

## **A. INTRODUCTION**

Air quality is defined as the concentration of specific pollutants of concern in ambient air. The standards for these pollutants are set by the United States Environmental Protection Agency (EPA) pursuant to the Clean Air Act to protect the health and welfare of the general public.

Air quality can be affected by air pollutants produced by mobile sources, such as vehicular traffic or diesel locomotives, and fixed or immobile facilities, referred to as “stationary sources.” Stationary sources can include power plants, industrial stacks, and ventilation exhaust systems. Construction and/or operation of the Proposed Project could potentially affect air quality in the study area.

In this chapter, the effect of the Proposed Project’s operation on air quality is analyzed and includes a description of the regulatory context, analysis methodology, existing air quality, and the future air quality with the Proposed Project. Air quality effects during construction are analyzed in Chapter 13, “Construction Impacts.” Since the Proposed Project would not increase overall regional traffic volumes, nor the number of diesel locomotives along the Project Corridor, the analysis focuses on changes in traffic patterns around localized intersections (i.e., microscale) that may affect air quality at nearby residential locations and other land uses. As an improvement to a regional transportation system, the Proposed Project contributes to an overall reduction in vehicular emissions throughout the region. In addition, the Proposed Project would not introduce any new permanent stationary sources.

This chapter also evaluates the potential air quality impacts of: grade separation of all seven grade crossings (Alternative 1); and grade separation of five grade crossings and permanent closure to vehicular traffic of two: South 12th Street and Main Street (Alternative 2). It should be noted that Alternative 2 is the preferred alternative.

## **B. PRINCIPAL CONCLUSIONS AND IMPACTS**

Future air quality conditions with or without the Proposed Project would be improved in the Study Area, as compared to existing conditions, primarily due to continuing federal and statewide ^ efforts to reduce pollution from both mobile and stationary sources. Compared to the Future Without the Proposed Project, the Proposed Project would result in improvements to air quality in the neighborhoods along the corridor due to ^ elimination of idling time at grade crossings. At some local intersections, air quality could be slightly affected due to changes in traffic patterns. Overall, based on the air quality analysis described in this section, air quality in the Study area would be improved with the Proposed Project and thus no significant adverse air quality impacts would occur as a direct result of the Proposed Project.

## C. METHODOLOGY

### REGULATORY CONTEXT

#### *CRITERIA POLLUTANTS, NATIONAL AMBIENT AIR QUALITY STANDARDS, AND CLEAN AIR ACT CONFORMITY*

The USEPA, under the requirements of the 1970 Clean Air Act (CAA) as amended in 1977 and 1990, has established National Ambient Air Quality Standards (NAAQS) for six contaminants, referred to as criteria pollutants (40 CFR 50). These are carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter with diameters up to 10 µm (PM<sub>10</sub>), particulate matter with diameters up to 2.5 µm (PM<sub>2.5</sub>), lead (Pb), and sulfur dioxide (SO<sub>2</sub>). The NAAQS include primary and secondary standards.

The primary standards were established at levels sufficient to protect public health with an adequate margin of safety. The secondary standards were established to protect the public welfare from the adverse effects associated with pollutants in the ambient air, such as damage to plants and ecosystems. The primary and secondary standards are presented in **Table 11-1** below. These standards have also been adopted as the ambient air quality standards for New York State.

**Table 11-1**  
**National and New York State Ambient Air Quality Standards**

Pollutant		Primary/Secondary	Averaging Time	Level	Form
Carbon Monoxide		primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
Lead		primary and secondary	Rolling 3-month average	0.15 µg/m <sup>3</sup>	Not to be exceeded
Nitrogen Dioxide		primary	1-hour	100 ppb	98th percentile, averaged over 3 years
		primary and secondary	Annual	53 ppb	Annual mean
Ozone		primary and secondary	8-hour	0.070 ppm	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
Particle Pollution	PM <sub>2.5</sub>	primary	Annual	12 µg/m <sup>3</sup>	Annual mean, averaged over 3 years
		secondary	Annual	15 µg/m <sup>3</sup>	Annual mean, averaged over 3 years
		primary and secondary	24-hour	35 µg/m <sup>3</sup>	98th percentile, averaged over 3 years
	PM <sub>10</sub>	primary and secondary	24-hour	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide		primary	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year
Source: <a href="http://www.epa.gov/air/criteria.html">http://www.epa.gov/air/criteria.html</a>					

### *NAAQS ATTAINMENT STATUS*

Areas that meet the NAAQS for a criteria pollutant are designated as being “in attainment” or “attainment areas.” Areas where criteria pollutant levels exceed the NAAQS are designated as “nonattainment areas.” O<sub>3</sub> nonattainment areas are further classified, based on the severity of the pollution problem, as marginal, moderate, serious, severe, or extreme. CO and PM<sub>10</sub> nonattainment areas are classified as either moderate or serious.

A maintenance area is an area that had previously been designated as a nonattainment area, but is currently designated as an attainment area, indicating an improvement in air quality over the past, but still in need of efforts to maintain the improved conditions in the future. Most of the CAA rules for a nonattainment area are still applicable to a maintenance area. The current designations for Nassau County, within which the Study Area lies, are:

- Moderate nonattainment area for the O<sub>3</sub> standard
- Maintenance area for PM<sub>2.5</sub> and CO standards
- Attainment area for all other criteria pollutant standards

If an area is designated as nonattainment for a criteria pollutant under the NAAQS, states must develop and implement control plans to reduce the emissions of that pollutant. The New York State Department of Environmental Conservation (NYSDEC) is responsible for developing a State Implementation Plan (SIP) that achieves attainment or maintains attainment of the NAAQS for each emission type to improve air quality conditions within nonattainment and maintenance areas.

### *CLEAN AIR ACT CONFORMITY*

The CAA requires transportation agencies to ensure that their actions conform to the SIP in a nonattainment area. Conformity to a SIP, as defined in the CAA, means conformity to a SIP’s purpose of reducing the severity and number of violations of the NAAQS to achieve attainment of these standards.

The USEPA developed two sections of the conformity regulations in the CAA that are potentially applicable<sup>1</sup> to the Proposed Project. These regulations differentiate actions into:

- Transportation projects funded or approved by FHWA or FTA, or regionally significant transportation or highway projects<sup>1</sup> undertaken by state agencies that otherwise receive FHWA or FTA funding, which are governed by the Transportation Conformity Rule (TCR).

---

<sup>1</sup> “Regionally significant project means a transportation project (other than projects that may be grouped in the TIP and/or STIP or exempt projects as defined in EPA’s transportation conformity regulations (40 CFR part 93, subpart A)) that is on a facility that serves regional transportation needs (such as access to and from the area outside the region; major activity centers in the region; major planned developments such as new retail malls, sports complexes, or employment centers; or transportation terminals) and would normally be included in the modeling of the metropolitan area’s transportation network. At a minimum, this includes all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.” 23 CFR 450.104

## Long Island Rail Road Expansion Project

---

- Non-transportation-related projects or non-transportation components of a transportation project requiring actions by non-transportation agencies, which are governed by the General Conformity Rule (GCR).

The TCR (40 CFR 51.390 and Part 93) is applicable to transportation projects in nonattainment and maintenance areas for the transportation-related criteria pollutants O<sub>3</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub>, and CO. The TCR requires the analysis of project-related air emissions to show that a project would not cause or contribute to any new violations of the NAAQS and is in conformance with the corresponding SIP. A SIP establishes a motor <sup>^</sup>vehicle emissions budget (MVEB) which identifies the allowable on-road emissions level to attain the air quality standards.

Transportation conformity is the process by which Metropolitan Planning Organizations (MPOs) or Departments of Transportation (DOTs) demonstrate that transportation projects included in a region's Long-Range Plan (LRP) and/or Transportation Improvement Programs (TIPs) do not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. Transportation conformity is a requirement of the CAA in areas that do not meet the NAAQS or have previously been in violation of the NAAQS. Once a previously designated nonattainment area meets the NAAQS and submits plans to demonstrate how the area will continue to meet federal air quality standards, the USEPA can redesignate that area as either an attainment area or a maintenance area. The transportation conformity requirements are still applicable for up to 20 years after a nonattainment area is redesignated to ensure that the region continues to meet the NAAQS.

There are two levels of transportation conformity:

- Regional conformity: This is applicable to regional transportation plans and the TIP. For the Nassau County area where the Proposed Project is located, the most recent transportation plan includes the *Federal Fiscal Years 2014-2018 Transportation Improvement Program* adopted by New York Metropolitan Transportation Council (NYMTC) on September 4, 2013 that covers the transportation projects within a <sup>^</sup>five-year duration and the long range plan, *Plan 2040: NYMTC Regional Transportation Plan (RTP)*, in which is listed a range of short-, medium-, and long-term projects, proposals and studies that, when completed, will affect the regional transportation system through 2040.

The regional conformity determination must show that the total emissions from on-road travel on the region's transportation system are within the <sup>^</sup>MVEB<sup>^</sup> established in the SIP and are consistent with the goals for air quality found in the SIP. The regional emissions analysis must include all federally-funded projects, non-federally-funded projects considered regionally-significant, and non-federally-funded and/or non-regionally significant projects which will affect vehicle travel in the area.

- Project-level conformity: For specific transportation projects, including those projects that have not been included in a TIP or STIP, the conformity determination must show that the individual project is consistent with the regional conformity determination and that potential localized emission impacts are addressed and are consistent with goals for air quality found in the SIP. The state or local transportation agency is responsible for the project-level conformity determination.

The Proposed Project is a regionally significant transportation project covered by the TCR; the GCR is not applicable to the Proposed Project per 40 CFR Parts 6, 51, and 93.

## **AIR TOXICS**

In addition to the criteria pollutants, the CAA also lists 187 air toxics, known as hazardous air pollutants (HAPs). Toxic air pollutants include a number of substances known or suspected to cause cancer or other health effects in humans when exposed to certain levels of the pollutants. The CAA authorizes USEPA to characterize and control emissions of these pollutants. However, unlike the criteria pollutants, ambient air quality standards have not been established by USEPA for the majority of the air toxics.

- Most air toxics originate from human-made (anthropogenic) sources, including on-road mobile sources (e.g., cars, trucks), non-road mobile sources (e.g., airplanes), and stationary sources (e.g., dry cleaners, factories, refineries). The CAA identifies 187 HAPs, 93 of which have been identified by the USEPA as mobile source air toxics (MSATs), and nine of which are priority MSATs:
  - Acetaldehyde
  - Acrolein
  - Benzene
  - 1,3-butadiene
  - Diesel particulate matter, plus diesel exhaust organic gases (diesel PM)
  - Ethylbenzene
  - Formaldehyde
  - Naphthalene
  - Polycyclic organic matter (POM)

MSATs are compounds emitted by highway-traveling vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted when the fuel evaporates or passes through the engine unburned. Other toxics are generated by the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

On February 3, 2006, the FHWA and USEPA issued joint guidance for the assessment of MSATs for highway projects. The FHWA subsequently released updated guidance on air toxic analysis on September 30, 2009, December 6, 2012, and October 18, 2016. The guidance requires analysis of MSATs as part of the environmental analysis for a transportation project. The 2016 update reflects recent regulatory changes, addresses stakeholder requests to broaden the horizon years of emission trends performed with USEPA Motor Vehicle Emissions Simulator (MOVES) model, and updates stakeholders on the status of scientific research on air toxics. This guidance is being considered in connection with the proposed grade crossing elimination component of the Proposed Project.

## **GREENHOUSE GASES**

Greenhouse gas (GHG) emissions may be associated with the construction and operation of the Proposed Project. See Chapter 17, “Climate Change,” for more information on potential GHG emissions from the Proposed Project.

## **POLLUTANTS OF CONCERN**

Mobile sources potentially relevant to the Proposed Project are primarily motor vehicles. Primary vehicle-related air pollutants are CO and O<sub>3</sub> precursors (nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs). Particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) can also be of concern

from mobile sources, especially from heavy-duty diesel trucks and buses. Lead emissions from gasoline-fueled vehicles have been virtually eliminated through the use of unleaded gasoline, and are no longer of concern. Potential emissions of SO<sub>2</sub> from mobile sources are insignificant in comparison with non-mobile emission sources, especially after the implementation of the USEPA's Clean Diesel Truck and Bus Rule (December 21, 2000) and the Clean Air Nonroad Diesel Rule (May 11, 2004) that cut 99 percent of sulfur in diesel fuel. Therefore, potential air quality impacts of vehicular emissions of CO, PM (PM<sub>10</sub> and PM<sub>2.5</sub>), and NO<sub>x</sub> and VOCs (as O<sub>3</sub> precursors) are of possible concern and are considered in the EIS. Additionally, the emissions impacts from MSATs and GHGs are also considered in the EIS.

### METHODOLOGY

Since the Proposed Project would not result in a significant increase in the Study Area-wide traffic volumes and has no adverse air quality impact on a regional (i.e., mesoscale) scale, a mesoscale emissions analysis for each pollutant of concern including GHGs is not warranted.<sup>2</sup> The air quality impacts from the Proposed Project were assessed on a local level (i.e., microscale), due to potential changes in local traffic patterns around intersections as a result of the Proposed Project. Since high concentrations of CO, PM, and MSATs are generally limited to within a relatively short distance of heavily traveled roadways, it is appropriate to assess their impacts on a localized basis.

The localized air quality impact assessment follows the procedures and guidance from:

- NYSDOT's *The Environmental Manual (TEM)*, for CO microscale impact analysis, including the analysis on a screening level (NYSDOT, 2001 and 2010).
- USEPA PM microscale analysis guidance established in *Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Nonattainment and Maintenance Areas* (USEPA, November 2015).
- FHWA guidance on project level MSATs analysis provided in *Updated Interim Guidance on Mobile Source Air Toxics Analysis in NEPA Documents* (FHWA, October 18, 2016) and *Frequently Asked Questions Conducting Quantitative MSAT Analysis for FHWA NEPA Documents* (FHWA, September 8, 2015).

### CO SCREENING ANALYSIS

According to the NYSDOT TEM screening procedures, CO microscale (hot spot) analysis would be required if the Build traffic condition would not pass a 3-step process:

- 1) Step 1: selecting all intersections with Level of Service (LOS) D, E, or F and proceeding to Step 2.
- 2) Step 2: identifying "Capture Criteria" applicable to each intersection. These capture criteria include showing that the Proposed Project would result in a 10 percent or more reduction in the distance between source and receptor (locations where potential air quality is analyzed, such as residential or open space locations) or a 10 percent or more increase in approaching traffic volume. If applicable, move to Step 3.

---

<sup>2</sup> As an improvement to a regional transit system, the Proposed Project would contribute to regional air quality improvements.

- 3) Step 3: predicting MOVES2014a free flow and queue emission factors and correlating these emission factors with the TEM-provided volume threshold for approaching volume. If any approach volume at an intersection exceeds the applicable volume threshold, further microscale dispersion modeling at this intersection would be warranted.

As shown in this section, a CO screening analysis has sufficiently demonstrated that no further microscale dispersion modeling analysis is warranted, since the Proposed Project would only result in a slight change in local traffic patterns around stations and grade crossings. In general, the Proposed Project would eliminate queuing and idling times at the grade crossings and would reduce localized CO emissions.

According to the TEM, CO impact analyses are required for the Estimated Time of Completion (ETC) and the year with the highest corridor emission levels of ETC+10 and ETC+20. The ETC for the Proposed Project is 2020. Since CO emission factors are essentially flat between ETC+10 and ETC+20, ETC and ETC+20 were considered as the analysis years in the screening analysis.

#### *PM (PM<sub>2.5</sub> AND PM<sub>10</sub>) IMPACT ANALYSIS*

To meet statutory requirements, the TCR requires PM hot-spot analyses to be performed for projects of air quality concern located in PM<sub>2.5</sub> or PM<sub>10</sub> nonattainment or maintenance areas. Nassau County is in a maintenance area for PM<sub>2.5</sub>. Consistent with the USEPA guideline, forecasted traffic conditions in the Study Area were evaluated to determine whether the Proposed Project is a project with air quality concern that requires a hot-spot analysis for PM<sub>2.5</sub> and PM<sub>10</sub>. The guideline identifies five categories of such projects (40 CFR 93.123[b][1]):

- New or expanded highway projects which have a significant number of or significant increase in diesel vehicles.
- Projects affecting intersections that are at LOS D, E, or F with a significant number of diesel vehicles, or those which would change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project.
- New bus and rail terminals and transfer points which have a significant number of diesel vehicles congregating at a single location.
- Expanded bus and rail terminals and transfer points which significantly increase the number of diesel vehicles congregating at a single location.
- Projects in or affecting locations, areas, or categories of sites identified in the applicable PM<sub>2.5</sub> and PM<sub>10</sub> implementation plan or implementation plan submission, as appropriate, as the sites of violation or possible violation.

Furthermore, typical sample projects of air quality concern defined by 40 CFR 93.123(b)(1)(i), (iii) and (iv) include:

- A project on a new highway or expressway which serves a significant volume of diesel truck traffic, such as facilities with greater than a 125,000 annual average daily traffic (AADT) and eight percent or more of such AADT is diesel truck traffic.
- New exit ramps and other highway facility improvements to connect a highway or expressway to a major freight, bus, or intermodal terminal.
- Expansion of an existing highway or other facility which affects a congested intersection (operated at LOS D, E, or F) which has a significant increase in the number of diesel trucks.

## Long Island Rail Road Expansion Project

---

- Similar highway projects which involve a significant increase in the number of diesel transit <sup>^</sup> buses and/or diesel trucks.
- A major new bus or intermodal terminal considered to be a "regionally significant project" under 40 CFR 93.1019.
- An existing bus or intermodal terminal which has a large vehicle fleet where the number of diesel buses increases by 50% or more, as measured by bus arrivals.

The Proposed Project does not include any increases in use of diesel locomotives and does not cause an overall increase in diesel vehicular traffic in the Study Area. Moreover, the Proposed Project does not fall into any of the above project categories with potential for air quality concern. Therefore, it can be concluded that the Proposed Project would not cause or contribute to a PM<sub>2.5</sub> or PM<sub>10</sub> NAAQS violation that would worsen the current maintenance status of the area. Consequently, no further hot-spot analysis for PM<sub>2.5</sub> or PM<sub>10</sub> is warranted.

### MSAT ANALYSIS

FHWA's Interim Guidance (the Guidance) establishes a three-tiered approach to determine the level of MSAT analysis required by a project-level study. According to the Guidance, the category of exempt projects or projects with no meaningful potential MSAT effects includes:

- Projects qualifying as <sup>^</sup> categorical exclusions;
- Projects exempt under the Clean Air Act conformity rule under 40 CFR 93.126; or
- Other projects with no meaningful impacts on traffic volumes or vehicle mix.

Additionally, the Guidance indicates that for projects with negligible traffic impacts no MSAT analysis is recommended. It is further noted in the Guidance that "the types of projects categorically excluded under 23 CFR 771.117(d) or exempt from conformity rule under 40 CFR 93.127 do not warrant an automatic exemption from an MSAT analysis, but they usually will have no meaningful impact." Projects in this category do not require either a qualitative or a quantitative analysis for MSATs, although documentation of the project category is required.

The primary purpose of the LIRR Expansion Project is to improve rail service, reliability, and public safety along the LIRR Main Line segment between Floral Park and Hicksville. This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and <sup>^</sup> is not <sup>^</sup> linked with any special mobile source air toxic (MSAT) concerns. <sup>^</sup> This project will not result in significant changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause <sup>^</sup> an increase in MSAT impacts of the Proposed Project.

Moreover, USEPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with USEPA's MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emissions rate for the priority <sup>^</sup> MSATs from 2010 to 2050, while vehicle-miles of travel are projected to increase by over 45 percent (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016). This will both reduce the background level of <sup>^</sup> MSATs, as well as the possibility of even minor MSAT emissions from the Proposed Project.

Since the Proposed Project falls into the category of those resulting in no meaningful impacts on traffic volumes or vehicle mix, it would not be of air quality concern and, therefore, does not warrant either a qualitative or a quantitative analysis for MSATs.



## D. EXISTING CONDITIONS

Existing air quality conditions in the Study Area can be reflected through the current status of NAAQS attainment and recent ambient air monitoring data.

### NAAQS ATTAINMENT AND TIP INCLUSION STATUS

Nassau County, within which the Study Area for the Proposed Project lies, has been designated as:

- Moderate nonattainment area for the O<sub>3</sub> standard.
- Maintenance area for PM<sub>2.5</sub> and CO standards.
- Attainment area for all other criteria pollutant standards.

The Proposed Project has not been listed in the most recent 2014-2018 TIP developed for purposes of demonstrating SIP conformance. However, if the Proposed Project is approved, once the preferred alternative is determined through the SEQRA process, the Proposed Project would be included in the TIP. The Proposed Project is considered a part of MTA LIRR Mainline Corridor Planning study (#NSMC800V) listed in the long range plan, *Plan 2040*.

### REVIEW OF AMBIENT MONITORING DATA

The CAA requires every state to establish a network of air-monitoring stations for criteria pollutants, using specified methods and procedures for their location and operation as set by the USEPA. The ambient air quality monitoring network was established to monitor potential statewide air quality problems based on a variety of considerations, such as SIP conformance requirements, hot spots (localized locations with <sup>^</sup> potentially high pollutant concentrations) for a specific critical pollutant, potential downwind high concentrations near major emitting sources, high population densities with high levels of community activities, and the state's geography. Therefore, the state network was <sup>^</sup> developed by focusing on potential worst-case areas for a specific pollutant, while also considering the need to achieve statewide coverage.

The published data for the most recent three years (2013, 2014, and 2015) for the monitoring stations nearest to the Study Area are used to describe existing ambient air quality in the Study Area (**Table 11-2**). The measured ambient air concentrations closest to the Study Area were all well below the corresponding NAAQS, except for exceedances of the 8-hour ozone standard. These data are consistent with the attainment and nonattainment area designations of the Nassau County area as discussed previously.

**Table 11-2**  
**Ambient Monitored Air Concentrations**

Pollutants	Average Time	Station	2015	2014	2013	3-yr Average	NAAQS	Unit
CO	1-hr	Queens College, Queens	2.1	1.9	2.0	--*	35	ppm
	8-hr	Queens College, Queens	1.2	1.1	1.4	--	9	ppm
NO <sub>2</sub>	1-hr	Queens College, Queens	63.4	58.5	58.6	60.2	100	ppb
	Annual	Queens College, Queens	17.2	16.8	17.5	17.1	53	ppb
SO <sub>2</sub>	1-hr	Eisenhower Park, Nassau	6.0	9.6	6.0	7.2	75	ppb
PM <sub>2.5</sub>	24-hr	Eisenhower Park, Nassau	17.8	19.2	23.9	20.3	35	ug/m <sup>3</sup>
	Annual	Eisenhower Park, Nassau	7.3	7.4	8.7	7.8	12	ug/m <sup>3</sup>
O <sub>3</sub>	8-hr	Babylon, Suffolk	0.072	0.066	0.078	0.072	0.070	ppm
<b>Source:</b> NYSDEC Ambient Air Quality Report.								
<b>Note:</b> 3-year average is not relevant for CO. CO NAAQS level may only be exceeded once per year.								

On a more local or microscale level, the extensive traffic queues documented in Chapter 10, “Transportation,” at the seven grade crossings, result in an increase in emissions of motor vehicle-related pollutants at these locations. These emissions can adversely impact ambient concentrations of CO, NO<sub>2</sub>, and respirable particulate matter at nearby sidewalks, public open spaces, schools, residences and other sensitive locations.

### E. FUTURE WITHOUT THE PROPOSED PROJECT

Under the future condition without the Proposed Project, the air quality conditions within the Study Area would essentially remain the same as the existing condition described previously, with some improvements expected to occur over the years resulting from federal and statewide efforts to reduce pollution and improved combustion technology as older vehicles are replaced with newer vehicles with <sup>^</sup> lower-emitting engines. However, in areas surrounding the grade crossings, these reductions in pollutant emissions due to vehicular turnover (i.e., newer, more efficient, lower pollutant-emitting vehicles replacing older, higher-emitting ones) would be, in part, offset by increased emissions from additional queued vehicles and delay at these locations. As shown in Chapter 10, “Transportation,” in 2040 Without the Proposed Project, the queue lengths at some locations would increase to over 40 vehicles in the peak hour. Without the Proposed Project, these emissions would continue to be generated by vehicles delayed at the grade crossings.

The LIRR’s Green Locomotive Project to replace the aging freight locomotive fleet with remanufactured or new cleaner models would also reduce freight operational emissions and contribute to the future improvement of air quality conditions in the region.

### F. POTENTIAL IMPACTS OF THE PROPOSED PROJECT

Based on the forecasts of 2020 and 2040 traffic conditions within the areas of New Hyde Park, Mineola, and Westbury, as described in Chapter 10, “Transportation,” a <sup>^</sup> three-step CO screening analysis was conducted, per the TEM, to determine whether a microscale dispersion modeling analysis is required on the roadways in the Study Area and/or any other roadways affected by the Proposed Project.

Compared to the Future Without the Proposed Project, the Proposed Project would result in improvements to air quality in the neighborhoods along the corridor due to <sup>^</sup> elimination of idling time at grade crossings. At some local intersections, air quality could be slightly affected due to changes in traffic patterns. Overall, based on the air quality analysis described in this section, air quality in the Study area would be improved with the Proposed Project<sup>^</sup> ; no significant adverse air quality impacts would occur as a direct result of the Proposed Project.

### LEVEL OF SERVICE (LOS) SCREENING

The results of LOS screening are presented in **Tables 11-3** through **11-<sup>^</sup> 6**. Intersections with LOS of A, B, or C are excluded from further microscale air quality analysis. Alternative 1 results represent conditions with grade separation of all seven grade crossings<sup>^</sup> . Alternative 2 results represent conditions with grade separations of five grade crossings and with South 12th Street and Main Street permanently closed and vehicular traffic diverted to other crossings.

**Table 11-3**  
**LOS Screening within Mineola Area**

Number	Intersection	Signalized	Alternative 1 ETC	Alternative 1 ETC+20	Alternative 2 ETC	Alternative 2 ETC+20
1	Mineola Boulevard / Franklin Avenue at Old Country Road	Yes	Fail	Fail	Fail	Fail
2	Mineola Boulevard at Second Street	Yes	Fail	Fail	Fail	Fail
3	Mineola Boulevard at First Street	Yes	Pass	Fail	Fail	Fail
4	Willis Avenue at Old Country Road	Yes	Pass	Pass	Pass	Pass
5	Willis Avenue at Third Street	Yes	Fail	Fail	Pass	Pass
6	Willis Avenue at Second Street	Yes	Fail	Fail	Fail	Fail
7	Roslyn Road / Washington Avenue at Old Country Road	Yes	Fail	Fail	Fail	Fail
8	Roslyn Road at Second Street	Yes	Fail	Fail	Fail	Fail
9	Main Street at Old Country Road	No	Pass	Pass	Pass	Pass
10	Main Street at First Street	No	Pass	Pass	Pass	Pass
11	Main Street at Second Street	<sup>^</sup> Yes	Pass	Fail	Fail	Fail
12	Main Street at Front Street (North side of LIRR Tracks)	No	Pass	Pass	Pass	Pass
13	Main Street at Front Street (South side of LIRR Tracks)	No	Pass	Pass	n/a	n/a
14	Main Street at Third Street	No	Pass	Pass	Pass	Pass
15	Willis Avenue at First Street	No	Pass	Fail	Pass	Fail
16	Willis Avenue at Front Street	No	Pass	Pass	Pass	Pass

**Table 11-4**  
**LOS Screening within New Hyde Park Area**

Number	Intersections	Signalized	Alternative 1 ETC	Alternative 1 ETC+20	Alternative 2 ETC	Alternative 2 ETC+20
1	Covert Avenue at Jericho Turnpike (Rt. 25)	Yes	Fail	Fail	Fail	Fail
2	Covert Avenue at Stewart Avenue	Yes	Pass	Pass	Pass	Pass
3	South 12th Street at Jericho Turnpike (Rt. 25)	Yes	Pass	Pass	Pass	Pass
4	New Hyde Park Road at Jericho Turnpike (Rt. 25)	Yes	Fail	Fail	Fail	Fail
5	New Hyde Park Road at Clinch Avenue	Yes	Pass	Pass	Pass	Pass
6	New Hyde Park Road at Stewart Avenue	Yes	Fail	Fail	Fail	Fail
7	Covert Avenue at Second Avenue	No	Pass	Pass	Pass	Pass
8	Covert Avenue at Second Avenue	No	Pass	Pass	Pass	Pass
9	South 12th Street at Second Avenue	No	Pass	Pass	Pass	Pass
10	South 12th Street at Third Avenue	No	Pass	Pass	Pass	Pass
11	South 12th Street/Jefferson Street at Stewart Avenue	No	Pass	Pass	Pass	Pass

**Table 11-5**  
**LOS Screening within Westbury Area**

Number	Intersections	Signalized	ETC	ETC+20
1	School Street at Union Avenue	Yes	<u>Pass</u>	<u>Pass</u>
2	School Street at Old Country Road	Yes	Fail	Fail
3	Urban Avenue at Prospect Avenue	Yes	Pass	Pass
4	Urban Avenue at Old Country Road	Yes	<u>Pass</u>	Fail
5	Old Country Road at Belmont Place / Merillon Avenue	Yes	Pass	Pass
6	School Street at Railroad Avenue	<sup>^</sup> Yes	Pass	<u>Pass</u>
7	Urban Avenue at Broadway	No	<u>Pass</u>	Fail
8	Urban Avenue at Main Street	No	<u>Pass</u>	Fail
9	<u>Post Avenue at Maple Avenue</u>	<u>Yes</u>	Fail	Fail
10	<u>Post Avenue at Union Avenue</u>	<u>Yes</u>	Fail	Fail
11	<u>Post Avenue at Rail Avenue</u>	<u>Yes</u>	<u>Pass</u>	Fail
12	<u>School Street at Maple Avenue</u>	<u>Yes</u>	<u>Pass</u>	<u>Pass</u>
13	<u>Post Avenue at Scally Place</u>	<u>No</u>	<u>Pass</u>	<u>Pass</u>

**Table 11-6**  
**LOS Screening within Hicksville Area**

Number	Intersections	Signalized	ETC	ETC+20
1	Newbridge Road at Duffy Avenue	Yes	Fail	Fail
2	Newbridge Road at Station Plaza	Yes	Pass	Fail
3	Newbridge Road at West John Street	Yes	Fail	Fail
4	Newbridge Road at West Barclay Street	No	Pass	Pass
5	West Barclay Street at West John Street	No	Pass	Pass
6	Marion Place at West John Street	No	Pass	Fail
7	Proposed LIRR Parking Garage Exit/Marion Place at West Barclay Street	No	Pass	Fail
8	Proposed LIRR Parking Garage Exit at West John Street	No	Pass	Fail

### CAPTURE CRITERIA SCREENING

Intersections affected by the Proposed Project and exhibiting ETC and ETC+20 LOS D, E, or F were further screened using the following criteria:

- a 10% or more reduction in the source-receptor distance.
- a 10% or more increase in traffic volume on affected roadways.
- any increase in the number of queued lanes.
- a 20% reduction in speed, when build estimated average speed is at 30 mph or less.

The Proposed Project would only have the potential to change traffic patterns around stations or grade crossings, potentially causing localized increases in volumes around certain intersections. **Tables 11-<sup>7</sup>** through **11-<sup>10</sup>** provide a list of intersections that fail the capture criterion of a 10 percent or more increase in traffic volume on affected roadways and, as a result, require further screening.

**Table 11-<sup>7</sup>**  
**Capture Criteria Screening within Mineola Area**

Number	Intersections	Signalized	Alternative 1 ETC	Alternative 1 ETC+20	Alternative 2 ETC	Alternative 2 ETC+20
1	Mineola Boulevard / Franklin Avenue at Old Country Road	Yes	Pass	Pass	Pass	Pass
2	Mineola Boulevard at Second Street	Yes	Pass	Pass	Pass	Pass
3	Mineola Boulevard at First Street	Yes	N/A	Pass	Pass	Pass
5	Willis Avenue at Third Street	Yes	Fail	Fail	N/A	N/A
6	Willis Avenue at Second Street	Yes	Fail	Fail	Fail	Fail
7	Roslyn Road / Washington Avenue at Old Country Road	Yes	Pass	Pass	Pass	Pass
8	Roslyn Road at Second Street	Yes	Pass	Pass	Pass	Pass
11	Main Street at Second Street	<sup>^</sup> Yes	N/A	Pass	Pass	Pass
15	Willis Avenue at First Street	No	N/A	Fail	N/A	Pass

**Note:** "N/A" indicates an intersection that passes the first level LOS screening.

**Table 11-<sup>8</sup>**  
**Capture Criteria Screening within New Hyde Park Area**

Number	Intersections	Signalized	Alternative 1 ETC	Alternative 1 ETC+20	Alternative 2 ETC	Alternative 2 ETC+20
1	Covert Avenue at Jericho Turnpike (Rt. 25)	Yes	Pass	Pass	Pass	Pass
4	New Hyde Park Road at Jericho Turnpike (Rt. 25)	Yes	Pass	Pass	Pass	Pass
6	New Hyde Park Road at Stewart Avenue	Yes	Pass	Pass	Pass	Pass

**Table 11-<sup>9</sup>**  
**Capture Criteria Screening within Westbury Area**

Number	Intersections	Signalized	ETC	ETC+20
2	School Street at Old Country Road	Yes	Pass	Pass
4	Urban Avenue at Old Country Road	Yes	N/A	Pass
7	Urban Avenue at Broadway	No	<sup>^</sup> N/A	Fail
8	Urban Avenue at Main Street	No	<sup>^</sup> N/A	<sup>^</sup> Pass
9	Post Avenue at Maple Avenue	Yes	Pass	Pass
10	Post Avenue at Union Avenue	Yes	Pass	Pass
11	Post Avenue at Rail Avenue	Yes	N/A	Pass

**Note:** "N/A" indicates an intersection that passes the first level LOS screening.

**Table 11-10**  
**Capture Criteria Screening within Hicksville Area**

Number	Intersections	Signalized	ETC	ETC+20
1	Newbridge Road at Duffy Avenue	Yes	Pass	Pass
2	Newbridge Road at Station Plaza	Yes	N/A	Pass
3	Newbridge Road at West John Street	Yes	Pass	Pass
6	Marion Place at West John Street	No	N/A	Fail
7	Proposed LIRR Parking Garage Exit/Marion Place at West Barclay Street	No	N/A	Fail
8	Proposed LIRR Parking Garage Exit at West John Street	No	N/A	Pass

**Note:** "N/A" indicates an intersection that passes the first level LOS screening.

## VOLUME THRESHOLD SCREENING

For those intersections that fail capture criteria screening, a comparison of approach traffic volume with the volume threshold was made to determine the need for a microscale air quality analysis. Based on the MOVES predicted CO emission factors for both signalized and stop-and-go intersections, as summarized in **Table 11-<sup>11</sup>** and **Table 11-<sup>12</sup>**, the TEM-established volume threshold of 8,000 and 4,000 vehicles per hour are predicted to be applicable for free flow sites and signalized intersections, respectively. The projected highest volumes at all screened sites would be <sup>^</sup> 2,298 for the free flow site of <sup>^</sup> Marion Place at West John Street <sup>^</sup> and <sup>^</sup> 2,536 for the signalized intersection of Willis Avenue at <sup>^</sup> Second Street (see **Table 11-<sup>13</sup>** and **Table 11-<sup>14</sup>**). These projected highest volumes are well below the respective screening volume thresholds, therefore, no further microscale air quality analysis is warranted.

**Table 11-<sup>11</sup>**  
**Volume Screening Thresholds for Signalized Intersections**

Analysis year	Speed (mph)	Free Flow Emission Factor (g/mi)	Queue Emission Factor (g/hr)	Threshold (Vehicles/hr)
ETC	30	1.926	17.13	4,000
ETC+20	30	0.668	5.63	4,000

**Table 11-<sup>^</sup> 12**

**Volume Screening Threshold for Two-way Free Flow Sites**

Analysis Year	Speed (mph)	Emission Factor (g/mi)	Threshold (Vehicles/hr)
ETC	30	1.926	8,000
ETC+20	30	0.668	8,000

**Table 11-<sup>^</sup> 13**

**Volume Screening Thresholds for Signalized Intersections**

Alternative	Intersections	Signalized	Volume Threshold	Projected Highest Volume
1	Willis Avenue at Third Street	Yes	4,000	<sup>^</sup> 1,320
	Willis Avenue at Second Street	Yes		<sup>^</sup> 2,536
2	Main Street at Second Street	Yes		<sup>^</sup> 1,426

**Table 11-<sup>^</sup> 14**

**Volume Screening for Two-way Free Flow Sites**

Alternative	Intersections	Signalized	Volume Threshold	Projected Highest Volume
1	Willis Avenue at First Street	No	8,000	<sup>^</sup> 1,567
	Urban Avenue at Broadway	No		<sup>^</sup> 1,120
	<sup>^</sup> Marion Place at <sup>^</sup> West John Street	No		<sup>^</sup> 2,298
	<sup>^</sup> Proposed LIRR Parking Garage Exit/Marion Place at <sup>^</sup> West Barclay Street	No		<sup>^</sup> 1,035

Consequently, there would be no significant adverse impacts due to CO emissions from the Proposed Project.

## CONFORMITY DETERMINATION

As a regionally significant transportation project, the Proposed Project is subject to TCR. Since the Proposed Project is located in an ozone nonattainment and PM<sub>2.5</sub> and CO maintenance area, according to the TCR, the Proposed Project must originate from a conforming TIP or the Proposed Project must demonstrate its compliance of the NAAQS on a project level.

The Proposed Project is not listed in the most recent 2014-2018 TIP. However as part of MTA LIRR corridor planning study, it is listed in the regional long range transportation plan (i.e., *Plan 2040*). Therefore, after the preferred alternative is established, the preferred alternative would be included in the future TIP designed to ensure the implementation of the goals and objectives identified in the long range transportation plan on a regional level.

Moreover, the East Side Access Final EIS service plan is contained within the NYMTC Regional Transportation Plan and that service plan's higher level of peak period, peak direction service is consistent with service levels projected for the Proposed Project. NYMTC adopted on September 7, 2016, the Transportation Conformity Determination for the FFYs 2017-2021 TIP and the FFYs 2014-2040 Regional Transportation Plan, as amended, in order to demonstrate conformity with the mobile source emissions milestones set forth in the New York State

Implementation Plan for Air Quality. Accordingly, although not expressly included in the Regional Plan or TIP, the most recent conformity model results demonstrate the Proposed Project's ^ consistency with the plan's purpose to eliminate or reduce the severity and number of violations of the NAAQS.

The Proposed Project's CO screening analysis indicates that potential project level CO impacts would not be significant. According to USEPA PM guidance, the Proposed Project is not of air quality concern for PM<sub>2.5</sub>. As such, the Proposed Project is not expected to cause or contribute to violations of the PM<sub>2.5</sub> NAAQS. Therefore, the Proposed Project would comply with the conformity requirements on both regional and local levels for ozone, CO and PM<sub>2.5</sub>.

## **G. MITIGATION FOR THE PROPOSED PROJECT**

Since no exceedances of applicable CO screening criteria or thresholds were projected to result from the Proposed Project, mitigation is not required. \*

## **A. INTRODUCTION**

The purpose of this chapter is to document potential impacts related to noise and vibration due to the operation of the LIRR Expansion Project, along with any potential noise reduction measures that have been included as part of the Proposed Project. The operation of trains results in noise and vibration. Also, when trains approach grade crossings, warning bells and train horns are utilized, temporarily but repeatedly creating significant noise. This chapter assesses the changes to current noise and vibration levels that would result from the Proposed Project. Chapter 13, “Construction,” includes an assessment of noise levels resulting from construction activities associated with the Proposed Project.

## **B. PRINCIPAL CONCLUSIONS AND IMPACTS**

The results of the noise and vibration assessment indicate that impacts are not predicted under the Proposed Project as a result of several noise and vibration control measures that are integrated into the proposed track design. In fact, with those measures in place, noise and vibration levels would be significantly reduced in virtually all locations compared to existing conditions and the Future Without the Proposed Project. Although LIRR operations are expected to increase between the Future Without the Proposed Project and the Proposed Project, this increase of 6 percent is insignificant compared to the 19 percent increase in operations expected between the Existing Condition and the Future Without the Proposed Project. Compared to the Future Without the Proposed Project, overall noise under the Proposed Project is predicted to decrease significantly due to several design features. Design features, such as the grade separation at roadway crossings (which would eliminate the required sound of all train warning horns), augmented retaining walls serving as sound attenuation walls, high-speed turnout switches with moveable point frogs and concrete ties, under-^ rail pads^ and resilient fasteners are predicted to decrease noise and vibration levels at virtually all locations compared to existing conditions and to the Future Without the Proposed Project.

## **C. METHODOLOGY**

The operational impacts were evaluated using the guidelines set forth by the FTA’s guidance manual on *Transit Noise and Vibration Impact Assessment* (2006). There are no local noise or vibration ordinances that apply to interstate rail operations or facilities from Nassau County or the local municipalities. In general, most local noise ordinances apply to nuisance noises related to disturbances from a variety of source other than interstate rail operations (e.g., loud radios, loud speakers and other objectionable sounds).



## FUNDAMENTALS AND DESCRIPTORS

### NOISE

Noise is “unwanted sound” and by this definition, the perception of noise is a subjective process. Several factors affect the actual level and quality of sound (or noise) as perceived by the human ear and can generally be described in terms of loudness, pitch (or frequency), and time variation. The loudness, or magnitude, of noise determines its intensity and is measured in decibels (dB) that can range from below 40 dB (e.g., the rustling of leaves) to more than 100 dB (e.g., a rock concert). Pitch describes the character and frequency content of noise, such as the very low “rumbling” noise of stereo subwoofers or the very high-pitched noise of a piercing whistle. Finally, the time variation of noise sources can be characterized as continuous, such as with a building ventilation fan; intermittent, such as for trains passing by; or impulsive, such as pile-driving activities during construction.

Various sound levels are used to quantify noise from transit sources, including a sound’s loudness, duration, and tonal character. For example, the A-weighted decibel (dBA) is commonly used to describe the overall noise level because it more closely matches the human ear’s response to audible frequencies. Since the A-weighted decibel scale is logarithmic, a 10 dBA increase in a noise level is generally perceived as a doubling of loudness, while a 3 dBA increase in a noise level is just barely perceptible to the human ear. Typical A-weighted sound levels from transit and other common sources are documented in the FTA’s guidance manual on *Transit Noise and Vibration Impact Assessment* (2006), as shown on **Figure 12-1**.

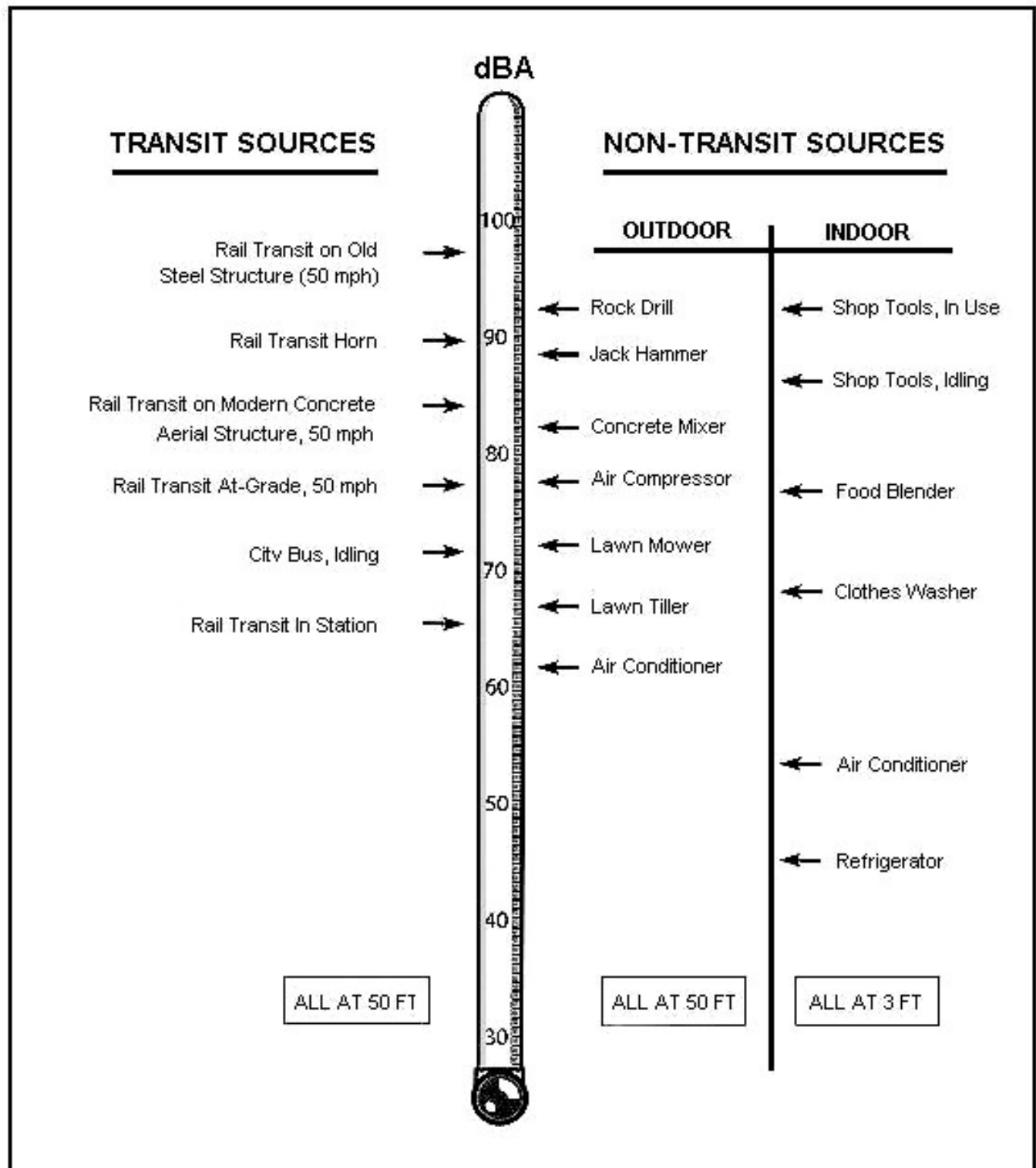
Several A-weighted noise descriptors are used to determine impacts from stationary and transit-related sources, including:

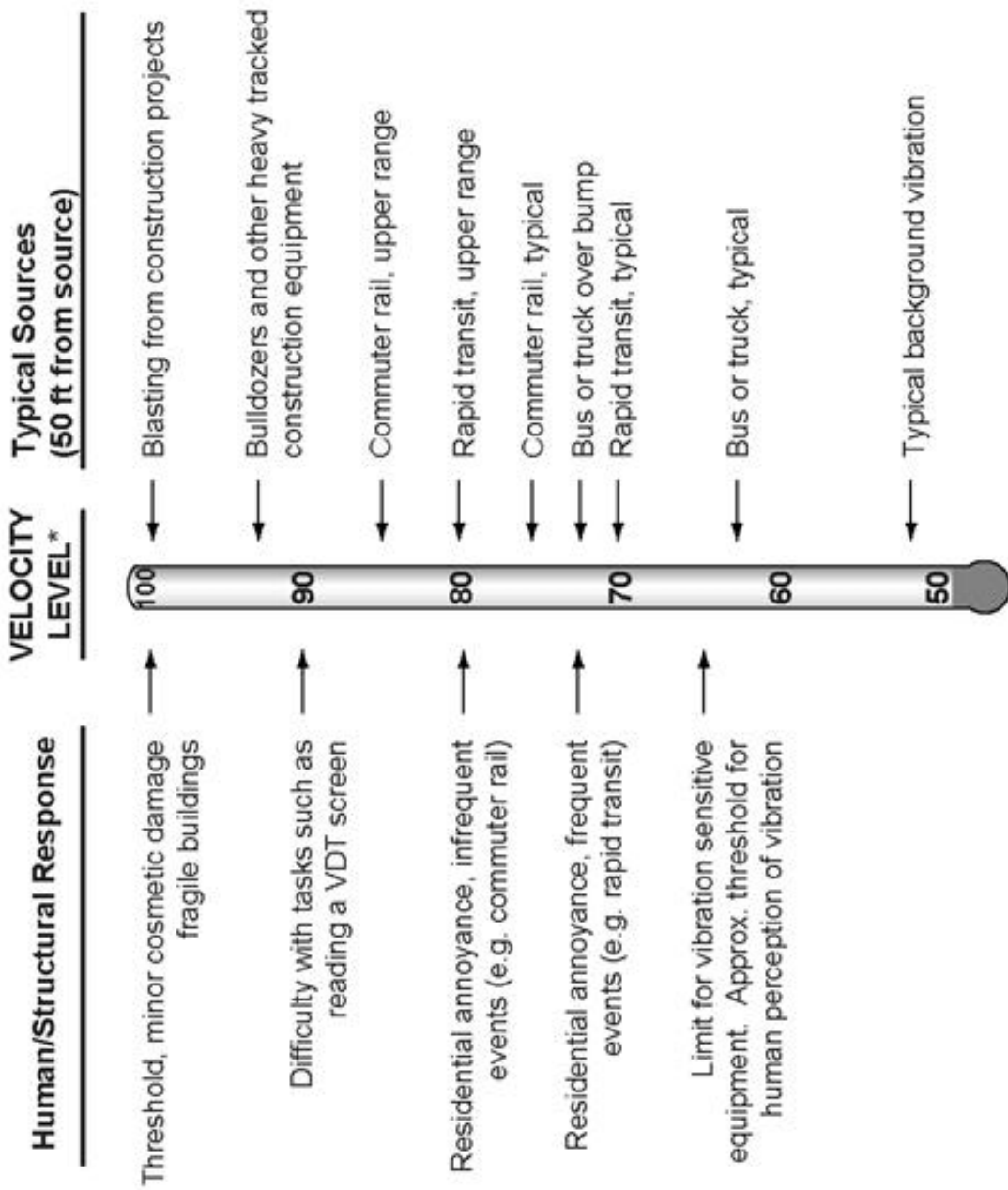
- **Maximum Noise Levels (L<sub>max</sub>):** represents the maximum noise level that occurs during an event such as a bus or train pass-by
- **Average Hourly Equivalent Noise Level (Leq):** represents a level of constant noise with the same acoustical energy as the fluctuating noise levels observed during a given interval, such as one hour (Leq(h))
- **Average 24-hour Day-night Noise Level (L<sub>dn</sub>):** includes a 10-decibel penalty for all nighttime activity between 10:00 p.m. and 7:00 a.m.

### VIBRATION

Ground-borne vibration associated with vehicle movements is usually the result of uneven interactions between wheels and the road or rail surfaces. Examples of such interactions (and subsequent vibrations) include train wheels over a jointed rail, an untrue rail car wheel with “flats,” and a motor vehicle wheel hitting a pothole, a manhole cover, or any other uneven surface. Typical ground-borne vibration levels from transit and other common sources are shown on **Figure 12-2**.

Unlike noise, which travels in air, transit vibration typically travels along the surface of the ground. Depending on the geological properties of the surrounding terrain and the type of building structure exposed to transit vibration, vibration propagation can be more or less efficient. Buildings with a solid foundation set in bedrock are “coupled” more efficiently to the surrounding ground and experience relatively higher vibration levels than buildings located in sandier soil. Heavier buildings (such as masonry structures) are less susceptible to vibration than wood-frame buildings because they absorb more vibration energy.





\* RMS Vibration Velocity Level in VdB relative to  $10^{-6}$  inches/second

LIRR Expansion Project  
Floral Park to Hicksville

Typical Ground-Borne Vibration Levels  
Figure 12-2

Vibration induced by passing vehicles can generally be discussed in terms of displacement, velocity, or acceleration. However, human responses and responses by monitoring instruments and other objects are most accurately described with velocity. Therefore, the vibration velocity level is used to assess vibration impacts from transit projects.

To describe the human response to vibration, the average vibration amplitude (called the root mean square [RMS] amplitude) is used to assess impacts. The RMS velocity level is expressed in inches per second (ips) or vibration velocity levels in decibels (VdB). All VdB vibration levels are referenced to one micro-inch per second ( $\mu$ ips). Similar to noise decibels, vibration decibels are dimensionless because they are referenced to (i.e., divided by) a standard level (such as  $1 \times 10^{-6}$  ips in the United States). This convention allows compression of the scale over which vibration occurs, such as 40 to 100 VdB rather than 0.0001 ips to 0.1 ips.

## EVALUATION CRITERIA

### OPERATIONAL NOISE CRITERIA

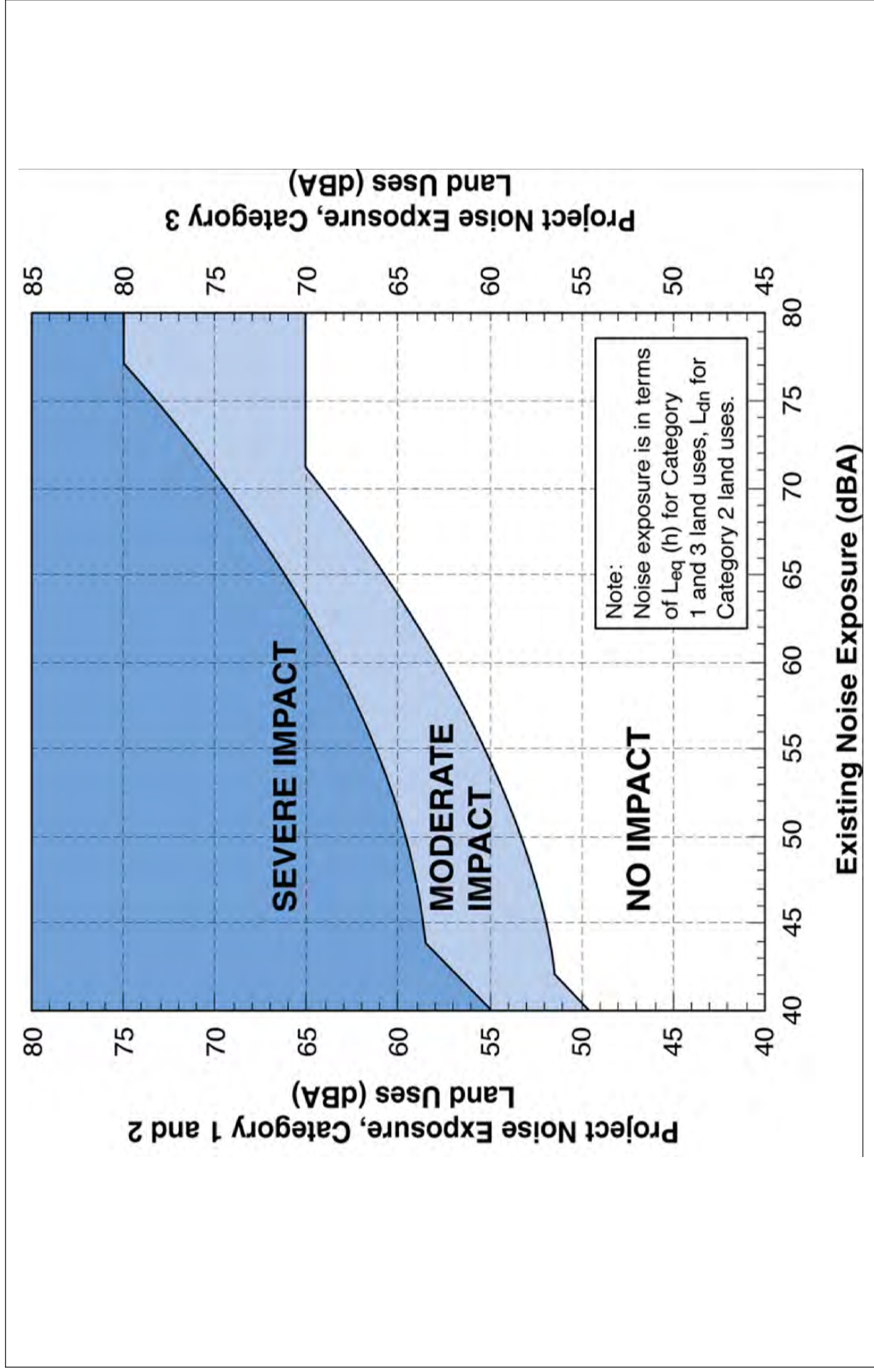
The FTA's guidance manual on *Transit Noise and Vibration Impact Assessment* (2006) presents the basic concepts, methods, and procedures for evaluating the extent and severity of noise impacts from transit projects. Transit noise impacts are assessed based on land-use categories and sensitivity to noise from transit sources under the FTA guidelines. The FTA land-use categories and required noise metrics are shown in **Table 12-1**.

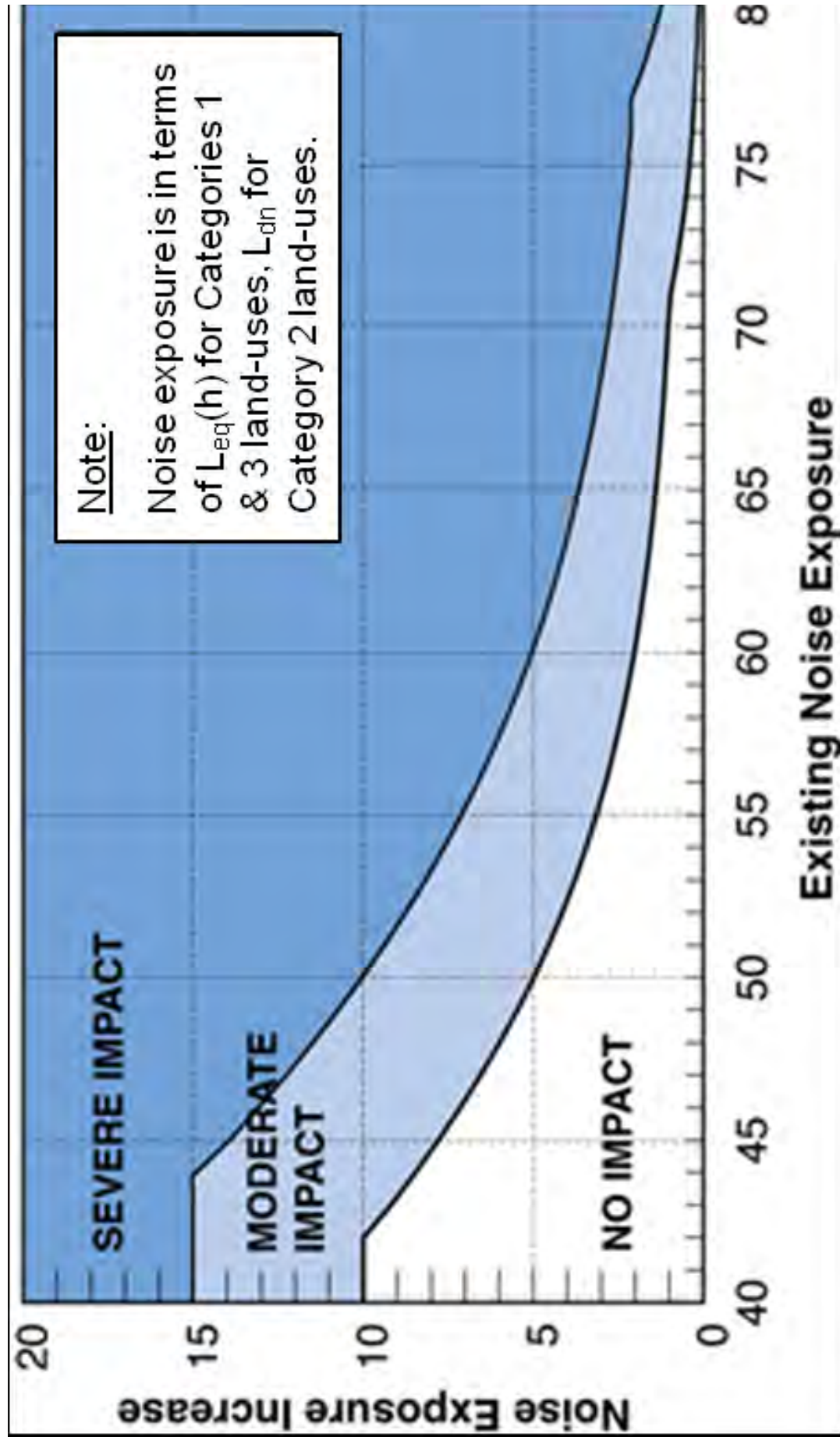
**Table 12-1**  
**FTA Land-Use Categories and Noise Metrics**

Land Use Category	Noise Metric	Description
1	$L_{eq(h)}$	Tracts of land set aside for serenity and quiet, such as outdoor amphitheaters, concert pavilions, and historic landmarks
2	$L_{dn}$	Buildings used for sleeping such as residences, hospitals, hotels, and other areas where nighttime sensitivity to noise is of utmost importance
3	$L_{eq(h)}$	Institutional land uses with primarily daytime and evening uses including schools, libraries, churches, museums, cemeteries, historic sites, and parks, and certain recreational facilities used for study or meditation
<b>Source:</b> FTA 2006		

As shown in **Figure 12-3**, the FTA noise impact criteria are defined by two curves that allow increasing project noise levels as existing noise increases up to a point, beyond which impact is determined based on project noise alone. For projects where changes are proposed to an existing transit system (such as the LIRR Expansion Project), FTA uses a cumulative form of the noise criteria shown in **Figure 12-4**.

The FTA noise impacts are delineated into two categories: *moderate* and *severe* impact (see **Figures 12-3 and 12-4**). The *moderate* impact threshold defines areas where the change in noise is noticeable, but may not be sufficient to cause a strong, adverse community reaction. The *severe* impact threshold defines the noise limits above which a substantial percentage of the population would be highly annoyed by new noise. The level of impact at any specific site can be established by comparing the predicted future Project Corridor noise level to the existing noise level at the site. The FTA noise impact criteria for all three FTA land-use categories are also shown on **Figures 12-3 and 12-4**.





FTA Increase in Cumulative Noise Levels  
Allowed by Criteria  
**Figure 12-4**

As shown in **Table 12-1**, the average day-night noise level over a 24-hour period (or  $L_{dn}$ ) is used to characterize noise exposure for residential areas (FTA Land-Use Category 2). The  $L_{dn}$  descriptor describes a receiver's cumulative noise exposure from all events over a full 24 hours, with events between 10:00 p.m. and 7:00 a.m. increased by 10 decibels to account for greater nighttime sensitivity to noise. For other noise sensitive land uses, such as schools and libraries (FTA Land-Use Category 3) and outdoor amphitheaters (FTA Land-Use Category 1), the average hourly equivalent noise level (or  $L_{eq(h)}$ ) is used to represent the facility's peak operating period.

Along the existing Main Line rail corridor, the existing noise sources (e.g., LIRR and freight rail operations) change as a result of the project (i.e., LIRR operations are increased slightly and new track would be added in the Study Area), so project noise cannot be defined separately from existing noise. In this case, the existing noise can be determined and a new future noise with and without the project can be calculated in accordance with FTA guidance. Consequently, the baseline noise levels used for comparison along the Project Corridor were predicted using existing train schedules. Therefore, the computed Existing Condition was compared with the calculated future noise for the Proposed Project using the cumulative form of the noise criteria shown in **Figure 12-4**.

For disclosure purposes, the noise impacts due to the Future Without the Proposed Project were also quantified and compared to the Proposed Project to assess the relative effects of East Side Access in 2022.

### OPERATIONAL VIBRATION CRITERIA

The FTA vibration criteria for evaluating ground-borne vibration impacts from train pass-bys at nearby sensitive receptors are shown in **Table 12-2**. These vibration criteria are related to ground-borne vibration levels that are expected to result in human annoyance, and are based on RMS velocity levels expressed in VdB referenced to 1  $\mu$ ips. The FTA's experience with community response to ground-borne vibration indicates that when there are only a few train events per day, it would take higher vibration levels to evoke the same community response that would be expected from more frequent events. This is taken into account in the FTA criteria by distinguishing between projects with *frequent*, *occasional*, and *infrequent* events, where the *frequent* events category is defined as more than 70 events per day. Similarly, the *occasional* events category is defined as between 30 and 70 events per day, while the *infrequent* events category is defined as less than 30 events per day. To be conservative, the FTA *frequent* criteria were used to assess ground-borne vibration impacts along the Project Study Area.

The vibration criteria levels shown in **Table 12-2** are defined in terms of human annoyance for different land use categories such as high sensitivity (Category 1), residential (Category 2), and institutional (Category 3). In general, the vibration threshold of human perceptibility is approximately 65 VdB.

For at-grade (i.e., ground level) or above-grade (i.e., elevated) transit systems, the airborne noise is usually a more serious problem than the ground-borne vibration. As a result, ground-borne noise was only evaluated for buildings that have sensitive interior spaces (such as concert halls that are well insulated from exterior noise). In general, airborne noise masks ground-borne noise for above ground transit systems.



**Table 12-2**

**Ground-Borne RMS Vibration and Noise Impact Criteria for Annoyance during Operations and Construction (VdB)**

Receptor Land Use		RMS Vibration Levels (VdB)			A-Weighted Noise Levels (VdB)		
Category	Description	Frequent Events	Occasional Events	Infrequent Events	Frequent Events	Occasional Events	Infrequent Events
1	Buildings where low vibration is essential for interior operations	65	65	65	NA <sup>1</sup>	NA	NA
2	Residences and buildings where people normally sleep	72	75	80	35	38	43
3	Daytime institutional and office use	75	78	83	40	43	48
Specific Buildings	TV/Recording Studios/Concert Halls	65	65	65	25	25	25
	Auditoriums	72	80	80	30	38	38
	Theaters	72	80	80	35	43	43

### SCREENING ASSESSMENT

The FTA default screening distances of 375 feet for intervening buildings and 750 feet without intervening buildings were utilized to identify noise-sensitive receptors along the proposed project alignments and commuter rail stations. Over 4,000 noise- and vibration-sensitive receptors (such as residences, schools and parks) were identified using this approach. Noise impacts were evaluated using the FTA's "Detailed Assessment" guidelines to more accurately reflect the type of input data available.

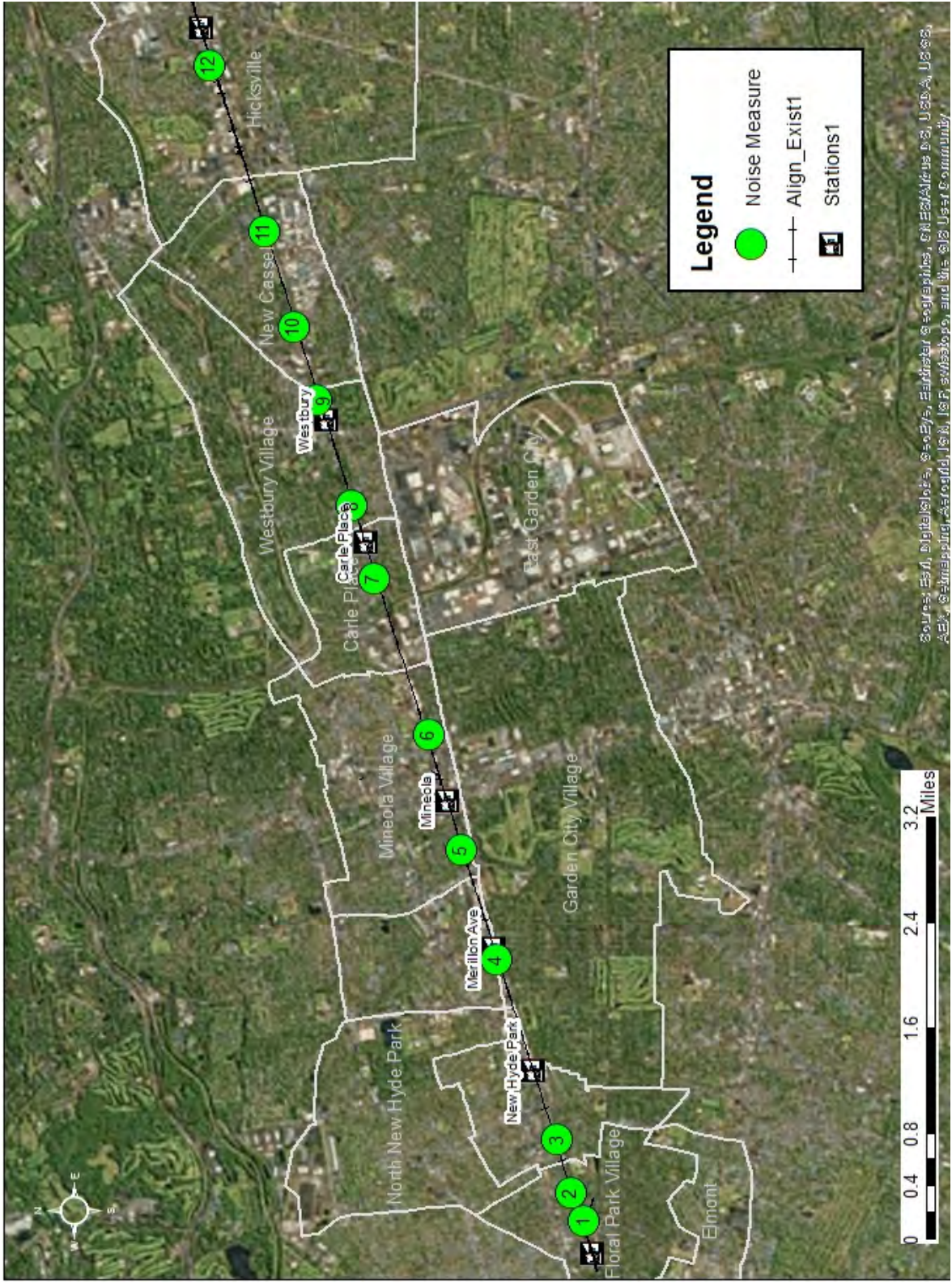
Operational vibration impacts were also predicted using the FTA's "Detailed Assessment" guidelines to reflect actual ground conditions along the Project Corridor. Actual ground-propagation measurements were utilized with other reasonable but worst-case assumptions to evaluate the potential for impacts.

### BASELINE NOISE MONITORING

To determine the existing background noise levels at sensitive receptors near the proposed Project Corridor, a noise-monitoring program was conducted at 12 representative locations shown on **Figure 12-5**. Noise levels were measured from May 24 to June 7, 2016 during various periods of the day in accordance with FTA guidelines to determine the average ambient conditions on a typical weekday.

The noise measurements documented existing noise sources along the Project Corridor, including current LIRR rail operations, warning horn use, freight rail operations and local traffic effects. The 24-hour day-night noise level (or Ldn) is used to describe existing noise at residences and other FTA Category 2 land uses. Similarly, peak-hour equivalent noise levels (Leq) are reported for non-residential or institutional receptors, such as schools, libraries, churches and parks. All noise levels are reported in A-weighted decibels (or dBA) for comparison to the FTA criteria.





LIRR Expansion Project  
Floral Park to Hicksville

Noise-Monitoring Sites along Project Corridor  
Figure 12-5

## NOISE MODELING ASSUMPTIONS

The various noise modeling assumptions, noise levels for each of the proposed noise sources (including train pass-bys, wheel squeal, etc.), and other operating characteristics (such as average duration times, source heights, etc.) are described below. These data are based on default FTA data, as well as operational information provided by the project team. The LIRR rail operations data are summarized in **Table 12-3** for various peak and off-peak periods of the day.

**Table 12-3**  
**Existing and Future LIRR Rail Operations (No. of Trains)**

Segment	2016 Existing			2040 Build			2040 No Build		
	Day	Night	Peak Hrs.	Day	Night	Peak Hrs.	Day	Night	Peak Hrs.
Hicksville Station*	161	60	31	217	83	35	201	82	35
Mineola-Hicksville	157	58	31	201	78	35	185	77	35
Oyster Bay Line	28	9	5	29	9	4	29	9	4
Floral Park Wye to Mineola	185	67	36	230	87	39	214	86	39
Hempstead Branch**	50	20	6	44	14	6	44	14	6
<b>Source:</b> LIRR, October 2016 Day is defined as 7:00 AM to 10:00 PM; Night is defined as 10:00 PM to 7:00 AM * Includes Port Jefferson diesel trains that turn at Hicksville Station ** Reduction in number of trains on the Hempstead Branch is entirely due to operating fewer non-revenue trains on the Branch. There is no reduction in revenue service to the Hempstead Branch.									

This schedule is representative of a typical weekday, which includes an operating period between 4:00 PM and 2:00 AM the following day. The schedule was used to predict future noise levels under the Proposed Project. The detailed noise modeling assumptions that follow are described separately for each source:

### LIRR ROLLING STOCK

- Noise impacts were evaluated from rail vehicles operating along the Project Corridor include self-propelled electric multiple unit (EMU) railcars, diesel locomotives and non-powered railcars.
- LIRR operations are summarized in **Table 12-3**. The future operations under the Proposed Project vary by segment of the corridor, due to the combination of different rail lines merging with the Project Corridor, revenue-service trains and “dead-head” or non-revenue service trains.
- LIRR EMU trains were modeled using an average 12-car consist during the peak-hour periods and 10-car consists during all other times. LIRR diesel-powered train consists include two locomotives and eight railcars for all time periods.
- Potential impacts due to EMU and diesel-pulled railcars were evaluated using the default FTA reference noise level of 80 dBA Lmax (or 82 dBA SEL) at 50 feet, a source height of 2 feet, and a reference speed of 50 miles per hour. The default FTA reference noise levels are well-established and represent a conservative estimate of future levels from the proposed railcar operations. [FTA Guidance, Table 6-3]
- Potential impacts due to diesel locomotives were evaluated using the default FTA reference noise level of 90 dBA Lmax (or 92 dBA SEL) at 50 feet, a source height of 8 feet, and a reference speed of 50 miles per hour. The default FTA reference noise levels are well-established and represent a conservative estimate of future levels from the proposed

locomotive operations [FTA Guidance, Table 6-3]. Diesel locomotives originate from the Oyster Bay Line and the Huntington Line (via Hicksville).

- Except at stations, maximum train operating speeds of 80 miles per hour were applied everywhere as a conservative modeling assumption. Upon approach and departing stations, however, train speeds decreased to a minimum speed of 35 miles per hour at the station midpoint.
- Both the railcar and locomotive reference noise levels were adjusted to account for speed, track switches, receptor distances and acoustically “soft” ground to reflect yards and lawns.

#### *WARNING HORNS*

- According to the Federal Railroad Administration’s (FRA) horn rule, onboard warning horns must be sounded within one-quarter mile of all active grade crossings.
- As a result, potential impacts due to onboard warning horns were evaluated using the default FTA reference noise level of 110 dBA L<sub>max</sub> (or 113 dBA SEL) at 50 feet and a source height of 10 feet.
- Similarly, potential impacts due to onboard warning horns for EMU trains were evaluated using the default FTA reference noise level of 90 dBA L<sub>max</sub> (or 93 dBA SEL) at 50 feet and a source height of 10 feet.
- Warning horn usage at grade crossings was applied for the Existing Condition only since all grade crossing in the Study Area would be eliminated (i.e., grade separated) as part of the Proposed Project.

#### *CROSSING BELLS*

- Similarly, noise from stationary crossing bells would also ring at the seven grade crossings located within the Study Area.
- Crossing bell usage was applied for the Existing Condition only since all grade crossing in the Study Area would be eliminated (i.e., grade separated) as part of the Proposed Project.
- As a result, potential impacts due to crossing bells under the Existing Condition were evaluated using the default FTA reference noise level of 73 dBA L<sub>max</sub> (or 109 dBA SEL) at 50 feet, a duration of 30 seconds per train event, and a source height of 10 feet.

#### *LOCOMOTIVE IDLING AT STATIONS*

- Idling noise from diesel locomotives that stop at the stations was also included in the analysis for analysis conditions.
- Potential impacts due to idling locomotives at passenger stations were evaluated using the default FTA reference noise level of 73 dBA L<sub>max</sub> (or 109 dBA SEL) at 50 feet and a source height of 10 feet.

#### *INTERLOCKING AND TURNOUT SWITCHES*

- Several track switches were identified along the Proposed Project alignment particularly at interlockings and crossover connections with the new third track and the new track sidings.
- Proposed turnout switches include both standard AREMA type and high-speed moveable point frogs (e.g., type No. 24).

## **Long Island Rail Road Expansion Project**

---

- As a result, potential impacts due to track switches and other special track work were evaluated using the default FTA reference noise level of 90 dBA Lmax (or 100 dBA SEL) at 50 feet with a duration of 2 seconds per railcar.
- No additional impacts were evaluated for the high-speed movable point frogs since they do not include any gaps.

### ***^ FREIGHT OPERATIONS***

- Freight operations for the New York and Atlantic Railway (NY&A) include three round-trip trains through the Main Line corridor today. There are three daytime moves and three nighttime moves. The average train length includes 21 railcars and assumes one engine. For both scenarios in 2040 (build and no-build), the analysis conservatively estimates the addition of one round-trip train, one additional engine per train, and an increase in train length to 30 cars. Since freight utilizes the same tracks as the LIRR, the potential impacts with relocating freight operations closer to residences was also evaluated.
- Potential impacts due to diesel locomotives were evaluated using the default FTA reference noise level of 90 dBA Lmax (or 92 dBA SEL) at 50 feet, a source height of 8 feet, and a reference speed of 50 miles per hour.
- Potential impacts due to diesel-pulled railcars were evaluated using the default FTA reference noise level of 80 dBA Lmax (or 82 dBA SEL) at 50 feet, a source height of 2 feet, and a reference speed of 50 miles per hour.
- Maximum freight train operating speeds of 35 miles per hour were applied everywhere as a conservative modeling assumption.
- Freight train warning horn usage at grade crossings was also applied for the Existing Condition only since all grade crossing in the Study Area would be eliminated (i.e., grade separated) as part of the Proposed Project.

### ***OTHER NOISE SOURCES NOT INCLUDED IN THE PROPOSED PROJECT***

- Warning Horns at Stations: although express trains that do not stop at some stations could sound their horns, this is not considered standard LIRR practice. Therefore, warning horn usage for express trains at stations was not included in the modeling analysis for the Existing Condition. Under the Proposed Project, express trains would utilize the center tracks away from the side platforms.
- Wheel Squeal: For larger and heavier commuter vehicles, the FTA generally identifies wheel squeal to occur along curved track with radii of less than 1,000 feet or approximately 5° 43' 0". However, all of the proposed rail curves along the Project Corridor are designed to fall within this limit. As a result, wheel squeal was not included in the analysis because no occurrences or impacts due to wheel squeal are expected anywhere under the Proposed Project.
- Parking: The addition of new parking facilities is not expected to significantly change ambient noise levels as the dominant noise source in the Study Area is from railroad operations.

## **VIBRATION MODELING ASSUMPTIONS**

Projected ground-borne vibration levels from passenger and freight rail operations were predicted using the project-specific ground-surface vibration curves that were developed using

the FTA's "Detailed Vibration Analysis" guidance. As shown in **Figure 12-6**, ground-borne vibration levels were developed. These curves represent average ground-borne vibration levels as a function of distance, normalized to a train speed of 50 mph, for locations with and without crossovers.

The results for locations without crossovers fall just below the FTA generalized ground surface vibration curve for locomotive powered trains. Similarly, for locations with crossovers, the results indicate vibration levels that are 5 VdB higher due to the wheel impacts at switches associated with track turnouts. With adjustments for train speed, the curves in **Figure 12-6** were used to predict ground-borne vibration from train operations in the Study Area.

As part of the Proposed Project, resilient fasteners, rail pads, and concrete ties are proposed for the new third track. The proposed rail connection system is expected to reduce vibration approximately 5 VdB compared to standard rail fastening systems. Additionally, the LIRR has proposed to accelerate its track tie replacement program for existing Tracks 1 and 2 to utilize the same vibration-reducing system as is proposed for Track 3. Therefore, the vibration benefits proposed as a result of using the resilient fasteners, rail pads, and concrete ties were applied everywhere along the Project Corridor as part of the modeling impact assessment.

No adjustments were applied for corrugated rail, wheel flats or other unmaintained rolling stock. It is assumed that the Proposed Project sponsor maintains a rigorous rail-grinding and wheel-truing program to maximize track life and to minimize adverse vibration in the community. Finally, no adjustments were applied for different receptor building construction types (i.e., masonry versus timber).

The potential vibration impacts of the Proposed Project are related to the planned addition of a new track and to changes in operations along a heavily-used rail corridor where the existing train vibration levels already exceed the FTA vibration impact criteria at locations within several hundred feet of the tracks. Thus, in accordance with FTA guidance, new vibration impact is assessed only where the project results in an exceedance of the "frequent" threshold (e.g., 72 VdB for residences) and more than a 3 VdB increase in vibration level.

## **D. EXISTING CONDITIONS**

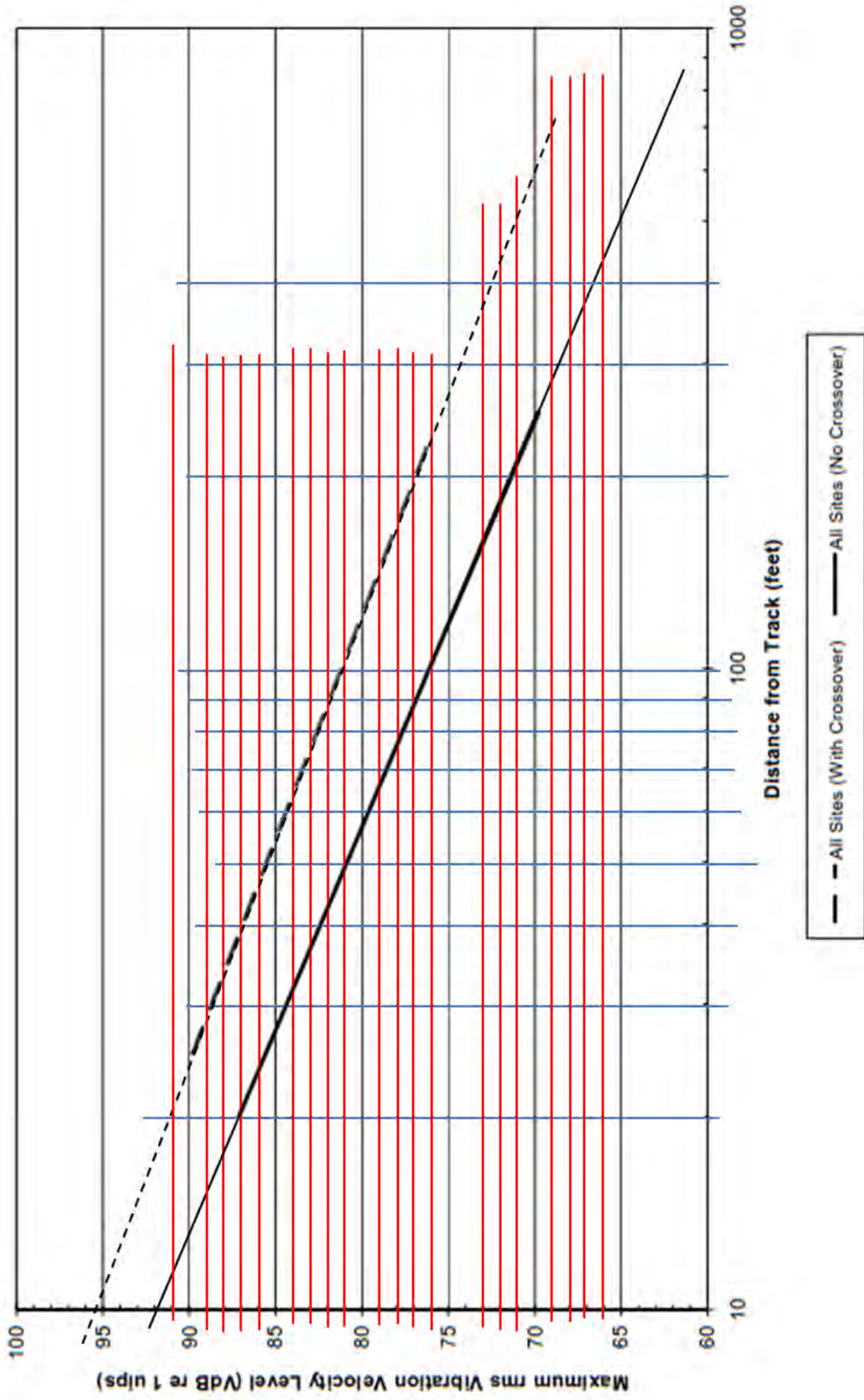
A noise-monitoring program was conducted to document existing conditions at sensitive receptors in the project Study Area.

### **EXISTING MEASURED NOISE**

As summarized below in **Table 12-4**, the measured day-night noise levels (average over 24 hours) in the Study Area range from 63 dBA at Receptor M12 (a residence along Holman Boulevard in Hicksville) to 80 dBA at Receptor M3 (a residence along 5th Avenue in New Hyde Park). In general, the lower noise levels are representative of land uses somewhat shielded from the rail corridor while the higher levels are reflective of residences immediately adjacent to the rail corridor.

Similarly, peak-hour noise levels (time-weighted over one hour) measured along the Project Corridor range from 62 dBA at Receptor M10 (a residence along Costar Street in New Cassel) to 75 dBA at Receptor M3 (a residence along 5th Avenue in New Hyde Park). These levels are reflective of the current noise exposures observed along the Project Corridor.





Measured LIRR Locomotive Ground-Surface  
Vibration Curves  
**Figure 12-6**

**Table 12-4**  
**Baseline Noise Monitoring Results (dBA)**

ID	Receptor Description	Community	FTA Land Use Category	Leq <sub>(1)</sub>	Ldn
M1	TPSS, Plainfield Av	Floral Park Village	2	68	72
M2	Res., 50 Charles St.	Floral Park	2	68	73
M3	Res., 515 5th Av	New Hyde Park	2	75	80
M4	Res., 92 Atlantic Av	New Hyde Park/Garden City	2	68	73
M5	Res., 377 De Mott St	Mineola	2	71	77
M6	Res., 66 Albertson Pl	Mineola	2	71	77
M7	Res., 115 Atlantic Av	Carle Place	2	67	72
M8	Res., 84 Earl St	Westbury Village	2	66	72
M9	TPSS, Union Av at Sullivan Ln	New Cassel	2	66	70
M10	Res., 205 Costar St	New Cassel	2	62	67
M11	TPSS, Broadway at Bond St	New Cassel	2	72	78
M12	Res., Holman Blvd at Keats Pl	Hicksville	2	66	63

**Note:** Leq<sub>(1)</sub> is the one-hour time-weighted average noise level representing a level of constant noise with the same acoustical energy as the fluctuating noise levels observed during a one hour interval.  
L<sub>dn</sub> is the average 24-hour Day-night Noise Level and includes a 10-decibel penalty for all nighttime activity between 10:00 p.m. and 7:00 a.m.  
**Source:** AECOM, September 2016

The sound-level meters that were used to measure current noise conditions (Brüel & Kjær Model 2236 and Larson Davis Model 820) meet or exceed the American National Standards Institute (ANSI) standards for Type I accuracy and quality. The sound-level meters were calibrated using a Brüel & Kjær Model 4231 before and after each measurement. All measurements were conducted according to ANSI Standard S1.13-2005, *Measurement of Sound Pressure Levels in Air* [2010]. All noise levels are reported in dBA, which best approximates the sensitivity of human hearing.

### EXISTING PREDICTED NOISE

A predictive noise and vibration model was developed based on the baseline noise monitoring results shown in Table 12-4 and the noise modeling assumptions described in Section C, “Methodology.” The predicted noise and vibration levels are generally equivalent to what was measured in the field, thereby providing good calibration for the calculations of predicted noise and vibration levels in the Future Without the Proposed Project and the Future With the Proposed Project.

As summarized in **Table 12-5**<sup>^</sup>, the predicted day-night noise levels along the Project Corridor range from <sup>^</sup>74 dBA at Receptor <sup>^</sup>M1 (a residence along <sup>^</sup>Terrace Avenue near the LIRR substation in <sup>^</sup>Floral Park) to <sup>^</sup>92 dBA at Receptor M3 (a residence along 5th Avenue in New Hyde Park). The predicted levels are generally equivalent to what was measured in the field. For example, current rail operations include warning horn use within one quarter mile of all grade crossings as mandated by the Federal Railroad Administration (FRA). The noise levels predicted for the Existing Condition were used as the basis of comparison for the future Proposed Project. In other words, the change in noise between the modeled Existing Condition and the future Proposed Project forms the basis for the FTA’s impact assessment using the relative increase criteria specific to this project.

## EXISTING PREDICTED VIBRATION

Existing vibration along the Project Corridor is currently affected by LIRR operations and freight rail activity along the same tracks. Based on field measurements, both existing and future rail operations may be predicted using corridor-specific ground-propagation curves shown in **Figure 12-6**. As summarized in **Table 12-6** of Section E, the predicted ground-borne vibration levels under the Existing Condition along the Project Corridor range from  $\wedge 79$  VdB at Receptor  $\wedge M4$  (a residence along  $\wedge$  Atlantic Avenue in  $\wedge$  New Hyde Park) to  $\wedge 93$  VdB at Receptor  $\wedge M5$  (a residence along  $\wedge$  DeMott Street in  $\wedge$  Mineola). The predictions represent maximum vibration levels from rail operations along the existing rail corridor. Similar to noise, these existing levels are used as a basis of the FTA impact assessment using the relative increase criteria by comparing the predicted or modeled vibration levels for the Existing Condition with those for the future Proposed Project.

**Table 12-5**  
**Predicted Noise Levels at Select Receptors under the Proposed Project (dBA)**

Receptor		Community	FTA Cat.	Noise Levels (dBA) <sup>1</sup>				FTA Criteria	
No.	Description			Existing	Future	Project	Existing Change	MOD	SEV
1	$\wedge$ <u>Res., 14 Terrace Av near the LIRR substation</u>	Floral Park Village	2	$\wedge 74$	$\wedge 75$	$\wedge 71$	$\wedge 3$	0. $\wedge 5$	$\wedge 2.3$
2	Res., 50 Charles St.	Floral Park	2	78 $\wedge$	79 $\wedge$	$\wedge 71$	$\wedge 7$	0.2	1.6
3	Res., 515 5th Av	New Hyde Park	2	$\wedge 92$	93 $\wedge$	$\wedge 77$	$\wedge 15$	0.0	0.1
4	Res., 92 Atlantic Av	New Hyde Park/Garden City	2	74 $\wedge$	75 $\wedge$	74 $\wedge$	-0.1	0.5	2. $\wedge 2$
5	Res., 377 De Mott St	Mineola	2	86 $\wedge$	87 $\wedge$	86 $\wedge$	-0.2	0.0	0.3
6	Res., 66 Albertson Pl	Mineola	2	90 $\wedge$	91 $\wedge$	$\wedge 81$	$\wedge 9$	0.0	0.1
7	Res., 115 Atlantic Av	Carle Place	2	74 $\wedge$	75 $\wedge$	$\wedge 71$	$\wedge 3$	0.5	2. $\wedge 3$
8	Res., 84 Earl St	Westbury Village	2	77 $\wedge$	78 $\wedge$	$\wedge 66$	$\wedge 11$	0.2	$\wedge 2.0$
9	$\wedge$ <u>LIRR substation, Union Av at Sullivan Ln</u>	New Cassel	2	$\wedge 91$	$\wedge 92$	$\wedge 76$	-15 $\wedge$	0.0	0. $\wedge 1$
10	Res., 205 Costar St	New Cassel	2	76 $\wedge$	77 $\wedge$	$\wedge 68$	$\wedge 8$	0.3	2. $\wedge 1$
11	$\wedge$ <u>LIRR substation, Broadway at Bond St</u>	New Cassel	2	$\wedge 88$	$\wedge 89$	82 $\wedge$	$\wedge 6$	0. $\wedge 0$	0. $\wedge 2$
12	Res., Holman Blvd at Keats Pl	Hicksville	2	$\wedge 78$	79 $\wedge$	$\wedge 74$	$\wedge 4$	0. $\wedge 2$	$\wedge 1.7$

<sup>1</sup> Source: AECOM,  $\wedge$  March 2017.

