

ES. EXECUTIVE SUMMARY

ES.1 INTRODUCTION

Opened in 1939, LaGuardia Airport (LGA or the Airport) has been operated by the Port Authority of New York and New Jersey (Port Authority) under a lease agreement with the City of New York since 1947.¹ LGA is a 680-acre airport situated in the northern part of the borough of Queens (Queens), New York City, New York. The Airport is located approximately 6 miles northeast of Midtown Manhattan in a densely developed metropolitan area consisting of airport, commercial, and residential areas. Other transportation facilities in the area include a parkway, interstate highways, rapid transit, and commuter rail facilities. LGA is bordered to the north by the East River (separating the Airport from Rikers Island and the borough of the Bronx); to the east by Flushing Bay (separating the Airport from the College Point neighborhood of Queens); to the south by Grand Central Parkway (GCP) and the East Elmhurst, Jackson Heights, and North Corona neighborhoods of Queens; and to the west by Bowery Bay and the Ditmars-Steinway neighborhood of Queens. The Airport's proximity to the East River and densely developed environs, as well as limited land availability in the area, pose challenges for Airport development.

Over the past 30 years, various agencies have conducted multiple studies to improve transit access to LGA. Agency reports include those directed by the Port Authority, Federal Aviation Administration (FAA), the New York City Department of Transportation (NYCDOT), and the Metropolitan Transportation Authority (MTA). These studies have included transit alternatives such as subway extensions, Long Island Rail Road (LIRR) spurs, people mover alternatives, bus transit, and ferry service. However, due to major obstacles, including issues raised during the environmental review process,² concern over community impacts,³ financial constraints, and the September 11 terrorists' attacks on the World Trade Center, several of the studies were discontinued. Nonetheless, an examination of all these studies demonstrates a continued regional interest in improved access to LGA.

In January 2015, New York Governor Andrew Cuomo convened an Airport Advisory Panel to address the deficiencies of LGA as a major transportation facility.⁴ In its report, the Airport Advisory Panel recommended that the redevelopment of LGA include "new ways to access the airport" including a future AirTrain.⁵ Consequently, one of

¹ Airport Advisory Panel, *A 21st Century Airport for the State of New York: The New LaGuardia— A Report to the Governor from the Airport Advisory Panel: Guiding Principles for a Comprehensive Airport Master Plan*, July 2015.

² In 1994, a Draft Environmental Impact Statement (EIS) was prepared for the Airport Access Program, which encompassed a new automated guideway transit line with service between Midtown Manhattan, LGA, and John F. Kennedy International Airport. After publication of the Draft EIS, the Port Authority concluded that due to issues raised during the environmental review process as well as financial constraints, construction of the entire proposed project was infeasible.

³ In 1998, the MTA initiated the LaGuardia Airport Subway Access Study; however, major obstacles arose, including concern over community impacts and challenges in integrating subway service that would be compatible with both New York City Transit (NYCT) system operating requirements and on-Airport constraints. Efforts to resolve these issues were suspended after the September 11 terrorists' attacks on the World Trade Center; therefore, the Study was discontinued without confirming a constructible or operable alternative.

⁴ Tishman, Dan et al., *A 21st Century Airport for the State of New York: The New LaGuardia, Guiding Principles for a Comprehensive Airport Master Plan*, Report by the Governor's Airport Advisory Panel, July 27, 2015, www.governor.ny.gov/sites/governor.ny.gov/files/atoms/files/Airport_Advisory_Panel_Final_Report_LGA.pdf (accessed April 4, 2018).

⁵ Airport Advisory Panel, *A 21st Century Airport for the State of New York: The New LaGuardia— A Report to the Governor from the Airport Advisory Panel: Guiding Principles for a Comprehensive Airport Master Plan*, July 2015.

the guiding principles of the report is a “future rail connection” in response to LGA being the only major airport in the New York City region that is not accessible directly by rail.⁶

In accordance with the recommendation of Governor Cuomo’s Airport Advisory Panel, the Port Authority, as operator of the Airport, proposes the LGA Access Improvement Project to construct and operate a new automated people mover (APM or AirTrain) system to provide a reliable transit alternative for air passenger and employee access to the Airport. The Port Authority’s preferred alternative for the LGA Access Improvement Project would connect two on-Airport stations at LGA with a transfer station at Willets Point. The off-Airport station would provide connections to the Mets–Willets Point stations of the LIRR Port Washington Branch and the New York City Transit (NYCT) Subway Flushing Line (7 Line). The off-Airport station would also provide a connection to a new off-Airport employee parking option located at Willets Point. The Port Authority’s preferred alternative is hereinafter referred to as the Proposed Action.

The Port Authority intends to fund the Proposed Action in part by using Passenger Facility Charges (PFCs). An application to impose and use PFCs must first be approved by the FAA.⁷ The review and approval of the application is a federal action under the purview of the FAA and, as such, the FAA is the lead federal agency⁸ preparing an Environmental Impact Statement (EIS). This EIS has been prepared pursuant to the provisions of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [U.S.C.] §§ 4321 to 4335) and the Council on Environmental Quality (CEQ) implementing regulations⁹ for NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508), as well as in accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedure*,¹⁰ and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*.¹¹ Executive Order (EO) 13807, *Establishing Discipline and Accountability in the Environmental Review Process for Infrastructure Projects*, commonly referred to as One Federal Decision, and the Memorandum of Understanding (MOU) implementing EO 13807 apply to major infrastructure projects where the lead federal agency will prepare an EIS, and multiple authorizations by federal agencies will be required to proceed with construction. The FAA has

⁶ Airport Advisory Panel, *A 21st Century Airport for the State of New York: The New LaGuardia— A Report to the Governor from the Airport Advisory Panel: Guiding Principles for a Comprehensive Airport Master Plan*, July 2015.

⁷ The PFC program allows the collection of PFCs for every eligible passenger at commercial airports controlled by public agencies. PFCs must fund FAA-approved projects that preserve or enhance safety, security, or capacity; reduce noise; or increase air carrier competition. The FAA may grant authority to impose a PFC only if the FAA finds, on the basis of an application submitted by the public agency, that the amount and duration of the PFC will not result in excess revenues. As of April 2006, the FAA has approved a PFC of \$4.50 per passenger (the maximum amount possible) at LGA, allowing up to approximately \$1.5 billion to be collected for, among other projects, the Central Terminal Building modernization planning and engineering, rehabilitation of Runway 4-22, and security enhancement projects for the physical protection of terminal building frontages.

⁸ A lead agency shall supervise the preparation of an environmental impact statement if more than one Federal agency either: (1) Proposes or is involved in the same action; or (2) Is involved in a group of actions directly related to each other because of their functional interdependence or geographical proximity.

⁹ The NEPA review documented in this Draft EIS has been conducted under the regulations at 40 CFR Parts 1500-1508 in effect as of the issuance of the Notice of Intent on May 5, 2019. The Council on Environmental Quality issued a final rule to update the regulations implementing NEPA on July 16, 2020 (see 85 Federal Register 44303). These regulations, which take effect on September 14, 2020, apply to any NEPA process begun after that date.

¹⁰ US Department of Transportation, Federal Aviation Administration, Order 1050.1F, *Environmental Impacts: Policies and Procedures*, July 16, 2015.

¹¹ US Department of Transportation, Federal Aviation Administration, Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, April 28, 2006.

determined that the Proposed Action is a major infrastructure project¹² subject to EO 13807, requiring approvals by the FAA and other federal and state agencies with delegated authority, along with public involvement and input.

The FAA has identified and invited agencies with an interest in the project to serve as either cooperating or participating agencies.¹³ The Cooperating Agencies¹⁴ for this EIS are US Army Corps of Engineers, US Environmental Protection Agency, New York State Department of Transportation, New York State Department of Environmental Conservation, and New York State Office of Parks, Recreation, and Historic Preservation. The Participating Agencies¹⁵ for this EIS are Federal Emergency Management Agency, Federal Highway Administration, Federal Railroad Administration, Federal Transit Administration, National Marine Fisheries Service, US Department of Interior, Metropolitan Transportation Authority,¹⁶ New York City Department of City Planning, New York City Department of Environmental Protection, New York City Department of Parks and Recreation, and New York City Department of Transportation.

The FAA will also comply with applicable special purpose laws, EOs, and agency orders, including, but not limited to: Section 106 of the National Historic Preservation Act (NHPA); Section 7 of the Endangered Species Act; the Magnuson-Stevens Fishery Conservation and Management Act; Sections 10 and 14 of the Rivers and Harbors Act; Sections 401 and 404 of the Clean Water Act; Section 4(f) of the US Department of Transportation (DOT) Act; Section 6(f) of the Land and Water Conservation Fund Act; DOT Order 5610.2(a), *Environmental Justice in Minority and Low-Income Populations*; EO 12898, *Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*; EO 11990, *Protection of Wetlands*; DOT Order 5660.1A, *Preservation of the Nation's Wetlands*; EO 11988, *Floodplain Management*; and DOT Order 5650.2, *Floodplain Management and Protection*.

ES.2 PURPOSE AND NEED

ES.2.1 SUMMARY OF THE PURPOSE AND NEED

The Proposed Action is needed to address unpredictable and increasing travel times to and from LGA, while also addressing space constraints for employee parking. The Proposed Action would address the following:

- increasing and unreliable travel times between LGA and key locations within New York City;
- limited passenger and employee access to and from LGA, which is primarily via roadway access;

¹² Major infrastructure projects subject to Executive Order 13807 are projects for which "multiple authorizations" by federal agencies will be required to proceed with construction, the lead federal agency has determined that it will prepare an EIS, and "the project sponsor has identified the reasonable availability of funds sufficient to complete the project."

¹³ Cooperating and participating agencies are responsible for identifying, as early as practicable, any issues of concern regarding the potential environmental or socioeconomic impacts of the Proposed Action or any alternatives that could substantially delay or prevent an agency from granting a permit or other approval.

¹⁴ According to the CEQ regulations (specifically 40 CFR 1508.5), "Cooperating Agency" means any federal agency, other than a lead agency, that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposed project or project alternative. A state or local agency of similar qualifications or, when the effects are on lands of tribal interest, a federally recognized Native American tribe may, by agreement with the lead agency, also become a Cooperating Agency. CEQ also states that an agency may request the lead agency to designate it a Cooperating Agency (40 CFR 1501.6).

¹⁵ Participating Agencies are those with an interest in the project, but act in an advisory capacity and will not be exercising any decision-making authority.

¹⁶ Includes the three separate agencies of the MTA which are providing input on this EIS, including the Long Island Rail Road, New York City Transit, and the MTA Bus Company.

- traffic congestion on off-Airport roadways near the Airport, which contributes to Airport access travel times; and
- limited on-Airport options to provide adequate employee parking and areas for storage of equipment and materials for maintenance activities.

Today, regardless of transportation mode, passengers, employees, and visitors face increasing and unreliable travel times to and from LGA. Access to and from LGA is limited to on-road vehicles on surface roads and streets, such as the GCP, and lacks a direct rail connection to the NYCT subway system and the LIRR commuter rail. Travelers to the Airport who wish to use public transportation, including the subway or LIRR, must transfer to a bus to access the Airport. Overall, approximately 99 percent of passengers access the Airport via surface roads and streets. Because of congestion, travel times are unpredictable for automobiles, taxis, for-hire vehicles, and buses, and travel times vary between peak and non-peak periods of the day. Additionally, traffic volumes and consequent congestion and roadway travel times are expected to increase over time. As traffic levels, congestion, and delay increase on the roadway network around the Airport, travelers to the Airport will experience increased and more uncertain travel times, requiring LGA passengers to allow for extra time when planning their travel to and from the Airport.

