensitive receptors such as residences and community facilities.

The conceptual designs for the Candidate Alternatives include security/sound barrier walls. ***For Candidate Alternative A, the height of the security/sound barrier wall adjacent to the primarily residential properties present along 165th Street would be increased to 31 feet*** so that the noise exposure levels for the proposed JBD would not exceed the FTA's threshold criteria level. ***Candidate Alternatives B and D would have 20-foot high security/sound barrier walls***. Compared to Candidate Alternatives B and D, Candidate Alternative A has the most outdoor bus parking, and thereby the highest bus noise emission levels, which requires a taller security/ sound barrier wall.

Because noise and vibration impacts are not predicted to occur for the Proposed Action based on bus depot operations and conceptual site designs**, *no additional mitigation measures would be required***.

The Proposed Action (all three Candidate Alternatives) would not result in any significant adverse noise or vibration impacts from both stationary and mobile sources to surrounding land uses. The conceptual designs for the Candidate Alternatives include security/sound barrier walls and rooftop parapet walls; these structural elements would reduce noise emissions and no further mitigation would be warranted.

ES.5.4 HISTORIC AND CULTURAL RESOURCES (CHAPTER 7)

The Phase IA Cultural Resources Assessment (**Appendix D: Cultural Resources**) identified the Area of Potential Effect (APE) for archaeological resources as limited to the locations of proposed ground disturbance, consisting of the 19 lots on Block 10164, which comprise the project site. An approximate 400-foot radius from the project site was considered to be the historical (architectural) APE, which *the CEQR Technical Manual* indicates is typically adequate for assessment of historic resources in terms of physical, visual, and historical relationships in New York City (SEQRA Handbook 2019; CEQR 2014). The Phase IA Cultural Resources Assessment complied with the standards of the New York State Office of Parks, Recreation, and Historic Preservation (NYS OPRHP) (New York Archaeological Council 1994, NYSOPRHP 2005, 2010).

From what is known of precontact period settlement patterns in New York City and Long Island, most habitation and processing sites are found in sheltered, elevated sites close to wetland features, major waterways, and with nearby sources of fresh water. In its natural condition, the project site originally had a small creek running through it. Combined with its level terrain, the project site would have represented a favorable location for Native American settlement. However, the project site has experienced substantial disturbance that appears to have destroyed much, if not all, of the soils in the upper reaches of the soil column, where precontact period archaeological sites are normally located. Based on these factors, ***the project site is considered to have a low potential for hosting precontact cultural remains and it was concluded that no additional archaeological investigations are recommended and there are no additional historic resources concerns for the project site***.

It was also concluded that there are no architectural resources on or within a 400-foot radius of the project site that are eligible or listed on the State/National Register of Historic Places (S/NRHP) or are a New York City Landmarked resource. The existing JBD does not appear to meet criteria for S/NRHP eligibility, nor do any of the buildings or structures within a 400-foot radius of the project site.

ES.5.5 SOCIAL AND ECONOMIC CONDITIONS (CHAPTER 8)

Social and economic conditions comprise *land use, zoning, and public policy; socioeconomics; community facilities; open space/parklands; and environmental justice*. The socioeconomic character of an area includes its population, housing, and economic activity. Socioeconomic changes may occur when a project directly or indirectly changes any of these elements.

With regards to land use, all three Candidate Alternatives would involve the reconfiguration and expansion of the existing bus depot such that the current transportation use at the project site would be maintained and expanded to adjacent, vacant, commercial and industrial lots. As such, existing land use patterns at the project site and within the study area would be maintained. ***With regards to zoning***, the project site is owned by the MTA, a New York State public benefit corporation, and is therefore not subject to local zoning controls. Further, implementation of the proposed project would not change existing zoning controls in the study area, and therefore, it would not affect zoning at the project site or within the study area. ***With regards to public policy***, the project site and study area are not subject to any public policies such as a Coastal Zone, a Historic District or any other Federal or State planning district areas; therefore, implementation of the proposed JBD does not have the potential to affect public policy. Additionally, although the site is located within a FRESH (Food Retail Expansion to Support Health) program designated-area, the nature of the project is such that it is not subject to nor would it be affected by this program. *Lastly, implementation of the proposed JBD would be consistent with the purpose of the OneNYC plan as it would represent an*

investment in existing infrastructure to better serve New York City's transit needs as well as better complement the surrounding community.

The Proposed Action *would not result in any significant adverse impacts to* ***socioeconomics***. The proposed expansion of the JBD would increase the number of employees by up to 165 employees (total staffing of approximately 720 employees). This influx of new employees could present a benefit to local businesses with an increase in patronage. Because, there would be no introduction of residential populations that would affect schools, fire/police or other community facilities, ***no significant adverse impacts to community facilities and services would occur*** as a result of the proposed JBD, and no further analysis is required.

The Proposed Action *would* ***not result in any significant adverse direct or indirect impacts to open space/parklands***. The proposed JBD would not result in the physical loss or displacement of publicly accessible open space, and would not cause increased emissions, odors, or shadows to a public open space or parkland; therefore, the ***proposed JBD would not result in any direct effects on open space***. Further, the proposed JBD does not reach the threshold for assessment of indirect effects outlined in the *CEQR Technical Manual*; thus, no significant impacts to open space are anticipated and no further analysis is warranted.

The Proposed Action ***would not result in any significant adverse impacts concerning environmental justice***. In the future with the proposed project, the identified adverse impacts in this FEIS are generally capable of being mitigated and are expected to be reduced significantly with appropriate measures. There would be no unmitigated significant adverse impacts and there would be no cumulative impacts resulting from the proposed JBD. Therefore***, the potential effects associated with the project would not represent any potential for significant adverse impacts that would affect the surrounding environmental justice community(ies)***. Importantly, the Proposed Action would represent an improvement to MTA NYCT bus operations in Queens. Therefore, the Proposed Action ***would not result in any disproportionate burden*** to Environmental Justice communities but ***would result in benefits*** to the communities served by MTA NYCT buses in Queens.

ES.5.6 URBAN DESIGN AND VISUAL RESOURCES (CHAPTER 9)

A preliminary assessment of urban design and visual resources was performed that examined how the three Candidate Alternatives would affect urban design and visual resources in the study area. Based on the preliminary assessment, it was determined that ***none of the three Candidate Alternatives would result in significant adverse impacts to most elements of urban design or visual resources; therefore, no further analysis is required. In addition, the proposed JBD would comply with New York Public Buildings Law §143, which requires state agencies to use shielded lights to reduce glare, sky glow, and light trespass to the greatest extent possible***. A detailed urban design and visual impact assessment of the Candidate Alternatives was performed because they present *significantly different* (new security/ sound barrier wall) *and taller* (up to 65 feet in height) site structures than the existing JBD structures. Specifically, the proposed JBD would be enclosed by a security/sound barrier wall ranging from 20 to 31 feet depending on the Candidate Alternative, which the current JBD facility does not have.