## E. FUTURE WITHOUT THE PROPOSED PROJECT

### NOISE

The Project Study Area is characterized by a mix of both suburban residential and mixed-use retail-commercial land-uses whose noise exposure is currently dominated by rail operations along the Project Corridor. Overall, LIRR rail operations in the Future Without the Proposed Project are expected to increase approximately 19 percent in the Project Study Area between 2016 and 2040 to reflect the East Side Access service.

As shown in **Table 12-5**, maximum day-night project noise levels under the Future Without the Proposed Project (“Future” column head) are predicted to range from 75 dBA at Receptor Site  $\wedge 1$  (a residence along  $\wedge$  Terrace Avenue near the LIRR substation in  $\wedge$  Floral Park $\wedge$ ), for example, to 93 dBA at Receptor Site 3 (a residence along 5<sup>th</sup> Avenue in New Hyde Park). Overall, corridor wide noise levels are expected to increase approximately 1 dBA on average, which reflects the 19 percent increase in operations attributed to the East Side Access Project. Although the noise levels for the Future Without the Proposed Project are reported for disclosure



purposes only, these noise levels would be associated with an FTA *moderate* noise impact. Therefore, as predicted in the 2001 East Side Access EIS, noise impacts are expected at all residences immediately adjacent to the Project Corridor under the Future Without the Proposed Project Alternative. However, the FTA determined that “no feasible and prudent alternative to the adverse environmental effects” of the noise impacts existed and no mitigation was included in the 2001 FEIS (2001 ROD ESA Project, p. 11).

### VIBRATION

Projected vibration levels under the Future Without the Proposed Project Alternative are expected to be similar to those currently experienced under existing conditions. Traffic, including heavy trucks and buses, rarely creates perceptible ground-borne vibration unless vehicles are operating very close to buildings or there are irregularities in the road, such as potholes or expansion joints. The pneumatic tires and suspension systems of automobiles, trucks, and buses eliminate most ground-borne vibration. Similarly, vibration levels from existing LIRR and freight train service along the Project Corridor is expected to be the dominant source of vibration in the area, which is not expected to change from the Existing Condition. As a result, there would be no vibration impacts associated with the Future Without the Proposed Project Alternative since no Project Corridor elements would be built.

## F. POTENTIAL IMPACTS OF THE PROPOSED PROJECT

The results of the operational noise and vibration findings are described in the following subsections. Potential impacts to noise due to construction of the Proposed Project are assessed in Chapter 13, “Construction.”

### NOISE

To gauge the level of impact from the Proposed Project, noise levels are reported for the same discrete receptors where baseline noise measurements were collected. As shown in **Table 12-5**, maximum day-night project noise levels under the Proposed Project are predicted to range from <sup>^</sup>66 dBA at Receptor Site <sup>^</sup>8 (a residence along <sup>^</sup>Earl Street in <sup>^</sup>Westbury) to 86 dBA at Receptor Site 5 (a residence along De Mott Street in Mineola). In the Future Without the Proposed Project, noise levels are predicted to increase approximately 1 dBA above the Existing Condition. This is due to the increase of trains associated with East Side Access. However, with the Proposed Project, noise levels are predicted to decrease throughout the Project Corridor approximately 10 dBA from the Existing Condition<sup>^</sup> (see **Figure 12-7**). This overall decrease in noise is due to several design features included as part of the Proposed Project. For example, grade separation at the street crossings would eliminate the need to sound warning horns thereby reducing operation train noise levels up to 15 dBA within a quarter mile of all existing crossings. Furthermore, high-speed specialized turnout switches<sup>^</sup> that eliminate the impact noise caused by the gap or rail discontinuity are proposed in the vicinity of residences. Finally, retaining walls would be supplemented with sound attenuation walls in areas where residential neighborhoods are located immediately adjacent to the rail corridor.

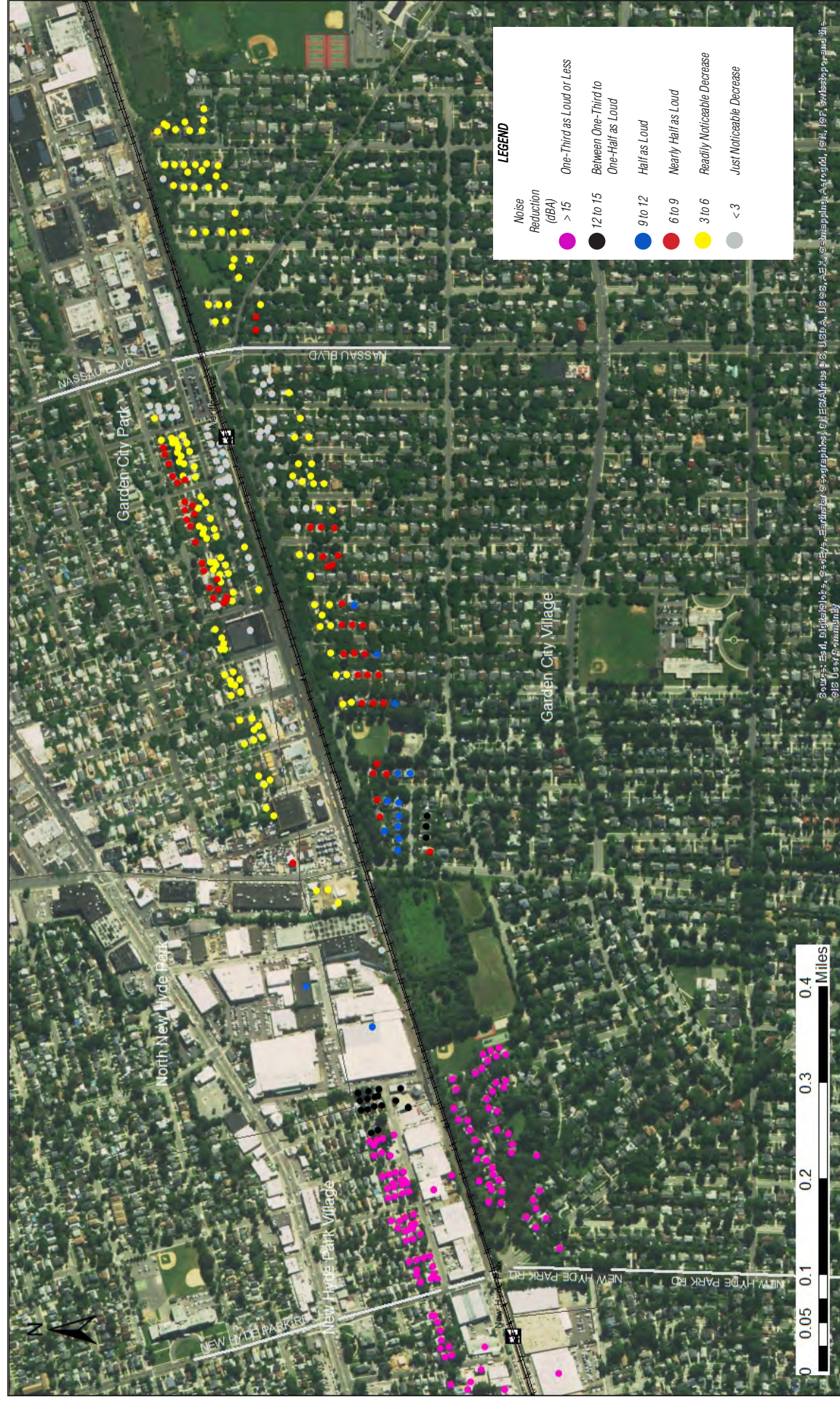
Therefore, as a result of these noise-reduction design features, there are no corridor wide exceedances of the FTA *severe* impact criteria or *moderate* impact criteria predicted at any FTA Category 2 land uses under the Proposed Project. Similarly, there are also no exceedances predicted at any institutional receptors (or FTA Category 3 land uses). Finally, no exceedances





Noise Reduction, Operations (dBA):  
Existing - Mitigated Build  
**Figure 12-7a**





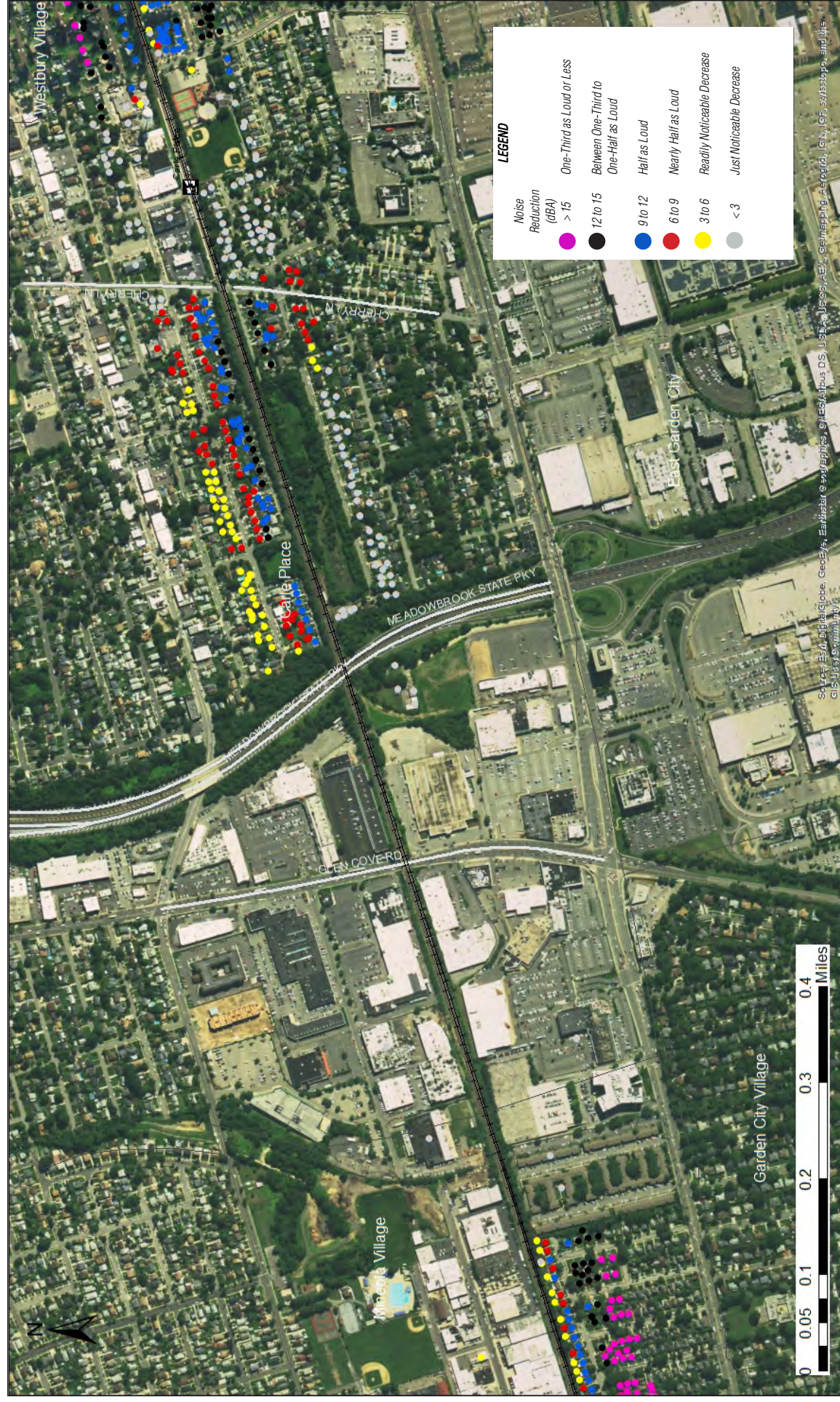
Noise Reduction, Operations (dBA):  
Existing - Mitigated Build  
Figure 12-7b





## LIRR Expansion Project Floral Park to Hicksville





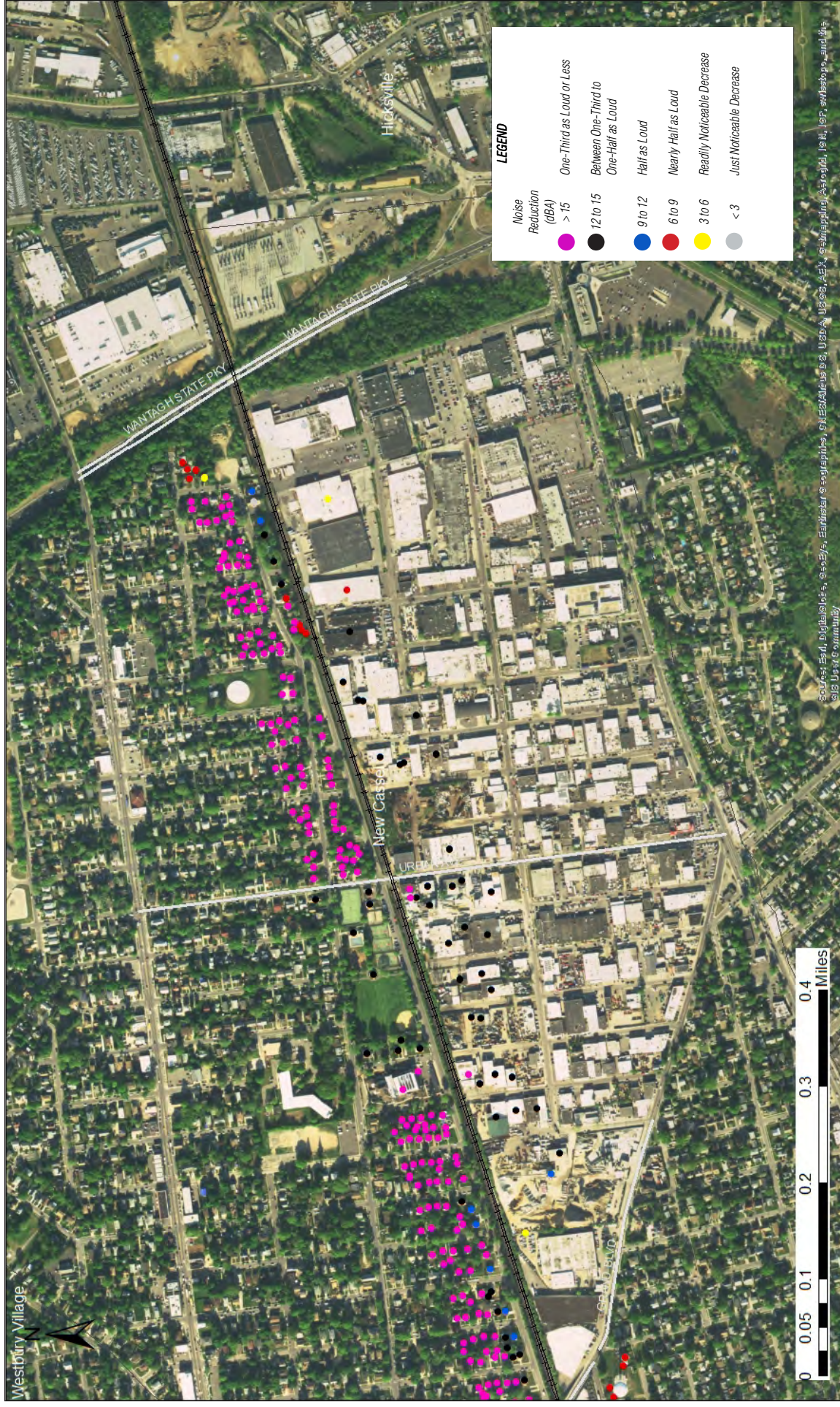
Noise Reduction, Operations (dBA):  
Existing - Mitigated Build  
**Figure 12-7d**





## LIRR Expansion Project Floral Park to Hicksville





**LIRR Expansion Project  
Floral Park to Hicksville**

**Noise Reduction, Operations (dBA):  
Existing - Mitigated Build  
Figure 12-7f**







of the FTA Category 1 land-uses (highly sensitive receptors) are predicted under the Proposed Project.

## VIBRATION

To gauge the level of impact from the Proposed Project, ground-borne vibration levels are reported for the same discrete receptors utilized for the noise assessment. As shown in **Table 12-6**, project vibration levels with the Proposed Project are predicted to range from 74 VdB at Site 4 (a residence along Atlantic Avenue in New Hyde Park) to 89 VdB at Site 6 (a residence along Albertson Place in Mineola). The highest predicted vibration levels along the Project Corridor would occur at receptors immediately adjacent to the rail corridor especially closest to the proposed third track.

**Table 12-6**

**Predicted Vibration Levels at Select Receptors under the Existing Condition and the Proposed Project (VdB)**

Receptor		Community	FTA Cat.	Vibration Levels (VdB) <sup>1</sup>			FTA Criteria <sup>3</sup>
No.	Description			Existing <sup>2</sup>	Project	<sup>Δ</sup> Change <sup>4</sup>	
1	TPSS, Plainfield Av	Floral Park Village	2	85	78	-7	72 & 3
2	Res., 50 Charles St.	Floral Park	2	85	80	-5	72 & 3
3	Res., 515 5th Av	New Hyde Park	2	83	79	-4	72 & 3
4	Res., 92 Atlantic Av	New Hyde Park/Garden City	2	79	74	-5	72 & 3
5	Res., 377 De Mott St	Mineola	2	93	88	-5	72 & 3
6	Res., 66 Albertson Pl	Mineola	2	89	89	0	72 & 3
7	Res., 115 Atlantic Av	Carle Place	2	81	77	-4	72 & 3
8	Res., 84 Earl St	Westbury Village	2	84	80	-4	72 & 3
9	TPSS, Union Av at Sullivan Ln	New Cassel	2	83	76	-7	72 & 3
10	Res., 205 Costar St	New Cassel	2	80	<sup>Δ</sup> 77	<sup>Δ</sup> -3	72 & 3
11	TPSS, Broadway at Bond St	New Cassel	2	<sup>Δ</sup> 87	84	<sup>Δ</sup> -3	72 & 3
12	Res., Holman Blvd at Keats Pl	Hicksville	2	86	82	-4	72 & 3

**Notes**

1. The FTA vibration impact criteria used to assess impact reflect the “frequent” event activity level (i.e., 70 or more events per day).
2. The vibration levels are the same for both the Existing Condition and the Future Without the Proposed Project.
3. For conditions with baseline levels above 72 VdB, the FTA impact criteria is an increase of 3 VdB.
4. The change from Existing to Project values reflects implementation of an on-going tie-replacement program on Main Line 1 and Main Line 2 that is being accelerated as part of the Proposed Project to take advantage of track-outages planned as part of the construction of the Proposed Project.

**Source:** AECOM, October 2016

Overall, vibration levels are expected to decrease approximately 6 VdB due to design features proposed as part of the Proposed Project. For example, design features proposed to reduce vibration along the Project Corridor include high-speed turnout switches <sup>Δ</sup> that eliminate the rail gap compared to standard AREMA type switches. Other vibration-reducing design features include resilient fasteners<sup>Δ</sup>, rail pads, and new concrete ties. High-speed turnout switches could include moveable point frogs or other devices that eliminate the impact caused by the gap or rail discontinuity. Additionally, resilient fasteners combined with rail pads (which decouple the vibration source from the track support structure) are proposed <sup>Δ</sup> throughout the <sup>Δ</sup> Project Corridor.

Therefore, as a result of these vibration-reducing design features, vibration levels are predicted to decrease everywhere compared to Existing Condition and no corridor-wide exceedances of the FTA *frequent* impact criteria are predicted at any FTA Category 2 land uses under the

## Long Island Rail Road Expansion Project

---

Proposed Project. There are also no exceedances predicted at any institutional receptors (or FTA Category 3 land uses). Finally, no exceedances of the FTA Category 1 land-uses (highly sensitive receptors) are predicted under the Proposed Project.

### NOISE AND VIBRATION REDUCING FEATURES OF THE PROPOSED PROJECT

Since several design features are proposed as part of the Proposed Project to eliminate noise and vibration impacts at residential communities, no impacts are predicted. As a result of the following noise and vibration-reducing design features, no mitigation is required.

#### NOISE

- Warning Horn Elimination – grade separation at the street crossings would eliminate the need to sound warning horns thereby reducing operation train noise levels up to 15 dBA within a quarter mile of all existing crossings. Warning horns would be eliminated at the following grade crossings:
  - Covert Avenue, South 12th Street and New Hyde Park Road in New Hyde Park
  - Main and Willis Streets in Mineola
  - School Street and Willis Avenue in New Cassel
- High-speed turnout switches – ^ switches and frogs that eliminate the impact noise caused by the gap or rail discontinuity are proposed as part of the Proposed Project design.
- Sound Attenuation Walls – retaining walls would be supplemented with sound attenuation walls in areas where residential neighborhoods are located immediately adjacent to the rail corridor. The locations and dimensions of the sound attenuation walls are summarized in **Table 12-7**.

Further,^ sound attenuation measures would be implemented at the Dryden Street School near School Street in Westbury.

With the incorporation of these design measures, no noise impacts are predicted under the Proposed Project.

#### VIBRATION

Since operational vibration impacts currently exceed the FTA impact thresholds for both the Existing Condition and the Future Without the Proposed Project, several vibration control measures are proposed for inclusion in the proposed track design as part of the Proposed Project. To minimize vibration along the Project Corridor and to reduce vibrations below Existing Condition levels as well as FTA guidelines, the following vibration control measures may be included in the track design for the Proposed Project:

- ^ Resilient rail fasteners and rail pads – resilient fasteners and rail pads placed between the rail and the new concrete ties are proposed to attenuate vibration levels 5 VdB from train pass-bys by decoupling the rail source from the underlying track structure.
- High-speed turnouts with^ frogs that reduce vibration caused by the gap or rail discontinuity are proposed as part of the Proposed Project design throughout the Project Corridor.

^ Vibration control measures that “decouple” the track from the ground are recommended for inclusion in the proposed track design.

**Table 12-7**  
**Sound Attenuation Walls Included in the Proposed Project**

Municipality	Track Side	Location (approximate)	Length	With Retaining Wall
Floral Park / <u>New Hyde Park</u>	South	Plainfield Ave <sup>^</sup> to <u>^ Covert Ave</u>	4, <u>^ 060</u> ft	Yes
Floral Park / <u>New Hyde Park</u>	South	<u>Covert Ave</u> to South 9th St	<u>530</u> ft	<u>Yes</u>
Floral Park / <u>New Hyde Park</u>	North	Plainfield Ave <sup>^</sup> to Lewis Ave <sup>^</sup>	2, <u>^ 305</u> ft	No
Garden City	South	<u>^ New Hyde Park Rd</u> <sup>^</sup> to Hudson Rd	1, <u>^ 375</u> ft	Yes
Garden City	South	<u>Tanners Pond Rd</u> to Meadbrook Rd	<u>1,845</u> ft	No
Garden City / <u>Garden City Park</u>	South	<u>^ Nassau Blvd</u> to Brompton Rd	<u>^ 1,360</u> ft	No
Garden City <sup>^</sup>	North	5th Ave <sup>^</sup> to <u>Merillon Ave Station / Corbin Ave</u> <sup>^</sup>	1, <u>^ 020</u> ft	No
Mineola	South	Herricks Rd <sup>^</sup> to 5th Ave <sup>^</sup>	2, <u>^ 420</u> ft	<u>^ Yes from 264+50 – 278+00</u>
Mineola	North	Herricks Rd <sup>^</sup> to Fleet Pl <sup>^</sup>	2, <u>^ 230</u> ft	No
Mineola	South	<u>^ Geranium Ave</u> <sup>^</sup> to <u>^ Laurel Dr</u>	<u>^ 2,300</u> ft	Yes
Carle Place	North	Meadowbrook State <u>^ Pkwy</u> to Cherry Ln <sup>^</sup>	2, <u>^ 145</u> ft	Yes
Carle Place	South	<u>^ Hollie Pl</u> to <u>^ Cherry Ln</u>	<u>^ 530</u> ft	No
<u>Carle Place / Westbury</u>	South	<u>^ Carle Rd</u> to Ellison Ave <sup>^</sup>	<u>^ 1,940</u> ft	<u>^ Yes from 405+50 – 412+00</u>
<u>Carle Place / Westbury</u>	<u>North</u>	<u>Carle Rd</u> to Ellison Ave <sup>^</sup>	<u>^ 1,925</u> ft	<u>^ Yes</u>
Westbury	North	<u>^ Tremont St</u> to Post Ave <sup>^</sup>	2,100 ft	No
Westbury	South	<u>^ Manor Ave</u> <sup>^</sup> to Post Ave <sup>^</sup>	<u>^ 2,040</u> ft	<u>^ Yes from 429+50 – 439+50</u>
<u>New Cassel</u>	<u>South</u>	<u>Grant St</u> to Hicks St	<u>600</u> ft	<u>Yes</u>
<u>New Cassel</u>	<u>North</u>	<u>Grand Blvd</u> to Garden St	<u>2,175</u> ft	<u>Yes</u>
New Cassel	North	<u>^ Urban Ave</u> to just west of Wantagh <u>^ State Pkwy</u> (Catherine St)	<u>^ 2,380</u> ft	Yes
<b>Note:</b> The sound attenuation walls were evaluated at a height of 4 feet above top-of-rail. Sound attenuation walls on retaining walls in fill sections will <sup>^</sup> be 4 feet above top of rail. Stand-alone sound attenuation walls will <sup>^</sup> be <sup>^</sup> 8 feet high.				
<b>Source:</b> AECOM, Gannett Fleming and MTA, <sup>^</sup> <u>March 2017</u>				

<sup>^</sup> With the incorporation of these design measures, no significant adverse vibration impacts are predicted as a result of the Proposed Project.

## **G. REFERENCES**

- ANSI            American National Standard S12.9-1992/Part 2. Quantities and Procedures for Description and Measurement of Environmental Sound. Part 2: Measurement of Long-term, Wide-Area Sound. Standards Secretariat, Acoustical Society of America, New York, NY.
- ANSI            American National Standard S12.9-1993/Part 3. Quantities and Procedures for Description and Measurement of Environmental Sound. Part 3: Short-Term Measurements with an Observer Present. Standards Secretariat, Acoustical Society of America, New York, NY.
- U.S. Department of Transportation, Federal Transit Administration (FTA). 2006. FTA-VA-90-1003-06. Transit Noise and Vibration Impact Assessment. Office of Planning and Environment. Washington, DC.
- U.S. Department of Transportation, Federal Railroad Administration (FRA). 2006. 49 CFR 222 and 229. Use of Locomotive Horns at Highway-Rail Grade Crossings; Final Rule. August 17, 2006. Washington, DC.
- U.S. Department of Transportation, Federal Highway Administration (FHWA). 2006. FHWA-HEP-05-054. FHWA Roadway Construction Noise Model User's Guide; Final Report. January, 2006. Washington, DC.

✱

**A. INTRODUCTION**

As discussed in Chapter 1, “Project Description,” the Proposed Project would include the following elements:

- Installation of a third Main Line track from Floral Park Station to Hicksville
- Elimination of seven existing grade crossings to provide grade-separated crossings (or <sup>^</sup> at two locations, full closures) to vehicular traffic
- Construction of retaining walls and sound attenuation walls along portions of the corridor
- Modifications to passenger rail stations and parking (e.g., modified and improved platforms, pedestrian overpasses, passenger shelters, Americans with Disabilities Act (ADA) enhancements, and parking modifications including new parking facilities at the New Hyde Park, Mineola, Westbury, and Hicksville stations)
- Modifications to railroad infrastructure including signal systems, substations, culverts, interlockings, crossovers, sidings, track bed, stormwater drainage, power systems, communications and signals
- Relocation of utilities along the Long Island Rail Road (LIRR) right-of-way (ROW) and at grade-separated crossings, including electric, signal, communications, gas, water, sewer, and storm sewer conveyances and drainage systems at the grade-separated crossings

Depending on the precise schedule and phasing agreed to with the design-build contractor, active construction of the Proposed Project is expected to take approximately three to four years. Although the goal of the Proposed Project is to complete construction as expeditiously as reasonably possible to minimize the duration of the construction period, to be conservative, the analysis presented in the <sup>^</sup> Environmental Impact Statement (<sup>^</sup> EIS) assumes that active construction across the 9.8 mile corridor would last as long as four years (although construction in any one community would be active for only a portion of that time).

This chapter summarizes the construction plans for the Proposed Project and assesses the potential for significant adverse impacts during construction. The construction elements of the Proposed Project and the types and sequencing of activities likely to occur during construction are described. In addition, the types of equipment expected to be used during construction and potential construction staging areas are identified. Based on this information and a conservative preliminary construction schedule, an assessment is provided of the potential impacts from construction activities. Potential construction impacts reviewed focus on the projects effects on land use and community character, socioeconomic conditions, environmental justice, visual resources, historic and cultural resources, natural resources, hazardous and contaminated materials, transportation, air quality, and noise and vibration, and safety and security. Any specific measures that have been identified that would avoid, minimize, or mitigate potential

construction-period impacts would be included in the technical provisions of the design-build contract.

### **B. PRINCIPAL CONCLUSIONS AND IMPACTS**

Construction of the Proposed Project—as is the case with any major construction project—would result in some temporary disruptions in the surrounding area. In order to minimize the duration of the construction period, the implementation of an expedited construction schedule by the design-build contractor will be emphasized and prioritized in the bid documents. To be conservative, this construction impact analysis assumes that active construction would last as long as four years; however the goal of the design-build contract bidding competition will be to reduce that period and the construction duration at any one location so as to minimize the effects of construction activities on nearby communities.

Construction of the Proposed Project would not result in significant adverse impacts with respect to land use and community character, environmental justice, visual resources, natural resources, and site safety. Construction of the Proposed Project would result in the temporary change of the use of a limited number of individual parcels to be used as staging areas but would not permanently change the patterns of land use and character of the communities within the Study Area; temporary construction impacts would be localized and would not result in disproportionate construction impacts to environmental justice communities; construction activities would be phased to minimize the duration of construction at any particular location so as to lessen overall effects of construction on the surrounding communities; with the implementation of a Stormwater Pollution Prevention Plan (SWPPP), a Remedial Action Plan (RAP) and a Construction Health and Safety Plan (CHASP), construction of the Proposed Project would not result in significant adverse impacts to groundwater, the Nassau/Suffolk Aquifer System, or wetlands<sup>^</sup>. In addition, construction of the Proposed Project would not result in significant adverse impacts to ecological communities, wildlife or any habitat that is of value to wildlife<sup>^</sup>. Construction would follow existing Metropolitan Transportation Authority (MTA) and LIRR operational safety and security programs and processes to provide the riding public and construction employees with a safe and secure environment. The Proposed Project would also implement a construction noise and vibration control plan as well an air quality control plan to minimize the effects of construction.

Additional information relating to the potential for significant adverse impacts during construction for key technical areas is summarized below.

### **SOCIOECONOMICS**

Businesses would not be significantly affected by any temporary change in pedestrian and vehicular access that could occur as a result of construction activities. A <sup>^</sup> Work Zone Traffic Control Plan (WZTCP) would be developed and implemented to ensure that access to existing business districts and individual businesses throughout the Project Corridor would be maintained throughout the construction period. In general, LIRR stations are located within or close to business districts. Projected construction durations for station improvements range from 4 to 6 months. However, construction activity associated with grade crossings or LIRR ROW improvements may be noticeable from within business districts during the time period that work is underway, which may partially or entirely occur before or after station improvements are constructed.

The construction of the Proposed Project would result in the investment of significant capital into the local and regional economy. The Proposed Project is expected to cost approximately \$2 billion in 2019 dollars, which includes construction, design, contingency, force account, and agency cost. The Proposed Project would be constructed using State funds and MTA/LIRR Capital Funds. The total effect on the local economy, expressed as economic output or demand for local industries, is estimated at approximately \$3.18 billion for Nassau County, \$47.14 million for Suffolk County, and approximately \$3.33 billion for the New York State economy overall.

## **HISTORIC AND CULTURAL RESOURCES**

The LIRR ROW along the Project Corridor, the identified potential construction staging areas, the proposed grade crossing locations, and property takings locations have been determined to possess little to no archaeological potential. Therefore, construction of project components affecting these areas of the Project Corridor would have no adverse impact on archaeological resources. Should additional takings locations or staging areas be proposed as project design progresses, an assessment of archaeological potential for those locations would be undertaken in consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP).

^ Construction of the Proposed Project would involve the demolition of two historic architectural resources—the Nassau Tower and the former Mineola LIRR Electrical Substation. No other historic architectural resources would be directly impacted by construction of the Proposed Project.

To ensure that construction activities associated with the Proposed Project that would be undertaken within 100 feet of architectural resources would not cause inadvertent physical impacts to historic architectural resources, LIRR would prepare and implement a Construction Protection Plan (CPP) in consultation with the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) for any architectural resources located within 100 feet of the Proposed Project construction. The historic architectural resources that would be subject to the CPP are:

- Floral Park—the Floral Park Public Library, the commercial buildings on Tyson Avenue and South Tyson Avenue, and the commercial buildings on Tulip Avenue;
- Mineola—the commercial buildings at Station Plaza North;
- Westbury—the potential architectural resource at 164 Post Avenue; and
- Hicksville—Top Hat Uniform and the Hicksville USPS Main Post Office.

Measures to mitigate the adverse impact from the demolition of Nassau Tower and the former Mineola Electrical Substation—which is a Project-related impact not limited to construction activities—would be developed in consultation with OPRHP. These mitigation measures, along with the protective measures established in the CPP, would be set forth in a Letter of Resolution (LOR) to be executed among the involved parties.

## **HAZARDOUS MATERIALS**

Construction of the Proposed Project would require subsurface disturbance along the alignment, at LIRR ^ Stations, at commercial properties that would be acquired as part of the Proposed Project, at parking garage locations, and within areas that would require alterations to grade

crossings. ^ A soil sampling program conducted within the LIRR ROW and at parking garage locations identified only one location in the LIRR ROW and one location at a parking garage location where contaminant levels exceeded applicable clean-up objectives. However, given the past land use history of this area, contaminated soil and/or groundwater may be encountered at other locations. The potential for adverse impacts would be avoided by ensuring that construction activities are performed in accordance with the following protocols (see Chapter 8, “Contaminated Materials,” for details): ^ prepare a Remedial Action Plan (RAP) and a Construction Health and Safety Plan (CHASP) for implementation during project construction, remove asbestos containing materials (ACM), lead-based paint (LBP), mercury and polychlorinated ^ biphenyls (PCBs) in accordance with an approved CHASP; and perform off-site disposal and dewatering in accordance with applicable federal, state, and local requirements.

### TRANSPORTATION

Pedestrian connectivity across the tracks would be maintained at each of the grade crossings during construction or would be diverted to nearby crossings; pedestrian access to the passenger rail stations and nearby businesses would also be maintained. During construction, LIRR would operate normal weekday commuter (i.e., peak) service, with periodic suspension of service on weekends to allow for construction activity that could not be performed with active train service. Due to access constraints for large construction equipment and materials, Carle Place ^ Station may be temporarily closed for approximately 12 months. If Carle Place ^ Station were to be temporarily closed, shuttles would be provided to take passengers utilizing the Carle Place ^ Station to and from the nearby Westbury ^ Station.

Construction of the Proposed Project would generate construction worker vehicle trips and construction truck trips. Satellite parking would be provided to keep personal construction worker vehicles out of residential streets and parking near the stations. In lieu of construction truck deliveries and to reduce the effects of construction truck traffic on local roadways, existing track would also be used to transport materials to and from the work sites to the extent practical. In addition, construction deliveries would be scheduled outside of the school and commuting traffic peak hours to the extent practicable while school is in session.

Grade crossing elimination activities would require temporary lane and roadway closures and has the potential for temporary adverse traffic impacts on nearby roadways during construction. Intersections that have the potential to experience adverse traffic impacts during construction and proposed improvement measures are summarized below in **Table 13-1**.

Given the temporary nature of such lane closures and diversions (targeting no longer than 6 to 9 months depending on location), such impacts could cause temporary inconvenience, but once construction ends would not have a continuing negative impact. In addition, as outlined above, measures can be implemented to reduce these temporary adverse impacts.

### AIR QUALITY

Although construction activity in general has the potential to adversely affect air quality as a result of diesel emissions from construction equipment and trucks, construction of the Proposed Project would not result in significant adverse impacts on air quality. The need for an analysis pursuant to NYSDOT’s *The Environmental Manual (TEM)* was considered for carbon monoxide (CO) and particles with an aerodynamic diameter of less than or equal to 10 micrometers (PM<sub>10</sub>). Because the Proposed Project would maintain existing traffic flow routes without resulting in



**Table 13-1**  
**Construction Traffic Analysis Results Summary**

Grade Crossing	Affected Intersections	Improvement Measure	Targeted Full or Partial Road Closure Duration	Anticipated Total Construction Duration
Covert Avenue	<u>1. Covert Avenue at Stewart Avenue (northbound right-turn movement – AM and PM peak hours)</u> <u>2. Jericho Turnpike and South 12th Street (eastbound and northbound approaches – AM peak hour; westbound left-turn movement and northbound approach – PM peak hour)</u> <u>3. Jericho Turnpike and New Hyde Park Road (northbound approach and westbound left-turn movement – AM peak hour; northbound shared through-right, southbound left-turn, and westbound left-turn movements – PM peak hour)</u> <u>4. New Hyde Park Road and Stewart Avenue (eastbound left-turn movement and northbound and southbound approaches – AM peak hour; eastbound left-turn movement and southbound approach – PM peak hour)</u> <u>5. South 12th Street and Stewart Avenue (northbound and southbound approaches – AM and PM peak hours)</u>	<u>1. Lane restriping and signal timing modification</u> <u>2. Signal timing modification, parking restrictions, and lane restriping</u> <u>3. Signal timing modification, parking restrictions, and lane restriping</u> <u>4. Signal timing modification</u> <u>5. Install temporary traffic signal</u>	6 months	6 – 9 months
New Hyde Park Road	1. New Hyde Park Road at the LIRR Grade Crossing (northbound approach – AM peak hour; southbound approach – PM peak hour) 2. New Hyde Park Road and Stewart Avenue (northbound approach – AM peak hour; southbound approach – PM peak hour)	1. No modification 2. Signal timing modification	9 months	9 – 12 months
South 12th Street	Similar to Build Option 2 in Chapter 10, "Transportation"	See Chapter 10, "Transportation"	6 months	6 – 9 months
Willis Avenue	1. Mineola Boulevard and Second Street (southbound shared through-right movement – AM and PM peak hours) 2. Mineola Boulevard and First Street (westbound approach – AM and PM peak hours) 3. Second Street and Willis Avenue (eastbound approach – PM Peak hour) 4. Roslyn Road and Second Street (southbound approach and eastbound through-right movement – AM and PM peak hours; northbound left-turn movement – AM peak hour) 5. Main Street and Second Street (northbound, southbound, and eastbound approaches – PM peak hour)	1. Signal modification, lane restriping, and parking restriction 2. Signal timing modification 3. Signal timing modification 4. Lane restriping and signal timing modification 5. Temporary signal installation	6 months	6 – 9 months
Main Street	1. Mineola Boulevard and Old Country Road (westbound through and right-turn movements – AM and PM peak hours; eastbound left-turn movement – PM peak hour) 2. Mineola Boulevard and Second Street (southbound shared through-right movement – AM peak hour; westbound approach – PM peak hour) 3. Second Street and Willis Avenue (eastbound – PM peak hour) 4. Old Country Road and Roslyn Road (westbound movement – AM peak hour) 5. Roslyn Road and Second Street (southbound approach – PM peak hour)	1. Lane restriping and signal timing modification (except for westbound right-turn movement in the PM peak hour where no there would be no modification is proposed) 2. Signal timing modification 3. Signal timing modification 4. Signal timing modification 5. Signal timing modification	6 months	6 – 9 months
Urban Avenue	1. Post Avenue and Union Avenue (southbound shared left-through movement – AM and PM peak hours) 2. Old Country Road and School Street (eastbound left-turn movement – AM and PM peak hours) 3. Old Country Road and Belmont Place/Merillon Avenue (southbound left-turn movement – PM peak hour)	^ <u>1. Signal timing modification</u> 2. Signal timing modification 3. <u>Signal timing modification</u>	6 months	6 – 9 months
School Street	1. Post Avenue and ^ Maple Avenue (northbound ^ left-^ turn and eastbound shared through-right movements – PM peak ^ hour) 2. Post Avenue and Union Avenue (southbound shared left-through movement – AM and PM peak hours) 3. Post Avenue and Railroad Avenue ^ 4. Old Country Road and School Street (eastbound right-turn movement – PM peak hour)	1. ^ <u>No modification</u> 2. <u>Lane restriping</u> 3. <u>No modification</u> ^ 4. <u>Signal timing modification</u>	6 months	6 – 9 months

continuous construction detour/diversions over more than two CO (winter) seasons along local routes, no microscale detour traffic CO impact analysis was required per NYSDOT's criteria. The annual particulate matter (PM) emissions from construction activity are estimated to be well below the 15-ton per year threshold contained in NYSDOT's *TEM* and thus would not result in significant air quality impacts during the construction period on a regional level. Similarly, the emissions for other criteria pollutants generated during construction of the Proposed Project would not result in significant adverse air quality impacts on a regional level.

In order to avoid potential temporary construction air quality impacts on a local level, LIRR is committed to implementing an air quality control plan during construction ^ that would include the following measures: dust control, ultra-low sulfur diesel fuel, the use of best available tailpipe technologies such as diesel particulate filters, and the utilization of equipment that meets stringent pollutant emission standards.

### NOISE AND VIBRATION

Noise levels from construction activities along the Project Corridor, although temporary, could be a nuisance at nearby sensitive receptors such as residences, schools and other institutional land-uses. Although the overall construction period is expected to last approximately four years, most construction activities are generally expected to last less than two years at any one location, depending on the type of activity. During this time frame, noise and vibration impacts are expected along the Project Corridor, particularly at sensitive receptors adjacent to the rail alignment and facilities.

A detailed construction noise assessment was prepared representing the different construction scenarios anticipated, e.g., track construction, platform demolition, platform and canopy construction, retaining wall and sound attenuation wall construction, and/or grade crossing construction. For each scenario, assumptions were made based on the overall duration of construction activity, number and type of construction equipment likely to be used, percentage of time equipment would operate at maximum noise level (usage factor), percentage of time equipment would operate during a standard 8-hour work shift (load factor), and maximum noise and vibration levels from the equipment. Calculated sound pressure levels at 50 feet from the equipment exceeded 80 dBA in most instances. However, with implementation of sound reduction strategies, it is anticipated that a reduction in sound pressure levels of approximately 12 dBA can be achieved, thus bringing sound pressure levels below 70 dBA in most instances. While the absolute increase in sound pressure levels would be noticeable, and in some cases intrusive, the overall noise levels would be compatible with existing noise levels within the Project Corridor (see Table 12-4) which range from 66 dBA ( $L_{eq}$ ) to 75 dBA ( $L_{eq}$ ).<sup>1</sup> With implementation of noise control measures and implementation of a Construction Noise Control Plan the number of potentially affected properties in the Project Corridor would likely be reduced by approximately 85 percent.

Potential noise and vibration impacts expected during temporary construction activities would be ^ minimized or controlled to the extent practicable with Best Management Practices (BMPs). ^ The design-build contractor would be required by contract to use noise and vibration control measures (such as substituting equipment with lower noise levels, temporary barriers, exhaust

---

<sup>1</sup> One monitoring location had a baseline noise level of 62 dBA ( $L_{eq}$ ).

mufflers, etc.) ^ to minimize the impact on the surrounding community. ^ The MTA and LIRR are exempt from the jurisdiction of municipalities pursuant to Section 1266(8) of the Public Authorities Law. However, to minimize the adverse effects of construction upon the surrounding community, the Proposed Project would nevertheless comply with the work ^ hour restriction within residential areas, except where not feasible to accommodate work affecting rail operations, such as work relating to ^ bridge replacement^ , construction of retaining walls, and grade alteration of track. In order to expedite construction to reduce road closures and diversions during the limited periods (6 to 9 months) of construction of the separations at five grade crossings, it is anticipated that work would take place outside specified local noise ordinance work hours. In cases where work is performed outside specified work hours in locations adjacent to residential neighborhoods, every effort will be made to keep intrusive noise to a minimum^ and the design-build contractor would be required by contract to meet strict performance standards detailed below. For any necessary night work, there would be extensive consultation with the community to minimize the effects of construction noise and vibration^ . LIRR is^ committed to implementing a community noise and vibration monitoring program, working with local schools and the affected communities and municipalities to schedule nearby construction activity as unobtrusively as practicable and feasible, and implementing a CPP to protect historic architectural resources from vibration impacts.

## **C. MEASURES TO MINIMIZE COMMUNITY IMPACTS**

LIRR would require in its contract that the design-build contractor implement the following measures during construction to minimize potential impacts to nearby communities from ongoing construction:

### **1. COMMUNICATION WITH COMMUNITY**

- Give advance notification of any disruptive work or work closures to residents, municipalities, school districts and first-responders
- Provide regular updates to the public in the form of email blasts and online postings
- Perform door-to-door outreach to residents in the affected areas
- Staff the project office with on-site supervision for rapid response to neighborhood concerns
- Maintain a 24/7 hotline assigned to a community outreach representative, to include direct communication with an on-site contractor/supervisor for real-time response
- Create and implement protocol for addressing community complaints
- Coordinate with local school districts to provide alternate transportation to schools where temporary or short-term road closures would either increase walking distance to schools or make on-foot travel to school problematic
- Work with local schools to schedule nearby construction activity as unobtrusively as practicable and feasible
- Coordinate with emergency service providers to ensure continuity of access to the community
- Establish regular meetings for LIRR, community representatives, and the contractor to discuss construction activities and community concerns

## **2. COMMUNITY SAFETY AND QUALITY OF LIFE**

- Create an active program of construction security to ensure community safety
- Ensure the following are performed by the Contractor at construction sites:
  - Keep construction sites clean and orderly
  - Safely store construction materials in piles/not haphazardly
  - Ensure that construction fences are uniform and neat in material and appearance  
^ (neatly clad chain-link fences in uniform green tennis mesh or printed mesh with approved enhancements, such as photos or artwork)
  - Entirely fence off all staging areas
  - Prohibit littering and dispersion of personal debris (e.g., cups, cans, cigarettes) on construction site
  - Provide covered trash receptacles that are emptied daily
- Perform street cleaning as appropriate to ensure construction debris and dirt will not affect the local community
- Install onsite/portable bathroom facilities that are unobtrusive to local communities
- Protect access to existing businesses
- Provide satellite parking for construction workers so as to keep personal construction worker vehicles off of residential streets
- Use existing track to transport materials to and from the work sites to the extent practical
- Schedule construction deliveries outside of school and commuter traffic peak hours to the extent practicable while school is in session

## **3. ENVIRONMENTAL PERFORMANCE**

- Provide environmental monitoring consistent with a Construction Health and Safety Plan (CHASP)
- Implement a Stormwater Pollution Prevention Plan (SWPPP)
- Establish a Quality Control program to confirm compliance with environmental requirements
- Use directional lighting at night to protect residences from light pollution
- Implement Work Zone Traffic Control plans
- Implement an air quality control plan to include dust control measures, ultra-low sulfur diesel fuel, the use of best available tailpipe technologies such as diesel particulate filters, and the utilization of newer equipment.
- Conduct pre-construction home inspections
- Create and implement a community noise and vibration monitoring program
- Implement a Construction Protection Plan (CPP) to protect historic architectural resources within 100 feet of the construction activities for the Proposed Project
- In consultation with the community, employ rodent control measures
- Minimize noisy work during nighttime hours where practicable and feasible

## D. CONSTRUCTION DESCRIPTION

### CONSTRUCTION SCHEDULE

For the purposes of this analysis, it is conservatively assumed that construction of the Proposed Project would take approximately four years. The design-build contractor will be expected to prioritize an expedited schedule, and implementation of an expedited construction schedule of less than four years by the design-build contractor will be emphasized in the bid documents. Further, the assumed four year period is for overall active construction of the Proposed Project throughout the more than a dozen construction segments (see **Figure 13-1**).

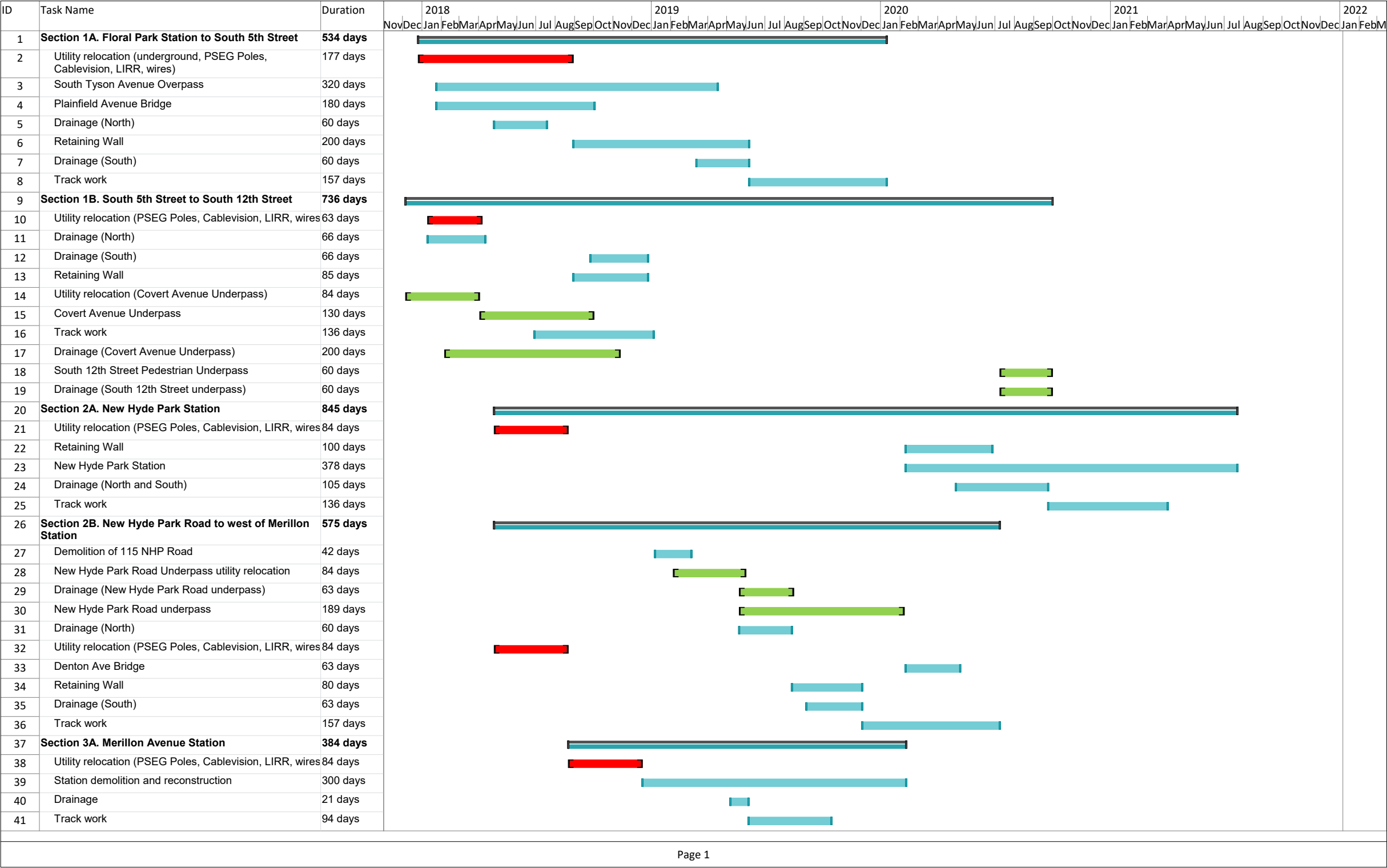
In any given segment, the overall construction duration will target to be shorter. Due to the need to sequence some aspects of the work, not all construction segments can proceed in parallel. Therefore, while the overall construction could take up to three to four years, no one location is expected to experience construction activities for that full duration. Furthermore, within each segment, with the exception of major bridge work, construction would proceed in a linear fashion as retaining walls, fill, and track and ballast are installed. For this work, major construction activities at any particular location may occur for several weeks to a few months before proceeding along the ROW.

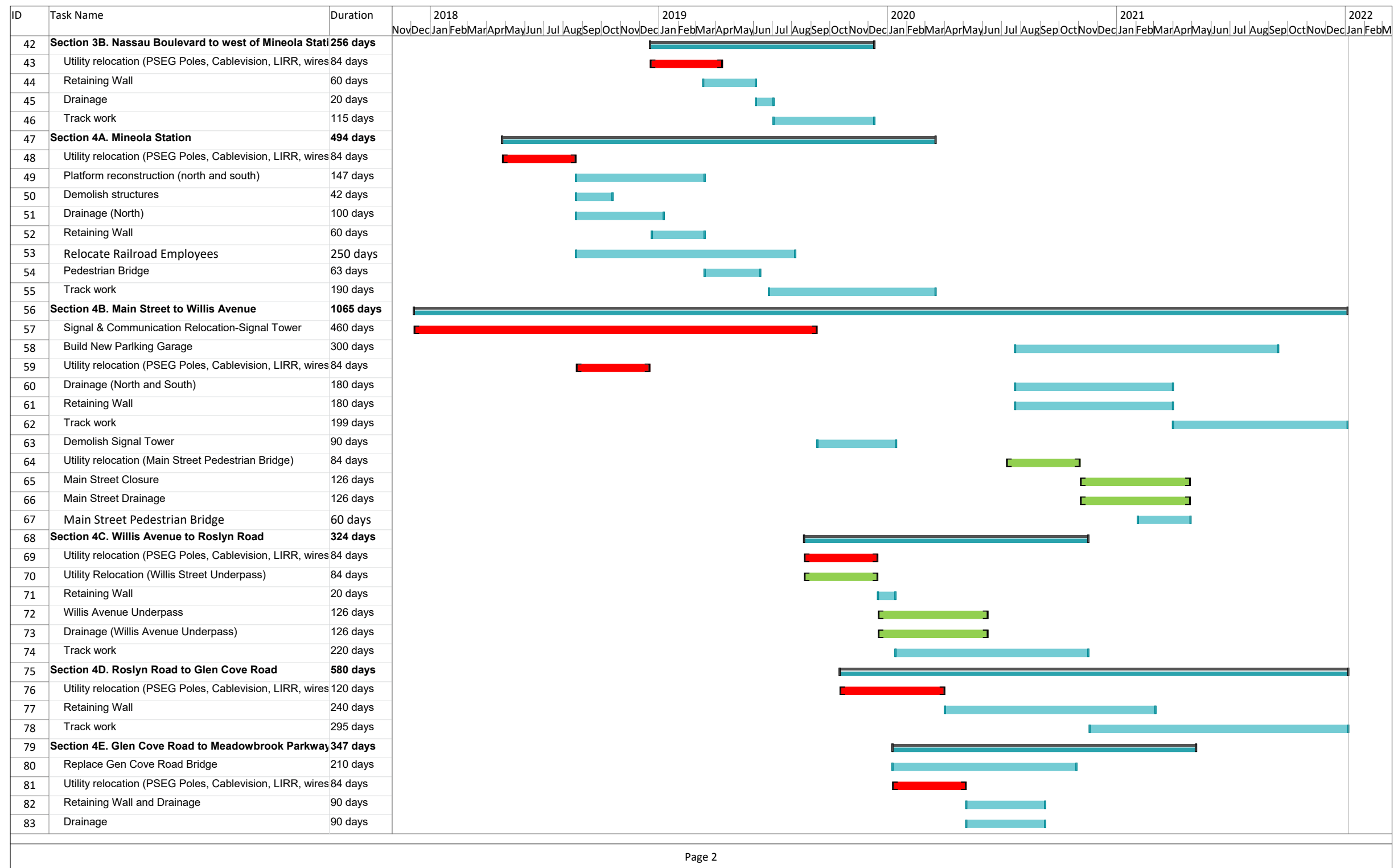
For example, ^ New Hyde Park Road underpass activities, including utility relocation, would take place over approximately 9 to 12 months.^ <sup>2</sup> At other grade crossing ^ locations, construction is anticipated to take only 6 to 9 months. New Hyde Park ^ Station improvement activity is anticipated to take place over approximately 18 months and is typical of station improvement activities with the exception of Floral Park and Hicksville ^ Stations where no major station modifications are expected. Existing bridge structure modification activities would typically take approximately 4 to 10 months to complete. Some work would be longer because tracks and/or a portion of the affected roadway would need to be kept in service. Construction activities would be phased where logistically possible to minimize the duration at any location so as to lessen the effects of construction on the surrounding communities. Construction of the Proposed Project would entail temporary disruptions of varying duration to rail service, certain passenger rail stations, and local traffic operations. Expedited construction techniques for both the construction of the third track segments and the grade crossing eliminations such as temporary road closures, would result in shorter construction periods in general.

In general, LIRR stations are located within or close to business districts. Projected construction durations for station improvements range from 4 to 6 months. However, construction activity associated with grade crossings or LIRR ROW improvements may be noticeable from within business districts during the time period that work is underway, which may partially or entirely occur before or after station improvements are constructed.

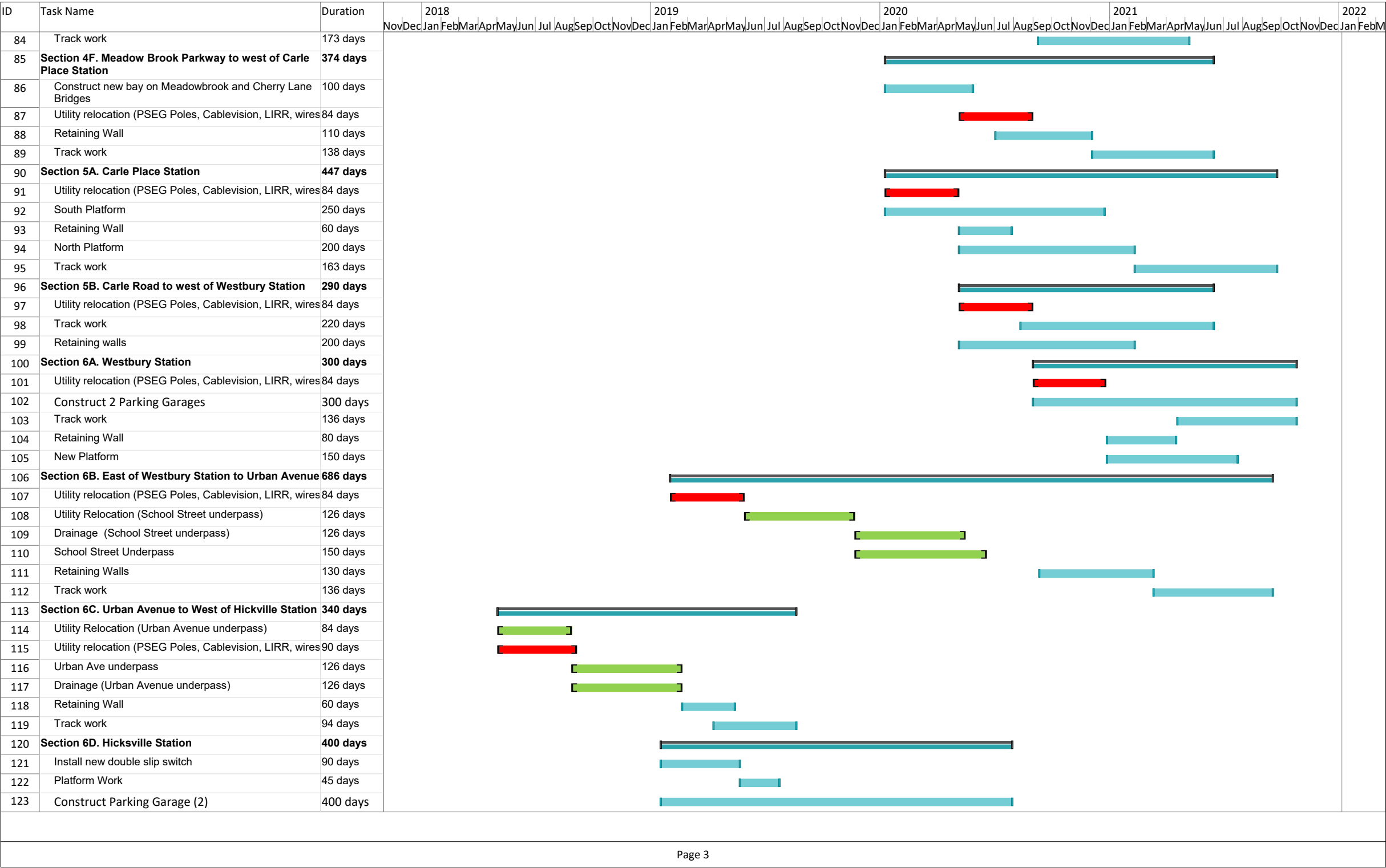
---

<sup>2</sup> In the DEIS, Covert Avenue construction was proposed with partial-closure to allow traffic to flow through the construction zone. Construction was anticipated to take 9 to 12 months. Covert Avenue is now proposed to be conducted with full closure to traffic during construction. Thus, a 6 to 9 month construction period is anticipated at this location.





- *Utility Relocations*
- *LIRR ROW*
- *Grade Crossings*





## CONSTRUCTION ELEMENTS AND PHASING

The main components of the Proposed Project and their proposed phasing are discussed in more detail below.

### *UTILITY RELOCATIONS*

There are existing utilities that would need to be relocated to accommodate the new Main Line third track and the elimination of the existing grade crossings. Utilities located within the Project Corridor include: LIRR signals and communications; gas; electric; fiber optic; telephone; cable; water; sanitary sewer; and storm sewer. In general, electric transmission, LIRR signal and communications, Verizon, and Cablevision lines are located within the ROW. Utility relocation activities <sup>^</sup> within each segment of the Proposed Project must be conducted first before the installation of additional track, the elimination of grade crossings, and various station improvements and modifications could proceed.

For overhead utilities work, augured holes would be used to accommodate the installation of the new poles. The existing utility lines would be relocated from the old pole to the new pole. Flatbed delivery trucks and dump trucks would be used to transport materials and remove soils, respectively. Underground utilities work would typically involve a pavement cutter and a backhoe to excavate the trench, a mobile crane to relocate the utility lines and maintain service, and a compactor to place the backfill. Asphalt trucks and rollers would be used to install any temporary paving cover.

### *THIRD MAIN LINE TRACK*

The Proposed Project includes the installation of additional track to complete a continuous third Main Line track. Between Floral Park and Roslyn Road in Mineola, the new track location is proposed south of the existing alignment. The alignment of the new track would shift to the north side of the existing tracks east of Roslyn Road in Mineola and continue to just east of Carle Place <sup>^</sup> Station near the western limit of the Village of Westbury. The entire alignment would gradually shift to the south between the Carle Place <sup>^</sup> Station and Westbury <sup>^</sup> Station, connecting to the existing tracks and providing a new track south of the existing alignment at Westbury <sup>^</sup> Station. East of Westbury <sup>^</sup> Station, the new third track would gradually shift to the north, crossing underneath the existing Grand Boulevard Bridge and tying into an existing siding track located west of Hicksville <sup>^</sup> Station. In some locations, the two existing Main Line tracks would be shifted slightly to the north or south to facilitate a more desirable alignment and avoid property impacts.

The construction of the third Main Line track would generally proceed in the following stages:

- **Site Preparation.** The first step in construction, general site preparation, involves site mobilization of trailers and equipment and the installation of public safety measures such as fencing and signs. Staging areas within the ROW and at nearby areas would also be established during this stage. Where needed, Work Zone Traffic Control Plans would be developed and implemented to ensure the safety of the construction workers and the public passing through the construction area.
- **Utility Relocations.** Existing utilities in the area of the third Main Line track would be relocated. As discussed above, the relocation of overhead utilities would typically involve an auger for drilling, a mobile crane for pole removal and installation, and a compactor for backfilling. The relocation of underground utilities work would typically involve a pavement

cutter and a backhoe to excavate the trench, relocate the utility lines and maintain service, and place the backfill.

- **Site Clearing.** Installation of the third track and retaining walls would require the clearing and grubbing of vegetation within the ROW. In addition, existing signal huts and electric boxes would be relocated and installed permanently in their new locations.
- **Retaining Wall Construction.** The installation of additional segments of track to complete a continuous third track through the Project Corridor would require the placement of additional structural soil subgrade and ballast within the ROW at the locations to achieve an appropriately level surface to place the tracks. In order to place the appropriate amount of subgrade and ballast without causing spill-over due to sloping onto properties outside of the ROW, construction of retaining walls and, where necessary, sound attenuation walls would be required. The retaining/sound attenuation wall locations and details are presented in <sup>^</sup> Chapter 1, “Project Description.” Typically, to construct the wall, supporting piles would first be installed with pile auger rigs. Lagging structures would then be inserted between the piles to retain the soil, followed by installation of pre-cast concrete panels to form the wall structure.
- **Structure Modifications.** To accommodate the third track, seven existing bridge structures along the Project Corridor would be modified, including the South Tyson Avenue Bridge and the Plainfield Avenue Bridge in Floral Park, the Denton Avenue Bridge and the Nassau Boulevard Bridge in Garden City, and the Glen Cove Road Bridge, Meadowbrook State Parkway Bridge, and Cherry Lane Bridge in Carle Place. A new single track <sup>^</sup> would be <sup>^</sup> added to accommodate the new third track at the South Tyson Avenue, Plainfield Avenue, and Meadowbrook Parkway structures; the Denton Avenue, Nassau Boulevard, Glen Cove Road, and Cherry Lane structures would be modified to accommodate the third track. Modified bridge structure activities would require utility relocations to be performed before the commencement of abutment work. Temporary traffic and lane closures would be needed to stage the abutment work on both sides of the roadways. In addition, a weekend closure would be needed for the hoisting of bridge structure into place. Structure modifications would involve a variety of equipment including excavators, loaders, and dump trucks for earth moving activities, pile drivers for foundation activities, and a crane to hoist the bridge structures into place.
- **Track Work.** Existing tracks would be relocated, if necessary. After the soil is graded, stabilized, and backfilled, new tracks would be constructed adjacent to the existing main line tracks using track laying equipment. Where necessary, tracks would be raised to the new grade. Once the tracks are laid, ballast consisting of gravel or coarse stone would be placed to form the bed and stabilize the railroad track.
- **Railroad Infrastructure Modifications and Final Finishes.** The<sup>^</sup> would include modifications to railroad infrastructure such as overpasses, signal systems, substations, culverts, sidings, interlockings, crossovers, track bed, power systems, communications, signals, third rail, and track drainage. This stage generally requires on-track equipment and hand-held tools. After railroad infrastructure modifications and station improvements are complete, the third track would be put into service.

#### *GRADE CROSSING ELIMINATIONS*

Along the LIRR Main Line segment between the Floral Park <sup>^</sup> Station and Hicksville <sup>^</sup> Station are seven locations where the rail line crosses a roadway. These locations are:

## Long Island Rail Road Expansion Project

---

- New Hyde Park/Garden City
  - Covert Avenue
  - South 12th Street
  - New Hyde Park Road
- Mineola
  - Main Street
  - Willis Avenue
- Westbury/New Cassel
  - School Street
  - Urban Avenue

Grade crossing elimination activities would occur at no more than one location at a time within each of the three regions (New Hyde Park/Garden City, Mineola, Westbury/New Cassel) specified above. Only one road would be subject to closure at a time to allow for activity to occur simultaneously. Based on current plans, in the New Hyde Park/Garden City area, activities at the ^ Covert Avenue crossing would begin first, followed by the ^ New Hyde Park Road crossing once the ^ Covert Avenue grade-separated crossing is operational, and finally the South 12th Street crossing. In the Mineola area, activities at the Willis Avenue crossing would commence before those at the Main Street crossing. In the Westbury/New Cassel area, activities at the Urban Avenue crossing would occur before those at the School Street crossing.

These seven existing grade crossings would be eliminated to provide grade-separated crossings (e.g., underpasses) ^ at five locations, and, for the South 12th Street and Main Street crossings, full closures to vehicular traffic. Modification would be based on NYSDOT design criteria, consideration of construction impacts and duration, traffic impacts, and input from the community. A detailed description of the preferred grade crossing options^ is provided in Chapter 1, “Project Description.”

Grade crossing elimination activities at each of the seven locations would generally proceed in the following stages:

- **Site Preparation.** The first step in construction is general site preparation and the implementation of the Work Zone Traffic Control Plan; this involves the installation of public safety measures such as fencing, signs, Jersey barriers, and temporary striping.
- **Utility Relocations.** Prior to excavation activities, existing utilities at the grade crossing would be relocated to ensure that grade crossing elimination activities could be conducted without impacting any existing service connections. This stage of work typically involves a pavement cutter and a backhoe to excavate the trench, relocate the utility lines and maintain service, and place the backfill. Flatbed delivery trucks and dump trucks would be used to transport materials and to remove soils, respectively. Asphalt trucks and rollers would be used to install any temporary paving cover.
- **Earthwork, Piers, and Abutments.** This stage requires the installation of shafts and precast cap beams, excavation or material fill for new embankments, and the construction of tunnel walls and bridge abutments. Jackhammers would also be used to remove any existing curbing and sidewalks. This stage of work typically involves an excavator, a loader, and dump trucks for earth moving activities, and vibratory pile drivers for sheeting and drilled piles for pile foundations.

- **Drainage Improvements.** A detailed description of the drainage improvements at the grade crossings is provided in Chapter 9, “Utilities and Related Infrastructure.” Construction of the<sup>^</sup> stormwater conveyance pipes would include support of excavation, excavation, chamber construction where needed, and the installation of precast pipes. Following installation of the conveyance <sup>^</sup> pipes, the excavated area would be backfilled and restored. In other locations, a trenchless technology form of construction might be pursued where open-trench construction is not desirable or feasible. This stage of work typically involves an excavator, a loader, and dump trucks for earth moving activities, concrete pumps and concrete trucks<sup>^</sup> , and a mobile crane for the pipe installation.
- **Bridge Structure Construction.** Bridge structure installation would be conducted over a 48-hour weekend (7 total weekends over a three to four year construction period) with no train or roadway traffic at the location of the installation. During this time, sections of the bridge structure would be hoisted into place with the use of a mobile crane.
- **Final Roadway Finishes.** Final finish work would involve striping the streets and crosswalks and installation of new signals and signage (as necessary). Final finishes may also include any other proposed landscaping. This stage generally requires only light-duty equipment and hand-held tools.

#### *STATION IMPROVEMENTS AND MODIFICATIONS*

The Proposed Project would include improvements to several of the passenger rail stations within the Project Corridor—New Hyde Park Station, Merillon Avenue Station, Mineola Station, Carle Place Station, and Westbury Station. As part of the separate Hicksville Station and North Track Siding Improvements Project, station improvements at Hicksville Station are currently being implemented. As discussed in Chapter 1, “Project Description,” the five modified stations would accommodate the new third track, enhance pedestrian access and ADA accessibility, improve platforms and passenger waiting areas, and meet the requirements of the LIRR <sup>^</sup> Station guidelines and applicable codes. In addition, LIRR will implement Enhanced Station Initiatives such as station art, WiFi, digital signage, and other amenities. At the Floral Park Station, ADA-compliant access would be provided with new elevators and sidewalk improvements.

Station improvements and modifications associated with the Proposed Project would generally proceed in the following stages:

- **Site Preparation.** The first step in construction, general site preparation, involves site mobilization of trailers and equipment and the installation of public safety measures such as fencing and signs and temporary stairs and ramps. Where needed, Work Zone Traffic Control Plan would be developed and implemented.
- **Utility Relocations.** Prior to platform construction activities, existing utilities in the area of the new platforms and/or the third track would be relocated. This stage of work would typically involve an auger for drilling, a mobile crane for pole removal and installation, and a compactor for backfilling.
- **Construct New Platform and Associated Access.** Platform construction would involve the installation of support columns and the platform structure itself as well as the associated pedestrian stairs, ramps, overpasses, and/or elevators. The new platforms would be constructed immediately south of the existing platforms at the New Hyde Park, Merillon Avenue, Mineola, Carle Place, and Westbury <sup>^</sup> Stations. The north platforms at these stations would also be demolished and replaced. Pedestrian access to the platform and train

service would be maintained during this stage of construction. Equipment used during this stage of construction would include pile rigs, mobile cranes, front end loaders, and concrete pumps.

- **Remove Existing Platform.** Once the new platform is constructed, the existing platform would be removed. The existing platform may be removed half at a time to ensure pedestrian access to the platform and train service. Provisions would be made through either temporary long bridge plates or temporary platforms to provide access from the new platform to train services on the existing Main Line tracks until the third track is laid and placed in service. Equipment used during this stage of construction would include excavators, front end loaders, and concrete saw cutters.
- **Final Finishes.** Final finish work would involve the removal of temporary stairs and ramps, and installation of benches, ticket machines, and new signage. Final finishes may also include any proposed landscaping. This stage generally requires only light-duty equipment and hand-held tools.

### *RAILROAD INFRASTRUCTURE MODIFICATIONS*

The <sup>^</sup> Proposed Project would include modifications to railroad infrastructure such as overpasses, signal systems, culverts, sidings, track bed, power systems, communications, signals, third rail, and track drainage. In addition, the Proposed Project would include modifications to rail interlockings and installation of new crossovers. Furthermore, as described in Chapter 1, “Project Description,” there are eight LIRR traction power stations within the project limits. With the exception of the Floral Park Substation, which was replaced in 2010, the substations are nearing the end of their operating service life and would be replaced in-kind at the same locations as part of the Proposed Project. Railroad infrastructure modifications would typically involve mobile cranes and hand-held tools and may also require on-track equipment. If earthmoving and foundation activities required, equipment such as excavators, backhoes, loaders, and pile rigs would be used.

### **CONSTRUCTION ELEMENTS IN SUBSECTIONS**

For the purpose of describing the construction elements of the Proposed Project, the Project Corridor is broken down into subsections, from west to east. The following describes the anticipated construction work activities, potential truck access routes, and staging areas in each of the subsections. Actual sequence of construction is not proposed as west to east and will be established by LIRR and the selected design-build contractor.

LIRR may use the Belmont Yard or Ronkonkoma Yard to stage work trains that would transport construction equipment, materials, and/or works to work sites along the ROW. This would allow for a reduction in impacts to adjacent property owners and would facilitate work in certain areas of the ROW with constrained access.

### *SECTION 1 – FLORAL PARK STATION TO NEW HYDE PARK STATION*

#### *Section 1A. Floral Park Station to South 5th Street*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW
- Relocate utilities in South Tyson Avenue and Plainfield Avenues

- ^ Construct widened South Tyson Avenue Bridge span
- Construct new bay adjacent to Plainfield Avenue Bridge
- Construct retaining walls on the south side of LIRR ROW and sound attenuation walls on the north side of LIRR ROW working from Plainfield Avenue east and from Covert Avenue west
- Shave east end of platform by approximately seven inches for approximately 78 feet at Floral Park ^ Station
- Construct new ADA-compliant access to platforms
- Construct new Main Line third track (south side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals
- Construct new universal crossover on Hempstead Branch
- 

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Plainfield Avenue.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following areas have been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- LIRR substation west of Plainfield Avenue south of the tracks
- LIRR ROW adjacent to Terrace Avenue east of Plainfield Avenue

*Section 1B. South 5th Street to South 12th Street*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW
- Relocate utilities in Covert Avenue, Second Avenue, and Third Avenue
- Construct retaining walls on the south side of LIRR ROW
- Elevate existing track level by up to 5 feet at Covert Avenue (average raise of one to two feet per weekend)
- Eliminate Covert Avenue Grade Crossing: Two lane Covert Avenue underpass (this activity would commence ^ before the New Hyde Park Road grade-separated crossing ^ construction commences)
- Eliminate South 12th Street Grade Crossing^ and construct pedestrian underpass ^ (if underpass is selected by the community)
- Construct new Main Line third track (south side)
- Construct track drainage
- Construct track, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to New Hyde Park Road to 4th Avenue to Baer Place.

## Long Island Rail Road Expansion Project

---

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following areas have been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Western end of Third Avenue between Covert Avenue and Wayne Avenue
- Areas between Covert Avenue and South 12th Street that are proximate to the grade crossings and the LIRR ROW

### *SECTION 2 – NEW HYDE PARK STATION TO MERILLON AVENUE STATION*

#### *Section 2A. New Hyde Park Station*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW
- Relocate utilities in Second and Third Avenues
- Construct new 95-space surface parking ^ lot and kiss-and-ride at ^ New Hyde Park Road between Plaza Avenue ^ and Second Avenue
- Construct new south platform while maintaining pedestrian access to existing south platform
- Construct new north platform
- Renovate existing station building
- Construct new pedestrian overpass (if selected by the community) and ramps
- Demolish existing south platform; access to train service on existing Main Line track via temporary bridges
- Construct new Main Line third track (south side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to New Hyde Park Road, Stewart Avenue, Tanners Pond Road, and Nassau Boulevard. The current low clearances at Denton Avenue and Nassau Boulevard would restrict north-south truck traffic across the railroad tracks on those roads.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following areas have been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Areas between South 12th Street and New Hyde Park Road that are proximate to the LIRR ROW
- Portions of station parking on Third Avenue east of Baer Place
- Commercial property at 115 New Hyde Park Road which would require acquisition

#### *Section 2B. New Hyde Park Road to west of Merillon Station*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW
- Relocate utilities in New Hyde Park Road and Denton Avenue
- Eliminate New Hyde Park Road Grade Crossing: ^ Five-lane New Hyde Park Road underpass
- Construct retaining walls on the south side of LIRR ROW
- Relocate LIRR signal hut at Denton Avenue
- Modify Denton Avenue Bridge to accommodate new Main Line third track
- Install new traffic signal heads at Denton Avenue/Railroad Avenue and Denton Avenue/Main Avenue (intersection operations to be coordinated with metering of traffic under LIRR overpass)
- Construct new Main Line third track (south side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to New Hyde Park Road.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following areas have been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Commercial property at 115 New Hyde Park Road which would require acquisition
- Portions of Railroad Avenue north of the LIRR ROW
- Portions of the LIRR ROW along Main Avenue

### *SECTION 3 – MERILLON AVENUE STATION TO MINEOLA STATION*

#### *Section 3A. Merillon Avenue Station*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW
- Construct new south platform while maintaining pedestrian access to existing south platform
- Construct ^ a combination of elevators and pedestrian ramps to obtain access from street level to the platforms
- Demolish existing south platform; access to train service on existing Main Line track via temporary bridges
- ^ Demolish existing station building and construct new north platform
- Construct new Main Line third track (south side)
- Construct new sound attenuation walls on south and north side of LIRR ROW
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals



## Long Island Rail Road Expansion Project

---

The primary truck access route to construction areas in this subsection is anticipated to be from Hempstead Turnpike to Nassau Boulevard since the vertical clearance (11 feet 6 inches) under the existing Nassau Boulevard Bridge would not be able to accommodate construction trucks.

Staging areas would generally include the LIRR ROW or adjacent property. In addition, the following area has been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- LIRR ROW south of the existing station platform
- Portions of the LIRR-owned surface parking lot on the north side of the station

### *Section 3B. Nassau Boulevard to west of Mineola Station*

Construction elements in this subsection would include:

- Relocate LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW
- Construct retaining walls on south side of LIRR ROW
- Modify Nassau Boulevard Bridge to accommodate new Main Line third track
- Elevate existing track level by up to 2 feet at Nassau Boulevard
- Construct new Main Line third track (south side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Hempstead Turnpike to Nassau Boulevard.

The primary staging area would be the LIRR ROW or ancillary property (including portions of the access road south of the LIRR ROW west of Herricks Road), though final decisions with regard to Project staging areas will be made by the construction contractor.

## *SECTION 4 –MINEOLA STATION TO CARLE PLACE STATION*

### *Section 4A. Mineola Station*

Construction elements in this subsection would include:

- Relocate Verizon and Cablevision lines from south to north of LIRR ROW
- Demolish substation building at 57 Main Street and Nassau Tower ^
- Construct parking garage at ^ Second Street (parking garage construction should be conducted in advance of station platform construct to offset loss of parking during construction)
- Construct parking garage at Harrison Avenue
- Relocate “kiss-and-ride” parking area
- Remove south Mineola ^ Station waiting building on Station Road
- Remove pedestrian overpass between Third Avenue and Mineola Boulevard and replace with an updated overpass without elevators.
- Construct retaining walls on south side of LIRR ROW

- Construct new south platform while maintaining pedestrian access to existing south platform
- Construct new north platform
- Construct new pedestrian ramps, stairs, and elevators
- Renovate Mineola Station building adjacent to the north platform
- Demolish existing south platform; access to train service on existing Main Line track via temporary bridges
- Construct new Main Line third track (south side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Mineola Boulevard.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following areas have been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Portions of station parking area between Fourth Avenue and Fifth Avenue south of the LIRR ROW

#### *Section 4B. Main Street to Willis Avenue*

Construction elements in this subsection would include:

- Relocate LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW
- Relocate triangle track worker area on Front Street between Main Street and Willis Avenue in the vicinity of Mineola
- Construct retaining walls on the south side of LIRR ROW
- Eliminate Main Street Grade Crossing<sup>^</sup> and construct new pedestrian overpass
- Construct new traffic turn-around to the north of track and new surface parking and kiss-and-ride south of track at the former Main Street <sup>^</sup> crossing<sup>^</sup>
- Construct new Main Line third track (south side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Main Street.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following area has been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- LIRR ROW between Main Line and Oyster Bay Branch between Main Street and Willis Avenue

## Long Island Rail Road Expansion Project

---

### *Section 4C. Willis Avenue to Roslyn Road*

Construction elements in this subsection would include:

- Relocate LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW; utilities may need to be buried in this area
- Shift alignment of Main Track approximately 7 to 8 feet to the north to accommodate third track
- Potentially replace low height existing retaining wall on the north side of LIRR ROW
- Construct retaining walls on south side of LIRR ROW
- Eliminate Willis Avenue Grade Crossing: ^ Two-lane Willis Avenue underpass (Willis Avenue grade-separated crossing would be opened to traffic before ^ closure to vehicular traffic at Main Street grade crossing ^ commences)
- Construct new pedestrian overpass
- Construct new Main Line third track (south side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Willis Avenue and/or Roslyn Road.

The primary staging areas would be within the LIRR ROW or adjacent property, though final decisions with regard to Project staging areas will be made by the construction contractor.

### *Section 4D. Roslyn Road to Glen Cove Road*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines
- Construct retaining walls on the south side of LIRR ROW near Roslyn Road and ^ on north side of LIRR ROW near Glen Cove Road
- Shift existing track to accommodate third track
- Construct new Main Line third track (the proposed track alignment would shift to the north side of the existing tracks east of Roslyn Road in Mineola, and would continue to just east of Carle Place Station near the western limit of the Village of Westbury)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Glen Cove Road to Voice Road.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following area has been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Commercial properties in the vicinity of East Second Street

*Section 4E. Glen Cove Road to Meadowbrook Parkway*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines
- Construct retaining walls on the north side of LIRR ROW
- Modify Glen Cove Road Bridge to accommodate new Main Line third track
- Shift existing track to accommodate third track
- Construct new Main Line third track (north side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Glen Cove Road.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following area has been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Macy's existing ramp south of existing tracks west of Meadowbrook State Parkway

*Section 4F. Meadowbrook Parkway to west of Carle Place Station*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines
- Construct retaining walls on the north side of LIRR ROW
- Modify substation located east of Meadowbrook State Parkway south of existing tracks
- Modify Meadowbrook State Parkway Bridge to accommodate new Main Line third track
- Modify Cherry Lane Bridge to accommodate new Main Line third track
- Minor modification to Cherry Lane traffic profile to "harmonize" with Atlantic Avenue
- Shift existing track to accommodate third track
- Construct new Main Line third track (north side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Glen Cove Road.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following area has been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Portions of Atlantic Avenue adjacent to the LIRR ROW near Meadowbrook State Parkway and Silver Lake Boulevard

*SECTION 5 – CARLE PLACE STATION TO WESTBURY STATION*

*Section 5A. Carle Place Station*

Due to access constraints for large construction equipment and materials, Carle Place ^ Station may be closed for approximately 12 months. If Carle Place ^ Station were to be temporarily closed, shuttles would be provided to take passengers utilizing the Carle Place ^ Station to the nearby Westbury ^ Station, approximately a five minute drive away.

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines
- Construct new north platform while maintaining pedestrian access to existing south platform
- Replace pedestrian overpass and construct new pedestrian ramps
- Demolish existing north platform; access to train service on existing Main Line track via temporary bridges
- Construct retaining walls on the north side of LIRR ROW
- Shift existing track to accommodate third track
- Construct new Main Line third track (north side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Cherry Lane to Mineola Avenue to Stonehinge Lane.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following area has been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Station parking area north of existing station platform

*Section 5B. Carle Road to west of Westbury Station*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines
- Construct retaining walls on the north side of LIRR ROW near Carle Road and on south side of LIRR ROW near Westbury Station
- Shift existing track to accommodate third track
- Construct new Main Line third track (the entire alignment would gradually shift to the south between Carle Place and Westbury ^ Stations, connecting to the existing tracks and providing a new track south of the existing alignment at Westbury Station)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Carle Road.

The primary staging area would be within the LIRR ROW west of Madison Avenue toward Ellison Avenue, though final decisions with regard to Project staging areas will be made by the construction contractor.

#### **SECTION 6 – WESTBURY STATION TO HICKSVILLE STATION**

##### **Section 6A. Westbury Station**

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW
- Construct new north platform
- Renovate existing station building
- Construct retaining walls on the south side of LIRR ROW
- ^ Construct a new parking garage at station parking area on Railroad Avenue
- Construct a new parking garage at Scally Place
- Construct new south platform while maintaining pedestrian access to existing south platform
- Construct new pedestrian ramps and elevator
- Demolish existing south platform; access to train service on existing Main Line track via temporary bridges
- Construct new pedestrian overpasses
- Construct new Main Line third track (south side)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals
- Construct a new plaza area with stairway to the north platform at the corner of Post Avenue and Union Avenue

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Post Avenue to Railroad Avenue.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following area has been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Portions of the station parking area south of existing station platform

##### **Section 6B. East of Westbury Station to Urban Avenue**

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW east of Westbury ^ Station then from north to south east of Grand Boulevard
- ^ Construct retaining walls on the north and south sides of LIRR ROW near School Street
- Eliminate School Street Grade Crossing: Two lane School Street underpass (activities for the School Street grade crossing would commence after the Urban Avenue grade-separated crossing is open to traffic)

## Long Island Rail Road Expansion Project

---

- Elevate existing track level by up to 3 feet at School Street
- Construct new Main Line third track (the new third track would gradually shift to the north, crossing underneath the existing Grand Boulevard bridge and tying into an existing siding track located west of Hicksville ^ Station)
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to School Street or Urban Avenue.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following areas have been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- 167 School Street commercial building east of School Street (^ potential acquisition)
- LIRR area south of existing tracks east of School Street

### *Section 6C. Urban Avenue to West of Hicksville Station*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from north to south of LIRR ROW from Urban Avenue to Wantagh State Parkway
- Construct retaining walls on the north side of LIRR ROW from Urban Avenue to Wantagh State Parkway
- Modify substation near Wantagh State Parkway
- Conduct minor rehabilitation activities between Wantagh State Parkway and Hicksville Station
- Eliminate Urban Avenue Grade Crossing: Two lane Urban Avenue underpass
- Elevate existing track level by up to 3 feet at Urban Avenue
- Construct new Main Line third track (north side) and tie new third track into existing track and “siding” track just west of Wantagh State Parkway
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Urban Avenue.

The primary staging area would be within the LIRR ROW^ or may include 117 Urban Avenue (which would be acquired), though final decisions with regard to Project staging areas will be made by the construction contractor.

### *Section 6D. Hicksville Station*

Construction elements in this subsection would include:

- Relocate PSEG electric transmission, LIRR signal and communications, Verizon, and Cablevision lines from south to north of LIRR ROW

- Construct two new parking garages near Hicksville Station
- Install new double-slip switch east of Hicksville Station platform near Jerusalem Avenue
- Shave east end of platform at Hicksville Station
- Construct track drainage, ballast, switches, third rail, traction power, communications, and signals

The primary truck access route to construction areas in this subsection is anticipated to be from Jericho Turnpike to Newbridge Road.

Staging areas would generally include the LIRR ROW or ancillary property. In addition, the following area has been identified as potential staging areas for activities in this subsection, though final decisions with regard to Project staging areas will be made by the construction contractor:

- Station parking area north of existing station platforms east of Newbridge Road

### **CONSTRUCTION WORK HOURS AND TRACK OUTAGES**

Although not applicable to New York State projects, construction of the track component of the Proposed Project would generally be carried out within the work hours specified in local noise ordinances except where not feasible. This is consistent with existing LIRR maintenance practices which include overnight work in the LIRR ROW to minimize disruption to LIRR customers. Accordingly, activities affecting rail operations, such as work relating to bridge replacement, construction of retaining and noise attenuation walls, and grade alteration of track, may be carried out on nights and weekends or other LIRR off-peak hours. Noisy activities adjacent to residential properties would be avoided in overnight hours to the maximum extent practicable. For any necessary night work, there would be extensive consultation with the community. LIRR would require the selected contractor to develop methods to expedite the construction schedule and to minimize the construction effects on the nearby community.

In order to expedite construction to reduce road closures and diversions during construction of the separations at grade crossings and to keep the work within the targeted 6 to 9 months (and 9 to 12 months for the one longer grade crossing elimination), it is anticipated that work at the grade crossings would take place outside specified local noise ordinance work hours.