Additionally, given land constraints, there are limited on-Airport options to provide adequate employee parking and areas for storage of equipment and materials needed to perform airfield maintenance activities. As activity increases, Airport property needs to be reserved for aviation uses that must be located adjacent to the air operations area (AOA).¹⁷ The Port Authority currently provides 1,500 parking spaces for employees in Lot P10, totaling approximately 560,000 square feet, directly adjacent to the AOA. Employee parking spaces are not required to be located near the AOA or on-Airport; therefore, a portion of these spaces could be provided elsewhere, leaving space available for other aviation support uses.

The purpose of the Proposed Action is to provide a time-certain transportation option that connects Airport passengers and employees to and from LGA, as travel times to and from the Airport continue to increase and become more unpredictable. Additionally, this transportation option should ensure adequate parking for Airport employees.

As part of the One Federal Decision process, written concurrence on the Purpose and Need for the Proposed Action is required by all cooperating agencies. A preliminary draft of the Purpose and Need statement was distributed to the cooperating agencies on March 22, 2019. Resolution of comments and a final concurrence on the Purpose and Need of the Proposed Action was achieved on April 5, 2019.

ES.2.2 PROPOSED ACTION

The Proposed Action includes the following components:

- An aboveground, elevated fixed guideway APM system with three APM stations (two on-Airport and one off-Airport) connecting the Airport to the NYCT Subway 7 Line and the Port Washington Branch of the LIRR commuter rail. The APM system would include:
 - passenger walkway systems connecting the APM stations to passenger terminals, parking garages, public transportation, and ground transportation facilities;

¹⁷ The AOA is the secure airfield that supports aircraft movement, aircraft parking, loading ramps, and safety areas.

- connections to the Airport Central Hall, Airport parking garage connector, and existing subway and LIRR stations to support the APM walkway system connections, including elevators, escalators, and stairs (that is, vertical circulation cores) to garage levels, terminals, and mass transit;
- an APM operations, maintenance, and storage facility (OMSF);
- three traction power substations (TPSSs) to provide electrical power to the APM system;
- Parking for Airport, APM, and MTA employees, as well as replacement Citi Field parking, located at the OMSF.
- Utilities infrastructure, both new and modified, to support the Proposed Action.
- A new Consolidated Edison (ConEdison) 27-kilovolt electrical industrial station located adjacent to the OMSF;
- Acquisitions of temporary and permanent easements on portions of certain parcels to facilitate construction of the Proposed Action; and
- Connected actions to allow construction of the Proposed Action, including:
 - temporary MTA bus storage/parking facility during construction of the OMSF;
 - relocation of up to 200 Citi Field parking spaces temporarily displaced during construction;
 - Passerelle Bridge replacement to accommodate the proposed off-Airport APM station;
 - operational improvements to the Mets-Willets Point LIRR Station (new shuttle service) and supporting physical improvements; and
 - relocation of World’s Fair Marina (Marina) facilities to accommodate the proposed APM guideway.

Exhibit ES-1 provides an overview of the Proposed Action, and **Exhibit ES-2** provides an overview of the connected actions sites.

The Proposed Action would not affect or change any airfield components, including the runways, taxiways, or aircraft arrival and departure procedures.

ES.2.3 TIMEFRAME OF THE PROPOSED ACTION

Construction of the Proposed Action is contingent upon project approvals, including the outcome of this NEPA process. Construction of the Proposed Action is expected to begin in August 2021 and is expected to be completed in November 2025. A timeline of the general phasing schedule for the construction of the Proposed Action is outlined as follows:

- Public property acquisition would begin in the second quarter of 2021.
- The initial stages of construction, beginning in August 2021, would focus on connected actions, including replacement of the Passerelle Bridge, relocation of the Marina facilities, improvements to Mets-Willets Point LIRR Station, and relocation and installation of new utilities infrastructure.
- Construction of the APM guideway and associated facilities would begin in January 2022 and conclude in November 2025. Construction activities during this timeframe would include the APM operating system and fixed facilities, consisting of the APM guideway, the three APM stations, and passenger walkways.
- Testing and commissioning of the APM operating system would begin in December 2024 and conclude in November 2025.
- Construction of the APM OMSF and Parking Structure would begin in January 2022 and conclude in summer 2025.



SOURCES: Nearmap, New York, July 2020 (aerial); Port Authority of New York and New Jersey, December 2019 (APM alignment, TPSS); Port Authority of New York and New Jersey, August 2020 (APM stations, OMSF and parking structure).

EXHIBIT ES-1



PROPOSED ACTION



SOURCES: Nearmap, New York, July 2020 (aerial); Port Authority of New York and New Jersey, 2020 (site locations); Ricondo & Associates, Inc., July 2020 (LIRR improvements).

EXHIBIT ES-2

**CONNECTED ACTIONS –
 SITE LOCATIONS**



The general sequence of construction developed for analysis in this EIS is based on concept-level information provided to the FAA by the Port Authority; however, the construction schedule is subject to change. For purposes of the EIS, FAA's Consultant Team for the EIS prepared a detailed construction schedule that identifies tasks and phasing for each construction activity by project component as extrapolated from the preliminary schedule provided by the Port Authority.

As the majority of the Proposed Action would be developed off-Airport in a densely developed metropolitan area, the Port Authority would coordinate construction phasing to minimize physical and operational impacts to existing non-Airport facilities. As such, this EIS includes potential impacts related to key stakeholders with property interests in the proposed area of construction.

The construction schedule provided by the Port Authority for the Proposed Action indicates the Proposed Action would be completed and the APM system would be operational in November 2025.

ES.2.4 REQUESTED FEDERAL ACTIONS

The federal action by the FAA is to provide determinations under 49 U.S.C. §§ 47106 and 47107 relating to the eligibility of the Proposed Action for federal funding under the Airport Improvement Program (AIP) and/or under 49 U.S.C. § 40117, as implemented by 14 CFR 158.25, to impose and use PFCs for the Proposed Action to assist with construction of potentially eligible development items shown on the Airport Layout Plan (ALP).

ES.3 ALTERNATIVES

An EIS discloses the environmental impacts that would result from implementation of the Proposed Action, the reasonable alternatives to the Proposed Action, and the No Action Alternative. The FAA has the responsibility to:

- rigorously explore and objectively evaluate all reasonable alternatives, and—for alternatives that were eliminated from detailed study—briefly discuss the reasons for their elimination;
- devote substantial treatment to each alternative considered in detail, including the proposed action, so that reviewers may evaluate the alternatives' comparative merits;
- include reasonable alternatives not within the jurisdiction of the lead agency;
- identify the no action alternative; and
- identify the agency's preferred alternative or alternatives.

Section ES.3 lists potential alternatives identified and considered, and it describes the process for screening the broader list of potential alternatives to determine which alternatives are reasonable. A two-step screening process was used to determine which alternatives would be carried forward for analysis of environmental consequences in the EIS.

ES.3.1 GENERAL DESCRIPTION OF ALTERNATIVES

As discussed in Section ES.1, the Port Authority, the MTA, and New York City agencies have conducted numerous studies over the last several decades to improve transit access to LGA. The alternatives presented in this EIS were originally identified through a literature review of those studies including a recent alternatives study¹⁸ conducted by

¹⁸ Port Authority of New York and New Jersey, *LGA Airport Access Improvement Project, Purpose and Objectives and Analysis of Alternatives Report*, October 2018.

the Port Authority; a total of 18 alternatives were identified from these previous studies. These alternatives were then subsequently informed and expanded upon through the EIS scoping process, including identification of new alternatives from the FAA and the public. Comments received during scoping identified the same or similar alternatives as those identified in previous studies, as well as 27 new alternatives. Two additional alternatives were identified by the FAA following review of the scoping materials.

Ten groups of alternatives were developed comprising 47 unique alternatives. The screening process described in Section ES.3.2 was used to determine which of these potential alternatives were reasonable, consistent with FAA Orders 1050.1F and 5050.4B, and CEQ regulations (40 CFR 1502.14) for implementing NEPA. A full list of the alternatives and the results of the screening process are presented at the end of Section ES.3.2.

ES.3.1.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, no supplemental access or improvements to existing access routes to LGA would occur. Therefore, Airport access would be generally consistent with existing conditions. Air passengers and employees would continue to access LGA using the same modes as they do today, which include automobiles (personal vehicles, rental cars, taxis, and for-hire vehicles), public buses, and shuttle buses. As a result of forecast¹⁹ increases in air passenger volumes, the overall traffic volumes on roadways near LGA would increase over time, resulting in more traffic congestion.²⁰ This, in turn, would result in longer travel times to LGA and would increase the volatility and unpredictability of travel times for LGA passengers and employees. Employee parking would likely remain in the same location on-Airport.

Furthermore, in the absence of the LGA Access Improvement Project, design and implementation of two actions would be undertaken by others. The No Action Alternative includes (1) improvements to be undertaken by the New York City Department of Parks and Recreation (NYC Parks) to the Passerelle Bridge between the Mets-Willets Point Subway Station and the Mets-Willets Point LIRR Station; and (2) improvements to be undertaken by the MTA to reconfigure portions of the Mets-Willets Point LIRR Station to extend existing platforms to accommodate 12-car trains and to ensure Americans with Disabilities Act (ADA) compliance.

ES.3.1.2 DIVERSION OF AIR TRAFFIC AT LGA

These alternatives would reduce the number of passengers using LGA by diverting air traffic away from LGA, which would reduce roadway network traffic to and from LGA. Two alternatives were evaluated: use of other airports and use of trains and buses.

ES.3.1.3 USE OF OTHER MODES OF TRANSPORTATION TO LGA

Three non-bus or non-rail modes of transportation that may provide feasible connections to LGA were identified and evaluated: ferry service, helicopter service, and gondola service.

¹⁹ The Port Authority developed a passenger forecast for LGA as part of the AirTrain Ridership Forecast (Port Authority of New York and New Jersey, *AirTrain LGA, LGA Ground Access Mode Choice Model and AirTrain Ridership Forecast 2025-2045*, October 2018).

²⁰ The forecasts for LGA were prepared and submitted to FAA prior to the COVID-19 public health emergency. The severity and duration of the contraction in aircraft operations and air travel are unknown at this time and cannot be reasonably estimated until more certainty regarding the re-opening of cities, states, and the United States is known. However, over the long term, it is expected that demand and airline capacity will grow in line with the US Gross Domestic Product (GDP), a relationship that has been in place since before airline deregulation in 1978. Thus, it is anticipated that passenger and airline activity in the short term will be lower than forecast, but that passenger and airline activity will recover with long-term forecasts potentially being realized later than stated in the passenger forecast for LGA.

ES.3.1.4 TRANSPORTATION SYSTEMS MANAGEMENT

These alternatives would include strategies to improve travel time on the bus routes that provide access to LGA.²¹ Improvements to these routes may include increased bus frequency, use of bus “queue jumpers” at select traffic signals (that is, short bus lane segments that have traffic signal priority, so that buses can bypass waiting queues of traffic), additional roadway sections of dedicated bus lanes, and express service for some of the buses. The Transportation Systems Management (TSM) alternatives included potential improvements to other bus service, such as increased frequency on routes from Corona and Flushing, new routes, modifications to Select Bus Service (SBS),²² or improved transfers. Three TSM alternatives were identified and evaluated.

ES.3.1.5 TRANSPORTATION DEMAND MANAGEMENT

This alternative consists of measures to reduce travel demand and, consequently, congestion, mainly focusing on strategies to reduce private automobile travel to and from the Airport. Options under this alternative would include the promotion of public transit, walking, bicycling, and carpools and van pools using some combination of the following strategies:

- provide secure bicycle parking;
- provide priority and/or reduced-fee parking for carpools or van pools;
- reduce demand for, or encourage the more efficient use of, taxis and other on-demand car services;
- promote mobile phone applications that encourage shared rides at Airport taxi stands and for on-demand car service;
- promote shared-ride services;
- promote bus and shuttle services; and
- increase on-Airport public parking rates.