The detailed assessment determined that although the difference in ***the security/sound barrier wall*** heights and building height would be visible from the ***sidewalks and adjacent properties*** along 165th Street, ***the form and use of the project site with each of the Candidate Alternatives would generally resemble the condition today, and the condition if the project was not constructed in the future. It was determined that the overall pedestrian experience would remain fundamentally unchanged.*** The opportunity for

architectural treatment of the proposed JBD structures and the security/ sound barrier walls will be considered in the post-FEIS design phase.

ES.5.7 SHADOWS (CHAPTER 10)

Per the guidance of the *CEQR Technical Manual,* a shadow is defined as *"…the condition that results when a building or other built structure block the sunlight that would otherwise directly reach a certain area, space or feature."* An adverse impact may occur if a proposed action would result in a new structure (or addition to an existing structure of 50 feet or more) or is located adjacent to, or across the street from, a ***resource that has been identified as sunlight sensitive.***

CEQR Technical Manual defines sunlight-sensitive resources as those resources that depend on sunlight or for which direct sunlight is necessary to maintain the resource's usability or architectural integrity. Such resources include: public open space; features of historic architectural resources that depend on sunlight for their enjoyment by the public; and, natural resources where the introduction of shadows could alter the resource's condition or microclimate.

The *screening assessment* consists of various tiers of analysis. The *first tier* (Tier 1) determines a simple radius around the proposed buildings representing the longest shadows that could be cast. If there are sunlight sensitive resources within the radius, the analysis proceeds to the *second tier* (Tier 2), which reduces the area that could be affected by project-generated shadows by accounting for a specific range of angles that can never receive shade due to the path of the sun in the northern hemisphere. If the second tier analysis does not eliminate the possibility of new shadows on sunlight-sensitive resources, a *third tier* of screening analysis further refines the area that could be reached by new shadows by assessing specific representative days of the year and determining the maximum extent of shadow over the course of each representative day.

Following both Tier 1 and Tier 2 screenings for shadow effects, it has been determined that the only potentially sunlight-sensitive resource within the 275 foot radius study area is the NYC Greenstreets property along Merrick Boulevard. However, in response to public comments received during the scoping process in 2016, consideration has also been given to the potential increase of shadow that could occur on private properties, specifically, the Rose of Sharon Baptist Church and residential properties that are adjacent to the project site. To reiterate guidance from the CEQR Technical Manual, these private properties do not constitute potential sunlight-sensitive receptors.

Based on the detailed shadows analysis, the *incremental shadow* that would extend onto a portion of the *NYC Greenstreets property to the southeast of the project site would primarily fall on a* ***concrete, non-vegetated portion*** *in the middle of Merrick Boulevard*. The vegetation on the NYC Greenstreets property would still receive ample sunlight during the growing seasons, and so the proposed JBD would not result in a shadow impact to the NYC Greenstreets property.

The detailed shadows analysis determined that, compared to the No-Build conditions***, the Rose of Sharon Baptist Church would not be deprived of sunlight in any significant way*** by the combination of the building and security/sound barrier wall of the proposed JBD. Notably, the Rose of Sharon Baptist Church contains no stained glass, nor exterior architectural features, nor windows on its east façade, facing the project site. Thus, the concern of shadowing is limited to coverage of yard area. This concern would be the same for nearby residential uses; therefore, it is considered to be reasonable to conclude that shadow effects on the rear yards of the residential properties would be the same as the effects modeled for the church. Thus, the residential yards would likewise be nominally unaffected by shadows cast by the proposed JBD; they would receive somewhat more shadow at certain times of the year and in certain seasons than they would

in No-Build conditions, but the ***incremental increase*** *in shadow would not be expected to affect the use of the residential properties or their rear yards*.

In summary, while incremental shadows attributable to the proposed JBD would reach the NYC Greenstreets property and a portion of the Rose of Sharon Baptist Church and residences located along 165th Street, *the increase in shadows attributable to the proposed JBD, compared to the existing JBD building: would be minor; would not represent any substantial shadow effect; and, would not extend to sunlight sensitive portions of the NYC Greenstreets property or any other potentially sunlight sensitive resource.* Therefore, based on the detailed shadow analyses performed, the ***proposed JBD would not result in significant adverse shadow impacts***.

ES.5.8 NEIGHBORHOOD CHARACTER (CHAPTER 11)

The *CEQR Technical Manual* defines "neighborhood character" as the amalgam of various elements that give neighborhoods their ***distinct personality***. The existing uses on the project site establish a transportation/utility and industrial setting. The area to the west and south of the project site is a well-defined residential area of one- and two-family residences. The narrow residential streetscapes serve as a contrast to the wide transportation/utility and industrial streetscapes of the study area's two main corridors: Merrick Boulevard and Liberty Avenue. The area east of Merrick Boulevard, similar to the streetscapes south and west of the project site, is residential in character and primarily composed of one- and two-family residences. It differs from the streetscapes to the south and west of the project site because these streetscapes present view to the west towards Merrick Boulevard and the existing JBD, as well as existing commercial and light industrial/warehouse uses on Merrick Boulevard.

The proposed JBD ***would not result significant adverse impacts in the areas of land use, zoning, or public policy; socioeconomic conditions; shadows; historic and cultural resources; urban design and visual resources; transportation; or noise***. Therefore, based on the results of the preliminary assessment, further analysis is not warranted, and the ***proposed JBD would not have a significant adverse neighborhood character impact***.

ES.5.9 NATURAL RESOURCES (CHAPTER 12)

The natural resources assessment considers the existing conditions of the geology; soils; groundwater; surface waters; wetlands; floodplains; vegetative communities; wildlife habitat; and, threatened and endangered species habitat in the study area. These conditions are considered in the primary (within 400 feet) and secondary (within a ½-mile) study areas around the JBD. Information pertaining to the existing conditions was gathered through field investigation, consultation with the New York State Natural Heritage Program, review of the U.S. Fish and Wildlife Service database and review of publicly available data sources. ***The following were not found on the project site or in the study area***: *unique geological features; surface water bodies; state or federally-mapped wetlands or "Adjacent Areas"; records of significant natural communities; or "Significant Coastal Fish and Wildlife Habitat" areas*. The project site is *not located* within a 100- or 500-year floodplain. No adverse impacts to natural resources are expected with the proposed JBD because no biological resources are present; and, there would be no adverse impacts to groundwater or nearby surface water bodies. Habitat area related to water bodies and wetlands would not be adversely impacted, and plant or animal species of concern and significant habitats or ecologically related areas would not be adversely impacted. *Street trees* located within 50 feet of the project site are under the protection of the New York City Department of Parks and Recreation (NYCDPR); thus, NYCT coordination with NYCDPR will be conducted as part of the project.

As such*, no further analysis of natural resources is warranted*. Without the Proposed Action it is anticipated that the natural resources conditions within the study area would generally resemble existing conditions.