During construction, LIRR may operate modified weekday service in off-peak hours, with periodic suspension of service on a limited number of weekends to allow for construction activity that could not be performed with active train service. Some construction activities would have an adverse impact on off peak and weekend service levels through the Project Corridor, which would temporarily impact LIRR ridership along some of the branches impacted by construction activities. For anticipated mid-day weekday outages, LIRR expects to be able to accommodate service to Oyster Bay, Huntington and Ronkonkoma with schedule adjustments and possible select train cancellations. However, there will be some instances when service to those branches would be impacted, and LIRR would provide advance notice when that occurs. On weekends, however, with the goal of shortening the project's construction duration and maximizing contact time to work along the tracks, service reductions are likely during the construction period. Weekend Huntington service would likely be reduced from half-hourly to hourly, Port Jefferson service levels would be reduced from 90 minutes to 120 minutes, and Ronkonkoma would remain with hourly service. There will also be some track work, including bridge and grade crossing work, which would require both tracks to be taken out of service on a



limited number of occasions. Advance notice would be provided on these limited occasions for these major track outages and customers would be provided with alternative transportation information, including bussing.

LIRR service during construction of the Proposed Project would require the following service modifications:

- Single track outages
  - Utility relocation, retaining wall/sound attenuation wall construction, station platforms, and viaduct work where fouling of tracks (i.e., work activities would occur in such proximity that could interfere with a moving train) would occur
  - Rail activities (i.e., shifting of existing rail)
- Weekend double track outages (on limited occasions)
  - Track shifts
  - Interlocking and special track work installation and demolition
  - Bridge installations at grade crossings and other locations
  - Elevation of existing track levels

## **E. METHODOLOGY**

The analysis of significant adverse impacts during the construction period focuses on a variety of technical analysis areas, each with its own methodology. The geographic areas that would be most affected generally are those within or immediately adjacent to the construction activities. However, in some cases, the effects from construction could extend beyond the immediate areas surrounding the construction sites.

For each of the various technical areas presented in this chapter, appropriate construction analysis periods were selected to represent reasonable worst-case conditions relevant to that technical area, which can occur at different times for different analyses. For example, the noisiest part of the construction may not be at the same time as the heaviest construction traffic. Therefore, the analysis periods may differ for different technical analysis areas.

## **F. POTENTIAL IMPACTS OF THE PROPOSED PROJECT**

Similar to many large construction projects, construction activities can be disruptive to the surrounding area for periods of time but such effects are temporary. The following analyses describe the potential impacts that could result from construction of the Proposed Project, with respect to land use and community character, socioeconomic conditions, environmental justice, visual resources, historic and cultural resources, natural resources, hazardous and contaminated materials, transportation, air quality, ^ noise and vibration, and safety and security.

### **LAND USE AND COMMUNITY CHARACTER**

Construction activities related to the Proposed Project would result in the temporary change of the use of a limited number of individual parcels within the Study Area. These construction activities, however, being of limited duration, would not permanently change the use of these parcels and in any event would not change the patterns of land use in the Study Area. In terms of community character, construction activities would temporarily take place and impact the communities in terms of visual resources and traffic due to road closures and diversions, but

overall would not result in a permanent change of the character of the communities within the Study Area. As discussed above, throughout the construction period, LIRR would implement a number of measures to minimize the effects of construction and to control noise, vibration, and dust. Construction fencing would be erected to reduce potentially undesirable views of construction areas and buffer noise emitted from construction activities. A community noise and vibration monitoring program and an air quality control plan including dust control measures would be implemented during construction. In addition, to the extent practicable and feasible, noisy work would be minimized during evening hours. Therefore, no significant permanent adverse impacts to these communities in terms of land use and community character would result <sup>^</sup> from construction of the Proposed Project.

## **SOCIOECONOMIC CONDITIONS**

This section describes the potential socioeconomic effects of construction activities associated with the Proposed Project from two perspectives: (1) it estimates the economic benefits generated by construction; and (2) it considers whether significant adverse socioeconomic effects would result from construction activities.

### *ECONOMIC AND FISCAL BENEFITS*

Economic and fiscal benefits were estimated using IMPLAN (IMpact Analysis for PLANning), an economic input-output modeling system that uses the most recent economic data from sources such as the U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor Statistics, and the U.S. Census Bureau to predict effects on the local economy from direct changes in spending. The IMPLAN model contains data on 536 economic sectors, showing for any given geography how each sector affects every other sector as a result of a change in the quantity of its product or service. This indirect economic activity that is generated through direct investment is often referred to as the “ripple,” or multiplier effect. This analysis is based on 2013 IMPLAN models for Nassau County and New York State. Using the Nassau County and New York State models and the estimated construction cost of the Proposed Project, the total effect has been projected for both the County and State. A qualitative discussion of operational economic and fiscal benefits is also provided.

The construction of the Proposed Project would result in the investment of significant capital into the local and regional economy. The Proposed Project is expected to cost approximately \$2 billion in 2019 dollars, which includes construction, design, contingency, force account, and agency cost. The construction benefits analysis was based on the IMPLAN input-output modeling system. The following benefits that would occur during the overall construction period in Nassau County, and Suffolk County, and New York State have been estimated. The following analysis examines this investment in the local economy in terms of employment (in full-time equivalents or FTE), wages and salaries, total economic output (or the total demand for goods and services created by construction of the Proposed Project), and tax revenues generated during the construction period.

The economic effects of construction projects are generally of two kinds: direct benefits, usually measured by specific construction-related expenditures for labor, services, and materials; and indirect benefits, representing expenditures made by material suppliers, construction workers, and other employees involved in the direct activity for the purchase of other goods and services within the region. The “secondary” expenditures support economic activity that, in turn, generates new employment within the region.

## **Long Island Rail Road Expansion Project**

---

Construction of the project is estimated to create 1,297 FTE direct construction employment opportunities in Nassau County. In addition to direct employment, construction of the project would create additional jobs off-site in Nassau County (762 FTE) and Suffolk County (24 FTE) and the rest of the state (46 FTE). In the broader state economy, total employment from construction of the project would be 2,130 FTE.

Direct wages and salaries from constructing the project are estimated at about \$637.07 million. In the broader New York State economy, total direct and indirect wages and salaries from constructing the project would be even greater (approximately \$962.42 million, including \$926.70 million in Nassau and \$10.36 million in Suffolk).

The total effect on the local economy, expressed as economic output or demand for local industries, is estimated at approximately \$3.18 billion for Nassau County, \$47.14 million for Suffolk County, and approximately \$3.33 billion for the New York State economy overall. This output includes indirect and induced employee compensation, taxes, profits, and intermediate goods, in addition to the \$2 billion in direct construction costs.

Constructing the project would also create tax revenues for Nassau and Suffolk Counties and New York State. These taxes include sales tax, personal income tax, corporate and business taxes, and numerous miscellaneous taxes. Construction of the project is estimated to create approximately \$85.20 million in direct non-property related taxes for Nassau County, the MTA, and New York State (this analysis accounts for the fact that LIRR would be exempt from paying sales tax on construction materials). Indirect taxes would amount to approximately \$3.19 million.

### ***POTENTIAL SIGNIFICANT ADVERSE SOCIOECONOMIC EFFECTS ASSESSMENT***

Construction of the Proposed Project would require temporary easements for construction access on a number of parcels, some of which may have active businesses. However, such access would be of limited duration and would only be provided by willing property owners. The precise parcels would be selected by the design-build contractor. Construction activities at these locations could, at times, affect pedestrian and vehicular access in the immediate vicinity of the businesses but such effects would be temporary and limited to the construction period at any particular location with the Project Corridor. A plan would be developed and implemented to ensure that access to existing businesses throughout the Project Corridor would be maintained throughout the construction period. In addition, LIRR would ensure that lane and/or sidewalk closures would not obstruct entrances to any existing businesses. Therefore, businesses would not be significantly affected by any temporary change in pedestrian and vehicular access that could occur as a result of construction activities.

### **ENVIRONMENTAL JUSTICE**

Construction of the Proposed Project would occur throughout the Project Corridor over a four-year period. However, temporary impacts associated with construction at localized segments would be of shorter duration, limiting construction impacts. These temporary impacts would be experienced broadly through the Study Area. The Proposed Project would not result in disproportionate construction impacts to environmental justice communities. Further information regarding the Proposed Project's effects on environmental justice communities can be found in Chapter 4 "Environmental Justice."

## **VISUAL RESOURCES**

During construction, there would be an increase in activity within the Study Area, especially along the LIRR ROW and the grade crossings. As construction of the Proposed Project proceeds, large construction equipment such as cranes, excavators, trucks, would be utilized and visible to the public. Construction of the Proposed Project would require the removal of most vegetation within the LIRR ROW, which may cause the ROW to become more visible from adjoining land uses. There would be construction sites that would be visible to residents and businesses located within the Project Corridor.

Most of the activities and staging would be located within the LIRR ROW. In addition, areas near the Project Corridor would be used for construction staging. Staging areas would typically be surrounded by construction fences and barricades and covered from public view. Construction fences would be uniform and neat in material and appearance, i.e., neatly clad in green mesh or printed mesh with approved enhancements. The staging areas could have trailers and portable toilets and could be used to stockpile construction materials as well as equipment and truck staging. In addition, as discussed above, contractors are required to keep construction sites clean and orderly and would store construction materials in piles and not haphazardly. Construction staging would be temporary in nature and the areas would be restored as soon as they are no longer needed. Temporary lane and/or road closures would be needed during the construction of the Proposed Project. In such cases, the temporarily closed lanes could be used as staging where equipment and materials would be stored. LIRR is committed to using directional lighting at night to protect residences from light pollution and to avoid the potential for adverse visual impacts during construction. As discussed above, construction of the Proposed Project was conservatively assumed for the purpose of this study to take approximately four years. However, construction activities would be phased to minimize the duration of construction at any particular location so as to lessen the effects of construction on the surrounding communities. Once each phase is complete, the construction areas would be restored to an improved condition. Although the character and quality of views of the Project Corridor during construction of the Proposed Project would be modified, such effects would be temporary in any given location. Therefore, construction of the Proposed Project would not result in significant adverse impacts to visual and aesthetic resources.

## **HISTORIC AND ARCHAEOLOGICAL RESOURCES**

### *ARCHAEOLOGICAL RESOURCES*

The LIRR ROW along the 9.8-mile length of the Project Corridor <sup>^</sup> and the locations of the six parking garages have been determined to possess little to no precontact or historic period archaeological potential. Therefore, construction of the proposed track alignment<sup>^</sup>, station modifications, and parking garages would have no adverse impact on archaeological resources. The seven proposed grade crossing locations have experienced extensive prior disturbance. Therefore, it is highly unlikely that construction at the proposed grade crossing locations would have the potential to impact any intact archaeological resources at these locations. In addition, none of the anticipated property taking locations possess archaeological potential. Should additional takings be proposed as project design progresses, an assessment of archaeological potential would be undertaken in consultation with OPRHP. The use of the staging areas during construction would have no effect on archaeological resources because all work would occur on the paved surfaces with no subsurface disturbance.

### *^ ARCHITECTURAL RESOURCES*

The Proposed Project would involve the demolition of two historic architectural resources within the LIRR ROW, south of the tracks along the Project Corridor—the Nassau Tower (an LIRR signal house) and the former Mineola LIRR Electrical Substation. The demolition of these properties would constitute an Adverse Impact to historic resources under SEQRA and Section 14.09. No other historic architectural resources would be directly impacted by modifications to the track alignment.

The proposed modifications to the ^ Project Corridor train stations, construction-related activities at the preliminary construction staging areas, and demolition associated with property takings would not directly impact any historic architectural resources. Further, the proposed alterations to the grade crossings and bridges would not directly impact any historic architectural resources.

To ensure that construction activities associated with the Proposed Project that would be undertaken within 100 feet of architectural resources would not cause inadvertent physical impacts to historic architectural resources, LIRR would prepare and implement a CPP in consultation with the OPRHP for any architectural resources located within 100 feet of the Proposed Project construction. The CPP would set forth the specific measures to be implemented to protect historic architectural resources during construction of the Proposed Project. The historic architectural resources that would be subject to the CPP are:

- Floral Park—the Floral Park Public Library, the commercial buildings on Tyson Avenue and South Tyson Avenue, and the commercial buildings on Tulip Avenue;
- Mineola—the commercial buildings at Station Plaza North;
- Westbury—the potential architectural resource at 164 Post Avenue; and
- Hicksville—Top Hat Uniform and the Hicksville USPS Main Post Office.

Measures to mitigate the adverse impact from the demolition of Nassau Tower and the former Mineola Electrical Substation, which is a Project-related impact not limited to construction activity, would be developed in consultation with OPRHP. These mitigation measures, along with the protective measures established in the CPP, would be set forth in an LOR to be executed among the involved parties.

### **NATURAL RESOURCES**

#### *GROUNDWATER AND WETLANDS*

Construction of the Proposed Project would require excavation and grading of the ground surface. Erosion and sediment control measures would be implemented during these soil disturbing activities in accordance with the 2016 New York State Standards and Specifications for Erosion and Sediment Control (“Blue Book”) and the Stormwater Pollution Prevention Plan (SWPPP) prepared to meet the requirements of SPDES General Permit GP-0-15-002. Implementation of erosion and sediment control measures as outlined in the SWPPP would allow for groundwater recharge and minimize the potential for sediment discharges to existing infiltration basins. The SWPPP would include procedures for stormwater runoff and sediment control to prevent contaminated sediment runoff into groundwater and nearby wetlands.

As described in Chapter 8, “Contaminated Materials,” hazardous materials encountered during construction would be managed to minimize the potential for adverse impacts to groundwater or

wetlands, in accordance with state and federal regulations. Based on the results of subsurface investigations, a RAP and CHASP would be prepared for implementation during project construction. These plans would address both known and potential environmental conditions that could be encountered during all subsurface disturbance associated with construction of the Proposed Project <sup>^</sup>including construction of <sup>^</sup>stormwater conveyance pipe from <sup>^</sup>grade <sup>^</sup>crossings to <sup>^</sup>Nassau County <sup>^</sup>recharge basins. The plans would present measures for management of contaminated soil, groundwater and underground storage tanks in accordance with applicable federal, state and local regulations. If dewatering is required for construction, testing would be performed to ensure compliance with applicable discharge regulatory requirements. If necessary, pre-treatment would be conducted prior to discharge. With these measures implemented, construction of the Proposed Project would not result in significant adverse impacts to groundwater, the Nassau/Suffolk Aquifer System, or wetlands.

#### *ECOLOGICAL COMMUNITIES*

Construction of the <sup>^</sup>Proposed Project would result in the removal of some trees, shrubs and herbaceous pioneer non-native species. <sup>^</sup>As discussed in Chapter 7, “Natural Resources,” ecological communities within the Study Area are limited to railroad, paved road/path, and urban structure exterior communities. These communities are sparsely vegetated by ruderal species and have limited ecological value. Overall, construction of the Proposed Project would not result in significant adverse impacts to ecological communities. <sup>^</sup>

#### *WILDLIFE*

Vegetation removal would be limited to trees and shrubby and herbaceous ruderal and non-native species that offer no habitat of value to native wildlife. The loss of these habitats would not result in significant adverse impacts to the urban-<sup>^</sup>adapted species using these habitats. Disturbance during construction of the Proposed Project due to increased noise and human activity has the potential to temporarily displace wildlife, such as the non-native house sparrow (*Passer domesticus*) and the eastern gray squirrel (*Sciurus carolinensis*), within the vicinity of the construction. Suitable habitat for these urban-adapted generalist species would be available nearby for any displaced individuals. Individuals of these species would be expected to return to the Project Corridor after completion of the construction. Replacement trees would be planted <sup>^</sup>where feasible<sup>^</sup>. Overall, construction of the Proposed Project would not result in significant adverse impacts to wildlife or any habitat that is of value to wildlife.

#### **HAZARDOUS AND CONTAMINATED MATERIALS**

The potential for significant adverse impacts depends on the extent and type of materials that are currently present in the subsurface in the Study Area and their location relative to or within the Study Area, their levels, and whether exposure to the contaminated materials would be associated with construction of the Proposed Project. Construction of the Proposed Project would require subsurface disturbance along the alignment, at LIRR <sup>^</sup>Stations, at properties that would be acquired as part of the Proposed Project, and within areas that would require alterations to grade crossings.

As presented in Chapter 8, “Hazardous and Contaminated Materials,” subsurface soil sampling has been performed within the LIRR ROW and at locations of proposed parking garages where

preliminary assessments had determined that there was the potential for hazardous and contaminated materials to be present (Category B sites<sup>3</sup>). That sampling identified only one location within the LIRR ROW and one location at a parking garage location where one contaminant exceeded applicable soil clean-up objectives. However, given the previous land use history of the Project Corridor, additional areas of contamination may be identified during construction. In such an instance, the potential for adverse impacts would be avoided by ensuring that construction activities are performed in accordance with the following protocols:

1. <sup>^</sup> A Remedial Action Plan (RAP) and a Construction Health and Safety Plan (CHASP) would be prepared for implementation during project construction. These plans would address both the remediation of known or potential environmental conditions that may be encountered during all subsurface disturbance associated with proposed construction and development activities. The purpose of the RAP is to present measures for handling and managing contaminated on-site soil, and removing any potentially unknown underground petroleum storage tanks in accordance with applicable federal, state, and local regulations. Contaminated soil management protocols will include guidelines for temporary on-site stockpiling such as stockpiles management to control run-off, and off-site transportation and disposal. The plans would incorporate safety and other measures to minimize the potential for impacts to the community and construction workers. The RAP would also specify the need for engineering controls as warranted based on the testing, such as the incorporation of vapor mitigation systems into the project design.

To minimize the potential for impacts on the community and construction workers, all demolition, excavation, and construction work involving soil disturbance would be performed under a site-specific environmental CHASP. The CHASP would also be based on the results of the Phase II study and would specify appropriate testing and/or monitoring, and detail appropriate measures to be implemented (including notification of regulatory agencies, dust suppression techniques, appropriate air monitoring action levels and responses, etc.) if underground storage tanks, soil and groundwater contamination, or other unforeseen environmental conditions are encountered. If dewatering is required for construction, testing would be performed to ensure compliance with applicable discharge regulatory requirements. If necessary, pre-treatment would be conducted prior to discharge.

- Removal and disposal of mercury- and/or PCB-containing electrical equipment would be performed in accordance with applicable federal, state and local regulations.
- Prior to any activities required as part of the Proposed Project that could disturb potential ACM, a comprehensive asbestos survey of areas (including underground utility vaults) to be

---

<sup>3</sup> A Category B site is defined as sites that had some reasonable potential to have been impacted by the presence of contaminated materials and thus additional analysis is prudent. The identification of a site as "Category B" does not necessarily indicate that the site is contaminated. Subsurface investigations, which would only be performed at the sites within or close to an area where subsurface disturbance would be required for the Proposed Project, would be required to determine that contamination actually exists.

<sup>5</sup> EPA required a major reduction in the sulfur content of diesel fuel intended for use in locomotive, marine, and non-road engines and equipment, including construction equipment. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be ULSD fuel sulfur levels in non-road diesel fuel are limited to a maximum of 15 parts per million.

disturbed by the Proposed Project would be conducted that included the sampling of all suspect materials to confirm the presence or absence of asbestos. All identified ACM would be removed and disposed of prior to construction in accordance with all federal, state, and local regulations. Asbestos abatement procedures and containment requirements will be based on the type and quantities of ACM to be removed.

- Any demolition activities with the potential to disturb LBP would be performed in accordance with applicable Occupational Safety and Health Administration regulations including OSHA 29 CFR 1926.62 - Lead Exposure in Construction Methods for lead abatement will comply with LIRR abatement procedures and containment requirements.
- All material that needed to be disposed of (e.g., miscellaneous debris, tires, contaminated soil and any excess fill) would be characterized and disposed of off-site in accordance with applicable federal, state, and local requirements. Transportation of all construction waste leaving the site would be in accordance with applicable requirements covering licensing of haulers and trucks, truck routes, manifesting, etc.

With the implementation of these protocols, no significant adverse impacts related to contaminated materials would result from demolition and/or construction activities related to the Proposed Project.

## **TRANSPORTATION**

The Proposed Project would include construction along the length of the Project Corridor, including activities at each of the seven grade crossings that would be eliminated. Pedestrian connectivity across the tracks would be maintained at each of the grade crossings during construction or would be diverted to nearby crossings; pedestrian access to the passenger rail stations and nearby businesses would also be maintained.

During construction, LIRR would operate normal weekday commuter (i.e., peak) service, with periodic suspension of service on weekends to allow for construction activity that could not be performed with active train service. A list of construction activities that may require the LIRR service modifications is provided above under “Construction Work Hours and Track Outages.” Due to access constraints for large construction equipment and materials, Carle Place ^ Station may be temporarily closed for approximately 12 months. If Carle Place ^ Station is temporarily closed, shuttles would be provided to take passengers utilizing the Carle Place ^ Station to the nearby Westbury ^ Station, approximately a 5 minute drive away.

Construction of the Proposed Project is anticipated to have approximately 15 construction workers on site per day for each of the grade crossings. There would be approximately 30 workers for improvement activities at each of the stations, and approximately 75 workers for bridge and viaduct elements work. In addition, at each of the subsections defined above, there would be approximately 20 workers for utility relocation, approximately 30 workers for retaining wall construction, and approximately 50 workers for track work. These workers would be spread out over specific construction areas that would be active for specific periods throughout the Project Corridor. As discussed above, satellite parking would be provided to keep personal construction worker vehicles out of residential streets and parking near the stations. In addition, construction worker trips would primarily occur outside of the typical commuter peak hours.

Construction of the Proposed Project would generate truck trips for the delivery of construction materials and hauling away excavated materials. It is anticipated that construction relating to the elimination of the grade crossings would require approximately three truck trips per hour per



site. For the various types of construction activities that occur at subsections including utility relocation, station improvement activities, bridge and viaduct elements work, retaining wall construction, and/or track work, a maximum of approximately 10 to 15 truck trips per day per subsection would be required. The time period needed for these peak activities could extend for a period of two to three months when multiple activities would occur simultaneously within the subsection. Trucks would primarily use truck routes discussed in Section C, "Construction Description," to access the construction areas along the Project Corridor. In lieu of construction truck deliveries and to reduce the effects of construction truck traffic on local roadways, existing track would also be used to transport materials to and from the work sites to the extent practical. In addition, construction deliveries would be scheduled outside of the school and commuting traffic peak hours to the extent practicable while school is in session.

The LIRR grade crossings at Covert Avenue and South 12th Street in New Hyde Park, Willis Avenue and Main Street in Mineola, and Urban Avenue and School Street in Westbury/New Cassel would be closed to traffic during construction for up to approximately 6 months<sup>^</sup> of the overall 9 month construction schedule. Only one grade crossing in each community would be closed at the same time. At the LIRR grade crossing on New Hyde Park Road, two-way traffic would be maintained across the tracks with reduced capacity for up to approximately nine months. A maximum of one grade crossing in each of the three study areas would experience roadway closures at any given time to minimize impacts to traffic in each of the three study areas. Given the temporary roadway/lane closures and diversions during grade crossing activities, detailed traffic studies at each of the grade crossing locations, as well as proposed improvement measures, are provided below. Temporary lane closures may also be needed to stage the abutment work for the seven existing bridge structures along the Project Corridor.

### *GRADE CROSSING ELIMINATIONS*

Employees would be expected to arrive at the site before the peak traffic impact analysis hour, when traffic volumes are typically lower than the peak hours and were not assigned to the roadway network for analysis. In the analysis presented below three trucks trips were assigned to and from the site during each of the AM and PM peak hours to account for deliveries of construction materials and hauling away excavated materials.

In the New Hyde Park area, the grade crossing of the LIRR Main Line tracks on Covert Avenue would be the first grade crossing to be eliminated. The DEIS had identified Covert Avenue as proceeding following construction of the underpass at New Hyde Park Road<sup>^</sup>. This change was implemented due to scheduling coordination between station project elements, utility relocation, property acquisition, and traffic diversions. The grade crossing would be closed for the duration of construction and access to 2nd and 3rd Avenues from Covert Avenue would be restricted. Traffic would be diverted to parallel north-south routes, including New Hyde Park Road and South 12th Street, both of which would continue to have operational gates at their respective grade crossings of the LIRR Main Line.

The grade crossing at New Hyde Park Road would be the second grade crossing to be eliminated and the nine months of construction would be completed in two phases. During the first phase of construction, traffic would be shifted to the northbound side of the roadway and one lane of traffic in each direction would cross the existing tracks. Clinch Avenue at New Hyde Park Road would be closed. During the second phase of construction, one lane of traffic in each direction would pass under the tracks in the newly constructed underpass on the southbound side of the roadway; Clinch Avenue at New Hyde Park Road would be closed. For the impact assessment,

the first phase of construction at this location was analyzed due to the closure of one lane of traffic in each direction with the grade crossing still operational, which constitutes the worst-case construction impact condition.

^ In the Mineola area, Willis Avenue and Main Street would be closed for the duration of construction at each of their respective grade crossings and traffic would be diverted to parallel north-south routes. Construction at the Willis Avenue grade crossing would be performed first, and would be completed before construction on Main Street begins. The construction scenario with full closure of the Willis Avenue grade crossing was analyzed to assess the adverse impacts of the diversion of traffic from Willis Avenue to alternate routes.

The construction scenario of a one-way southbound Willis Avenue underpass (as analyzed in Build Option 2) combined with the full closure of Main Street constitutes the worst-case construction impact condition and was also analyzed since it assesses the diversions of both Main Street and northbound Willis Avenue traffic to alternate routes. The construction scenario of a two-way Willis Avenue underpass (as analyzed in Build Option 1) combined with full closure of Main Street was not analyzed since traffic diversions and levels of service would be comparable to those expected under Build Option 1.

In the Westbury area, each of the two grade crossings would be closed completely during construction of each of the underpasses, but Urban Avenue construction would be completed before construction on School Street begins so that Urban Avenue could be used in place of the closed crossing, as would other parallel crossings in the Westbury area. Traffic would be diverted to parallel routes during each of their respective construction stages. Both closures are analyzed in detail below.

A summary of the construction scenarios analyzed is presented below in **Table 13-2**.

#### *ANALYSIS OF ADVERSE IMPACTS TO TRAFFIC AT GRADE CROSSINGS*

A comparison of these proposed construction scenarios for 2020 conditions without the Proposed Project was done to assess adverse impacts to traffic during construction. Detailed traffic levels of service during grade-crossing construction are presented in Appendix ^ 13. A summary of the temporary (6 to 9 months) adverse traffic impacts during the construction scenarios analyzed in each of the three study areas is detailed below along with improvement measures.

##### *New Hyde Park*

###### *Covert Avenue*

Existing traffic on Covert Avenue was assumed to divert to New Hyde Park Road and South 12th Street primarily via Jericho Turnpike and secondarily via First Avenue on the north side of the tracks and via Stewart Avenue and secondarily via 6th Avenue on the south side of the tracks. Emergency vehicles that currently cross the LIRR tracks on Covert Avenue would divert to South 12th Street or New Hyde Park Road.

The northbound Covert Avenue right-turn movement at Stewart Avenue would be adversely impacted during the AM and PM peak hours and could be improved by restriping the northbound Covert Avenue approach as one 10 foot through lane and two 10 foot right-turn lanes and by modifying the signal timing plan.

At the intersection of Jericho Turnpike and South 12th Street, the northbound and eastbound approaches would be adversely impacted during the AM peak hour and the northbound approach

and westbound left-turn would be adversely impacted during the PM peak hour. These adverse impacts could be improved by prohibiting parking for 175 feet from the stopbar on the eastbound Jericho Turnpike approach and restriping the approach as two 10 foot through lanes and one 10 foot right-turn lane; prohibiting parking on the northbound South 12th Street approach for 75 feet from the stopbar and restriping the approach as one 13 foot left-turn lane and one 10 foot shared right-turn lane by shifting the centerline seven feet to the west and prohibiting parking on southbound South 12th Street for 100 feet from the intersection; and by modifying the traffic signal timing plan.

The northbound approach and westbound left-turn lane at the intersection of Jericho Turnpike and New Hyde Park Road would be adversely impacted during the AM peak hour and the northbound shared through-right, the southbound left-turn, and the westbound left-turn movements would be adversely impacted during the PM peak hour. Aside from the northbound shared through-right movement in the AM peak hour, the adverse impacts identified could be improved by prohibiting parking on the eastbound and westbound Jericho Turnpike approaches and restriping the existing parking lanes as one 8-foot right-turn lane on those two approaches; and by modifying the signal timing plan. The northbound shared through-right movement could only be partially improved in the AM peak hour.

The northbound New Hyde Park Road approach at Stewart Avenue would be adversely impacted during the AM peak hour and the southbound New Hyde Park Road approach at Stewart Avenue and eastbound Stewart Avenue left-turn at New Hyde Park Road would be adversely impacted during both AM and PM peak hours. The adverse impacts could be partially improved during the AM and PM peak hours by modifying the signal phasing and timing plan. The northbound New Hyde Park Road approach would be adversely impacted in the AM peak hour and would deteriorate from LOS E to LOS F, and would remain unimproved. The southbound New Hyde Park Road approach would be adversely impacted during the PM peak hour and deteriorate from LOS C to LOS E, and would remain unimproved.

The northbound and southbound South 12th Street approaches at Stewart Avenue would be adversely impacted during both AM and PM peak hours. These adverse impacts could be improved by installing a temporary traffic signal at the intersection for the duration of construction.

### *New Hyde Park Road*

For the purposes of this analysis, it was assumed that northbound traffic on Clinch Avenue would divert to New Hyde Park Road primarily via Stewart Avenue and secondarily via Stratford Avenue. Southbound traffic on Clinch Avenue was assumed to divert to southbound New Hyde Park Road to eastbound Stewart Avenue or eastbound Stratford Avenue. Emergency vehicles that currently cross the LIRR tracks on New Hyde Park Road could be expected to continue using New Hyde Park Road since one lane of traffic would be maintained in each direction. Emergency vehicles that currently access Clinch Avenue would divert using the same routes as general traffic.

**Table 13-2**  
**Grade Crossing Construction Scenarios**

<b>Grade Crossing Constructed</b>	<b>Construction Condition Analyzed</b>	<b>Targeted Full or Partial Road Closure Durations</b>	<b>Anticipated Total Construction Duration</b>
Covert Avenue <sup>^</sup>	1. <sup>^</sup> <u>Full closure of Covert Avenue at LIRR ^ tracks</u> <sup>^</sup> 2. <u>Diversion of traffic to parallel north-south routes</u>	<sup>^</sup> 6 months <sup>^</sup>	6 – 9 <sup>^</sup> months
<u>New Hyde Park Road</u>	1. <sup>^</sup> <u>One lane in each direction at LIRR grade=</u> crossing 2. LIRR gates remain operational <sup>^</sup> 3. <sup>^</sup> <u>Clinch Avenue closed at New Hyde Park Road</u> 4. <u>Covert Avenue underpass ^ operational before</u> <sup>^</sup> <u>construction of New Hyde Park Road underpass</u>	9 months ( <u>one-lane remains open in each direction</u> )	9 – 12 months
South 12th Street	Similar to Build Option 2 in Chapter 10, “Transportation”	6 months*	6 – 9 months*
Willis Avenue	1. Full closure of Willis Avenue at LIRR tracks 2. Diversion of traffic to parallel north-south routes	6 months	6 – 9 months
Main Street	1. Full closure of Main Street at LIRR tracks 2. Diversion of traffic to parallel north-south routes 3. One-way SB Willis Avenue underpass operational before closure of Main Street grade crossing	6 months*	6 – 9 months*
Urban Avenue	1. Full closure of Urban Avenue at LIRR tracks 2. Diversion of traffic to parallel north-south routes	6 months	6 – 9 months
School Street	1. Full closure of School Street at LIRR tracks 2. Diversion of traffic to parallel north-south routes	6 months	6 – 9 months
<b>Note:</b> * <sup>^</sup> <u>Since full closure ^ has been identified as the Preferred Option for^</u> these grade crossings, the construction duration would be significantly shorter than the six to nine months shown.			

New Hyde Park Road at the LIRR grade crossing would be adversely impacted during the 9 to 12 months construction period and would deteriorate from LOS C to LOS F in the northbound direction during the AM peak hour and would deteriorate from LOS C to LOS E in the southbound direction during the PM peak hour, and would remain unimproved.

The northbound approach of New Hyde Park Road at Stewart Avenue would be adversely impacted during the AM peak hour and the southbound approach of New Hyde Park Road at Stewart Avenue would be adversely impacted during the PM peak hour. These adverse impacts could be improved in the AM peak hour by modifying the signal timing plan and would remain unimproved in the PM peak hour.

<sup>^</sup> *South 12th Street*

South 12th Street would be closed during construction at that grade crossing; construction at South 12th Street would commence after completion of the underpasses at Covert Avenue and New Hyde Park Road. Adverse traffic impacts would be similar to those for Build Option 2 in the New Hyde Park Station area and can be found in Chapter 10, “Transportation.” Emergency vehicles would be expected to divert to New Hyde Park Road and Covert Avenue.

### *Mineola*

#### *Willis Avenue*

Willis Avenue would be closed to traffic in both directions near the LIRR grade crossing for the duration of construction at that crossing. The LIRR grade crossing at Main Street would remain operational in both directions. Existing traffic on Willis Avenue would be expected to divert to parallel north-south routes, including Mineola Boulevard, Main Street, and Roslyn Road. Emergency vehicles would similarly be expected to divert to these roads.

The southbound Mineola Boulevard shared through-right movement at Second Street would be adversely impacted during the AM and PM peak hours and could be improved by modifying the traffic signal timing plan and by prohibiting parking on the westbound Second Street approach and restriping it as one 10-foot left-turn lane and one 10-foot shared through-right lane.

At Mineola Boulevard and First Street, the westbound approach would be adversely impacted during both the AM and PM peak hours and could be improved by modifying the traffic signal timing plan.

The eastbound Second Street approach at Willis Avenue would be adversely impacted during the PM peak hour and could be improved by modifying the traffic signal timing plan.

At the intersection of Roslyn Road and Second Street, the southbound approach and eastbound through-right movement would be adversely impacted during the AM and PM peak hours and the northbound left-turn movement would be adversely impacted during the AM peak hour. These impacts could be improved by restriping the eastbound approach as one 10-foot left-turn lane, one 10-foot through lane, and one 11-foot right-turn lane; and by modifying the traffic signal phasing and timing plan.

The northbound, southbound, and eastbound approaches at Main Street and Second Street would be adversely impacted during the PM peak hour and could be improved by installing a temporary traffic signal at the intersection for the duration of construction.

#### *Main Street*

Main Street would be closed to traffic in both directions during construction at the grade crossing; construction would commence after completion of the underpass at Willis Avenue. If the underpass at Willis Avenue is a two-way underpass (Option 1), the adverse impacts and potential improvement measures would be similar to those identified for Option 1. The construction scenario analyzed below encompasses either construction to close Main Street in both directions near the LIRR crossing, as well as construction to create an operational one-way southbound underpass that carries Willis Avenue underneath the LIRR tracks. Existing traffic on Main Street would be expected to divert to parallel north-south routes, including Mineola Boulevard, Willis Avenue, and Roslyn Road. Emergency vehicles would similarly be expected to divert to these roads.

At Mineola Boulevard and Old Country Road, the westbound through and right-turn movements would be adversely impacted during the AM and PM peak hours and the eastbound left-turn movement would be adversely impacted during the PM peak hour. Adverse impacts could be fully improved in the AM peak hour and partially improved in the PM peak hour by restriping the westbound Old Country Road approach as one 10-foot left-turn lane, two 10 foot through lanes, and one 14-foot right-turn lanes; and by modifying the traffic signal timing plan. The westbound right-turn movement would be adversely impacted and deteriorate from LOS D to

LOS F and would remain unimproved during the PM peak hour for the 6 to 9 months construction period.

At Mineola Boulevard and Second Street, the southbound Mineola Boulevard shared through-right movement would be adversely impacted in the AM peak hour and the westbound approach would be adversely impacted in the PM peak hour. These impacts could be improved by modifying the traffic signal timing plan.

The eastbound Second Street approach at Willis Avenue would be adversely impacted during the PM peak hour and could be improved by modifying the traffic signal timing plan.

At Old Country Road and Roslyn Road, the westbound Old Country Road movement would be adversely impacted during the AM peak hour and could be improved by modifying the traffic signal timing plan.

The southbound Roslyn Road approach at Second Street would be adversely impacted during the PM peak hour and could be improved by modifying the traffic signal timing plan.

#### *Westbury*

##### *Urban Avenue*

In Westbury, the underpass that would carry Urban Avenue under the LIRR tracks would be constructed before the underpass on School Street. Urban Avenue would be closed to traffic in both directions near the LIRR tracks during construction. Traffic would be expected to divert to nearby parallel north-south routes, including Grand Boulevard, School Street, and Post Avenue. Emergency vehicles would similarly be expected to divert to these roads.

The southbound Post Avenue shared left-through movement at Union Avenue would be adversely impacted during the AM and PM peak hours and could be improved by ^ modifying the traffic signal timing plan.

At Old Country Road and School Street, the eastbound left-turn movement would be adversely impacted during the AM and PM peak hours and could be improved by modifying the traffic signal timing plan.

At Old Country Road and Belmont Place/Merillon Avenue, the southbound left-turn movement would be adversely impacted during the PM peak hour and could be improved by modifying the traffic signal timing plan.

##### *School Street*

The underpass on School Street would be constructed after completion of construction on Urban Avenue and the opening of that underpass. School Street would be closed to traffic in both directions near the LIRR tracks during construction and traffic would be expected to divert to nearby parallel north-south routes, including Post Avenue, Grand Boulevard, and Urban Avenue. Emergency vehicles would similarly be expected to divert to these roads.

At Post Avenue and ^ Maple Avenue, the northbound ^ left-turn movement and eastbound shared through-right movement would be adversely impacted during the ^ PM peak hour and would remain unimproved.

At Post Avenue and Urban Avenue, the southbound Post Avenue shared left-through movement would be adversely impacted during the AM and PM peak hours. These impacts could be improved in the AM and PM peak hours by restriping the southbound approach as one 12-foot left-turn lane and one 12-foot through lane<sup>^</sup>.

At Post Avenue and Railroad Avenue, the northbound shared through-right movement would be adversely impacted during the AM and PM peak hours and the southbound shared through-right movement would be adversely impacted during the PM peak hour. These adverse impacts would remain unimproved.

The eastbound Old Country Road right-turn movement at School Street would be adversely impacted during the PM peak hour and could be improved by modifying the traffic signal timing plan.

### ^ TRAFFIC AND PARKING IMPACTS FROM THIRD MAIN LINE TRACK, PARKING GARAGE, AND STATION IMPROVEMENTS

No extensive road and/or lane closures are anticipated during track alignment, parking garage construction, and station improvement activities. There would be intermittent lane and/or road closures for utility relocations, bridge abutment construction, and the setting of bridge elements, but such closures would be limited to weekends. As discussed above, track alignment and station improvement activities are estimated to attract approximately 20 to 75 construction employees per day for the different construction elements and a maximum of approximately 10 to 15 truck trips per day per subsection during peak construction activities would be required. The time period needed for these peak activities could extend for a period of two to three months when multiple activities would occur simultaneously within the subsection. These traffic volumes are typically much lower than the existing peak hour volumes at roadways near the Project Corridor. In addition, the construction work vehicle trips would primarily occur outside of the typical commuter peak hours. Construction activities within and adjacent to the LIRR ROW, near stations, and at parking garage locations may result in a temporary loss of short-term or long-term parking spaces. LIRR is committed to a number of measures to minimize the effects of construction, including providing satellite parking for construction worker vehicles and using of existing tracks to the extent practical to transport materials to and from the work sites. Therefore, track alignment, parking garage, and station improvement construction activities are not expected to result in significant adverse traffic ^ or parking impacts; however, some short-term parking impacts may occur.

## AIR QUALITY

Chapter 11, “Air Quality,” provides information on air pollutants and the relevant regulations. This section examines the potential air quality impacts from project construction.

It is expected that the Proposed Project would maintain existing traffic flow routes without resulting in continuous construction detour/diversions over more than two CO (winter) seasons along local routes. Therefore, in accordance with the NYSDOT’s *TEM*, no microscale detour traffic CO impact analysis is warranted.

Although traffic disruption during the construction period at certain locations would likely occur, detours/diversions would not last more than five years along any routes. Therefore, in accordance with the NYSDOT’s *TEM*, mesoscale emissions analysis for construction detour traffic is not required.

Since the Proposed Project has estimated construction periods of more than 3 years, a project-level non-road construction equipment exhaust PM analysis is conducted for both PM<sub>10</sub> and PM<sub>2.5</sub>. Construction-related PM emissions were estimated and compared with the 15 tons per year threshold for both PM<sub>10</sub> and PM<sub>2.5</sub> established in the NYSDOT’s final policy to determine potential construction emissions significance. Other criteria pollutant emissions and greenhouse

gas (GHG) emissions in terms of CO<sub>2</sub> levels were also estimated for construction activities for EIS disclosure purposes.

The type of equipment that would be used for station, bridge, parking garage, and grade crossing construction and demolition activities would include, but is not limited to:

- Loaders.
- Cherry pickers.
- Compressors.
- Cranes.
- Drill rig and augurs.
- Dump trucks.
- Excavators.
- Front end loaders.
- Portable generators.

According to an approximately four-year construction schedule that would span five calendar years, construction equipment and truck usage resource data (i.e., type, size, average daily operating hours for each equipment type, etc.) were developed for the entire construction period. Estimates of emissions from construction equipment operations were developed based on the estimated hours of equipment use associated with and the future year fleet-average emission factors for each type of equipment. Criteria pollutants and GHG emission factors for both equipment and trucks were forecasted using EPA's MOVES2014a emission factor model in association with the default model input parameters applicable for Nassau County.

Emission factors (in grams of pollutant per hour per horsepower) were multiplied by the estimated running time and equipment average horsepower to calculate the total grams of pollutant from each piece of equipment. Finally, the total grams of pollutant were converted to tons of pollutant.

Annual construction emissions associated with the construction activity only are presented in **Table 13-3**. The annual PM emissions from construction activity would be well below the 15-ton per year threshold and would result in no significant regional air quality impacts during the construction period. The construction period emissions for other criteria pollutants and GHG are also shown in Table 13-3 for the purpose of EIS disclosure. Given their temporary nature, these emissions would not be considered significant. Emissions would be even lower due to the air quality control plan that would be implemented during construction of the Proposed Project as described below.

**Table 13-3**  
**Emissions from Construction Activities (Tons)**

Year	Pollutants						
	VOC	NOx	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	CO <sub>2</sub>
2017	0.05	0.36	0.11	0.03	0.02	0.00	144.79
2018	2.48	18.72	5.68	1.28	0.99	0.04	6,914.01
2019	4.54	33.03	10.43	2.33	1.77	0.08	12,907.76
2020	2.63	19.68	5.92	1.44	1.07	0.05	7,402.03
2021	0.57	4.09	1.23	0.30	0.22	0.01	1,674.28



In order to minimize potential temporary construction air quality impacts to the nearby community, LIRR is committed to implementing an air quality control plan during construction and would include the following measures:

- *Dust Control.* To minimize fugitive dust emissions from construction activities, a fugitive dust control plan including a robust watering program would be required as part of contract specifications. For example, all trucks hauling loose material would be equipped with tight-fitting tailgates and their loads securely covered prior to leaving the construction area; and water sprays would be used for all demolition, excavation, and transfer of soils to ensure that materials would be dampened as necessary to avoid the suspension of dust into the air.
- *Clean Fuel.* ULSD<sup>5</sup> fuel will be used exclusively for all diesel engines used during construction.
- *Idling Restriction.* In addition to adhering to the local law restricting unnecessary idling on roadways, on-site vehicle idle time will be restricted to five minutes for all equipment and vehicles that are not using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing trucks) or are otherwise required for the proper operation of the engine.
- *Best Available Tailpipe Reduction Technologies.* Non-road diesel engines with a power rating of 50 horsepower (hp) or greater and controlled truck fleets (i.e., truck fleets under long-term contract with the project) including but not limited to concrete mixing and pumping trucks would utilize the best available tailpipe (BAT) technology for reducing DPM emissions. Diesel particulate filters (DPFs) have been identified as being the tailpipe technology currently proven to have the highest reduction capability. Construction contracts would specify that all diesel nonroad engines rated at 50 hp or greater would utilize DPFs, either installed by the original equipment manufacturer (OEM) or retrofitted. Retrofitted DPFs must be verified by EPA or the California Air Resources Board (CARB). Active DPFs or other technologies proven to achieve an equivalent reduction may also be used.
- *Utilization of Newer Equipment.* EPA's Tier 1 through 4 standards for nonroad diesel engines regulate the emission of criteria pollutants from new engines, including PM, CO, NO<sub>x</sub>, and hydrocarbons. All diesel-powered nonroad construction equipment with a power rating of 50 hp or greater would meet at least the Tier 3<sup>6</sup> emissions standard.
- *Diesel Equipment Reduction.* Electrically powered equipment would be preferred over diesel-powered and gasoline-powered versions of that equipment to the extent practicable.

---

<sup>5</sup> EPA required a major reduction in the sulfur content of diesel fuel intended for use in locomotive, marine, and non-road engines and equipment, including construction equipment. As of 2015, the diesel fuel produced by all large refiners, small refiners, and importers must be ULSD fuel sulfur levels in non-road diesel fuel are limited to a maximum of 15 parts per million.

<sup>6</sup> The first federal regulations for new nonroad diesel engines were adopted in 1994, and signed by EPA into regulation in a 1998 Final Rulemaking. The 1998 regulation introduces Tier 1 emissions standards for all equipment 50 hp and greater and phases in the increasingly stringent Tier 2 and Tier 3 standards for equipment manufactured in 2000 through 2008. In 2004, the EPA introduced Tier 4 emissions standards with a phased-in period of 2008 to 2015. The Tier 1 through 4 standards regulate the EPA criteria pollutants, including PM, hydrocarbons (HC), NO<sub>x</sub> and carbon monoxide (CO). Prior to 1998, emissions from nonroad diesel engines were unregulated. These engines are typically referred to as Tier 0.

With these measures in place, and given the temporary nature of any impacts (no more than 2 years in any location), construction of the Proposed Project would not result in any adverse air quality impacts.

## **NOISE AND VIBRATION**

Noise levels from construction activities along the Project Corridor, although temporary, could be a nuisance at nearby sensitive receptors such as residences, schools and other institutional land-uses. Similar to the air quality discussion above, potential noise and vibration levels during construction would be minimized to the maximum extent feasible by implementation of the project's Noise and Vibration Control Plan. Noise levels during construction would vary depending on the types of activity and equipment used for each stage of work. Heavy machinery, the major source of noise in construction, would be moving regularly from location to location. For example, construction activities would include laying new track, rehabilitating bridges, relocating utilities, reconstructing street intersections, grade crossing separation activities, rehabilitating passenger station platforms and other ancillary facilities (e.g., third rail contact system, traction power substations, etc.).

Based on the nature and duration of the construction of the Proposed Project, it is expected that temporary noise and vibration impacts would occur at some locations along the Project Corridor during construction of the project. In addition to noise and vibration impacts that would occur along the Project Corridor, impacts would also be expected occur at locations near staging and/or material lay-down areas. Temporary noise impacts may also occur along routes where traffic would be detoured during construction of the Proposed Project and/or along routes used by construction trucks traveling to and from the construction work areas. This analysis makes conservative assumptions regarding construction noise and vibration so that potential maximum impacts are analyzed and disclosed consistent with SEQRA requirements.

### ***CONSTRUCTION NOISE AND VIBRATION FUNDAMENTALS***

Chapter 12, "Noise," provides a detailed description on noise and vibration fundamentals and descriptors.

Various sound levels are used to quantify noise from transit sources, including a sound's loudness, duration, and tonal character. For example, the A-weighted decibel (dBA) is commonly used to describe the overall noise level because it more closely matches the human ear's response to audible frequencies. Since the A-weighted decibel scale is logarithmic, a 10 dBA increase in a noise level is generally perceived as a doubling of loudness, while a 3 dBA increase in a noise level is just barely perceptible to the human ear.

Several A-weighted noise descriptors are used to determine impacts from construction sources, including:

- **Maximum Noise Levels (L<sub>max</sub>):** represents the maximum noise level that occurs during an event
- **Average Hourly Equivalent Noise Level (L<sub>eq</sub>):** represents a level of constant noise with the same acoustical energy as the fluctuating noise levels observed during a given interval, such as one hour (L<sub>eq</sub>(h))
- **Average 24-hour Day-night Noise Level (L<sub>dn</sub>):** includes a 10-decibel penalty for all nighttime activity between 10:00 p.m. and 7:00 a.m.

- **90th percentile Noise Level ( $L_{10}$ ):** the sound level that is exceeded 10 percent of the time for the period under consideration

To describe the human response to vibration, the average vibration amplitude (called the root mean square [RMS] amplitude) is used to assess impacts. The RMS velocity level is expressed in inches per second (ips) or vibration velocity levels in decibels (VdB). All VdB vibration levels are referenced to one micro-inch per second.

#### CONSTRUCTION NOISE AND VIBRATION IMPACT CRITERIA

##### Construction Noise

Construction noise criteria from both the Federal Transit Administration (FTA) and the LIRR's Technical Provisions were evaluated. Criteria from the FTA are based on the guidelines for a Detailed Assessment provided in the <sup>^</sup> *Transit Noise and Vibration Impact Assessment (2006)* guidance manual. These criteria, summarized in **Table 13-4** below, are based on land use and time of day, and are given in terms of the combined noise level over an 8-hour or 30-day period. In addition, local town and village ordinances provide for permissible hours of construction, as summarized in **Table 13-7** below. These ordinances do not provide for noise limits that apply to New York State projects, and applicable law permits the MTA/LIRR, as a state public authority, as well as NYSDOT as a state agency, to continue construction operation outside the permissible hours of operation provided by these local ordinances.<sup>7</sup>

**Table 13-4**  
**FTA Construction Noise Criteria for a Detailed Assessment (dBA)**

Land Use	8-Hour $L_{eq}$		30-Day
	Daytime (7 AM – 10 PM)	Nighttime (10 PM – 7 AM)	Average
Residential	80	70	75 Ldn or Ambient + 10
Commercial	85	85	80 Leq
Industrial	90	90	85 Leq

Source: FTA 2006.

##### Construction Vibration

Similar to noise, construction vibration criteria are based on the guidelines provided in the FTA Guidance Manual. For potential damage effects, the FTA criteria shown in **Table 13-5** range from 0.5 inches per second (in/sec) for Category I buildings to 0.12 in/sec for more fragile Category IV buildings. For evaluating potential annoyance or interference with vibration-sensitive activities due to construction vibration, the criteria shown in **Table 13-5** were applied. These are the same criteria used to assess ground-borne vibration from trains.

---

<sup>7</sup> See N.Y. Pub. Auth. § Law 1266(8). “The local laws, resolutions, ordinances, rules and regulations of a municipality or political subdivision, heretofore or hereafter adopted, conflicting with this title or any rule or regulation of the authority or its subsidiaries, or New York city transit authority or its subsidiaries, shall not be applicable to the activities or operations of the authority and its subsidiaries . . . except such facilities that are devoted to purposes other than transportation or transit purposes.”

**Table 13-5**  
**FTA Construction Vibration Damage Criteria**

Building Category	PPV (in/sec)	Approximate Lv <sup>1</sup>
I. Reinforced concrete, steel or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry building	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90
<b>Note:</b> <sup>1</sup> RMS velocity in decibels (VdB*) re 1 micro-inch/second.		
<b>Source:</b> FTA 2006.		

### GENERAL CONSTRUCTION NOISE AND VIBRATION ANALYSIS

An initial detailed analysis was conducted to estimate the noise and vibration levels associated with various construction scenarios including individual pieces of ^ equipment expected to be used in construction of the Proposed Project^ Maximum noise and vibration levels were determined for various construction equipment proposed for use on the Proposed Project and are summarized below in **Table 13-6**. The L<sub>max</sub> noise level was used in lieu of the L<sub>eq(8h)</sub> or 30-day average L<sub>dn</sub> as a conservative representation of noise levels, because the exact equipment usage is not currently known. Without such usage schedule information, the equipment L<sub>max</sub> noise levels provide worst-case levels for evaluation.

As examples, reference noise levels at a distance of 50 feet range from ^ 73 dBA for a ^ vibratory roller and welding equipment to 94 dBA for ^ ballast regulators. Augers are proposed for construction in lieu of impact pile drivers (with a reference noise level of 101 dBA) to minimize noise impacts in the community.

^ Based on feedback from the LIRR track design and maintenance teams as well as from the New York State Department of Transportation (NYSDOT) regarding the grade crossing eliminations, various worst-case construction scenarios were developed using these reference equipment types. To gauge the magnitude of potential noise and vibration impact from the temporary construction activities, prototypical scenarios were developed at the following seven locations:

1. Covert Avenue (New Hyde Park)
2. New Hyde Park Road (New Hyde Park)
3. Mineola
4. Roslyn Road (Mineola)
5. North Atlantic Avenue (Carle Place)
6. Ellison Avenue (Westbury)
7. Urban Avenue (New Cassel)

**Table 13-6**  
**Construction Equipment Noise and Vibration Reference Levels**

<b>Equipment</b>		<b>Noise</b>	<b>Vibration</b>	
<b>ID</b>	<b>Description</b>	<b>L<sub>max</sub>, dBA</b>	<b>RMS, VdB</b>	<b>PPV, ips</b>
1	Air compressor	82	58	0.003
2	Ballast Regulators	82	94	0.210
3	Boom Trucks	83	86	0.076
4	Bulldozer	85	87	0.089
5	Cat 325 Excavator	85	87	0.089
6	Clipper	80	94	0.210
7	Concrete Saw	90	58	0.003
8	Concrete Truck	82	86	0.076
9	Crane	82	94	0.202
10	Declipper	80	94	0.210
11	Demolition Saw	82	58	0.003
12	Drill Rig	82	87	0.089
13	Drills	84	87	0.089
14	Dump Truck	88	86	0.076
15	Dynamic Track Stabilizers	82	94	0.210
16	Excavator/Track hoe	82	87	0.089
17	Flash Butt Welding Unit	73	86	0.076
18	Flatbed Truck	88	86	0.076
19	Gantry Crane	88	94	0.202
20	Generators	81	86	0.076
21	Gradall	82	87	0.089
22	Grapple Truck	83	86	0.076
23	Jack Hammer	88	79	0.035
24	Large Drill Rig	82	87	0.089
25	Little Giant Crane	83	94	0.202
26	Loader	82	58	0.003
27	Manitowoc Crane	88	94	0.202
28	MFS-40 Cars w/ Loader Unit	85	86	0.076
29	Milling machine	82	58	0.003
30	New Track Construction Machine	85	94	0.210
31	One or Two Large Cranes (100 - 150 ton)	82	94	0.202
32	Pickup Truck	82	58	0.003
33	Paver	82	94	0.210
34	Payloader	85	58	0.003
35	Pencil Vibrator	82	94	0.210
36	Plate Tamper/Jumping Jack	82	93	0.170
37	Power Auger	82	58	0.003
38	Powerbroom	82	58	0.003
39	Rail Saws and Drills	90	87	0.089
40	RailVac	85	58	0.003
41	Reach Forklift	85	58	0.003
42	Rotary Dump Truck	88	86	0.076
43	Shoulder Ballast Cleaner	82	58	0.003
44	Striping machine	82	58	0.003
45	Tack Truck	82	86	0.076
46	Tadano Cherry Picker	83	58	0.003
47	Tie Shearers	84	58	0.003
48	Track Laying Machine	85	94	0.210
49	Tractor Trailers	82	86	0.076
50	Unimat Tampers	83	94	0.210
51	Vibratory Hammer	82	93	0.170
52	Vibratory Roller	73	94	0.210
53	Welding Truck	73	86	0.076
54	Work Train w/ Rail unloading unit	85	86	0.076

**Note:** All reference levels are reported at a distance of 50 feet for noise and 25 feet for vibration.  
**Source:** FTA's Transit Noise and Vibration Impact Assessment, FHWA's Roadway Construction Noise Model User's Manual.

A detailed construction noise assessment was prepared representing the different construction scenarios anticipated, e.g., track construction, platform demolition, platform and canopy construction, retaining wall and sound attenuation wall construction, and/or grade crossing construction. For each scenario, assumptions were made based on the overall duration of construction activity, number and type of construction equipment likely to be used, percentage of time equipment would operate at maximum noise level (usage factor), percentage of time equipment would operate during a standard 8-hour work shift (load factor), and maximum noise and vibration levels from the equipment. Calculated sound pressure levels at 50 feet from the equipment exceeded 80 dBA in most instances. However, with implementation of sound reduction strategies (see below), it is anticipated that a reduction in sound pressure levels of approximately 12 dBA can be achieved, thus bringing sound pressure levels below 70 dBA in most instances. While the absolute increase in sound pressure levels would be noticeable, and at certain times intrusive, the overall noise levels would be consistent with noise levels to currently exist within the Project Corridor (see Table 12-4) which range from 66 dBA ( $L_{eq}$ ) to 75 dBA ( $L_{eq}$ ).<sup>8</sup> With implementation of noise control measures and implementation of a Construction Noise Control Plan the number of potentially affected properties in the Project Corridor would likely be reduced by approximately 85 percent.

Exceedances of the LIRR  $L_{10}$  noise criteria are predicted at several locations during both the daytime and nighttime ^ periods. The predicted noise levels ^ reflect contractor-applied control measures that are estimated to reduce overall construction noise ^ by approximately 12 dBA.

As outlined below, various measures can be implemented to further minimize or avoid temporary increased noise levels.

Similarly, ^ exceedances of the FTA *frequent* vibration limit of 72 VdB for annoyance ^ are also predicted at several residences and other FTA Category 2 land-uses^. Although potential ^ exceedances of the FTA ^ impact criteria ^ are predicted at several front-row residences and ^ institutional properties closest to the ^ rail corridor, no exceedances of the ^ FTA damage ^ criterion of 0.5 inches per second ^ are predicted anywhere along the Project Corridor. Therefore, there is no likelihood of damage from any of the proposed construction activities^.

The bulk of the construction would normally occur during daylight hours when many residents are not at home, and when other community noise sources contribute to higher ambient noise levels. However, as noted, some construction activities may also occur during the nighttime and on weekends to complete the Proposed Project sooner and reduce the overall duration of construction-related impacts on the community and to minimize the loss of train service. Construction activities are generally expected to last for only a portion of the overall construction period at any one location, depending on the type of activity, and the overall Project Corridor construction period is expected to last approximately 3 to 4 years. During this time frame, work relating to grade crossing eliminations, bridge replacement, station improvements, construction of retaining and noise attenuation walls, and installation of the third Main Line track are expected to employ several pieces of equipment simultaneously at any one location. Given the potential impact distances as discussed above, exceedances of the FTA daytime and night time noise and vibration criteria may occur for certain periods along the Project Corridor. However, the Proposed Project would seek to minimize these periods to the maximum extent practicable, particularly at sensitive receptors adjacent to the rail

---

<sup>8</sup> One monitoring location had a baseline noise level of 62 dBA ( $L_{eq}$ ).

## Long Island Rail Road Expansion Project

alignment and facilities. LIRR is committed to requiring its construction contractors to implement extensive noise and vibration control measures as detailed below that would minimize exceedances of the criteria and extended disruption of normal activities.

Table 13-7 describes the typical durations and relative peak uncontrolled noise levels by distance along the LIRR ROW from affected properties during construction of retaining walls along the LIRR ROW. Of the approximately 14 weeks when construction would be occurring within 800 feet of a property, noise levels would be moderate or high only half of that time. With the proposed noise controls measures in place the peak noise levels would be lower than those shown in Table 13-7. Other track work such as installation of ballast, ties, and rail would move through any given area substantially quicker than the durations shown in the table. Station work and grade crossings would remain in one location throughout the construction process and noise would be noticeable for a longer period of time than the more dynamic construction elements.

**Table 13-7**  
**Duration of Typical Retaining Wall Construction**

<u>Distance Along ROW from Property (ft.)</u>	<u>Noise Level</u>	<u>Days of Duration</u>
<u>800 west to 400 west</u>	<u>Moderate to low</u>	<u>25</u>
<u>400 west to 100 west</u>	<u>Moderate to high</u>	<u>19.5</u>
<u>100 west to 0</u>	<u>High</u>	<u>6.5</u>
<u>0 to 100 east</u>	<u>High</u>	<u>6.5</u>
<u>100 east to 400 east</u>	<u>Moderate to high</u>	<u>19.5</u>
<u>400 east to 800 east</u>	<u>Moderate to low</u>	<u>25</u>
<u>Total</u>		<u>103</u>
<b>Notes:</b> 85 dBA maximum; High Noise Level = > 78 dBA; Moderate Noise Level = ≥67 dBA to ≤78 dBA; Low Noise Level = < 67 dBA.		

### *NOISE AND VIBRATION CONTROL MEASURES*

LIRR's selected construction contractor would be required by contract to use noise control measures and Best Management Practices (BMPs) to minimize construction-related noise levels. The FTA recommends  $L_{eq(8h)}$  noise level limits of 80 dBA during the daytime period from 7:00 a.m. to 10:00 p.m. and 70 dBA during the night time period from 10:00 p.m. to 7:00 a.m. at residences to avoid or minimize impacts in the community. For the Proposed Project, LIRR would require in its contract with the design-build contractor to meet the noise levels outlined in Table 13-8 by land use and time period.

In addition, local noise ordinances, both at the town and village levels, regulate construction noise and the operation of mechanical equipment, primary through restrictions on the permissible hours of construction, which are summarized below **Table 13-^ 9.**

**Table 13-8**  
**Construction Noise Lot Line Limits**

<b>Land Use</b>	<b>L<sub>10</sub> Level (dBA, slow)</b>	<b>L<sub>max</sub> Level (dBA, slow)</b>
<b>Daytime (7:00 am to 6:00 pm)</b>		
Residential	75 or BKGD+5*	85**
Commercial	80 or BKGD+5*	N/A
Industrial	85 or BKGD+5*	N/A
<b>Evening (6:00 pm to 10:00 pm)</b>		
Residential	BKGD+5	85
Commercial	N/A	N/A
Industrial	N/A	N/A
<b>Night-Time (10:00 pm to 7:00 am)</b>		
Residential	BKGD < 70 dBA = BKGD+5 BKGD ≥ 70 dBA = BKGD+3	80 80
Commercial	N/A	N/A
Industrial	N/A	N/A
<b>Notes:</b> BKGD = Background Noise Level (L <sub>10</sub> ) * Noise Limit is the greater of the two values. ** 90 dBA limit for impact equipment. All measurements will be taken at the affected lot-line. In situations where the work site is within 50 feet a lot-line, the measurement will be taken from a point along the lot-line such that a 50-foot distance is maintained between the sound level meter and the construction activity being monitored. Lot-line noise limits will apply to all points along the receptor's lot-line. L <sub>10</sub> noise readings are averaged over 20-minute intervals. L <sub>max</sub> noise readings occur instantaneously.		

**Table 13-<sup>9</sup>**  
**Local Noise Ordinances**

<b>Municipality</b>	<b>Hours for Construction</b>
Town of Hempstead	7AM – 6PM
Town of North Hempstead	7:30AM – 6PM
Town of Oyster Bay	7AM – 10PM
Village of Garden City	8AM – 8PM
Village of Mineola	No Direct Restrictions
Village of Westbury	7AM – 8PM
Village of Floral Park	8AM - 7PM
Village of New Hyde Park	7AM – 7PM

While these work hour restrictions would apply to typical construction projects, MTA and LIRR are exempt from the jurisdiction of municipalities pursuant to Section 1266(8) of the Public Authorities Law.<sup>9</sup> As noted, the Proposed Project would nevertheless comply with the work hour

<sup>9</sup> “The local laws, resolutions, ordinances, rules and regulations of a municipality or political subdivision, heretofore or hereafter adopted, conflicting with this title or any rule or regulation of the authority or its subsidiaries, or New York city transit authority or its subsidiaries, shall not be applicable to the activities or operations of the authority and its subsidiaries . . . except such facilities that are devoted to purposes other than transportation or transit purposes.” See also New York State Highway Law, § 30 which is applicable to the activities of NYSDOT. (N.Y. Pub. Auth. Law § 1266 (McKinney<sup>9</sup>))



## Long Island Rail Road Expansion Project

---

restrictions within residential areas, except where not feasible to accommodate work affecting rail operations such as work relating to bridge replacement, construction of retaining walls and grade alteration of track. DOT grade crossing construction is anticipated to take place outside of specified work hours in order to minimize the construction period and concomitant disruption. In cases where work is performed outside specified work hours in locations adjacent to residential neighborhoods, every effort would be made to keep intrusive noise to a minimum.

The agencies would make every effort to minimize the noise impacts of construction and would seek to comply with FTA's recommended noise limits at sensitive receptors. A construction noise and vibration monitoring program would be performed during construction to ensure contractor compliance with FTA noise and vibration criteria. The design-build contractor would be required by contract to submit noise and vibration control plans to demonstrate that each new phase of construction work would comply with the FTA construction noise criteria. Mitigative action would be taken in the event that there are exceedances of the FTA noise and vibration criteria during the monitoring process. In addition, to protect owners of properties adjacent to construction, a pre-construction survey program would be developed and implemented to assess buildings' structural elements and facades prior to the start of construction. Consistency with aforementioned FTA guidelines and work hours contained in local ordinances where feasible, as well as implementation of noise and vibration control measures and BMPs, would minimize exceedances of the FTA criteria within the Project Corridor at noise-sensitive land uses. Typical types of noise control measures and BMPs that the Proposed Project would seek to have its contractors implement include, but would not be limited to, the following:

1. Comply with NYSDEC Regulations for idling vehicles.
2. Back-up alarms shall be either audible self-adjusting back-up alarms or manual adjustable alarms.
3. Impact and drilling equipment such as pile drivers, jackhammers, hoe rams, core drills, direct push soil probes (e.g. Geoprobe), and rock drills shall be equipped with a muffler.
4. Use of electrically operated hoists and compressor plants unless otherwise permitted by the Resident Engineer.
5. Maximum sized intake and exhaust mufflers on internal combustion engines.
6. Gears on machinery designed to reduce noise ^ to a minimum.
7. Concrete crushers or pavement saws for concrete deck removal, demolitions, or similar construction ^ activity.
8. Line hoppers and storage bins with sound-deadening material.
9. Pre-auguring equipment to reduce the ^ duration of impact or vibratory pile driving.
10. The prohibition of the use of air or gasoline driven saws unless otherwise permitted by the Resident Engineer.
11. Conducting the operation of dumping rock or other material and carrying it away in trucks so that noise is kept to a minimum.
12. Routing of construction ^ equipment and vehicles carrying rock, concrete, or other materials over streets that will cause the least disturbance to noise-sensitive locations.
13. Slamming of dump truck tail gates shall be prohibited.

14. Earthmoving and stationary equipment shall be noise attenuated.

15. Silencers on air intakes and air exhaust of equipment.

16. Mitigate noise from construction devices with internal combustion engines by ensuring that the engine doors are kept closed, and by using noise-insulating material mounted on the engine housing that does not interfere with the manufacturer guidelines and by operating the device at lower engine speeds to the maximum extent possible.

17. Operate equipment to minimize banging, clattering, buzzing, and other annoying types of noises.

18. Provide shields, acoustic fabric, soundproof housings or other physical barriers to restrict the transmission of noise.

19. Jackhammers shall be equipped with elongated effective muffler casing or bellows.

20. Alternative methods to hoe ramming concrete, including hydraulic jacks or chemical splitting, shall be considered.

21. Hoe rams shall be the smallest and quietest necessary. A noise shroud enclosure shall be wrapped around the ^ head (i.e. chisel) of the hoe ram.

^ 22. Auger drill rigs shall be equipped with well-maintained and effective mufflers. All moving parts shall be well lubricated to avoid unnecessary noise squeaking parts. Debris from the drill bit shall be removed without quick twisting, jerking, or hammering the bit.

23. Street plates shall be properly installed minimize vehicular tire impact on the plate and minimize noise.

⊥ 24. Use ^ the local power grid to reduce the use of generators.

Similarly, BMPs that could be implemented by the construction contractor to minimize vibration in the community include, but would not be limited to, the following types of control measures:

- Use less vibration-intensive construction equipment or techniques near vibration-sensitive locations.
- Route heavily laden vehicles away from vibration-sensitive locations.
- Operate earthmoving equipment as far as possible from vibration-sensitive locations.
- Sequence construction activities that produce vibration, such as demolition, excavation, earthmoving, and ground impacting so that the vibration sources do not operate simultaneously.
- Use devices with the least impact to accomplish necessary tasks.

All specific noise control measures and BMPs would be confirmed by LIRR during later stages of design when the details of the Proposed Project construction activities are developed and finalized as part of the construction bid contracts.

## **SAFETY AND SECURITY**

Many transit industry safety and security standards and processes described in Chapter 15, “Safety and Security,” apply not only to the design and operational phases, but also to construction phases. Construction of the Proposed Project would follow existing MTA and LIRR operational safety and security programs and processes to provide the ^ public and construction

## **Long Island Rail Road Expansion Project**

---

employees with a safe and secure environment at station areas, parking areas, and around construction staging areas. Safety and security requirements would be specified in the construction contracts for the Proposed Project.

Measures taken to ensure the avoidance of adverse construction impacts in terms of safety and security (see page 13-7) would include the adherence to current MTA and LIRR safety and security policies, guidelines, procedures, and requirements. Incorporation of specific features to protect adjacent communities, the traveling public, and workers during construction will continue to be a major focus of project planning and design. The development and incorporation of these features will be coordinated with federal, state, and local agencies having jurisdiction over safety and security issues. \*

**A. INTRODUCTION**

SEQRA regulations require the consideration of the Proposed Project's potential to result in cumulative impacts (6 NYCRR 617.9(b)(5)(a)) and secondary impacts (6 NYCRR 617.9(b)(5)(d)). Secondary impacts are also known as induced growth, i.e., whether the Proposed Project would lead to growth outside the scope of the project elements.

**B. PRINCIPAL CONCLUSIONS AND IMPACTS**

The Proposed Project, taken in concert with other past, present, and reasonably foreseeable future <sup>^</sup> actions, would not result in significant adverse cumulative impacts, particularly because the intensity of its own adverse impacts would be minimal.

The Study Area comprises a densely developed corridor largely characterized by downtowns and surrounding residential areas, and that land use pattern is well established and would not be changed with the Proposed Project. Moreover, the Proposed Project, because it is an enhancement to existing transportation infrastructure serving a mature, mixed use community, would not typically lead to induced growth. Considering these factors, the Proposed Project would not lead to significant adverse secondary impacts.

**C. METHODOLOGY**

The assessment of the Proposed Project's potential to result in cumulative impacts considers the Proposed Project's direct impacts along with the impacts of other past, present, and reasonably foreseeable future actions. A list of such actions was developed through research and consultation with municipal and county planning officials within the Study Area jurisdictions. Assessment of the cumulative impact of the Proposed Project, along with all identified "No Build" projects is contained within each chapter of this DEIS as potential impacts of the Proposed Project are evaluated against the "Future Without the Proposed Project," which accounts for any changes in the environment attributable to the No Build projects.

The NEC FUTURE program, which is being led by FRA, is a comprehensive planning effort to determine the appropriate role for passenger rail along the Northeast Corridor, the 457-mile rail transportation system extending from Boston's South Station in the north to Washington D.C.'s Union Station in the south, and the infrastructure and service improvements necessary to achieve that role for passenger rail. The Tier 1 FEIS for the NEC FUTURE program was released and the preferred alternative does not include high-speed rail through Long Island to Connecticut. The proposed Cross Harbor Freight Movement Project also was assessed under a Tier 1 EIS that included an alternative that would increase freight traffic throughout the LIRR system. However, there currently is no Tier 2 EIS funding for either the NEC FUTURE project or the Cross Harbor project. Because of the lack of funding, neither project may be considered reasonably foreseeable for the purpose of cumulative impacts analysis.

Cumulative impacts may result from the incremental consequences of an action when added to the impacts of other past, present, and reasonably foreseeable future actions. When an action would have no direct impact on a particular resource, it cannot contribute to cumulative impacts. When an action has any direct impact, even if that impact is negligible, it can contribute to cumulative impacts. **Table 14-1** summarizes the Proposed Project's potential to result in cumulative impacts. All cumulative impacts also are accounted for and described in detail herein under the analysis of 2040 build conditions for the various resources, insofar as those 2040 build conditions account for all past, present, and reasonably foreseeable future projects.

Construction of other planned LIRR projects (e.g., East Side Access, Double Track Project from Farmingdale to Ronkonkoma, etc.) would not contribute to cumulative impacts because: a) most construction would not occur at the same time as the Proposed Project, and any construction in or near the same location would be managed so as to not concentrate impacts in that location; and, b) these other planned projects are located mostly outside of the Study Area for the Proposed Project.

The assessment of the Proposed Project's potential to result in secondary impacts considers the impacts that are caused by the Proposed Project but are removed in time and/or place from the Proposed Project itself. The assessment is based upon the Proposed Project's potential to induce future growth and/or growth outside of the Study Area.

### **D. EXISTING CONDITIONS**

Existing conditions in terms of both cumulative and secondary impacts are the conditions for each individual resource as set forth in the preceding chapters of this DEIS.

### **E. POTENTIAL IMPACTS OF THE PROPOSED PROJECT**

#### **CUMULATIVE ADVERSE AND BENEFICIAL IMPACTS**

The analysis set forth in the preceding chapters assumes, for the analysis year 2040, the completion of reasonably foreseeable future projects, in addition to past and present actions. As a result of this methodology, cumulative impacts on every resource are considered in those preceding chapters. In summary of the conclusions of those chapters, the Proposed Project would result in cumulative impacts only as set forth for the following resources.

#### *VISUAL AND AESTHETIC RESOURCES*

The Proposed Project would result in changes to the viewshed in the immediate vicinity of the various project elements, notably six new parking decks in Mineola, Westbury, and Hicksville; new pedestrian overpasses at various locations through the Project Corridor; relocated overhead utilities; and retaining walls and sound attenuation walls. These elements would be seen by people located at land uses proximate to them, and they would represent a change of view. This change of view is considered an adverse impact. However, the adverse nature of the impact is minimal considering that the elements in question consist of transportation infrastructure in a transportation corridor, i.e., the new infrastructure is consistent with the current visual resource. None of the visual <sup>^</sup> changes associated with the Proposed Project would combine with visual <sup>^</sup> changes from No Build projects in a manner that would increase the overall visual impact to the communities within the Study Area. The Proposed Project would not result in significant adverse cumulative visual and aesthetic resource impacts.

**Table 14-1**  
**Summary of Potential Cumulative Impacts**

Resource	Potential Adverse Impacts <sup>1</sup>	Potential Cumulative Impacts
Land Use, Community Character, and Public Policy	No Adverse Impact	No Cumulative Impact as other reasonably foreseeable projects would not require any modifications to this limited area
Socioeconomic Conditions	No Adverse Impact	No Cumulative Impact
Environmental Justice	No Adverse Impact	No Cumulative Impact
Visual and Aesthetic Resources	Adverse Impact – The construction of new retaining walls, parking decks, utility poles, and pedestrian overpasses, would change the view from sensitive receptors.	Minimal Cumulative Impact – other past, present, and reasonably foreseeable future actions are expected to be consistent visually with existing development.
Natural Resources	No Adverse Impact	No Cumulative Impact
Contaminated Materials	No Adverse Impact	No Cumulative Impact
Infrastructure and Utilities	No Adverse Impact	No Cumulative Impact
Transportation	Adverse Impact – The short-term closure of north-south roadways during construction of grade separations would present a transportation impact. In the long term, the Proposed Project would confer a beneficial impact as queuing at grade crossings would be ^ reduced.	Minimal Cumulative Impact – because the direct impact to transportation would be only short-term, the Proposed Project would make no persistent contribution to cumulative impacts, and in the operational phase would confer a benefit.
Air Quality	Adverse Impact – Construction activities that require the use of heavy machinery would present a short-term adverse air quality impact due to the combustion of fuel by this machinery. In the long term, the Proposed Project would confer a beneficial impact as idling at grade crossings would no longer occur and as more people opt for the more operationally flexible and reliable transit system.	Minimal Cumulative Impact – because the direct impact to air quality would be only short-term, the Proposed Project would make no persistent contribution to cumulative impacts, and in the operational phase would confer a benefit.
Noise and Vibration	Adverse Impact – In the short term, construction activities would result in noise and vibration impacts to sensitive receptors proximate to the Project Corridor. In the long term, the Proposed Project would confer a beneficial impact as noise associated with idling vehicles, crossing gate bells, and train horns would cease; the Proposed Project would confer a benefit in terms of vibration, as minimization measures would reduce vibration below existing conditions in virtually all places within the Project Corridor^.	Minimal Cumulative Impact – because the direct impact in terms of noise would only be short-term, the Proposed Project would make no persistent contribution to cumulative impacts, and in the operational phase would confer a benefit. Increased vibration from construction also would be short-term only and would not present a significant contribution to cumulative impacts; in the operational phase, decreased vibration would constitute a long term benefit,
Safety and Security	No Adverse Impact	No Cumulative Impact
Electromagnetic Fields	No Adverse Impact	No Cumulative Impact
Climate Change/Sustainability	Adverse Impact – Construction activities that require the use of heavy machinery would present an increase in greenhouse gases. In the long term, the Proposed Project would confer a beneficial impact as idling at grade crossings would no longer occur and as more people opt for the less greenhouse gas-productive transit system.	Minimal Cumulative Impact –the Proposed Project would result in long-term cumulative reductions in GHG emissions by providing improved transit service within the region.
<b>Notes:</b> <sup>1</sup> The potential adverse impacts of the Proposed Project are addressed in greater detail in the DEIS chapters for each individual resource.		



### *TRANSPORTATION*

Short-term construction activities would require the temporary closure of north-south roadways at grade crossings, and the diversion of traffic to other roadways that cross the LIRR Main Line tracks. Because these construction activities would be staggered geographically through the Project Corridor, because closures would be of limited duration (between six and nine months each), and because traffic diversions would present only a minor impact considering the proximity of other available crossings, they would not result in ^ significant adverse impacts.

Construction work for other projects that may coincide with the construction of the Proposed Project, such as the Post Avenue Bridge rehabilitation project (Westbury) and the Hicksville North Siding and station improvement projects, would be considered when determining a construction schedule for the Proposed Project. LIRR would ensure that contractor work plans would avoid construction overlap within close geographic proximity in order to minimize construction-related impacts to transportation.

The Proposed Project's long-term contribution to cumulative impacts would be minimal, and taken in concert with other past, present, and reasonably foreseeable future actions, cumulative impacts to transportation would not be considered significant. In the long term, the Proposed Project would confer a beneficial impact in terms of transportation as queuing at grade crossings would no longer be necessary and north-south traffic would be facilitated. The additional parking provided by the Proposed Project would offset a cumulative projected parking deficit within the Study Area associated with the East Side Access Project. The Proposed Project, combined with the other LIRR projects described above, would result in a cumulative benefit to the regional rail system. The Proposed Project would not result in significant adverse cumulative transportation impacts.

### *AIR QUALITY*

Short-term construction activities would require the use of heavy diesel-powered equipment and their resultant emissions. In concert with other past, present, and reasonably foreseeable future actions, this would constitute an adverse cumulative impact. Other past, present, and reasonably foreseeable future actions also have used and may use heavy machinery, although the fact that the Study Area is fully developed limits the number of projects which could be undertaken there, and therefore the use of heavy machinery. In any event, the air quality impacts of this use of heavy machinery, like that related to the Proposed Project, would be temporary. Cumulatively, the air quality impacts of all of these projects, taken together with the Proposed Project, are not significant due to their limited intensity and duration. Contributing more substantially to air quality concerns within the Study Area are other sources of air pollutants, including trucks, passenger vehicles, manufacturing facilities, and others. The contribution of the use of heavy machinery for the Proposed Project to Study Area air quality concerns would not be significant.

Compared to the Future Without the Proposed Project, air quality with the Proposed Project would be improved in the Study Area because the elimination of grade crossings would ^ reduce the need for queuing and the associated idling time. Because the Proposed Project would not result in short-term significant adverse cumulative impacts, and because the Proposed Project would contribute toward improved air quality in the long term, it would not result in any adverse cumulative impacts to air quality.

### *NOISE AND VIBRATION*

Noise levels within the Study Area would decrease with the Proposed Project due to the construction of sound attenuation walls, which would lead to the reduction in train-generated noise levels. In addition, noise levels in the vicinity of grade crossings where warning horns are currently sounded <sup>^</sup> would be eliminated due to the proposed grade <sup>^</sup> separations. In the Future Without the Proposed Project, increased rail activity associated with East Side Access would result in increased noise levels within the Study Area. However, in the Future With the Proposed Project, sound attenuation walls would be constructed on grade or on top of retaining walls to eliminate the predicted noise impacts and, as noted, improve noise levels compared to Existing Conditions. Thus, the Proposed Project is providing a cumulative benefit by mitigating increased noise associated with cumulative impacts. Since the Proposed Project would provide an alternative source of transportation for many of the other planned projects as well as to other destinations in the area, it should reduce the numbers of auto trips in the region and the noise levels associated with them. Therefore the Proposed Project would not contribute to cumulative impacts and rather would provide a beneficial overall effect.

### *CLIMATE CHANGE/SUSTAINABILITY*

Construction activities would present a short-term impact to climate change due to use of heavy fossil fuel-powered machinery and the associated production of greenhouse gases. Other past, present, and reasonably foreseeable future actions also have used and may use heavy machinery, although the fact that the Study Area is fully developed limits the number of projects which could be taken there, and therefore the use of heavy machinery. In any event, the climate change impacts of this use of heavy machinery, like that related to the Proposed Project, are of a temporary nature. Cumulatively, the climate change impacts of all of these projects, taken together with the Proposed Project, <sup>^</sup> is not significant due to their limited intensity and duration.

In the long term, the Proposed Project would confer a beneficial impact as idling at grade crossings would no longer occur and as more people opt for the less greenhouse gas-productive transit system instead of their automobiles. In the long term, the Proposed Project would not contribute to any adverse impacts in terms of climate change. Because of the short-term nature of adverse impact in terms of climate change as well as its long-term benefit, the Proposed Project would not result in significant adverse cumulative impacts.

### **SECONDARY IMPACTS**

As stated above, secondary impacts are those induced or caused by the Proposed Project but are removed in time and/or place. An example of such an impact is a new roadway into an undeveloped area that spurs later development of surrounding areas. The Study Area for the Proposed Project comprises a continuous 9.8-mile rail corridor surrounded by nearly completely developed land. The Proposed Project would not create new access to undeveloped areas, but rather would support and improve existing mobility and projected growth within the Study Area and from the Study Area to New York City. Because the areas surrounding the Proposed Project are developed, any additional development spurred by the Proposed Project would necessarily be redevelopment or infill development. Improvements within the Project Corridor would not result in any particular development, although it would make any transit-oriented development (TOD) that may be contemplated more feasible by rendering transit services more flexible and reliable. Because the Proposed Project would not serve specific land development, and is located in a densely developed area and therefore would not stimulate specific development or any specific

changes in land use patterns, ^ it would not result in secondary impacts. However, the Proposed Project would support projected growth as anticipated by several regional and local planning agencies. Any growth that would occur in the future would be subject to local land use controls and review under SEQRA. The Proposed Project, which strengthens the transit system, provides an alternative transportation mode to the single-occupancy vehicle, thus reducing the potential for additional congestion on Long Island's roadway network.

The East Side Access project would result in an increase in the number of riders and trains accessing the LIRR Main Line. The Proposed Project, by improving flexibility and providing more consistent bi-directional service, would make travel for these riders and trains more efficient and reliable, and less prone to delay. With this increased number of riders and trains, the Proposed Project still would not stimulate development or any changes in land use patterns, and therefore would not result in induced growth

## **F. MITIGATION**

Since the Proposed Project would not result in any significant adverse impacts relating to secondary growth, no mitigation is required. Cumulative impacts would be mitigated through implementation of the measures enumerated in the DEIS chapters for each individual resource.

✱

## **A. INTRODUCTION**

This chapter discusses safety and security as they relate to the Proposed Project and summarizes how potential safety and security issues are identified and addressed in LIRR's design process. It addresses the safety and security issues associated with increased train movement within the project corridor, the extension of electrification to accommodate a third track, the modification of platforms and stations, passenger safety, and the closure and/or separation of grade crossings.

Discussion of construction-related safety and security considerations is provided in Chapter 13, "Construction," although many transit industry safety and security standards and processes described below apply not only to the design and operational phases but also to that of construction.

## **B. PRINCIPAL CONCLUSIONS AND IMPACTS**

The Proposed Project would not result in any significant adverse impacts to public safety and security. Rather, the completion of a continuous third track and the elimination of seven grade crossings would provide the opportunity for improvements to safety and security for the adjacent communities, LIRR customers and workers. These benefits include:

- Reduction in the potential for conflicts between pedestrians, bicyclists, vehicles, and trains
- Enhanced railroad operational flexibility and capacity in the event of a safety or security incident
- Improvements and upgrading of station conditions to improve lighting and visibility

These opportunities for enhanced safety and security would not be realized under the No Action Alternative.

## **C. METHODOLOGY**

The methodology used to identify and address potential safety and security issues related to the Proposed Project entails describing the Study Area, identifying applicable regulatory requirements, and defining the technical approach to the analysis.

The Study Area comprises the 9.8-mile Project Corridor from Floral Park to Hicksville. It includes the LIRR right-of-way (ROW) and the sites of the proposed railroad bridge improvements, parking garages, and the proposed grade crossing eliminations.

The design and operation of the Proposed Project would be implemented in compliance with relevant federal and state regulations, and industry codes, policies and guidelines, including those of the MTA and LIRR intended to promote safety and security for railroad workers, customers and the general public. The design for the Proposed Project takes into account the latest publications and recommendations of the Federal Transit Administration (FTA) regarding

transit safety and security design considerations, including the *Handbook for Transit Safety and Security Certification* (2002) and the *Public Transportation System Security and Emergency Preparedness Planning Guide* (2003). While the Proposed Project would not be federally funded, the LIRR, as a grantee of FTA funds and a carrier on the national railroad network, is compelled to comply with FTA, Federal Railroad Administration (FRA), and general industry design and construction standards. The Proposed Project would be fully incorporated into existing MTA and LIRR operational safety and security programs and processes to provide the riding public and employees with a safe and secure environment.

The technical approach to identify and assess the Proposed Project's potential effects on public safety and security consist of:

- Review of existing published safety and security provisions of MTA and LIRR
- Review of federal requirements, including those of the FTA, the FRA, and the Transportation Security Administration (TSA)
- Coordination with federal, state, and local agencies having jurisdiction over safety and security
- Review of the comments and concerns raised during the public scoping <sup>^</sup> and DEIS processes.
- Field review to assess the interrelationship between the Main Line Corridor and the adjacent communities to understand their composition, character, context, and potential impacts
- Comparison of the existing rail operations along the Project Corridor to the proposed future service and facilities to assess the potential needs for increased safety and security features or procedures in light of MTA, LIRR, FTA, FRA, TSA, and other policies, guidelines, and regulations

## D. EXISTING CONDITIONS

Pursuant to the current MTA-LIRR Business Plan, strategies to address the safety and security of the LIRR system begin with controls and processes that govern the development and environmental review of a project concept into its final design and construction. These strategies are developed primarily pursuant to FTA and FRA regulations and other comprehensive guidance to encourage the use of control processes to identify and address safety hazards and security threats in project designs.

LIRR currently maintains safety standards and requirements as appropriate to ensure safe and secure train operations, systems maintenance, and travel for the public and LIRR workers. These standards and requirements are included as part of the LIRR System Safety Program Plan (SSPP) required by the New York State Public Transportation Safety Board (PTSB), based on FTA and American Public Transportation Association (APTA) program standards. The SSPP covers LIRR's programs to ensure that safety is overseen at every level of operations and maintenance, from hiring and training, drug and alcohol testing, documentation controls, enforcement of rules, procedures and orders and, e.g., the internal and external coordination of parties to address emergencies on the LIRR system. The SSPP applies to everyone who works for the LIRR, including contractors. The LIRR SSPP is revised every two (2) years, per PTSB regulations and audited by APTA and the FRA every three (3) years. The SSPP includes descriptions of LIRR's operational compliance with FRA's safety regulations (49 CFR Part 200, *et. al.*).

MTA LIRR system security is overseen and coordinated by the LIRR Office of Security (LIRR OOS) in coordination with the MTA Office of Security (MTA OOS), in conjunction with all local and state law enforcement partners in the communities across Long Island where LIRR operates. Under the Proposed Project, LIRR OOS and MTA OOS would continue to coordinate with TSA for security operations, if necessary, pursuant to U.S. Department of Homeland Security and TSA regulatory security authority over mass transit systems and the national railroad network. LIRR OOS and MTA OOS may conduct and participate in threat, risk, and vulnerability assessments for the design, construction, and/or operation of MTA-owned facilities. The MTA Office of Security participates in the New York City Joint Terrorist Task Force, which includes the Federal Bureau of Investigation (FBI) and the US Department of Homeland Security, in addition to other agencies. Through this task force, and by using outside security experts, the MTA Office of Security develops strategies to strengthen protections against terrorist threats directed at MTA transportation facilities.

LIRR operates electric train service in the Project Corridor through means of electrified track. Power is supplied to the trains through an electrified third rail, which is located alongside the active tracks within LIRR's ROW and carries active current. At grade crossings, there is a gap in the third rail to allow for safe crossing for vehicles, bicycles and pedestrians. Through its Together Railroads and Communities Keeping Safe (TRACKS) System Safety Program, LIRR educates the public about the dangers of the third rail.

The Proposed Project includes the elimination of seven (7) grade crossings : five (5) through the construction of new vehicular and pedestrian underpasses and two (2) through full closures (with pedestrian overpasses or underpasses). Currently, at these locations, roadways cross railroad tracks at grade rather than passing over or under the tracks. The crossings are equipped with active warning devices consisting of gates, lights and bells. The warning devices are maintained in a state of good repair. Despite the presence of these devices, the potential perpetually exists for vehicles, bicycles and pedestrians to maneuver around the warning gates into the path of oncoming trains. LIRR administers the Together Railroads and Communities Keeping Safe (TRACKS) program to reduce the number of collisions at grade crossings throughout its system. LIRR educates the public through its TRACKS System Safety Program about the dangers of trespassing on railroad property, maneuvering around lowered safety gates, and failing to exercise caution upon train ingress or egress. In addition, working with the New York State Department of Transportation, LIRR encourages the elimination of grade crossings so that fewer track/roadway intersections exist. ^

Despite the efforts of the LIRR to eliminate the occurrence of collisions at grade crossings, these collisions occur, as illustrated by Table 15-1.