For evaluation of this alternative, it was assumed that all strategies would be implemented.

ES.3.1.6 EMERGING TRANSPORTATION TECHNOLOGIES

These alternatives include emerging technologies for providing access to LGA. These are technologies that continue to evolve and may offer new transportation options in the future. Some of these technologies would require modifications to existing infrastructure, but others can be made available using existing or new rights-of-way. Two emerging transportation technologies alternatives were evaluated: transportation network companies (TNCs), such as Uber or Lyft; and autonomous vehicles.

²¹ The Metropolitan Transportation Authority is redesigning the bus network in Queens. The project was announced in April 2019 and is expected to begin implementation of the redesigned bus network in 2021.

²² Select Bus Service (SBS) provides a complementary service to the subway system by connecting neighborhoods to subway stations and major destinations. To improve reliability and service along these high-ridership corridors, a combination of tools are implemented, including off-board fare payment, bus lanes, traffic signal priority, and longer spacing between stops.

ES.3.1.7 OFF-AIRPORT ROADWAY EXPANSION

These potential alternatives focus on improvements to the existing roadways that provide access to LGA. Five off-Airport roadway expansion alternatives were identified and evaluated.

ES.3.1.8 SUBWAY EXTENSION

These potential alternatives would result in an extension of an existing NYCT subway line(s) to LGA and would include construction of a new subway station serving the terminals at LGA. The technology would be the same as the existing subway line.

Each of the potential subway extension alternatives would include the following components:

- stations – including platforms, stairwells, elevators/escalators, passageway, station agent booths (control area), and turnstiles;
- connections – including passenger walkway systems connecting a subway station at LGA to passenger terminals, parking garages, public transportation, and ground transportation facilities; and
- subway – including an extension of or branch from an existing subway line(s), tracks, signals, switches, and interlocking systems.

Additionally, it is assumed each subway extension alternative would include:

- Airport employee parking within walking distance (0.25 miles) of an existing subway station where the subway extension would originate;
- utilities infrastructure, both new and modified, to support each alternative; and
- enabling projects to allow construction of each alternative, including utility relocation, demolition of certain existing facilities (such as station platforms, tracks, switching), changes to existing subway schedule times, and addition of operating rollingstock (that is, in-service passenger equipment cars) to accommodate extended tracks and additional station stops, while maintaining the current MTA schedule.

Service on any of the subway extension alternatives would be operated by NYCT, with storage and maintenance of rail vehicles at existing NYCT rail yards.²³ Additionally, any changes in subway service plans would be subject to MTA Board approval. Seven subway extension alternatives were identified and evaluated.

ES.3.1.9 FIXED GUIDEWAY

A fixed guideway alternative would result in a new transit system that would operate between an off-Airport station with connections to the New York City subway and/or commuter rail and the Airport on a dedicated alignment. The system would be independent of the existing MTA subway, rail, and bus systems.

APMs are powered by electricity, operate on a fixed guideway, and are usually on an elevated alignment. The capacity of each car of an APM is dependent on the size of the car. APMs can be rubber-tire or steel wheel-steel rail APMs. One example of an APM is a Personal Rapid Transit (PRT) system. PRT systems are small, automated vehicles or pod cars, powered by electric battery, that operate on a fixed guideway, which is typically elevated, but can operate underground or at ground level. Each pod seats a small number of passengers. The cars serve stations and

²³ Ricondo & Associates, Inc., *Summary of LGA Access Improvement Project EIS, MTA Coordination Meeting*, February 13, 2019.

are on-call by passengers. Once boarded, the passenger inputs their destination and the car responds, traveling nonstop to the desired destination.

These technologies may include varied design specifications (for example, maximum vertical grades and turning radii, required support facilities, station size). A fixed guideway would be designed with the appropriate dimensions so that it would accommodate the range of technologies. Fixed guideway alternatives would need to include a yard for vehicle storage and a facility to maintain and repair vehicles.

At the off-Airport terminal station, passengers would connect between the new fixed guideway system and existing subway, bus, or commuter rail trains for the remainder of their trips. Pedestrian bridges and vertical circulation would be provided to ensure a convenient transfer between the modes.

Each of the potential fixed guideway alternatives would include the following components:

- stations, including platforms, vertical circulation (such as stairwells, elevators, escalators), passageways, station agent booths (control area), and turnstiles;
- connections, including passenger walkway systems connecting the fixed guideway station at LGA to passenger terminals, parking garages, public transportation, and ground transportation facilities;
- an elevated fixed guideway APM system that would be above grade and would connect the Airport to the NYCT subway, bus, and/or the MTA commuter rail;
- an OMSF; and
- TPSSs.

Additionally, it is assumed each fixed guideway alternative would include the following components:

- Airport employee parking within walking distance (0.25 miles) of where the fixed guideway would originate;
- utilities infrastructure, both new and modified, to support each alternative; and
- enabling projects to allow construction of each alternative, including utility relocation, demolition of certain existing LIRR/subway station facilities (such as station platforms, tracks, switching).

Twenty fixed guideway alternatives were identified and evaluated.

ES.3.1.10 RAIL

Rail alternatives would result in the construction of a new rail line that would operate between an off-Airport station with connections to the New York City subway and/or commuter rail and the Airport on a dedicated alignment. The system would operate on separate tracks with separate rail cars from the existing NYCT subway and LIRR. Each of the rail alternatives would have direct access to LGA with no intermediate stops. Three rail alternatives were identified and evaluated.

ES.3.2 SCREENING OF ALTERNATIVES

A two-step screening process was used to evaluate the list of potential alternatives to determine which of them are reasonable and should be carried forward for detailed environmental impact analysis:

- Step 1 – Would the alternative meet the Purpose and Need of the Proposed Action?

- Does the alternative provide a time-certain transportation option to LGA? For the response to be “yes,” the alternative must provide access to LGA on a specific schedule and using a dedicated right-of-way (that is, it would operate 24 hours per day and 7 days per week, be exclusively used by the transportation mode, and be separate from and not be affected by or affect on-road transportation or traffic).
 - Does the alternative provide supplemental access to LGA? For the response to be “yes,” the alternative can provide either a new mode of access to LGA or an increase in existing access (such as increased frequency of service or a modification in service that increases reliability).
 - Does the alternative provide the opportunity to reduce passenger vehicle trips to and from LGA on off-Airport roadways in the vicinity of the Airport without increasing roadway congestion? For the response to be “yes,” the potential for a reduction in the number of vehicle trips on roadways in the vicinity of LGA must occur. This is primarily a reduction in the number of vehicles used by passengers or employees. In addition, the alternative cannot directly result in any increase in roadway congestion on off-Airport roadways in the vicinity of the Airport.
 - Does the alternative provide adequate replacement Airport employee parking to enable efficient use of on-Airport space? For the response to be “yes,” the alternative must provide approximately 216,000 square feet²⁴ of surface or structured parking located off-Airport within walking distance (0.25 miles) of an access point that has direct access²⁵ to LGA. For any alternatives that require construction of an elevated OMSF, the parking is assumed to be included as part of that facility to reduce the footprint of development. For other alternatives where an elevated OMSF would not be required, the parking needs to be within walking distance of an access point for that alternative.
- Step 2 – Would the alternative be reasonable to construct and operate?
- Can the alternative be implemented without a material effect to major infrastructure, transportation facilities, or utilities? For the response to be “yes,” the alternative cannot result in a material effect to existing major transportation facilities (such as encroachment on a runway; shifting or removal of lanes on a major roadway; or a permanent reduction in subway, rail, or transit service), or existing major infrastructure (such as power generating or distribution facilities), or existing major utilities (such as water or sewer lines). A major transportation facility is an existing runway, subway or rail line, or a roadway that is classified by the New York State Department of Transportation as a principal arterial, a minor arterial, or a major collector.²⁶ The relocation or modification of major transportation facilities, infrastructure, or utilities would have a material effect if the relocation would result in disruption of services to large segments of the population. Additionally, such relocations or modifications could increase construction cost and extend construction

²⁴ The size of the parcel that accommodates parking is not required to be 216,000 square feet. The parcel needs to be of sufficient size to accommodate either 216,000 square feet of surface parking or 216,000 square feet of structured (for example, multi-level) parking. This square footage is based on the Port Authority need to free up space adjacent to the AOA in the existing employee Lot P10 to provide the flexibility required for efficient performance of routine maintenance activities.

²⁵ Direct access is achieved when the transportation method does not require transfers to reach a destination.

²⁶ With respect to roadway traffic, the *New York State Highway Design Manual* (Chapter 16, “Maintenance of Traffic”) requires that a traffic study be done to evaluate the impact of lane closures on traffic for major roadways. A project that would require closure for three or more days on major roads would be considered “significant,” which requires a Traffic Management Plan (TMP). The TMP has to evaluate a number of traffic mitigation measures for maintenance of traffic, including detours, off-peak closures, nighttime closures, etc. If the lane closure would result in significant traffic impacts, the New York State Department of Transportation would require that alternative means of construction be done or measures be enacted to mitigate the traffic impact. Therefore, the FAA assumes that closure of major roadways during peak periods would be unreasonable in comparison to alternatives that do not require such closures.

time in comparison to alternatives that do not affect these facilities. Therefore, the FAA determined that these types of impacts would constitute an alternative that is not practicable or feasible to implement.

- Can the alternative be implemented without affecting peak-hour subway, rail, and/or transit service during construction? For the response to be “yes,” the construction of the alternative cannot result in disruption to subway, rail, and/or transit service during peak travel times for any rail or subway lines or significantly interfere with MTA subway and/or bus operations. Affecting peak-hour subway, rail, and/or transit service or extended disruption of transit service could affect the daily lives of large segments of the population. Additionally, these effects could increase construction cost and extend construction time in comparison to alternatives that do not affect these elements. Therefore, the FAA determined that these types of impacts make an alternative unreasonable compared to alternatives that do not.
- Is the alternative reasonable to construct given cost considerations? For the response to be “yes,” the alternative cannot result in a cost that is more than two and a half times greater than the current \$2.05 billion estimated project cost. The costs being used for this analysis are based on the average costs²⁷ of other similar transportation projects.²⁸ The FAA has determined that a cost of more than two and a half times greater than the current estimated cost for the Port Authority’s proposed alternative is not reasonable.²⁹
- Can the alternative provide access to identified locations throughout the New York metropolitan area? For the response to be “yes,” the alternative must provide reasonable access to identified access points representative of the origin/destination locations for passengers and employees at LGA.³⁰ The origin/destination locations are transit stations selected based on annual ridership data.³¹ The station with the greatest ridership was selected as the representative access point for the geographic area. When annual ridership data were not available, representative access points were selected based on the largest number of transfers accessible at the location. Because it is not practical to require all passengers to travel to

²⁷ Costs are based on 2019 dollars and have been adjusted for the differences in construction costs where the transportation project is located in New York City. Other transportation projects that were used for determining average costs include subway extensions in New York City (Q Line beneath Second Avenue), Los Angeles, San Francisco, and Seattle. A cost of \$976.0 million per mile for an elevated subway or fixed guideway was used, and a cost of \$1.09 billion per mile for an underground subway or fixed guideway was used. (CityLab, “Why It’s So Expensive to Build Urban Rail in the U.S.,” January 26, 2018.)

²⁸ Costs are calculated on a straight, per-mile basis and only include construction of the actual transportation facility. Estimated costs do not include costs associated with land acquisition or modifications to other transportation facilities or utilities. Recognizing that the first screening criteria under Step 2 identified major utilities, roadways, etc. that would be impacted, addressing these impacts would result in cost increases. Since alternatives could be screened out based on those impacts, such additional costs do not need to be considered under this screening criteria as well.