ES.5.10 COASTAL ZONE (CHAPTER 13)

Operations associated with the proposed JBD ***would not be located within any coastal zones and would not be inconsistent with any coastal zone policy***. Thus, the Proposed Action would not result in significant adverse impacts associated with coastal zones.

ES.5.11 CONTAMINATED AND HAZARDOUS MATERIALS (CHAPTER 14)

The findings of the Phase I Environmental Site Assessments (ESAs) performed within the study area identified the potential presence of hazardous materials. Potential contaminants of concern include: petroleum products: polycyclic aromatic hydrocarbons (PAHs); metals, asbestos, lead-based paint (LBP); polychlorinated biphenyls (PCBs); and, mercury, among others. Recognized environmental conditions **(RECs)** derived from the Phase I ESAs include a historic product spill, and historic use of the area. Some lots within the study area currently have an open NYSDEC spill case (Spill No. 9010039) that is being remediated under a NYSDEC Global Consent Order (CO2-20000101-3341). ***A free product plume exists beneath the majority of Block 10164 and extends into areas outside of the project site boundaries***. Portions of the project site were historically occupied by the following: auto repair shops with associated filling stations that utilized gasoline storage tanks; an auto parts manufacturing facility; a paint supply company; an upholstery shop; and, a woodworking finishing facility. Other locations within and surrounding the project site where contaminated materials could potentially be present have been identified through usual and customary inspection. ***RECs include:*** the potential for buried structures from former buildings; the current and historic use of the site as a bus service station and maintenance garage; an active gasoline filling station and several historical gasoline filling stations; a historic dry cleaner; and, the presence of solid waste management facilities within ½-mile of the project site, among others. ***E-(Environmental) designation areas***, current and historic auto stations, drycleaners and historic drycleaners, properties in the vicinity, and subsurface utilities are also recognized as potential areas of environmental concern.

The ***Future With the Proposed Action*** construction of any of the three Candidate Alternatives has the potential to expose contaminated soil, soil gas, and/or groundwater during excavation activities. Further analysis and investigation will have to be undertaken before construction at the site begins, including: a Phase II Environmental Site Investigation; lead/asbestos surveys; analysis of each site of proposed demolition/excavation; and, preparation of petroleum storage tank removal and closure plans. The *No-Build* assumes that the existing JBD will continue to be used in its existing condition, and MTA NYCT would manage and remediate the spill in accordance with the requirements of the NYSDEC Consent Order.

ES.5.12 INFRASTRUCTURE, ENERGY, AND SOLID WASTE (CHAPTER 15)

The water supply system, sewer system, solid waste disposal, and energy consumption of the existing JBD were assessed and the *anticipated water demand, production of wastewater, and production of solid waste for each Candidate Alternative was estimated*. ***Candidate Alternative A shows the lowest demands for water use, wastewater production, and solid waste production, whereas Candidate Alternative D shows the highest use demands and production***.

Candidate Alternative A is projected to result in approximately 33,000 cubic yards of material to be removed from the site. Construction debris is anticipated to be higher for Candidate Alternatives B and D because these alternatives involve construction of larger buildings than Candidate Alternative A. *The amount of construction debris generated by each Candidate Alternative is not expected to result in significant adverse impacts*.

Energy consumption with the proposed action is expected to increase as the total floor area of the building would increase as compared to the existing JBD. ***The site currently consumes approximately 32 billion BTUs of energy per year. Under the Proposed Action, the site is expected to consume: approximately 17.7 BTUs per year for Candidate Alternative A; approximately 37.4 BTUs per year for Candidate Alternative B; and, approximately 50.5 BTUs per year for Candidate Alternative D. Providing energy to the proposed new depot would not have an adverse impact on the utility system serving the area.*** However, this increase in energy is considered minimal in terms of the annual energy demands of the surrounding area and New York City as a whole. ***Based on conversations with Con-Edison, the proposed JBD can accommodate up to 60 electric buses on the opening day of the reconstructed JBD. In the future without the proposed action, the current operations of the JBD would continue and there would be no predicted impacts to the future infrastructure.***

ES.5.13 SAFETY AND SECURITY (CHAPTER 16)

Operational safety and security measures would be determined during design development and implemented for the proposed JBD in coordination with the MTA NYCT Security Development for the depot's perimeter, exterior, interior, equipment and systems related to the proposed JBD. All safety and security measures would comply with all relevant federal, state, and local safety regulations. *Operational safety and security measures to be implemented* involve coordination with appropriate public safety agencies for creating safety and security plans for the proposed building, the continued training of staff and contractors on site, and adherence to state and city building codes and regulations. *Physical security means and methods* will include, at minimum, masonry walls at perimeter property lines and neighbor friendly lighting. ***With these measures in place, the proposed JBD is not expected to result in adverse impacts to safety and security during the operational phase***.

Buses departing the depot and destined to the south would likely depart the proposed JBD via the Merrick Boulevard driveway located midblock between 107th Avenue and Tuskegee Airmen Way. NYCT anticipates using flaggers at the Merrick Boulevard driveway to enhance safety and reduce conflicts between pedestrians on the sidewalk and buses at the proposed depot exit. Note that buses may also exit onto Merrick Boulevard from each of the eighteen maintenance bays and pedestrians would be protected by NYCT flaggers if these movements should occur.

ES.5.14 CONSTRUCTION METHODS AND ACTIVITIES (CHAPTER 17)

Construction activities for the proposed JBD—consisting of demolition of the existing buildings along Merrick Boulevard, construction of the new depot building, and demolition of the existing depot—would begin in 2021 for the duration of ***approximately 42 to 48 months***, depending on the Candidate Alternative to be constructed.

The three Candidate Alternatives have been conceptually developed, and their respective construction staging planned, so that the existing depot facility would remain operational (i.e., capable of servicing

buses) throughout the construction period. Prior to the start of construction, six properties would be acquired. Temporary easements for construction and permanent easements for the proposed JBD would be negotiated with the property owners. Construction of the proposed JBD would occur in ***two primary phases***, described below.

Phase I would be construction of Building A and the Administrative Building. *Building A* would be the new depot structure that would be constructed on the eastern portion of the project site (bordered by Tuskegee Airmen Way to the north, Merrick Boulevard to the east, 107th Avenue to the south, and the existing JBD to the west). Once constructed, Building A would provide all of the maintenance, fueling, and wash operations that are currently provided in the existing JBD.

The *Administrative Building* would be a three-story building that would be constructed on the southeast corner of Tuskegee Airmen Way and 165th Street. The Administrative Building would be connected to Building A at the second and third floors during Phase II of construction.