**Table 15-1**  
**Summary of Crash Data at or Near**  
**Grade Crossing Locations (November 2012 – October 2015)**

Location	Total Crashes	Crash Severity			
		Fatal	Injury	Property Damage Only	Non-Reportable
Covert Avenue	28	2	5	13	8
South 12th Street	4	1	2	1	0
New Hyde Park Road	22	0	2	12	8
Main Street	1	0	0	0	1
Willis Avenue	2	1	0	1	0
School Street	1	0	0	0	1
Urban Avenue	8	1	2	3	2



## E. FUTURE WITHOUT THE PROPOSED PROJECT

In the Future without the Proposed Project, MTA-LIRR would continue its existing programs and procedures for maintaining facilities and operations in a state of good repair to ensure passenger and facility safety and security in the Project Corridor. The traveling public and the adjacent communities would not accrue any additional safety and security benefits beyond those already in place. Stations and tracks would remain largely as they are today, with the exception of normal replacement projects necessary to maintain the system in a state of good repair. In the event of a safety or security incident, the Future without the Proposed Project scenario would not allow MTA-LIRR and NYSDOT to take advantage of improved safety and security conditions that would be created by the Proposed Project. Grade crossing eliminations or closings, or improvements that could increase public safety through reducing the potential for conflicts between trains and pedestrians, bicycles and vehicles would not occur. Projected increases in train and vehicular traffic ^ would lead to increased risk of conflicts at existing crossings.

## F. POTENTIAL IMPACTS OF THE PROPOSED PROJECT

In the operational phase, the existence and running of trains along a third track within the existing LIRR ROW would be an expansion of a current railroad use in a restricted area delineated and maintained specifically for that use. The Proposed Project would not result in greater train speeds; the current maximum authorized speed of 80 mph would be maintained. The Proposed Project would not increase freight capacity, and therefore no adverse safety or security impacts with regard to freight would occur. The running of trains would continue to be subject to existing LIRR protocols regarding safety and security.

Likewise, station upgrades would not result in adverse impacts in the operational phase. The following improvements would enhance safety and security at stations:

- Closed circuit television (CCTV)
- Improved station lighting
- Pedestrian overpasses (or underpasses)
- Americans with Disabilities Act (ADA) compliant ramps and access points
- Curbside drop-off/pick-up areas
- 12-car platforms that provide more efficient access than shorter platforms
- Heated platforms providing safer environments in freezing weather conditions

The addition of pedestrian walkways, overpasses^ (or underpasses), stairways and elevators would enhance pedestrian access to LIRR facilities, and all platform modifications would maintain the existing means of passenger ingress and egress on and off of trains. Security in stations and on platforms would continue to be instituted in accordance with LIRR standard ^ procedures.

The separation or closure of grade crossings would enhance vehicular, pedestrian and bicycle safety by eliminating ^ seven (7) rail/road intersections where there currently exists the potential for conflicts. Any roadway safety issues occurring in these places would not be attributable to the Proposed Project. Rather, the elimination of these grade crossings would have a beneficial rather than adverse impact in terms of safety. Also, the installation of a traffic signal at Denton Avenue would enhance vehicle and pedestrian safety.

## **G. SAFETY & SECURITY MEASURES**

Measures taken to ensure the avoidance of adverse impacts in terms of safety and security would include the adherence to current MTA and LIRR safety and security policies, guidelines and procedures, and requirements. Incorporation of specific design features to protect adjacent communities, the traveling public and workers will continue to be a major focus of project planning and design. The development and incorporation of these features <sup>^</sup> will be coordinated with federal, state and local agencies having jurisdiction over safety and security issues throughout all phases of the project development process.

LIRR, as an FTA grantee, follows the regulations and general industry guidance that compels system operators to consider and evaluate safety and security issues in all phases of the development of major rail capital projects. As such, for the Proposed Project, LIRR would follow FTA requirements for the development and implementation of a Safety and Security Management Plan (SSMP) for Major Capital Projects, as described in the United States Department of Transportation (USDOT) 49 Code of Federal Regulations (CFR) Part 633 – Project Management Oversight and FTA circular C 5800.1, dated August 1, 2007. The SSMP formalizes the technical and management strategies for determining safety and security risk identification, assessment and resolution, and review and acceptance of a transit capital project into revenue service.

The core safety and security component of the LIRR project design effort is the safety and security certification (SSC) process. LIRR would develop a Safety and Security Certification Plan (SSCP) for the Proposed Project. The purpose of the SSCP is to outline LIRR's formal program of SSC which identifies and addresses safety hazards, security threats and vulnerabilities, and how such program processes are managed and documented. The LIRR would use the standards, criteria, and processes set forth in the SSCP to identify safety- and security-critical elements of the design and hazards and vulnerabilities that may impact them. Key elements of the SSCP include the development of:

- A formal, on-going LIRR project risk management process. This process will be used to ensure effective risk management for all high-consequence decisions that affect project design, construction, testing, acceptance, and initiation into revenue service. It provides a structured approach to considering and evaluating potential sources of hazards and vulnerabilities in the project and developing appropriate actions (e.g., design modifications or operational changes) to mitigate hazards and vulnerabilities. It should be noted that the public comment process is an important element in the project's risk evaluation methodology as members of communities provide project stakeholders with important insight and data regarding local issues and circumstances
- Project design criteria and standards which address system safety and security requirements applicable to the entire project. These standards are based on APTA, National Fire Protection Association (NFPA), the Underwriters Laboratories (UL), ADA, as well as safety and security recommendations from the Department of Homeland Security (DHS), TSA, and FTA, among many other industry standards
- Lists of safety- and security-critical design elements and sub-elements and their appropriate and applicable design specifications<sup>^</sup>
- Appropriate system operations and maintenance rules, Standard Operating Procedures (SOPs), plans, and policies<sup>^</sup>

## Long Island Rail Road Expansion Project

---

- Training programs for operations and maintenance personnel on applicable system rules, SOPs, plans, policies, and procedures
- Methods to ensure that affected outside response agencies, including fire and police departments, are prepared to respond to normal and emergency situations^

These processes will guide LIRR to consider risks to operations and maintenance programs and the experience of patrons, employees and the general public. Examples of safety- and security-critical elements of the Proposed Project that would be developed and closely assessed for risk factors include, among others:

- Control systems^
- Power systems^
- Roadways^
- Track and signal systems^
- Retaining walls^
- Support for the operation of fire and EMT services on the south side of the tracks in the Village of New Hyde Park during periods of construction related to grade crossing^  
construction
- Stations and parking facilities, including platforms, station shelters or houses, and pedestrian walkways associated with station and parking facilities. For example, LIRR requires that the design of vehicular drop-off and pick-up areas at stations address both safety and security issues and that measures be incorporated into the facility design to reduce the potential for vehicular and pedestrian conflicts. To help promote pedestrian safety and security, drop-off and pick-up areas are typically located away from nearby intersections to maintain adequate traffic flow on the local roadways and to avoid congested intersections.

For each risk identified, LIRR would identify appropriate design standards and criteria, any additional design specifications, operational responses or other mitigations to address risk factors and to ensure that the final design and actual implementation of such identified standards are implemented.

## H. MITIGATION

Because the Proposed Project would not result in any significant adverse impacts in terms of safety and security, no mitigation is required. \*

## **A. INTRODUCTION**

This section addresses the potential impacts due to <sup>^</sup>electromagnetic fields (EMF) from the Proposed Project. The Proposed Project elements that could affect local EMF levels in the Project Area are re-alignment of existing tracks and installation of the third rail, modifications and/or upgrades to LIRR substations, and relocation of PSEG-LI transmission lines, Verizon and Cable TV infrastructure, and LIRR communication, power, and signal systems. Finally, the proposed increase in service anticipated could also affect EMF levels.

## **B. PRINCIPAL CONCLUSIONS AND IMPACTS**

EMF exposure levels from traction power may increase due to increased power consumption from additional trains and closer proximity of electrified third rail to adjacent properties; however, since EMF levels from railroad operations are not considered hazardous to the public, increases in EMF levels at sensitive locations would not be considered significant.

The Proposed Project would also result in some LIRR electrical<sup>^</sup> and PSEG-LI utility line relocations; however, EMF levels near relocated utility infrastructure would be anticipated to be well below established exposure standards.

## **C. BACKGROUND**

Magnetic fields are one of the basic forces of nature. Any object with an electric charge on it has a voltage (potential) at its surface and can create an electric field. When electric charges move together (an electric current), they create a magnetic field. The strength of a magnetic field depends on the magnitude of the current, the configuration/size of the source, spacing between conductors, and distance from the source. Magnetic fields decrease in strength as the distance from the source increases.

Magnetic flux density is a measure of the strength of a magnetic field over a given area and is reported in units of gauss (G), or more typically in units of milligauss (mG), which are equal to one-thousandth of a gauss (i.e., 1 mG = 0.001 G). Some technical reports also report magnetic flux densities in the unit of tesla (T) or microtesla ( $\mu$ T; 1  $\mu$ T = 0.000001 T). The conversion between these units is 1 mG = 0.1  $\mu$ T and 1  $\mu$ T = 10 mG.

Magnetic fields can be unchanging in direction (also called static), as in the case of direct current (DC), or alternating in direction, as in the case of alternating current (AC). As an example, static magnetic fields occur in nature. The earth has a natural static magnetic field of about 550 mG (0.550 Gauss) in the New York City area. Some electrical devices operate on a DC system while others operate on an AC system. The magnetic field from AC sources (which include most electrical power lines, electrical equipment, residential wiring, and appliances) changes direction at a rate of 60 cycles per second or 60 Hertz.

The characteristics of magnetic fields can differ depending on the field source. A magnetic field near an operating appliance decreases rapidly with distance away from the device. A magnetic field also decreases with distance away from line sources, such as power lines, but not as rapidly as it does with appliances. Since the magnetic field is caused by the flow of an electric current, a device must be operated for it to create a magnetic field. The magnetic fields for a large number of typical AC household appliances were measured by the Illinois Institute of Technology Research (IITRI) for the U.S. Navy and by the Electric Power Research Institute (EPRI). Typical values for appliances are presented in **Table 16-1**. The EPRI study also found that the mean resultant AC magnetic field in residential U.S. homes was approximately 0.9 mG (at approximately <sup>^</sup>one meter above ground level).

**Table 16-1**  
**Magnetic Field (mG) From Household Appliances**

Appliance	12 Inches Away	Maximum
Electric Range	3 to 30	100 to 1,200
Electric Oven	2 to 5	10 to 50
Garbage Disposal	10 to 20	850 to 1,250
Refrigerator	0.3 to 3	4 to 15
Clothes Washer	2 to 30	10 to 400
Clothes Dryer	1 to 3	3 to 80
Coffee Maker	0.8 to 1	15 to 250
Toaster	0.6 to 8	70 to 150
Crock Pot	0.8 to 1	15 to 80
Iron	1 to 3	90 to 300
Can Opener	35 to 250	10,000 to 20,000
Mixer	6 to 100	500 to 7,000
Blender, Popper, Processor	6 to 20	250 to 1,050
Vacuum Cleaner	20 to 200	2,000 to 8,000
Portable Heater	1 to 40	100 to 1,100
Fans/blowers	0.4 to 40	20 to 300
Hair Dryer	1 to 70	60 to 20,000
Electric Shaver	1 to 100	150 to 15,000
Color TV	9 to 20	150 to 500
Fluorescent Fixture	2 to 40	140 to 2,000
Fluorescent Desk Lamp	6 to 20	400 to 3,500
Circular Saws	10 to 250	2,000 to 10,000
Electric Drill	25 to 35	4,000 to 8,000
<b>Source:</b> "Household Appliance Magnetic Field Survey," U.S. Naval Electronic Systems Technical Report No. EO6549-3, Illinois Institute of Technology Research Institute, Chicago, March 1984.		

Typical exposure in the home to man-made EMFs is likely to be greatest from electrical distribution lines, house wiring, electrical appliances, and ground currents in plumbing, gas lines, and steel girders. Exposure to internal and external natural EMFs also occurs, related to the normal physiological functions of the body and geomagnetic field of the earth. As a result, everyone is continuously exposed to EMFs, although intensities of exposure vary widely over time, depending on a person's proximity to electrical devices and wiring.

To date, there is no dose-effect relationship that has been identified for exposure to EMFs, nor has any generally accepted mechanism for interaction with EMFs been identified that may lead to health effects. Studies have been inconclusive in their findings, including epidemiological research that has looked for associations between occupations with presumed greater than average exposure to magnetic fields and adverse health effects.

The Federal government has not established a national standard for either static or extremely low-frequency (e.g., 3 to 3,000 Hz) magnetic field exposure limits. A survey of the body of scientific literature prepared for the Federal Committee on Interagency Radiation Research and Policy Coordination found no convincing evidence that exposure to EMFs with a 30 to 300 Hz frequency range, which encompasses the frequency of the magnetic field associated with the electrified third rail, poses a health hazard.

In evaluating potential electromagnetic fields associated with proposed magnetic-levitation (maglev) transportation systems, the Federal Railroad Administration compared measured EMFs from test vehicles to voluntary guidelines established by the American Conference of Governmental Industrial Hygienists (ACGIH) and the International Commission of Non-Ionizing Radiation Protection (ICNIRP) (which have been endorsed by the World Health Organization). Measured values were well below the 800 mG general public exposure limit from magnetic fields set by ICNIRP and the higher guidelines set by ACGIH. While the traction systems with a maglev vehicle are different from a DC traction motor that propels LIRR trains, the relevant frequency of the electromagnetic field (60 Hz) is comparable between the maglev systems and an electrified third rail system and the analytic results would apply to the different technology.<sup>1</sup>

The New York State Public Service Commission (PSC) has established interim standards for electric and magnetic fields from overhead transmission lines. The current PSC interim standard for electric fields is 1.6 kilovolts per meter (kV/m), and for magnetic fields is 200 mG, measured at one meter above grade, at the edge of the right-of-way.

## **D. EXISTING CONDITIONS**

A total of eight substations are within the Project Corridor:

- Substation G13 in Floral Park, on Plainfield Avenue opposite 111 Plainfield Avenue.
- Substation G14 in New Hyde Park, at Third Avenue and South 9th Street on the south side of the Project Corridor.
- Substation G15, the Merillon Avenue substation, at Atlantic Avenue and Hilton Avenue.
- Substation G16 in Mineola, at the southwest corner of Main Street and Front Street.
- Substation G17 in Carle Place, in the southeast quadrant of Meadowbrook State Parkway and the LIRR just north of Mallard Road.
- Substation G18 in Westbury, southeast of Union Avenue and Sullivan Street on the north side of the Project Corridor.
- Substation G19 in New Cassel, at Broadway and Bond Street on the north side of the Project Corridor.

---

<sup>1</sup> Federal Railroad Administration, "Electromagnetic Field Characteristics of the Transrapid TR08 Maglev System," DOT-VNTSC-FRA-02-11, May 2002.

- Substation G20 in Hicksville, on the south side of West Barclay Street near Marion Place and adjacent to the LIRR ROW.

Each of the substations is located within the LIRR ROW.

### E. FUTURE WITHOUT THE PROPOSED PROJECT

In the future without the proposed project, LIRR would continue to operate in its existing configuration, with increased train service resulting from the completion of the East Side Access Project. Minor increases in EMF levels would be expected due to the additional increase in traction power to provide the additional train service in the future without the Proposed Project.

A 13kV feeder, maintained by PSEG-LI, which supplies power to three substations along the LIRR ROW in the Study Area, has been programmed for relocation. The feeder must be maintained at all times to each of the three substations in order to avoid compromising the power supply to the LIRR. Relocating this feeder during construction of the Proposed Project will require extensive coordination between LIRR and PSEG-LI, especially in locations where ROW is restricted, in particular, immediately east of Roslyn Road and east of the Carle Place Station. One segment of the feeder (Mineola Feeder Replacement) has been scheduled for replacement in the near future. PSEG-LI may consider rescheduling implementation of this initial feeder segment replacement in order to better coordinate ^ with the Proposed Project.

With the exception of the recent replacement of LIRR Substation G13 in Floral Park in 2010, the remaining seven LIRR substations are approximately 40 years old, and nearing the end of their expected operating service life. As such, in the Future Without the Proposed Project it is likely that LIRR would have to replace each of the substations.

### F. POTENTIAL IMPACTS OF THE PROPOSED PROJECT

The Proposed Project would involve modifications to track alignment along the Project Corridor. The additional track would be fully electrified along its entire length. As a result of the additional track and widening of the LIRR ROW in certain areas, EMF exposure levels from traction power may increase due to closer proximity to the public spaces. However, since EMF levels from railroads are not considered hazardous, these increases would not be significant.

The Proposed Project would also result in some PSEG-LI electrical ^ transmission line relocations. ^ A description of these ^ relocations is presented in Section D of Chapter 9, "Utilities and Related Infrastructure."

^ Typical magnetic field strength directly below a 69 kV power transmission line is 10 to 30 mG, and 3 to 9 mG at a distance of 50 feet from the line,<sup>2</sup> and at a distance of 100 feet from the transmission line centerline, the strength of the magnetic field would typically drop to less than 2 mG,<sup>3</sup> Field strength decays with distance, and consequently at distances beyond 100 feet, the magnetic field would be expected to be 0 to 1 mG.

Magnetic field levels in nearby buildings would vary depending upon the contribution from other indoor sources, e.g., appliances and wiring. However, at all locations adjacent to relocated

---

<sup>2</sup> Electric and Magnetic Fields, PSEG.

<sup>3</sup> Southampton to Bridgehampton Transmission Line and Expansion of Bridgehampton Substation Project, Final Environmental Impact Statement, Chapter 14, "Electric and Magnetic Fields," 2008.



transmission lines, the strength of the magnetic field would be significantly below the interim exposure value established for the general population by the ICNIRP.

For the track sections where relocation of PSEG-LI transmission lines is required, the future utility transmission towers in certain cases would be taller in height than the current wood towers since PSEG-LI policy requires the use of composite steel and concrete utility poles approximately 90 feet high. Therefore, even if the PSEG-LI transmission lines were closer to publicly accessible areas in the future with the Proposed Project, due to the additional height of the poles EMF exposure would not be considered significantly greater than existing conditions.

As discussed in Chapter 9, “Utilities and Related Infrastructure,” with the exception of the recent replacement of ^ Substation G13 in Floral Park in 2010, the remaining seven substations are about 40 years old, nearing the end of their expected operating service life. Replacement substations would occupy the same parcels as the present equipment. Prefabricated substation equipment would be used to expedite the implementation of the new units. It is anticipated that the replacement substations would provide greater EMF shielding compared to the existing substations.

Typical maximum magnetic ^ field strength at locations immediately adjacent to new substations would be expected to be in the range of 1 to 25 mG, and maximum fields would be expected to be within 0 to 2 mG at distances of 100 feet or more from the substation.<sup>4</sup> At all locations near the proposed site of the expanded ^ substations, off LIRR property, the maximum strength of any magnetic field would be significantly below the exposure values established for the general population by the PSC and the ICNIRP.

## **G. MITIGATION FOR THE PROPOSED PROJECT**

Because no significant adverse EMF impacts are anticipated, no mitigation is necessary for the Proposed Project with respect to EMF conditions. \*

---

<sup>4</sup> Southampton to Bridgehampton Transmission Line and Expansion of Bridgehampton Substation Project, Final Environmental Impact Statement, Chapter 14, “Electric and Magnetic Fields,” 2008.

## A. INTRODUCTION

This chapter evaluates the greenhouse gas (GHG) emissions associated with the construction and operation of the Proposed Project, and its consistency with the statewide GHG reduction goals.

As discussed in the Council on Environmental Quality's (CEQ) guidance<sup>1</sup> and New York State Department of Environmental Conservation's (DEC) policy,<sup>2</sup> climate change is projected to have wide-ranging effects on the environment, including rising sea levels, increases in temperature, and changes in precipitation levels. Although this is occurring on a global scale, the environmental effects of climate change are also likely to be experienced at the local level. The United States and New York State have established sustainability initiatives and goals for greatly reducing GHG emissions and for adapting to climate change.

This analysis has been prepared following CEQ and DEC guidance to the extent practicable. Per the CEQ guidance, it is recommended that agencies quantify GHG emissions where appropriate data inputs are reasonably available, with the appropriate level of review to assess the broad-scale effects of GHG emissions to inform decisions. Potential changes in GHG emissions associated with the construction and operation of the Proposed Project are discussed qualitatively. Developing regional transportation model scenarios and emissions modeling in order to project potential GHG emissions solely for the purpose of this analysis would not be commensurate with the extent of the effects of the Proposed Project. It is widely demonstrated in academic literature as well as in the MTA's own models that commuter rail operations result in a net reduction of greenhouse gas emissions.<sup>3</sup> The CEQ and DEC guidance both state that agencies should consider reasonable measures to lower the level of the potential GHG emissions. Therefore, the analysis reviews and evaluates potential relevant measures aimed at reducing GHG emissions associated with the Proposed Project.

The climate change analysis also addresses resilience of the Proposed Project to projected future climate conditions. The assessments are presented in two sections: **Section B, "Greenhouse Gas Emissions"** presents the regulatory context, methodology, and analysis of GHG emission and consistency with applicable policies; and **Section C, "Adaptation to Climate Change,"** presents the regulatory context and analysis of the Proposed Project's resilience to future climate conditions.

---

<sup>1</sup> Executive Office of the President, CEQ. *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews*. August 1, 2016.

<sup>2</sup> DEC. *DEC Policy: Assessing Energy Use and Greenhouse Gas Emissions in Environmental Impact Statements*. July 15, 2009.

<sup>3</sup> MTA. *Impact of Public Transportation on GHG in the MTA Area*. May 28, 2009.

## PRINCIPAL CONCLUSIONS AND IMPACTS

### *GHG EMISSIONS*

New York State, in large measure due to the availability and extensive use of public transportation, with the highest transit mode-share of any state, has the lowest per-capita energy use and GHG emissions.<sup>4</sup> Improving the overall reliability, attractiveness, and convenience of mass transit is an important part of maintaining and increasing transit use into the future and reducing traffic congestion, and thus reducing region-wide GHG emissions. It is important to note in this context that region-wide emissions are not driven solely by the transportation mode choice. Transit use reduces emissions relative to private vehicle use, but also reduces congestion and thus indirectly reduces emissions further. Moreover, the availability of well-connected transit systems facilitates a more compact and transit-oriented development land use pattern, resulting in further efficiency in travel, services, and utilities. Therefore, as part of the larger region-wide transit system, improving the overall reliability, attractiveness, and convenience of the LIRR supports New York State's long term GHG emission reduction policies.

The Proposed Project would result in some additional GHG emissions associated with operating electric locomotives (indirect emissions from power generation), and would reduce some emissions associated with on-road vehicular emissions due to the shift of trips in the off-peak direction from on-road to LIRR, with some increased emissions associated with local park-and-ride and taxi trips to and from stations. There would also be direct emissions associated with construction vehicles and indirect emissions associated with the extraction, production, and delivery of materials, which would be reduced to the extent practicable via measures described later in this chapter.

Therefore, based on the outlined sustainability commitments aimed at reducing construction and operational emissions, and since the Proposed Project is a transit enhancement project, the Proposed Project would be consistent with the State's GHG emissions reduction goals and policies.

### *ADAPTATION TO CLIMATE CHANGE*

With respect to sea level rise, the Proposed Project is well above the current "100-year" and "500-year" flood elevations (the elevations that would potentially be inundated during a coastal storm of a magnitude with a 1-percent and 0.2-percent probability of occurring in any given year, respectively). Therefore, the Proposed Project area would not be flooded during either such future storm event, even when accounting for the highest projected sea level rise by the year 2100.

Average and extreme temperatures are projected to increase, and extreme temperature events ("heatwaves") are likely to increase in the future as a result of climate change. The same design, maintenance, and operational procedures to minimize track buckling that LIRR currently uses would also address the future condition when heatwaves may be more frequent or intense.

Stormwater management practices for the Proposed Project have been designed for the current 100-year storm event. With the potential for substantial increases in the frequency and scale of downpour events it is possible that these systems may not be as resilient as possible. However, it would not be practicable to install stormwater management practices sized for a larger event given the space constraints of the right-of-way.

---

<sup>4</sup> US Energy Information Administration, <http://www.eia.gov/environment/emissions/state/analysis/>

The Proposed Project would be designed to accommodate any reasonably foreseeable potential future changes in climate, and would, therefore, be consistent with state and federal policies requiring climate change resiliency.

## **B. GREENHOUSE GAS EMISSIONS**

### **METHODOLOGY**

#### *POLLUTANTS OF CONCERN*

GHGs are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere, and clouds. This phenomenon causes the general warming of the Earth's atmosphere, or the "greenhouse effect." Water vapor, carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane, and ozone are the primary GHGs in the Earth's atmosphere.

The primary GHGs of concern emitted from anthropogenic sources include CO<sub>2</sub>, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. CO<sub>2</sub> is the primary pollutant of concern from anthropogenic sources, as it is by far the most abundant and, therefore, the most influential GHG. CO<sub>2</sub> is emitted from any combustion process (both natural and anthropogenic); from some industrial processes such as the manufacture of cement, mineral production, metal production, and the use of petroleum-based products; from volcanic eruptions; and from the decay of organic matter. CO<sub>2</sub> is removed ("sequestered") from the lower atmosphere by natural processes such as photosynthesis and uptake by the oceans. CO<sub>2</sub> is included in any analysis of GHG emissions.

#### *POLICY, REGULATIONS, STANDARDS, AND BENCHMARKS FOR REDUCING GHG EMISSIONS*

As a result of the growing consensus that human activity resulting in GHG emissions has the potential to profoundly impact the Earth's climate, countries around the world have undertaken efforts to reduce emissions by implementing both global and local measures addressing energy consumption and production, land use, and other sectors. Although the U.S. has not ratified international agreements, which set emissions targets for GHGs, the U.S. signed the international Paris agreement<sup>5</sup> in December 2015 that pledges deep cuts in emissions, with a stated goal of reducing emissions to between 26 and 28 percent lower than 2005 levels by 2025<sup>6</sup> to be implemented via existing laws and regulations with executive authority of the President.

The U.S. Environmental Protection Agency (USEPA) is required to regulate GHGs under the Clean Air Act, and has begun preparing and implementing regulations. In coordination with the National Highway Traffic Safety Administration (NHTSA), USEPA currently regulates GHG emissions from newly manufactured on-road vehicles. In addition, USEPA regulates transportation fuels via the Renewable Fuel Standard program, which will phase in a requirement for the inclusion of renewable fuels increasing annually up to 36.0 billion gallons in 2022. The U.S. Department of Transportation (USDOT) is also involved in many activities,

---

<sup>5</sup> Conference of the Parties, 21st Session. *Adoption of The Paris Agreement, decision -/CP.21*. Paris, December 12, 2015.

<sup>6</sup> United States of America. *Intended Nationally Determined Contributions (INDCs)* as submitted. March 31, 2015.

programs, and partnerships, including collaborations with other federal agencies and international organizations, aimed at reducing GHG emission.<sup>7,8</sup> In 2015, USEPA also finalized rules to address GHG emissions from both new and existing power plants that would, for the first time, set national limits on the amount of carbon pollution that power plants can emit. The Clean Power Plan sets carbon pollution emission guidelines and performance standards for existing, new, and modified and reconstructed electric utility generating units. On February 9, 2016, the Supreme Court stayed implementation of the Clean Power Plan pending judicial review. USEPA expects to expand this program in the future to limit emissions from additional stationary sources.

There are also regional and local efforts to reduce GHG emissions. In 2009, then-New York Governor David Paterson issued Executive Order No. 24, establishing a goal of reducing GHG emissions in New York State by 80 percent, compared with 1990 levels, by 2050, and creating a Climate Action Council tasked with preparing a climate action plan outlining the policies required to attain the GHG reduction goal. An interim draft climate action plan was published in 2010.<sup>9</sup> The State is now seeking to achieve some of the emission reduction goals via local and regional planning and projects through its Cleaner Greener Communities and Climate Smart Communities programs. The State has also adopted California's GHG vehicle standards (which are at least as strict as the federal standards).

The New York State Energy Plan outlines the State's energy goals and provides strategies and recommendations for meeting those goals. The latest version of the plan was published in June 2015. The new plan outlines a vision for transforming the state's energy sector that would result in increased energy efficiency (both demand and supply), increased carbon-free power production and cleaner transportation, in addition to achieving other goals not related to GHG emissions. The 2015 plan also establishes a new target of reducing GHG emissions in New York State by 40 percent, compared with 1990 levels, by 2030. The plan also establishes a new target of providing 50 percent of electricity generation in the state from renewable sources by 2030, and increasing building energy efficiency gains by 600 trillion British thermal units (Btu) by 2030.

New York State has also developed regulations to cap and reduce CO<sub>2</sub> emissions from power plants to meet its commitment to the Regional Greenhouse Gas Initiative (RGGI). Under the RGGI agreement, the governors of nine northeastern and Mid-Atlantic states have committed to regulate the amount of CO<sub>2</sub> that power plants are allowed to emit, gradually reducing annual emissions to half the 2009 levels by 2020. The RGGI states and Pennsylvania have also announced plans to reduce GHG emissions from transportation through the use of biofuel, alternative fuel, and efficient vehicles.

In 2007, MTA convened a Blue Ribbon Commission on Sustainability. The Commission published a final report *Greening Mass Transit & Metro Regions*, recommending actions and approaches for enhancing the sustainability of MTA operations and the MTA region by addressing energy and GHG emissions, facilities, smart growth and transit oriented

---

<sup>7</sup> <http://climate.dot.gov/policies-legislation-programs/federal-org-directory.html>

<sup>8</sup> <http://climate.dot.gov/policies-legislation-programs/dot-partnerships/international-activities.html>

<sup>9</sup> New York State Climate Action Council. New York State Climate Action Plan Interim Report. November 2010.

development, material flows, water management, and climate adaptation.<sup>10</sup> MTA subsequently published two reports in 2011 and 2012 highlighting projects and activities that reduce the carbon footprint of MTA's operations and of transportation in the region overall.<sup>11,12</sup> LIRR applies the approach outlined in the above reports for planning purposes.

In addition, LIRR's *Environmental Management Corporate Policy and Procedure*<sup>13</sup> includes the following principles:

- *Review and continuously improve all activities to ensure consideration of environmental impacts, risks and costs in all planning, acquisition and operational decisions.*
- *Encourage and promote pollution prevention efforts through material substitution, waste minimization, recycling, and resource conservation and recovery.*

LIRR's *Station Design Guidelines*<sup>14</sup> recognized that the MTA Blue Ribbon Commission on Sustainability Report recommended that all building projects, new construction and major renovations achieve certification at a Silver level under the Leadership in Energy & Environmental Design (LEED) program. Strategies for achieving LEED Silver include enhanced energy efficiency and other measures that directly and indirectly reduce GHG emissions.

In accordance with NYSDEC Executive Order 4 (EO 4), LIRR has reported on progress in the areas of green procurement and agency sustainability annually since 2008. LIRR's sustainability coordinator, in conjunction with sister agencies, has monitored LIRR's progress with respect to the following sustainability initiatives: sustainability planning & outreach; waste prevention and reuse; recycling and composting; reducing the use of toxic chemicals; energy efficiency and renewable energy resources; conservation of water and natural resources; and green procurement.<sup>15</sup>

The MTA's annual "Greenhouse Gas Emissions Inventory" has been voluntarily reported to the Climate Registry since 2008. Energy usage and statistics have been compiled in accordance with the Greenhouse Gas Protocol developed by World Resources Institute and World Business Council on Sustainable Development.<sup>16</sup>

#### **ASSESSMENT APPROACH**

Although the contribution of any single project's emissions to climate change is infinitesimal, the combined GHG emissions from all human activity have been found to have significant effects on global climate. While the increments of criteria pollutants and toxic air emissions are assessed in the context of health-based standards and local impacts, there are no established thresholds for assessing the significance of a project's contribution to climate change.

---

<sup>10</sup> MTA. *Greening Mass Transit & Metro Regions: The Final Report of the Blue Ribbon Commission on Sustainability and the MTA*. January 8, 2009.

<sup>11</sup> MTA. *2011 MTA Sustainability Report: More MTA = Less CO<sub>2</sub>*. April 2011.

<sup>12</sup> MTA. *2012 Sustainability Report: An Average MTA Trip Saves Over 10 Pounds of Greenhouse Gas Emissions*. April 2012.

<sup>13</sup> MTA LIRR. *Corporate Policy & Procedure: Environmental Management*. SAFE-003 (F.K.A. 5503). December 2009.

<sup>14</sup> MTA LIRR. *Station Design Guidelines*. Revised December 2014.

<sup>15</sup> <http://www.ogs.state.ny.us/EO/4/>

<sup>16</sup> <http://www.cris4.org>

Nonetheless, prudent planning dictates that all sectors address GHG emissions by identifying GHG sources and practicable means to reduce them.

Construction of the Proposed Project – as opposed to its operation – would result in direct and indirect GHG emissions. Operationally, once the project is constructed, additional passenger train service (as well as non-revenue train movements) would be provided. The increase in passenger service would be primarily in the off-peak direction, but would nonetheless likely reduce vehicular round trips by providing an option for commuters and others traveling in the off-peak direction. Some additional local short trips via taxi and/or park-and-ride would increase for those trips shifted from passenger vehicle to passenger rail. Some additional changes in emissions may occur as a result of new or upgraded station and parking garage systems such as lighting, ticketing, and platform deicing; these would represent increased emissions where adding components and potentially decreased emissions where introducing new more efficient systems. The Proposed Project will support on-going and existing development in the Project Corridor that is associated with livable, walkable communities, thereby encouraging network emissions avoidance. The Proposed Project would not affect freight traffic along the corridor. Some vegetation, including trees, would be cleared from the right-of-way, potentially reducing carbon storage and future sequestration capacity.

The impact of the construction and the operational changes on GHG emissions are discussed and evaluated. The precise effect of the Proposed Project on shift of trip mode from on-road to rail, locomotive emissions (indirect, from electricity production), and detailed estimates of materials and fuels needed for construction would require the development of regional transportation model scenarios and extensive emissions modeling in order to project potential GHG emissions solely for the purpose of disclosure, but are not necessary for the evaluation of the Proposed Project in the context of policies aimed at reducing GHG emissions, and would not be commensurate with the extent of the effects of the Proposed Project per CEQ and DEC guidance. Therefore, this chapter presents a qualitative analysis of changes in GHG emissions potentially associated with the Proposed Project and evaluates emission reduction measures that may be relevant for the Proposed Project. The assessment of consistency with relevant policies is based on that qualitative analysis.

## POTENTIAL IMPACTS OF THE PROPOSED PROJECT

### *PROJECTED GHG EMISSIONS*

The following sections describe the potential GHG emissions sources related to the Proposed Project, and potential measures that could reduce emissions.

#### *Construction Emissions*

GHG emissions associated with construction of the Proposed Project would result from several sources:

- fuel combusted on-site by non-road construction engines;
- fuel combusted off-site by trucks and worker vehicles;
- fuel combusted for the production of electricity used during construction; and
- fuel combusted in the extraction, production or recycling, and delivery of materials, especially energy intensive materials such as cement and steel, and direct emissions of CO<sub>2</sub> related to chemical processes in the production of cement, iron, and steel.



### *Operational Emissions*

By improving the reliability of transit service through addition of a third track and removal of grade crossings, the Proposed Project would make transit use a more attractive mode choice to the automobile for NYC-bound commutes and intra-island travel. An efficient and reliable transit system would reduce regional GHG emissions by minimizing on-road travel. Given the volume of train traffic along this Main Line segment, it frequently becomes congested during a normal rush hour. Moreover, in the event of a bottleneck caused by an emergency repair or disabled train, conditions can range from severely constrained to immobilized, creating significant delays. Also, due to the heavy train volumes and the two-track configuration, the LIRR has very few options to route service around a disabled train or track outage, compounding delays and affecting thousands of train riders. The risk of delays will increase as volume increases in the future due to the completion of the East Side Access project and projected annual growth. Increasing the reliability of the service and reducing delays is likely to maintain transit use into the future, and support growth in ridership expected with the completion of the East Side Access project. The increase in ridership would shift trips from automobiles to passenger rail, which would reduce GHG emissions.

The changes to grade crossings would result in reductions in emissions from idling vehicles as a result of eliminating delays associated with the current at-grade crossings. <sup>^</sup> At South 12th Street in New Hyde Park and Main Street in Mineola, where grade crossings would be closed<sup>^</sup> traffic <sup>^</sup> would be diverted to alternative routes. Overall, the change in route would likely represent a minor change in emissions associated with any relative change in distance, speed and grade for diverted trips. The change in emissions associated with the change in roadway grade of the new grade-separated roadways would be negligible.

The Proposed Project would also include improvements in signals, lighting, ticketing, elevators and escalators, parking facilities, and platform deicing systems. While some of these elements would be new and would thus increase electricity use and ensuing emissions, in many cases the replacement of older systems with newer, more efficient systems would reduce electricity consumption and ensuing emissions. Some additional electricity use may be necessary if pumping of stormwater is required for grade-separated crossings.

As described above, electric train trips (revenue service and non-revenue service) would increase as a result of the Proposed Project. This would result in increased emissions from electric power generation. However, those emissions would be offset by the shift of trips from on-road vehicular trips, mostly in single occupancy vehicles, to passenger rail.

### *Carbon Sequestration*

In general, the preservation of trees has a more significant impact on carbon sequestration in large forested areas, where forestation can be ongoing (trees die and new ones grow) and where carbon can be transferred to soils, providing long-term carbon storage and growing capacity.

The removal of trees from the right-of-way would result in some GHG emissions and a reduction of future sequestration capacity. It is estimated that a few hundred trees would be removed from the right-of-way. Trees in the right-of-way are likely to be mostly of smaller size since large trees near the tracks pose a safety risk and are typically removed as a part of normal maintenance of the right-of-way. Therefore, some portion of the trees that would be removed as a consequence of the Proposed Project would otherwise be removed without the Proposed Project due to safety concerns.

### *Net Emissions*

Commensurate with the agency guidance, a net effect of the Proposed Project on GHG emissions was not quantified. However, as part of the larger transit system, improving the overall reliability, attractiveness, and convenience of the LIRR system is an important part of maintaining and increasing transit use into the future and reducing automobile use and concomitant traffic congestion, and thus reducing region-wide GHG emissions. It is important to note in this context that region-wide emissions are not driven solely by the transportation mode choice. Transit use reduces emissions relative to private vehicle use, but also reduces congestion and thus indirectly reduces emissions further. Moreover, the availability of well-connected transit systems also affects land use such that more compact and transit-oriented development occurs, helping to avoid urban sprawl, and resulting in further efficiency in travel, services, utilities, and more. MTA has calculated that, based on all of these factors, while MTA itself (including LIRR, MNR, and NYC Transit) produced 2.1 million metric tons of CO<sub>2</sub> equivalent<sup>17</sup> system-wide in 2010, its transit operations actually reduced the overall emissions of the region by 16.9 million metric tons.

### *ELEMENTS THAT WOULD REDUCE GHG EMISSIONS*

The following sections review and evaluate sustainable design features that might reduce the Proposed Project's GHG emissions within the relevant categories, and identify potential measures for inclusion in the project where practicable.

#### *Clean and Efficient Use of Power*

As described above, passenger and freight rail is far more efficient than on-road alternatives. The Proposed Project would further improve efficiency through system improvements and track redundancy, as described above. In addition, most LIRR passenger service within the Project Corridor is electric powered. The use of electric power reduces GHG emissions by including electric power generation from renewable sources in the current mix, and allows for further future reductions as New York State continues to increase that renewable portion.

Additional components of the Proposed Project that could further enhance the use of clean and efficient power:

- *Aluminum Third Rail:* LIRR has been actively testing, modeling and, where appropriate, installing aluminum third rail, which reduces electrical losses to resistance and helps maintain voltage support. Aluminum or aluminum-composite third rail would be used for the Proposed Project.
- *Third Rail Heater Controls:* MTA has completed a successful pilot of remote-controlled third rail heaters, which will allow it to activate essential third rail heaters only when the weather indicates icing conditions are likely. The project will result in savings from both the decrease in electrical energy used to unnecessarily heat exposed third rail and the maintenance costs associated with turning on and off conventional heater switches. Remote-controlled third rail heaters would be considered for the Proposed Project.
- *Lighting and Signals:* Specifying the selection of LED lighting and signals where possible (or other high-efficiency lights where available LED are not appropriate) and automated and motion sensor controlled lighting where appropriate.

---

<sup>17</sup> CO<sub>2</sub> equivalent is a measure of all GHGs combined weighted by their effectiveness in trapping inbound energy.

- *Other Powered Systems:* Specifying energy efficient pumps or any other necessary powered equipment in bid documents.

#### *Transit-Oriented Development and Sustainable Transportation*

As described above, by design, the Proposed Project would support and improve LIRR service, thus helping to maintain and enhance transit-oriented development and efficient land use in the region overall.

#### *Reduce Construction Operation Emissions*

*Biodiesel:* Reducing direct emissions from construction activity could be achieved by requiring the use of biodiesel for construction engines. Biodiesel blends of up to 20 percent (B20) can generally be used as a “drop in” fuel for any diesel engine. EPA defined the minimum GHG reduction of pure biodiesel (B100) as 20 percent for standard biodiesel, and 50 percent for advanced biodiesel. Therefore, using standard or advanced B20 would minimize GHG emissions during construction, when compared to use of regular diesel fuel, by a minimum of 4 or 10 percent, respectively. On previous construction projects, MTA has required use of biodiesel. By including an investigation of the availability and cost of standard or advanced B20 for the Proposed Project construction, and requiring its use if found to be practicable, direct emissions from construction engines could be minimized by at least 4 or 10 percent, respectively.

#### *Use Building Materials with Low Carbon Intensity*

##### *Rail Ties*

MTA’s Railroad Tie Task Force was tasked with developing increasingly sustainable railroad tie solutions.<sup>18</sup> The task force reported that LIRR railroad ties consisted of either creosote-treated wood or concrete. LIRR does not purchase tropical hardwood railroad ties. Since 2002, LIRR has installed composite plastic ties in ballasted track in sections of track with low train volumes. LIRR experienced issues with a large number of these ties, primarily associated with the hardware that fastens the track to the tie. The task force determined that certain issues regarding the physical characteristics of the materials needed to be resolved before composite plastic or recycled plastic could be more widely used. Given the high volume of trains within the Main Line corridor, the Proposed Project would be constructed using concrete ties.

##### *Cement*

The Proposed Project would require cement to produce concrete for railroad ties, retaining walls and sound attenuation walls, platforms, parking garages, and other elements such as walkways. Cement replacements such as slag or flyash, known as supplementary cementitious material (SCM), are regularly used in cement due to their low-cost relative to the cement they replace, with the quantities optimized to meet structural requirements. Reducing the amount of cement would reduce the quantity of fuel combusted, electricity used, and CO<sub>2</sub> liberated through pyro-processing of limestone (a chemical process resulting in directly emitting CO<sub>2</sub>).

In addition to standard SCMs, the carbon footprint of cement can be further reduced by the introduction of interground raw limestone. Cement used in the U.S. in accordance with ASTM C-150 allows for a maximum of 5 percent interground limestone. The ASTM C1157 standard allows for greater interground limestone content but whether it is selected for use would need to be verified. Cement fitting this standard is commonly used in Canada and Europe and is sometimes referred to as Portland limestone cement (PLC). The applicability and cost of this

---

<sup>18</sup> MTA. *Sustainable Railroad Tie Task Force Report*. April 2009.

approach could be investigated for the Proposed Project, and implemented if found to be practicable.

### *Steel*

Recycled steel would most likely be used for most rebar and structural steel since the steel available in the region is mostly recycled. Requiring the procurement of recycled steel to the extent practicable would ensure substantially lower GHG emissions for this component.

### *Recycling*

Construction waste can be largely diverted from landfills by separating out materials for reuse and recycling. Setting a target of a minimum of 75 percent is a common approach for ensuring recycling. Materials that may be appropriate for diversion include wooden pallets, scrap steel, and crushed concrete.

## **GHG EMISSION REDUCTION STRATEGIES FOR THE PROPOSED PROJECT**

In order to ensure that the Proposed Project incorporates measures that would reduce GHG emissions where practicable, the following commitments would be undertaken as part of the bidding and contracting process:

1. Contracts would specify that all lighting and signals will be LED or, when LED is not reasonably available or practicable (including lifetime cost considerations) for a particular application, other highly efficient technology will be selected.
2. Contracts would specify that all pumps and other powered equipment will be energy efficient where reasonably available and practicable (including cost-benefit considerations), with preference for Energy Star certified equipment where available.
3. Contractors would be encouraged to explore the use of B20 biodiesel for construction engines.
4. Contractors would be encouraged to explore the use of cement with higher inter-ground limestone content.
5. ^ Design-build contractor will use best efforts to incorporate innovative measures to reduce the project's carbon footprint.
6. To the extent practicable, all rail, rebar, and structural metal products will be from recycled sources. The contractor will provide LIRR with documentation of which materials contained recycled content.

## **C. RESILIENCE TO CLIMATE CHANGE**

This section evaluates the potential for changes in climatic conditions under future projected scenarios to affect the Proposed Project, and discusses how the Proposed Project design would introduce resilience to address these concerns.

### **DEVELOPMENT OF POLICY TO IMPROVE CLIMATE CHANGE RESILIENCE**

The New York State Sea Level Rise Task Force was created to assess potential impacts of rising seas and increased storm surge on the state's coastline. The Task Force prepared a report of its findings and recommendations including protective and adaptive measures.<sup>19</sup> The recommendations are intended to provide more protective standards for coastal development, wetlands protection, shoreline armoring, and post-storm recovery; to implement adaptive measures for habitats; integrate climate change adaptation strategies into state environmental

---

<sup>19</sup> New York State Sea Level Rise Task Force. *Report to the Legislature*. December 2010.

plans; and amend local and state regulations or statutes to respond to climate change. The Task Force also recommended the formal adoption of projections of sea level rise (SLR).

LIRR continues to participate in the MTA “Climate Adaptation Task Force,” formally instituted by Chairman Prendergast in January 2014. The Task Force comprises key personnel throughout the organization and is tasked with developing system-wide climate adaptation policies and standards to be incorporated into all regular MTA operations. In an effort to fortify its assets against future adverse climate events, the Task Force coordinates and organizes initiatives implemented at all MTA operating agencies in preparation for future climate change scenarios. The Task Force meets regularly with relevant local and regional public sector agencies, commercial entities, and academic/research institutions for continuous information exchange and knowledge sharing.

In July 2014, LIRR approved its formal design guideline “to ensure long term protection and resiliency of railroad facilities and/or significant infrastructure assets against future flooding.” The design guidelines take into consideration FEMA base flood elevations, US Army Corps of Engineers sea level rise projections, and freeboard recommendation from the NYS Building Code and the American Society of Civil Engineers.

The New York State Climate Action Plan Interim Report identified a number of policy options and actions that could increase the climate change resilience of natural systems, the built environment, and key economic sectors—focusing on agriculture, vulnerable coastal zones, ecosystems, water resources, energy infrastructure, public health, telecommunications and information infrastructure, and transportation.<sup>20</sup> New York State’s Community Risk and Resiliency Act (CRRRA)<sup>21</sup> requires applicants for certain State programs to demonstrate that they have taken into account future physical climate risks from storm surges, SLR, and flooding; CRRRA also required the DEC to establish official State SLR projections by January 1, 2016. DEC published a draft on November 2, 2015, proposing to adopt existing projections for use (see discussion of NPCC below). These projections will provide the basis for State adaptation decisions and are available for use by all decision makers. CRRRA applies to specific State permitting, funding, and regulatory decisions, including smart growth assessments; funding for wastewater treatment plants; siting of hazardous waste facilities; design and construction of petroleum and chemical bulk storage facilities; oil and gas drilling, and State acquisition of open space.

The New York City Panel on Climate Change (NPCC) has prepared a set of climate change projections for the New York City region,<sup>22</sup> which was subsequently updated,<sup>23</sup> and has suggested approaches to create an effective adaptation program for critical infrastructure. While the geographic focus of NPCC is New York City, the data and information produced for the Task Force, described below, is relevant for the region, and the sea level rise projections were also proposed, but not officially adopted, by New York State. The NPCC includes leading climatologists, SLR specialists, adaptation experts, and engineers, as well as representatives

---

<sup>20</sup> NYSERDA. *New York State Climate Action Plan Interim Report*. November, 2010.

<sup>21</sup> *Community Risk and Resiliency Act*. Chapter 355, NY Laws of 2014. April 9, 2013. Signed September 22, 2014.

<sup>22</sup> New York City Panel on Climate Change. *Climate Change Adaptation in New York City: Building a Risk Management Response*. Annals of the New York Academy of Sciences, May 2010.

<sup>23</sup> New York City Panel on Climate Change. *Climate Risk Information 2013: Observations, Climate Change Projections, and Maps*. June 2013.

from the insurance and legal sectors. The NPCC summarized a number of baseline and projected climate conditions throughout the 21st century, including heat waves and cold events, intense precipitation and droughts, SLR, and coastal storm levels and frequency. The following summarizes the findings most relevant to the Proposed Project (more detailed ranges and timescales are available):

- *SLR and Storm Surge:* NPCC projects that sea levels are likely to increase by up to 75 inches (“High” scenario) by the end of the century. In general, the occurrence of SLR is characterized as “extremely likely,” but there is uncertainty regarding its magnitude and rate. Major hurricanes are characterized as “more likely than not” to increase in intensity and/or frequency, and the likelihood of changes in other large storms (e.g., “Nor’easters”) are characterized as unknown. Therefore, the projections for future 1-in-100 coastal storm surge levels for the area include only SLR at this time, and do not account for changes in storm frequency.
- *Temperature:* NPCC projects that annual average temperature is likely to increase by up to 12°F by the end of the century. In general, the probability of higher temperature is characterized as “extremely likely.” Heatwaves (events with a duration of three or more days with maximum temperatures exceeding 90°F) are “very likely” to increase in frequency, with up to nine events projected in the high estimate by the 2080s in an average year, up from two events per average year in the baseline, and a duration of up to eight days per event, up from four days in the baseline. The number of days per average year with a maximum temperature exceeding 90°F in that same timeframe could increase from 18 to 87.
- *Precipitation:* NPCC projects that annual average precipitation is likely to increase by up to 25 percent by the end of the century. The number of downpours (intense precipitation events shorter than a day and often shorter than an hour) is “very likely” to increase. By the 2080s, downpours of 1 inch or more could increase from an annual average of 13 events in the baseline to 18 events, and 4 inches or more from an average of 0.3 to 0.7 events.

MTA published its framework for adaptations to climate change in 2008.<sup>24</sup> The framework identified three key trends significantly impacting MTA operations: higher average temperatures, rising sea levels with related coastal surges, and increased storm activity with more severe precipitation events and related flooding. The review of LIRR infrastructure focused on coastal flooding. The general discussion also included concerns with lower priority for MTA regarding energy impacts (rising temperatures will require more energy for cooling), street flooding (increased severe precipitation events and culverts and pumps may not be designed to meet that increase), and other changes (e.g., wind, snow, ice, drought). MTA convened an agency-wide Climate Adaptation Task Force in 2014 tasked with developing system-wide climate-adaptation policies and standards to be incorporated into all regular MTA operations. MTA currently collaborates with the above mentioned ongoing state and city adaptation efforts.

In addition, LIRR’s Environmental Management Corporate Policy and Procedure states as a principle that *the Long Island Rail Road and its employees will work proactively to foresee and prevent the occurrence of any environmental issues.*

---

<sup>24</sup> MTA. *MTA Adaptations to Climate Change – A Categorical Imperative*. October 2008.

Climate change considerations and measures that would be implemented to increase climate resilience are discussed below. In addition, the Proposed Project would be designed according to any applicable federal or state laws so as to meet or exceed the codes in effect at the time.

### **RESILIENCE OF THE PROPOSED PROJECT TO CLIMATE CHANGE**

In the case of the Proposed Project, the LIRR right-of-way, grade crossings, parking garages, and stations are located at a distance ranging from approximately 3.5 to 8 miles from the nearest coast—well away from future projected coastal flooding hazard areas based on the highest SLR projections for the area. The potential “100-year” flood hazard area projected for the year 2100 is presented in **Figure 17-1**. Therefore, coastal flooding is not a concern for the Proposed Project. Note that if flooding occurs in other branches due to an extreme weather event, the Proposed Project could provide additional capacity.

The existing approximately 70- to 90-foot high wooden utility poles within the LIRR ROW would be replaced by new, 85- to 90-foot high steel utility poles along the entire Project Corridor, with the exception of grade crossing locations, where new wooden poles of similar height to existing poles would replace existing poles. The new steel poles would be far more resilient to the effects of extreme weather than the existing poles; this would help to ensure greater resilience of the overall system.

Other future resilience concerns relevant to the Proposed Project are discussed below. Overall, the Proposed Project would be designed to accommodate any reasonably foreseeable potential future changes in climate, and therefore would be consistent with state and federal policies requiring climate change resiliency.

### ***DRAINAGE AND LOCAL FLOODING ASSOCIATED WITH DOWNPOUR EVENTS***

With potentially substantial increases in the frequency and scale of downpour events, design of drainage for the main line and for depressed roadway areas of the grade crossings would need to account for potentially larger stormwater capacities in order to avoid local flooding during these events. However, due to space constraints within the right-of-way, stormwater practices can only be designed for the current 100-year storm event.

### ***DESIGN OF TRACK FOR HEATWAVES***

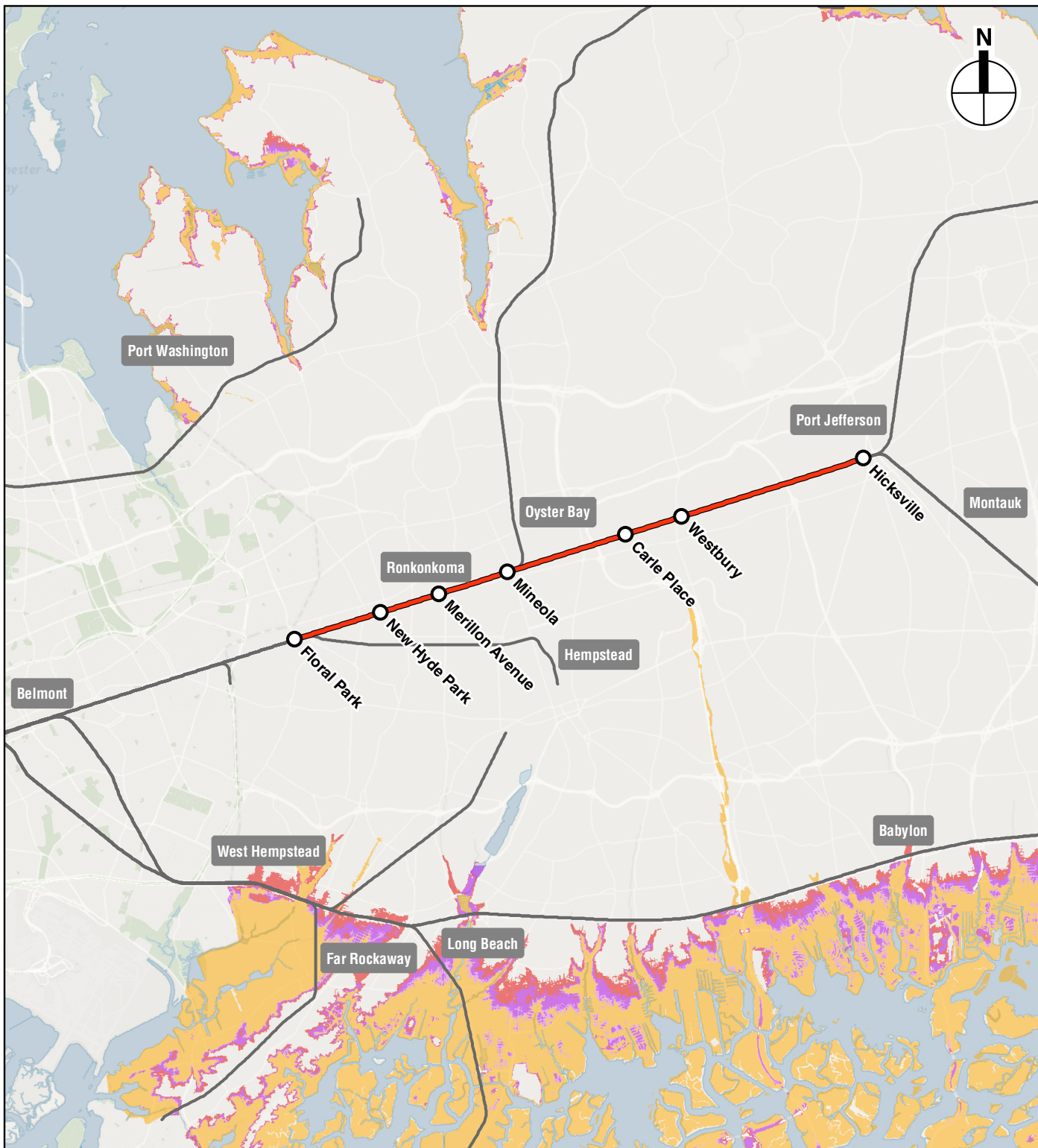
Since LIRR traction power is provided via third rail, catenary systems and their potential difficulties in extreme temperatures are not of concern for the Proposed Project.

Track buckling (rail deformation in extreme heatwaves) has been known to be an issue of concern. In general, track buckling occurs predominately on continuously welded track, though it also can occur on older jointed track when the ends of the track become frozen in place.<sup>25</sup> Track buckling is most prevalent on an isolated hot day in the springtime or early summer, rather than mid to late summer when temperatures are more uniformly hot. Buckling also is more likely to occur in alternating sun/shade regions and in curves. Track design generally accounts for track buckling via design criteria—for the main line, design criteria address a range of zero to 120 °F. This design criteria generally prevents buckling even at rail temperatures of up to 150

---

<sup>25</sup> European Commission. *Impacts of Climate Change on Transport: A Focus on Road and Rail Transport Infrastructures*. Available: <http://ftp.jrc.es/EURdoc/JRC72217.pdf>. 2012.





- Project Site
- LIRR Station
- LIRR Branch
- Lowest (Most Recent SFHA + 0.7 ft)
- Intermediate-Low (Most Recent SFHA + 1.6 ft)
- Intermediate-High (Most Recent SFHA + 3.9 ft)
- Highest (Most Recent SFHA + 6.6 ft)

0 5 MILES

## Long Island Rail Road Expansion Project

---

°F.<sup>26</sup> The design also would accommodate changes in length of segments due to thermal movement, such as would occur during a heatwave. Since the track is more stable when the rail is in tension at temperatures below the neutral temperature, the target neutral temperature is generally 75 percent of the expected maximum temperature of the region. An increase in temperature may slightly raise the neutral temperature used for installation but is unlikely to necessitate track design changes.<sup>25</sup>

Preventive measures to reduce rail buckling derailment risk include:

- Improving weather forecast and predictive capacity for rail track temperature;
- Utilizing track materials that can withstand projected temperatures (such as concrete ties, continuous welded rail, and rail fasteners); and
- Applying speed limits during high temperature spells.

Overall, appropriate design, maintenance, and operational procedures for track buckling in the current condition would also address the future condition when heatwaves may be more frequent or intense. \*

---

<sup>26</sup> FHWA. *U.S. Climate Change Science Program Synthesis and Assessment Product 4.7: Impacts of Climate Change and Variability on Transportation Systems and Infrastructure: Gulf Coast Study, Phase I*. March 2008.

## **A. INTRODUCTION**

The New York State Environmental Quality Review Act (SEQRA) and its implementing regulations require the consideration of alternatives to the Proposed Project. Part 617.9(5)(v) of SEQRA regulations requires that an EIS describe and evaluate “the range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the project sponsor.” SEQRA also requires analysis of a “No Action” alternative, under which the Proposed Project would not be constructed. This chapter includes a discussion of the alternatives that were retained for further analysis based on their reasonableness and feasibility, and those alternatives that were initially considered but then dismissed from further analysis. It also compares the potential significant adverse environmental impacts of the No Action Alternative and other alternatives that were determined to be feasible and that could meet the project’s Purpose and Need.

## **B. ALTERNATIVES DEVELOPMENT**

During the early project planning stages, LIRR evaluated the viability of project alternatives. To be viable, an alternative must be both feasible, i.e., physically able to be engineered and constructed; and reasonable, which requires that an alternative satisfy the project’s Purpose and Need. In addition, if an alternative is judged to have significantly more impacts, or to cost substantially more than the Proposed Project, it is not considered further. Any alternative that does not meet the Purpose and Need is not considered reasonable. The Purpose and Need of the Proposed Project, which sets the standard that any alternative should meet in order to be considered, is reflected in the project’s goals and objectives:

- Reduce delays to commuters from Main Line congestion and rippling effects
  - Improve on-time performance on all branches
  - Add resiliency and accelerate recovery time from unplanned service disruptions
  - Reduce train delays due to roadway incidents or accidents near grade crossings
- Add operational flexibility eastbound and westbound
  - Improve mobility with additional intra-Island service
  - Improve mobility with additional reverse peak service
  - Facilitate scheduled and unscheduled maintenance
- Provide additional track capacity to accommodate projected system-wide service growth
- Improve public safety and roadway conditions
  - Eliminate Main Line grade crossings
  - Enhance north-south vehicular and pedestrian connectivity in communities along the Main Line

## Long Island Rail Road Expansion Project

---

- Reduce traffic delays due to grade crossings
- Reduce noise and improve neighborhood quality-of-life
  - Reduce noise from train horns
  - Reduce noise from crossing-gate warning bells

As stated in Chapter 1, “Project Description,” input solicited during the public scoping period was used to inform and guide the alternatives development process. During the public scoping period, several commenters requested analysis of additional project alternatives. The Final Scoping Document identified the following alternatives to be evaluated in the <sup>^</sup> EIS, in addition to the Proposed Project:

- No Action Alternative—This alternative assumes the Proposed Project does not proceed, and that no improvements are made within the Project Corridor except those associated with other LIRR initiatives, implemented as part of routine maintenance, or as part of independent projects proposed by others. The No Action Alternative serves as the baseline condition against which the potential benefits and impacts of the Proposed Project are evaluated. As set forth in greater detail in Chapter 1, “Project Description,” several ongoing, separate LIRR projects are assumed to continue in the No Action Alternative, including:
  - East Side Access Project
  - Double Track Project from Farmingdale to Ronkonkoma
  - Jamaica Capacity Improvements Project
  - Mid-Suffolk Yard Project
  - Addition of pocket tracks along the Port Washington and Babylon Branches
  - Huntington/Port Jefferson Branch Yard Site Selection
  - Hicksville Station and North Track Siding Improvements
  - Post Avenue Railroad Bridge Replacement
- Reconfigured Grade Crossings Alternative—Like the Proposed Project, this alternative would include the closure of roadways at up to two of the eliminated grade crossings: Main Street and South 12th Street. As with the Proposed Project, the remaining five grade crossings to be eliminated would be converted to grade-separated configurations. The construction of the third track, station improvements, and related railroad infrastructure modifications would be the same as for the Proposed Project. This alternative is included in the overall analysis of the Proposed Project and is not considered as a separate alternative to the Proposed Project.
- Transportation System Management Alternative—This alternative would include a combination of operational and equipment modifications (e.g., bus rapid transit, extended platforms, double-decker trains, limited rail passing sidings) in lieu of the Proposed Project.
- Upgrade Switches and Signals Only Alternative—This alternative would include upgrading of existing railroad switches and signals to improve rail operation efficiency. No third track would be installed, no station or platform improvements would be implemented, and no changes to the existing grade crossing configurations would be made.

Several additional alternatives were suggested during the public Scoping period, including a “Grade Crossing Only Alternative” and an “Implement Other LIRR Capital Projects Only.” These alternatives were determined to not fulfill the purpose and need for the project, which is intended to significantly enhance system reliability and enable intra-Island peak service at times

when such service is currently not feasible due to lack of track capacity. Accordingly, they have not been included in this ^ FEIS for further consideration.

In addition to the alternatives presented above, multiple options for each grade crossing location were analyzed during the Scoping period, through extensive coordination with each community. Many of these options, such as roadway overpasses, would have required substantial residential property acquisitions and may have resulted in adverse visual and community character impacts. As a result of such impacts, many grade crossing options were eliminated during the Scoping process. A summary of the alternatives evaluated and discarded for each grade crossing location was presented in the Final Scoping Document.

## **C. ALTERNATIVES CONSIDERED AND DISCARDED**

A number of alternatives to the Proposed Project were considered but eliminated from further analysis because they were found to not be reasonable. These alternatives are described below:

### **MAIN LINE CORRIDOR IMPROVEMENTS PROJECT ALTERNATIVE**

Beginning in 2005, the “Main Line Corridor Improvements Project,” a project similar in intent to the Proposed Project but with a substantially greater number of property acquisitions and other impacts, was considered. Referred to herein as the “Main Line Corridor Improvements Project Alternative,” this alternative would include the installation of a third track between Queens Village and Hicksville within a significantly widened ROW. The third track would be located to the north of the existing Main Line tracks in some locations and to the south in other locations. It would include grade-separation of up to five grade crossings, but would require a large number of residential and commercial acquisitions and community disruption. The Main Line Corridor Improvements Project Alternative has been eliminated from further consideration, since it would require an excessive number of full commercial and residential property acquisitions and multiple partial property acquisitions to accommodate a widened ROW, and a lengthy construction schedule within village shopping areas. These factors make this alternative unreasonable.

### **NORTH ALIGNMENT ONLY ALTERNATIVE**

As stated above, the Main Line Corridor Improvements Project Alternative would have installed a new third track to the north of the existing track alignment in some locations and to the south in other locations. As part of early conceptual engineering efforts, LIRR evaluated the potential for a “north only” alignment, where in a new third track would be installed only to the north of the existing Main Line tracks. This alternative has been eliminated from further consideration because it would entail an excessive number of full commercial and residential property acquisitions and multiple partial property acquisitions to accommodate a widened ROW. For this reason, the alternative is unreasonable.

### **SOUTH ALIGNMENT ONLY ALTERNATIVE**

Similar to the North Alignment Only Alternative, LIRR evaluated the potential for a “south only” alignment, wherein a new third track would be installed only to the south of the existing Main Line tracks. This alternative has been eliminated from further consideration because it would entail an excessive number of full commercial and residential property acquisitions and

multiple partial property acquisitions to accommodate a widened ROW. For this reason, the alternative is unreasonable.

### **ELEVATED NEW HYDE PARK SEGMENT ALTERNATIVE**

Three of the seven existing grade crossings (Covert Avenue, South 12th Street, and New Hyde Park Road) are located within the Village of New Hyde Park. The Proposed Project includes grade-separation or elimination of these crossings. During the course of the robust community coordination efforts, the Village of New Hyde Park requested that LIRR evaluate the feasibility of constructing an elevated rail segment throughout its downtown area. Representatives of the Village of New Hyde Park indicated two key goals:

- Enable through-streets to remain at their current elevation, passing underneath the new three-track railroad and operating freely without obstructions (similar to Downtown Floral Park); and
- Promote the development of an urban shopping area in the space under the new elevated railroad.

In response to this request, LIRR performed a detailed and comprehensive analysis of two conceptual alternatives that would raise the vertical profile of this segment of the Main Line while still accommodating the planned third track. Two conceptual designs were developed—referred to as the “Raised Alternative Option 1” and “Raised Alternative Option 2.” Both options would entail a three-track viaduct with elevated tracks (approximately 20 feet high) above street level from a point just west of Covert Avenue to a point just east of New Hyde Park Road. The approaches connecting the elevated segment to the adjacent at-grade segments would slope at a one percent grade and extend into the neighboring communities of Floral Park and Garden City.

It should be noted that MTA policy does not permit the siting of non-railroad occupancy under new viaducts and bridges because it presents unacceptable safety risks. Because of this risk, the suggested placement of retail establishments under a new New Hyde Park viaduct is not prudent.

### ***RAISED ALTERNATIVE OPTION 1***

As stated in Chapter 1, the portion of the Main Line passing through New Hyde Park supports multiple LIRR branches and is an essential component of the region’s transportation network. It would therefore not be possible to shut down the Main Line during the construction period. It would also not be practical, efficient, or safe to build a new viaduct over an operating passenger railroad. As a result, Raised Alternative Option 1 would require temporary detour tracks to re-route trains next to the Main Line. Because of the highly developed nature of the area and the narrow railroad right-of-way, the detour tracks and the temporary station platform would be located in the center of Second Avenue. This would require the acquisition and demolition of a substantial number of residential and commercial properties and thus be extremely disruptive to the Village of New Hyde Park (as well as Floral Park and Garden City) throughout the multi-year construction period. Unlike the Proposed Project, which would be constructed in smaller segments in New Hyde Park, Option 1 would require that the entire work area from Floral Park to Garden City be subjected to intense construction during the entire project duration. The temporary detour tracks would also eliminate access to multiple driveways and loading zones, and reduce parking. The construction period is estimated to be more than double that of the Proposed Project with substantially more impacts to the community. While the Raised Alternative Option 1 is technically feasible, it is not reasonable due to significant community impact and cost considerations and thus was eliminated from further consideration.

### *RAISED ALTERNATIVE OPTION 2*

Raised Alternative Option 2 was conceived to entail a staged construction approach, which would lessen property impacts but extend the construction period. It would retain more of the construction activity within the existing railroad right-of-way, but require a much more complicated and risky construction approach in terms of schedule, railroad operations, safety, and cost. As with Option 1, detour tracks would be required, although Option 2 would build the detour tracks closer to the existing Main Line tracks. The temporary detour tracks would require the demolition of many residential and commercial buildings, eliminate access to multiple driveways and loading zones, and reduce parking. Similar to Option 1, this option would be extremely disruptive to the Village of New Hyde Park (as well as Floral Park and Garden City) due to the property acquisitions as well as a longer multi-year construction period. Unlike the Proposed Project, which would be constructed in smaller segments in New Hyde Park, Option 2 would require that the entire work area from Floral Park to Garden City be subjected to intense construction during the entire project duration. Weekend railroad operations would be reduced to single-track operations for at least one year. The constrained construction zone would result in substantial construction safety risks that render this option unacceptable. The construction period would be longer than Option 1 and more than double the length of the Proposed Project, and the cost is estimated to be substantially more than the Proposed Project. While the Raised Alternative Option 2 is technically feasible, it is not considered reasonable because of significant community impact, and therefore was eliminated from further analysis.

## **D. ALTERNATIVES EVALUATED**

The remaining alternatives were subjected to further study, including an assessment of construction and engineering feasibility, and a comparative evaluation of each alternative's potential environmental impacts.

### **PROPOSED PROJECT**

The Proposed Project, as described in Chapter 1, would satisfy the Purpose and Need and the goals and objectives listed above. The potential environmental impacts of the Proposed Project are set forth in the resource-specific chapters of this <sup>^</sup> FEIS.

### **NO ACTION ALTERNATIVE**

The No Action Alternative would not satisfy the Purpose and Need. Nonetheless, SEQRA requires analysis of the No Action Alternative as a baseline for environmental impact comparison purposes. The No Action Alternative therefore was advanced to the detailed screening, and its potential environmental impacts are set forth in **Table 18-1** below.

**Table 18-1**  
**Comparison of Proposed Project with Alternatives**

	<b>Proposed Project</b>	<b>No Action Alternative</b>	<b>Reconfigured Grade Crossings Alternative</b>	<b>Transportation Systems Management Alternative</b>	<b>Upgrade Switches &amp; Signals Only Alternative</b>
Meets purpose and need?	Yes	No	Yes	No	No
Satisfies all goals and objectives?	Yes	No	Yes	No	No
Feasible engineering & construction?	Yes	Yes	Yes	Yes	Yes
<b>Environmental Impacts *</b>					
	<b>See Chapter</b>	<b>No Action Alternative</b>	<b>Reconfigured Grade Crossings Alternative</b>	<b>Transportation Systems Management Alternative</b>	<b>Upgrade Switches &amp; Signals Only Alternative</b>
Land Use, Community Character, and Public Policy	2	No benefits or adverse impacts	Similar to Proposed Project	Land needed for bus pick-up/drop-off locations and expanded HOV lanes; Similar to Proposed Project	Fewer impacts
Socioeconomic Conditions	3	No benefits or adverse impacts	Similar to Proposed Project	More impacts to businesses due to multiple parking locations	No benefits or adverse impacts
Environmental Justice	4	No benefits or adverse impacts	Similar to Proposed Project	Similar to Proposed Project	No adverse impacts
Visual and Aesthetic Resources	5	No benefits or adverse impacts	Similar to Proposed Project	Similar to Proposed Project	Fewer impacts
Historic and Archaeological Resources	6	No benefits or adverse impacts	Similar to Proposed Project	Unknown. Site selection for infrastructure would determine potential impacts	Fewer impacts
Natural Resources	7	No benefits or adverse impacts	Similar to Proposed Project	Unknown. Site selection for infrastructure would determine potential impacts	Fewer impacts
Contaminated Materials	8	No benefits or adverse impacts	Similar to Proposed Project	Reduced impacts on LIRR ROW; may introduce additional off-site concerns	Fewer impacts
Infrastructure and Utilities	9	No benefits or adverse impacts	Similar to Proposed Project	Reduced impacts on LIRR ROW; may introduce additional off-site concerns	Fewer benefits and adverse impacts
Transportation	10	No benefits or adverse impacts	Similar to Proposed Project	Fewer benefits. Additional congestion on LIE and local roadways	Fewer benefits and adverse impacts
Air Quality	11	No benefits or adverse impacts	Similar to Proposed Project	Worse adverse impacts due to LIE and local congestion and greater use of diesel trains for bi-level train cars	Fewer benefits and adverse impacts
Noise and Vibration	12	No benefits or adverse impacts	Similar to Proposed Project	Potentially greater impacts due to new Bus Rapid Transit (BRT) system	Greater impacts as a result of increased train service and no sound attenuation walls
Construction	13	No benefits or adverse impacts	Similar to Proposed Project	Potentially greater impacts from BRT station infrastructure construction	Fewer impacts
Cumulative and Secondary Impacts	14	No benefits or adverse impacts	Similar to Proposed Project	Fewer beneficial impacts due to lack of connectivity with other planned rail projects	Fewer impacts
Safety and Security	15	No benefits or adverse impacts	Similar to Proposed Project	Potentially greater impacts from BRT system, which would not operate on existing rail ROW	Similar to Proposed Project
Electromagnetic Fields	16	No benefits or adverse impacts	Similar to Proposed Project	Fewer impacts	Similar to Proposed Project
Climate Change/Sustainability	17	No benefits or adverse impacts	Similar to Proposed Project	Potentially fewer beneficial impacts from failure to reduce emissions as much as the Proposed Project	Fewer beneficial impacts
<b>Note:</b> * For environmental impacts of the Proposed Project, see individual resource chapters, numbered as shown					



## **TRANSPORTATION SYSTEMS MANAGEMENT ALTERNATIVE**

During the public scoping period, some commenters suggested a variety of actions that are considered components of the Transportation Systems Management Alternative. Transportation Systems Management (TSM) includes a set of potential operating strategies that may reduce congestion, improve transportation system capacity, and enhance efficiency of the system. For the LIRR Expansion Project, commenters suggested that LIRR use such TSM components as double-decker trains, longer trains, and longer station platforms to accommodate more cars and thus increase capacity in lieu of the Proposed Project. These suggestions were evaluated as part of the Transportation Systems Management Alternative, along with modifications such as bus rapid transit and enhanced use of existing rail sidings. Various combinations of these items were also evaluated.

### *LONGER TRAINS AND LONGER PLATFORMS*

LIRR's rail network has been built to accommodate up to 12-car trains. Use of longer trains (longer than 12 cars) is not considered feasible as it would have adverse impacts to passenger loading and trains interfering with switches at Penn Station and other terminal locations. LIRR currently operates mostly 12-car passenger trains along the Main Line. However, many stations along the Main Line have platforms that only accommodate 10-car trains. This situation requires customers to use fewer train doors to board the train and to walk through cars to the nearest exit, delaying the boarding and detraining process and adding time to the schedule. As part of the Proposed Project, Main Line station platforms would be lengthened to 12-car platforms. Constructing longer platforms to accommodate trains that are longer than 12 cars would require a substantial system-wide investment, beyond just the Main Line stations, that would likely be infeasible in many locations due to ROW and clearance limitations.

Furthermore, many switches and platform lengths at terminal platforms would not accommodate a 14-car train. Trains interfering with switches due to overall length would delay train movement into and out of the terminal, particularly Penn Station, which would reduce capacity, reduce the number of peak period trains, and could lead to overcrowding on many trains.

### *BI-LEVEL TRAINS*

Double-decker (or "bi-level") trains were also evaluated at the request of several comments received during the Scoping period. Although bi-level trains can operate on most<sup>1</sup> branches of the LIRR, clearance limitations prohibit this equipment from being utilized for East Side Access service to Grand Central Terminal. The purchase of additional bi-level train cars would thus not meet the needs of this planned service improvement. Purchasing a substantial number of new bi-level trains as a way to enhance capacity would reduce operational flexibility and make it more difficult for LIRR to manage its fleet. Since bi-level trains are hauled by diesel locomotives through the corridor, their increased use would also result in less favorable air quality and greater noise than the Proposed Project.

---

<sup>1</sup> Bi-level train cars are currently restricted from being utilized on the Atlantic Branch (serving Atlantic Terminal, Brooklyn), and must be hauled by a dual-mode locomotive into and out of Penn Station, of which the LIRR currently operates a limited number.

### ***BUS SERVICE AND BUS RAPID TRANSIT***

Bus Rapid Transit (BRT) was also considered as part of this evaluation. BRT systems involve specialized infrastructure such as dedicated bus lanes, stations, and intersection treatments, along with faster, frequent service and off-board fare collection. One scenario for BRT would entail adding express bus service to the eastbound and westbound high-occupancy vehicle (HOV) lanes on the Long Island Expressway. While this could provide an additional commuting option for peak-direction commuters, it would burden the capacity of the Long Island Expressway with more vehicles and exacerbate existing roadway congestion, and would be unlikely to get commuters to their destinations in a travel time period comparable to rail travel as the current HOV lanes merge with regular travel lanes in New York City and do not extend into Manhattan. More significantly, in order to achieve a travel time period that attracts commuters, a comprehensive BRT system would require construction of additional exclusive HOV lanes and designated pick-up and drop-off facilities separate from existing rail stations and closer to the Long Island Expressway, which would entail additional property acquisition, construction, and potential impacts to local roadways. These facility locations would not be proximate to existing Main Line rail stations and it is not practical to expect current LIRR commuters to treat a separately located BRT system as a viable alternative to commutation via the LIRR. This alternative also would not meet the project Purpose and Need because it would fail to reduce rail delays, provide operational flexibility on the LIRR system, or provide additional track capacity.

Although BRT could theoretically provide service for reverse peak commuters, as noted, it would present property acquisition issues with regard to additional HOV lanes, pick-up and drop-off facilities, and require commuters accustomed to arriving at LIRR rail stations, located centrally in village shopping districts, to travel to new yet-to-be-determined locations.

### ***ENHANCED USE OF RAIL SIDINGS***

Some commenters suggested that in lieu of a continuous third track, the LIRR modify existing rail sidings and switches to create “passing lanes” to increase service flexibility and reliability. This alternative has extremely limited points of applicability, and its usefulness in addressing service disruptions would depend on an incident occurring in close proximity to the siding. Given the significant volume of trains in the corridor, attempting to run additional service under this scenario would require a degree of scheduling precision that is totally impractical and not viable given the size of the LIRR system. In sum, this alternative would do little to address the Proposed Project’s Purpose and Need, particularly operational flexibility and reliability.

### ***COMBINATION***

In combination, several components of the Transportation Systems Management Alternative would result, to a degree, in benefits in terms of improvement of mobility and enhanced commuting flexibility; however, it would not satisfy the project’s overall Purpose and Need. It would not provide additional rail capacity, reduce rail delays, or improve rail reliability, and it would not result in any change to the existing two-track bottleneck along this segment of the Main Line.

### **UPGRADE SWITCHES & SIGNALS ONLY ALTERNATIVE**

During the public Scoping period, some commenters stated the switches and signal systems are the reason for reliability problems and the cause of existing delays, and requested that the Proposed Project be cancelled in favor of upgrading these systems without the installation of a

continuous third track. Separate from the Proposed Project, LIRR continues to make improvements to Main Line infrastructure through an on-going program of maintenance and system upgrades. LIRR has been upgrading the signal systems along the Main Line Corridor over the past several capital programs as follows: Nassau (1996), Divide (2000), and Queens (2008). Crossovers in the corridor are currently “high speed” with those at Nassau rated for 60 mph and the crossovers at Queens rated for 80 mph. The track and signal systems in the corridor are considered as reliable and in a state of good repair.

A new signal technology, such as a “moveable block” system, increases capacity by permitting trains to run closer together. Such a system, however, would be an exceedingly complex and costly measure that would not significantly improve railroad capacity along the corridor because numerous factors influence overall capacity, including number of station stops, maximum authorized speed (MAS), braking distance of equipment, safety factors, necessity to cross trains between tracks, etc. While a movable block system could modestly increase capacity by permitting trains to run closer together, it would not affect time needed for station stops, a significant capacity-limiting factor, and it would not increase reverse peak operations.

The Upgrade Signals and Switches Only Alternative would, in some locations, avoid property-related impacts and the need to construct retaining walls, and may reduce existing noise from older switches. In terms of reducing delays, however, it would not measurably improve LIRR’s on-time performance. Aside from infrastructure issues (such as broken rail), other causes of delay in the corridor are attributed to equipment (fleet) malfunctions, police activity, and other incidents such as bridge strikes. Improved signals and switches (while beneficial) would not allow for better flexible movements around such delays than exists today. Without additional track capacity, improved switches and signals could not adequately reduce rail delays along the LIRR Main Line. This alternative would also fail to provide additional operational flexibility, provide bi-directional or intra-Island service, or accommodate projected system-wide service growth. It would also leave the seven grade crossings in place along the corridor, and the resultant challenges that they present to railroad operations, traffic flow, and pedestrian safety. It would not result in any change to the existing two-track bottleneck along this segment of the Main Line, and would not meet the project Purpose and Need.

## **E. COMPARISON OF ALTERNATIVES**

The Reconfigured Grade Crossings Alternative, Transportation Systems Management Alternative, and Upgrade Switches & Signals Only Alternative have been analyzed to a level of detail sufficient to allow a reasonable comparison of potential environmental and community impacts. As required by SEQRA, the No Action Alternative is used as a baseline for impact comparison.

## **F. CONCLUSION**

Several potentially viable alternatives were eliminated because they were determined to result in significantly greater adverse environmental impacts than the Proposed Project or otherwise determined to be infeasible and/or inconsistent with project goals. Besides the Proposed Project, which also encompassed what had been previously identified in the Final Scoping Document as the Reconfigured Grade Crossing Alternative, the <sup>^</sup> FEIS considered the No Action Alternative, referred to in the <sup>^</sup> FEIS as the “Future Without the Proposed Project,” which is retained as a baseline against which to compare potential impacts. The Future Without the Proposed Project is not considered a reasonable alternative because it also does not satisfy the Purpose and Need. \*

## **Chapter 19: Irreversible and Irretrievable Commitment of Resources**

---

This chapter discusses natural and man-made resources that would be expended during construction or operation of the Proposed Project and thereby would become unavailable for future use. Typically, for a linear transportation project such as the Proposed Project, irreversibly and irretrievably committed resources include land, energy, construction materials, and human effort (i.e., time and labor). Some of these resources generally are irreversible and irretrievable for the life of the project, such as land and building materials (even if they may eventually become available again). Other resources are irretrievable beyond the project lifespan, such as energy and human effort.

Natural and man-made resources would be expended in the construction and operation of the Proposed Project. These natural resources include the use of land and energy. Man-made resources include the effort required to develop, construct, and operate the Proposed Project; building materials; financial funding; and motor vehicle use. These resources are considered irretrievably committed because it is highly unlikely that they would be used for some other purpose.

The use of land is the most basic of irretrievably committed resources, as the development of the Proposed Project requires the commitment of land for new physical elements such as parking lots. However, the Proposed Project is using land already used for urban development and transportation purposes so would not be further committing land resources.

The Proposed Project would result in irreversible clearing and grading of vegetation within the LIRR ROW as well as modification to topography along the ROW and at grade crossings. The loss of vegetation is considered an irreversible commitment of resources as ^ replacement vegetation would not be included in the ROW due to safety concerns. Soil or rock used to modify the grade of the ROW or grade crossings would be irretrievably committed for the lifetime of the Proposed Project.

The actual building materials used in the construction of the Proposed Project (wood, steel, concrete, glass, etc.) and energy, in the form of gas and electricity, consumed during the construction and operation of the Proposed Project would also be irretrievably committed to the Proposed Project.

None of these irreversible or irretrievable commitments of resources is considered significant. \*

The Proposed Project would result in several unavoidable adverse impacts. While mitigation measures would be implemented where practical and feasible, unavoidable adverse impacts nonetheless would occur with respect to certain resources and conditions.

As discussed in Chapter 3, “Socioeconomic Conditions,” the Proposed Project would require the acquisition of portions of <sup>^</sup> nine commercial parcels, and four complete acquisitions that would require the demolition of commercial structures<sup>^</sup> \_. No residential properties would be acquired. While acquisition of these commercial parcels would not result in any significant adverse impacts to land use or community character, the loss of the building itself is considered an unavoidable adverse impact.

As set forth in Chapter 5, “Visual and Aesthetic Resources,” the Proposed Project would result in a change in the visual and aesthetic qualities of the communities through which the Main Line passes. New transportation structures, such as pedestrian overpasses and tiered parking structures, would be constructed and would be visible. Retaining walls supporting the third track and sound attenuation walls would also be visible. It would not be possible to screen visibility of project elements from all locations within the Project Corridor. Thus, visibility of project elements would be considered an unavoidable adverse impact. Visibility of these project elements from designated sensitive receptors was evaluated pursuant to NYSDEC methodology on assessing visual impacts. While none of the impacts were considered significant and adverse, and final aesthetic determinations would be made in coordination with the affected municipality, these changes would constitute unavoidable adverse impacts.

As described in Chapter 6, “Historic and Archaeological Resources,” two historic resources listed or eligible for listing on the State and National Register of Historic Places (S/NR) would be removed by the Proposed Project. Mitigation measures, as identified in a <sup>^</sup> Letter of Resolution to be established with SHPO, would be implemented to minimize adverse effects, but impacts to or removal of these resources would be unavoidable.

As described in Chapter 7, “Natural Resources,” the Proposed Project would result in the unavoidable removal of vegetation within the LIRR ROW. Since the vegetation does not constitute significant habitat, its loss is not considered significant and adverse, but the loss of the vegetation itself is considered unavoidable.

Most of the adverse impacts associated with the Proposed Project would occur in the construction, rather than the operational, phase and are discussed in Chapter 13, “Construction Impacts.” Construction activities associated with the Proposed Project would result in short-term impacts that cannot be avoided. Construction of bridge repair and grade crossing elements would require temporary road closures and traffic diversion, resulting in temporary adverse impacts to vehicular and pedestrian traffic. The operation of construction machinery also would result in temporary noise/vibration and air quality impacts to nearby sensitive receptors. Air quality impacts would chiefly be attributable to fugitive dust and diesel engine exhaust. Mitigation measures would be undertaken to control fugitive dust<sup>^</sup> and emissions from idling vehicles (see

Chapter 13, “Construction,” for additional details on specific mitigation. Noise/vibration impacts would be mitigated to the extent possible through a variety of techniques described in Chapter 13. \*

## **A. INTRODUCTION**

This chapter presents a summary of the process used to date to encourage public and agency participation during the early phases of the LIRR Expansion Project, and planned measures to encourage continued involvement throughout future project phases.

Governor Andrew M. Cuomo has directed MTA, LIRR, and NYSDOT to engage in an unprecedented level of public outreach for the Proposed Project. To this end and to ensure a comprehensive and inclusive public involvement effort, the project team has developed and implemented a robust Public Involvement Plan consisting of numerous actions that have been collectively unseen in local public projects, such as:

- Door to door outreach to project neighbors
- Close consultation with elected officials and community representatives to help formulate proposed project elements
- Close coordination with state and local government agencies potentially affected by the Proposed Project
- A staffed Project Information Center to answer questions and provide information
- More public “scoping” meetings than much larger projects, such as the replacement of the Tappan Zee Bridge, to allow the public to help shape the Proposed Project’s environmental study
- Six Draft Environmental Impact Statement (DEIS) and Eminent Domain Procedure Law (EDPL) public hearings to allow the public to provide important feedback
- Localized information sessions with elected officials, civic organizations, and others to explain the contents of the DEIS and answer questions from local communities about the Proposed Project

The Public Involvement Plan was formulated to engage stakeholders—including a broad range of individuals and organizations, such as community groups, elected and appointed officials, and business and commercial entities—located within or having interests within the Project Corridor. The public outreach effort is informing stakeholders about the Proposed Project, soliciting their feedback, and communicating the potential benefits of and impacts from the Proposed Project.

## **B. INFORMATIONAL MATERIALS**

### **PROJECT WEBSITE AND SOCIAL MEDIA**

To effectively engage stakeholders, various communication tools are being employed, including the use of a website ([www.AModernLI.com](http://www.AModernLI.com)). The website was launched in May 2016. It is regularly updated to notify viewers of available documents, responses to frequently asked

questions, upcoming meetings, helpful graphics, press releases and other project information. Through the website, interested parties can sign up for the electronic mailing list and receive regular project updates and meeting notices (via email). As of the date of this <sup>^</sup> FEIS, approximately 1,<sup>^</sup> 500 individuals have registered for this electronic mailing list. The website also provides an option for viewers to submit comments or request information. Additionally, the project team provides information to interested parties through Twitter (<https://twitter.com/amodernli>) and a dedicated YouTube channel, located at: <https://www.youtube.com/channel/UCsEhPBVf8ZRDY6x6L6Lsg><sup>^</sup> ).

### PROJECT BROCHURES AND PRESS RELEASES

The project team has distributed seat drop pamphlets on passenger train seats, hung informational posters at train stations, and handed out project brochures throughout the Project Corridor. The project brochures <sup>^</sup> as well as informational fact sheets were made available at public <sup>^</sup> hearings and are continually stocked at the Project Information Center. The project team has also issued general media press releases to reach a wider range of individual residents, employers, and employees living and/or working within the vicinity of the Project Corridor, in addition to commuters and other interested parties.

### C. STAKEHOLDER ENGAGEMENT

In addition to the large public meetings held during both the scoping period and DEIS comment period, the project team has met with many stakeholders individually and in groups to focus on specific issues and understand localized concerns. Such meetings have included property owners' associations, individual homeowners, school districts, emergency services, civic organizations, business owners, and local elected officials. As of the date of this report, hundreds of these stakeholder engagement meetings have occurred. <sup>^</sup> Such meetings will continue to take place <sup>^</sup> beyond the environmental review process<sup>^</sup> .