²⁹ The FAA recognizes that a project that would cost twice as much as the Port Authority’s preferred alternative is probably not practical, but to be conservative, the FAA has considered costs up to 2.5 times greater to potentially be reasonable.

³⁰ Port Authority of New York and New Jersey, *AirTrain LGA, LGA Ground Access Mode Choice Model and AirTrain Ridership Forecast 2025-2045*, October 2018. The identified access points are representative of the origin/destination of approximately 84 percent of the origin/destination locations for passengers and employees at LGA. The 84 percent is derived by adding the percentages of passengers and employees from the following areas: Bronx, Brooklyn, Manhattan, Queens, and Long Island. The remaining 16 percent of passengers and employees come from further points (such as Upstate New York, Staten Island, New Jersey, Pennsylvania, and Connecticut) and would likely experience similar access issues to those alternatives that are not able to meet the criterion based on the identified access points. See Table 2-4 in Chapter 2.

³¹ Metropolitan Transportation Authority, *Annual Ridership Report, 2017*; Metropolitan Transportation Authority, *Long Island Annual Ridership Report, 2018*; Port Authority of New York and New Jersey, *World Trade Center Station*, <https://www.panynj.gov/path/wtc-station.html> (accessed on August 28, 2019).

Manhattan to use the alternative to access LGA, the FAA considers alternatives that have limited geographic connectivity to be unreasonable.

Each alternative was first evaluated in Step 1 to determine whether the alternative could achieve the Purpose and Need. Alternatives that would not meet all elements of the Purpose and Need were determined to be unreasonable and, therefore, were eliminated from further consideration. Each alternative that met all elements of the Purpose and Need was moved to Step 2 of the screening process to determine whether or not it would be reasonable to construct and operate. Alternatives that did not pass all Step 2 evaluation metrics were eliminated. The exception is the No Action Alternative, which is retained pursuant to NEPA as implemented by the CEQ Regulations. **Table ES-1** provides a list of each of the alternatives considered and summarizes the results of the alternatives screening evaluation.

As shown in Table ES-1, only one of the alternatives (Alternative 9A) both met the Purpose and Need and was considered to be reasonable to construct and operate. This alternative is the Proposed Action. The Proposed Action and the No Action Alternative are analyzed in detail in this EIS.

As part of the One Federal Decision process, written concurrence on the "Alternatives to be Carried Forward for Analysis" is required by all cooperating agencies. A preliminary draft of the alternatives screening process and evaluation was distributed to the agencies on September 20, 2019. Resolution of comments and a final concurrence on the Alternatives to be Carried Forward for Analysis was achieved on October 7, 2019.

In accordance with 40 CFR 1502.14(e), the FAA has identified the Proposed Action as its preferred alternative. The "agency's preferred alternative," as defined by CEQ is "the alternative which the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical and other factors."³² As disclosed in the Draft EIS, the FAA has conducted a thorough and independent analysis of alternatives considering its statutory mission and responsibilities with regards to transportation policy and has concluded that the Proposed Action best meets the stated Purpose and Need and the Port Authority's goals and objectives.

As part of the One Federal Decision process, written concurrence on the "Identification of the Preferred Alternative" is required by all cooperating agencies. The preliminary Administrative Draft EIS was distributed to the agencies on June 1, 2020, to document the FAA's rationale for selecting the Preferred Alternative. Concurrence on the Identification of the Preferred Alternative (the Proposed Action) was achieved on June 16, 2020.

³² Council of Environmental Quality, *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*, 46 Federal Register 18026, March 23, 1981. (Number 4a).

TABLE ES-1 (1 OF 3) SUMMARY OF ALTERNATIVES SCREENING EVALUATION

ALTERNATIVE	PASS ALTERNATIVE TO THE NEXT STEP		RETAINED FOR FURTHER ANALYSIS IN THE EIS?
	STEP 1	STEP 2	
1 No Action Alternative ¹	Yes ²	Yes ²	Yes ²
2 Diversion of Air Traffic at LGA Alternatives	-	-	-
2A Use of Other Airports Alternative ¹	No		No
2B Use of Trains and Buses Instead of Air Travel Alternative	No		No
3 Use of Other Modes of Transportation to LGA Alternatives	-	-	-
3A Ferry Service Alternative ¹	No		No
3B Helicopter Service Alternative	No		No
3C Gondola Service Alternative	Yes	No	No
4 Transportation Systems Management (TSM) Alternatives	-	-	-
4A Modify the Q48 Bus Route and the Q23 Bus Route to enter LaGuardia Airport at 94th Street Alternative	No		No
4B Revise M60 Bus Route to Only Travel Between LGA and 125th Street Metro North Station Alternative	No		No
4C Provide Free Bus Service on the Q70 Bus Route Alternative	No		No
5 Transportation Demand Management Alternatives ¹	No		No
6 Emerging Transportation Technologies Alternatives	-	-	-
6A Transportation Network Companies Alternative ¹	No		No
6B Autonomous Vehicles Alternative ¹	No		No
7 Off-Airport Roadway Expansion Alternatives	-	-	-
7A Additional Traffic Lanes on Grand Central Parkway Alternative ¹	No		No
7B Dedicated Bus Lanes to Q70 Bus Route Alternative	No		No
7C Dedicated Bus Lanes from Roosevelt Avenue via Junction Boulevard and 94th Street Alternative	No		No
7D Dedicated Bus Route from Mets-Willets Point Subway Station via Roosevelt Avenue and Grand Central Parkway Alternative	No		No
7E Elevated Busway from Mets-Willets Point Subway Station via Roosevelt Avenue and Flushing Bay Promenade Alternative	No		No
8 Subway Extension Alternatives	-	-	-
8A From Astoria Boulevard Subway Station: Elevated Above Astoria Boulevard and Grand Central Parkway Alternative ¹	Yes	No	No
8B From Astoria-Ditmars Boulevard Subway Station: Elevated Above 31st Street and 19th Avenue Alternative ¹	Yes	No	No

TABLE ES-1 (2 OF 3) SUMMARY OF ALTERNATIVES SCREENING EVALUATION

ALTERNATIVE	PASS ALTERNATIVE TO THE NEXT STEP		RETAINED FOR FURTHER ANALYSIS IN THE EIS?
	STEP 1	STEP 2	
8C From Astoria-Ditmars Boulevard Subway Station: Tunnel Beneath 31st Street and 19th Avenue Alternative ¹	Yes	No	No
8D From Astoria-Ditmars Boulevard Subway Station: Elevated Above Ditmars Boulevard and Grand Central Parkway Alternative	Yes	No	No
8E From 36th Street Subway Station: Tunnel Beneath Steinway Street and Grand Central Parkway Alternative	Yes	No	No
8F From Roosevelt Avenue-Jackson Heights Subway Station: Elevated Above 82nd Street and Grand Central Parkway Alternative	Yes	No	No
8G From Mets-Willets Point Subway Station: Elevated Above Roosevelt Avenue and Flushing Bay Promenade Alternative	Yes	No	No
9 Fixed Guideway Alternatives	–	–	–
9A From Willets Point Station ³ via Roosevelt Avenue and Flushing Bay Promenade Alternative (Port Authority Proposed Alternative) ¹	Yes	Yes	Yes
9B From Willets Point Station ³ via Roosevelt Avenue and Grand Central Parkway Alternative ¹	Yes	No	No
9C From Willets Point Station ³ via Roosevelt Avenue and Flushing Bay Promenade with a Ferry Stop Alternative	Yes	No	No
9D From Willets Point Station ³ via Long Island Rail Road Right-of-Way and Flushing Bay Promenade Alternative ¹	Yes	No	No
9E From Willets Point Station ³ via Long Island Rail Road Right-of-Way and Grand Central Parkway Alternative ¹	Yes	No	No
9F From Willets Point Station ³ via 126th Street and Grand Central Parkway Alternative	Yes	No	No
9G From Willets Point Station ³ via 126th Street and Across Flushing Bay Alternative	Yes	No	No
9H From Willets Point Station ³ via 126th Street and Flushing Bay Promenade Alternative	Yes	No	No
9I From Northern Boulevard via Willets Point Station ³ , Roosevelt Avenue, and Flushing Bay Promenade Alternative	Yes	No	No
9J From Jamaica Station Transportation Hub via Van Wyck Expressway, Grand Central Parkway, and Flushing Bay Promenade Alternative ¹	Yes	No	No
9K From Woodside LIRR/61st Street-Woodside Subway Station via an Existing Rail Right-of-Way, Brooklyn Queens Expressway, and Grand Central Parkway Alternative ¹	Yes	No	No
9L From Roosevelt Avenue-Jackson Heights Subway Station via Broadway, Brooklyn Queens Expressway, and Grand Central Parkway Alternative ¹	Yes	No	No
9M From Woodside LIRR/61st Street-Woodside Subway Station and Roosevelt Avenue-Jackson Heights Subway Station via Roosevelt Avenue, Broadway, Brooklyn Queens Expressway, and Grand Central Parkway Alternative	Yes	No	No
9N From Astoria Boulevard Subway Station via Astoria Boulevard and Grand Central Parkway Alternative ¹	Yes	No	No
9O From Hunterspoint Avenue LIRR Station via Existing Rail Right-of-Way, 31st Street, Brooklyn Queens Expressway, and Grand Central Parkway Alternative	Yes	No	No

TABLE ES-1 (3 OF 3) SUMMARY OF ALTERNATIVES SCREENING EVALUATION

ALTERNATIVE	PASS ALTERNATIVE TO THE NEXT STEP		RETAINED FOR FURTHER ANALYSIS IN THE EIS?
	STEP 1	STEP 2	
9P From Sunnyside Yards via Existing Rail Right-of-Way, Steinway Street, and Grand Central Parkway Alternative	Yes	No	No
9Q From Northern Boulevard Subway Station via Broadway, Steinway Street, and Grand Central Parkway Alternative	Yes	No	No
9R Through Line Connecting Willets Point Station ³ , LaGuardia Airport, and Woodside LIRR/61st Street-Woodside Subway Station via Roosevelt Avenue, Grand Central Parkway, Brooklyn Queens Expressway, and an Existing Rail Right-of-Way Alternative	Yes	No	No
9S Through Line Connecting Woodside LIRR/61st Street-Woodside Subway Station and Roosevelt Avenue-Jackson Heights Subway Station via Broadway, Roosevelt Avenue, an Existing Rail Right-of-Way, Brooklyn Queens Expressway, and Grand Central Parkway Alternative	Yes	No	No
9T Through Line Connecting Willets Point Station ³ , LaGuardia Airport, and Astoria-Ditmars Boulevard Subway Station via Roosevelt Avenue, Grand Central Parkway, 19th Avenue, and 31st Street Alternative	Yes	No	No
10 Rail Alternatives	–	–	–
10A Underground from Sunnyside Yards via Brooklyn Queens Expressway and Grand Central Parkway Alternative	Yes	No	No
10B Underground from Midtown Manhattan via Tunnel Beneath East River Alternative	Yes	No	No
10C Underground from Upper East Side Manhattan via New Tunnel Beneath East River Alternative	Yes	No	No

NOTES:

– Not applicable

EIS – Environmental Impact Statement

LGA – LaGuardia Airport

LIRR – Long Island Rail Road

TSM – Transportation Systems Management

1 Alternative provided by the Port Authority of New York and New Jersey.

2 Required to be included per 40 CFR 1502.14(d).

3 For the alternatives that have the origin station between the Mets-Willets Point Subway Station (serving the 7 Line) and the Mets-Willets Point LIRR Station, this location is referred to as the Willets Point Station.

SOURCE: Ricondo & Associates, Inc., March 2020.