Phase II construction would occur within the footprint of the existing JBD building. Once Building A is complete and operational, all bus maintenance, fueling, and washing activities would be transferred to Building A, which would then allow for demolition of the existing JBD building. For all Candidate Alternatives, Phase II construction activities would include connecting the Administrative Building to Building A. As noted below, *other construction activities during Phase II would vary based on the selected Candidate Alternative:*

- ***Candidate Alternative A*** – construction of *a paved outdoor bus parking area* and *a 31-foot-high security/ sound barrier wall along the 165th Street side* of the property; and, *a 20-foot security/sound barrier wall along 107th Avenue*.
- ***Candidate Alternative B*** – construction *of an extension to Building A* that would provide two levels of enclosed parking for approximately 80 SBEs which combined with the 229 SBEs constructed in Building A during Phase I of construction, would provide a total of 309 SBEs. Candidate Alternative B also includes the installation of *a 20-foot-high security/sound barrier wall along the 165th Street and 107th Avenue sides of the property*.
- ***Candidate Alternative D*** – construction of *a larger, two-level, 190,000 sf enclosed/indoor bus parking area* for approximately 230 SBEs and installation of *a 20-foot-high security/sound barrier wall along the 165th Street and 107th Avenue sides of the property*.

ES.5.14.1 TRANSPORTATION

ES.5.14.1.1 Traffic

Average daily construction worker and truck activities were projected for the full duration of construction. Construction worker and truck trips were estimated to peak in the second and third quarters of 2022. The estimated daily vehicle trips for this peak period were distributed to various hours of the day based on projected work shift allocations and conventional arrival/departure patterns for construction workers and trucks. Vehicles generated by construction activities were then assigned to the street network to determine the incremental construction-related trips. Trucks making deliveries to the project site were assigned using NYCDOT-designated local truck routes in the area, which include Merrick Boulevard, 168th Street, and Liberty Avenue.

The analysis of the eight study intersections for the AM and PM peak hours during the construction period indicated that all movements and intersections ***would continue to operate at an acceptable level of service (LOS) in the 2022*** construction period; therefore***, no significant adverse traffic impacts from construction-related trips are expected***.

ES.5.14.1.2 Transit

According to the thresholds specified in the *CEQR Technical Manual*, detailed transit analyses are required if a proposed action is projected to result in an increase of 200 or more passengers at a single subway station or on a single subway line or if a proposed action would result in 50 or more bus passengers being assigned to a single bus route (in one direction) during the AM and PM peak hours.

The construction worker travel demand is expected to generate a total of approximately 50 transit trips in both the 6-7 AM and 4-5 PM construction peak hours. Given that these transit trips would be served by multiple bus routes, no single bus route would experience an increase of 50 or more passenger trips; therefore, ***detailed analysis of transit conditions is not required, and the proposed JBD would not result in any significant adverse transit impacts***.

There is a Merrick Boulevard bus stop adjacent to the proposed JBD that serves the Q4, Q5, Q84, Q85, and N4 bus routes. This bus stop may need to be relocated during construction; MTA NYCT would coordinate any bus stop relocations with the contractor and NYCDOT Office of Construction Mitigation and Coordination (OCMC).

ES.5.14.1.3 Pedestrians

As per the criteria established in the *CEQR Technical Manual*, quantitative pedestrian analyses are warranted if a proposed action results in more than 200 new peak hour pedestrian trips. Based on the increase of 72 new walk trips during construction, ***a detailed analysis of pedestrian conditions is not warranted, and construction of the proposed JBD would not result in any significant adverse pedestrian impacts***.

Appropriate protective measures for ensuring pedestrian safety surrounding the construction site would be implemented in accordance with NYCDOT and New York City Department of Buildings (NYCDOB) requirements.

ES.5.14.1.4 Parking

Construction workers traveling to the site would increase the on-street parking demand by 173 vehicles, *which would create a parking shortfall of 160 spaces*. This shortfall is not considered a significant impact for this project due to the availability and proximity of public transit in the area. As such, construction activities during the 2022 peak construction traffic period ***would not result in a significant adverse parking impact.***

ES.5.14.2 AIR QUALITY

In order to predict worst case future conditions, potential air quality emission impacts related to the proposed JBD were analyzed for the long-term peak period of construction (2021) and the short-term peak period of construction (2023) for stationary and mobile sources. The analyses include the implementation of MTA NYCT construction environmental performance requirements. ***Construction-related increases in both mobile and stationary source emissions of carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter less than 2.5 microns in diameter ($PM_{2.5}$), and particulate matter less than 10 microns in diameter (PM_{10}) would not result in any exceedances of the National Ambient Air Quality Standards (NAAQS) or the NYSDEC de minimis impact criteria at any of the sensitive receptors that were studied***.

ES.5.14.3 NOISE AND VIBRATION

ES.5.14.3.1 Noise

Noise levels were assessed at representative noise sensitive receptors/locations in the area (such as residences), their proximity to the proposed limits of construction, and the potential for increases in future noise levels. ***Projected noise levels for construction equipment related to all of the Candidate Alternatives would not exceed the FTA noise thresholds at any noise sensitive locations adjacent to proposed construction limits***. While, at times, noise levels may be elevated above ambient noise levels, ***these noise increases would be minimized by strict adherence to the revised 2005 NYC Noise Code and prevention measures that would be identified in the construction contracts***. In addition, ***predicted worst-case noise levels for both Phase I and Phase II of construction would last for only a few months and, because the sources of noise would migrate throughout the construction areas, the effects of construction noise on the sensitive receptors would change depending on the location of particular noise sources***. Note also that noise-generating activities would be intermittent and of short-term durations. Lastly, *the phasing of the JBD construction, demolishing the existing JBD structure in Phase II would be an effective noise barrier that would further reduce noise levels, such as the predicted Phase I noise levels for some residents along 165th Street and Phase II noise levels along the east side of Merrick Boulevard.*

The MTA NYCT construction contract specifications would require the contractor to meet the requirements set forth in the NYCDEP Noise Control Code (e.g., Construction Noise Mitigation Plans). Based on these requirements, the contractor must implement and adhere to the noise mitigation plan measures as required.

ES.5.14.3.2 Vibration

Results of the vibration analyses indicate that projected vibration levels for construction equipment near sensitive receptors adjacent to the construction zones would not exceed the FTA damage criteria of 0.20 inches per second (ips) for the wood framed residential buildings facing the western edge of the construction zone. In addition, vibration criteria would not be exceeded at the Allen Cathedral Senior Center building. However, damage from vibration could potentially occur at one residential building (104-09 165th Street) where the northern façade of that house would be approximately three feet from the construction zone. A condition survey of all buildings adjacent to the work will be performed. For the house at 104-09 165th Street, MTA NYCT would use vibration control measures to minimize, to the extent practicable, the vibration levels for all properties near the construction site. Prior to construction, after construction, and during construction, vibration would be monitored at all buildings within a 200-foot radius and if vibration measurements indicated the potential for the building to be damaged, alternative construction methods would be implemented.