A concerted effort was made to meet with homeowners and other residents directly affected by the Proposed Project. The project team's goal was to reach out to each homeowner who lives adjacent to the LIRR right-of-way along the Project Corridor. In May 2016, the project's outreach team embarked upon a door-to-door outreach campaign to explain the project and its potential impacts, listen to homeowners' concerns and questions, and—when invited—walked the property with the homeowner. When the homeowner was present, the project representative provided a copy of the project brochure and a handout with the dates of the public scoping meetings. When the homeowner was not present, these materials were left at the doorstep. The project team has responded to all homeowner inquiries by phone, email, or through in-person meetings at the homeowners' convenience (with a choice of mornings, evenings, weekdays, and weekends). This procedure continued throughout the DEIS comment period to maintain steady communication with homeowners, as well as inform them about the DEIS public hearing dates and locations. The project officials have committed to continuing robust homeowner coordination throughout the environmental assessment process, the procurement process, and during the construction period.

### PROJECT OFFICE

Since May 2016, the project team has been maintaining a Project Information Center<sup>^</sup> at the Mineola Station adjacent to the south platform waiting room. The current Project Information Center schedule is available on the Proposed Project website ([www.AModernLI.com](http://www.AModernLI.com)). The



Project Information Center has displays, exhibits, and interactive elements. Comment forms are available, along with a trained staff representative to answer inquiries and provide general project information. Spanish-language translation is available at the Project Information Center. LIRR intends to maintain the Project Information Center throughout the duration of the Proposed Project, and information regarding the location and hours of availability will be maintained on the project website.

## **D. AGENCY COORDINATION**

LIRR and NYSDOT have been coordinating with multiple State and local agencies throughout the development of the project, including but not limited to:

- New York State Office of Parks, Recreation, & Historic Preservation (OPRHP)
- Nassau County Department of Office of Emergency Management
- Nassau County Department of Planning
- Nassau County Department of Public Works
- Town of North Hempstead
- Town of Hempstead
- Town of Oyster Bay
- Village of Floral Park
- Village of New Hyde Park
- Village of Garden City
- Village of Mineola
- Village of Westbury
- Hamlet of Garden City Park
- Hamlet of Carle Place
- Hamlet of New Cassel
- Hamlet of Hicksville
- Local fire departments and police departments regarding emergency services
- Local water and sewer districts
- Long Island Power Authority/ Public Service Enterprise Group-Long Island (LIPA/PSEG-LI)

Additionally, the project team reviewed various databases maintained by natural resources agencies—including the New York Natural Heritage Program (NYNHP) and New York State Department of Environmental Conservation (NYSDEC)—to confirm the presence or absence of wetlands and federally and state-listed species. In addition to these public government entities, the project team is coordinating closely with various utility companies to confirm the presence or absence of utilities and any potential relocation work.

## **E. SCOPING PROCESS**

One of the first major steps in the public outreach process pertained to the public scoping period. In accordance with SEQRA, the scoping process entails a written document that outlines the

topics and analyses of a project's potential environmental impacts that will be evaluated in the DEIS. Per SEQRA, the scoping process is intended in part to ensure public participation in the EIS development, allow for an open discussion of issues of public concern, and allow the lead agency and other involved agencies to reach agreement on relevant issues to minimize the inclusion of unnecessary issues. A Draft Scoping Document for the LIRR Expansion Project was released for public review on May 5, 2016. As explained below, a variety of comment methods were available to the public.

### PUBLIC SCOPING MEETINGS

Because of the length of the Project Corridor and the high level of interest in the Proposed Project, multiple scoping meetings were scheduled. While none of these meetings were required, all were held to fulfill the agencies' desire for unprecedented community outreach on this project. It is notable that this level of early outreach exceeded parallel efforts for other recent<sup>^</sup> large-scale state projects, including Tappan Zee Bridge, Second Avenue Subway, and East Side Access. A total of six public meetings were held at four different locations to obtain input on the Draft Scoping Document for the LIRR Expansion Project:

- Tuesday, May 24, 2016:
  - 11 am to 2 pm at The Inn at New Hyde Park
  - 10 am to 2 pm at Hofstra University in the Town of Hempstead
  - 5 pm to 9 pm at The Inn at New Hyde Park
  - 6 pm to 9 pm at Hofstra University in the Town of Hempstead
- Wednesday, May 25, 2016:
  - 11 am to 2 pm at the Yes We Can Community Center in Westbury
  - 6 pm to 9 pm at Antun's by Minar in Hicksville

A total of approximately 1,200 individuals attended the scoping meetings. At these meetings, the project team presented an overview of the Proposed Project and a series of visuals (including poster boards, maps, and renderings) were displayed. MTA, LIRR, NYSDOT, consultant team staff, and representatives from the Governor's Office were available to answer questions. Attendees were able to provide oral comments (either in a public or private forum) and written comments (through an on-line database or comment cards).

### SCOPING COMMENTS

The public comment period was open from May 5, 2016 through June 13, 2016. Notably, the 40-day comment period allotted for the LIRR Expansion Project was longer than for other comparable MTA projects' scoping comment periods. In addition to the comment options provided at the scoping meetings, members of the public could submit comments through the website, by regular mail, or at the Project Information Center. During the public scoping comment period, more than 750 individuals or entities submitted comments or questions. LIRR provided responses to these comments and questions in the Final Scoping Document, and revised the document to reflect the input received. The important public input received during the scoping period helped to shape and refine the issues <sup>^</sup> studied in the EIS and increase the awareness of certain existing features and community resources. Additionally, scoping input led to design improvements for specific elements—such as parking facilities and sound barriers.

## **F. DEIS PROCESS**

In accordance with SEQRA, an EIS analyzes and evaluates the topics of a project's potential environmental impacts that have been recognized during the scoping process. Per SEQRA, the DEIS comment period^ is intended in part to ensure public participation in the EIS development, allow for ^an open discussion of issues of public concern, and allow the lead agency and other involved agencies to reach agreement on relevant issues to minimize the inclusion of unnecessary issues. The DEIS ^for the LIRR Expansion Project was released for public review ^on ^Monday, November 28, 2016. Hard copies of the entire DEIS and its appendices ^were made available for review at the Project Information Center at Mineola Station, ^at libraries, and at other public locations in and near the project area. An electronic copy of the DEIS and its appendices was posted online at [www.AModernLI.com](http://www.AModernLI.com).

The 65-day comment period was initially scheduled to close on January 31, 2017. To accommodate requests by some communities and elected officials for a longer review period, Governor Cuomo extended the comment period until February 15, 2017. In all, the DEIS comment period lasted for 80 days, longer than the DEIS comment periods for other comparable projects. As explained below, a variety of comment methods were available to the public. More than 700 comments were received during the DEIS comment period.

### **DEIS PUBLIC HEARINGS**

In accordance with SEQRA and the Eminent Domain Procedures Law^ (EDPL), public hearings ^were held throughout the Project Corridor. The ^hearings were scheduled during both daytime and evening hours^ to accommodate a variety of public preferences. ^Hearings occurred in multiple communities along the Project Corridor and all venues ^were accessible to persons with disabilities. Shuttle buses from the Hicksville Station and Mineola Station to the public hearings venues were provided. At these public hearings, the project team presented an overview of the Proposed Project and summarized the conclusions of the DEIS technical analyses. A series of visuals (including engineering alignments and renderings) were displayed. MTA, LIRR, NYSDOT, consultant team staff, and representatives from the Governor's Office were available to answer questions. A total of six public hearings were held at three different locations, as follows:

- Tuesday, January 17, 2017:
  - 11 am to 2 pm at the Yes We Can Community Center in the Village of Westbury
  - 6 pm to 9 pm at the Yes We Can Community Center in the Village of Westbury
- Wednesday, January 18, 2017:
  - 11 am to 2 pm at Hofstra University in the Town of Hempstead
  - 6 pm to 9 pm at Hofstra University in the Town of Hempstead
- Thursday, January 19, 2017:
  - 11 am to 2 pm at The ^Inn at New Hyde Park in the Village of New Hyde Park
  - 6 pm to 9 pm at The Inn at New Hyde Park in the Village of New Hyde Park

In total, approximately 1,000 individuals attended the six DEIS public hearings. At each hearing, the public had an opportunity to submit formal comments about the DEIS^, These comments ^were incorporated into the public record and used to inform project officials ^during preparation of the FEIS. Attendees were able to provide oral comments (either in a public or

## **Long Island Rail Road Expansion Project**

---

private forum) and written comments (through an on-line database or comment cards). The stenographers' transcripts from each hearing can be found in Appendix 22.

### **^ DEIS COMMENTS**

In addition to the oral testimony and written comments provided at the DEIS hearings, members of the public could submit comments throughout the 80-day DEIS comment period. Comments could be submitted through the project website, e-mail, regular mail, or in-person at the Project Information Center. Information regarding comment submissions was advertised widely on the project website and listserv, at the Project Information Center, through various local newspaper advertisements, seat drop pamphlets, and posters hung at train stations. In total, more than 700 comments or questions were received during the DEIS comment period. All formal comments submitted during the DEIS comment period are included in Appendix 22. Chapter 22, "Response to Comments," provides a summary of the comments and questions submitted and the general topics and themes of the comments. The public input received during the DEIS comment period helped to shape and refine the Proposed Project in the FEIS—including identification of new project elements and selections of preferred grade crossing options.

### **FEIS COMMENTS**

SEQRA does not require a formal comment period on an FEIS. However, any comments can be submitted at the Project Information Center, through the website ^ ([www.AModernLI.com](http://www.AModernLI.com)), or by regular mail to:

Edward M. Dumas, Vice President—Market Development & Public Affairs  
Long Island Rail Road Expansion Project  
MTA Long Island Rail Road, MC 1131  
Jamaica Station Building  
Jamaica, NY 11435

### **^ ONGOING OUTREACH**

MTA, LIRR, and NYSDOT have extensive experience designing and constructing large public infrastructure projects. It is essential to maintain a continuous dialogue and open lines of communication throughout the design and construction phases. As described throughout this ^ FEIS, the project team will continue coordinating with the affected communities throughout future project phases. Notifications of street closures, advanced notice of anticipated work hours, rail service changes, and temporary changes to passenger rail station access are just a few examples of important information that will be clearly communicated. A complete list of outreach measures proposed to be conducted during construction is available in Chapter 13, "Construction." The project team will continue its robust public outreach and agency coordination program to disseminate such information and provide ongoing opportunity for input throughout the course of the project. \*

**A. INTRODUCTION**

This chapter contains a summary of the substantive comments received during the public review period established for the EIS. Approximately 700 comments were received during the EIS comment period. These comments were received through a variety of methods, including: written comment letters submitted by mail; private and public oral testimony submitted at the public hearings; written comment forms submitted at various meetings; comments received at the Project Information Center; comments submitted by email; and comments submitted through the project website. All substantive comments received by February 15, 2017 have been reviewed and summarized in this Chapter. Comments are not listed individually; rather, they are grouped by major topic or by the EIS analysis subject matter. The full text of each comment can be found in Appendix 22.

In addition to the comments summarized herein, many comments were submitted that are unrelated to or beyond the scope of the Proposed Project. Such comments are not directly relevant to the Proposed Project or the EIS, and therefore no responses are provided and no revisions to the EIS were made to address these comments.

**B. COMMENTS PERTAINING TO PURPOSE AND NEED****IMPROVING RAIL SERVICE RELIABILITY & REDUCING DELAYS**

**Comment 1-1:** Many commenters expressed support for improving passenger rail service reliability, reducing delays, and fixing Long Island's aging and antiquated transportation infrastructure. Some commenters cited examples of how routine train delays in their daily commutes affect their personal, professional, and financial lives. Several commenters stated a need to ease passenger congestion on peak hour trains. A few commenters provided examples of past projects that led to noticeable improvements in timeliness and quality of service. Some commenters stated the Proposed Project will maximize and leverage other major regional investments, including the MTA East Side Access Project and the LIRR Double Track Project Ronkonkoma to Farmingdale. A group of LIRR commuters and passengers submitted a petition supporting the Proposed Project to reduce delays and alleviate overcrowding.

**Response 1-1:** Comment noted.

**Comment 1-2:** Many commenters stated the third track will not reduce delays since LIRR equipment and infrastructure failures (signals, switches, trains, and rails) are the true problem. A number of commenters noted broken rails in the East River tunnels and switch problems near Jamaica as sources of delays. Some commenters, including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park, objected to the EIS's supposition that a third track would have prevented many of the delayed and cancelled

trains in recent years, since many of the incidents and case studies listed in the EIS would have blocked all three tracks. Others asked how a third track will help since there is no additional room in Penn Station and Jamaica. One commenter said the LIRR's own text message delay alert system contradicts the claim that incidents along this 9.8-mile corridor are the root cause of such delays.

**Response 1-2:** As noted in Chapter 1, "Project Description," the Proposed Project includes eliminating the existing grade crossings within the corridor as well as constructing a third track. Many of the signal delays that customers experience within the corridor are due to signal issues at the grade crossings. Eliminating the grade crossings would simplify the signal system and reduce potential causes of delay. The Proposed Project also includes the upgrading of signals. Regardless of how well maintained a train system is, there will continue to be some unforeseen delays. The addition of a third track would provide additional rail capacity across the 9.8-mile corridor which would allow the LIRR to divert trains around incidents and help the LIRR recover and restore service more quickly. As set forth in more detail in the EIS, the purpose of the Proposed Project is not to increase capacity in Manhattan, which would be accomplished with the opening of the East Side Access project, or better access into Manhattan, which would be accomplished with planned improvements at Jamaica, but to provide greater operational flexibility within the Main Line and provide an opportunity to offer enhanced reverse-commute service.

**Comment 1-3:** Some commenters questioned the projected service increases due to East Side Access, since that would require a perfect match between the number of new jobs on Manhattan's east side and the number of residents on Long Island who will be employed at those jobs.

**Response 1-3:** Additional capacity at the western portion of the LIRR system will be provided by separate projects currently underway, namely East Side Access and the Jamaica Capacity Improvements projects. East Side Access service forecasts are based on a combination of factors, including rail capacity and passenger demand, including demand from existing commuters to Manhattan's East Side.

### REVERSE PEAK AND INTRA-ISLAND SERVICE

**Comment 1-4:** Some reverse commuters expressed frustration at the lack of service during the rush hours. Several commenters stated that limited Main Line service and uncoordinated bus service are inhibiting intra-Island and reverse peak travel and increasing the number of single-occupancy vehicles in Nassau County. A few comments named major area employers (e.g., North Shore University Hospital, Long Island Jewish Medical Center, Winthrop University Hospital, the Marcus Avenue office complex) whose employees would benefit from intra-Island and reverse peak service and stressed the importance of such service to students at

regional high schools and colleges (e.g., Chaminade High School, Kellenberg Memorial High School, Stony Brook University, and Hofstra University). Connecting more people and places by mass transit were cited as the way to rectify congested roadways and auto-centric development patterns. Some commenters said the Proposed Project is needed to alleviate traffic congestion and support the tourist industry in eastern Suffolk County.

**Response 1-4:** Comment noted.

**Comment 1-5:** Other commenters questioned the demand for intra-Island and reverse peak service, the existence of major employers committed to expanding their businesses in Nassau or Suffolk Counties, and the rationale for why such employers could not hire from the local communities where they will be located. A group of residents from the Flower View Garden Apartments in Floral Park submitted form letters stating there is no substantial justification of the need for the reverse commute. Many commenters described near-empty reverse peak trains that pass by their homes and requested publication of independent unbiased studies demonstrating such demand. Some commenters stated that reverse peak service will not be successful because of the lack of connectivity (i.e., shuttle buses from rail stations to places of employment or recreation) and the need to drive to their ultimate destination. Other commenters cited statistics indicating that the large majority of residents of the New York metropolitan area commute to New York City not Long Island. The Village of New Hyde Park LIRR Third Track Task Force remarked on projected population increases in Suffolk County and questioned why projected jobs in Suffolk County would not be filled with those populations. A few commenters noted that the trend of telecommuting is increasing and should be factored into the analyses.

**Response 1-5:** Existing peak and reverse peak ridership is shown in Table 1-4 and ridership projections are shown in Tables 10-7 and 10-8. Despite a nearly 2-hour period in the AM without eastbound trains and a 1-hour westbound suspension in the evening peak period, there is a demand for reverse peak service. By 2040, AM reverse peak ridership is projected to grow approximately 40% without the Proposed Project and by 60% with the Project. Hicksville and Mineola have a robust reverse peak ridership. In 2014, Hicksville's PM Reverse Peak ridership (1,047) was almost equivalent to Floral Park's AM Peak ridership (1,088) and exceeded Floral Park's PM Peak ridership (1,018).

At the public hearings, companies in Nassau and Suffolk Counties described difficulties in attracting skilled workers to grow their business and to expand their workforce. While businesses have looked to existing labor forces within Nassau and Suffolk Counties, many of the growing health, scientific, and high tech companies on Long Island are looking to New York City, which has seen an influx of highly skilled younger workers, to attract additional skilled job seekers.

While there are some transportation issues connecting the "last mile" for workers from the train station to the job location, employees generally have options such as walking, taxis, ridesharing services, buses, and

private transportation offered by the employer to the train station. Telecommuting, while a growing business tool, has not replaced the need for offices or the traditional commute, as demonstrated by continued office building expansion throughout the region and the continued increase in both peak and off-peak LIRR ridership.

### **SAFETY AT GRADE CROSSINGS**

**Comment 1-6:** Near universal support for elimination of the seven existing grade crossings was received during the comment period. Commenters referenced specific accidents (e.g., Herricks Road, Valhalla), the dangerous behaviors of drivers attempting to “beat the train,” and the past experience of prior grade crossing elimination projects. A few commenters stated that the north-south Meadowbrook and Wantagh Parkways do not allow commercial vehicles and, therefore, place an intense burden on Nassau County’s north-south arterial roadways, including Covert Avenue and New Hyde Park Road, which (together with South 12th Street) accounted for 54 out of 66 train-vehicle collisions and three out of five fatalities documented in the EIS. Some commenters noted that eliminating grade crossings will enable emergency vehicles to respond more quickly, and improve overall vehicular and pedestrian safety.

**Response 1-6:** Comment noted.

**Comment 1-7:** A few commenters cautioned that the elimination of the grade crossings would cause more traffic on side streets, increase the likelihood of speeding along main streets, make it more dangerous for cars to pull out of their driveways, and warrant additional traffic lights or stop signs. One commenter asked if the crossing gates could remain in place, since continual traffic flow on Covert Avenue will prevent people from backing out of their driveways.

**Response 1-7:** These seven grade crossings between Floral Park and Hicksville represent the most congested segment of rail traffic within the LIRR network that still has street level grade-crossings. The EIS details the number of trains in the corridor, the number of gate activations, and the delays to trains and roadway traffic because of the grade crossings. Due to the very high volume of trains passing by here, eliminating the grade crossings will have a significant positive impact on rail and road travel. The traffic analysis in the EIS fully assesses potential project impacts related to changes in the traffic flow due to the grade separations of closures of the existing crossings. Where necessary the analysis describes traffic measures to mitigate any significant adverse impacts identified as a result of the Proposed Project. Existing speed limits would be maintained, so that driveway ingress and egress and general traffic conditions would not present a safety concern above existing conditions. The Proposed Project would not create additional traffic on side streets.



**Comment 1-8:** A few commenters questioned the efficacy of eliminating only these seven grade crossings with respect to improving rail and road travel. They stated additional grade crossing eliminations are required to truly improve the regional system. Some commenters objected to the Proposed Project's lack of action on other adjacent grade crossings (e.g., Hempstead and Oyster Bay Branches).

**Response 1-8:** These seven grade crossings between Floral Park and Hicksville represent the most congested segment of rail traffic within the LIRR network that still has street level grade-crossings. The EIS details the number of trains in the corridor, the number of gate activations, and the delays to trains and roadway traffic because of the grade crossings. Due to the very high volume of trains passing by here, eliminating the grade crossings would have a significant positive impact on rail and road travel. The traffic analysis in the EIS fully assesses potential project impacts related to changes in the traffic flow due to the grade separations or closures of the existing crossings. Where necessary the analysis describes traffic measures to mitigate any significant adverse impacts identified as a result of the Proposed Project. Train volumes on other branches, such as Hempstead and Oyster Bay, are considerably lower than the Main Line, as shown in Table 12-3, and also have lower ridership. Eliminating additional grade crossings is not necessary to achieve the benefits detailed in the EIS.

**Comment 1-9:** Several commenters stated that the insertion of the grade crossing eliminations is part of a manipulative strategy to force acceptance of the third track.

**Response 1-9:** As a corridor improvement initiative, the Proposed Project seeks to correct several problems along the segment simultaneously by both eliminating grade crossings and completing a continuous third track. Constructing a third track and eliminating grade crossings at the same time as part of one project would provide construction efficiencies, optimize resources, minimize community impacts during construction and meet the goals to enhance capacity and improve safety. The EIS includes a detailed statement about the purpose of and need for the Proposed Project beginning on page 1-3; data to document the need includes a background, a list of incidents along the LIRR Main Line, "on-time" performance, future ridership projections, directional service limitations, and regional planning context, produced on pages 1-3 through 1-16. There is a need for additional trains to service bi-directional travel during peak periods. The component of the Proposed Project providing for construction of a third track is intended to increase capacity in order to improve passenger service reliability during the peak train travel hours by eliminating "bottleneck" complications that result from disabled trains or incidents along the Main Line and ripple throughout the system. The additional capacity also assists the LIRR in

maintaining service during regular maintenance. Case studies concerning delays are presented on pages 1-9 of the EIS.

### ECONOMIC VITALITY & REGIONAL COMPETITIVENESS

**Comment 1-10:** Some commenters, including the Right Track for Long Island Coalition, explained that while the 9.8-mile Project Corridor is entirely within Nassau County, the Proposed Project is of great importance to Suffolk County and its implementation or rejection will determine whether the greater region will thrive or decline. Several commenters stated this is the last and best opportunity to construct the third track, and implored LIRR to proceed rapidly to sustain and expand Long Island's economic, social, and fiscal vibrancy. A few commenters affirmed the validity of local concerns, but added that sometimes sacrifices and compromises are required for the greater good. Some commenters stated the negative impacts to Long Island's economy from poor reverse peak transit options is evidenced by the contrast in economic growth in White Plains and Stamford—locations with good track capacity that attract talented and carless millennials from New York City. Numerous institutions (e.g., Molloy College, Stony Brook University, Hofstra University, Long Island University) and employers expressed frustration at recruiting difficulties due to lack of reverse commuting options. Several commenters stated the Proposed Project will help Long Island attract and maintain the best and the brightest, create high paying jobs, and build a 21<sup>st</sup> Century innovation economy. Some commenters stated that the future of Long Island is in service jobs, and therefore transportation improvements must align with these sectors to prevent the “brain drain” and loss of talent to NYC, Hoboken, Washington, D.C., Boston, London, and other regions.

**Response 1-10:** Comment noted.

**Comment 1-11:** Numerous commenters countered the claim that the main obstacle facing Long Island's youth is a lack of reverse commuting, citing expensive real estate, high taxes, and high LIRR fares as more common reasons for leaving the Island. Some commenters said the adverse local economic and quality-of-life impacts outweigh any potential regional economic boost.

**Response 1-11:** Pages 1-12 through 1-13 address LIRR future ridership projections and the growth in reverse commute demand. Pages 1-12 and 1-13 address the need for reverse service, and quantify the existing reverse directional service on the LIRR Main Line. Table 1-4 shows the demand for reverse peak service in 2014. Public comments received on both the scoping document and the EIS by individuals, employers, universities, and institutional representatives expressed the need for reverse peak travel service on Long Island. Reverse peak and intra-Island service opportunities would also benefit from the Proposed Project as shown on Table 1-3. Page 10-2 further addresses reverse peak and intra-Island ridership projections. The 2020/2040 No Build and Build Conditions sections of the EIS located on pages 10-8 through 10-10 summarize the reverse-peak and intra island service projections. Finally, Table 10-8

shows ridership projections by train station in the Build and No Build Conditions for the years 2020 and 2040.

## **FREIGHT RAIL OPERATIONS**

### *FREIGHT TRAIN IMPACTS*

**Comment 1-12:** Some commenters, including the Village of New Hyde Park LIRR Third Track Task Force, expressed concern about the potential for the Proposed Project to increase freight rail traffic, adding that freight trains are long and carry heavy loads of material including uncovered garbage and questioned whether projected freight traffic increases are intentionally understated in the EIS. Other commenters said the speed of the freight trains must be limited, because they can speed along the center track and no longer need to slow down for grade crossings; some were concerned about New York and Atlantic Railroad's (NYA) safety record. Some commenters said the LIRR will need to increase freight traffic to compensate for ridership reductions and provided anecdotal evidence of ridership decreases. Many comments said current freight rail operations already cause noise and vibration impacts. The Western Garden City Property Owners Association Inc. (WPOA) said freight trains are often an eyesore and requested that graffiti-filled freight cars, idle cars, and storage of open cars be eliminated.

**Response 1-12:** As stated in numerous places in the EIS, the purpose of the Proposed Project is to improve passenger rail service, reliability, and public safety along the LIRR Main Line segment between Floral Park and Hicksville. Rail freight moves exclusively during off-peak hours, and there is sufficient rail capacity under the current two-track Main Line configuration to accommodate forecasted freight growth; adding a third track would not induce additional freight growth.

As stated in the DEIS (page 10-11):

...the Proposed Project would not affect the operating conditions for freight trains. Today, freight trains may not exceed 45 mph, far lower than the 80 mph maximum for passenger trains. These speed restrictions will not change as a result of the Proposed Project. Furthermore, all of NYA freight train operations are subject to strict federal safety regulations which cover both train operations and the nature and handling of cargo. These federal safety regulatory requirements — which are not under the control of either LIRR or NYA — will not change as a result of the Proposed Project.

With regard to freight trains as an eyesore, the LIRR does not own or operate the freight cars; therefore, it does not have the ability to change their appearance (i.e. paint / graffiti). Mandating graffiti-free cars is also challenging because cars are often under the ownership of different railroads and/or private entities and may be stored at wide-ranging, private locations. Long-term standing cars are likely to be on private sidings, not on the heavily-used Main Line.

As set forth in the EIS on page 10-11, NYA is responsible for transporting freight in compliance with all applicable laws and regulations. All municipal solid waste is transported in enclosed freight cars. Construction and demolition (C&D) debris by law is not required to be covered; however, NYA goes beyond the law and requires all shippers to cover C&D with a netting to secure debris.

With regard to the assertion that LIRR would seek to increase freight activity to compensate for reductions in passenger ridership, there is no basis for such an assertion. All passenger ridership numbers set forth in the EIS are based on actual counts, and similarly the discussion of existing freight activity referenced in the EIS is based upon actual train movements. While ridership may vary slightly by day and train, the data do not support ridership decreases nor is there any link between ridership and freight activity. Freight service fees paid by the NYA as the private freight operator to the MTA constitute a miniscule portion of MTA revenue (in 2015 approximately \$2.3 million out of the MTA's total revenues of \$15.3 billion – or approximately one one-hundredth of one percent of MTA's revenues), and is expected to remain so in the future.

NYA's safety record is beyond the scope of the EIS.

A discussion of freight projections is presented in the response to “*DEMAND FOR FREIGHT TRANSPORT.*”

### *CONTRACTUAL AGREEMENTS*

**Comment 1-13:** Some commenters asked LIRR to release the contractual terms with NYA Railway, including the number of trains, rail cars, locomotives, and materials that are permitted, with particular emphasis on whether hazardous or radioactive waste will be hauled through the corridor. Some commenters asked for clarification regarding the text citing one additional round-trip freight train and whether this assumes one additional locomotive and 30 cars per train (and further inquired if 30 cars is an average or a limit). Some commenters asked for assurances that current restrictions on freight rail operations will remain in place in the future and others pointed to attractive financial benefits to the MTA from allowing freight service. The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park note the Federal Surface Transportation Board's exclusive jurisdiction over rail operations under the Interstate Commerce Commission Termination Act of 1995, which may preempt or limit the application of certain state and local laws pertaining to freight rail.

**Response 1-13:** As noted in the EIS, Federal law preempts State and local law and requires the LIRR to permit freight operations along its system. The contract between NYA and LIRR is a public document.

The transfer agreement with LIRR's private freight operator, NYA, allows NYA to assume LIRR's federal obligations to move freight within Brooklyn, Queens, Nassau and Suffolk Counties. The quantity of equipment and the number of trains are dependent on market demand

and fluctuates by season, customer demand, and competition with alternative transportation methods. The Agreement allows LIRR to prioritize passenger service over freight service in areas where passenger and freight trains share track rights. As a result, LIRR restricts freight trains from operating along the Main Line during peak commuter hours. Commodities carried by NYA are regulated by federal law, which permits the transport of hazardous materials, provided that they are moved in FRA-approved railcars and follow all safety protocols required for the transport of that particular material. The movement of radioactive waste is rare. Over a ten year period, an average of just 4 cars per year of low-level radioactive waste was moved in federally approved railcars from Brookhaven via a closely regulated and monitored process, with local and state emergency management services notified. No high-level radioactive waste was moved through the Main Line corridor during that time period.

As noted on Page 10-11 of the EIS, freight trains that travel over the Main Line currently average approximately 20 cars per train. Additional discussion on projected growth is presented below, under “*DEMAND FOR FREIGHT TRANSPORT.*”

As noted in Response 1-12, freight’s financial incentive to the MTA is inconsequential, at approximately \$2.3 million annually or less than one one-hundredth of one percent of the MTA’s annual revenues.

The MTA’s commitment to continue current freight operating restrictions along the Main Line has been clearly stated in the EIS (Page 10-11).

#### *DEMAND FOR FREIGHT TRANSPORT*

**Comment 1-14:** Some commenters stated their belief that the true reason for the Proposed Project is to transport Brookhaven Lab’s waste materials and enable Suffolk County to address recent landfill closures by transporting its garbage along the Main Line. Others cited private business deals and political contributions from freight-related special interests in Suffolk County as the motivation for the Proposed Project’s acceleration. Some commenters referenced other proposed projects and documents (e.g., Cross Harbor Freight Movement Project) that forecast increases in the movement of goods by freight train. The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park noted the Proposed Project is being designed to meet freight rail standards and accommodate economically desirable double-stacked freight rail cars and that this is not studied in the EIS relative to projected freight operations.

The Village of Mineola asked LIRR to respond to a statement provided in the Federal Railroad Administration’s (FRA) NEC FUTURE Tier I EIS: “The FRA recognizes that freight rail service is critical to the continued vitality and competitiveness of the Northeast economy.” The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park noted the EIS’s lack of discussion of several projects, plans, and policies related to freight rail,

including: a pending application to develop a solid waste transfer station in Holbrook (Suffolk County); a 2011 NYSDOT report conducting a feasibility analysis of a Long Island truck/rail facility; NYMTC's Plan 2040, which includes discussion of expanding the Brookhaven Rail Terminal; a 2015 NYSDOT report entitled New York State Freight Transportation Plan Background Analysis; and others. Upon reviewing the major findings of these reports, the commenters stated it is disingenuous for the EIS to conclude that the Proposed Project will not induce new freight rail traffic along the Main Line.

**Response 1-14:** See Response 1-13 regarding how infrequent waste from Brookhaven is transported by NYAR. The EIS states on page 10-12 that freight is not currently capacity constrained, and therefore the third track is not needed to accommodate freight traffic on Long Island or to accommodate double-stacked freight rail cars. There has been modest growth in freight traffic on Long Island over the past years and the EIS assumes continued modest growth through 2040. At current growth rates for freight, the existing three round trips could accommodate the modest increase in carloads through 2020 as well as through 2040. Growth in freight traffic is expected to result in longer trains (from an average of 20 cars in 2016 to approximately 30 cars in 2040). This modest growth is not expected to result in additional trains over the three round trips through the corridor today. LIRR is following NYSDOT standards for height of any overpass above the rail. Because of the presence of the electrified third rail on the Main Line, double-stack cars (which have a lower ground clearance) cannot be accommodated. The Proposed Project was developed in response to the project purpose and need, and is not a freight project.

Projects cited by the commenters above are largely speculative; even if they become operational the demand created by such projects would represent modest background growth that is already reflected in the EIS analyses and projections. Regarding the Holbrook application, the application has been withdrawn by the applicant. The FRA quotation the commenter cites is a general statement attributable to a much larger geographic section of the northeast than Long Island and therefore outside the scope of this project.

**Comment 1-15:** A few commenters asked if freight traffic could be removed from the Main Line altogether, replaced with trucking, barging, and/or use of a designated freight tunnel.

**Response 1-15:** The federal Surface Transportation Board has jurisdiction over freight service. By federal law, LIRR is required to permit freight operations on its system but is permitted to regulate the time of such operation. Construction of a designated freight tunnel on Long Island is outside the scope of the Proposed Project and may not be possible as it would complicate connections to freight sidings and the servicing of customers.

## PROJECT COST AND FUNDING

### *PROJECT COST ESTIMATE*

**Comment 1-16:** Many commenters, including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park, expressed skepticism at the Proposed Project's cost estimate, asserting that the Proposed Project will likely take much longer and cost much more. Some commenters cited the delays and cost overruns on other MTA and LIRR Projects (East Side Access, Second Avenue Subway, Babylon Branch Elevation, Massapequa Park Station, etc.) as examples of a bad project delivery track record. Some commenters noted that an original cost estimate of \$1 billion was released in May 2016 and questioned the doubling of this estimate in a six-month timespan.

**Response 1-16:** The cost estimate of the Proposed Project was based on the preliminary engineering and has not changed from the DEIS. The EIS notes a conservative assumption for a construction schedule on page 1-38 of the EIS. Page 1-38, "Construction Phasing" explains the approximate time frame for construction of the Proposed Project. While the construction period would be expected to last approximately four years, most construction activities are generally expected to last less than two years at any one location, depending on the type of activity as noted on page 13-1, 13-6, 13-9 and 13-28. In addition, as noted on page 13-9, the design build contractor would be expected to implement an expedited construction schedule; the contract would provide financial penalties and incentives to deliver on or ahead of schedule.

**Comment 1-17:** Numerous commenters stated that allocating \$2 billion to the Proposed Project is problematic given the size of the MTA 2015-2019 capital program, the new State budget, the State budget deficit, and Governor Cuomo's financial commitment to other projects (e.g., Tappan Zee Bridge, JFK and LGA Airports, etc.).

**Response 1-17:** Other elements of the MTA Capital plan and the cost of the Proposed Project are issues that are beyond the scope of SEQRA and this EIS. However, this Proposed Project would be a key element of Governor Cuomo's transportation infrastructure initiatives. The MTA is fully committed to developing a viable financing plan if the Proposed Project is approved by the MTA Board.

**Comment 1-18:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park asked the LIRR to share additional cost details, such as a "Cost Estimate Basis" report, a "Preliminary Quantity Takeoff," and a detailed project budget with the estimated cost for each project component, including the cost of repairing damage incurred during construction.

**Response 1-18:** The sources of funding and a detailed project budget are beyond the scope of SEQRA and this EIS.

## Long Island Rail Road Expansion Project

---

**Comment 1-19:** The Village of New Hyde Park LIRR Third Track Task Force asked LIRR to explain the degree to which the Proposed Project will improve system reliability, to justify the need and the \$2 billion cost, and compare this to the cost and reliability improvements from other projects. Others requested an independent panel to evaluate the impacts and taxpayers' return on investment.

**Response 1-19:** The purpose and need of the Proposed Project is found starting on page 1-3 of the EIS and explains the degree to which the Proposed Project would improve the system. Other comment requests are beyond the scope of SEQRA and this EIS.

**Comment 1-20:** One commenter said the Proposed Project is an opportunity for Nassau County to receive a \$2 billion investment and referred to other recent lost opportunities (e.g., the Islanders stadium).

**Response 1-20:** Comment noted.

### *FUNDING SOURCES*

**Comment 1-21:** Several commenters, including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park cited the lack of the Proposed Project's inclusion in the current MTA Capital Plan and the New York Metropolitan Transportation Council's (NYMTC) *Plan 2040: A Shared Vision for Sustainable Growth* as evidence of the low priority nature of the Proposed Project. A few commenters asked which separate MTA plans would need to be cancelled to transfer funds and whether those cancelled plans would have achieved some of the objectives of the Proposed Project. Some commenters asked for more information about funding sources and others objected to funding the project through increased taxes and increased LIRR fares, noting that both are already too high. The Village of New Hyde Park LIRR Third Track Task Force stated the budget approval should be noted in the EIS's list of permits and approvals. The Task Force also asked if the \$2B estimate includes interest payments made on bonds to finance the Proposed Project.

**Response 1-21:** The MTA capital plan and precise information about funding sources are beyond the scope of SEQRA and this EIS.

### **GENERAL PURPOSE AND NEED COMMENTS**

**Comment 1-22:** Many commenters said the Proposed Project will seriously impact adjacent communities without any local benefits, but has well-documented benefits to Nassau County, Suffolk County, and New York State at the expense of less-well-documented impacts to the proximate villages.

**Response 1-22:** The benefits of the Proposed Project are stated in the EIS on page 1-15, and further noted on pages 1-18 through 1-19. Benefits from the Proposed Project to adjacent communities would include more reliable service at stations and improved on-time performance, new service opportunities to reduce passenger crowding on trains, eliminating roadway congestion and safety hazards associated with the grade



crossings, and the reduction in local noise levels due to the installation of sound attenuation walls and the elimination of train horns and crossing bells at the grade crossings in the future. The LIRR is committed to providing station enhancements such as station art, Wi-Fi, digital signage and other amenities in addition to the infrastructural improvements, noted on page 1-24 of the EIS. Measures to avoid or minimize impacts to communities are discussed throughout the EIS and would be developed in collaboration with stakeholders and municipalities.

The Proposed Project would avoid residential property acquisitions and would minimize all commercial property acquisitions (which is specifically detailed on Tables 1-10 through 1-12). The Project Description also notes that NYSDOT in consultation with Empire State Development (ESD) would provide assistance to affected businesses to relocate them within their communities where feasible as noted on page 1-39. Train service improvements would benefit not only the surrounding communities, but also the adjacent municipalities. The grade crossing eliminations would also eliminate traffic safety issues, (noted on page 1-14).

**Comment 1-23:** A few commenters expressed skepticism about whether a meaningful system-wide improvement would result through improvements to a relatively small rail segment.

**Response 1-23:** Despite the Project Corridor's relatively small size, improvements to this small segment have an oversize impact on the LIRR network, with over 250 daily trains traversing the corridor from the Oyster Bay, Huntington/Port Jefferson, Ronkonkoma, and Montauk Branches. Table 1-1 lists the incidents along the Main Line that resulted in delays to 10 or more trains between January 2013 and September 2016. Over 3,000 trains were cancelled or late in that time period, delaying hundreds of thousands of customers. In addition, page 1-3 discusses and Figure 1-5 shows the interrelated nature of trains within the system and how trains delayed on the Main Line affect delays to customers on other branches. As a result of the high volume of trains and the impacts that delays have to the rail system, there would be a meaningful improvement as a result of the Proposed Project. The Proposed Project would result in improvements that would impact other branches of the LIRR outside the Project Corridor.

As outlined in the goals and objectives of the Proposed Project, the third track would facilitate additional general levels of service, reverse-peak service and local intra-Island services and page 1-11 of the EIS provides a summary of the problems that the Proposed Project aims to alleviate. The Proposed Project would eliminate bottlenecks caused by disabled trains and track circuit failures on the Main Line, because trains would

be able to bypass these incidents. The EIS describes the approximate existing number of trains, customers, and service locations on the Main Line and acknowledges the Main Line's vitality to the regional context. These descriptions are noted on page 1-3 of the EIS. In addition, page 1-15 of the EIS notes regional transformation projects and plans that would work in conjunction with the Proposed Project to alleviate regional problems outside the Project Corridor.

**Comment 1-24:** A few commenters stated their opposition to the industrialization and urbanization of Long Island, through projects such as the Proposed Project.

**Response 1-24:** The Proposed Project is consistent with the transit needs of a modern suburban community. These transit needs are supported by future ridership projections for each of the seven stations in the Project Corridor in both the No Build and Build scenarios for the year 2020 and 2040, as illustrated in Table 10-8 of the EIS. As stated in Chapter 2, "Land Use, Community Character, and Public Policy," the Proposed Project would have no significant adverse impact on community character in the Study Area. Residential areas would remain residential; commercial areas would remain commercial.

**Comment 1-25:** Some commenters stated that many of the delays and accidents on the railroad and roadways are directly linked to human error and inadequate training, which would not change with the Proposed Project.

**Response 1-25:** The Proposed Project would not eliminate all future delays. However, when those incidents occur, the additional track capacity and infrastructure improvements associated with the Proposed Project would enable the LIRR to recover more quickly from delays and restore service much more quickly, as described in Chapter 1, "Project Description."

**Comment 1-26:** A few commenters said the Proposed Project is being advanced in exchange for political and financial support from Suffolk County.

**Response 1-26:** Please see Chapter 1, "Project Description," which contains a detailed explanation of the purpose and need.

**Comment 1-27:** A few commenters said the Proposed Project is needed to help local communities (including Westbury and Hicksville) and make the Main Line more appealing to Babylon Branch users, which would help end the stagnation problem in Central Nassau.

**Response 1-27:** Comment noted.

**Comment 1-28:** One commenter provided a detailed report deconstructing the justification for the Proposed Project and identifying deficiencies and poor assumptions, such as presumed continuous economic growth, flaws in ridership projections, lack of incentives for

LIRR employees to run efficient Main Line operations (e.g., overtime pay to fix broken signals), flawed presumptions regarding job mobility through mass transit, and more.

**Response 1-28:** Chapter 1, “Project Description,” contains a detailed assessment of the project purpose and need, including detailed case studies demonstrating how the existing configuration of the Main Line does not allow for adequate response to delay. Population, employment growth, and ridership projections are all based on projections from NYMTC, the region’s federally mandated Metropolitan Planning Organization (MPO). The Long Island Rail Road is committed to running a well maintained and efficient system. LIRR infrastructure is subject to a rigorous maintenance program requiring substantial investment. However, this infrastructure is exposed to the elements and rigorous use, and wear and tear can occasionally cause trains and track to break—an issue faced by nearly all commuter rail systems.

## **C. COMMENTS PERTAINING TO PROJECT ELEMENTS**

### **RAIL ALIGNMENT, INTERLOCKINGS, BRIDGES, & SUBSTATIONS**

#### *RAIL ALIGNMENT*

**Comment 1-29:** Some commenters requested more information about exactly where the third track would be located in relation to their property lines and whether all three tracks would be re-centered.

**Response 1-29:** Appendix 1-A Draft Preliminary Engineering Technical Memorandum provides information about the location of the new track and the relation to adjoining property lines. Typically, the new third track would be constructed 13.5 feet to 14.5 feet closer to the LIRR property line. In some cases, the existing two tracks would be re-aligned within the ROW to accommodate the placement of the third track without taking adjoining property. Re-aligning the existing tracks to allow for construction of the third track completely within LIRR’s ROW generally would occur between Roslyn Road and Glen Cove Road, and again between Carle Place Station and just east of Grand Boulevard.

**Comment 1-30:** One commenter asked why no information is provided about the existing three-track segment between Tanners Pond Road and Nassau Boulevard. Another commenter said that Floral Park already has four tracks, only two of which are used for passenger trains.

**Response 1-30:** Between Tanners Pond Road and Nassau Boulevard, there are only two tracks. Between approximately Nassau Boulevard and Herricks Road, there is an existing three-track segment. This third track was put in place at the time of the Herricks Road grade separation project. The

Proposed Project would tie into this existing third track and use the existing infrastructure. There will not be a fourth track at this location.

At Floral Park, there are two Main Line tracks and two Hempstead Branch tracks. All four tracks are used by passenger trains.

**Comment 1-31:** Some commenters noted the MTA-LIRR's expensive program to replace defective and/or deteriorated concrete ties on existing tracks, asked if the Main Line tracks have been inspected and/or replaced, and asked whether construction of the proposed third track would damage the existing concrete ties and under-tie pads.

**Response 1-31:** The Main Line tracks and ties are consistently inspected and are replaced when needed. Putting in the new track would not damage existing ties, tracks, or other railroad infrastructure within the ROW. Furthermore, LIRR plans to install new concrete ties and fasteners on the existing Main Line tracks concurrently with the Proposed Project to take advantage of track outages as they occur.

**Comment 1-32:** The Village of New Hyde Park LIRR Third Track Task Force stated the LIRR is proposing to use the same track technology that was used in the 1800s.

**Response 1-32:** The basic concept of steel rails on ties is the same as was used in the 1800s and is the same as is used in all modern railroads. However, the proposed track structure (rail, fasteners, ties) and signal system would be state of the art.

**Comment 1-33:** One commenter said the proposed track alignment would make it very difficult to eventually expand into a four-track system.

**Response 1-33:** There is no plan to expand the Main Line to a four-track system. Expansion to four tracks would require a substantially greater amount of property acquisition, including the acquisition of residential property, to accommodate the necessary track spacing.

#### *INTERLOCKINGS AND CROSSOVERS*

**Comment 1-34:** Several commenters asked about the area near Tunnel Street and the Hempstead Branch and the proposed new No. 15 right-hand turnout and new No. 20 universal crossover (Appendix A Section 3.3.2) which will enable double-track operations along the Hempstead Branch. These commenters said the Open House displays at the public meetings indicate two universal crossovers will be built near many existing residences and nine additional residences under construction, near the access point to the Floral Park pool and recreation center, and that trains will travel up to 60 mph. One commenter expressed concern for safety and derailments with trains traveling through a crossover in a residential area at 60 mph.

**Response 1-34:** The purpose of the new crossover is to provide flexibility and maintain double-track operation on the Hempstead Branch. Crossovers are located based on a variety of factors, including railroad geometry.

Crossovers are typically not located in areas with horizontal or vertical curves. LIRR carefully evaluated the preferred location for the interlocking referenced by the commenters. Proximity to the existing Floral Park Station is an important criterion. This section of tangent track (i.e., “straight” track) is the segment most conducive to locating the interlocking. The interlocking would meet all American Railway Engineering and Maintenance-of-Way (AREMA) guidelines and LIRR standards. These guidelines and standards optimize safety along active railroad corridors. LIRR infrastructure is subject to a rigorous maintenance program requiring substantial investment. It should be noted that the maximum authorized speed through a No. 20 crossover is 45 mph; however, with the addition of the third track and the opening of East Side Access, the number of deadhead trains would be reduced along the Hempstead Branch and, therefore, most of the eastbound and westbound trains would be traveling less than 45 mph to serve Floral Park Station customers. Westbound trains arriving at Floral Park Station would be slowing down to pick up passengers, and eastbound trains will begin to accelerate leaving Floral Park Station and would be traveling at slow speeds. Positive Train Control (PTC), which would be in place by the end of 2018, would enforce the 45 mph speed limit for any trains making a diverging move through the crossover at this location.

### ***BRIDGES***

**Comment 1-35:** Some commenters asked about the modification or replacement of railroad bridges, including the replacement of the Cherry Lane bridge with respect to commuting and school bus route logistics, the need for replacement of the newly-constructed Roslyn Road bridge, and realignment of tracks underneath the Ellison Avenue Bridge.

**Response 1-35:** The Contractor would be required to consider and address impacts to school bus route logistics as part of developing maintenance and protection of traffic plans. Bridge replacements would be completed over the course of one weekend when school is not in session. The newly constructed Roslyn Road Bridge was designed to support three tracks and would remain. The Ellison Avenue Bridge would also remain; realignment of the track is required to avoid impacts to existing structures and private property.

**Comment 1-36:** One commenter asked why the Proposed Project is not proposing to widen the existing Denton Avenue bridge underpass to reduce congestion at the nearby grade crossings at New Hyde Park Road, South 12<sup>th</sup> Street, and Covert Avenue.

**Response 1-36:** In the early outreach stages of the Proposed Project, it was clear that a significant number of Garden City residents preferred the current height and width of the vehicle opening at the Denton Avenue underpass because it serves as a traffic calmer in the neighborhood. Based on

comments received on the DEIS, and in consultation with the Project Corridor municipalities, the current width would remain and the bridge modification would allow for emergency vehicles to traverse both sides of the tracks. The Proposed Project would improve traffic at the aforementioned crossings through installation of underpasses at New Hyde Park Road and Covert Avenue.

**Comment 1-37:** Some commenters (including the Villages of Floral Park, Garden City, and New Hyde Park) said insufficient design element information is provided about new bridge installations (such as those at Tyson Avenue, Plainfield Avenue, Denton Avenue, and Nassau Boulevard), other than stating a reliance on prefabricated components.

**Response 1-37:** In order to meet the Proposed Project requirements to limit impacts to the community and train service, prefabricated design elements would be used. The design-build contractor would be given flexibility regarding design element specifics to meet all of the project requirements, allow innovation and reduce costs. Because of this it is not possible to provide detailed design element information at the EIS stage for this design-build project. There is sufficient information in the design documents included in the EIS to assess potential environmental impact. The design-build contractor would be required to consult with the municipalities as the Project progresses. As with any project, final design of bridge structures would take place after approval of the SEQRA Findings.

**Comment 1-38:** The WPOA requested the height and width of the vehicle opening at the Tanners Pond Road underpass remain one-lane and in the same slanted configuration, since it serves as a traffic calmer and inhibits truck traffic.

**Response 1-38:** Based on comments received on the DEIS and consultation with the Project Corridor municipalities, the current configuration at Tanners Pond Road will be preserved.

**Comment 1-39:** One commenter asked about measures to reduce bridge strikes at Denton Avenue and Nassau Boulevard, since their clearances will be less than the typical 14-foot-high clearance.

**Response 1-39:** The standard 14-foot clearance would be provided at Denton Avenue and Nassau Boulevard.

### *SUBSTATIONS*

**Comment 1-40:** Some commenters asked about the replacement of the G14 substation in New Hyde Park, including details on size, landscaping, and timing relative to the Proposed Project. Some requested tall and opaque fencing and or landscaping to block views. One property owner requested 12-foot-tall Arborvitae trees that the property owner would maintain.

**Response 1-40:** Substations would be larger but would fit within the existing parcel. All equipment, with the exception of the transformers, would fit in one modular building rather than a number of small different structures. Substations would be fenced with tall and opaque high-security fencing and, where land is available, landscaping may be provided outside of the fenced area.

**Comment 1-41:** The Town of Oyster Bay Department of Environmental Resources (DER) said Appendix 1 (page 3-49) should identify which substations may be taken out of service and present more details about the mobile units that may be necessary (size, location, aesthetics, etc.).

**Response 1-41:** Eventually all substations would be replaced and, through staged and scheduled outages, taken out of service. The system can support a maximum of two substations taken out of service with three active substations in between. The design builder would have to schedule/stage construction around this outage restriction and decide specific sequence based upon their overall project work. See Response to Comment 1-40 with regard to the use and configuration of modular substations.

**Comment 1-42:** One commenter said MTA representatives indicated new substations will have to be considerably larger than the existing substations and they will be unlikely to fit on the currently occupied parcels. Another requested that substations be relocated to non-residential locations.

**Response 1-42:** See Response 1-40.

**Comment 1-43:** One commenter noted the proposed schedule entails replacing six substations in less than four years, equivalent to one every eight months, and asked if this was practical given the typical timeframe for substation replacements.

**Response 1-43:** Given the use of prefabricated substation building construction, the proposed schedule is reasonable and feasible. This type of modular construction allows the entire substation to be built and tested off site, while related construction activities go forward concurrently. This would help to reduce the overall schedule and still provide the end quality result.

## **PROJECT LIMITS**

**Comment 1-44:** One commenter requested the EIS Study Area be expanded to include the entire affected area of the Village of Floral Park, including areas towards the Queens County border and the Floral Park-Bellerose Elementary School, since these areas will be affected by increased train traffic. Another requested the EIS establish a one-mile buffer study area around the entire Project Corridor.

**Response 1-44:** The Study Area for the Proposed Project is the area in which potential impacts reasonably attributable to the Proposed Project would occur. As described on page 1-39 of the EIS, the “Study Area” comprises an approximately ¼-mile buffer along the ROW and ½-mile area around the station areas and grade crossings. Figure 1-58 in the EIS shows the Study Area in relation to municipal boundaries and shows that the areas of concern are already included in the Study Area.

**Comment 1-45:** One commenter asked to extend the project limits to incorporate mitigation measures (under-tie pads or sound attenuation walls) through the entire Floral Park segment continuing to Bellerose Village, Queens Village, and Jamaica.

**Response 1-45:** See Response to Comment 1-44.

**Comment 1-46:** One commenter requested the third track be extended past Ronkonkoma toward Riverhead.

**Response 1-46:** At this time, LIRR is building a second track from Farmingdale to Ronkonkoma, which LIRR believes would meet future needs along this portion of the Main Line.

## **RETAINING WALLS AND SOUND ATTENUATION WALLS**

### *GENERAL COMMENTS*

**Comment 1-47:** Many commenters asked for more details about the exact locations, aesthetics, design, and height of the retaining and sound attenuation walls.

**Response 1-47:** Retaining wall heights and locations would vary as needed to support LIRR tracks and adjacent property based on the design-build contractor’s plans. Most retaining walls would be soldier pile and lagging walls or similar because they can be installed within a very limited horizontal footprint in order to avoid construction on private property. The walls would have roughened concrete texture and anti-graffiti coating. Sound attenuation walls would have a similar appearance to the retaining walls and in some cases be extensions of the retaining walls. Sound attenuation walls would extend four feet above the adjacent top of rail elevations and typically eight feet when viewed from neighborhood backyards. Sound attenuation walls would be provided to residential properties that abut LIRR ROW, as shown of pages 5-19 through 5-39 of the EIS.

**Comment 1-48:** A few commenters, including the Village of New Hyde Park LIRR Third Track Task Force questioned why walls would be built only on the south side of the rail ROW, and whether sound would reflect and be amplified on the north side.

**Response 1-48:** In certain locations where residential uses are present, sound attenuation walls would be constructed on both the north and south sides of the



Proposed Project. The precise locations are noted in section F, “Potential Impacts of the Proposed Project” of Chapter 5, “Visual Resources” of the EIS. Areas in which sound attenuation walls would be constructed only on one side of the ROW are areas in which it has been determined that noise impacts would not result on the unwallied side. LIRR will continue to coordinate with the Village of New Hyde Park to determine if sound attenuation walls are desired by the Village on the north side and to ensure that all sound attenuation walls are designed to minimize reflection or amplification.

**Comment 1-49:** One commenter asked if the retaining walls could be designed to prevent landslides from embankments.

**Response 1-49:** Constructing a retaining wall to support an embankment prevents landslides from occurring. Landslides typically occur on steep slopes that do not have retaining walls.

**Comment 1-50:** Many commenters requested taller sound attenuation walls (e.g., 11 feet, 12 feet, 15 feet, 20 feet) similar to those on nearby expressways and parkways. Some commenters were disappointed to read in the EIS that sound attenuation walls on retaining walls will extend only four feet above top-of-rail and that standalone sound attenuation walls will be only six to eight feet high. Some commenters expressed skepticism about the efficacy of low-height sound attenuation walls (particularly in mitigating freight train noise).

**Response 1-50:** The sound attenuation walls have been designed to provide a substantial reduction in noise levels as compared to the future condition without the Proposed Project. Increasing the height of sound attenuation walls would not result in substantial additional benefit, as most sound from a moving train is at wheel level, and any increases in height must be balanced by the perception by some people that taller walls have adverse impacts in terms of aesthetics.

**Comment 1-51:** Some commenters acknowledged that lower walls are effective for sound attenuation but said that eight- to ten-foot-high walls would be preferable for aesthetic reasons.

**Response 1-51:** Sound attenuation walls typically would be at least eight feet tall whether they are standalone walls or extensions of retaining walls as viewed from the public perspective. Any increase in height must be balanced by the perception by some people that taller walls have adverse impacts in terms of aesthetics.

**Comment 1-52:** A few commenters requested no walls be constructed unless structurally necessary, given the potential for graffiti and other negative community character implications. One commenter said 16-foot-high walls would negatively impact the look and feel of the

surrounding community, particularly since that is roughly half the height of homes in some areas.

**Response 1-52:** Retaining walls are needed to minimize acquisition of private property. Sound attenuation walls that are proposed and may appear tall from a resident's perspective would only occur in areas where the railroad is significantly elevated relative to the adjacent private property. Typically, sound attenuation walls adjacent to where the railroad is either at grade or below would be eight feet tall at the edge of the ROW. The walls would be designed to resist graffiti by use of such measures as anti-graffiti coatings and uneven surface textures to deter vandalism, planting of vegetation adjacent to the wall to screen views of the wall itself, or the creation of artwork and murals.

**Comment 1-53:** One commenter voiced concern about the proposed sound walls with respect to public safety, derailments, and emergency ingress/egress. He noted that teenagers and employees walk along the tracks and could get trapped, and asked what happens to the wall in the event of a derailment (i.e., would the wall get knocked into private homes or other adjacent land uses).

**Response 1-53:** Accounting for and providing emergency access/egress is a design requirement. Space would be provided for emergency situations where it is necessary for LIRR employees to clear the trains and emergency response personnel to access the ROW. In most cases, current designs are intended to allow anyone walking along the tracks, whether they are authorized or unauthorized to do so, to have sufficient clear space to avoid trains. While highly unlikely, it is possible that a train derailment could impact a sound attenuation wall in locations where the wall would be in close proximity to the track and cause damage to a portion of the wall. There would be no increased risk to off-site property as a result of the installation of sound attenuation walls.

**Comment 1-54:** Many commenters asked for consultation regarding the heights and design of the walls in specific locations.

**Response 1-54:** As part of the unprecedented public outreach effort put forth for the Proposed Project, LIRR worked and continues to work with landowners in the Project Corridor to develop a plan to mitigate potential impacts. The height and design of sound attenuation walls incorporate input from all stakeholders.

**Comment 1-55:** The WPOA requested that no walls or wall foundations impinge upon residents' properties.

**Response 1-55:** Foundations would not be permitted to impinge upon residents' properties.

**Comment 1-56:** One commenter asked about the integration of existing walls with new walls, whether existing walls will be tested for structural integrity and whether the designs will be compatible.

**Response 1-56:** The design-build contractor would be required to ensure the structural integrity of existing walls impacted by the Proposed Project and retrofit them as necessary. LIRR continues to consult with landowners regarding the design of proposed new walls.

**Comment 1-57:** The combined comments from the Villages of Floral Park, Garden City and New Hyde Park requested a public review of specific information regarding the placement, dimensions, and materials of the proposed sound attenuation walls and their inclusion in contract documents.

**Response 1-57:** As set forth in Chapter 12, “Noise,” the sound attenuation walls would reduce noise levels in residential backyards caused by railroad operations so that noise levels with the Proposed Project would be lower than current existing noise levels. The specific height, material, and design of sound attenuation walls would incorporate input from all stakeholders during the Proposed Project’s final design, but at a minimum would be eight feet in height as assumed by the EIS noise analysis.

#### *FLORAL PARK*

**Comment 1-58:** Some commenters stated the LIRR is neglecting its responsibility to treat fairly the residents and businesses along the four-track segment between Floral Park, South Tyson Avenue Extension, and Queens Village, since no sound attenuation walls are proposed there and those areas will bear the burden of more noise and vibration from additional trains on the Hempstead Line and Main Line.

**Response 1-58:** The Proposed Project would not move trains closer to the residences and businesses along these areas because no third track would be installed. Most of the additional train trips along this segment would not be attributable to the Proposed Project. Any increase in noise from the small number of additional train trips from the Proposed Project would not be significant.

#### *NEW HYDE PARK*

**Comment 1-59:** The Greater New Hyde Park Concerned Citizens Civic Association requested that sound attenuation walls extend from the New Hyde Park Station west to Covert Avenue (on the south side) and from the New Hyde Park Station west to South 4<sup>th</sup> Street (on the north side). Commenters endorsed the concept of using the new back walls of the renovated New Hyde Park Station platforms as sound attenuation walls.

**Response 1-59:** In response to comments from the communities, light-weight panels may be installed on the back-side of new station platforms between the

platform level and ground level to further reduce noise levels in the surrounding communities. LIRR does not generally install these panels due to maintenance, access to utilities, and safety and security concerns. However, LIRR will continue to coordinate with communities on this request.

**Comment 1-60:** The Village of New Hyde Park LIRR Third Track Task Force requested sound attenuation walls on both sides of New Hyde Park from South 4<sup>th</sup> Street to South 12<sup>th</sup> Street.

**Response 1-60:** Sound attenuation walls are proposed from South 4th Street to South 9th Street on the south side of the tracks adjacent to residential uses. Land uses adjacent to the north side of the tracks in this section are commercial or industrial. Sound attenuation walls would be constructed in places where the EIS has identified potential noise impacts. LIRR will continue to coordinate with the Village of New Hyde Park to determine if sound attenuation walls are desired by the Village in these areas.

#### *GARDEN CITY*

**Comment 1-61:** One commenter inquired about a gap in the sound wall just east of Denton Avenue/Tanners Pond Road, and whether this is an error on the drawings.

**Response 1-61:** This was an error on the DEIS drawings that has been corrected in the EIS.

#### *MINEOLA*

**Comment 1-62:** The Village of Mineola requested that sound attenuation walls at least seven feet tall be installed on the north and south sides of the tracks near Mineola Station and that such walls have fire access doors.

**Response 1-62:** Sound attenuation walls are proposed on the south side of the railroad tracks from Herricks Road to 5th Avenue near the western end of the eastbound platform and on the north side from Herricks Road to Fleet Place. These walls would be 8 feet high and would have emergency access doors installed where required.

#### *CARLE PLACE*

**Comment 1-63:** The Carle Place Civic Association submitted a series of requests regarding the retaining walls and sound attenuation walls in the vicinity of Carle Place, including:

- Continuous sound attenuation wall from the Meadowbrook Parkway to the Carle Place Station (north of Mallard Road and south of the Main Line)

- Decorative walls on the north and south sides of Atlantic Avenue, setback at least nine feet from the street to enable planting of a vegetated buffer (e.g., Arborvitae trees) and installation of a watering system
- Decorative wall between Cherry Lane and Charles Fuschillo Park on the south side of the Main Line, to provide a visual barrier
- Community design consultation regarding wall aesthetics
- Higher barriers on dead-end streets to prevent access to the Main Line tracks

**Response 1-63:** As noted in the EIS on page 1-21, in some locations, where the exterior of the retaining walls faces the adjacent communities, the retaining walls would receive architectural treatments to harmonize with the surrounding aesthetics. Sound walls would be provided on top of the retaining walls in some areas, and in others, only sound attenuation walls would be provided when retaining walls are not necessary. Typical retaining walls are illustrated in Chapter 5, “Visual Resources.” Additional mitigation measures for proposed retaining walls are given on page 5-39 these measures include anti-graffiti coatings and uneven surface textures to deter vandalism, planting of vegetation adjacent to the wall to screen views of the wall itself, creation of artwork and murals, applications of form liners and potential multiplicity of uses for the wall -- which would be addressed during the final design phase.

Sound attenuation walls would be provided for residential properties that abut the LIRR ROW. A setback for vegetation would be incorporated where feasible. The walls would have roughened concrete texture and anti-graffiti coating. Barriers of at least 8 feet would be provided to prevent access to Main Line tracks. LIRR will continue to consult with residents and municipal officials with regard to design of retaining and sound attenuation walls.

**Comment 1-64:** One commenter asked for a sound attenuation wall on the north side from Rushmore Avenue to Bert Avenue, and the widening of the walls to provide additional attenuation and account for reflective sound.

**Response 1-64:** Sound attenuation walls would be provided for affected residential properties that abut LIRR ROW.

**Comment 1-65:** Some Carle Place residents expressed a preference for no walls, since they would attract graffiti or a vegetated buffer to deter graffiti.

**Response 1-65:** Sound attenuation walls would receive an anti-graffiti coating and the walls along Atlantic Avenue would be set back as much as possible to allow for installation of vegetation while maintaining safety for LIRR employees.

## RAIL OPERATIONS

### GENERAL COMMENTS

**Comment 1-66:** Some commenters said the EIS does not include enough information about rail service changes system-wide as a result of the Proposed Project (including diesel service, Port Jefferson service, Huntington service, etc.) and said it will not address peak-direction capacity constraints.

**Response 1-66:** The Proposed Project itself would not substantially alter existing service patterns on other branches. As noted in the DEIS, it would introduce half-hourly reverse peak service, as well as one additional peak direction train, along the Main Line.

Peak direction capacity constraints will be addressed primarily through East Side Access and other projects (e.g., Jamaica Capacity Improvements). One of the purposes of the Proposed Project is to enable these service increases to be provided more reliably by eliminating the bottleneck created by the current two-track alignment.

**Comment 1-67:** Some commenters expressed frustration that trains using the third track will not stop between Hicksville and Jamaica and therefore the communities along the Project Corridor will not receive any increase in service. A few commenters asked for clarification about typical operations along the new third track (e.g., reverse peak, express peak).

**Response 1-67:** As noted in Response 1-66, service increases associated with East Side Access will provide additional, peak-direction service to communities along the Project Corridor. Service increases associated with the Proposed Project would provide reverse-peak service to these communities.

**Comment 1-68:** The Village of New Hyde Park LIRR Third Track Task Force asked if the Proposed Project is worthwhile if it does not allow for increased train speeds and throughput.

**Response 1-68:** The Proposed Project would improve service and reduce delays throughout the LIRR system. Although maximum train speed through the corridor would not increase, the Proposed Project would improve service reliability so that each train would make it through the corridor quickly and on-time. This would improve service and on-time performance, making the entire network more reliable. Throughput does increase, however, as LIRR would be able to offer a continuous reverse peak service. In addition, throughput is improved and enhanced by a third track which offers the flexibility to route trains around an incident or during routine track maintenance, improving LIRR's ability to recover from incidents and restore and maintain service.

The elimination of seven grade crossings in the corridor would greatly improve safety conditions for vehicles and pedestrians, as well as

reduce roadway congestion and pollution from idling cars and significantly reduce noise from elimination of crossing bells and train horns. The addition of sound attenuation walls adjacent to residential areas would further reduce noise levels over existing conditions and the addition of parking spaces in the corridor would address shortfalls projected due to East Side Access. Major station upgrades would improve rider experience and provide ADA compliant access, and LIRR's track infrastructure would be modernized.

**Comment 1-69:** One commenter noted specific contradictions between the EIS's projections (including Table 10-6 and other sections of Chapter 10, "Transportation") and the number of AM peak trains from the Double Track and East Side Access Projects. The commenter also calculated the number of seats per train compared to the projected ridership and noted that some passengers will not get seats.

**Response 1-69:** This commenter is concerned that future years' service increases are not commensurate with forecasted ridership growth. It should be noted that these ridership forecasts are for a 25-year horizon, and the realization of these forecasts is subject to a number of factors, including those outside the LIRR's control, such as economic trends or population growth. However, it is necessary to use the best methods reasonably available, to forecast future growth for design and impact assessment purposes.

The LIRR monitors and reviews train load data on an on-going basis and, wherever feasible, reallocates human and equipment resources to meet customer demand. By 2040, the LIRR will have two Manhattan terminals, additional yard and storage facilities, and other operational improvements that the LIRR believes will enable it to adaptively respond to ridership growth.

Table 10-8 presents ridership forecasts by station (in "absolute" numbers of riders). The text starting on page 10-52 discusses the incremental increase in vehicle trips between the 2040 no build and 2040 build conditions. Therefore, there is no contradiction in numbers presented in the EIS.

**Comment 1-70:** One commenter asked why additional Manhattan service would be provided from Floral Park, Queens Village, and Hollis but not from Bellerose and whether the Bellerose Station would be eliminated.

**Response 1-70:** There are no plans to eliminate the Bellerose Station, which will benefit from Hempstead Branch service improvements associated with East Side Access and Jamaica Capacity Improvements. These improvements will include new one-seat ride service opportunities to Manhattan from Bellerose Station.

**Comment 1-71:** Several commenters questioned the value of a third track without additional capacity (e.g., a fifth track) between Jamaica and Woodside.

**Response 1-71:** There is sufficient track capacity west of Jamaica under the current four-track alignment, where, during peak times, three tracks are used to handle peak direction service.

**Comment 1-72:** One commenter asked whether the third track would accommodate deadhead trains or trains requiring maintenance and cleaning at Suffolk County yards and facilities, and if so, whether this was due to insufficient space at the Richmond Hill and Hollis facilities. A few commenters asked how many deadhead trains would traverse the corridor in a typical week.

**Response 1-72:** The number of equipment (also known as “non-revenue” or “deadhead”) trains, which do not stop at stations to pick up or discharge passengers, are shown in Tables 10-1 through 10-5. Under the 2040 No-Build and Build conditions, the number of equipment trains declines by 10, as the Proposed Project and additional infrastructure from East Side Access and its associated readiness projects (e.g. Mid-Suffolk Yard) better enable the LIRR to store and position its trains. The third track would accommodate the movement of equipment trains to yards for maintenance and servicing, whether in Suffolk County or at west end yards.

**Comment 1-73:** Several commenters requested that all service, including current service passing through neighborhoods such as Garden City and Floral Park, have lower and enforced speed limits to reduce the impacts of noise and vibration. Some commenters were skeptical about the level of enforcement for the current speed limits on the tracks.

**Response 1-73:** Enacting lower speed limits through certain Main Line communities would adversely impact system-wide performance, adding travel time to thousands of daily riders. As noted in the EIS, the Main Line carries approximately 40 percent of LIRR’s daily ridership.

Speed limits along the Main Line are currently enforced by the LIRR’s existing Automatic Speed Control (ASC) system, which automatically forces the train to a stop if the speed limit is exceeded and the engineer does not respond quickly enough to slow the train. Independent from the Proposed Project, the LIRR (along with other railroads nationwide) is engaged in a system-wide effort to install Positive Train Control (PTC), which provides greater opportunities to regulate and enforce train speed and position within the corridor. The LIRR is scheduled to have PTC operational by the end of 2018.

**Comment 1-74:** One commenter asked how the third track will meaningfully reduce delays due to unplanned service disruptions, since if one track is out of service, two tracks will



merge into one track (similar to existing conditions). The commenter asked if reverse-peak service would be suspended in this type of situation. Another commenter questioned how the Proposed Project will satisfy the goal of additional redundancy, given that the third track would be utilized for reverse direction service.

**Response 1-74:** Under the current two-track configuration in the Main Line corridor, if one track is blocked, all traffic is reduced to one track. However, with three tracks, and one track out of service, two tracks would still be available. See EIS Figure 1-4. LIRR acknowledges that it may have to hold reverse-peak service in order to maintain two tracks for peak direction service. This would be an operational decision subject to specific conditions. See Chapter 1, “Project Description,” for details of how the third track would provide operational flexibility and allow the LIRR to recover faster from incidents.

#### *NASSAU 2 INTERLOCKING / OYSTER BAY BRANCH*

**Comment 1-75:** Several commenters had specific criticisms of the proposed Nassau 2 Interlocking and proposed a redesign to allow the Oyster Bay Branch to access all Main Line tracks, explaining the following:

- Currently Nassau 2 Interlocking allows trains from either of the two Main Line tracks to access the Oyster Bay Branch
- Proposed Nassau 2 Interlocking would require both eastbound and westbound Oyster Bay Branch tracks merge into the westbound local track only
- An eastbound train to Oyster Bay would have to switch to the westbound track east of Merillon Avenue and run in the wrong direction
- Approach will add constraints and force the halting of a westbound Main Line local train in order to allow an Oyster Bay train to merge
- Plan prohibits the use of “Scoots” (currently used by LIRR to provide intra-Island service) with cross-platform connections
- Plan prohibits future expansion and more electric service to East Williston

These commenters asked about the implications to Oyster Bay Branch service. One of these commenters suggested building at least one island platform at the Mineola Station with switches to the east of the platform (moving the station slightly if necessary) to facilitate more flexible track assignments and more frequent Oyster Bay Branch trains.

**Response 1-75:** Connecting the Oyster Bay branch to the westbound local track only would streamline the Main Line track and eliminate the current low speed move from the eastbound Main Line track to the eastbound Oyster Bay track.

Given the enhanced flexibility to access all three Main Line tracks afforded by moving Nassau 1 and Nassau 3 closer to Mineola, as well as existing and planned headways on the Oyster Bay Branch, the LIRR does not believe that the revised connection would adversely impact westbound local Main Line service.

Construction of an island platform at Mineola would have residential property impacts potentially both east and west of the station. (The new track would have to “flare” outside the ROW approaching and leaving Mineola Station in order to fit into an expanded, 3-platform station footprint.) LIRR believes that the revised Nassau Interlocking configuration (moving Nassau 1 and 3 closer to Mineola) would permit sufficient stopping flexibility for “intra-Island” service.

*IMPROVED EXPRESS & RUSH-HOUR SERVICE*

**Comment 1-76:** Several commenters asked for increased peak-period, peak-direction service as part of the Proposed Project, particularly express service. They stated that one additional peak train (Table 1-3) is not sufficient for a project of this magnitude, and does not justify the high project costs and community impacts.

**Response 1-76:** As noted in Response 1-67, increased peak direction service will result from East Side Access and its associated improvements. The purpose of the Proposed Project is to add the additional track capacity the railroad needs to improve operational flexibility, better accommodate the additional trains in the future, improve on-time performance, maintain service during routine maintenance, and add resiliency so that the railroad can recover from unplanned incidents more quickly. A third track would also add scheduling flexibility during peak times, making it easier to add station stops based on ridership demand.

**Comment 1-77:** One commenter suggested following the European model of rush-hour commutation—all trains westbound in the morning and eastbound in the evening during a core time period.

**Response 1-77:** LIRR currently operates the model described above, where both tracks are used westbound for a portion of the AM peak period and the reverse is true eastbound in the PM peak period. That model limits LIRR’s operational effectiveness, results in significant delays through the corridor and to other branches, and hinders economic activity and growth on Long Island. The Proposed Project would allow for a different operational model that allows “2 and 1” service with two tracks providing peak hour service.

**Comment 1-78:** One commenter suggested coordinating with major employers near the eastern and western terminals to stagger working hours and reduce the need for the third track.

**Response 1-78:** This proposal is outside the scope of the Proposed Project.

**Comment 1-79:** A few commenters suggested improving coordination between Nassau and Suffolk County bus services (including NICE Bus) and arriving and departing trains.

**Response 1-79:** Bus service is addressed beginning on page 10-16 of the EIS.

**Comment 1-80:** Several commenters suggested enhancing schedules to better serve Carle Place residents during daytime and evening hours.

**Response 1-80:** As set forth in Response 1-77, the addition of a third track would enhance scheduling flexibility. Please note that Table 10-6 lists the number of trains stopping at each station in the corridor and shows that Carle Place would receive increased train service as a result of the Proposed Project.

**Comment 1-81:** Several commenters suggested increasing service and/or providing express service at the Floral Park and New Hyde Park Stations during rush hour (to reduce overcrowded trains and as mitigation for community disruption during the construction period).

**Response 1-81:** The Proposed Project, with the addition of a third track and increased track capacity, would enable LIRR to offer additional service options through the corridor with the goal of reducing overcrowded trains at Floral Park and New Hyde Park.

**Comment 1-82:** A few commenters recommended changing the Mineola layout to include island platforms and allow express service. One inquired whether the two proposed side platforms at Mineola will result in a reduction in peak direction trains, since the third track will not be accessible.

**Response 1-82:** An island platform at Mineola is not included in the Proposed Project for a variety of reasons, including the impact that it would have from taking property from adjoining residential properties in Mineola. New universal crossovers are planned to the east and west of Mineola Station to enhance service flexibility between all tracks through the corridor and at Mineola Station. These crossovers would allow express service to continue at Mineola Station. Table 10-6 shows that the Proposed Project would result in more trains stopping at Mineola Station in the Build condition compared to the No Build condition.

#### *OFF-PEAK SERVICE*

**Comment 1-83:** Some commenters requested more off-peak trains to serve Westbury, which gets less off-peak service than Babylon Branch stations and other stations farther east.

**Response 1-83:** Please see Table 10-6 in the EIS which shows that Westbury would have additional service with the Proposed Project.

#### *HEMPSTEAD BRANCH OPERATIONS*

**Comment 1-84:** Some commenters sought clarification of Hempstead Branch operations, since the Proposed Project appears to convert one Hempstead Branch track into the new Main Line third track, leaving only one track for Hempstead Branch operations. One commenter noted the EIS shows a reduction in trains serving the Hempstead Branch (from 70 trains per day to 58

trains per day) and asked for an explanation. Another commenter asked if service will need to “reverse run” over this segment.

**Response 1-84:** Current and proposed Hempstead Branch operations are explained in the EIS on Page 1-19. Single-track operations along the Hempstead Branch would be avoided. The Hempstead Branch and the Main Line would share track during portions of the peak commuter periods just east of Floral Park. The decline in the number of trains on the Hempstead Branch would be due entirely to a decline in the number of non-revenue trains, as stated in the footnote to Table 12-3, and thus does not impact service on the Hempstead Branch.

**Comment 1-85:** One commenter questioned why the EIS states that four trains currently routed to Atlantic Terminal will no longer be accessible on the Hempstead Branch, but instead rerouted to Penn Station.

**Response 1-85:** The change in trains from Atlantic Terminal to Manhattan would occur after East Side Access opens and is a result of schedule changes associated with that project, not the Proposed Project. This change will not be unique to the Hempstead Branch. As part of improvements associated with East Side Access, all service through Jamaica will be streamlined to enhance throughput, with direct service provided to Penn Station and Grand Central Terminal. Service to Atlantic Terminal will be provided by more frequent shuttle service from Jamaica.

**Comment 1-86:** Some commenters noted that the existing bottleneck on the Main Line would just be shifted to the sections east and west, including the segment where the Hempstead Line merges with the Main Line.

**Response 1-86:** East of the Project Corridor, each branch (Huntington/Port Jefferson and Ronkonkoma) has sufficient track capacity. As described above in Response 1-84, the Hempstead Branch also has sufficient track capacity and its merger with one of the Main Line tracks would not be expected to create a new bottleneck.

**Comment 1-87:** One commenter suggested that all westbound trains on the Hempstead Line run express from Bellerose to Jamaica after the third track is built; otherwise trains will have to cross over to stop at interim stations and some of the benefits will be lost.

**Response 1-87:** The LIRR will review future service patterns west of Bellerose in order to optimize service and performance.

**Comment 1-88:** One commenter requested that Floral Park become a permanent station stop on the Oyster Bay Branch to provide additional access, including to the hub station of Mineola.

**Response 1-88:** As shown in Table 10-6 of the EIS, Floral Park would benefit from additional Main Line service after the completion of East Side Access and the LIRR Expansion Project.

## **RAIL STATIONS**

### *GENERAL STATION DESIGN*

**Comment 1-89:** Overall, commenters expressed roughly equal support for the modern versus the traditional aesthetic. Stated reasons for preferring a modern station design included: greater compatibility with solar panels, easier to clean, and cheaper and easier to heat in the winter. Stated reasons for preferring a traditional design included: more reflective of the history and idyllic quality of the Long Island towns and villages, will hold up better over time, and the opinion that modern stations will look out of place.

**Response 1-89:** The EIS includes renderings proposed LIRR station improvements. Through ongoing consultation with local communities during the EIS review period, additional renderings of varying design styles were developed and presented at the public hearings to solicit feedback. The station renderings presented at the public hearings included a “modern aesthetic” and a “traditional aesthetic.” Each of the communities opted for the “traditional aesthetic.” The LIRR will continue to consider the preferences of individual communities regarding aesthetics of rail stations. The EIS contains information about the different rail station improvements that would occur as part of the Proposed Project beginning on page 1-22. Rail station improvements include enhanced pedestrian access at five passenger rail stations within the Project Corridor. Additional details regarding these improvements are discussed in Appendix 1-A beginning on page 3-48.

**Comment 1-90:** Other station design suggestions were received, including applying the selected design to the pedestrian overpasses for consistency and creating mixed-use spaces in station buildings similar to Disney Theme Parks, with multiple levels of grade-separated tracks.

**Response 1-90:** Comment noted.

**Comment 1-91:** One commenter stated the new station designs would result in a longer path to the train for persons with disabilities.

**Response 1-91:** The proposed new station designs have considered ADA accessibility and would provide access for persons with disabilities in accordance with ADA criteria.

**Comment 1-92:** One commenter said that demolition of all platforms is an excessive and wasteful expenditure and that the station designs have been contorted to avoid residential property impacts at any costs. Several commenters noted that some of the affected stations can

already accommodate 12-car trains; one said the only required platform demolitions are one platform each at New Hyde Park, Merillon Avenue, Carle Place, and Westbury.

**Response 1-92:** LIRR has sought to minimize property impacts as an important goal of the Proposed Project. Station enhancements are discussed in greater detail in Chapter 1, “Project Description.” Replacement of both platforms is necessary to create a uniform station appearance and to fully upgrade those stations to LIRR design guidelines.

**Comment 1-93:** One commenter suggested that emergency call boxes be added to the design at all the station platforms and enclosed walkways.

**Response 1-93:** Emergency call boxes would be provided along the station platform in conformance with LIRR Design Standards.

### *FLORAL PARK STATION*

**Comment 1-94:** Some commenters noted the deterioration of the Floral Park Station (including the closed service elevator), the overall lack of maintenance and enhancements, and asked why it would not be modernized like the other stations in the Project Corridor. Some commenters noted the slow progress of prior Floral Park Station improvements, including the station escalator and staircase replacements. One commenter requested that LIRR avoid turning Floral Park Station into another Jamaica-type hub. One commenter said Floral Park Station was used as a “before” picture in a pro-project advertisement, but no improvements are proposed. Another requested a station renovation to include a more “traditional” station aesthetic.

**Response 1-94:** Floral Park Station would have ADA access improvements, including elevators.

**Comment 1-95:** Many commenters including consultants to the Village of Floral Park noted the Floral Park Station does not meet accessibility standards as per the Americans with Disabilities Act of 1990 (ADA), and that although the Proposed Project constitutes alterations to a primary function area (which triggers ADA compliance obligations), no measures to achieve compliance with the federal mandate are proposed. Commenters noted four major deficiencies: (1) lack of an accessible route from street level to train platform; (2) missing and non-compliant pedestrian signals at street intersections at and near the station; (3) missing and non-compliant sidewalk ramps; and (4) obstructions and tripping hazards located along pedestrian pathways at the station. Commenters expressed the frustrations of residents and visitors who are disabled, elderly, carrying luggage, and pushing baby strollers. Some commenters said the lack of ADA improvements is a serious project flaw, given the demographics of Floral Park (including 2,348 residents over the age of 65, 761 disabled residents under the age of 65, and 920 residents under the age of 5) and the extent of community disruption that will be forced upon Floral Park. One commenter noted that Floral Park’s Bellerose Station also is non-compliant with ADA requirements, which leaves Floral Park’s disabled without railroad access.

Specific suggestions for minimum ADA compliance included: two ADA-compliant ramps or elevators per platform; ADA-compliant pedestrian signals and sidewalk ramps at all pedestrian

access points on the LIRR ROW; and the modification of all pedestrian pathways to be included as part of the Proposed Project. One commenter added that improving ADA-accessibility at Floral Park Station will enable a train-to-plane connection for those traveling with luggage to McArthur Airport.

**Response 1-95:** After receiving comments from residents and engaging in consultation with officials of the Village of Floral Park, the Project Description in the EIS has been revised to reflect that the Floral Park Station would receive ADA improvements as part of the Proposed Project.

**Comment 1-96:** One commenter said that because Floral Park Station has a Tier 2 ridership status, the station and its platform should be retrofitted for Main Line service, with twice hourly service. They also asserted that increasing the number of trains stopping at Floral Park will help the community remain family-friendly.

**Response 1-96:** The EIS has been revised to reflect that the Floral Park Station would have ADA access improvements, including elevators. The Proposed Project, and the completion of the East Side Access project (scheduled for completion in 2022) would result in new service opportunities for Floral Park Station and more Main Line trains stopping at the station as shown on Table 10-6.

#### *NEW HYDE PARK STATION*

**Comment 1-97:** The Greater New Hyde Park Concerned Citizens Civic Association requested that the proposed pedestrian bridge be moved farther to the east towards the center of the new station, as compared to the location shown in the EIS.

**Response 1-97:** LIRR is continuing to discuss the location of the pedestrian overpass at the New Hyde Park Station with the Village of New Hyde Park. One option is to locate the pedestrian bridge closer to the middle of the station platforms. Alternatively, an underpass in the vicinity of South 12th Street is being considered.

**Comment 1-98:** The WPOA requested the New Hyde Park kiss-and-ride lot be placed on the north side of the tracks, adding that the south side location would be dangerous and distracting.

**Response 1-98:** Following consultation with the community and in response to comments received on the DEIS, the EIS has identified the “kiss-and-ride” area on the north side of the tracks as the preferred option for this location.

**Comment 1-99:** The WPOA also requested the New Hyde Park Station be fully ADA-accessible in the eastbound and westbound directions in the easiest way possible for residents and travelers with handicapping conditions.

**Response 1-99:** Proposed improvements at New Hyde Park Station would be ADA-compliant.

**Comment 1-100:** One commenter requested a platform closer to the station building to allow easier access to the heated structure.

**Response 1-100:** The westbound platform is already adjacent to the station building. The westbound platform would continue to be easily accessible from the refurbished station building.

**Comment 1-101:** One commenter noted that the New Hyde Park Station platforms would need to be extended to accommodate 12-car trains, but the EIS does not indicate whether the extensions would be to the east or the west.

**Response 1-101:** Proposed platform extensions are shown in Appendix 1-A of the EIS beginning on page 125. The New Hyde Park Station platforms would be extended to the east and west.

*MERILLON AVENUE STATION*

**Comment 1-102:** The combined comments from the Villages of Floral Park, Garden City and New Hyde Park noted the lack of visual material showing proposed changes to Merillon Avenue Station, removal of trees/vegetation required along Main Avenue and other streets, and proposed greenery replacement.

**Response 1-102:** Passenger rail station improvements are discussed on page 1-22 of the EIS and further details about Merillon Avenue Station are noted on page 1-25. Vegetation within the LIRR ROW in the vicinity of Merillon Avenue Station would be removed. The row of pine trees along Main Avenue that is not within the LIRR ROW would be preserved. Additional plantings outside of the LIRR ROW would be planted where feasible. Preliminary engineering showing proposed changes to Merillon Avenue Station are found in the preliminary engineering in Appendix 1-A.

**Comment 1-103:** An underground pedestrian tunnel was recommended by several commenters (including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park) over a pedestrian overpass, since it would be less visually obtrusive. One commenter expressed safety concerns about the proposed pedestrian overpass.

**Response 1-103:** In consultation with the community, LIRR explored an underpass instead of an overpass. Page 1-25 of the FEIS describes the selected approach to achieving access to the station platforms through elevators and ramps at Nassau Boulevard. Several options for providing access to the eastbound and westbound platforms remain under consideration for this area (see Chapter 1, "Project Description.")



**Comment 1-104:** One commenter noted the Merillon Avenue Station platforms would need to be extended to accommodate 12-car trains but the EIS does not indicate whether the extensions would be to the east or the west of the existing station.

**Response 1-104:** The locations of the proposed platform expansions are illustrated on page 135 and 136 of Appendix 1-A. The Merillon Avenue Station platforms would be extended to the west.

**Comment 1-105:** One commenter said the EIS is contradictory with respect to the need to raise the track two feet at Nassau Boulevard.

**Response 1-105:** Page 1-20 of the Project Description states the tracks would be raised by up to two feet at Nassau Boulevard, and Appendix 1-A is consistent with this statement. However page 12 of Appendix 1-A contained an error that has been corrected.

#### *MINEOLA STATION*

**Comment 1-106:** One commenter asked about the Mineola Station and its integration with surrounding developments and the rationale for a bypass track instead of using the same configuration as Hicksville Station.

**Response 1-106:** Construction of an island platform at Mineola would have residential property impacts potentially both east and west of the station. (The new track would have to “flare” outside the ROW approaching and leaving Mineola Station in order to fit into an expanded, three-platform station footprint.)

**Comment 1-107:** One commenter requested more detail regarding improvements to Station Plaza.

**Response 1-107:** Page 1-25 of the EIS provides details about the passenger rail station improvements proposed for Mineola Station.

**Comment 1-108:** Consultants for the Village of Mineola proposed a series of design measures to mitigate adverse impacts to the area around Mineola Station and ensure compatibility, including:

- Burying overhead electrical lines to allow for streetscape improvements. Where wires cannot be underground, placing pedestrian-scale lighting on utility poles
- Updating existing and new sidewalks with brick pavers, street trees, pedestrian-level street lamps, and benches (it should be noted that the Village of Mineola objected to street benches or other outdoor seating in Mineola)
- Updating existing and new crosswalks with differentiated brick pavers, stamped concrete, or similar treatments
- Providing decorative bollards between narrow sidewalks, streets, etc
- Installing bicycle racks, lockers, and a bicycle repair station adjacent to the station and/or other locations

## Long Island Rail Road Expansion Project

---

- Installing landscaping, trees, public art, micro-parks, and monuments in new “dead spaces” created by the Proposed Project
- Creating gateway monuments and treatments at Mineola Station and Main Street
- Designing pedestrian bridges with transparent materials and/or compatible materials
- Installing pedestrian-level wayfinding signs to highlight key landmarks, businesses, and roads

**Response 1-108:** LIRR has developed several design scenarios that have been shared with the Village of Mineola. LIRR continues to coordinate with the Village to identify station area improvements. In addition, LIRR would provide station enhancements such as station art, WiFi, digital signage and other amenities.

### *CARLE PLACE STATION*

**Comment 1-109:** Some commenters objected to the closure of the Carle Place Station for a year and asked for more analysis.

**Response 1-109:** The station improvements to Carle Place as outlined on page 1-25 of the EIS describe anticipated station improvements, staircase additions, and pedestrian overpass improvements. Page 13-22 notes that if Carle Place Station is temporarily closed for approximately 12 months, shuttle buses would be provided to Westbury Station approximately a five-minute drive away. While a previous study had explored relocating the Carle Place Station, the relocation of the Carle Place Station for any reason is not contemplated as part of this Proposed Project.

**Comment 1-110:** One commenter supported the proposed north side access to the Carle Place Station from Carle Road; whereas others expressed concern about additional traffic on Carle Road and exacerbation of parking problems on Earl Street.

**Response 1-110:** The proposed north side access would improve access to the station platform from areas to the north and east.

**Comment 1-111:** Some commenters expressed support for the renovation and modernization of the Carle Place Station, given its state of disrepair. They requested the elimination of the gap, heated shelters and seats, CCTV, emergency call boxes, extended canopies, and benches on both platforms. Others said heated shelters will attract vandalism and homelessness, especially given the lack of police presence. One requested full ADA compliance as part of the design.

**Response 1-111:** Improvements proposed for Carle Place Station are noted on page 1-25. ADA-compliant access would be provided as part of the Proposed Project.