ES.4 IDENTIFICATION OF STUDY PARAMETERS

ES.4.1 STUDY AREAS

Two study areas were defined for the purposes of assessing the potential direct and indirect effects of the Proposed Action and the No Action Alternative on environmental resources:

- The **Direct Study Area** was identified as the limit of physical ground disturbance for components of the Proposed Action, including connected actions, for the purposes of assessing potential effects on environmental resources associated with construction. The Direct Study Area includes the APM guideway along the southeast border of the Airport, following the GCP to the southern extent of Flushing Bay (including the Marina facilities and the Flushing Bay Promenade), to the Mets-Willets Point Subway and LIRR Stations. The Direct Study Area also includes the limits of physical ground disturbance for the APM stations and the APM OMSF, as well as the permanent and temporary stormwater outfalls, and the utility relocations for both the APM system and

connected actions. Areas of connected actions within the Direct Study Area include the existing and proposed sites of the Marina facilities, the areas surrounding the Passerelle Bridge, improvements to the Mets-Willets Point LIRR Station along the LIRR right-of-way between 108th Street and College Point Boulevard, two options for two temporary Citi Field parking areas in Willets Point, and the temporary MTA bus storage/parking facility at the MTA/Tully Site. The Direct Study Area also includes the existing construction staging area known as Ingraham's Mountain and the existing LGA employee parking Lot P10.

- The **General Study Area** was defined to encompass the overall area containing all components of the Proposed Action for purposes of assessing potential operational effects of the APM system on environmental resources. The General Study Area encompasses approximately 700 acres, which includes and expands the extent of the Direct Study Area. The General Study Area includes the Direct Study Area, as well as adjacent neighborhoods in Queens (East Elmhurst, North Corona, Corona, Willets Point, and Ditmars- Steinway), Citi Field, Flushing Meadows-Corona Park, and portions of LGA and Flushing Bay.

In order to fully assess the effects associated with construction and operation of the Proposed Action, the analyses of some resources require a larger study area extending beyond the study areas defined above, including Air Quality and Climate (defined as the region); Noise and Vibration, Socioeconomics, and Environmental Justice (Extended Study Area); and Surface Transportation/Traffic (Traffic Study Area). Study areas used for analyses of these resources are discussed in their respective sections of the EIS.

ES.4.2 ANALYSIS YEARS

The baseline year to assess existing environmental conditions is 2018, the last full year for which data were available at the time this analysis was initiated; however, more current data were used for resources in which they were available or collected. The assumed construction schedule indicates the Proposed Action would be completed and the APM system would be operational in November 2025. Many resource categories require the results of analyses to be presented in full calendar year increments. With the APM system scheduled to commence operation in November 2025, the first full year of operations would be 2026. Accordingly, 2026 was selected as the opening analysis year even though the system is projected to be operational for some part of 2025. The EIS also evaluates a future 5-year look ahead, identified as 2031 for the Proposed Action.

ES.4.3 RIDERSHIP FORECAST

Two studies were completed for the Proposed Action in order to assess potential ridership of the proposed APM. The first ridership study³³ was prepared by the Port Authority in October 2018 for future years 2025³⁴ and 2045. A second ridership study³⁵ was prepared by the FAA's Consultant Team for the EIS to provide an independent analysis. Both studies identify the percentage of trips and annual passengers that may potentially shift from other current means of accessing LGA (also known as travel modes) to using the proposed APM. These two forecasts were used throughout the EIS to assess a range of impacts based on the projected ridership. The ridership forecast prepared for the EIS, which was finalized in August 2020, included development of an independent forecast for future years 2026 and 2031, corresponding to the future analysis years. **Table ES-2** identifies the projected daily and annual ridership for air passengers and employees under both forecasts for 2026 and 2031.

³³ Port Authority of New York and New Jersey, *AirTrain LGA: LGA Ground Access Mode Choice Model and AirTrain Ridership Forecast 2025-2045*, October 2018.

³⁴ At the time the Port Authority developed its forecast, preliminary construction schedules indicated a potential opening of the system as early as 2025.

³⁵ RSG, *LaGuardia Access Improvement Project EIS Ridership Forecast and Forecast Review*, March 31, 2020.

TABLE ES-2 AVERAGE AUTOMATED PEOPLE MOVER PASSENGERS FORECAST

	PORT AUTHORITY		FAA	
	2026 ¹	2031 ¹	2026	2031
Daily APM Passengers				
Air Passengers	13,167	14,173	9,173	9,891
Employees	3,945	4,098	3,945	4,098
Total Daily APM Passengers	17,112	18,271	13,117	13,989
Annual APM Passengers (millions)				
Air Passengers	4.8	5.1	3.3	3.6
Employees	1.4	1.5	1.4	1.5
Total Annual APM Passengers (millions)	6.2	6.7	4.8	5.1

NOTES:

APM – Automated People Mover

FAA – Federal Aviation Administration

1 Port Authority forecasts for 2026 and 2031 were interpolated based on the Port Authority 2025 and 2045 forecasts using a straight-line method. Forecasts of inter-terminal rides were excluded from the forecasts presented here.

SOURCE: RSG, *LaGuardia Access Improvement Project EIS Ridership Forecast and Forecast Review*, March 31, 2020.

As shown in Table ES-2, it is estimated between approximately 3.3 and 4.8 million annual air passengers in 2026 and between approximately 3.6 and 5.1 million annual air passengers in 2031 would use the proposed APM. It is also projected that approximately 27 percent of Airport employees would use the APM, which would equate to approximately 1.4 million Airport employee passengers in 2026 and approximately 1.5 million Airport employee passengers in 2031. Therefore, the total projected annual APM passengers would be between approximately 4.8 and 6.2 million in 2026 and between approximately 5.1 and 6.7 million in 2031.

FAA acknowledges the current impacts of the recent social response to the COVID-19 public health emergency and the resulting decline in aviation and transit travel demand. At this time, it is impossible to precisely predict future changes to projected ridership and impacts that may result from a COVID-19 public health emergency response of an unpredictable nature and unknown duration. The Proposed Action is planned to commence construction in 2021 and would be operational by the end of 2025. The future ridership analysis presented in the Draft EIS represents a reasonable indication of APM market potential based on pre-COVID-19 aviation and transit travel demand, LGA ground access, and regional land use patterns that can still reasonably be expected to occur as the economy recovers.

ES.5 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The affected environment and environmental consequences present the existing conditions and environmental impacts of implementing the Proposed Action for the environmental impact categories identified in FAA Order 1050.1F.

ES.5.1 AFFECTED ENVIRONMENT

The affected environment describes and documents the geographic areas potentially affected, directly or indirectly, by the Proposed Action; the applicable federal, state, and local regulations pertinent to the environmental subject matter; environmental resources that would not be affected by the Proposed Action; the methodologies used to establish existing conditions; and existing conditions for potentially affected resources.

The General Study Area encompasses approximately 700 acres and comprises land areas to the west and southeast of LGA, supporting a mix of open space and outdoor recreation, residential, commercial, industrial, manufacturing, transportation, and other land uses. Vegetation in the General Study Area comprises sparse shoreline species along Flushing Bay, with typical urban species inland. The General Study Area has limited terrestrial wildlife habitat, and that habitat is surrounded by developed infrastructure.

An Extended Study Area was identified to assess potential noise and socioeconomic, environmental justice, and children's environmental health and safety risks impacts associated with increased rail shuttle service on aboveground portions of the LIRR Port Washington Branch between the Mets-Willets Point LIRR Station and the LIRR Hudson Yards Western Rail in Manhattan. The entirety of the General Study Area and the majority of the Extended Study Area is in Queens County, which has the second-largest economy of the five New York City boroughs and is the most economically diverse with major employment in the health care, retail trade, manufacturing, construction, transportation, and film and television production sectors. In 2018, the median household income and per capita income in the General Study Area were lower than that of the Extended Study Area, the state, the City, and Queens County and substantially lower than New York County. The percentage of population below the federal poverty level in the General Study Area was lower than New York City but higher than the Extended Study Area, New York County, New York State, and Queens County. In 2018, the General Study Area accommodated approximately 16,500 housing units and approximately 46,400 residents, and the Extended Study Area accommodated approximately 100,000 housing units and approximately 258,000 residents. The number of persons per household in the General Study Area is higher than the Extended Study Area, the state, the City, Queens County, and New York County. Due to the comparatively higher minority population within the General Study Area and the Extended Study Area, ranging from 67 to 80 percent compared to approximately 45 percent for the state, the General Study Area and the Extended Study Area can each be characterized as a minority environmental justice population. In the General Study Area, approximately 23 percent of the population is under 18, and approximately 20 percent of the population is under 18 in the Extended Study Area. These rates are comparable to New York State (21 percent), New York City (21 percent), and Queens County (20 percent).

The main access to and from LGA is from the GCP, an eight-lane roadway that handles approximately 180,000 vehicles per day; secondary access is provided from the Whitestone and Van Wyck Expressways. In 2018, a number of freeway segments and intersections in and around LGA operated at Levels of Service (LOS) of E or F (poor or failing) conditions.

A majority of the General Study Area lies within the New York City coastal zone boundary. The nearest surface water bodies are Flushing Bay and Flushing Creek, both of which are partially within the General Study Area and both of which have associated tidal wetlands. The Waterfront Revitalization Program of 1982 (WRP) sets forth five types of special area designations, two of which are present within the General Study Area: East River / Long Island Sound Special Natural Waterfront Area (SNWA) and Priority Marine Activity Zone (PMAZ). Approximately 360 acres of the General Study Area are located within the 100-year floodplain, with the majority of that acreage being on the north and east sides of the General Study Area, adjacent to Flushing Bay, Flushing Creek, and Bowery Bay.

The following publicly owned parks and recreation areas are located within the General Study Area: Flushing Meadows-Corona Park; Hinton Park and the Louis Armstrong Playground; and Overlook Park; and the GCP. The grassy medians and landscaped sections of the GCP are considered parkway under the jurisdiction of NYC Parks but would not be subject to DOT Section 4(f) per Federal Highway Administration (FHWA) guidance. Portions of Flushing Meadows-Corona Park have been improved with Land and Water Conservation Fund Act (LWCF Act) funds, including construction of the Playground for All Children, athletic field enhancements as a part of a multi-site, borough-wide ballfields project, and park bench improvements made through a City-wide program.

In compliance with Section 106 of the NHPA, the FAA consulted with the State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), federally recognized Native American Tribes with an interest in the area, local governments, and other consulting and interested parties to develop the Area(s) of Potential Effects (APE); identify historic properties listed or eligible for listing in the National Register of Historic Places (NRHP); assess project effects; and determine avoidance, minimization, or mitigation efforts to resolve any adverse effects on historic properties. To evaluate the potential for direct or indirect effects, the FAA has established two separate APEs³⁶ for the Proposed Action. The APE-Archaeology was defined to assess the direct effects of the Proposed Action to below-ground archaeological resources and includes all locations where construction and operation of the Proposed Action may result in potential direct physical impacts. The APE-Archaeology was assessed as having low archaeological sensitivity. It was concluded that the APE-Archaeology has been heavily altered as a result of filling, grading, demolition of older buildings and facilities, and construction of the Airport, highways, buried utilities, signage and infrastructure, Citi Field, and other urban development. The APE-Architecture was defined for above-ground architectural resources and includes all locations where the Proposed Action may result in either direct or indirect effects. As such, the APE-Architecture extends beyond the actual construction limits to include those properties that may experience visual changes, changes in patterns of use, or changes in historic character associated with the construction or operation of the Proposed Action. The FAA (with SHPO concurrence) identified 12 historic properties as eligible for listing in the NRHP, as outlined in **Table ES-3**. Five of the properties are individually eligible for listing, and seven are eligible as a contributing element to the Flushing Meadows-Corona Park Historic District.