The FTA vibration annoyance criteria of 72 VdB (vibration decibels) ***would be exceeded at properties within approximately 80 feet of the construction zones. Exceedances would occur at some residential buildings along 165th Street and along 107th Avenue at the Allen Cathedral Senior Center. However, these activities would be relatively short and intermittent***, and the sources of vibration would migrate throughout the larger construction zone. All efforts would be made by the contractor to schedule these types of activities during the least intrusive times. In addition, the contractor would inform the occupants of adjacent buildings in advance of proceeding with work associated with equipment such as a jackhammer or backhoe. MTA NYCT and/or it's contractors would be responsible for any vibration damage incurred during construction. NYCT would repair damage or provide equitable compensation to the property owners.

ES.5.14.4 SOCIOECONOMIC CONDITIONS

According to the *CEQR Technical Manual*, construction impacts to social and economic conditions are possible if the project would entail construction of a long duration (i.e., more than two years) that could affect access to and thereby viability of a number of businesses and if the failure of those businesses has the potential to affect the economic conditions of the community. This, in turn, could affect neighborhood character.

Because most construction activities for the project would take place within the project site which does not contain any neighboring businesses, *construction activities associated with the proposed JBD would not: significantly block or restrict access to any facilities in the area; affect the operations of any nearby businesses; or, obstruct thoroughfares used by customers or businesses. Therefore,* ***no adverse impacts to the economic viability of local businesses*** would be anticipated due to construction.

ES.5.14.5 HISTORIC AND CULTURAL RESOURCES

According to the guidelines in the *CEQR Technical Manual*, the assessment of construction impacts on historic and cultural resources considers the possibility of physical damage to any architectural or archaeological resources identified in the historic and cultural resources assessment. A construction assessment is not warranted if a project would not involve construction activities within 400 feet of a historic resource.

Based on the assessment, there is little to no historic period archaeological sensitivity at the JBD given the level of past disturbance. Additionally, it was concluded that there are no architectural resources on or within a 400-foot radius of the project site. Therefore, construction of the proposed JBD ***does not have the potential to result in significant adverse impact on archaeological and architectural resources***.

ES.5.14.6 CONTAMINATED AND HAZARDOUS MATERIALS

Petroleum/fuel oil contaminated soil and groundwater was identified on JBD property and suspect asbestos containing materials (ACMs) and lead-based paint (LBP) were identified in the depot structures. Subsurface contamination includes impacts from a historic petroleum release that is being remediated by MTA NYCT in accordance with NYSDEC requirements under NYSDEC Global Consent Order C02-20000101-3341. *During construction*, the potential exists for construction workers to encounter these contaminated and hazardous materials, temporarily; however, the MTA NYCT construction specifications would require the contractor to prepare plans (e.g., abatement plans, health and safety plans, emergency action plan, waste management plan, etc.) and identify and implement work practices that prevent exposures of hazardous and contaminated materials to construction workers or the public; therefore, ***no significant adverse impacts would result from contaminated and hazardous materials***.

ES.5.14.7 NATURAL RESOURCES

The project site contains impervious surfaces and is located in an urban environment; flora and fauna in the vicinity of the existing JBD are minimal. With the proposed JBD, *no adverse impacts to natural resources is expected as no biological resources are present; also, there would be no adverse impacts to groundwater or nearby surface water bodies*. A Stormwater Pollution Prevention Plan ("SWPPP") would be prepared by the contractor and would include a description and detail of: 1) the erosion and sediment control measures during construction; 2) post-construction stormwater management strategies; and, 3) periodic certifications, inspections, and reporting (if required). With these measures in place, ***no significant adverse impacts to water resources would result during construction***.

ES.5.14.8 SAFETY AND SECURITY

The proposed JBD would be designed, built, and operated to comply with all relevant federal, state, and local safety regulations, including: the New York State Uniform Fire Prevention and Building Code; Americans with Disabilities Act (ADA) regulations; Occupational Safety and Health Administration (OSHA) regulations; and, applicable National Fire Protection Association (NFPA) guidelines and standards. In addition, MTA NYCT has rules and policies to ensure the safety and security of employees, transit riders, and the general public. These rules and policies are contained in MTA NYCT's Safety Policy/Instruction 10.1.2. MTA NYCT also has a System Safety Program Plan that governs all MTA NYCT facilities, including the proposed JBD. MTA NYCT staff and contractors are trained in all appropriate safety procedures under this plan. ***During construction, written Safe Work Plans will be developed identifying potential hazards, as well as safety measures to be implemented for the protection of workers on the project site and the general public in the surrounding vicinity.***

ES.5.15 DISPLACEMENT AND RELOCATIONS (CHAPTER 18)

Expansion of the existing bus depot with any of the three Candidate Alternatives would require acquisition of six adjacent lots and the permanent displacement of the occupants to permit the reconstruction of the depot. Adequate notice for the relocation will be assured by written and verbal distribution of information that explains the relocation benefits (i.e., advisory services, moving costs, and reestablishment costs) and eligibility requirements. Displacements are not expected to adversely impact the character of the local neighborhood given the ***potential to locally relocate***. The establishments that would be displaced by the proposed JBD offer goods and services that are similar to those offered by other establishments in the neighborhood. Commercial establishments to be relocated constitute a small part of this larger business district operating on Merrick Boulevard.

For each Candidate Alternative, ***a series of temporary and permanent easements that would be required*** in order to facilitate construction of various project elements. A construction work zone barrier/fence would be installed during construction requiring ***a ten-foot wide temporary easement that would be established on the adjoining 165th Street properties as a protective measure***. These easements would be established by NYCT in consultation with the property owners. The estimated duration of construction activities on these properties is approximately 10 months.

After construction, a 5-foot wide permanent easement would be required on adjoining 165th Street properties to accommodate the foundation elements of the security/sound barrier wall. These easements would be established by MTA NYCT in consultation with the property owners.

All property acquisition would be undertaken within the framework of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act and the New York State Eminent Domain Procedure Law.

ES.5.16 SECONDARY AND CUMULATIVE EFFECTS ASSESSMENT (CHAPTER 19)

Secondary effects generally refer to the potential for a proposed action to *trigger additional development in areas outside the project site* that would not occur without the proposed project. ***Cumulative effects*** result from the *incremental consequences of an action* (the project) when added to other past and reasonably foreseeable future actions. The potential for the Proposed Action to result in secondary and cumulative

effects was assessed for the construction of the proposed JBD by identifying and factoring in the future conditions, of all foreseeable projects whose effects would be evident in the study area.

The proposed project ***would not result*** in new bus routes or substantial new bus service; therefore, it is not expected to encourage new residential or commercial growth in areas where new bus service would be implemented. As a result, ***secondary effects are not anticipated due to the construction of the proposed JBD***.

With reconstruction, traffic operations will be affected within the study area. The daily number of buses entering/exiting the depot will increase, there will be an increased number of employee trips to/from the reconstructed depot, and existing bus movements may be rerouted due to relocation of driveways and on-site bus circulation. ***A significant traffic impact*** at the intersection of Tuskegee Airmen Way and 165th Street during AM peak hours was identified for all Candidate Alternatives. Mitigation measures to avoid this potential impact would be implemented in consultation with the NYCDOT.