**Comment 1-112:** Several commenters noted rumors regarding the potential relocation of the Carle Place Station and some stated that residents would be more supportive of relocation, if the new station zone would enable cheaper fares. One commenter asked LIRR to evaluate the

advisability of relocating Carle Place Station to enable a “full station” with ample parking. They encouraged coordination with Carle Place residents, Town of North Hempstead, Carle Place School District, Nassau County, civic organizations, and others regarding this issue and asked that the EIS include the results of the study and the coordination.

**Response 1-112:** While a previous study had explored relocating the Carle Place Station, the relocation of the Carle Place Station is not considered as part of the Proposed Project. The station improvements to the Carle Place Station are outlined on page 1-25 of the EIS, which describe proposed station improvements such as staircase additions and pedestrian overpass improvements.

**Comment 1-113:** The Carle Place Civic Association submitted the following requests pertaining to station updates:

- Community design consultation regarding station design and lighting fixtures
- Station amenities, such as heated platform shelters, station newsstand, and ticket kiosks
- Second pedestrian overpass for commuters
- Elimination of proposal to provide access to Carle Road on the north side of expanded tracks

**Response 1-113:** LIRR will continue to consult with the communities along the Project Corridor with regard to station design. See the discussion of station design in Chapter 1, “Project Description.”

**Comment 1-114:** Several commenters including the Carle Place Civic Association asked LIRR to replace the existing kiosk at the Carle Place Station and offer monthly tickets and MetroCards, as residents currently travel to Mineola or Hicksville to purchase monthly tickets.

**Response 1-114:** LIRR has established a mobile ticketing application (MTA eTix) that enables customers purchase and display LIRR tickets directly on their mobile phone (one-way, round trip, ten-trip, weekly, monthly commutation tickets and city tickets). The MTA’s New Fare Payment System is currently under procurement and will support interoperability amongst the MTA agencies including transfers between subway, bus and commuter rail.

#### *WESTBURY STATION*

**Comment 1-115:** Several specific comments were submitted regarding the Westbury Station. The Village of Westbury and its consultants requested improvements to the embankment that extends to the east and west of the Westbury Station, potentially including a tile mosaic or other complementary design on the new retaining wall in this location. Another commenter encouraged low maintenance vegetation to beautify the station.

**Response 1-115:** LIRR has committed to making improvements to the embankment adjacent to Union Avenue at Post Avenue on the north side of the station as part of the Proposed Project.

## Long Island Rail Road Expansion Project

---

**Comment 1-116:** The Village of Westbury's consultant requested consideration of a staircase that allows access to the eastbound and westbound platforms at the western end of the station at Post Avenue.

**Response 1-116:** An additional staircase providing access from Union Avenue to the westbound platform would be constructed closer to Post Avenue as part of the improved station plaza. The existing staircase providing access from Post Avenue to the eastbound platform would also be replaced as part of the Proposed Project.

**Comment 1-117:** The Village of Westbury's consultant expressed support for the proposed pocket park or plaza in the location of the north side embankment, requested the potential incorporation of a side lane into the park/plaza, and encouraged design collaboration to ensure harmonization.

**Response 1-117:** As noted on 1-26, the Proposed Project includes improvements to this plaza area along Union Avenue and would include the side lane currently used for parking.

**Comment 1-118:** The Village of Westbury's consultant requested expanding the proposed eight-foot-wide eastbound platform to at least 10 feet in the central portion of the platform near the connecting stairs and elevators.

**Response 1-118:** Comment noted. All eastbound platforms will be a minimum of eight feet wide.

**Comment 1-119:** One commenter questioned the need for a second overpass at Westbury (east end of platform) instead of acquiring property or securing an easement to provide egress directly from the platform to the ground.

**Response 1-119:** The eastern end of the eastbound platform has limited space for secondary access. A second overpass is required to ensure adequate access per New York State building code. Existing land uses on the south side of the platform preclude placement of a staircase at this location.

### *HICKSVILLE STATION*

**Comment 1-120:** The Town of Oyster Bay's DER provided substantial comments on the Hicksville Station Improvements Project and its relationship to the Proposed Project (also discussed in Secondary and Cumulative Impacts). The Town stated that Appendix 1 Table 3-9 and page 3-45 should address parking and ridership information for Hicksville Station.

**Response 1-120:** As noted on page 3-50 of Appendix A, modifications to Hicksville Station are included in a separate MTA LIRR project "Hicksville Station and North Track Siding Improvements." Ridership projections for Hicksville Station for the No Build and Build scenarios for the years 2020 and 2040 are provided in Table 10-7 within Chapter 10,

“Transportation.” Parking is discussed extensively in Chapter 10 in section F, “Parking,” and information pertaining to parking in the Hicksville Station area under existing conditions is provided on page 10-78. Further information pertaining to the future conditions of parking in Hicksville without and with the Proposed Project for both build years is provided in the Future Conditions without and with the Proposed Project (Year 2020) beginning on page 10-79 and is summarized on Tables 10-25 and 10-38.

## **STATION PARKING AREAS**

### *GENERAL PARKING FACILITY COMMENTS*

**Comment 1-121:** The majority of parking comments received supported additional parking spaces. Non-site specific parking improvements suggestions included:

- Creating “small car” parking facilities
- Installing solar panels on parking facilities
- Adding safe bicycle parking
- Incorporating parking lots and drop-off/pick-up areas friendly to ridesharing services
- Maximizing designated “resident-only” parking areas
- Providing fee-based electric car charging stations
- Using an innovative parking structure design (example renderings were provided by one commenter)

**Response 1-121:** As noted in Chapter 10, “Transportation,” LIRR would explore a range of options to optimize parking capacity and minimize parking demand, including those listed on Page 10-75.

**Comment 1-122:** Some commenters asked that the adoption of ride-sharing services (e.g., Uber and Lyft) be incorporated into the EIS impact analyses, since such services could ease parking problems in Hicksville and Syosset, substantially reduce the size of the parking garages needed, and potentially warrant larger drop-off and pick-up areas.

**Response 1-122:** LIRR acknowledges that ride-sharing services may reduce future parking demand at stations and that parking shortfalls may not materialize to the extent forecast in the EIS in the event of such service increases. However, to present a conservative, “worst-case” traffic and parking demand analysis, the EIS assumes that existing station access mode shares (i.e. the share of riders who drive and park, or carpool to each station) will remain constant in the future.

**Comment 1-123:** Some commenters asked that the EIS analyses reflect the growing societal trends towards decreased reliance on automotive forms of transportation. Others, however, pointed out that Long Island is a driving community and that this mindset must be reflected in the design.

**Response 1-123:** See Response 1-122.

**Comment 1-124:** Some commenters stated that tiered parking lots present safety concerns, aesthetic impacts, and negatively affect community character.

**Response 1-124:** As noted in Page 2-18 of the DEIS, the proposed tiered parking structures would not constitute significant adverse impacts in terms of land use or community character. As noted in Chapter 5, “Visual Resources,” garages would be designed to be aesthetically consistent with the surrounding community. Detailed safety and security elements, enhancements, and protocols are discussed in Chapter 15, “Safety and Security.”

**Comment 1-125:** Many commenters believe the EIS underestimated the overall parking needs.

**Response 1-125:** Also note DEIS, Page 10-81, which notes:  
“The parking demand forecasts for more than 24 years from now are conservative projections of LIRR ridership. Parking needs at each of the stations would be monitored and assessed in preparation for completion of East Side Access. Should the need for additional parking arise beyond the additional off-street parking capacity that would be built as part of the Proposed Project, approaches to provide further additional parking would be discussed with local jurisdictions to accommodate identified future parking needs.”

**Comment 1-126:** Some commenters stated that parking facilities will be expensive to build and maintain and expressed concern about safety, cleanliness, and maintenance given the deterioration of existing facilities. Others asked whether the garages will be located on properties owned by LIRR, MTA, or the villages; who will be responsible for maintaining and policing the facilities; whether contracts are already drafted or are being negotiated; and who will determine and receive the parking fees; and noted that such parking facilities are an expense to village taxpayers.

**Response 1-126:** The facility at Harrison Avenue in Mineola would be built on the existing Village-owned parking lot. The facility on Second Street in Mineola would be built on state-owned land currently used by the Village for parking. The facility on the north side of the tracks in Westbury would be constructed on the existing Village-owned surface parking lot, while the south side facility would be built on the LIRR-owned lot. Both facilities at Hicksville would be built on Town of Oyster Bay-owned surface lots. LIRR is in continuous dialog with the local municipalities to determine the most feasible arrangements regarding issues such as construction, ownership, operation, maintenance, permitting/fees, and streetscape improvements.

**Comment 1-127:** Some commenters said that without additional parking at stations farther east, the benefits of the Proposed Project will not be realized.

**Response 1-127:** LIRR will continue to address system-wide parking needs (including stations farther east), but as separate initiatives outside the scope of the Proposed Project.

*FLORAL PARK PARKING*

**Comment 1-128:** Some commenters stated that Floral Park will lose parking spaces. One commenter questioned the accuracy of the EIS statement (Page ES-11) “the Proposed Project would add a significant amount of new parking near train stations in the study area,” since no parking is proposed for the Floral Park Station. Some commenters stated the permanent loss of parking near the Floral Park Station will be detrimental to the community. Many commenters, including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park, noted Floral Park’s loss of 16 parking spots without appropriate mitigation.

**Response 1-128:** The statement on the DEIS Page ES-11 was a general statement meant to capture the corridor-wide net increase in parking spaces.

Regarding the permanent loss of parking at the Floral Park Station, the EIS text has been revised to state that a nominal number of (fewer than ten) spaces may be permanently lost due to the Proposed Project, depending on final designs developed by the design-build contractor for the piers of the approach track for the new track over S. Tyson Avenue.

**Comment 1-129:** One commenter asked about continued parking availability along the LIRR’s Creedmoor Spur, which is leased to the Village of Floral Park and used by teachers at John Lewis Childs Elementary School, residents of Flower View Garden Apartments, commuters, and others.

**Response 1-129:** Parking availability at this location would not be impacted by the Proposed Project.

**Comment 1-130:** One commenter referenced prior proposals to add four new spots under the tracks from Tulip Avenue to South Tyson Avenue and asked if the Proposed Project could facilitate these new spots.

**Response 1-130:** LIRR would work with the Village to replace any potential parking spaces lost.

**Comment 1-131:** One commenter said the Floral Park parking statistics (page 10-67) are incorrect, as the parking lots and metered spots are typically full and Floral Park does not have an excess of parking spots.

**Response 1-131:** Parking counts were based on LIRR observations. Parking utilization surveys summarized in the EIS were done at a variety of times to identify typical weekday conditions. Overall, while utilization closer to

the station may be closer to 100 percent, locations further from the station may have less use. Overall, utilization is approximately 81 percent for off-street locations and 87 percent for on-street locations.

***NEW HYDE PARK PARKING***

**Comment 1-132:** Comments regarding the New Hyde Park Station focused on capacity, claiming that current parking is inadequate and the projected increase in rail ridership is not accounted for in the parking design.

**Response 1-132:** The Proposed Project would include a new 95-space surface parking lot at the intersection of New Hyde Park Road and Plaza Avenue adjacent to the New Hyde Park Station. Parking design was not based on ridership projections, but on availability of parcels and consultation with the Village of New Hyde Park.

**Comment 1-133:** Some questioned the reference in Chapter 13, “Construction,” to a new parking garage located at South 12th Street in New Hyde Park and asked exactly where the garage would be located and how long it would take to build.

**Response 1-133:** The reference to a South 12th Street parking garage was inadvertently left in Chapter 13 and has been removed from the EIS. A garage at this location was proposed during the Scoping process, but was subsequently removed based on a variety of factors including community feedback.

**Comment 1-134:** Some commenters requested a new parking garage to the north of the Main Line to accommodate New Hyde Park residents who live north of Jericho Turnpike. The Village of New Hyde Park LIRR Third Track Task Force urged LIRR to find a suitable location on Jericho Turnpike where a structure would be compatible with the commercial zone.

**Response 1-134:** As stated in the DEIS, Page 1-35: “In general, measures to mitigate potential loss of parking in the Study Area as a result of the Proposed Project would be considered, including the construction of additional parking at a location to be determined north of the New Hyde Park Station in consultation with officials of the Village of New Hyde Park.” LIRR continues to coordinate with the Village on appropriate additional parking near the New Hyde Park Station. As stated above, a 95-space surface parking lot would be constructed at New Hyde Park Road and Plaza Avenue, adjacent to the station.

**Comment 1-135:** The Village of new Hyde Park LIRR Third Track Task Force requested a decked parking structure at 115 New Hyde Park Road and the relocation of drainage features to the south side of the Main Line to enable construction of this parking structure.

**Response 1-135:** LIRR continues to coordinate with the Village of New Hyde Park on parking options adjacent to the Station.



**Comment 1-136:** Some commenters said parking issues at New Hyde Park can be resolved without the Proposed Project, through additions at the South 12<sup>th</sup> Street parking lot and improvements to the Central Boulevard parking lot.

**Response 1-136:** See Response 1-134.

**Comment 1-137:** One commenter said that a tiered parking structure in New Hyde Park along with a pedestrian crossover in the “traditional” style would complement new residential buildings on the south side of the Main Line east of New Hyde Park Road and attract new residents.

**Response 1-137:** Comment noted.

**Comment 1-138:** The Village of New Hyde Park LIRR Third Track Task Force stated parking will be adversely impacted in the Village of New Hyde Park, as it will lose more than 30 existing parking spaces.

**Response 1-138:** See Responses 1-134.

#### *MERILLON AVENUE PARKING*

**Comment 1-139:** Several commenters provided specific comments about commuter parking and pedestrian access at the Merillon Avenue Station. One noted contradictions within the EIS regarding the number of parking spaces that would be lost on the north side (Appendix A, page 3-51 states 13 spaces; Table 10-38 states 14 spaces) and questioned how the south side would not lose spots given the proposed elevators, overpass, and platform extensions. This commenter also referenced the projected parking shortages once East Side Access is operational (Table 10-39; Appendix A Table 3-9) and said it is not acceptable to wait for a known problem to come to fruition without developing a solution. The commenter suggested cutting into the slope at the north side of the station (along Atlantic Avenue) to build a two-tier parking lot that would not be visually intrusive and in context with the surrounding community.

**Response 1-139:** There is sufficient space within the LIRR ROW on the south side to construct the new track, relocate the platform, and provide access without impacting parking spaces. Approximately 13 spaces would have to be removed on the north side of the station as a result of new platform construction. The EIS has been updated to be consistent. Regarding parking shortages under the 2040 No Build condition (“ESA”) and potential strategies, see Response 1-125.

**Comment 1-140:** One commenter said Chapter 10, “Transportation,” needs to include an evaluation of pedestrian commuter access at Merillon Avenue Station, particularly given the projected commuter increases due to the East Side Access Project. Heavy volumes of pedestrians crossing over Main Avenue and Merillon Avenue conflict with each other, with driving commuters, kiss-and-ride cars, etc. The commenter suggested building a pedestrian bridge over Nassau Boulevard to improve pedestrian flow and safety.

**Response 1-140:** The Proposed Project would not result in impacts to pedestrian access to Merillon Avenue Station across Nassau Boulevard. However, LIRR would continue to work with the community and Nassau County to identify potential future projects that may alleviate the concerns expressed by the commenter.

**Comment 1-141:** One commenter asked whether the Level of Service at the intersection of Nassau Boulevard and Merillon Avenue is acceptable.

**Response 1-141:** That intersection was not analyzed as part of this EIS. No roadway improvements are being considered along either Nassau Boulevard or Merillon Avenue as part of the Proposed Project.

*MINEOLA PARKING*

**Comment 1-142:** Some commenters questioned why more parking is needed at Mineola Station, due the many existing high-rise facilities and existing parking facilities. Others stated that parking in Mineola is woefully inadequate.

**Response 1-142:** As noted on page 10-76 of the EIS, the Proposed Project would not generate substantial parking demands. However, given significant forecasted background ridership growth, due primarily to East Side Access, “the Proposed Project includes the addition of parking at several stations, including Mineola, recognizing the overall need for more parking along the Project Corridor.”

**Comment 1-143:** Several commenters asked LIRR to explain the purpose of the pedestrian bridge proposed between the Main Street parking garage and the adjacent parking area, as it appears that a staircase and/or elevators would suffice.

**Response 1-143:** In response to comments from the community, the pedestrian bridge is no longer being considered.

**Comment 1-144:** Some commenters asked for the specifics of parking facility ownership, operation, and maintenance.

**Response 1-144:** See Response 1-126. Parking facility ownership, operation, and maintenance is being discussed between NYSDOT, LIRR, and the local municipalities. Those issues are beyond the scope of SEQRA and this EIS.

**Comment 1-145:** One commenter asked that the Mineola parking facilities be completed and operational prior to any rail service increases.

**Response 1-145:** It is currently envisioned that the new parking facilities would be completed and operational before the new third track. It should also be noted that the East Side Access Project (which provides the increases in peak rail service) is forecast to be completed after the Proposed Project.

**Comment 1-146:** The owners of several private development properties in Mineola expressed concern about the size and durability of the eight-story parking garage in Mineola and the negative effects (accessibility, aesthetics, alienation, etc.) on the nearby properties, including 85 Willis Avenue. The commenter presented an alternative plan to integrate the existing municipal parking lot with a redeveloped 85 Willis Avenue, to create three continuous floors of municipal parking (one below grade, one at grade, and one above grade) with private uses above the parking facility.

**Response 1-146:** The proposed Mineola South parking garage has been redesigned to be seven levels, with one level below-ground. The proposed Harrison Avenue parking garage would be five levels with one level below ground. The new parking facilities would be built according to all applicable construction standards. The new garages would be designed to be aesthetically consistent with their surrounding area. LIRR will continue to work with local municipalities to refine design options and preferences.

**Comment 1-147:** The consultants for the Village of Mineola suggested several design mitigation measures for the Mineola parking facilities, including:

- Providing directional signage for motorists to navigate downtown Mineola to find parking facilities;
- Incorporating into the parking facility designs vegetated buffers, transparent materials, murals/art, ground-level retail uses, articulation and detail consistent with historic Mineola architecture.

**Response 1-147:** LIRR will continue to work with local municipalities to refine design options and preferences.

**Comment 1-148:** Several comments were received regarding the removal of the existing parking garages at the Birchwood Court Cooperative complex in Mineola. One commenter asked for the construction of a two-tiered parking structure at Birchwood Court, since that complex will be greatly inconvenienced by the demolition of the existing parking structure, and more parking would be an appropriate mitigation measure. Several Birchwood Court residents asked the new parking facility be comparable in quality and amenities (e.g., garage door openers) to the existing facility. One commenter requested a traffic signal/light at the complex entrance to improve pedestrian safety, which has worsened since the Roslyn Road grade crossing elimination.

**Response 1-148:** The LIRR will continue to coordinate with the Birchwood Court board to determine the most appropriate design and construction phasing plan for the reconstructed garages. Analysis of pedestrian safety at the Roslyn Road underpass is out of the scope of this EIS.

**Comment 1-149:** One commenter asked for more detail regarding the projected parking requirements in Mineola to accommodate increases in rail ridership.

**Response 1-149:** Tables 10-43 and 10-44 present a station-by-station analysis of projected parking demand without the Proposed Project (i.e. under baseline conditions). As Table 10-44 shows, the projected 2040 total demand in Mineola is 2,591 spaces, resulting in a shortfall of 970 spaces. As then explained in the EIS, the construction of two new garages as part of the Proposed Project would reduce this shortfall to 261 spaces.

*CARLE PLACE PARKING*

**Comment 1-150:** The Carle Place Civic Association objected to LIRR's definition of Carle Place as a "walking station," evidenced by the on-street parking problem in the area and requested a designated commuter parking lot. Some commenters stated that the Proposed Project will exacerbate Carle Place's existing commuter parking problems by reducing direct parking spaces in Carle Place from 12-14 direct parking spaces to five, impeding access to an existing parking lot and creating safety concerns. Some residents said the heavy use of on-street parking makes daytime travel difficult and prohibits homeowners from parking in front of their house or on their block (particularly for those homes without driveways). Residents noted that the current parking arrangement disrupts their sense of community safety, due to the heavy flow of pedestrian traffic passing by their homes early in the morning and late in the evening.

**Response 1-150:** The area immediately surrounding the Carle Place Station is primarily residential, with small-scale commercial uses. Potential commuter parking locations are therefore extremely limited. However, LIRR will continue to work with the Town of North Hempstead to address opportunities to replace the modest loss of parking spaces at Carle Place Station. It should be noted that on-street parking regulations, as well as on-street pedestrian safety issues away from the station, are the under the purview of the Town.

**Comment 1-151:** Nassau County Legislator Laura M. Schaefer (14th L.D.), mentioned buildings near the Carle Place Station that could be used as parking lots through coordination between the Town of North Hempstead and MTA, and suggested sidewalk improvements and parking along Westbury Avenue that would also serve to enhance a separate Carle Place initiative known as the Westbury Avenue Improvement Project.

**Response 1-151:** See Response 1-150 noting Town responsibility for setting on-street parking regulations.

**Comment 1-152:** One commenter suggested a two-hour parking limit in Carle Place (exempting residents of the affected streets) to encourage different parking habits and prevent the exacerbation of existing parking problems.

**Response 1-152:** See Response 1-150, noting Town responsibility for setting on-street parking regulations.

**Comment 1-153:** One commenter suggested using the sound attenuation walls as the foundation of a new elevated parking structure within LIRR property (over the tracks) to serve Carle Place commuters.

**Response 1-153:** The construction of “decked” parking over the LIRR ROW in Carle Place is not feasible or desirable for a number of reasons. It would pose extensive construction challenges and likely require private property acquisition to enable vehicular access.

#### *WESTBURY PARKING*

**Comment 1-154:** Some commenters were pleased to learn about additional parking facilities at the Westbury Station.

**Response 1-154:** Comment noted.

**Comment 1-155:** Some commenters said the increased traffic from additional parking garages will exacerbate problems with existing aging infrastructure and dangerously congested roadways.

**Response 1-155:** Detailed traffic analyses are provided in the EIS that reflect the additional parking garages proposed in Westbury, including traffic improvements. LIRR will continue to work with the Village of Westbury and Town of North Hempstead to develop additional traffic mitigation strategies and improvements, if needed.

**Comment 1-156:** The Village of Westbury asked that the EIS confirm that the parking enhancement and mitigation measures are definitive, since terms such as “potential” and “possible” are used in the EIS.

**Response 1-156:** Table 1-8 summarizes the parking to be added with the Proposed Project and any locations where parking would be lost as a result of station improvements or grade crossing eliminations. The terms “potential” and “possible” are used because parking improvements would continue to evolve as LIRR continues to work with the Village to refine the final design and address outstanding issues. It should be noted that the additional parking provided as part of the Proposed Project is not proposed to mitigate project impacts, but rather to address either existing parking shortfalls or shortfalls projected due to increased ridership from the East Side Access Project and other long-term growth that is predicted with or without the Proposed Project.

**Comment 1-157:** The consultants for the Village of Westbury stated the Village of Westbury has identified limited parking capacity as a constraint to continued growth, and therefore expressed support for the proposed structured parking facilities. The commenter asked MTA and LIRR to consult with the Village of Westbury regarding the design of the parking facilities to ensure integration with their master plan. They requested MTA and LIRR shift the

parking deck on the proposed south lot to the far eastern side and reserve the largest possible surface lot with frontage on Post Avenue (to facilitate the most viable mixed-use development). They encouraged designing the north parking facility to include a future townhouse development zone at the northern face of the garage along Scally Place, as well as ingress/egress via Scally Place and Union Avenue, and consideration of a traffic signal on Union Avenue. The commenter requested incorporation of public art feature(s) in the new garages.

**Response 1-157:** In consultation with the Village of Westbury and its planning consultant, LIRR will construct a parking garage at Scally Place and a new plaza near the intersection of Union Avenue and Post Road, which will integrate with Village plans for downtown revitalization. The parking garage would have access from Scally Place and Union Avenue. The parking garage would be setback from Union Avenue to allow for future development. The proposed parking garage on the south side of the Station has been relocated to the eastern portion of the existing parking lot to accommodate future development according to the Village's revitalization plans. MTA will include a budget for MTA Arts and Design to include public art features throughout the Proposed Project.

**Comment 1-158:** One commenter asked to move the Westbury parking garage to the east to preserve the vegetated views of the cemetery from the Horizon condominium complex, and consideration of noise-absorbing materials to balance the preponderance of concrete and hard surfaces in the area.

**Response 1-158:** The Westbury South parking garage has been shifted further to the east at the request of the Village of Westbury.

#### *HICKSVILLE PARKING*

**Comment 1-159:** Some commenters stated strong support for additional parking facilities in Hicksville, noting the importance of ample parking to neighboring communities, such as Syosset, and the regular use of Hicksville Station by residents who live further east.

**Response 1-159:** The Proposed Project adds two parking garages with a total of 1258 new parking spaces at the Hicksville Station. Long-term trends for parking needs will continue to be monitored.

**Comment 1-160:** Some commenters expressed support for the two new parking structures in Hicksville, particularly since businesses often close and are replaced with at-grade lots that negatively affect Hicksville's aesthetics and tax base. One commenter requested that these parking facilities maximize designated parking for town residents, explaining it would limit congestion from non-town residents who decide to change train stations.

**Response 1-160:** As noted in Response 1-126, arrangements regarding permitting and fees are to be developed through negotiations with the local municipalities.

**Comment 1-161:** Some commenters claimed that the two proposed four-level parking structure grossly underestimates the number of passengers at the Hicksville Station, particularly given the planned increases in train service.

**Response 1-161:** The Proposed Project would add a substantial amount of parking at the Hicksville Station. The EIS's projected parking demand at the Hicksville Station is based on current LIRR forecasts over the next 24-year period. Ridership and parking demand would be monitored and additional strategies would be developed, if necessary.

**Comment 1-162:** A few commenters referred to an inconsistency within the EIS, namely, Page 13-23 refers to "a new parking garage near Hicksville Station" whereas other sections refer to two proposed garages in Hicksville.

**Response 1-162:** The EIS has been corrected to state that the Proposed Project includes two parking garages at Hicksville.

**Comment 1-163:** The Town of Oyster Bay's DER said the EIS and its appendices need to be more clear whether both garages will include below-grade parking.

**Response 1-163:** The EIS and appendices have been revised to make clear that both garages are currently planned to include one level of below grade parking.

**Comment 1-164:** A few commenters emphasized the importance of improvements for Hicksville, including: attractive parking facility design, dedicated parking for Hicksville residents, and the need for safe pedestrian crosswalks across Routes 106/107, Newbridge Road, and Jerusalem Avenue.

**Response 1-164:** LIRR will continue to work with local municipalities to address these issues.

**Comment 1-165:** One commenter provided a detailed critique of the Hicksville parking analysis, enumerating the following points:

- Project underestimates the magnitude of the parking shortage in Hicksville and does not increase parking enough
- EIS notes that most increase in ridership and new trains will be during off peak, but the plan says that little new parking is needed under the build scenario by analyzing only peak trains and peak ridership
- Study does not recognize that adding more parking in Hicksville will draw more people who are now parking in Syosset; ridership and parking needs will increase in Hicksville simply due to build scenarios
- Overly conservative table shows that by 2040 there will be an enormous shortfall in parking spots
- Assumptions are overly conservative about current parking inadequacies because when a lot is almost full by a certain time some people will give up rather than spend 10 minutes for a spot

- East Side Access Project will increase ridership, not keep it the same, as assumed in Table 10-7
- Traffic studies do not address risk to pedestrian safety at the Town of Oyster Bay lot; pedestrian bridge is needed
- Rather than four-story parking facilities, the Proposed Project should build eight-story lots

**Response 1-165:** As noted in Response 1-125, the analysis presents a conservative, reasonable worst-case scenario with regard to future parking demand which, as noted Chapter 10, “Transportation” in Section F, “Parking” is generated by background growth and future demand associated with East Side Access, and not from the Proposed Project. Table 10-7 shows that AM Peak ridership would in fact increase with East Side Access (the 2040 No Build scenario), but would not increase with the Proposed Project. As noted in Response 1-147, LIRR will continue to work with the local municipalities to address parking garage design issues.

### GRADE CROSSING COMMENTS

#### *GENERAL GRADE CROSSING COMMENTS*

**Comment 1-166:** Some commenters expressed support for the grade crossing eliminations (and attendant safety improvements and reductions in train horn noise), but noted they will result in local disruptions and altered traffic flows.

**Response 1-166:** The closure of South 12th Street and Main Street would result in altered traffic flows. As noted in the EIS at page 10-39, traffic would reroute to nearby crossings—New Hyde Park Road and Covert Avenue in New Hyde Park and Willis Avenue in Mineola—which would be grade-separated as part of the Proposed Project. Grade-separating these crossings would provide the additional capacity needed to accommodate the rerouted traffic, because traffic would no longer have to wait at gates while trains pass.

**Comment 1-167:** One commenter asked how deep the underpasses need to be to allow a tractor-trailer to pass through.

**Response 1-167:** The actual depth would depend on the final design of the bridge structure. A minimum of 14 feet vertical clearance would be provided.

**Comment 1-168:** One commenter asked if any grade crossings would include an overpass (rather than an underpass).

**Response 1-168:** No vehicular overpasses are proposed as part of the Proposed Project. Overpasses at certain locations were studied but eliminated due to larger potential impacts to adjacent residential and commercial properties. The



Scoping Document identifies grade crossing options that were considered but discarded from further review.

**Comment 1-169:** Some property owners in locations adjacent to proposed grade crossing eliminations asked how their properties would be regraded to allow for usable driveways and sidewalks.

**Response 1-169:** All driveways and sidewalk connections would be regraded to create a smooth transition to the proposed surface.

**Comment 1-170:** Some commenters requested grade crossing eliminations along the Oyster Bay Branch at Willis Avenue and Second Street.

**Response 1-170:** Eliminating these crossings would have a much greater significant adverse impact to commercial and residential properties than the grade crossing eliminations that are part of the Proposed Project. In addition, there is less need for eliminating those grade crossings because train traffic and its related adverse effect on noise and traffic congestion, on the Oyster Bay Branch is significantly lower than on the Main Line.

**Comment 1-171:** One commenter stated that the Proposed Project will include more trains, which will result in more gate-down time and further traffic congestion where grade crossings were not eliminated.

**Response 1-171:** With the Proposed Project there would be no remaining grade crossings within the Project Corridor. East of the Project Corridor, where grade crossings would remain, there would be one additional eastbound train per hour along the Ronkonkoma Branch and one additional eastbound train per hour on the Port Jefferson Branch as a result of the Proposed Project. These trains would not result in a substantial increase in gate-down time within any peak hour.

**Comment 1-172:** Some commenters said underground recharge chambers without pumps should be used at all grade crossings.

**Response 1-172:** NYSDOT has consulted with Nassau County Department of Public Works and has designed all grade crossing drainage to rely upon gravity flow to Nassau County recharge basins, per the request of the County. Underground recharge chambers and pumps would not be used.

**Comment 1-173:** A few commenters noted that in 2011, Governor Cuomo signed the Complete Streets Act (Chapter 398, Laws of New York) with an aim to consider all transportation users in their projects. Similarly, Nassau County adopted a “Safe Streets” policy in 2013. These commenters suggested that the Proposed Project be revised to comply with these laws by adding bicycle lanes to the underpasses, particularly at Covert Avenue and New Hyde Park Road. They also noted that the EIS (including the design criteria in Appendix 1-A) failed to mention these laws.

**Response 1-173:** The proposed design would be in compliance with the Complete Streets Act, which requires that all users be considered when developing a transportation project. The decision to add bicycle lanes to a project are on a case by case basis. Many local low speed roads do not have dedicated bicycle lanes. In this case, widening the underpasses ten feet (five feet in each direction) would result in higher vehicle speeds due to the open feel of the roadway. The impacts to properties would be much greater and given that there are no bicycle lanes on either side of the proposed underpasses and no plans to expand these local roads to create bicycle lanes, shared lanes are safe and appropriate.

**Comment 1-174:** The combined comments from the Villages of Floral Park, Garden City and New Hyde Park provided detailed engineering critiques of the grade crossing designs and identified the following problems:

- Constraints or severe constraints that are ignored in the EIS
- Narrow travel lanes and lack of shoulders
- Sub-optimal and narrow sidewalks (as narrow as five feet in width)
- Lack of guardrails and handrails as required for safety and potential lack of space to incorporate such features
- Lack of details regarding major utility relocations
- Lack of explanation regarding how major new stormwater drainage and recharge systems will be installed in constrained areas

Separately, the Nassau County Department of Public Works (NCDPW) said the FEIS should include alternative ownership arrangements for the access ways/frontage roads created as a result of implementing the Proposed Project, since the current configurations reduce access ways/frontage roads and would cause maintenance challenges.

**Response 1-174:** NYSDOT has designed the grade crossings to meet all AASHTO, NYSDOT, and County standards and where not feasible to meet all standards, NYSDOT has provided the justification for non-standard features, including grades, sight distance, and stopping distance. These non-standard features are justified given the specific site and ROW constraints. All pedestrian access is designed to meet the requirements of the ADA. Appropriate pedestrian safety enhancements such as handrails and guardrails would be provided. Proposed sidewalk widths have been designed to NYSDOT standards (five foot minimum for the preferred options) and would be ADA-compliant. All anticipated utility relocations have been subject to coordination with the appropriate utility companies. Additional utility coordination would occur during final design and construction. NYSDOT has collaborated with Nassau County Department of Public Works to develop a drainage system that relies upon gravity flow to Nassau County recharge basins. No recharge systems would be installed at or near the grade crossings. There are no proposed changes to the ownership of any roads at the grade crossings.

MTA-LIRR would prepare a Memorandum of Understanding (MOU) with the local municipalities for ownership of the various elements included under the Proposed Project.

*COVERT AVENUE GRADE CROSSING*

**Comment 1-175:** One commenter said his wife uses a wheelchair and expressed surprise and anger at the lack of ADA-compliance in the proposed Covert Avenue grade crossing, which includes a walkway only on one side of the street forcing people to cross a dangerous street. The commenter requested including a walkway on both sides of Covert Avenue or including elevators in the design. Another commenter stressed the importance of a walkway on both sides of the underpass to minimize hazards, otherwise elderly walkers and children on bicycles will need to cross Covert Avenue twice.

**Response 1-175:** An ADA-compliant sidewalk would be provided on the east side of the underpass. Pedestrians would be prohibited from crossing Covert Avenue at the underpass entrance/exit. An ADA accessible route would be provided at existing grade parallel to the underpass leading to Second and Third Avenue where pedestrians would be able to cross over the underpass and avoid the traffic on Covert Avenue. Three different design options, including a two-way underpass with sidewalks on both sides, were introduced to the Village but were subsequently rejected due to a loss of on-street parking on the west side of the street.

**Comment 1-176:** The Greater New Hyde Park Concerned Citizens Civic Association endorsed the plan to build a two-way underpass with sidewalk at Covert Avenue, and requested that the New Hyde Park Road grade crossing elimination be completed prior to beginning work at Covert Avenue.

**Response 1-176:** Covert Avenue is scheduled to be built in the first year with New Hyde Park Avenue in the second year. This sequence was implemented due to scheduling coordination between station project elements, utility relocation, property acquisition, and traffic diversions.

**Comment 1-177:** One commenter said the Proposed Project will remove on-street parking along the avenue and therefore, elderly and disabled family members will not be able to be picked up by Able-Ride and special bus services or such pickups will result in extensive traffic backups. Several commenters expressed concern about ingress/egress from their driveways. Some commenters asked why the east and west sides of Covert Avenue are not being treated equally; the west side would get a parking lane and space to back out of driveways but the east side would not.

**Response 1-177:** The proposed design has been changed to address these comments, as reflected on page 10-29 of the EIS. The retaining wall on the northeast side of the crossing would be flared back to allow increased sight distance and extra room for vehicles to pull out of traffic. Driveways that have ingress/egress issues would be reconfigured to allow space to

turn around so they would not have to back into traffic. A wider ADA-compliant sidewalk, and wider road shoulder, would be provided on the east side of the underpass to further accommodate special vehicles. Pedestrians would be prohibited from crossing Covert Avenue at the underpass entrance/exit. An ADA-accessible route would be provided at existing grade parallel to the underpass leading to Second and Third Avenue where pedestrians would be able to cross over the underpass and avoid the traffic on Covert Avenue.

**Comment 1-178:** One commenter requested renderings of the proposed Covert Avenue modifications. The Village of New Hyde Park LIRR Third Track Task Force requested the Covert Avenue grade crossing be redesigned with a more gradual grade to improve the line of sight; or raise the tracks and alleviate the need to depress the roadway to the extent proposed.

**Response 1-178:** The tracks are being raised approximately five feet as part of the current design to decrease the depth of the underpass from existing grade. The proposed design provides sight distances that meet the minimum NYSDOT standard for this roadway. Renderings of the proposed design are provided in Chapter 1, “Project Description.”

**Comment 1-179:** One commenter suggested raising the tracks slightly (similar to the Herricks Road crossing) to facilitate a more gradually sloped underpass with improved lines of sight.

**Response 1-179:** The tracks would be raised approximately five feet as part of the current design, to decrease the depth of the underpass from existing grade. During design, LIRR would evaluate opportunities to reduce the vertical profile of the roadways at the grade crossings.

#### *SOUTH 12<sup>TH</sup> STREET GRADE CROSSING*

**Comment 1-180:** A group of New Hyde Park petitioners and the Greater New Hyde Park Concerned Citizens Civic Association collectively endorsed the plan for Option 1 (permanent roadway closure) at the South 12<sup>th</sup> Street Grade Crossing. The petitioners did not favor Option 2 due to the increased cost, construction time, and need for property acquisition. One petitioner crossed out the petition, which is interpreted to mean the individual does not support Option 1. Supporters of the full closure stated it will improve safety and eliminate the vehicular bottleneck around the rail station. One commenter suggested the cost savings accrued by selecting Option 1 over Option 2 should be redirected to relocating the Village of New Hyde Park’s public works garage and resurfacing roadways within the construction zone.

**Response 1-180:** Based on comments received at the Public Hearings and discussions with community officials, Option 1 (full closure to vehicular traffic) has been identified in the EIS as the preferred option.

**Comment 1-181:** The Village of New Hyde Park LIRR Third Track Task Force stated that closing South 12<sup>th</sup> Street will divert traffic through residential streets and create additional congestion and said all north-south streets should remain as two-way streets.

**Response 1-181:** North/south traffic would be diverted to nearby Covert Avenue and New Hyde Park Road, which would be grade-separated. Traffic impacts from this diversion have been identified in the EIS and mitigated. The one-way underpass alternative at South 12th Street is not identified in the EIS as the preferred option.

**Comment 1-182:** A few commenters expressed a preference for a pedestrian underpass at South 12<sup>th</sup> Street to maintain walkability, air flow, sight lines, and connectivity between the north and south sides of the rail line in New Hyde Park. The Village of New Hyde Park LIRR Third Track Task Force said the proposed pedestrian bridge is not consistent with the residential character of the area.

**Response 1-182:** The EIS indicates that either a pedestrian overpass closer to the station platforms or a pedestrian underpass in the vicinity of South 12th Street would be constructed as part of the Proposed Project. The ultimate determination regarding the nature and location of the crossing would be made in consultation with the Village of New Hyde Park.

#### *NEW HYDE PARK ROAD GRADE CROSSING*

**Comment 1-183:** The Greater New Hyde Park Concerned Citizens Civic Association endorsed the plan for Option 1 at New Hyde Park Road (the five-lane underpass with kiss-and-ride northwest of the tracks and requested that it be the first grade crossing eliminated since it is the busiest one. Another commenter objected to Option 2 because the kiss-and-ride would be located too far east.

**Response 1-183:** Option 1 is now identified in the EIS as the preferred alternative. Covert Avenue is scheduled to be built in the first year, with New Hyde Park Road in the second year. This change was implemented due to scheduling coordination between station project elements, utility relocation, property acquisition, and traffic diversions.

**Comment 1-184:** The Greater New Hyde Park Concerned Citizens Civic Association requested the pedestrian bridge be relocated farther east towards the center of the reconstructed LIRR station platform. Another commenter asked for a pedestrian bridge with elevators between Herkomer Street and New Hyde Park Road, and objected to the inconvenient ADA access at New Hyde Park Road.

**Response 1-184:** The Proposed Project includes either a pedestrian overpass located closer to the middle of the Station platforms or a pedestrian underpass in the vicinity of South 12th Street. Either option would provide improved ADA access.

**Comment 1-185:** Numerous residents in the Greenridge Avenue area in Garden City asked whether the avenue will be blocked off or open for rail passenger drop-offs and pick-ups as part of the grade crossing elimination. They expressed concern about increased traffic and pedestrian safety, emphasized the number of children who play outside in this area, and asked for more details about access to Hathaway Drive and the overall intersection modifications.

**Response 1-185:** Access to Greenridge Avenue would be maintained. There is no drop-off area on Greenridge Avenue in the proposed plan. ADA-compliant sidewalks would be provided on both sides of the underpass to provide safe pedestrian access along New Hyde Park Road to points north and south of the tracks. Intersection modifications are shown in the EIS.

**Comment 1-186:** The Village of New Hyde Park LIRR Third Track Task Force stated concerns about the limited sight distances in the proposed underpass and the confluence of Clinch Avenue in the deepest portion.

**Response 1-186:** A minimum sight distance of 168 feet would be provided. This is slightly less than the standard distance of 175 feet required for a 30 mph design speed. Using a minimum sight distance of 168 feet as opposed to 175 feet would minimize impacts to commercial and residential properties and connecting roadways. Since sight distance is based on a 2-foot-high object, adequate sight distance to a vehicle (3.5 feet) and pedestrian would be provided. The addition of a southbound turn lane into Clinch Avenue would improve the condition at this location.

**Comment 1-187:** Several commenters said the two options at New Hyde Park Road will bring more vehicles into the Village and exchange one traffic congestion problem for another, including increased traffic on Herkomer Street and other local roads.

**Response 1-187:** Elimination of the grade crossing would provide free flow traffic on New Hyde Park Road. Existing traffic congestion due to gate-down time would be eliminated. This improvement would reduce traffic on local roads that seeks to avoid congestion on New Hyde Park Road.

**Comment 1-188:** The WPOA demanded that New Hyde Park Road maintain two southbound lanes due to the heavy traffic conditions.

**Response 1-188:** Option 1 (5-lane underpass with kiss and ride northwest of tracks) has been identified in the EIS as the preferred alternative and provides two southbound lanes.

#### *MAIN STREET GRADE CROSSING*

**Comment 1-189:** One comment said the underpass at Main Street should be properly graded and designed to ensure that cyclists are highly visible. The commenter added that both Main Street option makes it more difficult for pedestrians to walk from one side of Mineola's

downtown to the other side; Option 2 also reduces pedestrians' visibility to motorists and renders this Main Street segment less pedestrian-friendly.

**Response 1-189:** Option 1 (permanent crossing closure with pedestrian bridge) was selected as the preferred alternative. Pedestrian access across the tracks would be provided by a pedestrian bridge with stairs and elevators.

**Comment 1-190:** The owner of several private development properties expressed preference for Option 1 and its roundabout instead of a dead end. The need to condemn property near the roundabout should be deemed unnecessary due to the realignment of Front Street and the EIS should remove any references to condemnation at this location.

**Response 1-190:** This property would no longer be impacted by the updated roundabout layout, and references to condemnation will be removed from the EIS.

#### *WILLIS AVENUE GRADE CROSSING*

**Comment 1-191:** One commenter remarked that the Willis Avenue grade crossing is one of the worst traffic locations on Long Island during the evening peak hours and that the grade crossing elimination will be beneficial.

**Response 1-191:** Comment noted.

**Comment 1-192:** The consultants for the Village of Mineola said the underpass at Willis Avenue should be properly graded and designed to ensure that cyclists are highly visible.

**Response 1-192:** The proposed design provides adequate sight distance for the speeds expected at this location. A minimum sight distance of 155 feet would be provided which is slightly less than the standard distance of 175 feet required for a 30 mph design speed. Using a minimum sight distance of 155 feet as opposed to 175 feet would minimize impacts to commercial properties and connecting roadways. Sight distance is based on a two foot high object. Adequate sight distance to a vehicle (3.5 feet) and pedestrian or cyclist would be provided. Although the design speed for this type of roadway is 30 mph, the minimum sight distance was selected based on the expectation that speeds within the area of the underpass would be slower due to width constraints and underpass configuration.

**Comment 1-193:** The Village of Mineola suggested an improved pedestrian crossing at Willis Avenue, explaining that the Village is opposed to an underground pedestrian tunnel. Another commenter said a pedestrian overpass is consistent with the surrounding character of downtown Mineola.

**Response 1-193:** The preferred option at Willis Avenue includes a pedestrian overpass with stairs and elevators.

**Comment 1-194:** The owner of several private development properties said the Willis Avenue grade crossing will have substantial adverse impacts on traffic levels and that the traffic study included in Appendix 10 ignores the unique features in the area and should be updated. Depressing Willis Avenue will not work in this location and will eliminate pedestrian-friendly access.

**Response 1-194:** Traffic conditions at each of the grade crossing locations have been studied in detail for numerous analysis years and scenarios. Chapter 10, “Transportation,” summarizes the detailed studies contained in Appendix 10. The preferred option for grade-separating Willis Avenue identified in the EIS is a two-way underpass. ADA compliant sidewalks and a pedestrian overpass are included in the proposed design.

**Comment 1-195:** One commenter said the length of the proposed Willis Avenue underpass appears to classify it as a tunnel, which would require compliance with appropriate life safety, ingress/egress, and ventilation requirements, as well as the potential banning of trucks due to terrorist risks. He asked if LIRR would consider an overpass instead, factoring in cost and rail operations during construction.

**Response 1-195:** The proposed underpass is classified as a tunnel due to its length (approximately 300 feet). The design and construction of this tunnel would follow the guidelines in NFPA 502. A final determination on the required ventilation and fire protection design would be made as part of the design-build contract. An overpass was considered but eliminated from further consideration due to the increased need for property acquisitions, extensive property impacts and impacts to community character.

#### *SCHOOL STREET GRADE CROSSING*

**Comment 1-196:** Some commenters including the Village of Westbury expressed support for the proposed School Street elements that protect pedestrian access through the underpass, provide adequate clearance for emergency vehicles, accommodate commercial vehicles, preserve access to Westbury Station and Railroad Avenue, avoid residential property takings, and minimize commercial property takings.

**Response 1-196:** Comment noted.

**Comment 1-197:** The Village of Westbury strongly suggested adding an ADA-compliant pedestrian overpass (in addition to or in lieu of the underpass) with glass or transparent material.

**Response 1-197:** The sidewalk along the underpass would be ADA-compliant, and therefore an additional structure would not be required.

**Comment 1-198:** The Village of Westbury asked how ADA, pedestrian, and school route access will be maintained along School Street during construction and recommended



consultation with the Westbury School District and potentially providing school bus services during construction.

**Response 1-198:** During construction, pedestrian traffic would be allowed to cross the tracks within the designated area while vehicle traffic would be rerouted to nearby crossing streets.

**Comment 1-199:** A representative for the owners/occupants of 172 and 173 School Street properties expressed concern about the School Street grade crossing's effects on property access including:

- Concerns with Alternative 1A due to its shifting of 172 School Street access to Union Avenue and resulting loss of level yard space, vehicle staging area, storage, parking, and the existing vehicle fueling station
- Concerns about whether Union Avenue can safely handle additional truck traffic
- Concerns with Alternative 1B's impact to access and loss of usable yard space
- Concern about Alternatives 1A and 1B's elimination of an existing office building at 172 School Street, which is used for facility dispatching (and therefore maintaining its existing location is vital to efficient operations)
- The EIS's failure to identify and mitigate the impact to building access at 173 School Street
- The EIS's failure to identify and mitigate for loss of parking at both 172 and 173 School Street
- The EIS's incomplete traffic studies of changes in grade and property ingress/egress to traffic flow, patterns, and control measures; and lack of explanation of the traffic signal timing that would affect ingress/egress at 172 School Street
- Loss of parking at 173 School Street, which, if left unmitigated, would make the property non-confirming to land use codes
- Importance of maintaining connectivity between the 172 and 173 School Street facilities.
- The EIS's failure to discuss impacts to the existing rail spur serving the property, just west of the Grand Boulevard overpass. Should replacement be required, the businesses may request relocation towards the western boundary

**Response 1-199:** Alternative 1B has been identified in the EIS as the preferred alternative. This alternative relocates 172 School Street access to the north but maintains access on School Street instead of relocating it to Union Avenue. Conversations with the owner of 172 and 173 School Street are ongoing and the preferred alternative has been changed to address many of their concerns. For example, a crosswalk has been provided between 172 and 173 School Street to maintain connectivity and the parking lot for 173 School Street has been redesigned and reduces the existing space count by only 3 spaces, thus avoiding any concerns with non-compliance with local code. However, there would be unavoidable impacts to these properties for which the owner would need to be compensated. The switch providing access to the rail siding

would be replaced as part of the Proposed Project. The existing siding would be replaced in the future at the request of the property owner.

**Comment 1-200:** The Town of North Hempstead Department of Planning and Environmental Protection outlined a series of requested design elements for the School Street grade crossing, including:

- ADA-compliant sidewalk with minimum five-foot-width to accommodate pedestrians and bicyclists along with safety provisions (rails, lighting, etc.)
- Driveway reconstruction, parking lot access, loading dock access, and service road installations to the satisfaction of the owner/town at specific locations (150 School Street, 118 School Street, 461 Railroad Avenue, 172/173 School Street)

**Response 1-200:** An ADA-compliant five-foot sidewalk with handrails and lighting would be provided. In consultation with the property owners, design considerations have been undertaken to ensure access to the affected properties.

#### *URBAN AVENUE GRADE CROSSING*

**Comment 1-201:** The Town of North Hempstead Department of Planning and Environmental Protection outlined a series of requested design elements for the Urban Avenue grade crossing, including:

- ADA-compliant sidewalk with minimum eight-foot-width to accommodate pedestrians and bicyclists along with safety provisions (rails, lighting, etc.)
- Grade modifications to Railroad Avenue to allow it to remain open with Urban Avenue passing underneath
- Driveway relocation at 146 Urban Avenue
- Stairway or ramp at the southeast corner entrance area of Bunky Reid Park and the underpass sidewalk
- ADA-compliant overpass from Railroad Avenue to 117 Urban Avenue, if the existing use of that location is removed
- Access for affected businesses along Urban Avenue in the New Cassel Industrial Park
- Community and town consultation regarding the aesthetics of the underpass walls and vegetation replacement at this location

**Response 1-201:** An ADA-compliant five-foot sidewalk with an eight-foot section at the landing of the stairs would be provided at the Urban Avenue grade-separated crossing. In addition, a stairway and ramp, pedestrian railing and lighting would be provided and Railroad Avenue would remain open to through traffic. The driveway at 146 Urban Avenue would be relocated to Railroad Avenue. A stairway and ramp would be provided to the park from the underpass sidewalk. The property at 117 Urban Avenue is being considered for full acquisition. Access to businesses along Urban Avenue would be maintained either directly to Urban Avenue or to adjacent roadways. However, there would be unavoidable impacts to some of these properties for which the owners would be

compensated. Discussions with affected property owners are ongoing. Community input regarding aesthetics would be incorporated into final design.

## **LIRR RIGHT-OF-WAY MAINTENANCE**

**Comment 1-202:** Many commenters stated the LIRR does not properly maintain its existing property (e.g., rodent control, weed control, outdated road closure signs) and named specific items such as debris, garbage, and leftover railroad ties between the Carle Place Station and Ellison Avenue Bridge.

**Response 1-202:** LIRR has a regular maintenance and inspection schedule to maintain its ROW. LIRR makes an effort to be a good neighbor and work with communities to clean and maintain its ROW, and will continue that effort. Clean-up of the Project Corridor will be implemented during construction of the Proposed Project to the extent practicable. Strict clean-up requirements related to Proposed Project construction will be part of the design-build contract, including daily housekeeping of the construction site, final project clean-up, removal of waste materials, public roadway cleaning, and dust control.

**Comment 1-203:** Some commenters asked that LIRR ensure proper maintenance of the LIRR ROW and all project elements after the Proposed Project is constructed. A few commenters including the Village of Westbury asked for definitive agreements in the EIS for post-construction maintenance of project elements and the provision of maintenance and/or repair bonds to protect municipalities and residents against LIRR's potential maintenance failures.

**Response 1-203:** As noted in the EIS on page 1-24, LIRR would work with local villages to reaffirm maintenance and security responsibilities for each station area. Measures to minimize community impacts are noted on page 13-7 and 13-8 of the EIS.

**Comment 1-204:** In some locations, the EIS indicates that retaining walls and/or sound attenuation walls will be set back within the LIRR ROW, leaving a buffer area accessible to the public. The Village of Westbury requested that LIRR offer the option for conveying or granting access to these buffer areas to residents.

**Response 1-204:** Transfer of these areas is not part of the Proposed Project as LIRR would need to maintain access to the walls for inspection, maintenance, and any work to maintain and keep up the walls.

**Comment 1-205:** Some commenters stated the increase in any LIRR infrastructure will bring more graffiti and urban blight.

**Response 1-205:** LIRR would work with communities on the design and aesthetics of additional infrastructure. Anti-graffiti measures that LIRR could utilize

include applying anti-graffiti coatings to walls to make it easier to clean and remove graffiti, landscaping materials to deter graffiti, and other measures that are practicable and feasible.

## **D. COMMENTS PERTAINING TO ENVIRONMENTAL EFFECTS**

### **LAND USE, COMMUNITY CHARACTER, AND PUBLIC POLICY**

#### *LAND USE & ZONING*

**Comment 2-1:** Some commenters including the Village of New Hyde Park LIRR Third Track Task Force, objected to the EIS conclusion regarding no adverse impacts to land uses, since there would be an adverse impact to the use of land in the residential districts near the Main Line.

**Response 2-1:** Under SEQRA, the term “Land Use” refers not to the application of any particular parcel of land, but to a more broadly defined pattern of uses that occur across municipalities, neighborhoods, and other such categorizations of land. As described in Chapter 2, “Land Use, Community Character, and Public Policy,” the Proposed Project would not change land use thus defined.

**Comment 2-2:** The Town of Oyster Bay’s DER said the EIS needs a more nuanced analysis of population increases and land use intensity changes in each community, to more accurately project increased demands for station parking.

**Response 2-2:** The DEIS analysis of the Proposed Project’s potential impacts to land use was done with consideration of current land use, reasonably foreseeable future land use as informed by current use and applicable land use plans, and any impacts to land use attributable to the Proposed Project. The reasonably foreseeable future land use projection accounts for population increases and its impact on intensity of use.

**Comment 2-3:** The Town of Oyster Bay’s DER said the land use graphics for the Hicksville area are inaccurate, and pointed out a series of specific errors in land use categorizations, including: incorrect labeling of parking lots, commercial uses, and residential uses as “vacant” land; omissions of notable community facilities and historic resources; and omission of numerous parks and gardens. The commenter also provided a correction to EIS page 2-18, which has contradictory statements regarding changes in zoning codes, and suggests renaming Hicksville references to the “Hamlet of Hicksville in the Town of Oyster Bay.” The commenter provided a correction to the description of Hicksville on EIS page 3-11, disagreeing with the reference to the area around the station as primarily industrial.

**Response 2-3:** Appropriate changes to Figure 2-1G have been made. It should be noted that the panels of Figure 2-1 do not specifically include historic resources, which are shown graphically in Chapter 6, “Historic Resources,” or non-public open lands (e.g., private gardens), but rather

illustrate more general land use patterns along with schools, recreational resources, places of worship, and public parklands.

*PUBLIC POLICY*

**Comment 2-4:** Some commenters stated that the Proposed Project would support sustainability and Smart Growth principles and transit-oriented downtown areas throughout Long Island, and be compatible with policies and developments including: *Connect Long Island* (Suffolk County regional transportation and development plan); EPCAL (large planned commercial and industrial subdivision in Riverhead); and the Ronkonkoma Hub (which was reportedly rejected by some larger corporations who sought reverse transit options for their employees). Commenters said such plans and developments will create jobs, but transportation is required to bring the employees. The Village of Westbury and its consultants stated the Proposed Project supports the Village goals for growth and infrastructure investment and catalyzing mixed use developments near the Westbury Station and parking facilities, and encouraged coordination with Westbury projects that have been funded through the Downtown Revitalization Initiative (DRI).

**Response 2-4:** As stated in Chapter 2, the Proposed Project is consistent with public policy, and supports existing and reasonably foreseeable future land uses.

**Comment 2-5:** The Village of New Hyde Park LIRR Third Track Task Force objected to reliance on regional plans to justify the Proposed Project, explaining the purpose of local governments and objecting to the application of the “NIMBY” label to residents with valid concerns.

**Response 2-5:** Regional plans are an expression of what governmental planning officials, residents, and elected officials determine are the most desirable and suitable uses of land in their communities, or what other, nongovernmental planning professionals expect in terms of future land use. The land use analysis in the EIS uses the guidance offered by these regional plans to focus the analysis of the Proposed Project’s potential land use impacts. Also, the EIS considered all substantive and applicable public input on its merits, including input from local governments and local residents.

**Comment 2-6:** The owners of several private development properties said the Willis Avenue grade crossing plan is in direct conflict with the Village of Mineola incentive zoning and overlay district, which permits the village to grant substantial density bonuses to owners consistent with the Comprehensive Master Plan for the Village of Mineola. One specific example provided is the area of Willis Avenue and Second Street in Mineola, which would become an “island unto itself,” which directly conflicts with the goals of the Village of Mineola Comprehensive Master Plan, including improving the pedestrian experience and supporting the business community.

**Response 2-6:** Neither the Willis Avenue grade crossing component nor any other component of the Proposed Project is inconsistent with the Mineola incentive zoning and overlay district insofar as neither would preclude any landowner in that district from developing land in a manner that would enable that landowner to benefit from incentive bonuses. Moreover, the Proposed Project would enhance pedestrian mobility within the Study Area.

**Comment 2-7:** The Town of Oyster Bay's DER provided a correction to EIS page 2-3, noting the Hamlet of Hicksville has been the subject of multiple planning initiatives.

**Response 2-7:** The Hamlet of Hicksville does not have an adopted planning document available as of the time of this environmental review. It was however, the subject of a planning initiative and a document titled "Proposed Rezoning of the Central Business District," published on November 17, 2016. That document proposes that zoning in Hicksville be amended so that the area immediately surrounding the LIRR Hicksville Station would be designated a "Transit District," and the areas north, south, and east of that district a "Traditional Downtown District." The Proposed Project would be consistent with this zoning scheme, if it were to be formally adopted by the Town of Oyster Bay.

**Comment 2-8:** The Town of Oyster Bay's DER said the Proposed Project's incorporation of the Long Island Regional Planning Council *Sustainable Strategies for Long Island 2035 Regional Comprehensive Sustainability Plan* should be demonstrated.

**Response 2-8:** Please see page 2-4 and 2-5 of the EIS which notes the objectives of the Long Island 2035 Regional Comprehensive Sustainability Plan that are relevant to the Proposed Project.

#### *COMMUNITY CHARACTER & QUALITY-OF-LIFE*

**Comment 2-9:** Some commenters said the Proposed Project will constitute a major intrusion into the daily lives of adjacent community residents and substantially decrease their quality of life, since the affected areas are primarily quiet residential areas. They stated concern about adverse effects to community character due to project elements, including additional rail track, rail service, and tiered parking garages, and said the area will begin to look like Queens.

**Response 2-9:** The Proposed Project would result in a benefit to adjacent communities and quality-of-life with reductions in noise associated with train horns and less traffic congestion when crossing gates are down.

While project elements such as retaining and sound attenuation walls and parking garages would introduce new visual features into the municipalities in the Project Corridor, the Proposed Project would not result in adverse impacts to community character. Residential neighborhoods would remain residential; commercial areas would

remain commercial. Parking garages, for example, would be constructed exclusively in commercial areas on parcels that are already used for parking, and would not be constructed in residential neighborhoods where they would be more likely to change the character of communities.

Elimination of grade crossings within the Project Corridor would remove a significant safety concern for both vehicles and pedestrians. Construction of vehicular underpasses and pedestrian underpasses or overpasses would result in a change to the physical environment, but these structures (and parking garages) are not dissimilar from other such structures within Nassau County. Previous grade crossing closures at Roslyn Road, Herricks Road, and Mineola Boulevard were all done at the request of those communities. Changes to pedestrian access across the tracks would be associated with the grade crossing closures and not with the construction of the third track.

**Comment 2-10:** Some commenters stated the Proposed Project will improve their quality of life and facilitate greater mobility to cultural institutions and places of entertainment in New York City and throughout Long Island.

**Response 2-10:** Comment noted.

**Comment 2-11:** The Village of New Hyde Park LIRR Third Track Task Force objected strenuously to the EIS contention that community character would not change, stating that the Village of New Hyde Park will experience serious adverse impacts to community character due to: the installation of a large and incongruous pedestrian overpass with elevators; neighborhood bisection and fracturing at South 12<sup>th</sup> Street; 90-foot-tall utility poles; increased vehicular traffic; increased passenger and freight train traffic; increased noise and vibration; removal of trees and vegetation; conversion of the neighborhood into a “commuter intermodal facility”; increased urban qualities; and other project elements inconsistent with the existing suburban character. They said the definition of the Study Area for community character analysis should be expanded or contracted depending on the nature of each community.

**Response 2-11:** Please see Response 2-9. Under existing conditions the land use of the LIRR ROW is heavy-rail transportation. With the Proposed Project, the land within the ROW would remain under transportation use, and the Proposed Project would not change the way that transportation is carried out. Residential areas would remain residential; commercial areas would remain commercial. While new pedestrian overpasses, and taller steel utility poles would introduce new visual elements, all of these elements are consistent with the areas in which they would be introduced. Pedestrian underpasses or overpasses would continue to provide pedestrian opportunities to traverse the LIRR ROW and would therefore be considered consistent with the overall land use and community character of the Study Area, as noted on page 2-18 of the

EIS. Noise and vibration within the Project Corridor would be lessened by installing sound attenuation walls and, in some places, installing vibration-control devices. With regard to the closure of South 12th Street, the LIRR tracks already serve as a neighborhood delineator. The closure of South 12th Street to vehicular traffic at the LIRR ROW would not create significant new fragmentation as pedestrian access would be preserved by a new pedestrian bridge and alternative vehicular crossings are located nearby. The benefits of the Proposed Project related to pedestrian safety and quality of life are set forth on pages 2-17 through 2-19 of the EIS.

**Comment 2-12:** Some commenters (including the owner of several private development properties in Mineola) said the Proposed Project will severely impair the walkability and character of some communities by creating “dead zones,” and that parking lot designs and other project elements should be adjusted accordingly.

**Response 2-12:** To the contrary, the Proposed Project would enhance the walkability of the communities in the Project Corridor, thereby enhancing their community character. North-south mobility would be improved by the elimination of grade crossings and the provision of overpasses and underpasses that can be used by pedestrians, which would enhance pedestrian safety by eliminating the need for them to physically cross train tracks.

#### *COMMUNITY FACILITIES & RECREATIONAL RESOURCES*

**Comment 2-13:** Some commenters were concerned about the effects of the Proposed Project and increased rail service on community facilities near the Main Line, including schools, libraries, post offices, and more.

**Response 2-13:** As noted on page 2-20 of the EIS, community access would be maintained to all residences, neighborhoods, commercial, governmental, institutional and recreational facilities. Other forms of impact to community resources, such as noise and vibration, air quality, and contaminated materials, are addressed in their respective chapters. In terms of community, the nature of the project elements and the mitigation measures to be required would ensure that impacts to community facilities would not be significant and adverse.

**Comment 2-14:** Some commenters specifically noted the Floral Park pool and recreation center (which abuts the LIRR ROW), its popularity, its importance to community activities, and the long-term adverse effects of increased freight and passenger trains. The need to ensure long-term safety of neighborhood children using the facility was also emphasized.

**Response 2-14:** The presence of the Floral Park Recreation Center and Playground is referenced on page 2-8. The Appendix 1-A shows that the Proposed Project would not displace the pool or recreation space, and indicates



that a sound attenuation wall would be installed between the Recreation Center and the LIRR tracks, thereby decreasing the level of noise currently experienced by users of the recreation facility. This view is presented in Chapter 5, “Visual Resources” as Figure 5-4 and 5-5. The EIS (pages 2-19 and 2-20) states that community access would be maintained to all residences, neighborhoods, commercial, governmental, institutional and recreational facilities with the Proposed Project. The EIS provides details about how the LIRR would take measures to minimize community impacts on pages 13-7 to 13-8. The various performance standards would minimize impacts to, and ensure safety of, users of the Floral Park Recreation Center and Playground during construction. Over the long-term the presence of a new retaining wall and sound attenuation wall in this area would increase the safety and diminish noise levels in this area.

**Comment 2-15:** The Carle Place Civic Association requested new fencing be installed as part of the Proposed Project at Fuschillo Park to prevent children from accessing the expanded Main Line.

**Response 2-15:** Where new sound attenuation walls are not provided new high-security fencing would be installed. New fencing would be installed adjacent to Fuschillo Park.

**Comment 2-16:** The need for sound attenuation walls along Garden City High School and fields was stated by several commenters, including the WPOA.

**Response 2-16:** The area east of Whitehall Boulevard adjacent to the LIRR ROW includes a Nassau County drainage basin, which is not a noise-sensitive receptor.

## **SOCIOECONOMIC CONDITIONS**

### **DEMOGRAPHICS**

**Comment 3-1:** Some commenters described recent demographic shifts on Long Island, and its effect on Railroad ridership trends. These shifts include the reduction in vehicle ownership rates and driver’s license applications, which is creating a larger driverless population. Some commenters cited demographic changes including a reduction in Long Island’s elderly population, as well as millennials, attributed this loss in part to a lack of transit options, and said the aging would fare better with a more robust mass transportation system. Additionally, many noted that there remains a disconnect between the existing housing stock and the demand for transit-friendly communities within Long Island in response to these trends.

**Response 3-1:** A reference to the Proposed Project’s Needs Assessment is located on page 1-17 of the EIS, focusing on the need to enhance and expand transportation services to respond to the region’s changing travel demands.

**Comment 3-2:** One commenter stated that the EIS is inaccurate in describing the population of the Village of Floral Park as 9,304 and clarified it should be listed as 15,977.

**Response 3-2:** For purposes of the socioeconomic analysis, a Study Area of ½-mile around the Floral Park Station was used. While Chapter 3, “Socioeconomic Conditions,” identifies the population of that Study Area as 9,304 (see Table 3-1 on page 3-5), Chapter 2 reports the population of the entire Village of Floral Park (as of the 2010 Census) as 15,863 (see page 2-8).

**Comment 3-3:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park questioned the population forecasting that was used to support the project purpose and need. Namely, NYMTC’s projected Long Island population growth of 12 percent was questioned and alternative demographic data suggesting a projected population decline in Nassau County and modest increases in Suffolk County was provided.

**Response 3-3:** NYMTC is the federally-designated Metropolitan Planning Organization (MPO) for the New York City metropolitan region, including Long Island. NYMTC’s data are considered the authoritative data for projecting future transportation needs.

**Comment 3-4:** Town of Oyster Bay’s DER asked for details (source, year, month) of the employment and business information provided on page 3-11.

**Response 3-4:** Business and employment data were obtained from the ESRI Business Analyst Online tool in June 2016.

**Comment 3-5:** One commenter said the unusual demographics of villages such as New Hyde Park must be recognized and incorporated into the project design; elderly populations may not be considered handicapped but have mobility limitations that need to be considered during and after construction.

**Response 3-5:** Pages 1-22 through 1-26 of the EIS enumerate the rail station improvements that would be undertaken as part of the Proposed Project to make the platforms accessible for people with disabilities. These improvements would also provide accessibility for other populations, such as the elderly. Rail station improvements would include enhanced pedestrian access at five passenger rail stations within the Project Corridor. In the five modified stations that would accommodate the new third track, ADA accessibility features would be included as project elements. ADA improvements would include ADA-compliant elevators, covered stairs for general access to each platform, platform and waiting area improvements, and ADA accessible ramps. Also, ADA access would be provided at Floral Park Station with the addition of elevators and sidewalk enhancements. Additional details regarding these improvements are discussed in Appendix 1-A section 3.7. In addition,

all pedestrian overpasses would include ADA-compliant elevators. Pedestrian underpasses would include ADA-compliant ramps or elevators

### *LOCAL BUSINESS IMPACTS*

**Comment 3-6:** Some commenters noted the small family-owned stores and restaurants along South Tyson Avenue, Plainfield Avenue, and Tulip Avenue in Floral Park near the Main Line and Hempstead Branch and expressed concern about potential impacts to these businesses. Vehicles must parallel park along these avenues to access these businesses, and project work (e.g., South Tyson and Plainfield Avenues bridge work) will limit access to businesses, offices, and residents and have long-term effects. Some commenters questioned the EIS conclusion (page 3-17) regarding lack of impacts to the Tulip Avenue business district in Floral Park as well as the statement (page 3-22) regarding the lack of significant adverse socioeconomic impacts and the absence of mitigation measures.

**Response 3-6:** The EIS states on page 13-28 that while construction activities could affect pedestrian and vehicular access to businesses solely during the construction period, modified access would be temporary. Also, as stated in the EIS, plans would be developed to ensure that access to existing businesses is maintained throughout the construction period.

**Comment 3-7:** Several commenters stated that the construction period may be temporary but the impacts will be long-term, and requested that the EIS define more precisely the term “temporary” for each stage of the construction process. It was noted that the EIS emphasizes the positive socioeconomic impacts (page 3-21) using IMPLAN modeling but is incomplete in using such analysis for the local community economies.

**Response 3-7:** A study of purely economic impacts is beyond the scope of SEQRA, as noted on page 3-2 of the EIS. However, a socioeconomic analysis for the Study Area using a number of methods was conducted and is outlined on page 3-3 and 3-4 of the EIS. Temporary construction impacts are defined as the impacts occurring during the construction period. The construction period for each project element is set forth illustratively in Figure 13-1 of the EIS. Because each element of this linear project would be under construction for periods of limited duration, as shown in Figure 13-1, construction-related impacts would not last for a prolonged period; thus it is entirely speculative to presume that such temporary impacts would have long-term effects.

**Comment 3-8:** Some commenters expressed concern about the impacts of the Carle Place Station closure on local retailers, which could go out of business.

**Response 3-8:** Page 3-1 of the EIS states that the Proposed Project would not result in long-term adverse socioeconomic impacts to businesses or business districts and page 3-17 states that the Proposed Project would result in only minor disruptions to business districts in terms of changes to

access with the removal of the grade crossings, and it is anticipated that the impacts on commerce in the Study Area would be minimal. General business operations would not change and there would be continued vehicular and pedestrian access to the Study Area business districts. Additional details related to mitigation for any affected businesses are noted in the Project Description, Chapter 1 of the EIS. With regard to Carle Place in particular, page 13-22 notes that the Carle Place Station may be closed for approximately 12 months. As stated in the DEIS, access modification related to construction activities would not present a significant adverse impact to businesses because of the limited, temporary nature of this closure. It is entirely speculative and unsupported to presume that a closure of one year of the station, which would continue to be served by a shuttle bus service, would result in long-term impacts to this business district.

**Comment 3-9:** The owner of several private development properties in Mineola provided specific comments regarding impacts to the property at 85 Willis Avenue and the negative effects from the Willis Avenue grade crossing design and parking lot—including loss of light and air; reduced ingress/egress, general property attractiveness, impair aesthetics, and the need for further condemnation of property to accomplish the proposed layout—which will collectively render the property inaccessible.

**Response 3-9:** The Willis Avenue grade crossing is described in the preliminary engineering discussion on page 3-46 of Appendix A, and illustrated on pages 92, 141 and 142 of that appendix. The grade crossing design and parking lot may potentially constitute a change in visual character from existing conditions, and would modify access to several parcels within the Project Corridor, but would not result in significant adverse socioeconomic impacts. Project plans and renderings do not indicate any impact in terms of light, air, and aesthetics. As with all properties within the Project Corridor, access to the property in question would be maintained. All property acquisitions required for the Proposed Project are listed on Tables 1-10 to 1-13.

**Comment 3-10:** The owner of several private development properties in Mineola provided specific comments regarding the property at 199 Second Street and the potential need for property acquisition to accommodate the proposed roundabout. The commenter stated that a realignment of the roundabout and Front Street should remove the need for any property acquisition at this location and encouraged the EIS to remove references to condemnation.

**Response 3-10:** The reference to the acquisition of this property has been removed from the EIS.

**Comment 3-11:** The representatives for the owners/occupants of 172 and 173 School street noted the importance of ensuring long-term access and operational viability of the Jamaica

Ash and Meadow Carting facilities at their present locations (172 and 173 School Street) was emphasized. The commenter said the impacts to these businesses are not adequately identified or analyzed in the EIS and insufficient and/or unacceptable mitigation measures are presented. Additional detail, such as survey information and proposed grade changes, are required to ensure the functionality of the businesses.

**Response 3-11:** Impacts to the properties in question in terms of the amount of land to be acquired, along with the location of the acquisition, is set forth on page 1-36 of the EIS and page 3-15 of Appendix A. While access to 172 and 173 School Street would be changed, it would be maintained. Additional measures to reduce the impact of the property acquisition at this location are being developed cooperatively with the affected commercial property owners.

**Comment 3-12:** One commenter inquired about the Proposed Project's effects to her tenants at 70-74 Willis Avenue. Another commenter asked about the Proposed Project's effects to businesses and private business parking lots along Railroad Avenue in Westbury (including Krystal Fruit & Vegetable / Arrow Produce), and whether compensation would be provided if their parking was displaced.

**Response 3-12:** A Work Zone Traffic Control Plan (WZTCP) would be developed and implemented to ensure that access to existing businesses would remain throughout the Project Corridor during the applicable construction periods, which are illustrated in Figure 13-1 of the EIS. Impacts to parking are discussed in Chapter 10, "Transportation" Section F, "Parking." Compensation would be offered to every party who has a fee interest in the property subject to acquisition.

**Comment 3-13:** One business owner along Plaza Avenue in New Hyde Park stated concerns about the Proposed Project's effects on their operations and truck routes.

**Response 3-13:** A WZTCP would be developed and implemented to ensure that access to existing businesses would remain throughout the Project Corridor during the applicable construction periods, which are illustrated in Figure 13-1 of the EIS.

**Comment 3-14:** Some commenters stated the new pedestrian bridge in Mineola could negatively impact businesses since residents at new multifamily developments on the south side of the Main Line may be less inclined to walk to north-side businesses. Mitigation strategies are needed to ensure continued attractiveness of Mineola's downtown.

**Response 3-14:** Pedestrian overpasses would be constructed to facilitate north-south mobility across the tracks.

**Comment 3-15:** Some commenters stated that the Willis Avenue grade crossing proposal will disconnect businesses on Second Street near the train station from commercial businesses west of Willis Avenue.

**Response 3-15:** As noted on page 3-17 of the EIS, the separation of grade crossings would constitute only a minimal impact on business districts insofar as unfettered vehicular and pedestrian access to entire communities would be maintained.

**Comment 3-16:** Several commenters emphasized the importance of coordinating with all affected businesses regarding changes to access and any necessary relocations.

**Response 3-16:** Pages 3-17 of the EIS states that owners of property acquired for the Proposed Project would receive just compensation and, if applicable, relocation assistance. LIRR will continue to work with affected landowners regarding both acquisition and the maintenance of property access.

**Comment 3-17:** One commenter objected to the EIS's statement that "...community businesses...stand to benefit from improved transportation connectivity," as it pertains to Floral Park businesses.

**Response 3-17:** No changes to access to local businesses are proposed in Floral Park. In general, the Proposed Project would provide benefits to north-south connections within Project Corridor communities.

#### *JOB CREATION*

**Comment 3-18:** Some commenters said the reverse peak and intra-Island service will have positive long-term socioeconomic effects due to job creation.

**Response 3-18:** Comment noted.

**Comment 3-19:** Some commenters challenged the assertions regarding job creation and socioeconomic benefits, since many employers are located away from the rail stations. One commenter objected to businesses that force employees to journey to New York City and that Long Islanders should support the local economy by working on the Island.

**Response 3-19:** Public comment on the DEIS included multiple comments from representatives of Long Island employers, who asserted that being able to draw employees from the west is attractive to draw additional skilled employees in order to grow and compete economically.

**Comment 3-20:** One commenter asked if potential supplier businesses are located within the affected communities, or if most suppliers are expected to be in Suffolk County or out of state. The commenter also asked about worker-training programs to provide jobs to Nassau and Suffolk County residents.

**Response 3-20:** This requested information is outside the scope of SEQRA and this EIS.

**Comment 3-21:** Some commenters said the Proposed Project and increased rail capacity may make properties in downtown areas more attractive for redevelopment.

**Response 3-21:** Comment noted.

*PROPERTY ACQUISITION*

**Comment 3-22:** Some commenters objected to the destruction of residences and businesses, and questioned how much property is required to build many new parking lots.

**Response 3-22:** As noted throughout the DEIS, the Proposed Project is completely different than previous expansion proposals and would not result in any residential property acquisitions through eminent domain, and would require only four full commercial acquisitions. As noted on pages 3-17 through 3-20 of the DEIS, the LIRR would continue to coordinate with affected businesses and commercial properties to determine compensation and relocation assistance as needed. As stated on pages 1-33 of the DEIS, the new tiered parking decks would be constructed on parcels that currently serve as surface parking lots. The locations of these parcels are listed on page 1-36 of the EIS and shown graphically on in Figure 1-54 to Figure 57.

**Comment 3-23:** One official of the Village of Garden City stated that during prior meetings, Proposed Project staff had not indicated that permanent property takings and eminent domain were necessary, but rather, mentioned a potential need to store equipment. The official referenced a letter from NYSDOT to the Village of Garden City regarding the proposed acquisition of three municipal parcels near the New Hyde Park Station, as well as the response letter submitted back to NYSDOT asking for more details about the proposed acquisitions, including the exact locations. Some affected commercial property owners asked to coordinate with NYSDOT and LIRR to maximize the use of private ROWs on Urban Avenue and Rushmore Street and minimize impacts to businesses on that block.

**Response 3-23:** The potential need for non-residential property acquisition was discussed at numerous meetings with this Village official and decisions were made through this consultation. Decisions made from this consultation are set forth on page 1 of the Scoping Document and is addressed on page 1-36 of the EIS.

**Comment 3-24:** The Village of New Hyde Park LIRR Third Track Task Force asked for clarification about 1401 Fourth Avenue (Deluxe Car Storage) in New Hyde Park and whether it will be a full or partial taking.

**Response 3-24:** As noted on Table 3-12 and 3-16, 1401 Fourth Avenue is a partial property acquisition or strip taking and would not affect the continued operation of the business.

**Comment 3-25:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park provided an engineering critique of the project design, and concluded that additional property acquisitions will be required, which are not disclosed in the EIS, such as

space needed to install retaining wall and sound attenuation wall foundations and space for staging areas.

**Response 3-25:** All required acquisitions are listed on pages 1-36 through 1-38 of the EIS. Staging areas would generally include the LIRR ROW or ancillary property. The proposed method for constructing the retaining walls and sound attenuation walls, including footings and foundations, would not require any additional property acquisition. Some permanent easements may be required for retaining wall tiebacks.

**Comment 3-26:** Some commenters asked MTA and LIRR to provide meaningful reassurance of relocation feasibility, such as a real estate analysis to assess the availability of commercial properties within each impacted community.

**Response 3-26:** The State is committed to providing relocation assistance to affected businesses as noted throughout Chapter 3 of the EIS. The information requested is beyond the scope of SEQRA.

**Comment 3-27:** A few commenters requested that MTA and LIRR purchase their homes, since they feel that the effects of the Proposed Project will be detrimental to their health, quality of life, and/or property values.

**Response 3-27:** The impact of the Proposed Project on the property values of particular homes is an economic impact that is beyond the scope of SEQRA. The EIS at page 3-16 demonstrates that the Proposed Project would not change the nature of surrounding land uses or community character and thus would not result in significant adverse environmental impacts to single family homes located in the project Study Area.

**Comment 3-28:** One commenter said the Proposed Project's maps show Third Avenue in New Hyde Park running through his backyard, and was seeking clarity on whether his property was being taken.

**Response 3-28:** No residential property would be acquired under the Proposed Project. All commercial property acquisitions are listed on Tables 1-10 to 1-13 of the EIS. The property in question was surveyed and confirmed that the paper street is municipal property and not residential property.

**Comment 3-29:** One commenter suggested a statewide program wherein home owners affected by modernization projects have the option to sell their homes and have the property converted to green space and offset pollution. Another noted a separate case of property owners suing over Eminent Domain, which negatively affected that project's cost and schedule. A small number of property owners submitted requests for MTA to purchase their homes, as that would be preferable to remaining during the construction period.

**Response 3-29:** The issues raised by these comments are beyond the scope of SEQRA and this EIS.



**PROPERTY VALUES**

**Comment 3-30:** Some commenters asked that the EIS include a property valuation assessment to determine how the Proposed Project will affect property values along the Project Corridor and what mitigation is appropriate (such as tax credits). Some commenters stated that commercial traffic along Second and Third Avenues in New Hyde Park will be rerouted to the residential First and Fifth Avenues, thereby lowering property values and increasing taxes within the affected communities. Some commenters claimed compensation is required for constructive takings as well as actual takings; and that some residents would prefer to sell their homes given their view that the Proposed Project would negatively affect community character and quality of life. Some commenters asked for a property-by-property analysis performed by a licensed property appraiser to determine the level of diminution. One commenter stated the EIS must address the socioeconomic impact on the affected neighborhoods, which will experience long-term effects (including property devaluation) from the yet-to-be-defined periods of time where construction and equipment will be located on or near residents and in local streets. The commenter noted the detailed modeling used to predict the Proposed Project's economic benefits but stated the EIS is incomplete without a detailed analysis of the impacts to local communities.

**Response 3-30:** An analysis of the impact of the Proposed Project on property values is a non-environmental impact that is beyond the scope of SEQRA and this EIS. However, a socioeconomic analysis for the Study Area using a number of methods was conducted and is outlined on page 3-3 and 3-4 of the EIS.

An analysis of the impact of the Proposed Project on property values is a non-environmental impact that is beyond the scope of SEQRA and the EIS. However, a socioeconomic analysis for the Study Area using a number of methods was conducted and is outlined on page 3-3 and 3-4 of the EIS. Compensation would be offered for all property acquired. The Proposed Project would not result in any constructive takings or impacts to community character.

Chapter 3 of the EIS contains an analysis of the Proposed Project's potential socioeconomic impacts, both to neighborhoods and to businesses or business districts. As stated in that chapter, the Proposed Project would result in minor changes to business districts in terms of changes to access with the removal of the grade crossings, but would not result in significant adverse socioeconomic impacts in either the operational phase or the construction phase (see Figure 13-1 for an illustrative construction schedule). General business operations would not be affected and there would be continued vehicular and pedestrian access to the Study Area's business districts. While the Proposed Project would require up to four full commercial property acquisitions and relocation of the commercial businesses on these parcels, nine partial non-residential acquisitions, and nine non-residential permanent easements, as set forth on pages 1-36 of the EIS, these acquisitions

would not substantially affect access to businesses other than those businesses that would be relocated. Additional details related to mitigation for any affected businesses are noted in Chapter 1, “Project Description.” Additional details about the temporary construction impacts are set forth in Chapter 13, “Construction. Chapter 5, “Visual Resources,” sets forth additional analysis of the Proposed Project’s potential impacts on communities.

*LOCAL TAX BASE*

**Comment 3-31:** Several commenters (including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park) explained that by acquiring properties (including active tax-paying businesses), MTA and LIRR are effectively reducing the local property tax revenues since MTA and LIRR will not need to pay local taxes. As an example, some commenters stated that the acquisition of several businesses in New Hyde Park result in a tax revenue loss of \$300,000 to \$390,000, which is the equivalent of several public school teachers and appropriate mitigation is required (such as exempting the school districts and villages from the MTA tax). These commenters objected to the EIS’s conclusion that the impact from the loss of these commercial properties is not significant, noting it represents a decline in projected tax revenue of nearly 0.5 percent (which is 25 percent of the maximum 2 percent property tax cap imposed by New York State). The consultants for the Village of Mineola stated the loss of downtown Mineola commercial properties will result in an estimated loss of property tax revenue of about \$32,168, adding this loss may be offset by new businesses, jobs, and residents attracted by increased train service.

**Response 3-31:** EIS Tables 3-15, 3-16, and 3-17 detail the preliminary estimated property tax reductions that are anticipated from property acquisitions and easements. The total estimated tax loss is estimated on page 3-19 of the EIS. EIS Table 3-18 quantifies the tax loss each jurisdiction in the Study Area; this loss (one-half of one percent) would not be a significant adverse impact under the legal framework of SEQRA. Nonetheless, Page 3-17 of the EIS notes that the Proposed Project would consider options for tax shortfall support for dislocated businesses. The EIS provides details about the economic and fiscal benefits anticipated as a result of the Proposed Project and includes anticipated tax revenues that may result from the Proposed Project. Economic and Fiscal Benefits are detailed on page 3-21 and summarized on Table 3-19 of the EIS.

**Comment 3-32:** Some commenters referenced LIRR’s acquisition of Floral Park properties during the 1960s elevation of the Main Line, and the lasting adverse impact due to the reduction of tax-paying properties. Some stated that residential property owners adjacent to the tracks, those directly impacted by construction, and businesses that fail due to the Proposed Project will grieve their taxes and seek tax adjustments, which will further increase the tax burden to others and impact municipal services. Such tax increases coupled with the tax

increases required to pay for the Proposed Project will result in decreased spending to local businesses and charities.

**Response 3-32:** The Proposed Project represents a completely different approach to Main Line expansion than was proposed in the past because it would require no permanent residential takings. Also, as noted on EIS page 2-1, no changes to land use patterns would occur either in the build year (2020) or analysis year (2040), and residential areas within the Study Area would remain residential.

While property value assessments are outside the scope of SEQRA review, the EIS does provide details about the economic and fiscal benefits anticipated as a result of the Proposed Project and includes anticipated tax revenues that may result from the Proposed Project. Economic and Fiscal Benefits are detailed on page 3-21 and summarized on Table 3-19 of the EIS. The EIS also sets forth the tax reductions that would result from the Proposed Project (pages 3-17 through 3-19).

## ENVIRONMENTAL JUSTICE

**Comment 4-1:** Some commenters noted the low-income and minority populations in the New Cassel area. One commenter asked if the impacts to a non-environmental justice community would be addressed differently if that community were low-income and/or minority.

**Response 4-1:** Impacts to environmental justice communities are not addressed differently than impacts to non-environmental justice communities. Rather, disproportionate impacts to such communities must be disclosed. As stated on page 4-2 of the EIS, the Proposed Project would not result in any impacts in terms of environmental justice.

**Comment 4-2:** The Town of Oyster Bay's DER asked for substantiation of the following statements in Chapter 4, "Environmental Justice":

- Page 4-7 "Overall, the Proposed Project is intended to improve mobility in the region, which would be beneficial to residents, transit users, employers, and employees in the Study Area." The commenter questioned how increases in traffic and congestion would improve mobility.
- Page 4-7 "...no adverse impacts to natural resources..." The commenter questioned this statement based on the adverse impacts from soil disturbance during construction, impacts to surface water, tree removal, increases in surface runoff velocity, decreased groundwater recharge, and contamination migration during extreme storm events into neighboring MS4s.

**Response 4-2:** The Proposed Project would result in improvements to traffic flow from the elimination of grade crossings in the Project Corridor. Pedestrian access across the railroad tracks would be retained through pedestrian overpasses or underpasses. Thus, the Proposed Project would not result

in any impacts to the mobility of residents in low-income or minority communities on a disproportionate basis to residents elsewhere in the Project Corridor. As detailed in several chapters of the EIS, the Proposed Project would not result in significant adverse impacts to surface water, groundwater, or stormwater. Existing trees within the LIRR ROW would be removed, but where feasible replacement trees and other vegetation would be planted in front of retaining and sound attenuation walls. None of the environmental justice communities within the Project Corridor would have disproportionate and adverse impacts.

## **VISUAL RESOURCES**

### *GENERAL ANALYSIS COMMENTS*

**Comment 5-1:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park claimed the visual impacts assessment is so superficial that is essentially non-existent and out of compliance with SEQRA and the NYSDEC's Program Policy, *Assessing and Mitigating Visual Impacts* (DEP-00-2). Specific objections include: lack of any photo simulations showing future conditions from any identified sensitive receptor locations; lack of evidence or analysis to support the claim that no significant visual impacts will result; failure to address impacts to vulnerable residents along the Main Line; lack of photographs from residents' yards; and downplaying the change in visual profile from existing vegetated areas to walls.

**Response 5-1:** The methodology for the analysis of visual impacts is in accordance with New York State Department of Environmental Conservation (NYSDEC) Program Policy, "Assessing and Mitigating Visual Impacts," (DEP-00-2). As noted on page 5-1, an analysis of potential visual impacts was conducted at identified sensitive receptors as well as from a variety of representative viewpoints within the Study Area. Additional photo simulations showing aesthetic impact of sound attenuation walls and relocated utility poles have been added to the EIS as Figures 5-2 through 5-12.

**Comment 5-2:** The Town of Oyster Bay's DER requested renderings for all views where elements of the Proposed Project would be visible and updates of each photograph of existing conditions to show post-construction conditions. Several commenters including the Town of Hempstead Department of Planning & Environmental Protection asked for renderings of many project components to support the visual analysis, including renderings of substations, retaining walls, sound walls, and steel utility poles.

**Response 5-2:** Additional renderings and photo simulations have been provided in the EIS presenting how retaining walls and utility poles would be viewed in the Study Area. See EIS Figures 5-2 through 5-12.

**Comment 5-3:** The Town of Oyster Bay's DER said said EIS Figure 5-1G does not include any visual representation of locations subject to significant visual impacts near the

Hicksville Station, including Broadway south of the tracks, Jerusalem Avenue south of the tracks, or Newbridge Road north of the tracks. Various misspellings and missing visual resources were also noted. Figure 5-1G should also note several additional historic resources, parks, and community facilities. The absence of photos of pedestrian routes with chronic unsightly debris and pigeon droppings was noted.

**Response 5-3:** Figure 5-1G identifies potential sensitive visual receptors in the Hicksville area. The Proposed Project would result in construction of two new parking garages in the vicinity of the U.S Post Office, which is S/NR-eligible, and Chapter 5, “Visual Resources and Aesthetic Resources,” assesses potential visual impact to this resource. Minor bridge work is proposed in the vicinity of Newbridge Road, Jerusalem Avenue, and Broadway; however, this work would not significantly alter views from any sensitive receptors along these corridors.

#### *EXISTING VISUAL CONDITIONS*

**Comment 5-4:** Some commenters expressed frustration with the existing views of the railroad property and trains (including unattractive freight trains carrying uncovered materials and ongoing track work) from residential properties and the lack of privacy, and some requested taller sound attenuation and/or retaining walls to help alleviate such problems. One commenter said the railroad and power facilities along Plainfield Avenue (north and south of the tracks) are unattractive and dangerous and reduce the community character, and requested a wall to block views of these facilities as part of the Proposed Project.