TABLE ES-3 IDENTIFIED HISTORIC PROPERTIES

NAME	NRHP ELIGIBILITY
105-19 Ditmars Boulevard	Individually Eligible
105-33 Ditmars Boulevard	Individually Eligible
106-18 27th Avenue	Individually Eligible
Flushing Meadows-Corona Park Historic District	Individually Eligible
Passerelle Bridge	Eligible – Contributing to Flushing Meadows-Corona Park Historic District
Pavilion on the Passerelle Bridge (over the LIRR)	Eligible – Contributing to Flushing Meadows-Corona Park Historic District
Main Gate Entrance	Eligible – Contributing to Flushing Meadows-Corona Park Historic District
Passerelle Buildings at Main Entrance	Eligible – Contributing to Flushing Meadows-Corona Park Historic District
Concrete Arches	Eligible – Contributing to Flushing Meadows-Corona Park Historic District
Paint Shed	Eligible – Contributing to Flushing Meadows-Corona Park Historic District
Maintenance Building	Eligible – Contributing to Flushing Meadows-Corona Park Historic District
Porpoise Bridge (Tidal Gate Bridge) – BIN 2270690 ¹	Individually Eligible and Key Contributing Element to Flushing Meadows-Corona Park Historic District

NOTES:

LIRR – Long Island Rail Road

NRHP – National Register of Historic Places

1 The Porpoise Bridge is both individually eligible and a key contributing element to the Flushing Meadows-Corona Park Historic District. It is currently slated for demolition and reconstruction as part of a separate, unrelated federal undertaking.

SOURCE: Richard Grubb & Associates, Inc., *Historic Architecture Reconnaissance Survey, LaGuardia Access Improvement Project*, October 2019.

In general, the noise setting within the Extended Study Area is dominated by transportation facilities. Areas around LGA are primarily influenced by aircraft operations (takeoffs and landings). Roadway noise within the Extended Study Area is generated by vehicles traveling on major freeways, including the GCP, the Brooklyn Queens Expressway, the Whitestone Expressway, and the Van Wyck Expressway, and on major arterials, including but not limited to Northern

³⁶ Although not required, for the LGA Access Improvement Project, the APE-Archaeology corresponds to the Direct Study Area and the APE-Architecture corresponds to the General Study Area.

Boulevard, Queens Boulevard, Roosevelt Avenue, Junction Boulevard, and Astoria Boulevard. Noise from existing train operations, including the LIRR and the 7 Line, also contribute to the noise setting within the Extended Study Area. Noise-sensitive receptors within the Extended Study Area include residential uses, schools, places of worship, parks, and library uses in East Elmhurst, Elmhurst, Ditmars-Steinway, North Corona, Woodside, Sunnyside, and Jackson Heights. It should also be noted that construction activities associated with the LGA Redevelopment Program would be ongoing and the associated noise and vibration of that construction was considered in this analysis.

The use, handling, and storage of hazardous materials, as well as existing contaminated sites, are present throughout the General Study Area. Activities associated with hazardous materials include Airport operations; LIRR operations; operations and maintenance of NYCT subway and commuter trains and buses; and industrial, automotive, manufacturing, and commercial businesses in the Willets Point area. Recognized environmental conditions within the General Study Area include non-indigenous (historic) fill; current and historical industrial operations, on-site solid and hazardous waste accumulation, ground water contamination, and vapor encroachment conditions within the Willets Point area; current industrial operations at and around the Marina facilities; current and historical railroad operations; and current and historical aviation operations at LGA.

The visual character of the General Study Area is a highly urbanized environment within New York City, characterized as a high ambient light environment that results in skyglow, which is a brightening of the night sky over inhabited areas. Typical visual elements and sources of light emissions in the General Study Area include at-grade, elevated, and structural transportation infrastructure (the Airport; roadways, including the GCP; public transit rail and transit stations; parking facilities for the Airport and Citi Field), parks and associated points of interest (the Flushing Bay Promenade, Citi Field, the Marina facilities, Passerelle Bridge, Flushing Meadows-Corona Park, and the National Tennis Center), residential areas, and industrial and commercial facilities.

The General Study Area includes portions of Flushing Bay and Flushing Creek (which flows into Flushing Bay). These waterways are saline surface waters that are suitable for secondary contact recreation, fishing, fish propagation, and fish survival.³⁷ In a highly urbanized watershed, such as the one present in the General Study Area, water quality and aquatic habitats are impaired as a result of development that results in irreversible changes to the watershed. Approximately 8.87 acres of aquatic resources, comprising 7.9 acres of tidal wetlands and 0.97 acres of freshwater wetlands, were delineated in Flushing Bay and Flushing Creek. Approximately 4.11 acres of aquatic resources were delineated at the Marina and approximately 4.66 acres of aquatic resources were delineated adjacent to the NYCT Corona Maintenance Facility. Approximately 0.1 acres of aquatic resources were delineated at the Flushing Meadows-Corona Park Site.

ES.5.2 ENVIRONMENTAL CONSEQUENCES

Environmental consequences describes the methodologies and significance thresholds³⁸ used to evaluate impacts; identifies the impacts due to construction and operation of the Proposed Action compared to the No Action Alternative; and identifies mitigation, avoidance, and minimization measures. The environmental consequences evaluation considers the direct, indirect, and cumulative effects of project implementation. Direct effects are those caused by the Proposed Action; they occur at the same time and place and include those that may result from

³⁷ New York City Department of Environmental Protection, *Flushing Bay Facility Plan Report*, August 2011.

³⁸ The FAA uses thresholds that serve as specific indicators of significant impact for some environmental resource categories. Quantitative significance thresholds do not exist for all environmental resource categories; however, consistent with the CEQ regulations, the FAA has identified factors that should be considered in evaluating the context and intensity of potential environmental impacts.

physical disturbance of an environmental resource. Indirect effects are those caused by the Proposed Action but they are later in time or farther removed in distance but are still reasonably foreseeable, including growth-inducing and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air quality, noise, or water and visual resources. Cumulative effects are those effects that result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions.

Table ES-4 summarizes the environmental resource categories analyzed as part of this analysis; potential environmental impacts conclusions; and mitigation, avoidance, and minimization measures.

ES.5.2.1 CUMULATIVE IMPACTS

Cumulative impacts to environmental resources result from the incremental effects of a proposed action when combined with other past, present, and reasonably foreseeable future actions in the area, regardless of the entity (in other words, federal or non-federal) or person that would carry out those actions. In some cases, individually minor but collectively significant actions occurring over a defined period of time can cause cumulative impacts. In accordance with NEPA,³⁹ past, present, and reasonably foreseeable future projects were identified within the immediate vicinity of the Proposed Action. Significance findings in Table ES-4 for each resource category include consideration of cumulative impacts.

ES.5.2.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

An irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be recovered or reversed. Examples include permanent conversion of wetlands and loss of cultural resources, soils, wildlife, agricultural production, or socioeconomic conditions. The losses are permanent. Irreversible is a term that describes the loss of future options. It applies primarily to the impacts of use of nonrenewable resources, such as minerals or cultural resources, or to those factors, such as soil productivity, that are renewable only over long periods of time. Irretrievable is a term that applies to the loss of production, harvest, or use of natural resources.

Construction of the Proposed Action would require a commitment of resources, which would be short-term, temporary increases in the consumption of energy in the form of electricity and transportation-related fuels, as well as supplies of natural resources, including water, sand, asphalt, aggregate, wood, and cement. Additionally, the Proposed Action would require the commitment of construction labor, which is generally nonrenewable and irretrievable. However, commitment of these resources would not be considered significant. The demand for nonrenewable resources, such as petroleum products or typical construction materials, would not exceed current or future supplies and, therefore, would not constitute an irreversible or irretrievable commitment of resources. However, construction of the Proposed Action would result in the irreversible loss of the Passerelle Bridge, a contributing element to the Flushing Meadows-Corona Park Historic District, and the Pavilion on the Passerelle Bridge (over the LIRR). While the Main Gate Entrance and the Passerelle Buildings at Main Entrance would be adversely affected by the Proposed Action, these resources would not be lost. Construction of the Proposed Action would also impact 0.08 acres of wetlands, which would be irretrievably lost.

³⁹ The NEPA review documented in this Draft EIS has been conducted under the regulations at 40 CFR Parts 1500-1508 in effect as of the issuance of the Notice of Intent on May 5, 2019. The Council on Environmental Quality issued a final rule to update the regulations implementing NEPA on July 16, 2020. These regulations, which take effect on September 14, 2020, apply to any NEPA process begun after that date.

The Proposed Action would increase electricity usage at LGA by approximately 24 percent over 2018 consumption and it may also include on-site renewable energy using solar photovoltaic (PV) arrays, if the Port Authority determines they are technically feasible and the FAA determines they do not interfere with operations. Solar PV arrays could potentially offset a portion of the energy needs of the Proposed Action.⁴⁰ The Proposed Action would increase natural gas consumption at LGA by approximately 4 percent and would increase potable water demand by approximately 1.1 percent.

The Proposed Action would impact the visual character of the General Study Area, particularly for the residences overlooking the GCP. The Proposed Action would partially obstruct and contrast with views of Flushing Bay from the residences, which would be an irretrievable impact to those residents.

ES.6 COORDINATION AND PUBLIC NOTIFICATION

A public and agency consultation process was employed throughout the preparation of this EIS. The FAA considered all comments received as part of the consultation process and has incorporated comments as appropriate into the development of the Draft EIS. The FAA will also consider comments received on the Draft EIS in preparation of the Final EIS. Coordination and public notification efforts included the following:

- **Pre-Scoping** – A pre-scoping process was conducted to provide the opportunity for public and agency participation in developing the scope of the EIS. The FAA held an initial interagency meeting on August 23, 2018, and the FAA and the FAA’s Consultant Team for the EIS held a series of meetings with federal, state, and local resource agencies on February 12 and 13, 2019, and April 17, 2019.
- **Notice of Intent** – Publication of the Notice of Intent in the *Federal Register* on May 3, 2019, formally announced the FAA’s intent to prepare an EIS for the proposed project and initiated the environmental review process. The FAA published notices in local newspapers between May 3 and May 9, 2019.
- **Native American and Tribal Consultation** – As part of Section 106 consultation, the FAA identified and initiated consultation with 13 Native American Tribes as regular consulting parties and entities with a demonstrated interest in historic preservation. Four tribes, Delaware Nation, Delaware Tribe, Shinnecock Indian Nation, and Stockbridge-Munsee Community of Mohican Indians of Wisconsin, committed to consulting with the FAA for the Proposed Action.

⁴⁰ To provide a conservative assumption, any reduction in nonrenewable energy use associated with on-site solar generation was not accounted for in the analyses.