Because the parking of buses would be accommodated on-site with all of the Candidate Alternatives, no secondary/cumulative effects are expected.

The proposed JBD would employ up to 165 additional workers. This influx of new employees could benefit local businesses with an increase in patronage.

Based on the results of the preliminary assessment of the proposed project, it is determined that *none of the three Candidate Alternatives would result in any significant adverse impact to most elements of urban design, including: building bulk, use, and type; street hierarchy, block form, and street pattern; streetscape elements; or visual resources*. Some street trees surrounding the site would have to be removed for the proposed reconstruction but would be replaced consistent with NYCDPR requirements. A substantial change to the building bulk at the project site would result from each of the Candidate Alternatives, but overall would provide a positive impact, as a new and uniform street wall would be established.

Whereas the project site is located in a neighborhood with sensitive residential land uses, potential air quality impacts related to both mobile and stationary emission sources were considered on a local level. It was determined that ***depot operations would not result in any exceedance of the NAAQS or the NYSDEC de minimis impact criteria***. In addition, for all the studied conceptual design alternatives, projected emission pollutant burdens for ***the proposed JBD facility operations would not exceed applicable NYSDEC regulatory requirements for major source air emissions***.

The proposed JBD would generate both ***stationary and mobile source noise***. For each Candidate Alternative it was determined that the proposed JBD would not result in any significant noise impacts on noise sensitive receptor in the project area. It was also determined that operation of ***the proposed project would not produce any perceptible vibration levels***, and that the design of the proposed depot would avoid operational conditions that would result in perceptible vibration levels.

Regardless of the Build Alternative selected from among the three Candidate Alternatives, the ***proposed JBD would not contribute to any significant cumulative effects related to any of the following technical areas for which a potential effect has been indicated: traffic and transportation; social and economic conditions; urban design and visual resources; air quality; and, noise and vibration.***

ES.5.17 COMMITMENTS TO MITIGATING ADVERSE EFFECTS (CHAPTER 20)

As noted in each technical analysis chapters in this FEIS, ***mitigation measures would be implemented by MTA NYCT to reduce or eliminate all potential adverse impacts of the proposed project, during both the construction and operational periods.*** With regard to potential adverse cumulative impacts, or those impacts that are potentially additive or interactive with other resource area impacts, MTA NYCT will maintain routine communication with representatives for the other construction projects identified within the study area (165-20 Archer Avenue, 92-32 Union Hall Street, 92-33 168th Street), as well as for the several other projects identified within the study area that are expected to be completed by 2025. ***MTA NYCT will also maintain open and routine communication with residents and businesses and work with all appropriate parties to develop mitigation strategies as necessary.*** Provided business owners are fully informed as to project schedule and the scope of activities that would occur at all phases of the schedule, they may be able to prepare their business strategies accordingly. Similarly, MTA NYCT may be better able to manage nuances of the schedule as construction progresses in order to avoid or reduce impacts; for example, cumulative effects that would be most detrimental to traffic conditions (e.g., concentrated concrete delivery requirements) may be scheduled such that they do not occur simultaneously.

MTA NYCT will continue to implement a public outreach process that includes communication with Queens Community Board 12. MTA NYCT will also initiate communication with local business owners to learn about any specific cumulative impacts that business owners experience, so that MTA NYCT may be able to make specific changes to prevent or reduce such impacts as they may occur when construction is underway. *While communication may not prevent all such cumulative impacts, its goal would be to reduce such impacts wherever possible. NYCT would continue to work cooperatively with NYCDOT beyond the EIS process* to best assure minimized impact to traffic and transportation throughout the construction process.

MTA NYCT will develop the ***Construction Environmental Protection Plan (CEPP)*** with specific measures for minimizing or avoiding adverse construction effects. These requirements would be finalized as the design process continues and codified in construction specifications. ***The MTA NYCT Construction Manager, supported by a NYCT Principal Environmental Engineer, will ensure that commitments stipulated in the CEPP are met.***

MTA NYCT is committed to an ongoing effort to minimize adverse effects and maximize construction efficiencies. MTA NYCT's commitment is demonstrated by the success of its past and ongoing efforts throughout New York City, including:

- Implementing design and construction practices consistent with ***NYCT ISO 14000 certification***;
- Developing an effective ***CEPP***;
- ***Routinely interfacing and cooperating*** with nearby construction program representatives to minimize potential for any form of cumulative adverse effects/impacts;
- ***Being proactive*** with adjacent property owners; and,
- ***Responding*** to complaints in a timely manner.

MTA NYCT will continue to develop, document, broadcast, and implement practicable methods, practices, and procedures to manage the environmental effects of its actions, individually and cooperatively with NYCDCP and other local development project representatives. This process will be managed through regular monitoring and routine interface with construction program representatives. MTA NYCT will also ensure routine interface with NYCDOT and any other construction efforts in the JBD project vicinity.

Based on the information presented in this FEIS, ***construction and operation of the proposed JBD, considered in conjunction with other projects that are planned or under construction in the vicinity of the project site, would not result in any significant adverse effects.***

ES.5.18 IRRETRIEVABLE AND IRREVERSIBLE COMMITMENT OF RESOURCES (CHAPTER 21)

There are a number of resources, both natural and built, that would be expended in the construction and operation of the proposed JBD, regardless of the Candidate Alternative selected. These resources include: the *building materials* used in construction of the proposed JBD; *energy* in the form of fossil fuels and electricity consumed during construction and operation of the depot; and, the *human effort (time and labor)* required to develop, construct, and operate various components of the proposed JBD. *Resources are considered irretrievably committed because their reuse for some purpose other than the proposed project would be highly unlikely*. In addition, some existing street trees adjacent to the project site would be removed during construction of any of the three Candidate Alternatives (though their replacement would be as directed by NYCDPR, following construction).

Construction of the proposed JBD would require *the irreversible and irretrievable commitment of construction materials such as concrete, steel, wood, and other building materials. Energy in the form of fossil fuels and electricity would be consumed during the construction and operation of the facility*. None of these materials are in short supply and their use for the proposed JBD would not have an adverse impact on their continued availability for other purposes. In addition to materials, *funding and human labor would be required to design, build, and operate the proposed JBD*.

NYCT endeavors to minimize the use of irretrievable resources, and conserve and reuse resources, wherever practicable for the proposed JBD. To that end, MTA NYCT has established and implemented an *Environmental Management System (EMS) pursuant to ISO 14001* (an internationally recognized set of guidelines for the management of environmental programs) to demonstrate control over key issues related to: raw materials consumption; energy usage; emissions; waste products; waste reuse; transport; distribution; and, services. The EMS requires *a continuing compliance with relevant legislation*, and *also requires that MTA NYCT remain committed to achieving improvements in these key issue areas*. For the *construction phase*, measures that would aid in the avoidance and/or minimization of adverse construction-related impacts is codified in MTA NYCT's contract specifications and in the Construction Environmental Protection Plan (***CEPP***). For the *operational phase*, the goal is that the design of the expansion and reconstruction of the JBD would meet USGBC LEED standards and sustainability objectives.