**Response 5-4:** Sound attenuation walls on top of retaining walls would be four feet above top of rail, which would partially screen views of trains from residential properties. Where free-standing sound-attenuation walls are provided, they would be eight feet high.

**Comment 5-5:** One commenter disagreed with the statement regarding “dense foliage” in the area on the south side of the Main Line from Tanners Pond Road to east of Whitehall Boulevard.

**Response 5-5:** Comment noted.

**Comment 5-6:** One commenter said the photo caption for Figure 5-1A-7 should read “View north” rather than “View south.”

**Response 5-6:** The caption has been corrected.

#### *SPECIFIC DESIGN ELEMENTS*

**Comment 5-7:** The combined comments and respective consultant comments from the Villages of Floral Park, Garden City and New Hyde Park mentioned specific design features that are excluded from the visual analysis, including: increased track elevation of 2.5 feet from Tyson Avenue to Sycamore Avenue in Floral Park; increased track elevation of five feet from Fourth Street to Tenth Street in New Hyde Park; continuous retaining walls and/or sound attenuation

walls from Plainfield Avenue in Floral Park to Denton Avenue in Garden City on the south side; conflicting information regarding the presence or absence of north-side walls; changes to Merillon Station including pedestrian overpass; and tree/vegetation removal along Main Avenue in Garden City.

**Response 5-7:** The visual impact assessment in Chapter 5 included an assessment of any change to the track vertical profile as well as other vertical features of the Proposed Project, such as pedestrian overpasses and retaining walls and sound attenuation walls. The visual analysis in the EIS has been updated to address potential impacts from retaining walls and sound attenuation walls based on further community input. A pedestrian overpass is not considered at Merillon Avenue Station. All trees within the LIRR ROW would be removed as part of the Proposed Project. See Figure 5-9 for a rendering of the proposed condition near Main Avenue in Garden City.

**Comment 5-8:** Some commenters stated that large stand-alone tiered parking garages and underpasses would negatively affect the visual quality of some areas, adding that high-quality design mitigation measures should be implemented. The Village of New Hyde Park LIRR Third Track Task Force stated that significant adverse visual impacts will result from unsightly pedestrian overpasses and 90-foot-tall utility poles that will deteriorate the aesthetics of existing skylines.

**Response 5-8:** The construction of parking garages and pedestrian overpasses would introduce a new visual element into the surroundings and would constitute a visual change as noted on page 5-23 of the EIS. Pedestrian underpasses are also being considered at some locations. However due to the fact that the overpasses would not be visible from sensitive receptors, it would not result in significant adverse visual impacts as they would be consistent with other pedestrian overpasses already constructed over the LIRR ROW. While the new utility poles would represent a visual change, they would not present a significant adverse impact insofar as they would be located along the existing utility corridor and within the LIRR ROW and would not impair the scenic qualities or overall context of the Study Area.

**Comment 5-9:** A few commenters expressed fear that walls will become covered in graffiti and become unsightly.

**Response 5-9:** Treatment options for proposed retaining walls are provided on page 5-39 and include anti-graffiti coatings and uneven surface textures to deter vandalism. In addition, landscaping, including the planting of vegetation adjacent to the wall to screen views of the wall itself would deter graffiti. The EIS further notes on page 5-39 the potential for the creation of artwork and murals, terracing of walls, applications of form liners, to

create conditions that are not conducive to graffiti or vandalism and would be easier to clean.

**Comment 5-10:** One commenter noted contradictions between Chapter 5 (page 5-22), which indicates proposed noise walls on the south side of the ROW from Tanners Pond Road to east of Whitehall Boulevard; whereas Chapter 12 (page 12-14) indicates no sound attenuation wall in this area.

**Response 5-10:** Please see Table 12-7 on page 12-14 of the EIS which contains consistent information about the proposed sound attenuation walls on the south side of the ROW from Tanners Pond Road to east of Whitehall Boulevard.

**Comment 5-11:** Many commenters requested design consultation (material, color, painting, texture) with the communities on all visible project features to ensure aesthetic harmony with the surroundings and to mitigate visual impacts.

**Response 5-11:** LIRR will continue to work with stakeholders to develop design parameters for project elements such as retaining and sound attenuation walls, and stations.

## **HISTORIC RESOURCES**

**Comment 6-1:** The Town of North Hempstead's Department of Planning & Environmental Protection said the EIS must more clearly state that LIRR plans to demolish the Nassau Tower and Mineola Substation. One commenter said the Nassau Tower should be preserved. One commenter requested information about the mitigation strategies for demolition of the historic Nassau Tower and former Mineola LIRR Electrical Substation.

**Response 6-1:** Impacts on the Nassau Tower, a small LIRR signal house, and the former Mineola substation are discussed in the EIS in Chapter 6, "Historic Resources." Mitigation is noted on page 6-25 of the EIS.

**Comment 6-2:** The Town of Oyster Bay's DER noted the presence of the Hicksville USPS Main Office (S/NR-eligible), Top Hat Uniform (S/NR-eligible), and Heitz Place Courthouse (NR), requesting these resources be added to Figure 5-1G. While the Hicksville Gregory Museum is outside the ¼-mile Study Area, the commenter recommended it be included in the analysis.

**Response 6-2:** All historic resources located within the Historic Resources Study Area have been identified both textually and graphically in Chapter 6 of the EIS.

**Comment 6-3:** One commenter suggested Figure 6-3 be modified to include the proposed parking garage locations, as they are important for the archaeological analysis.

**Response 6-3:** Figure 6-1 identifies the ¼-mile archaeological resources Study Area, which includes the proposed parking garage locations. Figures 6-2 and

6-3 illustrate the known and potential architectural resources located within the 100-foot and 500-foot architectural resources Study Areas. Figures 6-1 through 6-3 account for the proposed parking garage locations. Illustrative figures of the proposed parking garage locations are provided in Chapter 1, “Project Description.”

**Comment 6-4:** In addition to procedural comments provided for coordination with reviewing agencies regarding historic and archaeological resources, specific comments from the New York State Office of Parks, Recreation and Historic Preservation (OPRHP), Division of Historic Preservation were provided, including:

- Inclusion of the LIRR Electrical Substation and Nassau Tower (both NR-eligible) as visual impacts, since their location on a prominent corner would render their demolition significant from both a historic and visual perspective;
- Addition of facility addresses for the commercial buildings mentioned on Tulip Avenue and Tyson and South Tyson Avenue on page 5-19
- Addition of the U.S. Post Office at 1001 Second Avenue on page 5-20.
- Addition of historic register status for the Denton Building, LIRR Electrical Substation, and Nassau Tower on page 5-26
- Clarification regarding the status of the Citibank building; while local review may have approved building demolition, it is still under review by state agencies.

**Response 6-4:** As described in Chapter 5, “Visual Resources and Aesthetic Resources,” the Proposed Project would demolish the former Mineola/LIRR Electrical Substation, which is eligible for listing on the State/National Registers of Historic Places (S/NR-eligible), and Nassau Tower, which is S/NR-eligible. The demolition of these two historic resources would constitute an adverse impact to historic resources under SEQRA and Section 14.09, as described in Chapter 6, “Historic Resources.” Measures to mitigate the adverse impact would be developed in consultation with the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) and set forth in a Letter of Resolution (LOR) to be executed among the involved parties. Although these two buildings are visible from vantage points closest to the LIRR ROW and nearby streets, these two small buildings are not visually prominent due to their scale and other intervening buildings. Therefore, their demolition would not constitute a significant adverse visual resources impact as defined by NYSDEC’s DEP-00-2.

The addresses of the commercial buildings on Tyson Avenue and South Tyson Avenue (S/NR-eligible) at 103, 107, 109, and 113 Tyson Avenue and 76 and 86 South Tyson Avenue in Floral Park and the addresses of the commercial buildings on Tulip Avenue in downtown Floral Park (S/NR-eligible historic district) between Verbena and Iris Streets at 135-161 Tulip Avenue and 128-160 Tulip Avenue are included in Chapter 5,



“Visual Resources” and are consistent with the addresses included in Chapter 6, “Historic Resources.”

As described in a footnote to Table 6-2 in Chapter 6, “Historic Resources,” the New Hyde Park USPS Post Office at 1001 Second Avenue in New Hyde Park was identified in a July 2016 field survey as a potential architectural resource. However, based on information provided to OPRHP on September 9, 2016, OPRHP made an October 13, 2016 determination that this property, along with two others that had been identified as potential architectural resources, is not S/NR-eligible. Therefore, it is not identified as a historic resource in Chapter 5, “Visual Resources.”

Information about the status of historic resources located in the visual resources Study Area has been updated to be consistent with OPRHP determinations made for the historic resources identified in the historic resources Study Area, as identified and described in Chapter 6, “Historic Resources.” In addition, the information about historic resources in both Chapter 5, “Visual Resources,” and in Chapter 6, “Historic Resources,” is consistent with current information available in OPRHP’s Cultural Resources Information System (CRIS).

A clarification regarding the Citibank building has been made in Chapter 5, “Visual Resources,” and in Chapter 6, “Historic Resources.” The Citibank building, which is S/NR-eligible, was located at 199 Second Street in Mineola. This building was on the site of an unrelated development project that was previously approved by the Village of Mineola that involves the demolition of the bank building and the redevelopment of the site. The redevelopment project is under consultation with OPRHP, which has not approved the demolition of this building. Notwithstanding the status of OPRHP consultation, the building has been demolished by the proponent of the redevelopment project.

## **NATURAL RESOURCES**

**Comment 7-1:** A few commenters stated the Proposed Project and increased rail service would adversely impact the adjacent Garden City Bird Sanctuary.

**Response 7-1:** As depicted on sheet 5 of 21 of Appendix 1-B, the track would be located north of and adjacent to the Garden City Bird Sanctuary within the LIRR ROW. Further, as discussed on pages 7-12 and 7-13 of the DEIS, the incremental increase in train activity that may be several feet closer to the Bird Sanctuary would not be expected to adversely affect wildlife use of the area. To accommodate projected stormwater flow into the existing recharge basin, some vegetation in the basin may have to be removed. Finally, any change to vegetation proximate to the

Garden City Bird Sanctuary would occur within the LIRR ROW and not within the Sanctuary. The Proposed Project would not result in a significant adverse noise impact to the Bird Sanctuary, as discussed in Chapter 12, “Noise.”

**Comment 7-2:** Some commenters stated concern about the removal of trees throughout the Project Corridor, and noted that past tree/vegetation replacements from LIRR had not been timely or aesthetically consistent with the foliage they were replacing. The Town of Oyster Bay’s DER requested a tree replanting program and/or a green space plan to offset the hundreds of trees planned for removal. One commenter stressed the value of trees between Hicksville and Mineola, due its otherwise commercial appearance. The EIS on page 5-33 notes that some techniques to minimize the effects of walls can be to plant vegetation and it would be considered.

**Response 7-2:** LIRR has undertaken an unprecedented public outreach effort for the Proposed Project and is committed to continuing to work with stakeholders. As noted on page 5-39 of the EIS and the comment itself, LIRR will continue to collaborate with local communities to develop—as part of the Proposed Project—visual impact mitigation measures and would include new replacement plantings of vegetation and trees where appropriate and feasible, including the area between Hicksville and Mineola.

**Comment 7-3:** One commenter suggested tree removal since some trees are tall enough to interfere with overhead utility lines and pose a danger.

**Response 7-3:** The Proposed Project would result in the removal of vegetation within the LIRR ROW where required to construct the Proposed Project with replacement trees and vegetation provided in front of retaining and sound attenuation walls where there is sufficient space and otherwise would be appropriate and feasible.

**Comment 7-4:** The Town of North Hempstead’s Department of Planning & Environmental Protection requested a map showing areas of vegetative removal and a plan for vegetation replanting, with an explanation wherever replanting is not feasible and a presentation of alternatives.

**Response 7-4:** The EIS notes at page 7-6 that virtually all vegetation within the LIRR ROW would be removed in order to construct retaining walls and other components of the Proposed Project. LIRR will continue to collaborate with local communities to identify locations where the planting of new trees and/or shrubs would be appropriate and feasible. No new vegetation would be placed within the LIRR ROW.

**Comment 7-5:** The Town of Oyster Bay’s DER recommended a tree study to identify the species, caliper, and number of trees; the adverse impacts of tree removal on the

destabilization of contaminated soils should be analyzed. The commenter disagreed with the statement on page 7-5, noting there should be more than 13 species of trees within a ½-mile radius of the Project Corridor.

**Response 7-5:** An inventory of vegetation identified within the Study Area is provided on page 7-6 of the EIS. Information sources and a methodology are provided on page 7-2 of the EIS. Considering that the Proposed Project would be undertaken in an area that is vegetated in a variously sparse manner and has limited ecological value (see page 7-12 of the DEIS), a full tree inventory is not indicated and there is no basis for the statement that removal of trees and vegetation in the LIRR ROW would destabilize soils. Retaining walls would be installed to ensure stabilized soils in the Project area.

**Comment 7-6:** The Town of Oyster Bay's DER requested the following: extension of Figures 7-2a and 7-2b to Hicksville; analysis of impacts to drainage basins and wetlands on the National Wetlands Inventory; identification of proposed drainage facilities that will be receiving stormwater; and incorporation of green features and green infrastructure.

**Response 7-6:** There are no state- or federally-regulated wetlands in the Project Corridor. Figure 7-2 has been extended to cover the entire Project Corridor. As stated on pages 7-11 and 7-12 of the EIS, the Proposed Project would not result in impacts to drainage basins. Chapter 9, "Utilities and Related Infrastructure" page 9-11 through 9-13 of EIS sets forth the drainage facilities that would be constructed or utilized by the Proposed Project. Discussion of green features and green infrastructure is beyond the scope of the Proposed Project, which does not contemplate such features. See page 7-4 of the EIS for discussion of stormwater control measures and drainage.

**Comment 7-7:** The Town of Oyster Bay's DER stated the potential for the Proposed Project to result in habitat fragmentation and population fragmentation should be analyzed, along with the potential for the Main Line to be used as a migration corridor for coyotes to migrate east from Queens.

**Response 7-7:** As noted on page 7-1 of the EIS, the Proposed Project would occur within a Project Corridor that is highly developed with transportation and other uses, and has limited value as habitat. The third track would be built entirely within the existing LIRR ROW. The unexpanded corridor would provide no additional habitat for coyotes than currently exists.

**Comment 7-8:** The Town of Oyster Bay's DER requested discussion of the continued impacts of herbicide on enabling only invasive/opportunistic species to become sparsely established and lack of soil stabilizing and bio-filtering vegetation.

**Response 7-8:** The use of herbicide on the LIRR ROW is not related to the Proposed Project, would continue to occur with or without the Proposed Project, and therefore is not a project impact. LIRR uses licensed applicators to apply herbicides in accordance with all applicable laws and regulations. Soil stabilization would not be an issue because soil would be covered by stone ballast within the LIRR ROW.

**Comment 7-9:** The Town of Oyster Bay's DER suggested LIRR consider hydroseeding the steep slope area near Hicksville Station that is poorly stabilized and non-vegetated, or install an educational raingarden corridor.

**Response 7-9:** As stated on page 1-24, LIRR would work with local villages to reaffirm maintenance responsibilities for each station area. LIRR also would provide initial funding and explore longer term license agreements with villages or community groups interested in landscaping and gardening in station areas.

**Comment 7-10:** One commenter said Chapter 7, "Natural Resources," tries to shift responsibility from New York State to Nassau County by claiming that six stormwater ponds are not regulated under the Clean Water Act and therefore Nassau County has jurisdiction. The commenter also stresses the importance of avoiding adverse impacts to the aquifer system and cites specific language in the chapter.

**Response 7-10:** Although the referenced stormwater basins are not regulated as "waters of the United States" under the Clean Water Act, stormwater impacts were analyzed in the EIS. That analysis showed that the Proposed Project, particularly considering the inclusion of project measures designed to treat or reduce stormwater runoff (EIS, page 7-13), would not result in significant adverse impacts to groundwater and wetlands.

## **CONTAMINATED MATERIALS**

**Comment 8-1:** The Town of Oyster Bay's asked whether hazardous materials from the Proposed Project would be transported by freight train and where such materials would be stockpiled.

**Response 8-1:** Any contaminated material generated by construction of the Proposed Project would not be transported by freight train, but rather would be removed and transported via truck to a licensed disposal facility.

**Comment 8-2:** Several commenters objected to specific EIS statements, such as "*only anecdotal information is available for the preceding time period. At this time, the history of pesticide and rodenticide use is not available.*" (page 8-5). Historic industrial and railroad uses such as coal storage yards were mentioned as causes of concern.

**Response 8-2:** Where available, the railroad's past use of herbicide and rodenticides within in the corridor is documented in Chapter 8, "Contaminated

Materials.” This chapter also identifies other potential sources of materials that may have resulted in contamination to the project site. Where recommended, a Phase II subsurface investigation was conducted along the corridor between the DEIS and FEIS which is used to determine if past usage of any material within or along the corridor resulted in any contamination of the areas to be disturbed during construction. Based on USEPA and NYSDEC procedures for investigating contaminated soil, the Phase II sampling included testing for EPA’s Target Compound List (TCL) for Volatile Organic Compounds (VOCs), semi-volatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs), Target Analyte List (TAL) metal, pesticides, herbicides, and dioxin as well as testing for Toxicity Characteristic Leachate Procedure (TCLP) and RCRA characteristics. As described in Chapter 8, very low levels of several contaminants were detected with only contaminant at one location exceeding the applicable NYSDEC Soil Cleanup Objectives. This location would be remediated as part of the Proposed Project construction.

## **UTILITIES AND RELATED INFRASTRUCTURE**

### *UTILITIES*

**Comment 9-1:** NCDPW provided comments on the utility information in Appendix 1-A (Table 3-8). It was noted that Nassau County Department of Public Works does not own or maintain the water mains within the grade crossing eliminations areas. It was suggested that LIRR verify ownership of these water mains as well as sanitary sewer mains in the Village of Garden City.

**Response 9-1:** LIRR and NYSDOT continue to communicate with local utility providers to identify ownership of affected water and sanitary sewer mains. The selected design-build contractor would be required by contract to coordinate all utility relocations with the owners.

**Comment 9-2:** The Town of Oyster Bay’s DER noted Appendix 1 references poles made of a “hybrid” material without further explanation.

**Response 9-2:** New utility poles would be a steel/composite construction.

**Comment 9-3:** The Town of Oyster Bay’s DER said there appears to be an overabundance of staggered utility poles, resulting in unappealing aesthetics.

**Response 9-3:** The location of replacement utility poles would be coordinated with PSEG-LI. Pole location, height, and spacing are based on PSEG-LI design criteria and the number of poles would be limited to the poles required by PSEG-LI.

**Comment 9-4:** One commenter was disappointed in the limited information provided in Chapter 9, “Utilities and Infrastructure,” as compared to the other EIS chapters. He asked for more detail regarding power lines, including: heights, diameters, location, and materials of poles; lighting strike prevention; number of power lines per pole; and need for power outages during installation. Another asked who will pay for utility relocation, whether the Proposed Project will result in rate increases, why the Carle Place water district is not mentioned in the EIS, and the age of the water/sewer lines and culverts and whether replacement is more prudent than relocation.

**Response 9-4:** Chapter 9, “Utilities and Infrastructure,” includes updated information regarding the relocation of overhead electric lines by PSEG-LI See also Response to Comment 9-3. The cost of utility relocations is included in the cost estimate for the Proposed Project. The Project Sponsor would be responsible for paying for the utility relocations. In limited instances, and pursuant to existing agreements, the cost would be borne by the owner of the utility.

**Comment 9-5:** The Village of New Hyde Park LIRR Third Track Task Force asked why 90-foot-tall utility poles are required and why 55-foot-high tension wire poles would not be sufficient.

**Response 9-5:** There are multiple utilities and several different circuits attached to these structures and there are minimum clearance requirements for these circuits. Pole heights stated in Chapter 9 of the EIS have been estimated in accordance with these clearance requirements as well as to meet code required ground clearances and other such aerial obstacles as needed.

**Comment 9-6:** One commenter noted that the EIS makes no mention of the Carle Place water district. The EIS indicates that Carle Place is a part of the Village of Mineola.

**Response 9-6:** See Response 9-1. Carle Place is part of the Town of North Hempstead.

#### *DRAINAGE & FLOODING*

**Comment 9-7:** A few commenters requested a natural drainage system along the tracks, including trees and vegetation.

**Response 9-7:** Grass swales within the LIRR ROW would handle stormwater drainage from the LIRR ROW. The drainage for the LIRR ROW would be designed to meet applicable NYSDEC design standards.

**Comment 9-8:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park stated that the EIS provided insufficient details for the proposed drainage system to manage runoff flowing from the railroad ROW onto adjacent properties, including a feasible layout. The Villages also noted the EIS lacks any discussion of management of stormwater moving from adjacent properties on to the LIRR ROW and the potential flooding

problems that could result from installation of retaining walls, sound attenuation walls, and their foundations.

**Response 9-8:** Where retaining walls would be installed along the LIRR ROW in areas where the railroad tracks are above adjacent properties, appropriate measures would be taken to ensure that stormwater flow from the LIRR ROW would not flood neighboring properties. In areas where the railroad tracks are located below adjacent properties (in a cut), retaining walls would be designed to minimize ponding behind the walls on the adjacent properties. In general, soils within the Project Corridor are conducive to infiltration which would minimize ponding. The Proposed Project is being designed to accommodate stormwater flows from the 100-year storm event.

**Comment 9-9:** Questions from the combined Villages of Floral Park, Garden City, and New Hyde Park were received about how snow will be safely and effectively removed without service disruption when conditions are too cold to allow proper functioning of the drainage system.

**Response 9-9:** Snow within the LIRR ROW is cleared using track maintenance equipment. There are existing areas constricted by retaining walls or tunnel approaches throughout the system that are designed to properly drain, even when conditions are very cold.

**Comment 9-10:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park requested release of the boring logs that were used to develop the preliminary drainage system.

**Response 9-10:** Numerous geotechnical borings were conducted throughout the Project Corridor to support the preliminary design of the grade crossing eliminations as well as the drainage. Boring logs are now included as part of **Appendix 9**.

**Comment 9-11:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park noted that subsurface conditions and/or contamination at 115 New Hyde Park Road (a former metal works facility) could render the site unable to serve as a stormwater recharge area.

**Response 9-11:** 115 New Hyde Park Road was identified as a “Category B” site that would require further evaluation. Since LIRR does not currently own the property, any future testing would have to be conducted at a later date. Any required remediation would be conducted as part of the Proposed Project. This property is no longer being considered for stormwater recharge.

**Comment 9-12:** A few commenters stated concern that toxic chemicals would be transferred by stormwater runoff into nearby homes, community facilities, etc. One asked whether Nassau County has granted access to LIRR to use existing recharge basins.

**Response 9-12:** The project's stormwater system has been designed to eliminate discharges of runoff into residential areas or community facilities such as parks and schools. Furthermore, Phase 2 testing did not identify any significant contaminated surficial soil that would be transported through stormwater, which in any event would be controlled as set forth in Chapter 9, "Utilities and Related Infrastructure"). The grade separation component of the Proposed Project has been coordinated with Nassau County to allow some use of their recharge basins.

**Comment 9-13:** The Town of North Hempstead Department of Planning & Environmental Protection stated that since the Proposed Project exceeds one linear mile, it is subject to certain EPA regulations for stormwater runoff retention, capture, and infiltration.

**Response 9-13:** All elements of the Proposed Project would comply with applicable federal and state stormwater permitting requirements. The design-build contractor would be required to follow SWPPP guidelines and regulations pursuant to the New York State Pollution Discharge Elimination System (SPDES) General Permit for Construction Activities; an individual permit would not be required because, despite the project size, it would not result in increased discharges to any AA or AA-S classified waterbodies. Since New York State has a federally-delegated SPDES program, the provisions of the EPA general permit relating to construction stormwater runoff do not apply.

**Comment 9-14:** The Town of Oyster Bay DER as well as the Town of North Hempstead Department of Planning & Environmental Protection suggested that more detail about Best Management Practices, green infrastructure methods, and a detailed Stormwater Pollution Prevention Plan is required and should be shared with the towns. MTA-LIRR should consider making the system more resilient and increasing capacity to manage a 500-year storm event. Late and cancelled trains due to "high water" conditions were cited in the EIS; such incidents need to be addressed.

**Response 9-14:** The BMP and SWM design follows the current standard for the appropriate design year storm event. It is not feasible or desirable to design the system with capacity for a 500-year storm when the adjacent infrastructure is constructed to 20-year storm event. See also Response 9-13.

**Comment 9-15:** One commenter questioned the use of grass-lined ditches because of space constraints and doubt that LIRR would properly maintain the grass.



**Response 9-15:** Grass swales within the LIRR ROW would handle any stormwater drainage from the LIRR ROW. Seasonal maintenance of the swales would be incorporated into the regular maintenance program for the ROW.

**Comment 9-16:** One commenter noted flooding issues on Atlantic Avenue between Rushmore Avenue and Cherry Lane, and asked that a solution be implemented as part of the proposed elements in this area.

**Response 9-16:** Any existing flooding issues on Atlantic Avenue would not be altered by the Proposed Project.

**Comment 9-17:** The Town of Oyster Bay's DER said the stormwater management plan is incomplete and relies upon existing drainage ditches that "appear" to meet stormwater management requirements. The drainage system should be mapped and appropriately sized and designed for water quality and well and quality controls. Calculations should be provided to demonstrate the water quality volume required is at least equivalent to the storage volume provided as part of the SPDES Stormwater Management Program. Areas where stormwater could have been commingled with the Nassau County system should be tested. LIRR should coordinate with Nassau County to confirm that contaminated runoff has not compromised the integrity of the system. The Town expressed concern about the transport of contaminants into the stormwater management system. Illicit discharges should be prevented and LIRR should consider increasing the stormwater retention capacity beyond a two-inch rain event. Referring to page 9-11, the commenter said LIRR should identify the selected method for stormwater management of the many alternatives presented.

**Response 9-17:** The Proposed Project would be designed to ensure that stormwater generated from its construction and operation is fully and adequately treated and addressed. The design-build contractor would be required by contract to develop a complete stormwater management plan for sizing the proposed design of a drainage system addressing the water quantity and quality issues. The LIRR Stormwater Management Program, prepared in compliance with its obligations as an MS4, and submitted to NYSDEC in compliance with the overall SPDES program, identifies the measures that LIRR would take to prevent illicit discharges from neighboring properties into the LIRR ROW and also measures that LIRR would take to minimize any contamination on its own property.

**Comment 9-18:** The Town of Oyster Bay's DER said the EIS should include references to LIRR's MS4 Annual Reports (MS4 is an industry abbreviation for Municipal Separate Stormwater Sewer Systems), and noted the lack of outreach and education in LIRR's last MS4 annual report. Consistent with MS4 reporting requirements, the amount of chemicals applied should be discussed and analyzed in the EIS. The potential for these chemicals to be transported by stormwater runoff into groundwater systems should be analyzed in the EIS and a drainage runoff map should be provided.

**Response 9-18:** See Response to Comment 9-12. As an MS4, LIRR is obligated to report on implementation of its Stormwater Management Program, including details on the use and storage of chemicals within the LIRR ROW. The Proposed Project would not change how LIRR uses chemicals for maintenance of the ROW.

**Comment 9-19:** The NCDPW said Nassau County owns and/or maintains real property and infrastructure throughout the Project Corridor, including separate stormwater and sanitary infrastructure. NCDPW noted that County-owned roads include Covert Avenue, New Hyde Park Road, Main Street, and Willis Avenue; they do not own South 12<sup>th</sup> Street, School Street, or Urban Avenue and cannot offer an opinion on non-County road drainage. The project team must coordinate construction and maintenance with the various drainage system owners. Referring to Appendix 1A Table 3-8, NCDPW stated the County does not own and/or maintain water mains in the grade crossing elimination areas and recommended coordinating with the Village of Garden City to verify ownership of sanitary sewer mains (noting that larger pipes may be owned by the County).

**Response 9-19:** The design-build contractor would be required by contract to coordinate with the appropriate village/county owners where the proposed drainage system could affect the neighboring properties.

**Comment 9-20:** NCDPW provided specific comments on the stormwater infrastructure for the Proposed Project. The County is agreeable to allowing the Proposed Project to discharge to its facilities with appropriate approvals. Through the course of project coordination and at meetings between the project sponsors and NCDPW, 23 various drainage options were presented for the seven grade crossing locations. In their comments on the EIS, NCDPW indicated general preferences from among these alternatives, along with specific notations. The full text of NCDPW's comments is provided in Appendix X; a summary of the agency's notes and preferences is provided below:

- At proposed underpasses, new positive drainage systems with recharge basins are the most highly preferred option
- Recharge arch options are highly undesirable by NCDPW as they will be difficult to maintain
- County recharge basins being used for stormwater disposal must have a design storm with a 100-year return frequency (rainfall depth of 8 inches over 24-hour period)
- Nassau County requires a 20-year return frequency for the sizing of pipes for conveyance systems
- Stormwater basins and conveyance piping must be rehabilitated if used for the Proposed Project
- Avoidance of Old Country Road is recommended
- Drainage facilities should be designed to avoid the need to coordinate access, maintenance, and reconstruction approvals from LIRR and other public and private entities

- Concrete plant near Rushmore Street had an illicit discharge through a manhole; regardless of alternative selected, the drainage system and the pipe must be cleared of concrete and the manhole must be removed (unless needed for drainage)
- Nassau County will not accept cisterns under its roadways
- A draft Operations and Maintenance manual will be required
- Alternatives with pumps require an electronic connection to the NCDPW monitoring and operations network
- Recharge Basin #51 has associated legislation to preserve the land, which could complicate any planned excavation

**Response 9-20:** The Technical Provisions requirement section of the Design Build Request for Proposals (RFP) would indicate the following to address the Nassau County DPW's comments:

- New gravity flow drainage systems to existing recharge basins is the preferred option
- Recharge arch at any location and cisterns under Nassau County roads would not be allowed
- County recharge basins being used for stormwater conveyance that do not have adequate capacity would be excavated to accommodate a design storm with a 100-year frequency
- A 20-year return frequency for the sizing of pipes for conveyance systems would be used
- Stormwater basins and conveyance piping would be inspected and rehabilitated if they would be used for the Proposed Project
- Open cut excavation along Old Country Road would not be allowed
- Any drainage facility designed and constructed to connect to an existing drainage facility along Rushmore Street would include a measure to clean the existing drainage pipe of concrete debris
- Drainage facilities designed and constructed along any particular road would be owned, operated, and maintained by the municipality with jurisdiction over that roadway
- Since the preferred drainage option is gravity flow, no operations and maintenance manual is required
- Alternatives with pumps are no longer under consideration
- No excavation under the Proposed Project would increase the capacity of Recharge Basin #51
- Pursuant to Nassau County Ordinance 115-2001, the area occupied by Recharge Basin #51 was designated a "Perpetual Preservation Land" in accordance with Title 15 of the Miscellaneous Laws of Nassau County. This designation was premised on a finding that "recharge basins are necessary to prevent street and property flooding and to replenish the drinking water aquifer" and that "the subject property... is characterized by geological, ecological and environmental significance." Under Title 15, no changes can be made to the use of lands designated as Perpetual Preservation Land. As the Proposed Project would continue to utilize Drainage

Basin #51 for drainage purposes, it would not require any alteration that would implicate the Perpetual Preservation Land designation.

## **TRANSPORTATION**

### ***GENERAL TRAFFIC COMMENTS***

**Comment 10-1:** Comments submitted on behalf of the Villages of Floral Park, Garden City, and New Hyde Park stated that the Level of Service criteria consistent with the requirements of Nassau County and their constituent agencies should be utilized to determine mitigation thresholds.

**Response 10-1:** As stated in the EIS Scoping Document, the Level of Service criteria used were consistent with those used in EISs for other major transportation infrastructure improvement projects, such as LIRR's East Side Access DEIS/EIS. The East Side Access study area included traffic analysis at station locations throughout Nassau and Suffolk counties.

**Comment 10-2:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park noted that a footnote in the EIS indicates that the traffic study will be updated once the final parking plan has been established, and states that impacts are therefore not adequately identified and there is no basis to determine whether currently proposed mitigation measures are adequate.

**Response 10-2:** The EIS fully describes and analyzes potential impacts from the Proposed Project, including impacts from additional parking. The traffic mitigation measures identified in the DEIS are comparable to the measures identified in the EIS for the updated parking plan in New Hyde Park, Mineola, and Westbury contained in the EIS. In response to comments an analysis of impacts in the vicinity of the Hicksville Station has been added in the EIS. The EIS shows that all significant adverse impacts identified in Hicksville were mitigated.

**Comment 10-3:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park stated that the EIS is contradictory in its explanations of projected rail ridership without the Proposed Project, and therefore the traffic analysis is inherently flawed. The lack of additional taxi trips was also criticized.

**Response 10-3:** As shown in the EIS, the majority of future ridership growth on LIRR would be attributable to the East Side Access Project and general background growth. The EIS considered an increase in vehicle trips associated with the Future Without the Proposed Project. With the Proposed Project, there is an increase in reverse peak service that would add additional vehicle trips, including taxi trips, at stations. These additional trips were included in the analysis.

**Comment 10-4:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park stated that the EIS lacks any traffic analysis for Floral Park.

**Response 10-4:** Since the Proposed Project would generate fewer than ten vehicle trips in the AM and PM peak hours at Floral Park, there would be no significant traffic impacts; therefore, further analysis was not needed for any operational impacts. Traffic diversions during construction were analyzed. For the construction of Covert Avenue, the closest grade crossing to Floral Park, vehicles would be diverted to New Hyde Park Road and South 12th Street.

**Comment 10-5:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park stated that the traffic impact analysis is incomplete because it lacks an analysis of the changes in crash patterns and crash rate impacts from the Proposed Project.

**Response 10-5:** The EIS summarizes a crash study that assessed pedestrian and vehicular safety for seven segments of roadway and two intersections. The crash data included vehicular and pedestrian crashes at the grade crossings, along the sections of roadway leading to and from the grade crossings, and at two key intersections. The EIS reports that the elimination of the existing grade crossings would significantly improve pedestrian and vehicular safety conditions at critical locations. With the elimination of the grade crossings, all rail-related crashes involving trains and pedestrians and/or vehicles would be ameliorated. The Proposed Project would eliminate crashes that occur when traffic slows for, or stops at, a crossing gate. Based upon this it is expected that the Proposed Project would also help to reduce crash rates.

**Comment 10-6:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park noted discrepancies and flaws in the parking analysis, including conflicts between page 10-67 and Table 10-37 regarding on-street and off-street parking spaces. A parking analysis is needed to justify the claim that the Proposed Project is not anticipated to increase the need for parking. The commenter also stated that the new parking facilities included in the Proposed Project indicate a demand for parking and the increment from East Side Access is not reflected in the 2020 projections. Potential measures to address the parking shortfall (such as restriping) should be included as firm measures if needed to address impacts.

**Response 10-6:** The 230 on-street spaces referred to on page 10-67 of the DEIS would be shifted to the on-street parking column in the EIS. Based on ridership projections prepared for the Proposed Project, the Proposed Project would not increase the need for significant amounts of new parking. The provision of additional parking facilities as part of the Proposed Project at select stations is intended to address parking needs generated by East Side Access, which is expected to be operational in 2023, and general growth in the Study Area. Therefore, these projections are included in the 2040 analyses, but not in the 2020 analyses. Ridership and parking

needs will be monitored by LIRR as East Side Access becomes operational and the EIS identifies measures that could be implemented to address additional needs, if warranted.

**Comment 10-7:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park requested more information on the traffic counts (dates, times, conditions, etc.), and also provided a series of detailed comments on the grade crossing elimination analyses, summarized as follows:

- EIS did not include intersections on 6<sup>th</sup> Avenue between Covert Avenue and New Hyde Park Road
- Volume comparisons indicate discrepancies in the routing of vehicles when comparing No Build to Build conditions
- Raw traffic count data and Synchro reports were not provided in the EIS
- Specific intersection comments were provided for: Covert Avenue and Jericho Turnpike; New Hyde Park Road and Jericho Turnpike; New Hyde Park Road and Clinch Avenue; New Hyde Park Road and Plaza Avenue; emergency access at South 12<sup>th</sup> Street.

The full text of these comments is provided in Appendix 22.

**Response 10-7:** Traffic counts were conducted for peak periods on “typical” days and the months of traffic counts are noted in the EIS.

- The EIS analyzed key intersections along the north-south streets with grade crossings proposed for elimination (i.e. New Hyde Park Road, South 12<sup>th</sup> Street, and Covert Avenue) and along main east-west corridors, such as Stewart Avenue and Jericho Turnpike in the vicinity of the LIRR station and the grade crossings. These intersections were identified in the EIS Scoping Document. While modifications to the Covert Avenue grade-crossing would cause some turning movements from 3rd Avenue to divert to other local east-west streets, including Sixth Avenue, the volume of traffic is not anticipated to be significant. However, this condition would be assessed during final design to determine if any additional measures would be necessary.
- Volume differences between intersections in Existing conditions due to streets in between study locations would carry through to No Build and Build conditions. In addition, volume differences between No Build and Build conditions would reflect diversions away from streets that are being closed to streets that are proposed for grade separation.
- The 239-page Appendix included in the EIS includes traffic volume maps, detailed intersection level of service tables that show levels of service, vehicle delays, and volume-to-capacity ratios by individual traffic movement and for the overall

intersection, which are the typical contents of a technical appendix. Raw traffic count data and Synchro reports are typically not provided.

- Covert Avenue and Jericho Turnpike–Mitigation for significant impacts at this intersection would include conversion of the existing two-way Dunkin Donuts driveway to one-way inbound operation and vehicles would exit the lot onto North 6<sup>th</sup> Street. A maximum of 35 vehicles in the Existing AM or PM peak hour exit that driveway to head eastbound on Jericho Turnpike or southbound on Covert Avenue. These vehicles would use alternate routes.

New Hyde Park Road and Jericho Turnpike–Curbside parking near intersections typically causes friction between through vehicles and vehicles pulling into and out of spaces and is accounted for in the traffic analyses. Elimination of parking near the intersection would reduce the significant impact at this intersection by eliminating friction with parked vehicles and thereby improving throughput.

New Hyde Park and Clinch Avenue–A traffic signal is proposed as part of the Proposed Project for Build Option 1 only due to sight distance limitations for vehicles exiting the proposed kiss-and-ride on the west side of this intersection. A traffic signal would not be needed at this intersection with Build Option 2.

New Hyde Park Road and Plaza Avenue–The EIS analyzed key intersections along the north-south streets with grade crossings proposed for elimination (i.e. New Hyde Park Road, South 12<sup>th</sup> Street, and Covert Avenue) and along main east-west corridors, such as Steward Avenue and Jericho Turnpike in the vicinity of the LIRR station and the grade crossings. These intersections were identified in the DEIS Scoping Document.

Emergency Access at South 12<sup>th</sup> Street – Emergency vehicle response times were analyzed and reported in the DEIS during the AM and PM peak hours. Since off-peak hours typically have lower volumes than peak hours, emergency vehicle response times would be expected to be comparable or lower than emergency vehicle response times during the AM and PM peak hours. LIRR would continue to work with the local fire district to accommodate services on the south side of the railroad tracks.

**Comment 10-8:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park said the traffic analysis is deficient in the absence of additional information, including technical analysis backup, original traffic count sheets, field sketches used to populate

## Long Island Rail Road Expansion Project

---

Synchro model, Synchro reports, LOS summaries, trip generation/distribution spreadsheets, traffic signal plans and timing directives, and future parking plans.

**Response 10-8:** The level of detail noted above is not typically provided in an EIS. The DEIS included traffic volume maps, detailed intersection level of service tables that show levels of service, vehicle delays, and volume-to-capacity ratios by individual traffic movement and for the overall intersection.

**Comment 10-9:** Some commenters including the consultants for the Villages of Floral Park, Garden City, and New Hyde Park as well as the Town of North Hempstead Department of Planning and Environmental Protection requested additional information to support the traffic analyses, including:

- Information regarding accounting of pedestrian usage movements
- Accounting for partial road closures needed to construct bridges
- Addition of 2023 as an analysis year (due to East Side Access operations)
- Master table for each station area that clearly shows the changes in overall level-of-service and delay time for each intersection in the Existing, No Build, Build 2020, and Build 2040 conditions

**Response 10-9:** Significant pedestrian movements observed during field visits were accounted for in the traffic analyses. The traffic analyses address conditions during the year 2020 when the Proposed Project is expected to be completed (ETC) and 20 years beyond the ETC (i.e. year 2040). The impacts of East Side Access and 20 years of additional growth are fully and conservatively accounted for in the 2040 traffic analyses, therefore an additional interim analysis year of 2023 is not required. The technical appendix includes full documentation of Existing, No Build, Build 2020 and Build 2040 levels of service and delay time. Comparisons of No Build and Build conditions for each year, along with traffic mitigation measures for significant impacts identified, were also provided in the Appendix.

**Comment 10-10:** Some commenters said the grade crossing elimination will alleviate traffic backups in surrounding communities.

**Response 10-10:** Comment noted.

**Comment 10-11:** Some commenters stated concern about long-term increases in traffic volumes and congestion, citing specific locations (e.g., Franklin Avenue near Mineola Station, Westbury Station) and the incentivization of drivers to use affected roadways more heavily once the crossing gates are removed.

**Response 10-11:** Long term conditions were addressed, including the diversion of motorists in Mineola to roads where grade crossings would be eliminated.



**Comment 10-12:** Several commenters stated the importance of pedestrian movements and connectivity, particularly with respect to maintaining community cohesion and appealing to the Millennial generation and their preferences for walking and biking. Some said the Proposed Project should not include new barriers that divide communities and that pedestrian paths at least 10 feet in width should be incorporated in the underpass designs, with additional pedestrian underpasses where desired by communities to improve safe pedestrian routes. One commenter stated that pedestrian underpasses are preferable to overpasses, since they have a smaller net grade change, and that ramps and staircases are more reliable and easier to maintain than outdoor elevators and escalators. The commenter added that pedestrian facilities should include shielding from falling snow and ice from LIRR snow removal on the tracks.

**Response 10-12:** Pedestrian movements and connectivity were an important consideration during the design of the grade crossing eliminations. Pedestrian access would be provided by either an underpass or overpass at each grade crossing based on comments from the public and discussions with community officials. An ADA-compliant five-foot minimum sidewalk width would be provided at all of the crossings and eight and ten foot widths would be provided where possible. Station improvements will include platform canopies that will shield customers from inclement weather.

**Comment 10-13:** NCDPW said mitigation measures for the Years 2020 and 2040 appear separately within Chapter 10, “Transportation”; with East Side Access scheduled for completion a couple of years after the Proposed Project, the ultimate mitigation measures for 2040 should be implemented in conjunction with the construction of the LIRR Expansion Project.

**Response 10-13:** Once East Side Access is completed, LIRR would coordinate with local municipalities to determine if 2040 mitigation should be implemented sooner.

**Comment 10-14:** NCDPW stated that proposed parking restrictions require approval of local jurisdictions. Parking restrictions on County roadways are under the jurisdiction of the local municipality. Any proposed changes to parking restrictions to accommodate permanent or construction impacts will need to be approved by the appropriate jurisdiction, including (but not limited to) the Villages of Mineola, Garden City, Westbury and the Towns of North Hempstead and Hempstead.

**Response 10-14:** MTA has been in communication with each of the municipalities and written and verbal comments have been received. Approval of proposed changes to parking restrictions would be obtained prior to implementation.

**Comment 10-15:** NCDPW said that while intersection plans for permanent traffic mitigation measures are included in Chapter 10; such plans should also be provided for the construction mitigation measures proposed in Chapter 13, “Construction.”

**Response 10-15:** Schematics of traffic mitigation measures for the Construction scenarios analyzed are provided in the Appendix of the EIS.

**Comment 10-16:** NCDPW noted that the County maintains overhead and underground traffic signal cables in proximity to the crossings, and will provide record plans for use in preparing the design-build contract documents.

**Response 10-16:** Comment noted.

**Comment 10-17:** NCDPW noted that the numbering of the “Alternative” drawings in Appendix 1-A does not necessarily correspond with the numbering of the “Options” evaluated in Chapter 10.

**Response 10-17:** Chapter 10 clearly defines the options being considered. The numbering scheme in the EIS was not intended to correspond with the numbering scheme in Appendix 1-A.

**Comment 10-18:** NCDPW said the EIS does not quantify the impacts to roadways with at-grade crossings east of the Hicksville area (e.g. Bethpage-to-Farmingdale on the Main Line and Syosset-to-Cold Spring Harbor on the Huntington/Port Jefferson Branch), adding that all crossings served by the improvements to the western section will experience increased “gate down” time during peak periods. The EIS should quantify the existing gate down time at these crossings and provide the increase in gate down time anticipated as a result of the Proposed Project and mitigation should be provided where the additional gate down time creates significant impacts.

**Response 10-18:** In addition to the one additional westbound train that would originate east of Hicksville, there would be one additional eastbound train per hour along the Ronkonkoma Branch and one additional eastbound train per hour on the Port Jefferson Branch as a result of the Proposed Project. These additional trains would not result in a substantial increase in gate-down time within any peak hour, that would necessitate any additional traffic analysis.

**Comment 10-19:** NCDPW stated all roadway geometric modifications should be designed in accordance with AASHTO, NYSDOT and County standards, including roadway grades, “lane drops” for through travel lanes, and driveway slopes. For approaching motorists, adequate visibility beneath proposed overpasses to existing/proposed traffic signal heads, as well as to stopped/“back of queue” vehicles in through/left turn lanes, needs to be provided.

**Response 10-19:** NYSDOT has designed the grade crossings to meet all AASHTO, NYSDOT, and County standards and where not feasible to meet all standards, NYSDOT has provided the justification for non-standard features, including grades, sight distance, and stopping distance. These non-standard features are justified given the specific site and ROW constraints.

**Comment 10-20:** NCDPW said bicyclists can currently traverse the railroad at the at-grade crossings and asked if once these are eliminated, would cyclists need to use the proposed underpasses. NCDPW inquired if bike lanes be provided, or at a minimum are the proposed travel lane widths and shoulders in the underpasses adequate to safely accommodate bicyclists.

**Response 10-20:** There are no similar bike lanes on the affected streets to which those new lanes could connect and the ROWs for the local grade-crossings are not wide enough to accommodate a Class 1 bike lane. Thus, a Class 3 “Share the road” bike facility (where drivers would share roadway space with bicyclists) was determined to be the most appropriate treatment.

#### *NEW HYDE PARK TRAFFIC*

**Comment 10-21:** One commenter questioned the lack of analysis of 6<sup>th</sup> Avenue between Covert Avenue and New Hyde Park Road. The Village of New Hyde Park LIRR Third Track Task Force asked about mitigation to remedy the intersection of Covert and Sixth Avenues and suggested a traffic circle. Several commenters requested a traffic light on Covert Avenue and 6<sup>th</sup> Avenue or 5<sup>th</sup> Avenue to control speeding through the area. These commenters expressed concern that removal of the grade crossing gates will exacerbate existing problems and make it more difficult to turn onto Covert Avenue.

**Response 10-21:** The EIS analyzed key intersections along the north-south streets with grade crossings proposed for elimination (i.e. New Hyde Park Road, South 12<sup>th</sup> Street, and Covert Avenue) and along main east-west corridors, such as Stewart Avenue and Jericho Turnpike in the vicinity of the LIRR station and the grade crossings. These intersections were identified in the DEIS Scoping Document. Suggestions for a traffic circle or traffic signals to control speeding on Covert Avenue are local jurisdictional issues outside of the purview of the Proposed Project, but can be assessed once the Proposed Project is in place. While modifications to the Covert Avenue grade-crossing would cause some turning movements from 3rd Avenue to divert to other local east-west streets, including Sixth Avenue, the volume of traffic is not anticipated to be significant. However, this condition would be assessed during final design to determine if any additional measures would be necessary.

**Comment 10-22:** One commenter questioned the lack of mitigation for failing levels of service on New Hyde Park Road.

**Response 10-22:** Chapter 10, “Transportation,” identifies mitigation measures for significant impacts at the intersections of New Hyde Park Road and Jericho Turnpike and Covert Avenue and Jericho Turnpike. These intersections will already operate at LOS E in the No Build condition. Mitigation for any additional delay caused by the Proposed Project

would be implemented through signal phasing and timing modifications or changes to on-street parking at these intersections.

**Comment 10-23:** The Village of New Hyde Park LIRR Third Track Task Force stated the Proposed Project would cause severe long-term traffic congestion in and around the Village of New Hyde Park. As an example, the elimination of cars stopped at the New Hyde Park at-grade crossing will lead to more cars stopped at the new traffic light on Plaza Avenue and New Hyde Park Road.

**Response 10-23:** The traffic analysis in the EIS does not show that the Proposed Project would cause severe long-term traffic impacts in the Village of New Hyde Park. Nor would the elimination of the grade crossing result in additional traffic in the New Hyde Park area. Any diversions from South 12th Street to New Hyde Park Road have been assessed within the traffic study and all significant traffic impacts have been identified and mitigated at key intersections.

**Comment 10-24:** One commenter said the Proposed Project will exacerbate pedestrian safety concerns and vehicular accidents along New Hyde Park Road, and requested improved pedestrian signage and technology at the intersections of New Hyde Park Road and Stratford Avenue and New Hyde Park Road and Stewart Avenue.

**Response 10-24:** The crash data obtained and reviewed for the DEIS included vehicular and pedestrian crashes at the grade crossings, along the sections of roadway leading to and from the grade crossings, and at two key intersections. One of the study corridors was the segment of New Hyde Park Road between 5<sup>th</sup> Avenue and Jericho Turnpike. Traffic analyses conducted at New Hyde Park Road and Stewart Avenue show that a modest amount of additional trips (less than 50 vehicles in any peak hour by 2040) would be added at this intersection. (A similar volume would be added to New Hyde Park Road and Stratford Avenue). Therefore, no significant traffic impact would result and no significant changes to safety are anticipated. The two intersections noted above are outside this study corridor. Signage and technology improvements noted by the commenter would be a local jurisdictional issue, outside the purview of this EIS.

**Comment 10-25:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park stated the Proposed Project will permanently cut off direct access from 2<sup>nd</sup> Avenue to New Hyde Park Road, which will greatly exacerbate traffic flow problems.

**Response 10-25:** Under Build Option 2 (the five-lane New Hyde Park Road option), the “Preferred Option”, traffic on 2<sup>nd</sup> Avenue would be able to connect to Plaza Avenue via a new 30-foot-wide two-way drive aisle at the western end of the new surface parking lot. From there, vehicles would travel

east to a new signalized intersection of Plaza Avenue and New Hyde Park Road.

**Comment 10-26:** NCDPW noted the “lane drop” in Option 1 for the New Hyde Park Road grade crossing is too abrupt and inconsistent with the typical cross-section on New Hyde Park Road. Additionally, the proposed kiss-and-ride lot as designed in Option 1 provides parallel parking for drop off. Motorists entering from the north wishing to return to the north will need to make a U-turn maneuver within the lot during busy times to access the traffic signal to make the necessary left turn. The southern driveway will require a left turn restriction due to the potential of limited sight distance. As designed, this lot will have significant operational difficulties that could potentially spill back onto New Hyde Park Road. As a result, NCDPW strongly recommends that the New Hyde Park Road geometry shown for Option 2 be constructed under the Proposed Project; however, as currently shown the proposed lateral shift in the southbound through lanes approaching Plaza Avenue appears to be too abrupt. A northbound-to-westbound left turn phase would be needed for the proposed Plaza Avenue traffic signal. While Option 2 has the advantage of avoiding a “dead end” condition on Second Avenue, by directing eastbound traffic through the proposed parking lot, the volume of traffic using the parking lot should be identified; and, to ensure vehicle/pedestrian conflicts are minimized, appropriate traffic control devices will be required within the lot, which is under the jurisdiction of the local municipality.

**Response 10-26:** The four-lane alternative for New Hyde Park Road containing the lane drop is not the preferred alternative. However, sufficient room is available to accommodate the standard length needed for the lane drop. The kiss-and-ride layout discussed in the above comment is also not the preferred alternative, but motorists heading south can utilize the southern entrance of the kiss-and-ride which would enable them to use the traffic signal to exit without needing to make a u-turn within the kiss-and-ride. The five-lane alternative for New Hyde Park Road is the preferred alternative. In this alternative, the lateral shift in the southbound lanes at the intersection with Plaza Avenue meets NYSDOT standards. The phasing/timing of the traffic signal and placement of appropriate traffic control devices for the kiss-and-ride parking lot would be done in final design. The appropriate traffic studies for the proposed parking lot have been included in the EIS.

**Comment 10-27:** NCDPW commented that it would appear that traffic can readily divert to the new grade separated crossings at New Hyde Park Road or Covert Avenue; however, before NCDPW expresses a preference for the full closure option, they would like to review traffic analyses, in order to confirm that allowing southbound flow on South 12<sup>th</sup> Street would not result in a significant improvement in capacity at intersections along Covert Avenue or New Hyde Park Road (e.g. at Jericho Turnpike).

**Response 10-27:** The DEIS addressed only worst-case conditions (i.e. full closure of South 12<sup>th</sup> Street at the existing grade crossing). This is the “Preferred

Option” for South 12<sup>th</sup> Street based on input from local elected officials and comments received from local residents.

**Comment 10-28:** NCDPW noted that page 10-35 states that the New Hyde Park Road/Clinch Avenue intersection would be signalized; however, signalization only applies to Option 1.

**Response 10-28:** This distinction is noted in the EIS.

*GARDEN CITY TRAFFIC*

**Comment 10-29:** The WPOA stated the need for a crash/accident analysis at: (1) New Hyde Park Road and Stewart Avenue; and (2) New Hyde Park Road at Chester Avenue/Fairmount Boulevard.

**Response 10-29:** The crash data obtained and reviewed for the DEIS included vehicular and pedestrian crashes at the grade crossings, along the section of roadway leading to and from the grade crossings, and at two key intersections, including New Hyde Park Road between 5<sup>th</sup> Avenue and Jericho Turnpike. Chester Avenue/Fairmount Boulevard is south of the Hempstead Branch and would not be affected by traffic generated by the Proposed Project. See Response to Comment 10-24 relating to the intersection of New Hyde Park Road and Stewart Avenue.

**Comment 10-30:** The WPOA requested that Clinch Avenue at New Hyde Park Road remain open for resident vehicle passage. (Additional comments in the Clinch Avenue/Greenridge Road area discussed above under “New Hyde Park Grade Crossing”).

**Response 10-30:** Clinch Avenue at New Hyde Park Road would remain open with the Proposed Project.

*MINEOLA TRAFFIC*

**Comment 10-31:** The consultants for the Village of Mineola noted that the EIS’s conclusions regarding adversely impacted intersections in Mineola (including Willis Avenue and Third Street, Willis Avenue and First Street, and Willis Avenue at Second Street) and added that no data were provided in these analyses to account for anticipated growth in queuing and the resulting increases in traffic congestion and idling. The commenter asked for more detail regarding who would assist the Village of Mineola with the repaving, restriping, and other actions required to implement the mitigation measures.

**Response 10-31:** Detailed level of service tables are provided in the Appendix of the EIS and provide projected future delays at intersections along those corridors. The Project Sponsor would continue to coordinate with the Village of Mineola to ensure that all required mitigation is implemented.

**Comment 10-32:** The consultants for the Village of Mineola submitted several traffic and bicycle-related mitigation and design measures, including:

- Placing directional signage and striping in key locations where proposed traffic pattern changes are not intuitive;
- Reversing the direction of vehicular traffic on Front Street to one-way eastbound instead of westbound, thereby eliminating awkward and conflicting traffic movements at the kiss-and-ride and the Willis Avenue and Third Street intersection;
- Placing bicycle signs at underpasses to indicate designated bicycle routes;

**Response 10-32:** Signing and striping plans would be created in final design and would conform to NYSDOT standards. LIRR discussed the reversal of traffic on Front Street with the Village of Mineola; however, preliminary evaluations by NYSDOT suggest that reversing traffic would not be advisable.

**Comment 10-33:** NCDPW commented that under Willis Avenue Option 2 (one-way northbound traffic at Main Street and one-way southbound traffic on Willis Avenue), since Main Street extends only three blocks north of the LIRR, northbound motorists would need to utilize local streets to return to northbound Willis Avenue, rather than using Jericho Turnpike. In addition, motorists turning right to access northbound Willis Avenue would then be turning left at an unsignalized intersection. Given that existing traffic volumes on Main Street are not significant, the County would be strongly in favor of Option 1 (two-way underpass at Willis Avenue and closure of Main Street to traffic, with a new pedestrian bridge); however, NCDPW is concerned that the additional traffic on Main Street from identified developments in the area cannot be adequately mitigated by the developer and the Proposed Project. Otherwise, an option that includes a two-way underpass at Willis Avenue and one-way operation of Main Street could be necessary.

**Response 10-33:** Option 1 (two-way underpass at Willis Avenue and closure of Main Street to traffic) is the “Preferred Alternative” based on input from local elected officials. The traffic analyses in the DEIS account for traffic generated by approved projects in the area.

**Comment 10-34:** NCDPW said in regards to the two-way Willis Avenue underpass shown for Option 1, it appears that an additional alternative should be assessed.

- Shift the underpass to the west side of the existing roadway.
- South of the tracks, this would eliminate the need for parallel one-way northbound access roadways flanking the underpass roadway. This would also eliminate the need to control northbound crossing traffic using the proposed traffic signal at Third Street (although the signal may still be needed to mitigate restricted sight distance). Relocate the driveway access to the parking lot for 63-65 Willis Avenue from Willis Avenue to Front Street.
- North of the tracks, replace the one-way southbound access roadway with a one-way northbound roadway on the east side of the underpass roadway. Motorists using this

roadway would be required to turn right onto 2<sup>nd</sup> Street, to optimize traffic flow at that intersection.

- It appears that the pedestrian bridge is being provided solely for north-south pedestrian flow on Willis Avenue (any foot traffic needing to cross the tracks to access Mineola Station platforms could do so using the proposed Main Street pedestrian bridge). Therefore, with additional cross section width made available by deleting one of the access roadways south of the tracks, consider providing a sidewalk alongside of the underpass roadway to facilitate north-south pedestrian flow. This should eliminate the need for a new pedestrian bridge.

**Response 10-34:** A variation of this alternative was considered in scoping with the northern portion of the underpass shifted to the west and the southern portion shifted to the east. This alternative was rejected due to the complicated traffic pattern created at the intersection of Willis Avenue with Second Street. Shifting the southern portion of the underpass to the west would cut off access to the garage bays of the commercial property located at 61 Willis Avenue; this is a car repair business and could not operate without access to the garage. The layout that was selected as the preferred alternative was based on careful consideration of the traffic studies and impacts to commercial properties.

**Comment 10-35:** NCDPW said that as currently shown, motorists exiting the commercial driveway at 85 Willis Avenue and the LIRR facility between the Main Line and Oyster Bay Branch tracks would be directed to one-way eastbound Hinck Way, and when they reach Willis Avenue can only turn right and proceed south. NCDPW suggested a modified option (see Comment 10-34), under which traffic could turn right onto 2<sup>nd</sup> Street, and proceed to a signalized intersection at Willis Avenue, which would allow all traffic movements. This could also benefit motorists exiting the proposed parking garage. The traffic signal at Willis Ave and Second Street currently includes a railroad “pre-emption” phasing sequence. During construction, this phasing will require modification to avoid the potential for westbound Second Avenue vehicles to back onto the tracks east of the intersection. This preemption operation will also need to be modified for final design, to include adequate railroad ROW transfer time at the remaining Second Street crossing.

**Response 10-35:** NYSDOT would coordinate with Nassau County to determine if an improved access plan and signal-phasing plan is warranted.

#### *CARLE PLACE TRAFFIC*

**Comment 10-36:** A few commenters asked if Atlantic Avenue can be converted into a one-way street, particularly given the addition of the sound attenuation walls and landscaping and potential narrowing of the street. One requested reinstating the original dead-end configuration.

**Response 10-36:** In the event that the Town of North Hempstead desires to convert Atlantic Avenue into a one-way direction or dead-end configuration,



LIRR would work with the Town to provide additional landscaped buffer.

*WESTBURY TRAFFIC*

**Comment 10-37:** The Village of Westbury asked for more traffic analyses near Westbury Station, including the following locations: Maple Avenue between Ellison and Union Avenues; Post Avenue and Maple Avenue; Union Avenue between Post and Grand Avenues; Post Avenue between Old Country Road and Jericho Turnpike; Post and Railroad Avenues; Post and Union Avenues; Post Avenue and Old Country Road; Ellison Avenue between Old Country Road and Jericho Turnpike. The requester asked that the analysis include changes in quantity of trips and lengths of delays in all directions at multiple times of day and seven days per week, along with Work Zone Traffic Control Plans (WZTCP) showing potential detours, signage locations, and possible alternate routes. Another commenter requested traffic improvements at the intersection of Post and Union Avenues.

**Response 10-37:** Four intersections along Post Avenue have been added and analyzed as part of the EIS. These include: Post Avenue at Maple Avenue, Post Avenue at Scally Place, Post Avenue at Union Avenue, and Post Avenue at Railroad Avenue. These analyses, including vehicular delay and levels of service, have been conducted for the AM and PM peak hours, consistent with the other intersection analyses in Westbury. Improvements to reduce or eliminate significant impacts at Post Avenue and Union Avenue are noted in the EIS. The Work Zone Traffic Control Plans (WZTCPs) are specific to the selected contractors means and methods (which are related to the detailed final design) and would be developed as part of the design-build process.

**Comment 10-38:** The importance of keeping commercial traffic off residential streets and allowing emergency vehicle access was stressed.

**Response 10-38:** Comment noted.

**Comment 10-39:** The Village of Westbury requested a separate traffic analysis and preliminary MPT (now known as WZTCPs) to address traffic during the proposed work at the Glen Cove Road and Cherry Lane bridges, and asked that all traffic analyses include peak-period traffic from new parking garages.

**Response 10-39:** The WZTCPs are specific to the selected contractors means and methods (which are related to the detailed final design) and would be developed as part of the design-build process, including for these two streets. Regarding the comment on traffic analyses, the analyses at Westbury Study Area intersections included traffic to and from the proposed parking garages.

**Comment 10-40:** NCDPW said that based on the results of the No Build and Build intersectional capacity analyses, there was little or no additional traffic “attracted” to these

## **Long Island Rail Road Expansion Project**

---

crossings (now that they would be grade separated) from other roadways (e.g. Post Avenue), and asked for confirmation of these statements.

**Response 10-40:** That statement is correct, since there are currently other grade-separated crossings that are available to motorists that provide shorter routes to destinations, such as Post Avenue and Grand Boulevard.

**Comment 10-41:** NCDPW noted that page 10-63 states that at the Urban Avenue/Broadway intersection, there would be impacts on the northbound Urban Avenue approach during the PM peak hour, which could be mitigated by installing an actuated traffic signal. It should be clarified that signal installation will be part of the traffic mitigation for the Proposed Project.

**Response 10-41:** New signals needed to mitigate significant traffic impacts would be part of the traffic mitigation plan for the Proposed Project.

### *HICKSVILLE TRAFFIC*

**Comment 10-42:** Several commenters including the Town of Oyster Bay's DER said the EIS is deficient due a lack of traffic study in Hicksville. Some said in addition to analyzing the Proposed Project's traffic impacts in Hicksville, the EIS should analyze impacts to communities farther east on the Port Jefferson Branch (Syosset, Jericho, Woodbury) and the Ronkonkoma Branch (Bethpage and Farmingdale). The Town said the MTA-LIRR should include a full traffic impact analysis for Hicksville, including the Central Business District Zone, Syosset, and Bethpage.

**Response 10-42:** In response to comments received on the DEIS, eight key intersections were analyzed near the Hicksville Station for the EIS, including: Newbridge Road and Duffy Avenue; Newbridge Road and Station Plaza (north and south of the LIRR overpass); Newbridge Road and West Barclay Street; Newbridge Road and West John Street; West Barclay Street and Marion Place; West Barclay Street and West John Street; Marion Place and West John Street; and the existing LIRR surface parking lot exit and West John Street. Traffic counts were conducted at these locations and detailed traffic level of service analyses are provided in the EIS. Projected ridership due to the Proposed Project in Syosset and Bethpage is not expected to be significant. Therefore, traffic analysis in Syosset and Bethpage are not warranted as the Proposed Project would have minimal traffic generation in these areas.

**Comment 10-43:** The Town of Oyster Bay's DER disagreed with the pedestrian analysis, noting there will be an increase in pedestrian activity from the two new parking garages and recommending a shuttle trolley system.

**Response 10-43:** Pedestrian movements between the two new parking garages and the station would be accommodated without the need for a shuttle trolley system.

**Comment 10-44:** The Town of Oyster Bay's DER said bicycle racks and bicycle safety improvements should be incorporated into the Hicksville Station, and safety studies are required for Hicksville, Bethpage, and Syosset.

**Response 10-44:** LIRR will evaluate the need for additional bicycle racks at Hicksville Station. NYSDOT will conduct an independent safety review for the Hicksville Station area. Bethpage and Syosset are outside the Project Corridor.

**Comment 10-45:** Some commenters stated the parking in Hicksville will be woefully inadequate, even with the two proposed parking facilities. The potential mitigation measures listed in Chapter 10 should be firmly incorporated into the Proposed Project at this time. The Town of Oyster Bay's DER said the Proposed Project's effect of decreasing the parking deficit is not sufficient. This commenter said Table 10-37, "Existing Station Parking Capacity and Usage," should be substantiated with data, maps, figures, and an explanation of the methodology used. The projected additional demand for 279 parking spaces in Hicksville should be substantiated. The Hicksville parking studies should account for private commuter parking lots.

**Response 10-45:** The proposed addition of two new parking garages would be a substantial benefit to LIRR riders. The parking demand shortfalls identified in the EIS due to East Side Access and long-term growth are based on current ridership forecasts and best available information at this time. The potential need for additional parking due to the opening of the East Side Access Project will be carefully monitored by MTA/LIRR and strategies to accommodate additional parking demand will be developed at that time; this will include strategies described in the Parking section of the Chapter 10. Commitments to such strategies will be made once East Side Access opens and ridership and parking demand can be monitored and measured.

Existing parking capacities and usage were collected by LIRR; maps indicating the locations of all station area parking facilities have been added to Appendix 10. The projected additional demand for 279 parking spaces in Year 2020 without the Proposed Project was based on current ridership forecasts. The traffic study conducted accounted for commuter use of both private and public commuter parking lots near the station.

#### *BUS SERVICES*

**Comment 10-46:** The combined comments from the Villages of Floral Park, Garden City and New Hyde Park said the EIS lacked analysis of increased bus operations, and impacts from stop-and-go bus operations in congested areas.

**Response 10-46:** As stated in the EIS, NICE bus service in the Project Corridor will likely continue to respond to changes in demand over time, due to implementation of the Proposed Project and other reasons, such as projected long-term growth, increases in development, etc. The

Proposed Project would improve bus operating conditions for all north-south NICE routes with the grade separation of existing congested grade crossings. Projected increases in traffic in the Project Corridor resulting from the Proposed Project would be reduced or eliminated through improvements to intersection geometry and traffic signal operations, resulting in the same or improved conditions for bus operations.

**Comment 10-47:** Some commenters stated the Proposed Project will improve Nassau County bus service through greater connectivity, more reverse peak service, and less traffic at grade crossings (leading to fewer delays on north-south bus routes). A few commenters stated the Proposed Project will improve NICE bus schedules, particularly the heavily-used N25, which runs north-south and will benefit from the elimination of the New Hyde Park Road grade crossing.

**Response 10-47:** The LIRR would continue to work with NICE bus management to coordinate Nassau County service.

**Comment 10-48:** One commenter asked who will fund bus improvements, given cuts in bus service, and said the analysis should consider the impact on reverse-peak ridership potential if there is not improvement in bus service. The Village of New Hyde Park LIRR Third Track Task Force said additional bus service will be needed independent of the Proposed Project.

**Response 10-48:** Improvements to bus service are separate from the scope of the Proposed Project; however, the LIRR would continue to work with NICE to coordinate bus and rail services

**Comment 10-49:** One commenter said there is no point expanding east-west passenger rail service unless north-south bus transportation is similarly expanded.

**Response 10-49:** Nassau County and NICE bus plans for future expansion of north-south bus transportation are beyond the scope of the Proposed Project. Connectivity and access to LIRR stations remains a priority for the LIRR

**Comment 10-50:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park said that a formal analysis of NICE bus service is needed to account for increased ridership with the Proposed Project.

**Response 10-50:** Ridership analysis conducted for the Proposed Project indicates that peak period ridership to/from Manhattan would not increase, although ridership is projected to increase as a result of implementation of the East Side Access Project. Modest increases in ridership are projected as a result of the Proposed Project in the reverse and off-peak periods, due to increases in reverse peak and intra-Island rail service. However, this small increase in ridership is not expected to result in a significant adverse impact to bus service. Additional bus ridership can be accommodated by existing bus service. As stated in Response 10-46,

NICE bus service in the Project Corridor will likely continue to respond to changes in demand over time, due to implementation of the Proposed Project and other reasons, such as projected long-term growth, increases in development, etc.

#### *SAFETY & EMERGENCY SERVICES*

**Comment 10-51:** Several commenters noted that the grade crossing eliminations will allow for speedier emergency responses, noting that some fire departments have policies to avoid at-grade crossings due to their inherent delays and dangers.

**Response 10-51:** Comment noted.

**Comment 10-52:** One commenter expressed objection to any closure of Cherry Lane due to the resulting adverse impact to fire department rerouting and response times. Another commenter said that construction vehicles be kept off Cherry Lane, due to the safety of the schools on the road.

**Response 10-52:** Table 13-2 shows anticipated road closures during construction. A road closure for one weekend is proposed at Cherry Lane. During the weekend-long closure of Cherry Lane (when school would not typically be in session), emergency vehicles would be rerouted to nearby streets as coordinated with the Town of North Hempstead.

**Comment 10-53:** Some commenters, including the Town of North Hempstead's Department of Planning & Environmental Protection, asked for more detail regarding specific security and safety upgrades included in the Proposed Project—including improved station lighting and signage.

**Response 10-53:** Station safety and security upgrades include: closed circuit television; lighting improvements; pedestrian overpasses and underpasses; ADA compliant access features; curbside drop-off/pick-up areas; expanded platforms; and heated platforms. The elimination of all seven grade crossings within the Project Corridor is also a substantial safety and security upgrade. Additional details regarding the Proposed Project's safety and security upgrades are included in Chapter 15, "Safety and Security," and in Appendix 1-A.

**Comment 10-54:** Some commenters asked for enhanced safety programs now to address frequent accidents at the Covert Avenue, South 12<sup>th</sup> Street, and New Hyde Park Road at-grade crossings.

**Response 10-54:** Other than the currently scheduled grade crossing eliminations under the LIRR expansion project, additional enhanced safety programs are not currently programmed. We will investigate these locations further to see if any interim action is warranted.

## Long Island Rail Road Expansion Project

---

**Comment 10-55:** The WPOA asked about an evacuation plan and established procedures in the event of a freight-related emergency or spill.

**Response 10-55:** In accordance with Federal regulations, LIRR, in conjunction with NYA, has developed an emergency response plan that identifies specific procedures for response to a freight-related emergency or spill, including all LIRR Departments that must be notified, MTAPD, and proper notifications to state and federal agencies (FRA, DOT, State and Local OEMs).

**Comment 10-56:** The Town of Oyster Bay's DER said the EIS should include a meaningful discussion regarding pedestrian safety and accident reduction, particularly in Hicksville. Safety issues beyond the Project Corridor must be evaluated.

**Response 10-56:** Detailed analyses of pedestrian safety and crashes in New Hyde Park, Mineola, and Westbury where there are proposed roadway modifications were included. NYSDOT will conduct an independent safety review for the Hicksville Station area.

**Comment 10-57:** The potential need for increased police presence due to the Proposed Project should be evaluated.

**Response 10-57:** The Proposed Project would not result in increased police presence. Moreover, the installation of security cameras at LIRR stations in the Project Corridor may reduce the need for police patrols at these stations.

## AIR QUALITY

**Comment 11-1:** Some commenters emphasized the air quality benefits from the Proposed Project, stating that the Tri-State region does not currently meet USEPA standards, in part due to automobile usage, and that the Proposed Project will reduce vehicle miles traveled, greenhouse gas emissions, and local pollution from cars idling at grade crossings.

**Response 11-1:** Comment noted.

**Comment 11-2:** One commenter asked for scientific data to back up the EIS's claim that improving mass transit will reduce traffic congestion and reduce region-wide greenhouse gas emissions, and cited several studies that demonstrate little to no reduction in vehicle travel due to rail service increases. The commenter noted that Chapter 17, "Climate Change," acknowledged potential increases in greenhouse gas emissions due to operating electrical locomotives, park-and-ride and taxi trips to/from rail stations, and from construction vehicles and construction materials.

**Response 11-2:** Chapter 17 indicated that increased use of electric trains would indirectly cause some increase in GHG emissions, due to electric power generation. It should also be noted that while transit trips require some vehicular activity at rail stations, the overall benefit is related to the total reduction in vehicle miles traveled. For example, a 50-mile auto trip can

be replaced by a 48-mile transit trip and a 2-mile auto trip to the station. Also, the studies cited by the commenter are not representative of the NYC metropolitan area, which has the most comprehensive mass transit system in the country, providing tremendous benefits in terms of the reduction in GHG emissions for transportation purposes. MTA studies have shown that comparable vehicular travel to their rail systems would be more than eight times greater than the amount of GHG emissions produced by the agency.

**Comment 11-3:** One commenter said that the increased traffic congestion and idling times at impacted Mineola intersections would result in air quality impacts; it was recommended the EIS provide estimated queuing length and idling time data to understand the air quality and climate change impact. A similar comment was submitted regarding increased traffic in New Hyde Park resulting in declining air quality.

**Response 11-3:** See Chapter 11, “Air Quality,” for a detailed discussion of air quality, methodology, and carbon monoxide (CO) screening analysis. Carbon monoxide is the primary pollutant of concern in vehicular emissions. The air quality analysis for the EIS assessed the potential for project-related traffic to adversely affect ambient air quality using current NYSDOT methodology for intersection air quality analysis. The methodology is used throughout NYS for all transportation environmental studies and is based on approved US EPA and FHWA models and guidance for their use. All analyzed intersections in the Study Area for the Proposed Project were assessed using a three-step process to determine whether or not CO levels would exceed established legal thresholds; no exceedances were predicted. In addition, approved procedures were used to determine whether or not particulate matter (PM) or mobile source air toxics (MSATs) would increase beyond legal thresholds; no exceedances were predicted. As a result, the Proposed Project would not cause any significant degradation of local air quality in any location in the project area.

**Comment 11-4:** The Town of Oyster Bay’s DER said Chapter 11, “Air Quality,” does not back up the Proposed Project website’s contention that the Proposed Project will improve air quality by reducing congestion on the Long Island Expressway (LIE). The commenter also said the presumed air quality improvements in the No Action Alternative are not certain given the projected population increases.

**Response 11-4:** LIRR and LIE represent “competing” transportation systems for people desiring to travel between Long Island and Manhattan. Therefore, improvements to LIRR reliability and related increases in ridership would assist in reducing the number of automobiles—and ensuing traffic congestion—on the LIE.

## Long Island Rail Road Expansion Project

---

**Comment 11-5:** The Town of Oyster Bay's DER said the air quality analysis does not account for single-occupancy vehicle trips to new parking garages, including those in Hicksville.

**Response 11-5:** The air quality analysis included trips to new parking garages.

**Comment 11-6:** The Town of Oyster Bay's DER said the air quality analysis should address the routine spraying of pesticides, herbicides, and rodenticides.

**Response 11-6:** Use of pesticides, herbicides, and rodenticides would not be expected to change as a result of the Proposed Project. The use of these materials is, and will continue to be, applied by licensed contractors adhering to all pertinent regulations regarding their use and application. When applied in accordance with the required procedures, they do not pose an air quality risk.

**Comment 11-7:** One commenter asked when the green locomotives would be purchased and become operational.

**Response 11-7:** Two green locomotives (low-emitting locomotives) are already in service. A new LIRR procurement is underway to acquire the remaining green locomotives.

## NOISE

**Comment 12-1:** Some commenters applauded the Proposed Project's improvements to noise through the extensive use of sound attenuation walls and the reduction in train horns and crossing gate bells.

**Response 12-1:** Comment noted.

**Comment 12-2:** One commenter requested a "quiet zone" policy that would stop trains from blasting their horns.

**Response 12-2:** With implementation of the Proposed Project and the elimination of the seven grade crossings, there would be no need to apply to FRA for a "quiet zone" since the requirement for using warning horns would no longer apply to the Project Corridor.

**Comment 12-3:** Some commenters described personal property damage and shaking houses due to freight train vibrations. Others explained that the adjacent communities are already subjected to unacceptable levels of noise and vibration from trains, airplanes, helicopters, and roadways, and requested an analysis of the cumulative effects of increased noise from the Proposed Project.

**Response 12-3:** As shown in the EIS, due to the elimination of the grade crossings and the installation of sound attenuation walls throughout the Project Corridor, noise levels in the Project Corridor would be reduced as compared to existing conditions as a result of the Proposed Project. A graphical presentation of these reductions in rail-related noise has been



added to the EIS. Because it would incorporate vibration reduction measures, the Proposed Project along with LIRR plans to replace ties on the two existing tracks along the Main Line would also reduce vibration levels compared to existing levels as well as levels in the future without the Project. Because the Proposed Project would not result in direct vibration impacts, it would not contribute to cumulative vibration impacts.

**Comment 12-4:** One commenter asked for clarity about the LIRR’s “rigorous rail-grinding and wheel-truing” program that minimizes vibrations.

**Response 12-4:** In accordance with 49 CFR 238, LIRR inspects train wheels every day the cars are in service. LIRR has an inspection and maintenance plan for the wheels that is broader in scope, compliant with, and in some cases more stringent than the limits allowed by the FRA. In addition to LIRR’s daily inspections and reports by on-board crewmembers, LIRR is installing a wheel impact/load detector on the Main Line to identify wheel defects that develop en route.

The LIRR adopted a comprehensive rail grinding program in 2015. The entire length of the Main Line corridor between Queens and Divide was ground in 2015, and is scheduled for grinding in 2018 and every three years thereafter.

**Comment 12-5:** Some commenters said the Proposed Project will worsen noise and vibrations by moving trains closer to residential property lines, particularly if the freight trains use the southernmost track.

**Response 12-5:** In some locations the new track would be closer to residences than the existing tracks. Accordingly, the Proposed Project includes over 32,000 feet of noise walls that would not only avoid increases in noise from the Proposed Project, but would, in conjunction with the grade crossing eliminations, decrease the noise levels throughout the Study Area as compared to current and future conditions without the Project. To avoid vibration impacts from the Proposed Project, the contract would require that the design-build contractor use measures to reduce vibration, such as the installation of concrete ties and resilient fasteners. LIRR would independently replace the ties and fasteners on the existing two tracks of the Main Line, which would cause a reduction in vibration from the Main Line compared to existing conditions.

**Comment 12-6:** One commenter asked about the EIS’s proposal to use under-tie pads to mitigate rail vibration impacts (page 12-14) and questioned the LIRR’s past experience with under-tie pads and the plan for maintenance. The commenter requested that MTA install under-tie pads or sound attenuation walls wherever residences and schools are located within 100 feet

from the ROW, including the Floral Park-Bellerose School and the entire four-track segment from Floral Park Station to Jamaica. This commenter also inquired about noise data collection west of Floral Park Station.

**Response 12-6:** As described in the Response 12-5, sound attenuation walls would be installed throughout the Project Corridor at locations where noise impacts were identified near residential properties. The noise analysis did not include an assessment of noise levels outside the Project Corridor (i.e., west of the Floral Park Station) since no additional track would be constructed in that area that would place trains closer to residential uses. With respect to vibration impacts, see Response 12-5.

**Comment 12-7:** Some commenters acknowledged noise improvements due to grade crossing eliminations but noted horn blasts will still be required at rail stations. Some commenters questioned the EIS's conclusion regarding no vibration increases given the increased number and speed of trains.

**Response 12-7:** Under typical operating conditions, regulations do not require that trains use horns at rail stations. With regard to vibration, see Response 12-5.

**Comment 12-8:** Some commenters, including the Villages of Floral Park, Garden City, and New Hyde Park, said the EIS did not include an analysis of post-construction noise and vibration impacts (particularly along Greenridge Avenue in New Hyde Park and residential areas in Floral Park) and did not include an audit for noise-sensitive receptors. The Town of North Hempstead's Department of Planning and Environmental Protection asked for a color-coded map indicating each of the 4,000 sensitive noise and vibration receptors within the default screening distances. Another commenter asked for a table showing the projected noise attenuation from the proposed walls at various receptor locations.

**Response 12-8:** The EIS includes post-construction (i.e., during long-term project operation) noise and vibration analysis. 4,000 discrete receptors were assessed throughout the Study Area. The DEIS included a representative set of results at the twelve locations where ambient background data were obtained. These are representative of the noise and vibration results that would occur in the future with the Proposed Project at various locations throughout the Study Area. The EIS has additional information in the form of maps showing the change in noise levels with the Proposed Project at the 4,000 receptors studied.

**Comment 12-9:** One commenter questioned why the EIS uses default FTA reference noise levels instead of actual sound levels produced by LIRR equipment, and how the values compare.

The Town of North Hempstead's Department of Planning and Environmental Protection referenced inconsistencies between Tables 12-4, 12-5, and 12-6 in the EIS.

**Response 12-9:** The use of default values in the FTA Train Noise Model for sound reference levels is the most common method for noise assessment in an EIS. This approach is used since there are a number of factors that contribute to the actual noise levels attributable to the rail system—not all of which are readily obtainable. Therefore, the preferred method is to adjust or calibrate the model to actual noise measurements taken in the field or to use the predicted values solely for the purposes of estimating the change in noise level. Therefore, the most important aspect of the model is its ability to predict the change in noise levels due to project-related changes (re-alignment of track, changes in rail traffic and speed, installation of special track work and mitigation measures, including sound attenuation walls). With regard to Tables 12-4, 12-5, and 12-6, incorrect references were made and noise values inaccurately repeated. The EIS has been modified to reflect the correct values.

**Comment 12-10:** The Town of Oyster Bay’s DER said additional sound receptor locations in Hicksville are required, along with an assessment of the impacts from additional trains.

**Response 12-10:** As described in Chapter 12, “Noise,” more than 4000 noise-sensitive receptors were identified along the Project Corridor. A noise monitoring program was conducted at representative locations, including Hicksville. A total of 17 additional trains would be added throughout the day as a result of the Proposed Project. The additional trains were included in the noise analysis.

**Comment 12-11:** One commenter asked about soundproof windows at schools, such as the John Lewis Childs Elementary School in Floral Park. Another asked about testing to determine whether trees can reduce the effects of train noise.

**Response 12-11:** Noise levels with the Proposed Project would be reduced by approximately 3 dBA at the John Lewis Childs School in Floral Park and therefore no additional mitigation is required. For trees to be an effective noise barrier, they need to be densely planted with a line of trees bearing a width of a minimum of 100 feet.

**Comment 12-12:** One commenter listed a series of inconsistencies and questions regarding Chapter 12, including:

- Incorrect references to Table 12-4, Table 12-5, Table 12-6, Figure 12-6
- Figure 12-6 is not helpful to the average homeowner in determining vibration levels based on distance from track
- Inconsistencies in predicted vibration levels between the text and accompanying tables
- Non-committal language regarding vibration-reducing mitigation measures

**Response 12-12:** The inconsistencies in Tables 12-4 through 12-6 have been corrected in the EIS. Figure 12-6 uses a logarithmic scale for the distance from track measures along the horizontal axis. Thus, from 10 feet to 100 feet from the track, each vertical line intersecting with the horizontal access represents 10-foot increments. From 100 feet to 1,000 feet from the railroad track, each vertical line intersecting with the horizontal access represents 100-foot increments. Vibration levels for track sections with and without crossovers (switches) are measured on the vertical axis where the two diagonal lines cross the vertical lines representing distance from track. Table 12-6 shows the reduction in vibration levels due to the Proposed Project at 12 representative locations. These reductions are based on vibration control measures incorporated into the Proposed Project as well as acceleration of the LIRR's tie-replacement program on Main Line 1 and Main Line 2. The railroad is committed to these measures which will reduce vibration levels as compared to the current condition.

**Comment 12-13:** One commenter spoke specifically about the residential area in Mineola between Roslyn Road and Glen Cove Road, which was listed in the EIS as one of the loudest areas. He requested higher sound attenuation walls and additional mitigation and relocation of planned switches to commercial areas.

**Response 12-13:** As shown in Figure 12-7, noise levels from the railroad operations in this area with the Proposed Project would be reduced significantly (by up to more than 15dBA). The sound attenuation wall in this area would be eight feet above the ground as viewed from neighboring backyards.

**Comment 12-14:** One commenter asked for more details about the noise and vibration analysis (e.g. SPL, instrumentation, vibration measurement readings, qualifications of analyst) and the type of materials/specifications for the proposed walls, and whether testing will be scheduled to ensure performance. The commenter requested an independent noise report available to the public.

**Response 12-14:** The noise and vibration analysis was prepared by a firm that has conducted numerous noise and vibration studies for rail and highway transportation projects throughout the country. As described in the EIS, the analysis was conducted using the FTA's Transit Noise and Vibration Impact Assessment. The final design of the sound attenuation walls, including the types of material, would be performed by the selected design-build contractor.

## **E. COMMENTS PERTAINING TO THE CONSTRUCTION PERIOD**

### **GENERAL CONSTRUCTION COMMENTS**

#### *CONSTRUCTION SCHEDULE*

**Comment 13-1:** Some commenters expressed skepticism about the construction schedule as presented in the EIS, stating it is grossly unrealistic and misleading, and therefore prohibits the EIS from accurately analyzing and disclosing the magnitude and duration of significant adverse impacts. Several commenters cited the delays on other MTA and LIRR projects (East Side Access, Second Avenue Subway, Babylon Branch Elevation, Massapequa Park Station, Great Neck Station, etc.) as examples of lengthy, overly optimistic schedules and explained the implications for residents and commuters. One comment asked what happens if money runs out in the middle of construction like with Second Avenue Subway, and about the potential community impacts from an unfinished project.

**Response 13-1:** The construction schedule was developed by engineers with extensive experience on large transportation projects throughout the New York metropolitan area, the United States, and internationally. The contract for the design-build process would provide incentives to deliver on or ahead of schedule. However, even if the overall construction period were to extend an additional year throughout the Project Corridor, it would not result in significant adverse impacts because the increase of any particular construction segment in a particular community would not be substantial. In addition, contingencies have been built into the project timeline. As noted on page 13-9, not all construction along the Project Corridor can proceed in parallel and while the overall construction could take up to four years, no one location would be expected to experience construction activities for that full duration. All construction impacts would be temporary and limited in their locations. For example, even if a specific grade crossing would be under construction from 9 to 10 months, it would not change the conclusion that any impacts due to construction would be temporary. Funding of the Proposed Project is beyond the scope of SEQRA and this EIS.

**Comment 13-2:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park questioned the EIS's description of the four-year construction schedule as "conservative," particularly in the absence of backup documentation for this schedule, such as a "Schedule Basis Document" or a "Cost Estimate Basis." Some described the presentation of construction impacts and duration as inaccurate, deceptive, and lacking in important schedule contingencies to account for unforeseen issues, inclement weather, discovery of contamination, funding delays, and other factors. The Village of Westbury cited public and private conversations indicating the construction period could last three to ten years, and explaining that a longer period could devastate local communities. Some commenters requested the EIS closely re-examine the construction schedule, provide realistic expectations, more detail regarding phases, and monthly/weekly estimates for all components.

**Response 13-2:** As described in the Response 13-1, the construction schedule was developed by professional engineers with extensive experience in the construction of multi-billion dollar transportation projects both within the NY metropolitan area as well as throughout the world. The comment implies that a detailed schedule that would be prepared for the actual construction of a project (e.g., a Schedule Basis Document for a building) is required for an EIS. That is incorrect. The schedule shown in the EIS is representative of what activities may occur concurrently and their approximate duration in months. The schedule shown in the EIS for the Proposed Project is as detailed, if not more so, than those shown in other large transportation EISs prepared in the New York metropolitan area.. The intent of the EIS schedule is to assist with the analysis of environmental impacts and, as such, a more compressed schedule results in a more conservative prediction of traffic, noise and air quality effects. As discussed above, if certain items take longer to construct than anticipated, even with the contingencies built into the schedule, the intensity of the impacts would be less although for a slightly longer time. Further, due to the extensive physical length of the Proposed Project, delays in one area would have no effect on the majority of the work in other areas. This is unlike construction of a high-rise building where delays in the completion of the foundation would impact the remainder of the construction extending the entire construction duration. Since the Proposed Project is an aggregate of a number of distinct components that have a relatively short time frame for completion (i.e., less than two years), an increase in the schedule at one location may extend the construction in that one area for a few months but would not have a significant effect on the entire project.

**Comment 13-3:** The Village of Westbury requested the EIS include as mitigation contract provisions to ensure on-time project completion through incentives or penalties.

**Response 13-3:** The contract for the design-build process would provide incentives to deliver project completion on or ahead of schedule.

#### *CONSTRUCTION SEQUENCING*

**Comment 13-4:** Some commenters asked that construction begin at the eastern end and proceed westward, so that complications could be resolved before the project construction reached the most congested areas. One requested the Proposed Project start in Westbury and proceed eastward. Some commenters asked for specific construction sequencing, such as: staggering South Tyson and Plainfield Avenue work to prevent traffic problems; performing South Tyson work outside the school year; and avoiding construction near the Floral Park pool and recreation center during the summer. Overlapping construction activities within the same neighborhoods would create unacceptable disruption.

**Response 13-4:** Construction scheduling and sequencing methods are noted on page 13-9 of the EIS. As shown on Figure 13-1 of the EIS, South Tyson and Plainfield Avenue work is characterized as LIRR ROW work. The scheduling for South Tyson construction would exceed the duration of an academic school year as shown on Figure 13-1, however as noted on page 13-34, construction deliveries would be scheduled outside of the school and commuting traffic peak hours to the extent practicable while school is in session. During this period, traffic flow along South Tyson and Plainfield Avenues would be maintained. The construction schedule shown in Figure 13-1 is illustrative, but shows a possible construction sequence based on the grade-crossing construction sequence. However, work within the LIRR ROW could progress at multiple locations simultaneously. The design-build contractor may likely determine that an optimal schedule would involve work concurrently at multiple locations.