TABLE ES-4 (1 OF 7) SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

RESOURCE CATEGORY	IMPACT POTENTIAL	DISCUSSION	MITIGATION MEASURES
Air Quality	No significant impacts	Temporary effects during construction, but the change in emissions would not exceed <i>de minimis</i> thresholds; would result in a net overall reduction in operational emissions.	None required, but the Port Authority would implement best practices as identified in its <i>Sustainable Design Guidelines</i> . ¹
Biological Resources	No significant impacts	Determinations by US Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) that the Proposed Action <i>may affect, but is not likely to adversely affect</i> special status species or Essential Fish Habitat (EFH).	Measures that would be used to mitigate the impacts of dredging and pile-driving include: <ul style="list-style-type: none"> ▪ A mechanical dredge with a closed environmental clamshell bucket; ▪ the use of a turbidity curtains to control the dispersal of sediment into the water column; ▪ the use of less impactful vibratory or cushioned impact hammers for in-water pile-driving; ▪ observance of the fisheries’ time-of-year restrictions, including dredging activities and associated construction noise impacts would be avoided between January 1 and May 31 when winter flounder eggs and larvae may be present in the General Study Area; ▪ monitoring for sediment plumes; ▪ dredged sediment would need to be handled, stored, and disposed of in accordance with all applicable, health, safety, and sediment and waste management plans and protocols; ▪ placement below gunwales, no free falling of buckets, no hosing of gunwales during dredging, and no barge overflow requirements; and ▪ bucket hoist speed restrictions.
Climate	No significant impacts	Would not be a significant contributor to climate change as the Proposed Action would result in a net overall reduction in operational greenhouse gas emissions.	None required, but the Port Authority would implement best practices as identified in its <i>Sustainable Design Guidelines</i> . ¹
Coastal Resources	No significant impacts	Construction of the Proposed Action would not cause an unacceptable risk to human safety or property, nor would construction of the Proposed Action cause adverse impacts to the coastal environment that cannot be mitigated. However, the Proposed Action would partially obstruct and contrast with views of Flushing Bay from residences located along the northeast side of Ditmars Boulevard between LGA and Astoria Boulevard. The Proposed Action would have impacts to visual character and visual resources that would be inconsistent with two WRP coastal policies. Existing coastal resources, including the SNWA and PMAZ, would be protected to the maximum extent practicable during construction of the Proposed Action, and they would be mainly consistent with applicable WRP policies.	To minimize the potential for stormwater-related impacts to coastal resources during construction, the Proposed Action would adhere to requirements of the New York State Department of Environmental Conservation (NYSDEC) State Pollution Discharge Elimination System (SPDES). During excavation and construction, any groundwater recovered during dewatering would be monitored, treated, and discharged to existing infrastructure in compliance with NYSDEC SPDES requirements, and Best Management Practices (BMPs) would be utilized. If dewatering is necessary, pumps would not be allowed to discharge directly into a waterway or wetland. BMPs would be incorporated into the Proposed Action design to minimize erosion and sedimentation during and after construction of the Proposed Action. WRP coastal resource policies address a breadth of environmental resources; therefore, additional mitigation measures identified in other environmental resource category sections would also be applicable to coastal resources, including: <ul style="list-style-type: none"> ▪ biological resources mitigation measures and BMPs identified by the NMFS to mitigate potential impacts to biological resources within Flushing Bay; ▪ Measures as identified in the Memorandum of Agreement (MOA) governing park resources between the Port Authority and New York City; ▪ historic resources mitigation measures are defined in the Section 106 MOA to resolve adverse effects to historic properties (the Draft MOA is included in the EIS); and ▪ mitigation measures for effects to visual resources/character can be adopted to complement the surrounding environment.

TABLE ES-4 (2 OF 7) SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

RESOURCE CATEGORY	IMPACT POTENTIAL	DISCUSSION	MITIGATION MEASURES
<p>Department of Transportation Act, Section 4(f) and Land and Water Conservation Fund Act, Section 6(f) Resources</p>	<p>Results in physical use of Section 4(f) properties in Flushing Meadows-Corona Park. The Proposed Action would involve a physical use of Section 4(f) properties (portions of Flushing Meadows-Corona Park, as well as historic properties located within the park) and visual impacts to Section 4(f) properties. The Proposed Action would constitute a use, as defined under Section 4(f), and would result in a significant impact to Section 4(f) properties. No significant impacts to Section 6(f) resources.</p>	<p>Temporary access restrictions to recreational resources and temporary visual and noise impacts during construction; permanent incorporation of Section 4(f) properties into a transportation facility; visual and light emissions effects during operation. NYC Parks, as the owner of the Section 4(f) properties, has indicated that the introduction of the APM guideway along the Flushing Bay Promenade would significantly detract from the use and enjoyment of the Promenade by park users because of its aesthetic effects, resulting in substantial impairment of the resource.</p>	<p>Implementation of mitigation under the Proposed Action would enhance the Flushing Bay Promenade. Measures as identified in the MOA governing park resources between Port Authority and New York City include:</p> <ul style="list-style-type: none"> ▪ improve the full length of the approximate 1.4-mile long Flushing Bay Promenade between 27th Avenue and 127th Place, including path enhancement, railing and walkway refurbishment, and landscaping; implementation of <i>de minimis</i> (minor) bulkhead/seawall repairs alongside the paths to make them safe for public use; provide irrigation; incorporate the maximum reasonable number of replacement trees along the Promenade/Marina area in conformance with the approved Promenade/Marina Landscape Plan; provide community amenities, including new public activity areas, installation of public art along the Promenade/Marina area, upgrades to guideway aesthetics, improvements to park access by the public, and improvements to lighting; and restore all areas disrupted by construction to a condition better than the documented condition at the commencement of construction and include improved visual and noise screening of the GCP adjacent to the Marina; ▪ maintain access during construction to the pedestrian bridges over the GCP at 27th Avenue and 31st Drive, the Promenade walkway, and Pier 3 at the Marina facilities to the greatest extent possible; ▪ develop a construction staging plan that takes into account the operations of the Marina Restaurant and Banquet Hall, the Gulf Gas Station, and Dunkin Donuts; ▪ to the extent that interferences with business operations occur, the Port Authority would compensate for damages or losses incurred by the Marina Restaurant and Banquet Hall, the Gulf Gas Station, and Dunkin Donuts during construction directly based on the value of the lost operations; ▪ develop a construction staging plan that minimizes impact on available parking during construction; if Citi Field parking is decreased during any time during construction, temporary replacement parking would be provided or the Port Authority would compensate the Mets for lost parking revenue; ▪ replace parking spaces that would be permanently occupied at the Citi Field parking lot on a one-to-one basis in the proposed parking structure at the OMSF; and ▪ after construction, restore those portions of the Citi Field parking lot that are to remain as ground surface parking, to NYC Park’s specification and approval. <p>The Port Authority is committed to providing additional, specific mitigation improvements to the Promenade area based on public comments to the Draft EIS and through a community outreach program. Additionally, a separate Section 106 MOA to avoid, minimize, and mitigate adverse effects to historic properties would be implemented.</p>

TABLE ES-4 (3 OF 7) SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

RESOURCE CATEGORY	IMPACT POTENTIAL	DISCUSSION	MITIGATION MEASURES
Hazardous Materials, Solid Waste, and Pollution Prevention	No significant impacts	Construction of the Proposed Action may result in impacts due to the presence of hazardous materials, disturbance of a contaminated site, generation of an appreciably different quantity or type of hazardous waste, or adversely affecting human health and the environment. With incorporation of mitigation measures, impacts would be less than significant.	<p>Construction activities would be performed in accordance with the following measures:</p> <ul style="list-style-type: none"> ▪ To avoid potential impacts on the community and construction workers, excavation and other construction work involving soil disturbance would be performed under a Construction Environmental Management Plan and a Construction Health and Safety Plan. ▪ Groundwater testing would be performed to ensure compliance with proper regulatory discharge requirements, either New York City Department of Environmental Protection (NYCDEP) sewer discharge parameters or NYSDEC surface water discharge parameters. Groundwater may require pre-treatment prior to discharge. ▪ Any suspect asbestos-containing material (ACM), lead-based paint, and polychlorinated biphenyls- (PCB-) containing materials encountered during demolition or excavation would be properly tested and characterized for the potential for hazardous materials and disposed in accordance with applicable regulations. ▪ Construction of an underground stormwater recharge basin beneath the OMSF to manage stormwater runoff from the OMSF project area, prevent flooding and downstream erosion, and improve water quality within Flushing Creek. ▪ In order to protect water quality and habitats in Flushing Creek, two new outfalls into Flushing Creek would be constructed to accommodate and treat stormwater runoff from the OMSF project area and the temporary MTA bus storage and parking area. These are catchment areas from which stormwater runoff is not currently treated. Runoff from redeveloped impervious surfaces would discharge into existing drainage systems and the new outfalls. The outfall for the temporary MTA bus storage and parking area would be temporary and removed following construction of the Proposed Action. ▪ All materials to be disposed (for example, miscellaneous debris, contaminated soil, and excess fill) would be properly tested and characterized for the potential for hazardous materials and disposed of off-site in accordance with applicable federal, state, and local requirements. ▪ All stockpiled materials would be handled in accordance with the NYSDEC Stormwater Management Design Manual, a Soil Management Plan, of specific and industry-standard BMPs, such as securely covering with tarps or plastic sheeting, to prevent dust or run-off.

TABLE ES-4 (4 OF 7) SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

RESOURCE CATEGORY	IMPACT POTENTIAL	DISCUSSION	MITIGATION MEASURES
Historic, Architectural, Archaeological, and Cultural Resources	Adverse effect to historic resources in Flushing Meadows-Corona Park; no adverse effect to historic resources located along Ditmars Boulevard; upon implementation of mitigation the impacts would be less than significant	Would result in an adverse effect to Flushing Meadows-Corona Park Historic District, including four of its contributing elements (the Passerelle Bridge; the Pavilion on the Passerelle Bridge over the LIRR; Main Gate Entrance; and the Passerelle Buildings at Main Entrance). The Passerelle Bridge and the Pavilion on the Passerelle Bridge over the LIRR would be demolished.	<p>Measures to minimize and mitigate the adverse effects have been identified in consultation with the SHPO, ACHP, Port Authority, and NYC Parks and other consulting parties in an effects resolution document. As adverse effects are unavoidable, the FAA, SHPO, and ACHP, in consultation with the Port Authority and NYC Parks have developed a Draft Section 106 MOA to resolve the adverse effects. The Draft MOA addresses the anticipated effects of the undertaking, defines procedures to respond to project changes and unanticipated discoveries, and sets forth measures that will be implemented to avoid, minimize, and mitigate adverse effects on historic properties. The Draft MOA includes:</p> <ul style="list-style-type: none"> ▪ Historic American Buildings Survey (HABS) documentation and records archiving; ▪ National Register Nomination Registration Form for Flushing Meadows-Corona Park Historic District; ▪ protection of historic properties provisions during construction, including vibration monitoring/action plan; ▪ architectural design and historic preservation considerations for new construction and preserved elements, including the Pavilion on the Passerelle Bridge over the LIRR Canopy, the Main Gate Entrance; and the Passerelle Buildings at Main Entrance; ▪ context-sensitive designs for the proposed Willets Point APM Station and related improvements, consistent with the significance and character-defining features of the Flushing Meadows-Corona Park Historic District, the contributing Passerelle Bridge, the Pavilion on the Passerelle Bridge (over the LIRR), the Main Gate Entrance, and the Passerelle Buildings at Main Entrance; ▪ the restoration or replication of flag poles and flags, lighting devices, and original fiberglass pedestrian benches; ▪ Conditions Assessment and Report for the Unisphere, located inside the Flushing Meadows-Corona Park; ▪ dismantling and storage of the existing Main Gate Entrance structure and its constituent parts for rehabilitation and reinstallation in its original location; ▪ rehabilitation of the exterior envelope of the Passerelle Buildings at Main Entrance to maintain their historical integrity in conjunction with planned alterations to be undertaken to the building's ramp in order to achieve ADA compliance; ▪ Internet-based publications and materials; ▪ interpretive/educational displays at select sites; and ▪ an Unanticipated Discovery Plan.
Natural Resources and Energy Supply	No significant impacts	Consumption of natural resources and energy would occur during construction and operation of the Proposed Action; however, the Proposed Action would not cause a significant shortage of area supplies or resources.	None required, but the Port Authority would implement best practices as identified in its <i>Sustainable Design Guidelines</i> . ¹