In aggregate and fundamentally, ***NYCT's continuing goal is, and will continue to be, to plan, design, construct, and operate so that a sustainable re-constructed JBD is produced to appropriately serve NYCT bus ridership during the coming decades***.

ES.5.19 UNAVOIDABLE ADVERSE IMPACTS (CHAPTER 22)

Unavoidable adverse impacts are defined as those that meet the following criteria:

- There are no reasonably practicable mitigation measures to eliminate the impacts; and,
- There are no reasonable alternatives to the proposed project that would: meet the purpose and need of the action; eliminate the impact; and, not cause other or similar significant, adverse impacts.

Based on the requirements in SEQRA (6 NYCRR Part 617.9(b)(5)(iii)), ***there are currently no unavoidable adverse impacts for the environmental resource categories studied in the Proposed Action. MTA NYCT is committed to an ongoing effort to minimize adverse effects and will continue to implement a public outreach process so that NYCT may be able to prevent or reduce unforeseen impacts***.

ES.5.20 GROWTH INDUCING ASPECTS OF THE PROPOSED ACTION (CHAPTER 23)

The proposed JBD would meet the key design criteria which are fundamental to ensuring that the proposed JBD design and operation meet the overall project purpose and need to:

- *Manage* the operation/maintenance and on-site bus storage of up to 300 Standard Bus Equivalents (SBEs) to serve the projected bus assignments at this depot;
- *Allow* additional capacity due to the density of bus service in this section of the city and the long-range outlook for new service demands; and, accommodate potential route/depot assignment reconfigurations; and,
- *Demonstrate* the greatest potential to minimize adverse effects/impacts of construction/operation based on integrated consideration of engineering, economic, and environmental factors.

The proposed JBD would be a component of the long-term modernization of the bus transit system and would help to maintain and promote the economic vitality of the areas served by the JBD bus routes in Queens. However, ***no significant development is expected to occur as a result of the proposed JBD.***

ES.5.21 COORDINATION AND PUBLIC OUTREACH (CHAPTER 24)

This chapter describes ***public outreach activities undertaken to date*** by MTA NYCT in the planning of the expansion and reconstruction of the Jamaica Bus Depot (JBD). *An explanation of the continuing coordination* with local, state, and regional agencies involved in the planning of the project is also presented.

ES.5.21.1 PROJECT SCOPING PROCESS

The environmental process for the proposed JBD *officially began on May 18, 2016*, when MTA NYCT: *submitted a Positive Declaration* and a *Notice of Intent (NOI)* to prepare an EIS for the Proposed Action; and, *published its intentions* in the Environmental Notice Bulletin (ENB). ***Although scoping was not required under SEQRA at that time (see 6 NYCRR 617.8(a)), MTA NYCT chose to implement scoping***. The NOI invited the public to participate in the project scoping process, including attendance at a project scoping meeting. "Scoping" refers to the process by which the issues to be addressed in the FEIS are identified (6NYCRR Part 617.8, SEQRA). In addition, the NOI indicated the availability of a *Draft Scoping Document* on the MTA NYCT website. Copies of the Draft Scoping Document were made available at *two public libraries* in the area (South Jamaica Library, Queens Central Library) and *at the offices of Community Board 12*.

The Draft Scoping Document provided *an overview of the proposed reconstruction project and the scoping process*, including: the background of the proposed project; the purpose and need for the proposed project; a discussion of alternatives; a general analysis approach for assessing the impacts; and, a summary of public and agency participation efforts to be implemented during the course of the project. The Draft Scoping Document was published on May 18, 2016, and a formal scoping meeting was held on June 15, 2016 at the Junior High School 8 (IS 8) Richard S. Grossley located at 108-35 167th Street in Queens. ***During the***

meeting, a presentation on the Candidate Alternatives and the scope of the DEIS analyses was given by MTA NYCT, and comments from the public were heard. State and local agencies were invited by letter to participate in the scoping process. The agencies and the general public had an opportunity to review the materials presented, including the Draft Scoping Document, and provide written comments through July 8, 2016.

Comments were received via posted mail, email, submission to the MTA website, and testimony at the public scoping meeting. Approximately 12 individuals and two resident groups (i.e. 107-36 Merrick Boulevard and 107-02 Merrick Boulevard) provided comments. Many comments expressed concern about potential disruption to the community as a result of constructing the proposed JBD. Others identified the importance of considering potential traffic impacts during construction, and public concerns for air quality (i.e. fumes), noise and vibration during construction and operation of the facility. Lighting and removing bus and staff parking on the streets were also concerns that were expressed.

Those comments were addressed and incorporated as appropriate into the *Final Scoping Document* that was announced in the NYSDEC Environmental Notice Bulletin (ENB) and published on the MTA website on *March 13, 2019*. ***Copies were delivered to the libraries and community district offices identified above, as well as to the Allen Cathedral Senior Residence***.

ES.5.21.2 ONGOING PUBLIC PARTICIPATION PROCESS

Public involvement has been sought via attendance at the Community Board 12 meetings, the Draft Scoping Document public meeting, and the DEIS Public Hearing to solicit input from the community on the proposed action, and to encourage public participation in the ongoing decision-making process. ***Attendance at all public meetings has been, and will continue to be, encouraged through notifications on MTA NYCT's website (www.mta.info/), NYSDEC's Environmental Notice Bulletin, and other means, as appropriate, such as advertising and press releases.***

ES.5.21.3 AGENCY COORDINATION

Substantial *public agency coordination has occurred and is ongoing for the proposed JBD*. These efforts will continue as the project is developed in greater detail during preliminary and final design and during construction. Throughout the environmental review process, MTA NYCT has and will continue, as appropriate, to interface with, and/or account for, the usual and customary requirements of several agencies for feedback, insight, and participation. ***These agencies include NYCDPR, NYSHPO, NYCLPC, NYCDOT, NYCDEP and NYSDEC.***

ES.5.21.4 COMMUNITY BOARD COORDINATION

Queens is divided into 14 Community Boards, each of which represents the interests and concerns of the local community and acts as a coordinator for the residents and employees within its jurisdictional boundaries. Each community board serves to ensure that community needs are taken into account as part of the City's budget process and provides input regarding actions requiring City approval. Each Community Board also forms committees to study special issues such as transportation, land use, and/or historic resources. ***The JBD project is located within the boundaries of Queens Community Board 12, which encompasses Jamaica, Hollis, Saint Albans, South Ozone Park, and Springfield Gardens.***

In addition to the Public Scoping Meeting on June 15, 2016 and the DEIS Public Hearing on June 27, 2019, an MTA NYCT Government and Community Relations representative participated in a public meeting with Queens Community Board 12 on March 12, 2019.