TABLE ES-4 (5 OF 7) SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

RESOURCE CATEGORY	IMPACT POTENTIAL	DISCUSSION	MITIGATION MEASURES
Noise, Vibration, and Noise-Compatible Land Use	No significant impacts; construction noise and vibration impacts; operational noise impacts	<ul style="list-style-type: none"> ▪ Temporary noise impacts during construction to 1,213 residential units within the East Elmhurst and North Corona neighborhoods, a community service facility, a new middle school currently under construction, and 2 parks (Hinton Park and Flushing Meadows-Corona Park). ▪ Annoyance vibration impacts during construction to 136 residential and hotel units and 2 parks (Hinton Park and Flushing Meadows-Corona Park). ▪ Moderate operational noise impacts along the LIRR Port Washington Branch to 967 residential and hotel units. 	<p>Noise control measures would be developed by the Port Authority, who would work with community representatives to develop a plan to minimize construction noise impacts to residences located southeast of the project, such as those along Ditmars Boulevard. Mitigation measures may include use of sound-insulated fencing, acoustic blankets around stationary equipment, drilled caissons instead of driving piles, and vibratory pile drivers where ground conditions permit, and time-of-day restrictions for equipment that would result in the highest noise levels in the surrounding community. For example, pile driving and caisson drilling may be restricted to daytime only. Even with these mitigation measures, it is anticipated that some construction noise impact would be unavoidable. For this reason, a construction noise hotline would be established so that residents in the neighborhoods near the project can call to leave complaints that the Port Authority would respond to by investigating the source of the issues and resolving those issues with the Port Authority’s contractor. Additionally, as part of the plan to minimize construction noise, the Port Authority would require an independent consultant to continuously monitor construction noise throughout the project’s construction in the neighborhoods near the project during the relevant stages of construction of the Proposed Action. Once major construction is completed in a given area, the noise monitors in that location would likely be removed, with the exception of those locations closest to any ongoing major construction activity. The Port Authority, or its contractor, would seek community input on the location of the noise monitors in advance of selecting the locations. The data collected would be used to investigate complaints and aid in identifying if the construction noise exceedances have been rectified. Construction vibration would be minimized by including specifications in the project’s construction contracts requiring the Port Authority’s contractor to implement a program to minimize construction vibration at impacted areas.</p> <p>Structures that have potential to be impacted by vibration will be assessed to set appropriate vibration criteria to avoid any damage to the structure. Vibration would be monitored throughout construction and work would be stopped if level is exceeded until it can be mitigated. The same hotline for noise would be used for construction vibration complaints as well, and the monitoring data collected would aid in determining the validity of complaints and their resolution. It is anticipated that no construction vibration damage thresholds would be exceeded if the construction specifications are adhered to by the contractor.</p>

TABLE ES-4 (6 OF 7) SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

RESOURCE CATEGORY	IMPACT POTENTIAL	DISCUSSION	MITIGATION MEASURES
Socioeconomics (including Surface Transportation / Traffic and Public Transportation), Environmental Justice, and Children’s Environmental Health and Safety Risks	<p><u>Traffic:</u> Significant impacts to 5 intersections</p> <p><u>Environmental Justice:</u> Significant impacts to minority environmental justice population remain after incorporation of all mitigation measures</p>	<p>Environmental justice populations would:</p> <ul style="list-style-type: none"> disproportionally experience high and adverse noise and vibration impacts during construction; and disproportionally experience high and adverse effects due to Section 4(f) and visual impacts as a result of operation of the Proposed Action. 	<p><u>Traffic</u> To the extent practicable, measures would be undertaken to limit the potential impacts due to construction of the Proposed Action on surface transportation/traffic, including:</p> <ul style="list-style-type: none"> Truck deliveries of bulk materials to the staging areas and hauling of material from the staging areas to the construction site would be scheduled during off-peak hours to avoid the peak commuter and Airport traffic periods on designated haul routes. Short-term lane closures would occur during periods of low-traffic activity. If longer-term lane closures occur, detour routes would be established. Impacts to bicycle and pedestrian paths would be minimal. Staff from key departments such as the Port Authority, New York Police Department, and NYCDOT would collaborate on proactive decision-making as well as assessing and addressing traffic congestion as a result of construction via a Project Task Force. <p>To address significant off-Airport traffic impacts to 5 intersections, mitigation measures would include installation of traffic signals and adjustments to traffic signal timing.</p> <p>To limit the potential impacts due to construction of the Proposed Action on public transportation, the Port Authority would coordinate with the MTA to establish the procedural and technical requirements, specific and appropriate for the anticipated work.</p> <p><u>Environmental Justice Populations</u> Specific mitigation measures to reduce impacts to minority environmental justice populations include:</p> <ul style="list-style-type: none"> Creation of a Flushing Bay Promenade Community Advisory Council (CAC) to determine the full scope and detailed design for improvements to the Flushing Bay Promenade. Improve the Ditmars Boulevard entrances to the two pedestrian bridges at 27th Avenue and 31st Drive over the GCP that provide access to the Promenade and Marina. Commitments from the Port Authority to utilize minority/women-owned business enterprises (MWBES) and as many local firms as possible. Development of a scholarship program tailored to the local community and construction and operational needs of the Proposed Action. <p>See mitigation measures discussion for DOT Section 4(f) properties; historic, archaeological, architectural, and cultural resources; noise, vibration, and compatible land use; and visual effects.</p>
Visual Effects	Significant impacts remain after incorporation of all mitigation measures	<ul style="list-style-type: none"> Temporary light emissions and visual effects from construction would not be significant. Light emissions due to operation of the APM would be significant. The Proposed Action would have a significant impact to the visual character in the General Study Area. The Proposed Action would partially obstruct and contrast with views of Flushing Bay from approximately 93 residential units overlooking the GCP. 	<p>Potential mitigation measures for effects to visual resources/character can be adopted to complement the surrounding environment. Design guidelines applicable to the major design features of the Proposed Action would support integration of the Proposed Action components into the existing setting of the General Study Area. Examples of design elements that could be considered include:</p> <ul style="list-style-type: none"> Use of specific materials, colors, or finishes and landscaping to integrate structures, including the APM guideway, with the surroundings. Minimize the number of columns and structures along the Flushing Bay Promenade by maximizing the span between columns in this area. Minimize the bulk of the APM guideway structure to preserve openness along the Flushing Bay Promenade, to the extent feasible. <p>Consultation with local jurisdictions to identify and integrate design features into the final design of the Proposed Action should be considered.</p>

TABLE ES-4 (7 OF 7) SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

RESOURCE CATEGORY	IMPACT POTENTIAL	DISCUSSION	MITIGATION MEASURES
Water Resources	No significant impacts	Would permanently impact 0.08 acres of tidal wetlands within Flushing Bay to relocate the Marina facilities. Impervious surfaces would increase by 7.8 acres during construction, although the permanent increase in impervious surfaces would be 2.2 acres.	The Port Authority would adhere to applicable environmental permits and BMPs. Implementation of these BMPs would partially mitigate impacts to existing wetland areas. In order to offset unavoidable permanent impacts, additional mitigation would be pursued, if required, under the permit approval process.

NOTES:

<p>ACHP – Advisory Council on Historic Preservation ACM – Asbestos-Containing Material ADA – Americans with Disabilities Act APM – Automated People Mover BMP – Best Management Practice DOT – Department of Transportation EFH – Essential Fish Habitat EIS – Environmental Impact Statement GCP – Grand Central Parkway HABS – Historic American Buildings Survey 1 Port Authority of New York and New Jersey, <i>Sustainable Building Guidelines</i>, January 1, 2017.</p>	<p>LGA – LaGuardia Airport LIRR – Long Island Rail Road MOA – Memorandum of Agreement MTA – Metropolitan Transportation Authority NMFS – National Marine Fisheries Service NYCDEP – New York City Department of Environmental Protection NYCDOT – New York City Department of Transportation NYC Parks – New York City Department of Parks and Recreation NYSDEC – New York State Department of Environmental Conservation</p>	<p>OMSF – Operations, Maintenance, and Storage Facility PCB – Polychlorinated Biphenyls PMAZ – Priority Marine Activity Zone SHPO – State Historic Preservation Office SNWA – Special Natural Waterfront Area SPDES – State Pollution Discharge Elimination System USFWS – US Fish and Wildlife Service WRP – New York City Waterfront Revitalization Program of 1982</p>
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SOURCE: Ricondo & Associates, Inc., August 2020.

- **Scoping** – Scoping is an initial step in the NEPA process where agencies and the public are provided an opportunity to review and comment on the scope of the EIS. As part of the scoping process, the FAA elected to hold one agency scoping meeting on June 5, 2019, and two public scoping meetings on June 5 and 6, 2019. Scoping comments were solicited over a 46-day period from May 3, 2019, to June 17, 2019. All comments were reviewed and considered in preparation of the EIS.
- **Elected Officials Briefing** – The FAA briefed elected officials on February 14, 2019 and November 12, 2019.
- **Community Leaders Meetings** – The FAA convened three meetings with community leaders on April 15 and 16, 2019 and on November 13, 2019 to provide information on the Proposed Action and the EIS process and to address concerns related to the Proposed Action.
- **Consulting Parties Meetings** – The FAA held Section 106 Consulting Parties meetings to discuss the Proposed Action, the EIS, and Section 106 processes, and the role of Consulting Parties on September 18, 2019; November 14, 2019; January 15, 2020; February 25, 2020; and May 5, 2020.⁴¹
- **Public Information Sessions** – Although not required under NEPA or One Federal Decision, the FAA held two public information sessions on January 14 and 15, 2020, to inform the public of the FAA’s alternatives screening criteria and analysis.
- **Availability of the Draft EIS** – In accordance with NEPA, the Draft EIS will be available for public review from August 21, 2020, through October 5, 2020.

Two public workshops will be held virtually on:

- September 22, 2020 from 4:30 to 6:30 p.m.
- September 23, 2020 from 11:00 a.m. to 1:00 p.m.

Three public hearings will be held virtually on:

- September 22, 2020 from 7:00 to 9:00 p.m.
- September 23, 2020 from 2:00 p.m. to 4:00 p.m.
- September 24, 2020 from 5:00 to 7:00 p.m.

Due to the ongoing public health emergency associated with COVID-19 and FAA’s responsibility to protect the health and safety of the community, all workshops and hearings will be virtual via Zoom. Registration and instructions for the public workshops and hearings is available on the project website at <https://www.lgaaccesseis.com/>.

Oral comments on the Draft EIS may be presented at the public hearings or by leaving a voicemail at (855) LGA EIS9 or (855) 542-3479. Written comments on the Draft EIS may be submitted via the following methods:

- Online on the project website at <https://www.lgaaccesseis.com/formal-comment>
- E-mail to comments@lgaaccesseis.com
- US Mail to Mr. Andrew Brooks, Environmental Program Manager, Eastern Regional Office, AEA-610, Federal Aviation Administration, 1 Aviation Plaza, Jamaica, NY 11434

⁴¹ Due to COVID-19, the May 5, 2020 Consulting Parties meeting was held telephonically during two question and answer sessions.

Comments must be received no later than 5:00 p.m. Eastern Time, Monday, October 5, 2020. The FAA encourages all interested parties to provide comments concerning the scope and content of the Draft EIS. Comments should be as specific as possible and address the analysis of potential environmental impacts and the adequacy of the Proposed Action or merits of alternatives and the mitigation being considered. Reviewers should organize their comments so that the comments are meaningful and makes the agency aware of the viewer's interests and concerns using quotations and other specific references to the text of the Draft EIS and related documents. Matters that could have been raised with specificity during the comment period on the Draft EIS may not be considered if they are raised for the first time later in the decision process. This commenting procedure is intended to ensure that substantive comments and concerns are made available to the FAA in a timely manner so that the FAA has an opportunity to address them.

All comments related to the Draft EIS will be reproduced verbatim in the Final EIS and considered by the FAA in preparing the Record of Decision. Responses to comments received will be included in the Final EIS.