ES.5.21.5 PUBLIC HEARING ON THE DEIS AND FEIS PROCESS

Upon completion of the DEIS, NYCT prepared ***a Notice of Completion, published the notice in the NYSDEC Environmental Notice Bulletin and local newspapers, and distributed the DEIS on June 5, 2019***. A copy of the DEIS was posted on the MTA website consistent with NYSDEC procedures (NYCRR Part 617.12) and at four local repositories within the project area, including: Queens Central Library, South Jamaica Library, Allen Cathedral Senior Residence, and Queens Community Board 12.

A Public Hearing was held on June 27, 2019 at 6:30 PM at the Jamaica Center for Arts and Learning, 161-04 Jamaica Avenue in Jamaica, New York to give the public an opportunity to comment on the DEIS. The Public Hearing record remained open to received public comments until July 19, 2019, 46 days after the Notice of Completion. The Public Hearing included an informal poster session staffed by MTA NYCT personnel. Notification of the Public Hearing for the DEIS was published in the NYSDEC Environmental News Bulletin on June 5, 2019; on the MTA NYCT website and social media (Twitter); and placed in local newspapers including: *The New York Post, El Diario, Queens Chronical, and Pandora's Box* (see **Appendix H**). In addition, posters announcing the Public Hearing were placed in the buses and in the subway station in the project area. A transcript of the Public Hearing is in **Appendix I**.

MTA/NYCT Government and Community Relations also reached out to Queens Community Board 12 and all elected offices in the district (Councilmember Miller, Assembly Member Hyndman, and Senator Comrie) to inform about the Public Hearing and to ask them to reach out to their constituents. After the Public Hearing, these elected offices were called again to submit their comments and Councilmember Miller's office did. NYCT also reached out directly to the Allen Cathedral Senior Residence to inform them of the availability of the DEIS, the Public Hearing, and to submit comments.

Analysis of the public comments on the DEIS, provided in **Chapter 25: Response to DEIS Comments**, indicates that six individuals remarked on the DEIS, which included: one elected official; two representatives from Queens Community Board 12; the president of Amalgamated Transit Unit Local 1056; one resident; and one private citizen. In aggregate, MTA presented 24 detailed responses to the comments provided based on material previously given in the DEIS.

Revisions to the DEIS document have been incorporated into the FEIS as a result of the comments raised and responses provided. A summary of input received at the hearings and responses is provide in **Chapter 25: Response to DEIS Comments**. This includes comments received as testimony during the Public Hearing as well as those received in writing or online during the comment period. Responses have been prepared to address the comments received and are included in **Chapter 25**. The Notice of Completion of this FEIS will be posted in the NYSDEC Environmental News Bulletin. The FEIS identifies the Preferred Alternative and mitigation measures to minimize or avoid significant adverse impacts. The mitigation measures will be further developed during final design and as the Construction Environmental Protection Program (CEPP) is finalized. MTA NYCT will prepare a written Findings Statement no sooner than 10 days after the publication of the Notice of Completion of the FEIS, stating MTA NYCT's basis for their decision on the Proposed Action.

Throughout the environmental review process, MTA NYCT has communicated with several agencies including NYSDOT, NYCDEP, New York City Department of Parks and Recreation (NYCDPR), New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), NYSDEC and others in the process for feedback, insight, and participation through its Office of Government and Community Relations. MTA NYCT will also maintain routine liaison with the public and its representatives concerning the project and EIS process.

ES.5.21.6 CONTINUED PUBLIC OUTREACH

In addition to the public agency coordination and public outreach to the community described in the previous sections, ***MTA NYCT will continue outreach through its Office of Government and Community Relations to the general public, Community Board 12, agencies, and other stakeholders to provide information about the proposed JBD. Public outreach efforts will be announced on the MTA NYCT website.***

ES.6 CONCLUSIONS

The Proposed Action would meet the key design criteria which are fundamental to ensuring that the proposed, expanded and reconstructed depot design meets the *overall project purpose and need to*:

- ***Manage the operation/maintenance and on-site bus storage*** of up to 300 SBEs to serve the projected bus assignments at this depot;
- ***Allow additional capacity*** due to the density of bus service in this section of the city and the long-range outlook for new service demands; and, accommodate potential route/depot assignment reconfigurations; and,
- ***Demonstrate*** the greatest potential to minimize adverse effects/impacts based on integrated consideration of engineering, economic, and environmental factors.

SEQRA requires that the environmental evaluation of the proposed action be conducted in coordination with other agencies and the general public. Throughout the project scoping process, *MTA NYCT involved the public by publishing information on the MTA NYCT website, participating in a public meeting with the local community board, inviting the public to participate in the scoping process at a project scoping meeting, and providing opportunities to the public to provide oral and written comments on the materials presented*. Public involvement through attendance at future meetings (such as the Public Hearing held after publication of the DEIS) was encouraged by NYCT in the decision-making process, and notifications will continue to be posted on MTA NYCT's website. Substantial public agency coordination has occurred and is ongoing for the proposed JBD. These agencies include NYCDPR, NYSHPO, NYCLPC, NYCDOT, NYCDEP and NYSDEC.

The Proposed Action would be a component of the long-term modernization of the bus transit system and would help to maintain and promote the economic vitality of the areas served by the JBD bus routes in Queens. However, ***no significant area development is expected to occur as a result of the Proposed Action***.

To mitigate any adverse impacts resulting from the construction of the proposed JBD, MTA NYCT will ensure that such impacts are minimized wherever possible. These efforts would include: *maintaining routine communication* with representatives for the other construction projects within the study area; *continuous communication with residents and businesses* to develop mitigation strategies as needed; *coordination* with NYCDOT to assure minimized impacts to traffic and transportation; *continual monitoring* of the construction; and, the development and implementation of a Construction Environmental Protection Plan **(CEPP)**.

Based on the requirements in SEQRA (6 NYCRR 617.9(b)(5)(iii)), the EIS analyses demonstrated that there would be no unavoidable significant adverse environmental impacts (i.e., Air Quality, Noise and Vibration, Traffic, etc.) associated with any of the three Candidate Alternatives for both the construction and operational conditions. However, the evaluation did demonstrate that, from

engineering and economic perspectives, Candidate Alternatives B and D would be: more complex to design; more difficult to construct; cost more to build and maintain; and, have higher ongoing energy usage (see Section 3.2).

MTA NYCT has concluded that Candidate Alternative A is the Preferred Alternative because it demonstrates the greatest potential to minimize, based on integrated consideration of engineering, economic, and environmental factors, the effects/impacts of construction and operation of the reconstructed Jamaica Bus Depot. MTA NYCT is committed to an ongoing effort to minimize adverse effects and will continue to implement a public outreach process so that MTA NYCT would be able to prevent or reduce unforeseen impacts.