**Comment 13-5:** Some objected to the EIS construction schedule for various reasons, including that concurrent work on South Tyson and Plainfield Avenues for six months would cripple traffic on Floral Park's main roads, and work for at least 10 months at South Tyson would affect multiple school years.

**Response 13-5:** The conceptual construction schedule shown in Chapter 13, "Construction," shows overlapping work for several months for the new bridges at South Tyson and Plainfield Avenues. First, the bars in the schedule indicate the total construction time for each of the structures. Neither of these bridges require complete roadway closure for longer than a weekend when the new structures are placed over the roadway. The preparation work would require parking restrictions and other temporary lane closures. However, any complete closures would not be concurrent and a Traffic Work Zone Protection Plan would be implemented by the design-build contractor to ensure that traffic is not significantly adversely affected for any length of time.

**Comment 13-6:** One commenter asked if the Proposed Project will be awarded as one large contract or many smaller contracts.

**Response 13-6:** The contract would be awarded to a single design-build team.

**Comment 13-7:** One commenter said the EIS must include a more precise definition of the term "temporary" with respect to temporary road closures, lane closures, easements, etc. throughout the construction period. One commenter questioned the vagueness of temporary effects, such as page 13-28: "Construction...would require temporary easements for construction access on a number of parcels, some of which may have active businesses. The precise parcels to be selected by the design build contractor."

**Response 13-7:** “Temporary” refers to any period of time that has a finite beginning and end, such as the construction components of the Proposed Project. For example, temporary effects with regard to grade crossings would denote the six to nine month parameters for the construction of each grade crossing.

Due to the nature of the design-build process that would be used for the Proposed Project, precise staging locations are still to be determined. However, as noted on page 13-2 of the EIS, construction, as is the case with any major construction project, would result in some temporary disruptions in the surrounding area. Further noted on page 13-2, while a limited number of individual parcels would be used as staging areas, this staging would not permanently change the patterns of land use and character of the communities and all of the construction impacts would be temporary and localized. For further detail about how the overall effects of construction would be lessened in the surrounding communities, please see page 13-2 of the EIS.

**Comment 13-8:** The Village of Westbury requested that the Post Avenue Bridge Project be completed prior to beginning the Proposed Project, and that the Urban Avenue grade crossing be completed before the School Street grade crossing.

**Response 13-8:** The replacement of Post Avenue Bridge is scheduled to be completed prior to grade crossing construction activity associated with the Proposed Project. Post Avenue is scheduled to be replaced in October 2017. Please see page 3-11 of the EIS, which presents further information outlining grade crossing elimination activities. Also please see Figure 13-1 which illustrates the construction schedule and shows that the Urban Avenue grade crossing would be completed before the School Street grade crossing elimination.

**Comment 13-9:** One commenter requested LIRR complete one grade crossing elimination within a nine-month timeframe before embarking upon remaining project elements, to demonstrate that the promised construction schedule is achievable. The commenter requested a penalty system wherein the LIRR would pay a daily fee to each proximate village for being late.

**Response 13-9:** The Proposed Project would be awarded as one complete project. The design-build contractor would be subject to a series of performance measures including incentives and/or penalties for early or late completion, respectively, of certain project milestones.

#### *CONSTRUCTION STAGING, PARKING, & COMMUNITY DISRUPTION*

**Comment 13-10:** Some commenters said they anticipate enormous level of disruptions during the construction period and asked LIRR to mitigate localized construction impacts as much as possible to minimize the inconvenience to adjacent communities.



**Response 13-10:** In an effort to minimize the adverse effects of construction of the Proposed Project on the surrounding communities, the Proposed Project has committed to a number of measures. First, design-build contractors would be evaluated partly by their use of innovative measures to reduce construction duration and minimize adverse environmental impacts when adjacent to sensitive land uses such as residences and schools. Second, as discussed throughout Chapter 13, the Proposed Project has committed to an overall environmental compliance plan that includes measures to minimize adverse impacts to traffic, pedestrian safety, access, air quality, noise, vibration, stormwater, visual resources and aesthetics, historic resources, and other resources, which measures the contractor must adhere to. Third, the Proposed Project team would monitor the contractor's compliance with these measures throughout the duration of construction. Finally, the MTA and LIRR would continue its extensive public outreach and community coordination effort throughout the construction process.

**Comment 13-11:** Some commenters requested more details in the EIS about: construction staging areas; parking locations for equipment and construction worker vehicles (including satellite parking); the use of heavy construction equipment; the delivery, handling, storage, and access to materials; debris removal; disruptive night-time lighting; and measures to control increased rodent and pest populations. Some commenters asked for the level of rodent/pest infestation that is forecasted and how homeowners can make claims if they incur costs to eradicate pests during construction.

**Response 13-11:** Staging areas would generally include the LIRR ROW or ancillary property. Pages 13-7 to 13-8 of the EIS identify a number of best practices that would be followed to ensure protection of quality-of-life during the construction period. These measures include measures to maintain construction staging areas in an orderly manner and to minimize effects of construction related truck traffic and worker parking. While keeping work sites clean and litter free is a primary component of rodent control, the design-build contractor would also be required to employ rodent control measures in consultation with the community.

**Comment 13-12:** The Village of Mineola requested the EIS include a description of the work needed to create the construction staging areas as well as the post-construction work required to restore the staging areas to appropriate condition.

**Response 13-12:** A visual description of a typical staging area is provided on page 13-29 of the EIS. Page 13-29 states that once each phase is complete, the construction areas would be restored to an improved condition.

**Comment 13-13:** Some commenters including the consultants for the Villages of Floral Park, Garden City, and New Hyde Park and the Village of New Hyde Park LIRR Third Track Task Force, said that in order for the communities to understand the levels of disruption and mitigation, all construction plans referenced in the EIS must be provided within the EIS timeframe, including the SWPPP, RAP, CHASP, Air Quality Control Plan, BMPs, Community Noise & Vibration Monitoring Program.

**Response 13-13:** Sufficient information on each of the stated plans is provided in the EIS to assess potential impact. Typically, the detailed plans are not prepared until construction is ready to begin as the detailed plans are the responsibility of the contractor, not the project designer. Thus, the specific elements of the stated plans would be developed at a later point.

**Comment 13-14:** One commenter expressed concern about staging areas located in family-friendly residential neighborhoods, stating that her home had recently been vandalized by union workers supporting the Proposed Project.

**Response 13-14:** See Response 13-11.

**Comment 13-15:** A few commenters recommended against establishing a staging area at the end of Mayfair Avenue near Belmont Park Race Track, due in part to the nearby Floral Park-Bellerose Elementary School, school bus drop-off/pick-up, and adjacent residents. Another requested that construction vehicles not park on dead-end streets such as 6<sup>th</sup> Avenue in New Hyde Park. Another asked about the potential for Charles Street in Floral Park to be used for staging.

**Response 13-15:** Staging areas would generally include the LIRR ROW or ancillary property.

***RESPONSE: OUTREACH DURING CONSTRUCTION PERIOD***

**Comment 13-16:** The Village of Westbury stressed the importance of good communication during construction, citing the Ellison Avenue Bridge Project a successful example of managing the community's expectations. Commenters asked about work hours, particularly as they pertain to noise restrictions.

**Response 13-16:** LIRR and NYSDOT would continue coordinating with residents and municipal officials with regard to construction. For work hours, see Response 13-97.

**Comment 13-17:** The Village of Mineola asked for a specific point of contact and designated liaison during the construction period to coordinate with the public, Building Department, etc.

**Response 13-17:** The LIRR would continue to coordinate with residents and municipalities throughout the construction process.

**Comment 13-18:** The Carle Place Civic Association requested 20 days' notice to residents, schools, and first responders in advance of construction at the Cherry Lane Bridge, including written notices, signage, and a construction hotline. The WPOA requested a point of contact during construction in the event that construction vehicles or equipment are blocking streets.

**Response 13-18:** The LIRR would continue to coordinate with residents and municipalities throughout the construction process so as to provide to all stakeholders advance notice during construction phasing.

**Comment 13-19:** The Town of Oyster Bay's DER requested a mobile office or information kiosk at the Hicksville Train Station during construction.

**Response 13-19:** A Project Information Center has been established at the Mineola Station. LIRR intends to maintain the Project Information Center throughout the duration of the Proposed Project, and information regarding the location and hours of availability will be maintained on the project website.

**Comment 13-20:** Some commenters asked for clarification of the Proposed Project's reference and commitment to "Communication with Community, Community Safety & Quality of Life, Environmental Performance."

**Response 13-20:** The EIS provides details regarding communication with community, community safety, quality of life, and environmental performance on pages 13-7 and 13-8.

**Comment 13-21:** One commenter suggested that LIRR or the appropriate State agency provide a contact to ensure property coordination with Nassau County and the public and communication of traffic flow interruptions and detours during grade crossing elimination.

**Response 13-21:** Measures to minimize community impacts during construction are noted on page 13-8 and 13-8 and are also presented on page 1-39.

**Comment 13-22:** One commenter suggested regular and specific updates to residents during the construction period via text, email, phone, and house visits.

**Response 13-22:** As described throughout this FEIS, the project team will continue coordinating with the affected communities throughout future project phases. Notifications of street closures, advanced notice of anticipated work hours, rail service changes, and temporary changes to passenger rail station access are just a few examples of important information that will be clearly communicated. A complete list of outreach measures proposed to be conducted during construction is available in Chapter 13, "Construction." The project team will continue its robust public outreach and agency coordination program to disseminate such

information and provide ongoing opportunity for input throughout the course of the project.

## **LAND USE AND COMMUNITY CHARACTER**

### *COMMUNITY CHARACTER*

**Comment 13-23:** The Village of New Hyde Park LIRR Third Track Task Force stated that community character and quality-of-life will be devastated during the construction period and the effects on local neighborhoods will be immense and long-lasting. Some commenters explained the adverse impacts the construction period (including road closures and detours) will have on the social fabric of the communities. Some said the temporary closure of South Tyson and Plainfield Avenues will physically divide the community and affect the social fabric of Floral Park.

**Response 13-23:** As shown on Figure 13-1, the work would be done within the LIRR ROW; neither South Tyson Avenue nor Plainfield Avenue would be closed. Construction of each individual grade crossing would require traffic modifications for a period of six to nine months. As set forth in Chapter 13, these temporary modifications would not present a significant adverse impact to land use or community character.

### *COMMUNITY FACILITIES & RECREATIONAL RESOURCES*

**Comment 13-24:** Some commenters stated that any temporary closure of the Floral Park pool and recreation center would adversely affect the physical and social well-being of the community and potentially cause youth and adult recreational programs to fail. Vibration impacts to the Floral Park pool and recreation center was also mentioned as a concern. Others expressed disappointment that the retaining wall work near the center will disrupt two or three summer seasons. One commenter said measures should be taken to avoid park users from inhaling contaminated dust, such as temporarily relocating the hockey rink if work is performed over the winter.

**Response 13-24:** As noted on page 2-17 and 2-18, community access would be maintained to all residences, neighborhoods, commercial, governmental, institutional, and recreational facilities. As described in the EIS, the design-build contractor would be required to adhere to a number of environmental control plans addressing concerns related to noise and vibration, contaminated materials, air quality and dust control among others. Furthermore, work to install the retaining/attenuation walls in this area would not take more than several months. LIRR will continue to coordinate with communities along the Project Corridor to minimize potential impacts from construction activities.

**Comment 13-25:** Some commenters stated concern about adverse impacts to local schools and libraries during construction. The Town of North Hempstead Department of Planning & Environmental Protection stressed the need for protection, safety, and safe school routes for

Westbury/New Cassel schools (particularly the Dryden Street School), John Lewis Childs School (including loss of the underpass), Our Lady of Victory School, Homestead primary school, Carle Place schools on Cherry Lane, and others.

**Response 13-25:** Although the character and quality of views of the Project Corridor during construction of the Proposed Project would be modified, such effects would be temporary in any given location. Construction deliveries would be scheduled outside of school hours to the extent practicable when schools are in session, which is noted on page 13-34. The EIS does recognize that noise levels during construction, although temporary, could be considered intrusive. As detailed on page 16-6 of the EIS, temporary noise and vibration impacts during construction would be expected at certain sensitive receptors along the Project Corridor located in close proximity to the work to reduce impacts as much as feasible. As noted on page 13-6, any potential noise and vibration impacts expected during temporary construction activities would be eliminated or controlled to the extent practicable with Best Management Practices (BMPs) that would be required in the contract for the design/build contractor. Noise and vibration control measures (such as substituting equipment with lower noise levels, temporary barriers, exhaust mufflers, etc.) would be used to minimize the impact on the surrounding community.

**Comment 13-26:** One commenter noted a church on Mineola Boulevard and the need to coordinate with typical Sunday/holiday traffic volumes.

**Response 13-26:** The LIRR would coordinate with affected municipalities regarding anticipated weekend work.

## **SOCIOECONOMICS CONDITIONS**

### *LOCAL BUSINESS IMPACTS*

**Comment 13-27:** Several local businesses asked if the project sponsors would make efforts to involve local businesses in the design and construction of the Proposed Project.

**Response 13-27:** The LIRR would continue to coordinate with local businesses and communities throughout the design and construction of the Proposed Project.

**Comment 13-28:** Some commenters stated concern for the businesses near the construction and the negative socioeconomic impacts from the Proposed Project. Some commenters discussed impacts to specific areas, including the Tulip Avenue business district in Floral Park and Downtown Mineola, and challenged the EIS's assertion that no mitigation is needed for significant adverse socioeconomic impacts. One commenter cited inconsistencies between statements in Chapter 3, "Socioeconomic Conditions," and Chapter 13, "Construction" with respect to business impacts, and questioned the validity of the statement: "*The Proposed*

*Project would not result in any impact to the Tulip Avenue business district in Floral Park".* The commenter explained that the construction activities may be temporary but the impacts will likely be long-lasting, and these types of impacts must be addressed in the EIS. Some commenters requested economic assistance to localities to address the construction hardships that would be imposed.

**Response 13-28:** As noted on page 13-2 of the EIS, businesses would not be significantly impacted by any temporary change in pedestrian and vehicular access that could occur as a result of construction activities. Also noted on page 13-2 is that a Work Zone Traffic Control Plan (WZTCP) plan would be developed and implemented to ensure that access to existing businesses throughout the Project Corridor would be maintained throughout the construction period. In addition, pedestrian access to rail stations and nearby businesses would be maintained as noted on page 13-4. Section C. outlines the measures to minimize community impacts. One of these measures noted on page 13-8 is to protect access to existing businesses.

It is important to note that while the construction of the Proposed Project may require temporary easements for construction access, some of which would be occupied by existing businesses, such access would be limited in duration and would only be provided by willing property owners, as is stated in the EIS on page 13-28. For these temporary easements, driveway release agreements and Memoranda of Understanding (for municipal-owned properties) would be required, as noted on page 3-12 of the EIS. Also on page 13-28, the EIS acknowledges that at times, pedestrian and vehicular access to the immediate vicinity of businesses could be affected, but would be temporary and limited to the construction period at any particular location within the Project Corridor. Finally, the LIRR would ensure that land and sidewalk closures would not obstruct entrances to any existing businesses -- also stated on page 13-28. A careful analysis of projected impacts upon businesses during construction was calculated using the most recent economic data from the US Bureau of Economic Analysis, the US Bureau of Labor Statistics and the US Census Bureau to predict effects on the local economy from direct changes to spending as explained in further detail on page 13-27 and 13-28 of the EIS.

**Comment 13-29:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park stressed severe construction impacts to New Hyde Park businesses, particularly along 2<sup>nd</sup> Avenue.

**Response 13-29:** As noted on page 13-28, a plan would be developed and implemented to ensure that access to existing businesses throughout the Project Corridor would be maintained throughout the construction period. Please also see page 13-2, which describes how businesses would not be significantly

affected by any temporary change in pedestrian or vehicular access during construction. A plan would be developed and implemented to ensure that access to existing businesses throughout the Project Corridor would be maintained throughout the construction period.

**Comment 13-30:** One commenter said the construction will have adverse effects to operations at the Belmont Race Track and the supporting industries.

**Response 13-30:** Only a small sliver of the Belmont Race Track Property is within the Study Area, and a majority of the property is outside the Study Area. The Proposed Project would have no significant adverse construction-related impacts to that property or its operations and supporting industries.

#### *PROPERTY ACQUISITION & VALUES*

**Comment 13-31:** Some commenters requested that all temporary easements be disclosed, and stated concerns about the design-build contractor's monetary incentives in locating temporary easements.

**Response 13-31:** The Proposed Project would utilize a design-build method and the final design and commencement of construction is anticipated to begin in 2017 as explained on page 1-38 and 13-39. Chapter 13 contains all pertinent information regarding temporary easements required for construction. Due to the nature of the design-build process that would be used for the Proposed Project and the fact that community collaboration is ongoing, precise staging locations are still to be determined. However, as noted on page 13-2 of the EIS, construction, as is the case with any major construction project, would result in some temporary disruptions in the surrounding area. Further noted on page 13-2, while a limited number of individual parcels would be used as staging areas, this staging would not permanently change the patterns of land use and character of the communities and all of the construction impacts would be temporary and localized. For further detail about how the overall effects of construction would be lessened in the surrounding communities, please see page 13-7 and 13-8 of the EIS.

**Comment 13-32:** Some commenters anticipate a dramatic decline in property values during the construction period, which will impact anyone who wants or needs to sell their home. Some commenters stated the extensively disruptive and unsightly construction period will deter prospective home purchasers and drive down real estate prices and property values.

**Response 13-32:** Chapter 13, "Construction," describes likely durations of construction for various project elements. The design build contractor would be expected to prioritize an expedited schedule, and implementation of an expedited construction schedule of less than four years by the design build contractor would be emphasized in the bid documents. The

construction contract would provide incentives to deliver on or ahead of schedule. Expedited construction techniques for both the construction of the third track segments and the grade crossing eliminations such as temporary road closures, would result in shorter construction periods in general. Temporary impacts associated with construction at localized segments would therefore be of shorter duration and would limit construction impacts and no permanent impacts to property values are anticipated. In virtually all locations, construction activity would be limited to a period of time of approximately two years or less.

**Comment 13-33:** One commenter requested a specific process for homeowners and business owners to submit claims due to construction-related property damage.

**Response 13-33:** As described on page 21-5, the LIRR, MTA, and NYSDOT would continue to maintain a continuous dialogue and open lines of communication with affected communities, as it has throughout the SEQRA process.

**Comment 13-34:** Some commenters believe additional temporary easements on private residential properties must be required to construction the Proposed Project, particularly where retaining walls will be installed at the edge of the railroad ROW.

**Response 13-34:** Constructing the third track within the LIRR ROW completely eliminates the need for any residential property acquisition. As noted on page 1-36, a number of temporary easements would be required during the construction period as determined by the design-build contractor. As further noted on table 1-12 “Summary of Anticipated Permanent Easements”, even permanent easements would not occur on any residential properties.

#### *JOB CREATION*

**Comment 13-35:** Several commenters stated the Proposed Project will result in many well-paying construction jobs for local unions, and that such work is needed for Long Island’s construction community as well as for material suppliers.

**Response 13-35:** Comment noted.

**Comment 13-36:** Other commenters stated that construction jobs are short-term, and surmised that a conflict of interest exists among project proponents, campaign contributors, labor unions, and the business communities who would benefit from the Proposed Project. The Village of New Hyde Park LIRR Third Track Task Force questioned where the 1,297 construction workers would work if this job does not move forward and noted lost opportunity on other projects.

**Response 13-36:** The construction of the Proposed Project would result in the investment of significant capital into the local and regional economy. The Proposed



Project is expected to cost approximately \$2 billion in 2019 dollars, which includes construction, design, contingency, force account, and agency cost. Construction of the project is estimated to create 1,297 FTE direct construction employment opportunities in Nassau County. In addition to direct employment, construction of the project would create additional jobs off-site in Nassau County (762 FTE) and Suffolk County (24 FTE) and the rest of the state (46 FTE). In the broader state economy, total employment from construction of the project would be 2,130 FTE.

Direct wages and salaries from constructing the project are estimated at about \$637.07 million. In the broader New York State economy, total direct and indirect wages and salaries from constructing the project would be even greater (approximately \$962.42 million, including \$926.70 million in Nassau and \$10.36 million in Suffolk).

The total effect on the local economy, expressed as economic output or demand for local industries, is estimated at approximately \$3.18 billion for Nassau County, \$47.14 million for Suffolk County, and approximately \$3.33 billion for the New York State economy overall. This output includes indirect and induced employee compensation, taxes, profits, and intermediate goods, in addition to the \$2 billion in direct construction costs.

Constructing the project would also create tax revenues for Nassau and Suffolk Counties and New York State. These taxes include sales tax, personal income tax, corporate and business taxes, and numerous miscellaneous taxes. Construction of the project is estimated to create approximately \$85.20 million in direct non-property related taxes for Nassau County, the MTA, and New York State (this analysis accounts for the fact that LIRR would be exempt from paying sales tax on construction materials). Indirect taxes would amount to approximately \$3.19 million. Further details about Economic and Fiscal benefits are noted on page 13-27 and 13-28.

## **ENVIRONMENTAL JUSTICE**

**Comment 13-37:** The Village of New Hyde Park LIRR Third Track Task Force asked if the presence of an environmental justice community would cause a different conclusion about construction disruption levels than is currently concluded in the non-environmental justice communities.

**Response 13-37:** Temporary impacts associated with construction at localized segments would be of short duration, limiting construction impacts. These temporary impacts would be experienced broadly through the Study Area, and would not be borne disproportionately by environmental justice communities.

**Comment 13-38:** The Town of North Hempstead's Department of Planning & Environmental Protection noted that many people rely upon walking and/or NICE bus for daily commutes and activities, and that the detours during the construction period will have the most profound impact to the most vulnerable populations (elderly, disabled, low-income, minority). The commenter suggested public transit shuttle buses connecting key locations in Carle Place, downtown Westbury, and New Cassel.

**Response 13-38:** The LIRR would continue to work with NICE bus management to coordinate Nassau County service. LIRR would work with NICE to identify any temporary measures to accommodate NICE riders during any detours required during the construction period. Locations of bus stops are not anticipated to change, but some minor detours around grade-crossing construction should be anticipated.

## **VISUAL RESOURCES**

**Comment 13-39:** A few commenters expressed concern about adverse visual impacts during construction (including unsightly construction vehicles and equipment), particularly if the construction schedule is ultimately extended.

**Response 13-39:** Please see page 13-28 and 13-29 of the EIS which provide descriptions about visual changes during the construction phase of the Proposed Project. Although the character and quality of views of the Project Corridor during construction of the Proposed Project would be modified, such effects would be temporary in any given location. Therefore, construction of the Proposed Project would not result in significant adverse impacts to visual or aesthetic resources.

**Comment 13-40:** One commenter suggested decorative construction scrims, such as those used for the Second Avenue Subway Project, to visually shield construction equipment and staging areas.

**Response 13-40:** Page 13-8 describes the measures to be employed at construction sites, including shielding of construction equipment and staging areas. Decorative screens are identified as one potential option.

## **NATURAL RESOURCES**

### *DRAINAGE & FLOODING*

**Comment 13-41:** The Village of Mineola requested more detail about impacts to stormwater drainage during demolition and construction and measures to limit stormwater runoff. Some commenters said the complex drainage infrastructure installations have been superficially addressed in the EIS and the resulting impacts to local businesses are not disclosed.

**Response 13-41:** Please see page 13-30 through 13-31 of the EIS, which describes principal conclusions and impacts related to the groundwater and wetlands of Natural Resources

**Comment 13-42:** The Town of Oyster Bay’s DER requests that sediment stockpiles should be properly covered to prevent sediment transport.

**Response 13-42:** Page 13-30 notes that sediment control measures would be required during soil disturbing activities in accordance with 2016 New York State Standards and Specifications for Erosion and Sediment Control (“Blue Book”) and the Stormwater Pollution Prevention Plan (SWPPP) prepared to meet the requirements of SPDES General Permit GP-0-15-002.

#### *TREE REMOVAL*

**Comment 13-43:** The Town of Oyster Bay’s DER said the statement on page 13-30 regarding vegetation removal and the lack of habitat value is an oversimplification. The commenter noted the Town of Oyster Bay’s status as a “Tree City USA” and its efforts for tree preservation and tree replanting.

**Response 13-43:** The Proposed Project would result in the unavoidable removal of vegetation within the LIRR ROW. Since the vegetation does not constitute significant habitat, its loss is not considered significant and adverse, but the loss of the vegetation itself is considered unavoidable. Where there is sufficient space and it is otherwise feasible and appropriate, new vegetation would be planted in front of retaining and sound attenuation walls.

**Comment 13-44:** One commenter asked if the trees along Atlantic Avenue will be cut down, and requested that suitable replacements and shrubbery be provided for both the aesthetics and sound attenuation benefits. They listed their suggestions of suitable trees that are native to the area.

**Response 13-44:** The EIS notes at page 13-11 that virtually all vegetation within the LIRR ROW would be removed in order to construct retaining walls and other components of the Proposed Project. LIRR will continue to collaborate with local communities to identify locations where the planting of new trees and/or shrubs would be appropriate and feasible. No new vegetation would be placed within the LIRR ROW.

#### **CONTAMINATED MATERIALS**

**Comment 13-45:** Some commenters stated concern about contaminated materials within the LIRR ROW, which will be disturbed during construction and will pose hazard to human health. Some commenters expressed concern about chemicals in the ground that will become airborne during construction and get into the groundwater through stormwater runoff, and have adverse effects to nearby residents. One commenter asked the MTA and State of New York to waive sovereign immunity, notice of claim requirements, and statute of limitations for latent diseases that residents will eventually develop due to pollutant exposure during construction.

**Response 13-45:** As noted in the EIS, the Proposed Project would be subject to a Construction Health and Safety Plan (CHASP) and a Community Air Monitoring Plan (CAMP). Such measures would ensure that soil is handled appropriately to minimize human contact, and to reduce airborne dust in order to protect construction workers, site employees and neighborhood residences. Furthermore, as indicated in Chapter 8, “Contaminated Materials,” additional information has been added to the EIS regarding the results of the Phase II subsurface testing program that was conducted between the DEIS and EIS. As described in that chapter, only one sample exceeded the NYSDEC Soil Cleanup Objectives (SCO) for commercial property and the few exceedances of the unrestricted residential use SCOs would indicate that the soil is representative of urban fill and not highly contaminated nor characterized by hazardous waste.

**Comment 13-46:** The WPOA expressed serious concern about threats to public health from contaminated sites (defined in the EIS as Category “B” sites) adjacent to residents and LIRR’s historic use of Agent Orange. They requested an independent investigation by an environmental expert and vetting of the issue by USEPA, State of New York, Nassau County, and Garden City officials, and, if contamination is found, a detailed plan for strict remediation. Testing of soil on both sides of the tracks, wooden ties, residents’ backyards, homeowners’ water supplies, and air sampling were requested.

**Response 13-46:** As indicated by the results of the Phase II testing shown in Chapter 8 of the EIS, subsurface conditions throughout the Project Corridor contain low levels of contaminated materials that in most cases is below the relevant standards. The testing program was conducted in accordance with New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) document *Technical Guidance for Site Investigation and Remediation* (DER-10). 39 soil borings were advanced and samples were collected at various depths from 3 to 25 feet below the ground surface. Soil samples were subjected to a number of tests including the USEPA Target Compound List at a NYSDEC certified laboratory. The results indicate that only one contaminant in one location exceeded NYSDEC Soil Cleanup Objectives.

Agent Orange was a mixture of two common herbicides used at the time one of which contained trace amounts of dioxin. Common sources of dioxin include Municipal Solid Waste Incineration and backyard barrel burning. In the Proposed Project’s testing for dioxin, the highest concentration recorded was 4.18 picograms/gram (pg/g) which is far below the U.S. EPA’s regional screening levels of 100 pg/g. With the Proposed Project’s CHASP and engineering controls in place during construction the disturbance of contaminated materials at these levels

would not endanger public health and welfare and therefore would not result in any significant adverse impacts.

**Comment 13-47:** Many commenters, including the combined comments from the Villages of Floral Park, Garden City and New Hyde Park and the Village of New Hyde Park LIRR Third Track Task Force, stated that adverse impacts from contaminated materials were not assessed properly and no data were gathered to determine the potential threats or substantiate the impact conclusions. These commenters asked for a full accounting of: environmental history of the Study Area; complete Phase I and II reports; comprehensive list of known/potential contaminants; specifics of remediation for each site; specifics of planned soil disturbance independent of the Proposed Project; details of measures to minimize contaminants (including asbestos, lead-based paint, mercury, PCBs); surveys showing where lead, mercury, and PCBs have been found; copies of the Remedial Action Plan and Construction Health and Safety Plan.

**Response 13-47:** As discussed above in Responses 13-45 and 13-46 above, a comprehensive Phase II subsurface investigation was conducted between the date the DEIS was published and the EIS publication date. The results of that study are included in Chapter 8. The EIS has committed the Proposed Project to the development of a CHASP and Remedial Action Plan (RAP) as part of the measures to avoid any adverse effects from the disturbance of any contaminated soil within the Proposed Project's construction limits. This would include the removal of any asbestos containing material (ACM), lead-based paint any other toxic material that would be part of the demolition activities. While the specifics of the plans would be finalized by the selected design-build contractor they would mostly consist of Best Management Practices commonly used throughout the construction industry when encountering these materials. The EIS includes the components of a typical plan that the selected design-build contractor would be required to submit.

**Comment 13-48:** Several commenters requested a stronger remediation program to address the potential hazards from removing large quantities of contaminated soil and gravel and assurances that LIRR will oversee the contractor to ensure all necessary measures are taken to protect public health. Some commenters requested that soil testing be completed at this time and the results be shared in the EIS or a revised EIS. If contamination is found, the EIS or revised EIS should detail the remedial and mitigation measures to be employed.

**Response 13-48:** As noted in Chapter 8, soil testing was conducted between the DEIS and the EIS at 39 locations. The results indicate that only one contaminant in one location exceeded NYSDEC Soil Cleanup Objectives. Overall, the results of the testing are consistent with the presence of urban fill throughout the corridor with low levels of contaminated material.

**Comment 13-49:** Some commenters said the lack of contaminated materials investigation leaves the Proposed Project open to substantial schedule delays during major excavations. A few mentioned specific locations subject to excavation where the lack of data is disconcerting, including New Hyde Park Road grade crossing, Denton Avenue/Tanners Pond Road Bridge, Plainfield Avenue Bridge, and the Hicksville parking facilities.

**Response 13-49:** As discussed above in previous comments, Phase II subsurface investigation was conducted between the DEIS and EIS. Environmental borings were advanced at 39 locations including those areas recommended in the comment above. Based on the results of the sampling and testing data, the material to be disturbed by construction of the Proposed Project would not pose any extraordinary hardship on an experienced contractor employing the protocols recommended in this EIS that would lead to unforeseen scheduling delays.

**Comment 13-50:** Some commenters expressed concern regarding potential contaminated soil within the LIRR ROW, due to the long history of spraying now-banned pesticides and other toxic chemicals (including Agent Orange, which commenters including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park, noted was not mentioned by name in the EIS) that have led to illnesses in the area, and fears that such chemicals will become airborne and pose a danger to local residents. A few commenters referenced specific cancer clusters along residential areas adjacent to the Main Line and asked for a federal and/or state investigation to protect public health. The Village of New Hyde Park Third Track Task Force requested a medical registry and a web portal for “Protocol Awareness and Compliance.” Potential adverse impacts to human health and the environment from the use of herbicides, pesticides, and rodenticides, particularly as it pertains to the sole source aquifer, should be an integral component of the EIS.

**Response 13-50:** The Phase II subsurface testing program for the EIS revealed low levels of several herbicides and pesticides below applicable cleanup action levels. Those herbicides and pesticides are identified on page 8-11 and 8-13 of the EIS. See Responses 13-45 through 13-48.

**Comment 13-51:** The Village of New Hyde Park LIRR Third Track Task Force asked when comments and findings from regulating agencies (e.g., NYSDOH, NYSDEC, USDOT, USEPA, NYSDOT) will be made publicly available.

**Response 13-51:** All interested agencies received copies of the DEIS pursuant to SEQRA regulations. Not all of the interested agencies submitted comments. NYSDOT, as an involved agency and leader of the design of grade-crossing eliminations, was instrumental in preparing this EIS. LIRR conducted all necessary coordination with NYSDEC regarding natural resources and the SWPPP would be required to comply with the NYSDEC General Permit. There are no reporting requirements for any contaminated materials identified in the soil sampling. LIRR does not anticipate receiving any comments from federal agencies as no federal

funding is sought for the Proposed Project. Any and all comments from public agencies, including those described in the comment above, can be found in Appendix 22.

**Comment 13-52:** A group of residents at the Flower View Garden Apartments in Floral Park submitted a form letter with multiple comments, including concerns that pile driving and drilling activities will cause Agent Orange and herbicides to contaminate the ground water supply.

**Response 13-52:** The Proposed Project would not require deep foundations that would penetrate any confining layers resulting in the migration of pollutants to Long Island's sole source aquifer. Furthermore, subsurface sampling and testing throughout the corridor suggest that the levels of herbicides and pesticides (e.g. DDT, Dioxin, 2,4-D, etc.) found in soil are low, below applicable standards, and do not present a significant risk for leaching into the groundwater supply.

**Comment 13-53:** The Town of Oyster Bay's DER said the impacts from bioaccumulation of contaminants in soil and groundwater has not been properly analyzed.

**Response 13-53:** Contaminants do not bioaccumulate in soil. They can bioaccumulate in any number of living organisms and are of a concern when utilized for human consumption. The commentator may be concerned with the long-term accumulation via adsorption of contaminated material onto the soil beneath the ROW. As described above and in Chapter 8, this material was sampled and tested for a variety of contaminants including Volatile Organic Compounds, Semi-Volatile Organic Compounds, Metals, Pesticides, Herbicides, Dioxin, PCBs, Cyanide, as well as the full Toxic Characteristic Leaching Procedure (TCLP) and Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics.

## UTILITIES

**Comment 13-54:** Some commenters expressed concern about the impacts of construction vibration on water, sewer, and gas lines. Some commenters noted the major overhead and underground utilities that will need to be moved from the south side to the north side, right near adjacent residents.

**Response 13-54:** Noise and vibration control measures (such as substituting equipment with lower noise levels, temporary barriers, exhaust mufflers, etc.) would be used to minimize the impact on the surrounding community as noted on page 13-48 through 13-51. The Proposed Project would require the relocation of underground utilities which is noted on page 3-10 of the EIS. A description of construction elements in subsections, and the plans to relocate utilities begins on page 3-11 of the EIS.

**Comment 13-55:** Some commenters inquired about the need to replace high-tension utility poles on the north side of the tracks near the Carle Place Station, the types of construction activities such replacement would entail, and impacts to the residents on the north side (Atlantic Avenue).

**Response 13-55:** A description of the construction elements from Mineola Station to Westbury Station (which include the areas east and west of Carle Place Station) is provided on pages 3-18 through 3-23.

**Comment 13-56:** The Village of Mineola stated that the village must review plans and designs regarding the relocation of sanitary sewer lines and water mains, and requested information about any disruption to Mineola's water distribution system (noting the requirements of American Water Works Association and Part 5 of the New York State Sanitary Code). The Village asked for designated fund for reimbursement of fees required to evaluate such studies and plans.

**Response 13-56:** A table of proposed relocations for utility lines is provided on Table 3-8 of Appendix 1-A. LIRR would continue to coordinate with municipalities throughout the construction process to minimize or eliminate disruptions to utility service.

**Comment 13-57:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park said the complex drainage infrastructure installations have been superficially addressed in the EIS and the resulting impacts to local businesses are not disclosed.

**Response 13-57:** A detailed investigation into the existing and proposed drainage conditions along the Main Line is provided in Appendix 1-A on page 3-44.

**Comment 13-58:** One commenter questioned how old the current water and sewer lines that would be relocated were. They requested to know the age of all the water mains, sewer lines and culverts in the affected area. They also requested that if they are at the end of their life expectancy that they be replaced when they are being relocated.

**Response 13-58:** The age of existing water and sewer lines in the affected area is not relevant. Where water and sewer lines would be relocated as part of the Proposed Project, new pipes would be installed.

**Comment 13-59:** The Village of New Hyde Park LIRR Third Track Task Force asked specifically how the gas line will be addressed during the New Hyde Park Station reconstruction.

**Response 13-59:** Gas utilities, locations, possible conflicts, and possible mitigations are presented in Table 3-5 in Appendix A. In addition please see page 3-19 which also includes descriptions regarding Gas line relocations.



**Comment 13-60:** One commenter said the utility relocations for gas, electric, fiber optic, telephone, cable, water, sanitary sewer, and storm sewer will be seriously disruptive to the communities.

**Response 13-60:** As noted in Chapter 13, “Construction,” the construction of the Proposed Project, especially the grade crossing elimination, would require relocation of numerous utility lines. This would result in temporary disruptions that would be minimized to the extent practicable.

**Comment 13-61:** One commenter asked who would be responsible for paying for the moved utilities and if there would be an increase in costs to consumers. They wondered if the utility providers are asking for a rate increase due to the Proposed Project and if the Governor and Legislature will deny the increase to protect the consumer?

**Response 13-61:** The cost of utility relocations is included in the cost estimate for the Proposed Project. The Project Sponsor would be responsible for paying for the utility relocations. In limited instances, and pursuant to existing agreements, the cost would be borne by the owner of the utility.

## **CONSTRUCTION TRAFFIC**

### *GENERAL CONSTRUCTION TRAFFIC COMMENTS*

**Comment 13-62:** Some commenters expressed general concern about extensive traffic detours during the construction period, lack of north-south access, increased traffic along quiet residential streets, and safety concerns for neighborhood children.

**Response 13-62:** The EIS fully addresses the impacts to traffic due to detours and identifies improvement measures for adverse impacts. These impacts would be limited to the construction period and would be temporary in nature.

**Comment 13-63:** Some commenters asked how school bus and student pedestrian routes will be managed during the construction period. One commenter noted that their children’s school is a block outside of the bus zone and is located on the opposite side of the grade crossings to their residence, and that the grade crossing closures will significantly affect the less than a mile commute to school (NHP Road School). One commenter asked if trucks required for debris removal, material delivery, and other construction-related trips were included in the EIS construction traffic analyses.

**Response 13-63:** School buses would use the same detour routes as general traffic during the construction period. Pedestrian connectivity across the tracks would be maintained at each of the crossings during construction. Truck deliveries were accounted for in the construction period traffic analyses included in the EIS.

**Comment 13-64:** One commenter asked about increased local traffic congestion during the construction period caused by trains traveling at slower speeds (due to construction safety requirements) and thereby increasing the total “gate-down” time at many grade crossings.

**Response 13-64:** While trains approaching a work zone may be required to slow in some instances, any additional gate-down time is anticipated to be minimal as compared to the total existing gate-down time (which accounts for trains slowing as they approach stations).

**Comment 13-65:** One commenter described a difficult situation when gates are down for prolonged periods of time at the existing Covert Avenue grade crossing; cars use Stewart Avenue as a detour route, which makes it difficult for homeowners to back out of their driveways. The commenter said this situation will be worsened during the elimination of the Covert Avenue and New Hyde Park Road grade crossings.

**Response 13-65:** As stated on page 13-4 of the EIS, traffic detours would cause temporary increases to traffic volumes along detour routes, but would be temporary in nature.

**Comment 13-66:** The Town of Oyster Bay’s DER requests that the LIRR should encourage construction workers to travel to the site by rail. The EIS should compare the transport of construction materials and debris by freight rail to the number of trucks needed.

**Response 13-66:** Comment noted with regard to the first part of the comment. Existing track would be used to transport materials to and from the work sites to the extent practicable. In addition, construction deliveries would be scheduled outside of school hours and commuting traffic peak hours to the extent practicable while school is in session.

**Comment 13-67:** One commenter suggested that employees who work at the Nassau Hub should have shuttle bus service provided during the construction period to mitigate their impacts.

**Response 13-67:** LIRR does not currently operate a shuttle to Nassau Hub. If Carle Place Station is closed during construction, a shuttle would be provided to and from Westbury Station.

**Comment 13-68:** The consultants to the Villages of Floral Park, Garden City, and New Hyde Park stated that the construction impacts associated with the construction of the third track and bridge modifications was not studied. Impact analyses of lane closures, detours, and other traffic control measures leading to traffic pattern changes is needed. The report prepared by the consultants to the villages concludes the impact of construction to the local street network is understated. Specific construction-period comments for the New Hyde Park Road and Covert Avenue grade crossing eliminations were provided as follows:

- Traffic diverted from Clinch Avenue to New Hyde Park Road during the New Hyde Park Road crossing elimination would do so via both Stewart Avenue and Stratford Avenue; however, only impacts associated with Stewart Avenue were analyzed.

Impacts associated with Stratford Avenue are unknown and could result in the need for additional intersection improvements such as widening or signalization.

- Conditions at the New Hyde Park Road grade crossing during construction of the grade separation would degrade to Level of Service F and does not propose any mitigation for this degradation. The impacts of operating at a Level of Service F, such as extensive queuing and its related safety impacts should be addressed. Additional mitigation measures, such as additional widening should be identified to mitigate the proposed impacts.
- Traffic diverted from Covert Avenue during the Covert Avenue crossing elimination would do so via both Jericho Turnpike and First Avenue; however only impacts associated with Jericho Turnpike were considered. Impacts associated with First Avenue are unknown and could result in the need for additional intersection improvements such as widening or signalization.
- The DEIS identified improvements at Jericho Turnpike and South 12<sup>th</sup> Street in an effort to mitigate adverse impacts associated with the Covert Avenue crossing elimination; however, these mitigation measures appear to be impractical or counterproductive. The proposed mitigation includes restriping of the westbound approach to reduce the through lanes from 11 feet to 10 feet in an effort to provide an additional 2 feet of width for the left-turn lane. While in theory, this may increase the capacity of the left-turn lane slightly, this change will result in a misalignment of the Jericho Turnpike through lanes and could produce a geometric deficiency, resulting in impacts that would more than offset any perceived benefit to the left-turn movement, potentially worsening the operation of the intersection instead of improving it. Varying widths of travel lanes between intersections in an attempt to achieve minor adjustments in capacity is inconsistent with AASHTO design recommendations. Additional mitigation measures recommended include modifying lane widths on the eastbound approach to allow the addition of an eastbound right-turn lane. However, this mitigation measure will adversely impact the access to the local businesses and eliminate parking.
- The DEIS identified improvements at Jericho Turnpike and New Hyde Park Road to mitigate adverse impacts associated with the Covert Avenue crossing elimination; specifically, to restripe the roadway to provide narrower lanes on Jericho Turnpike to provide dedicated right-turn lane. However, this improvement will impact the access to the local businesses and eliminate parking.
- The DEIS states that as part of the Covert Avenue crossing elimination, at the intersection of New Hyde Park Road and Stewart Avenue, the southbound (New Hyde Park Road) approach would be degraded to a failing Level of Service without any mitigation recommended. The impacts of operating at a Level of Service F, such as extensive queuing and its related safety impact should be addressed. Additional mitigation measures, such as additional widening should be identified to mitigate the proposed impacts.
- The DEIS states that as part of the Covert Avenue crossing elimination, at the intersection of Stewart Avenue and South 12<sup>th</sup> Street, a temporary traffic signal is proposed to mitigate impacts. Since no Synchro analysis was provided, it cannot be confirmed the effect of an additional signal on Stewart Avenue including any impacts to progression was considered. Also, since no analysis was provided for the

other side streets approaching Stewart Avenue, additional mitigation may be required at these locations.

**Response 13-68:** The EIS assesses impacts of construction at the grade crossings and resulting detours and identifies improvement measures wherever feasible. Impacts that can only be partially improved or would remain unimproved are identified in the EIS and are not understated. Bridge modification work would be short-term and limited to weekend roadway closures.

- Detailed traffic analyses are included in the EIS for key intersections along New Hyde Park Road and other north-south routes. Traffic would be monitored during the construction period and additional improvements would be considered by the design-build contractor, if necessary.
- The roadway cross-section can only provide for one traffic lane in each direction during construction. This condition would be temporary in nature, expected to last six to nine months.
- Detailed traffic analyses are included in the EIS for key intersections along Covert Avenue and other north-south routes. Traffic would be monitored during the construction period and additional improvements, if necessary, would be considered by the design-build contractor.
- Traffic improvements identified for the construction period are temporary in nature and seek to provide additional capacity to the extent practicable. Improvement measures have been modified and no longer include restriping of the westbound Jericho Turnpike approach to 10-foot through lanes. Lane restriping and parking prohibition on the eastbound approach would still be needed. The design-build contractor would be required to retain access to local businesses during the construction period. Any adverse impacts to local businesses would be temporary in nature.
- Traffic improvements identified for the construction period are temporary in nature and seek to provide additional capacity to the extent practicable. Improvement measures have been modified and the eastbound and westbound parking lanes would be restriped as right-turn lanes without reducing the width of through lanes. The design-build contractor would be required to retain access to local businesses during the construction period. Any adverse impacts to local businesses would be temporary in nature.
- Adverse impacts at New Hyde Park Road and Stewart Avenue can be improved to the extent practicable with measures identified in the EIS. Remaining conditions would be temporary in nature during the construction period.
- A temporary signal was identified in order to assist drivers turning between Stewart Avenue and South 12<sup>th</sup> Street. Traffic would be monitored during the construction period and additional improvements would be considered by the design-build contractor, if necessary. Detailed traffic analyses are included in the EIS for key intersections along Stewart Avenue.

*NEW HYDE PARK - CONSTRUCTION TRAFFIC*

**Comment 13-69:** One commenter expressed concern about the efficient dispatching of municipal services (sanitation, maintenance, snow removal) from the New Hyde Park Department of Public Works facility because during the closures of New Hyde Park Road, Covert Avenue, and Plainfield Avenue, drivers will rely upon Stewart Avenue and increase its congestion. The commenter requested measures to prevent or mitigate traffic-related impacts to municipal services, and the release of traffic diversion plans.

**Response 13-69:** Traffic detours during construction would affect all traffic, including municipal services from the New Hyde Park Department of Public Works, and traffic improvement measures have been fully identified in the EIS. LIRR would maintain communication with local municipalities during construction. WZTCPs would be developed by the design-build contractor.

**Comment 13-70:** A few commenters stated a fear of being confined to the area south of the tracks in the Floral Park and New Hyde Park areas, since to access the north side (including major shopping areas) will be blocked.

**Response 13-70:** Only one grade crossing would be under construction in the affected communities at any given time, and north-south vehicular traffic would be maintained at other crossings in the area. Pedestrian connectivity would be maintained at all crossings.

**Comment 13-71:** Some commenters asked how traffic near Covert Avenue will be diverted during the construction period and noted the already heavy traffic volumes on nearby Tulip, South Tyson, and Plainfield Avenues, especially the intersection of Tulip and Plainfield.

**Response 13-71:** Existing traffic on Covert Avenue would be expected to divert to the crossings on South 12th Street and New Hyde Park Road. The impacts of these diversions and improvement measures have been fully identified in the EIS at page 13-35 to 13-36.

**Comment 13-72:** The Village of New Hyde Park LIRR Third Track Task Force said trucks in New Hyde Park will be forced to use residential streets, which is contrary to Village code, and emphasized the importance of adhering to truck routes.

**Response 13-72:** Trucks would be required to use designated truck routes, except for local deliveries.

**Comment 13-73:** Some commenters asked why a temporary traffic signal is proposed at South 12<sup>th</sup> Street and Stewart Avenue.

**Response 13-73:** Some existing traffic on Covert Avenue may divert to South 12th Street during construction; a temporary traffic signal would assist turning vehicles from South 12th Street onto Stewart Avenue.

**Comment 13-74:** NCDPW provided specific comments on traffic during construction of the New Hyde Park Road, when one lane of traffic in each direction is being maintained. Based on the estimated Levels of Service at the track during construction (degradation from LOS C to LOS F in the northbound direction in the AM peak hour, and from LOS C to LOS E in the southbound direction in the PM peak hour), it would seem that a significant number of motorists will divert to Covert Avenue and South 12<sup>th</sup> Street, yet the LOS impacts at intersections on those roadways appear to be negligible. Signal timing revisions are proposed at the Stewart Avenue/New Hyde Park Road intersection to address capacity impacts in the morning; however, a larger capacity impact in the evening (deterioration from LOS C to LOS F for the southbound approach) is noted in Table 13-1, but not addressed in the capacity analysis summary table. This deterioration should be mitigated. In addition, this signal is part of a coordinated traffic signal system, and since any change to signal timing and or phasing may have adverse impacts to operations at adjacent signals, these impacts, if any, should be quantified.

**Response 13-74:** Since one lane of traffic in each direction would be maintained on New Hyde Park Road during construction of that grade crossing and since New Hyde Park Road is a main north-south arterial that extends north of Jericho Turnpike, the EIS assumed that existing traffic would remain on New Hyde Park Road. Regarding traffic signal timing revisions at Stewart Avenue/New Hyde Park Road, traffic impacts could be improved during the AM peak hour, but could not be fully addressed during the PM peak hour (partial improvement is possible with traffic signal timing modifications). Traffic signal timing modifications identified in the EIS are limited; these modifications would be discussed with NCDPW prior to implementation.

**Comment 13-75:** NCDPW also provided comments about traffic when the Covert Avenue crossing is being constructed. Signal timing revisions are proposed at the Stewart Avenue/New Hyde Park Road intersection to address capacity impacts in the morning; however, a larger capacity impact in the evening (deterioration from LOS C to LOS F for the southbound approach) is not mitigated. This deterioration should be mitigated. In addition, this signal is part of a coordinated traffic signal system, and since any change to signal timing and or phasing may have adverse impacts to operations at adjacent signals, these impacts, if any, should be quantified.

**Response 13-75:** Traffic impacts could be improved during the AM peak hour, but could not be fully addressed during the PM peak hour with traffic signal timing modifications (partial improvement is possible with traffic signal timing modifications). Traffic signal timing modifications identified in the EIS are limited; these modifications would be discussed with NCDPW prior to implementation.

**Comment 13-76:** NCDPW provided specific construction-period traffic comments for the Westbury area. Proposed mitigation at the Post Avenue/Union Avenue includes pavement marking modifications to provide a southbound left turn lane. NCDPW requested a drawing

indicating that this measure is feasible, considering that the existing northbound approach has a through lane and a separate right turn lane. In addition, traffic signal modifications would be needed to address conflicting southbound left turn and northbound right turn movements.

**Response 13-76:** Schematics for physical improvement measures are provided in the Appendix 10 to the EIS. Improvement measures for adverse impacts, including traffic signal modifications, have been identified.

#### *CARLE PLACE - CONSTRUCTION TRAFFIC COMMENTS*

**Comment 13-77:** A few commenters said any closure of Glen Cove Road will create substantial traffic problems, particularly during daytime hours. One commenter stated that closing Glen Cove Road will upset commuters and shoppers and noted the heavy traffic volumes and large retail establishments, and suggested that LIRR coordinate with Nassau County and Town of Hempstead to temporarily close certain retail establishments in an effort to reduce construction-period congestion.

**Response 13-77:** Glen Cove Road is only scheduled to be closed for one weekend to install the new bridge and should have no impact on commuters. LIRR will coordinate with Nassau County and Town of North Hempstead well in advance of the work.

**Comment 13-78:** One commenter noted that the LIRR proposed shuttle bus service to the Westbury Station during the Carle Place construction. The commenter noted that the EIS made no mention of return shuttle bus service, and had only received this promise verbally.

**Response 13-78:** The EIS has been revised to make clear that shuttle service would be provided to and from Westbury Station whenever rail service at Carle Place Station is suspended for construction.

#### *WESTBURY - CONSTRUCTION TRAFFIC COMMENTS*

**Comment 13-79:** The consultants for the Village of Westbury requested additional traffic analysis near Post Avenue during the construction period. The Town of North Hempstead Department of Planning & Environmental Protection requested that congestion impacts on Post Avenue and Grand Boulevard be avoided; provide MPTs.

**Response 13-79:** Traffic analyses at the following intersections are included in the EIS: Post Avenue at Maple Avenue, Post Avenue at Scally Place, Post Avenue at Union Avenue, and Post Avenue at Railroad Avenue. Adverse impacts and improvement measures have been identified in the EIS. WZTCPs would be developed by the design-build contractor.

#### **CONSTRUCTION PARKING**

**Comment 13-80:** Some commenters expressed concern about the adequacy of parking during the construction period throughout the Project Corridor and the lack of analysis in the EIS. Several commenters asked about the phasing of the new parking facilities and how commuter parking would be accommodated during the construction period.

**Response 13-80:** The design-build contractor would be required to provide replacement parking options whenever a significant number of parking spaces are lost due to construction activity. Construction of multiple parking garages in the same community would not occur simultaneously. Thus, once the first parking garage is constructed, replacement parking would be available in the new parking garage while the second parking garage is constructed.

**Comment 13-81:** One commenter stated concern about the construction phase activities near South Tyson Avenue (including construction staging, equipment parking, and employee vehicle parking) and said any temporary parking loss would exacerbate the existing problems. One commenter said the Proposed Project will temporarily result in a loss of 50 vital parking spaces near South Tyson Avenue, which will affect shoppers, commuters, and businesses. The commenter suggested acquiring the former Koenig's property to use as a metered parking and/or a two-story parking facility, investigating underground parking at the existing lot on Woodbine Court, or considering the sump adjacent to the Floral Park Post Office on Tulip Avenue.

**Response 13-81:** The EIS does not project the loss of 50 parking spaces near South Tyson Avenue. The design-build contractor would be required to minimize the loss of parking during construction. The EIS states on page 13-8 that satellite parking would be provided for construction workers so as to keep personal construction worker vehicles off residential streets. Furthermore, as stated on page 13-8, the LIRR is committed to measures to minimize the effects of construction by using existing tracks to the extent practical to transport materials to and from work sites. In addition, page 13-33 states that the satellite parking would keep the construction worker vehicles out of residential streets and parking near stations. Construction worker trips would occur outside of the typical commuter peak hours.

**Comment 13-82:** The Village of New Hyde Park LIRR Third Track Task Force asked how 220 construction workers can park in New Hyde Park given the lack of parking capacity on-street and off-street.

**Response 13-82:** Satellite parking would be provided to keep personal construction worker vehicles out of residential streets and parking near the stations.

**Comment 13-83:** Residents of the Birchwood apartment complex expressed concern about the demolition of their parking spaces, and requested more information about the duration and severity of the impact, the need for temporary/permanent easements, and a commitment to a nearby interim lot (e.g., not the court lots on Washington Avenue). One Birchwood resident suggested the temporary uses of the lot south of Old Country Road on the east side as an interim parking lot during construction. One commenter asked about mitigation for other negative impacts from the project construction.



**Response 13-83:** As noted on page 3-52 of Appendix 1-A (3.12 Demolished Structures), the garage for the residential apartment complex would be demolished and reconstructed to accommodate retaining wall construction for new third track. Temporary interim parking would be found for residents impacted by loss of parking during construction of garages.

**Comment 13-84:** The Carle Place Civic Association and the Village of Westbury requested shuttle buses during construction from Carle Place Station to either Mineola or Westbury Stations, with clear schedules and convenient locations, and asked that all shuttle buses and bus staging areas be included in the preliminary WZTCP. Others requested temporary parking for residents when Atlantic Avenue is closed.

**Response 13-84:** The details of the shuttle service from Carle Place to Westbury Station are being developed and would be discussed and shared with the affected community as soon as the construction schedule is set. Regular shuttle service to and from Westbury Station would be provided whenever rail operations at Carle Place are suspended due to construction.

**Comment 13-85:** The Village of Westbury requested that Westbury's south parking lot be completely built and operational before building the north lot. This would accommodate displaced north lot Village permit holders; interim measures should be formalized into mitigation measures.

**Response 13-85:** Construction of multiple parking garages in the same community would not occur simultaneously. Thus, once the first parking garage is constructed, replacement parking would be available in the new parking garage while the second parking garage is constructed.

**Comment 13-86:** One commenter inquired about Hicksville parking during construction—whether the two Hicksville parking lots will be constructed simultaneously and how users of the existing parking lots will be accommodated during the construction period given that the existing surface lots will be converted to tiered parking garages.

**Response 13-86:** Construction of multiple parking garages in the same community would not occur simultaneously. Thus, once the first parking garage is constructed, replacement parking would be available in the new parking garage while the second parking garage is constructed.

## CONSTRUCTION RAIL OPERATIONS

**Comment 13-87:** Some commenters stated that maintaining rail service during construction will be extremely complicated, especially given new operations resulting from the LIRR Double Track Ronkonkoma to Farmingdale Project. Some commenters said the Proposed Project will require major track outages, overnight work, and weekend work, which will inevitably disrupt commuting.

## Long Island Rail Road Expansion Project

---

**Response 13-87:** Potential rail service impacts are discussed in the EIS under “CONSTRUCTION WORK HOURS AND TRACK OUTAGES” starting on Page 13-25.

**Comment 13-88:** Some commenters requested information regarding commuter service disruption be disclosed during the planning phase for review, comment, or informational purposes. The need for shuttle buses, closed stations, and schedule delays should be presented.

**Response 13-88:** See Response 13-87. As stated on page 13-26 of the EIS, LIRR would provide advance notice of major track outages.

**Comment 13-89:** The Town of North Hempstead Department of Planning & Environmental Protection said LIRR should use widespread noticing of schedule and platform changes at Carle Place and Westbury Stations. Specific to Carle Place, questions were submitted about shuttle buses to and from Carle Place Station to Westbury Station and to Nassau Hub. One commenter said displaced Carle Place commuters should be granted a no-charge pass to the Westbury Station during construction.

**Response 13-89:** See Response 13-87. LIRR would use widespread communication methods to notify rail customers of any schedule or platform changes at affected stations. Potential changes to fares are beyond the scope of the Proposed Project. Any changes to fare structure requires MTA Board approval.

**Comment 13-90:** One commenter asked how the construction will affect the Hempstead Line schedule.

**Response 13-90:** See Response 13-87. As with Main Line construction, Hempstead Branch service may require modified off-peak service.

**Comment 13-91:** One commenter said the desire to avoid noisy overnight work will likely result in substantial weekend work, and that train service will need to be adjusted to accommodate ridership.

**Response 13-91:** See Response 13-87.

### CONSTRUCTION AIR QUALITY

**Comment 13-92:** Some commenters explained their concerns about local air quality during the construction period and the potential for high levels of dust and asbestos in the air. Some commenters asked about impacts to children’s health due to poor construction air quality. One commenter asked if the LIRR will provide medicine or compensation for medical charges for increase asthma and/or coughing due to construction-related dust.

**Response 13-92:** As described on page 13-42 of the EIS, the Proposed Project would employ a strict Construction Air Quality Control Plan that would protect public health throughout the construction period. The plan would include measures to control direct emissions from construction

equipment as well as demolition and other fugitive dust generating activities. As outlined in the EIS, the plan would also include an air quality monitoring program to ensure that the control measures are effective in avoiding air pollutant emissions to the surrounding community. These measures have been successfully used in other major infrastructure projects such as the New NY Bridge Project, reconstruction of the World Trade Center and the Second Avenue Subway construction.

**Comment 13-93:** Some commenters stated that local air quality will decline due to the large number of diesel-powered construction vehicles required and the delivery of massive amounts of gravel to raise the track elevation.

**Response 13-93:** As described in Response 13-92, the Proposed Project would employ an air quality control plan to minimize emissions from diesel-powered equipment and dust generating activities. The Proposed Project would require the use of new lower-polluting diesel engines (Tier 3), low-sulfur diesel fuel, and the installation of diesel-particulate filters (DPFs) on specific equipment types. As part of the Technical Provisions in the design-build documents the selected contractor would be required to submit and adhere to a Dust Control Plan that would avoid dust particles from leaving the site and entering onto public roadways, sidewalks and private property. The use of wet suppression, wind screens, and other enclosures would be required for specific operations to minimize emissions of fugitive dust.

**Comment 13-94:** One commenter was encouraged by the construction air quality protection measures listed in Chapter 13, but asked who would monitor the contractor to ensure such measures are properly implemented.

**Response 13-94:** The design-build contractor would be overseen by the MTA/LIRR's construction oversight manager who would be under a separate contract from the design-build contractor.

**Comment 13-95:** One commenter suggested LIRR provide window washing, house power washing, and car washing as needed to remove construction-related dust.

**Response 13-95:** As described in Response to Comment 13-93, the design-build contractor would be required to submit a Dust Control Plan that would not allow dust particles from entering public roadways, sidewalks or private property.

## **CONSTRUCTION NOISE & VIBRATION**

**Comment 13-96:** Some commenters challenged the EIS's commitment to limit construction noise by adhering to hours specified in local ordinances due to the added phrase

“except where not feasible” and avoiding noisy activities in residential areas “to the maximum extent practicable”.

**Response 13-96:** As described in the EIS, due to the need to maintain rail service along the Main Line during construction of the Proposed Project as well as to minimize the overall construction duration, some construction activities must be performed during hours outside of the local noise ordinances. As noted on page 13-49, the MTA and LIRR are exempt from the jurisdiction of municipalities pursuant to Section 1266(8) of the Public Authorities Law. However, to minimize the adverse effects of construction upon the surrounding community, the Proposed Project would nevertheless comply with the work hour restriction within residential areas, except where not feasible to accommodate work affecting rail operations such as work relating to bridge replacement, construction of retaining walls, and grade alteration of track. Also, as stated on page 13-50, work hour restrictions would not be followed with respect to work at the grade crossings in order to expedite that work to minimize traffic disruptions.

With the aforementioned in mind and due to the need to work in close proximity to noise sensitive receptors during the day and potentially at night, the Proposed Project has committed to a comprehensive Noise and Vibration Control Plan. The discussion of this control plan has been expanded in the EIS to include noise and vibration limits that the selected design-build contractor would be required by contract to meet at various times of the day. The EIS also expands on the methods the contractor can use to meet these requirements. These requirements are performance-based such that the limits are set by surrounding use (i.e. residential versus commercial, the existing ambient noise level, and the time of day). The contractor is allowed to use innovative measures to meet these criteria by any number of measures including limiting certain noise intensive activities to specific hours.

As previously discussed throughout Chapter 13, due to the dynamic nature of the work, noise impacts would only occur for a small portion of the time shown in the project construction schedule. This is due to the fact that the schedule includes the total time to construct, in some cases, thousands of feet of walls, track, signals, etc. from beginning to end in a given segment. However, the maximum predicted noise levels, which define the project impacts, are only experienced by a given resident when construction is within close proximity to their home. For example, the production rate for the installation of retaining walls, which are required in close proximity to adjacent residences, is estimated at approximately 16 feet per day. Without the noise controls specified in the EIS, the installation of these walls would result in high noise levels

(i.e. L<sub>max</sub> greater than 78 dBA) for approximately 13 days or 6.5 days as the construction activities approach the residence and another 6.5 days as it proceeds past the particular home. As reflected in the EIS, the noise experienced during this relatively abbreviated time period would be reduced. Moderate to high levels of noise (67 to 77 dBA) would be experienced for approximately a total of 50 days. For most of that time, construction noise, while perceptible, would not be considered overly intrusive or an adverse effect. Once the retaining walls and sound attenuation walls are completed in a particular area, track and systems work would proceed even quicker through any area and, furthermore, the adjacent homes would benefit from the installation of the new sound attenuation walls.

**Comment 13-97:** The Village of Westbury requested that work be limited to weekdays only between the hours of 7am–3pm or 7am–6pm to reduce noise and ensure quality of life for area residents. Some commenters stressed the importance of limiting exceptions to these work hours and providing considerable advanced notice of any schedule variances to affected properties, municipalities/villages, and community organizations. Commenters also noted specific schools and religious facilities that should be considered during scheduling to limit the impact on the students and worshippers.

**Response 13-97:** As described in the response to the above comment, performing all work within the local noise ordinance restrictions cannot be achieved while maintaining rail service on the LIRR Main Line. Therefore, the Proposed Project would implement a Noise and Vibration Control Plan that would significantly restrict noise-intensive work throughout the day. These criteria are shown in Chapter 13. The EIS includes commitments to advanced coordination with local communities for any work that may affect sensitive land uses like schools or religious facilities.

**Comment 13-98:** Some commenters stated the construction noise will have an adverse effect on the character of local villages and their quiet residential streets, and projected levels as high as 140 decibels. A few expressed concern about the ability to engage in normal activities, such as watching television and telephone conversations. Some commenters asked for use of equipment mufflers during daytime hours as well as nighttime.

**Response 13-98:** Based on FTA noise data from construction equipment (as shown in Table 13-6 of the EIS), even uncontrolled noise levels from the loudest equipment would not approach 140 decibels – which is equivalent to the approximate noise level experienced on the deck of an aircraft carrier. L<sub>max</sub> values (maximum measured noise levels) from the loudest equipment are in the range of 90-95 dBA at 50 feet. Typical L<sub>max</sub> levels for the equipment to be used on the Proposed Project are approximately 80 to 90 dBA. More importantly, the design-build contractor would be

required to meet the noise limits set forth in Chapter 13. As shown in Table 13-8, the maximum ( $L_{max}$ ) noise levels allowed during the daytime at adjacent residences would be 85 dBA for operating equipment and 90 dBA for impact devices.

**Comment 13-99:** Other commenters expressed concern about construction-related vibration and damage to their homes (windows, foundation, oil tanks, etc.), and cited examples of past damage due to construction and freight trains.

**Response 13-99:** Wherever vibration-producing activities could affect a structure, building or utility, the design-build contractor would be required to prepare a Noise and Vibration Control Plan. The plan would include the ground vibration limits set forth in the EIS, which are intended to protect the surrounding structure both within and adjacent to the LIRR ROW. They have been developed by the Federal Transit Administration to avoid construction vibration damage for different types of structures. The plan requires the contractor to provide a plan for notifying the public of potential vibration impacts and sites requiring pre-condition surveys based on a vibration susceptibility analysis. They must provide recommendations for vibration-limiting methods to meet the established maximum safe vibration levels.

**Comment 13-100:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park objected to the lack of a “site specific noise analysis” and conducted their own construction noise evaluations, which determined that many properties will experience noise levels above acceptable decibel levels during daytime and nighttime hours. It was also noted that the unrealistic construction schedule does not disclose the true duration of adverse construction noise impacts to residents and sensitive land uses.

**Response 13-100:** The construction noise analysis in the EIS has been revised to include a site-specific assessment of potential construction noise effects and the measures that the design-build contractor would be required to implement to minimize any potential adverse effects. This analysis can be found on pages 13-45 through 13-48 of the EIS. The analysis identifies the properties that may be subject to noise levels exceeding the threshold criteria along the corridor. It also includes a discussion of the number of days that these residences would be subject to the maximum noise levels for various construction (e.g., noise and retaining walls, track laying, etc.) activities.

**Comment 13-101:** The Village of New Hyde Park LIRR Third Track Task Force said community coordination with MTA, LIRR, and the design-build contractor is critical to ensure residents are not besieged with 24/7 construction noise. Some commenters said the EIS indicates ambivalence to local construction noise codes and the Project Sponsors’ lack of consideration for area residents.

**Response 13-101:** See Response to Comment 13-96. LIRR is acutely aware of the communities' concerns with respect to disruption during the construction period. However, due to the need to maintain rail service during the peak commuting hours, some work will be required outside the hours defined by local noise ordinances.

**Comment 13-102:** The Village of New Hyde Park LIRR Third Track Task Force asked for a separate noise control plan for grade crossing eliminations since this work will occur at night.

**Response 13-102:** Any construction work performed at night, whether for track work or grade crossing elimination, would be subject to the strict nighttime noise limits set forth in Chapter 13. Therefore, there is no need for a separate noise control plan for the grade crossing eliminations.

**Comment 13-103:** The Village of New Hyde Park LIRR Third Track Task Force noted that many residents are home during daytime hours and will be greatly affected by construction noise and vibration. Many homes are within 200 feet of major construction activities and potentially subject to damaging vibrations. Some commenters noted that noise measurements are averaged and therefore very loud noise periods will be deemed acceptable if they are averaged out with quiet periods.

**Response 13-103:** Like any large construction project, the operation of construction machinery and other activities would result in some unavoidable temporary noise impacts to nearby sensitive receptors. Those impacts are discussed in the EIS at page 13-43. However, as discussed above, construction for the Proposed Project would be subject to a Noise and Vibration Control plan with adherence to strict noise and vibration threshold limits throughout the day. As discussed on pages 13-44 through 13-48, these criteria are based on FTA's recommended construction noise threshold using  $L_{max}$  and L10 (highest 10% of measured noise values) values that are intended to avoid the exact averaging situation noted in the comment above. Finally, LIRR and NYSDOT have committed to continuing robust coordination with the community and residents throughout the final design and construction periods.

**Comment 13-104:** The Carle Place Civic Association residents requested construction hours be established consistent with the Town of North Hempstead noise code to ensure the least possible disruption to residents.

**Response 13-104:** See Response 13-10.

**Comment 13-105:** The WPOA expressed concerns about vibrations causing foundations to crack and asked for written agreements with homeowners that any damage from construction or use of the new tracks will be rectified by LIRR at the expense of LIRR.

**Response 13-105:** As described in the Response 13-96, the design-build contractor is required to submit a Noise and Vibration Control Plan as part of the contract documents. The purpose of this plan and the monitoring requirements is to avoid structural or cosmetic damage to nearby buildings and residences. The plan includes pre-condition surveys to determine if the construction of the Proposed Project would result in any vibration-related damage to nearby structures. Like any public construction project, the contractor would be subject to substantial insurance requirements for damage that may result from their activities.

**Comment 13-106:** The Town of Oyster Bay's DER said the noise impacts to downtown Hicksville during construction should be included.

**Response 13-106:** Potential noise impacts during construction of the Proposed Project in downtown Hicksville would primarily be related to the construction of the proposed new parking garages since no grade separation work or significant retaining wall work is proposed. The construction of the parking garages would be subject to the project's construction noise and vibration control requirements as discussed in the EIS. As such noise levels would be similar to those discussed in Chapter 13.

**Comment 13-107:** Some commenters expressed concern specifically about noise and vibration from pile driving. One asked for stronger language committing to other techniques (such as augering), prohibitions on damaging pile driving activities, and scheduling of very loud activities during rush hours and Saturday daytime hours.

**Response 13-107:** Based on the preliminary engineering used to support the EIS analyses, it is not expected that impact pile driving would be required for the Proposed Project. As shown in the EIS, the time-based noise requirements that the design-build contractor would be required to meet are intended to avoid the scheduling of noise-intrusive activities during evening and late night hours."

## **CONSTRUCTION SAFETY & SECURITY**

### *EMERGENCY SERVICES*

**Comment 13-108:** Some commenters, including the Town of North Hempstead's Department of Planning & Environmental Protection expressed concern about the provision of emergency services during the construction period, stating that roadway closures will lead to serious delays and threats to public safety. Some referred to specific emergency service dispatch locations, hospital routes, and the increased routing times due to construction-related detours.

**Response 13-108:** The LIRR would continue to coordinate with emergency service providers to ensure continuity of access to the community. Diversion plans for emergency vehicles are presented in the analysis of adverse impacts to traffic at grade crossings beginning on page 13-34 of the EIS.



**Comment 13-109:** Other commenters stated that the increased traffic during the construction period will result in an increased number of accidents, requiring more resources from local police and fire department, and noted the burdening of local emergency responders and redirecting resources away from other vital services was not analyzed in the EIS. Measures to alleviate such emergency service impacts were requested.

**Response 13-109:** There is an analysis of adverse impacts to traffic at grade crossings during construction beginning on page 13-34 of the EIS with specific references to emergency vehicles.

**Comment 13-110:** Some commenters requested that copies of the Safety & Security Certification Plan be provided to fire and EMT providers well in advance so the appropriate personnel can comment.

**Response 13-110:** The Safety & Security Certification Plan would be developed in a collaborative manner with first responders.

#### *CONSTRUCTION SITE SECURITY*

**Comment 13-111:** The Village of Westbury requested the EIS include more detail regarding site security measures. One commenter requested the use of wrought iron fences during construction.

**Response 13-111:** As stated on page 13-52 of the EIS, construction of the Proposed Project would follow existing MTA and LIRR operational safety and security programs and processes.

**Comment 13-112:** Several commenters expressed concern about children gaining access to dangerous construction work zones or staging areas, as well as potential hazards from debris.

**Response 13-112:** As stated on page 13-52 of the EIS, safety and security measures would continue to be developed and coordinated with federal, state, and local agencies having jurisdiction over safety and security issues.

#### **CUMULATIVE AND SECONDARY IMPACTS**

**Comment 14-1:** One commenter described the poor condition of the track from the Queens Corporate Center to Floral Park, and requested that the rehabilitation of that track segment be analyzed as part of the “cumulative effects” required by SEQRA.

**Response 14-1:** LIRR has an on-going program to maintain track throughout its system. Regular maintenance of an existing system does not create cumulative impacts.

**Comment 14-2:** The Village of Mineola explained the history of impacts to Mineola’s assessment base due to past LIRR projects (including grade crossing eliminations and the Mineola Intermodal Center), and requested permanent compensation if the Proposed Project results in additional loss of assessed valuation.

**Response 14-2:** Valuation or compensation due to valuation is beyond the scope of SEQRA and the EIS.

**Comment 14-3:** Some commenters including the Village of New Hyde Park LIRR Third Track Task Force, questioned the EIS's statements regarding the Cross Harbor Freight Movement Project's Tier I EIS and the FRA's NEC FUTURE Tier I EIS and those projects' lack of funding, since the Proposed Project also does not yet have dedicated funding.

**Response 14-3:** Both projects referenced in the comment have only completed Tier I EISs, which is a preliminary planning tool that does not commit the agency to a future course of action. Those projects currently have not begun preparation of any Tier II project-specific EISs except for the Gateway Tunnel, which would not result in any cumulative effects in the Project Corridor. Further, the Preferred Alternative selected in the Tier I FEIS for the NEC Future would not initiate high speed rail from Long Island to Connecticut. With respect to the Cross Harbor Project, it is speculative to assume that it will go forward. If the project does proceed, a Tier 2 EIS would have to be prepared that would assess potential environmental impacts from any proposed additional freight service on Long Island if that project proposes such service.

**Comment 14-4:** The combined comments from the Villages of Floral Park, Garden City, and New Hyde Park said the EIS ignores the secondary adverse impacts experienced by the communities due to the severe impacts to local business districts during the construction period.

**Response 14-4:** The operational phase of the Proposed Project would not result in the closure of any businesses and the grade crossing eliminations should improve mobility to the benefit of the local business district. The design-build contractor would ensure continuous access to all local businesses during construction. As noted in the EIS with regard to road closures, there would be traffic disruptions from temporary lane closures required to construct the Proposed Project. Those temporary closures, which would not prevent access to local businesses, are summarized in Table 13-2 of the EIS.

**Comment 14-5:** The Town of Oyster Bay's DER stated the Proposed Project and the Hicksville Station Improvements Project were inappropriately segmented in terms of environmental review and public outreach, and that both projects would have benefited from a combined effort. The cumulative effects of broader regional projects and Downtown Hicksville rezoning efforts should be analyzed. Redevelopment activity, land use changes, parking and traffic considerations should be accounted for, instead of vague statements such as "the Proposed Project would support projected growth as anticipated by several regional and local planning agencies."

**Response 14-5:** The Proposed Project was not segmented from the Hicksville Station Improvements Project, which was designed, approved and implemented

in advance of the planning and consideration of the Proposed Project. The Hicksville Station Improvements Project, which is currently being constructed, is separately funded and has independent utility from the Proposed Project. Accordingly, under applicable SEQRA regulations and case law, the separate environmental review of these distinct projects does not constitute segmentation.

**Comment 14-6:** One commenter said the conclusion that the Proposed Project would not result in significant adverse cumulative impacts is not substantiated.

**Response 14-6:** Chapter 14, “Cumulative and Secondary Impacts,” sets forth a detailed cumulative impacts analysis for all resources which would result in direct impacts from the Proposed Project, and whether such impacts would result in cumulative effects.

**Comment 14-7:** The Town of Oyster Bay’s DER asked how LIRR accounted for the cumulative impacts and ridership increases from a series of projects the Long Island Regional Planning Council (LIRPC) designated as “Projects of Regional Significance.” The cumulative impacts and ridership implications of local municipal projects and redevelopments must be included in the EIS analyses.

**Response 14-7:** As noted on page 10-3, the transportation analyses accounts for the annual growth in general background traffic, traffic expected to be generated by new commercial or residential development in the station areas, and new station-oriented traffic that would be generated by new LIRR riders in addition to other background regional projects. The 2040 No Build subsections of Chapter 10 further outline, and page 18-2 summarizes the background projects that would exist under future conditions without the Proposed Project.

**Comment 14-8:** The Town of Oyster Bay’s DER said the EIS acknowledges the Project will result in secondary growth in its assignment of benefits (such as improving transit system attractiveness and supporting GHG reduction) but does not perform an adequate assessment of negative impacts from such secondary and induced growth.

**Response 14-8:** Chapter 14, “Cumulative and Secondary Impacts,” sets forth an explanation of the Proposed Project’s potential to result in secondary impacts and adequately supports the conclusion that the Proposed Project would support projected growth, not induce it.

**Comment 14-9:** One commenter said the potential direct and secondary impacts to the Port Jefferson and Ronkonkoma Branches were not analyzed, which is a major deficiency under SEQRA regulations. The Proposed Project has the potential to adversely impact traffic, parking, and pedestrian safety in communities to the east of the project area.

**Response 14-9:** The Proposed Project would have no direct effects on either the Port Jefferson or the Ronkonkoma branch. The only indirect effects would

be attributable to the operation of one additional train per hour on these branches. This additional train would not result in any significant adverse secondary effects along these branches.

## **SAFETY AND SECURITY**

**Comment 15-1:** Several commenters emphasized the need for Positive Train Control, better training for LIRR engineers, and questioned the recent citing of sleep apnea as the root cause of rail accidents. Some referenced recent train derailments and LIRR's slow response and recovery time as the basis of concern for community safety. The Town of Oyster Bay's DER said Appendix 1 discusses installation of Positive Train Control (PTC) but the EIS does not discuss the impacts of PTC to public safety.

**Response 15-1:** The 2015-2019 Capital Program will enable the complete installation of Positive Train Control, which would be a further meaningful system-wide improvement of the monitoring, controlling, and safety of commuter rail trains throughout the region independent of the Proposed Project. This is noted on page 1-16 of the EIS.

**Comment 15-2:** Some commenters objected to the EIS's use of derailments due to human error as evidence for the need for a third track, and asked for data showing how many Main Line delays were caused by human error or inadequately maintained equipment.

**Response 15-2:** The EIS includes a detailed statement about the purpose of and need for the Proposed Project beginning on page 1-3 and data to document the need which includes a background, a list of incidents along the LIRR Main Line, "on-time" performance, future ridership projections, directional service limitations, and regional planning context on pages 1-3 through 1-18.

**Comment 15-3:** One commenter repeated earlier requests for screening along the LIRR ROW on South Tyson Avenue to prevent metal and debris from falling from the tracks to the streets and sidewalks and improve public safety.

**Response 15-3:** As noted on page 1-21 of the EIS the introduction of retaining walls would contribute as a means of preventing debris from falling from the tracks.

## **ELECTROMAGNETIC FIELDS**

**Comment 16-1:** The Town of Oyster Bay's DER noted inconsistencies in references to Substation G20 in Hicksville on page 16-4, seeking clarification of whether the substation is adjacent to the LIRR or within LIRR property.

**Response 16-1:** Substation G20 sites within a parcel that is owned by the LIRR and adjoins the railroad ROW.

**Comment 16-2:** The Town of Oyster Bay’s DER said there is no discussion of potential impacts to wildlife from EMF. Another asked about EMF effects on medical equipment during life-saving surgeries.

**Response 16-2:** As described in Chapter 16, “Electromagnetic Fields,” the strength of the electromagnetic field due to railroad operations with the Proposed Project would be similar to existing conditions. Further, the strength of these fields would be well below the exposure values established for the general population by the New York State Public Service Commission and would not result in any significant adverse impacts to public health. Similarly, these levels would not result in any adverse impacts to the wildlife in the Project Corridor.

**Comment 16-3:** The Town of Oyster Bay’s DER said the analysis does not provide a comparison of the EMF from the existing substations to the proposed substations with and without EMF shielding or discuss the maintenance and inspection program for the shielding.

**Response 16-3:** As part of the Proposed Project, the substations in the Project Corridor would be replaced with state-of-the-art equipment that would provide greater EMF shielding than the approximately 40-year old equipment currently in the substations. Maintenance of the substations would be part of the LIRR’s ongoing long-term maintenance program as applicable to all of its equipment, including rolling stock, track, signals, and structures.

## CLIMATE CHANGE

**Comment 17-1:** The Town of Oyster Bay’s DER said the EIS should not dismiss enhanced stormwater management control as impractical without a detailed discussion. The commenter noted a disconnect between statements on page 17-11 and page 9-6 regarding the resiliency of the railroad facilities against future flooding events. Given projections for sea level rise, the Proposed Project should consider the worst-case scenario for stormwater management design.

**Response 17-1:** The existing LIRR ROW has limited space to accommodate larger stormwater systems than what is being proposed to handle the 100-year storm event. Further, the NCDPW conveyance system was designed to convey the 25-year storm event, which is a lesser standard than the 100-year event.

**Comment 17-2:** One commenter said the statement regarding the Proposed Project’s support of livable communities and network emissions avoidance is not substantiated.

**Response 17-2:** The Proposed Project is intended to improve the reliability and operations of the LIRR system generally and specifically through the Project Corridor. It would enhance reverse peak period travel and increase reliability in the peak direction of travel throughout the day. As

such, it supports a more sustainable method of transportation in the New York metropolitan area and offers increased opportunities for transit-oriented development. All of these factors also would reduce single occupancy auto-related vehicle-miles-traveled and their related air pollutant emissions.

**Comment 17-3:** The Town of Oyster Bay's DER said feasibility of solar power, geothermal heating and cooling, and microgrid technologies should be evaluated. The life expectancy of concrete ties and the maintenance and disposal methods should be presented.

**Response 17-3:** As described in Chapter 17, "Climate Change," the MTA and LIRR have a number of initiatives related to sustainability (clean and efficient use of power, the use of building materials with low-carbon intensity, LEED station design, enhanced recycling and re-use programs, etc). Some of the ideas mentioned in the comment are being considered while others such as microgrid technologies are beyond the scope of the Proposed Project. In any event, as discussed in Chapter 17, the MTA and LIRR are constantly striving to reduce their carbon footprint and emissions of greenhouse gases.

The useful life of a concrete tie is 50 years. Ties are inspected regularly as part of an on-going maintenance and inspection program. LIRR has contractors who remove the scrap concrete ties from LIRR property and dispose of them. They are disposed of by either recycling them into concrete aggregate with the reinforcing wire recycled as scrap steel or by disposing of them in accordance with construction and debris regulations. They are not considered hazardous waste and are not regulated as such. Approximately 80% of the discarded concrete ties are recycled.

**Comment 17-4:** The Town of Oyster Bay's DER asked for a more affirmative statement regarding the 75 percent recycling target and more detail regarding the selection of recyclable materials.

**Response 17-4:** The 75 percent figure is a reasonable goal for a project of this type.

**Comment 17-5:** Several residents of the Flower View Garden Apartments in Floral Park submitted form letters with multiple comments, including concerns that the Proposed Project will accelerate energy usage and carbon emissions.

**Response 17-5:** As discussed in detail throughout Chapter 17, the Proposed Project would not accelerate energy usage or carbon emissions. As with any infrastructure improvement project, energy would be required to construct the Proposed Project. Similarly, carbon emissions during construction would be unavoidable. However, over the long term, the Proposed Project would reduce energy consumption and production of

carbon emissions as compared to the future without the Proposed Project.

**Comment 17-6:** The Village of New Hyde Park LIRR Third Track Task Force noted the potential for rail service to be affected by climate change and severe weather, such as fog, precipitation, extreme heat, etc., and asked what measures are being planned to address such issues.

**Response 17-6:** Please see pages 17-2 and 17-3 of the EIS, which provides details regarding adaption to climate change.

### **IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES**

**Comment 19-1:** One commenter suggested this chapter include mitigation for the irretrievable commitment of vegetation with a tree replanting program.

**Response 19-1:** As stated in Chapter 1, “Project Description,” where feasible outside the LIRR ROW, such as along some areas where sound attenuation/retaining walls would be visually apparent, the Proposed Project would include replacement vegetation or trees where they were removed. With that in mind, Chapter 19 states that vegetation in the ROW would not be replaced and would be an irretrievable loss of resources.

### **UNAVOIDABLE ADVERSE IMPACTS**

**Comment 20-1:** The Town of Oyster Bay’s DER noted that traffic is not selected for mitigation in this chapter, although it is one of the Proposed Project’s most significant impacts. A shuttle service and potential agreement with Broadway Mall was suggested as mitigation for adverse construction impacts.

**Response 20-1:** Detailed traffic level of service tables and schematic drawings of proposed traffic mitigation measures are presented in Appendix 10. As a result of the measures included within the Proposed Project, there would be no significant adverse traffic impacts.

**Comment 20-2:** The Town of Oyster Bay’s DER said the removal of hundreds of trees is a significant adverse impact that should be mentioned in this chapter.

**Response 20-2:** As discussed in Chapter 20, “Unavoidable Adverse Impacts,” while the loss of the trees is unavoidable, it is not significant since this vegetation does not constitute a significant habitat. Further, where there is sufficient space and it is otherwise feasible and appropriate, trees and other vegetation would be planted to offset the loss of trees due to the Proposed Project.

**Comment 20-3:** The Village of Floral Park Southside Civic Association described several adverse impacts that would occur and noted the lack of any benefits to this community.

They suggested a Community Benefit Agreement (CBA) and listed a series of mitigation measures as examples.

**Response 20-3:** The residents of the Village of Floral Park would not be disproportionately adversely affected by the construction of the Proposed Project; thus, the suggested mitigation measures are neither warranted nor appropriate. MTA-LIRR would coordinate with the Village of Floral Park relating to reasonable overtime expenses incurred by Village staff to manage construction-period impacts. The Hempstead Branch grade crossings are not part of the Proposed Project. Direct construction activity would be conducted within the LIRR ROW; no permanent land acquisitions are proposed in the Village of Floral Park.

## F. COMMENTS PERTAINING TO ALTERNATIVES

### GENERAL COMMENTS REGARDING ALTERNATIVES

**Comment 18-1:** Some commenters requested exploration of other project alternatives more consistent with local community character. Some commenters suggested that modest lower-cost improvements could achieve the project objectives but would not accomplish political goals or make newspaper headlines. One commenter questioned what qualified LIRR personnel were responsible for dismissing alternatives and whether any qualified expert consultants reviewed the alternatives. Some commenters stated disappointment that only 9 pages out of more than 2,000 were dedicated to evaluating alternatives to a \$2 billion project, and the alternatives were presented to unfairly appear undesirable. The Village of Mineola asked for a cost-benefit analysis for each alternative that would improve service reliability at a lower cost and lesser community disruption. One commenter said that ridership analyses are needed to truly evaluate alternatives, and that taxpayers are forced to decide between “all or nothing” because of the lack of thoroughly developed alternatives.

**Response 18-1:** Pursuant to SEQRA regulations, Chapter 18, “Alternatives,” presents the “range of reasonable alternatives to the action that are feasible, considering the objectives and capabilities of the Project Sponsor.” The alternatives were reviewed by LIRR technical, executive, and consultant staff. Many of the alternatives suggested by commenters have already been discussed in Chapter 18 and/or the Final Scoping Document, and were not considered reasonable because they do not meet the Proposed Project’s Purpose and Need.

### NO ACTION ALTERNATIVE

**Comment 18-2:** Some commenters, including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park objected to the length of the discussion of the No Action Alternative, and stressed the importance of evaluating whether other projects should proceed before the Proposed Project is approved.



**Response 18-2:** The No Action Alternative is required by SEQRA to be included in the EIS. This alternative enables the reader to compare what would happen in the future with and without the Project. As explained in Chapter 18, the No Action Alternative includes a number of separate LIRR projects that are already under construction or planned to be implemented separate from the Proposed Project. The timing and sequencing of these separate projects is determined by a range of independent factors unrelated to the Proposed Project. Implementing the projects listed in the No Action Alternative, as a whole, does not meet the Purpose and Need of the LIRR Expansion Project and would not negate the need for the Proposed Project. While the different alternatives are presented in Chapter 18, each chapter of the DEIS independently includes an assessment of the Future Without the Project, or No Build Alternative.

### **GRADE CROSSINGS ONLY ALTERNATIVE**

**Comment 18-3:** Some commenters stated that if the existing grade crossings are truly a safety concern, then the elimination of the grade crossings should stand on its own as a separate project, rather than using a “carrot and stick” approach (i.e., combine the desired grade crossing eliminations with the undesirable third track). Some commenters requested that the “Grade Crossing Only Alternative” be evaluated in conjunction with other alternatives. Some requested that the money proposed to construction the third track be reallocated to improve all existing grade crossings (including in Suffolk County at the site of a recent fatality), not only the seven included in the Proposed Project, and stated that the grade crossing elimination will be effective only if implemented throughout the entire system. Some commenters stated the EIS will be inadequate and defective if it fails to analyze the grade crossing eliminations as a separate project. Some commenters stated this alternative addresses many of the Proposed Project’s goals.

**Response 18-3:** The Grade Crossing Only Alternative was suggested during the public Scoping period, as noted on Page 18-2 of the EIS. It was determined to not fulfill the purpose and need for the Proposed Project, which includes improving system reliability and enabling intra-Island peak service at times when track capacity does not allow it now. The Main Line Corridor is the busiest segment of the LIRR which continues to operate with street-level grade crossings. With more than 250 trains traversing the corridor, there are significant safety concerns that would be resolved by eliminating these seven crossings. These safety benefits accrue immediately with the elimination of the seven crossings and are completely independent of any collective safety benefits from the elimination of all grade crossings within the LIRR network. Eliminating grade crossings system-wide is beyond the scope of the Proposed Project.

## **MAIN LINE CORRIDOR IMPROVEMENTS PROJECT ALTERNATIVE**

**Comment 18-4:** One commenter cited the EIS's rationale for dismissing the cancelled Main Line Corridor Improvements Project as a viable alternative included a lengthy construction schedule within village shopping areas, and stated this rationale is equally applicable to the Proposed Project, since the Proposed Project will involve lengthy work around the South Tyson and Plainfield Avenue business corridors. The Village of New Hyde Park LIRR Third Track Task Force stated the Main Line Corridor Improvements Project accomplishes several of the Proposed Project's objectives but can be implemented more quickly.

**Response 18-4:** The cancelled Main Line Corridor Improvements Project (MLCIP) was a project with similar intent to the LIRR Expansion Project. As noted on Page 18-3 of the EIS, the MLCIP alternative was not only dismissed because of a lengthy construction schedule within village shopping areas, but because it would have included a significant number of residential and commercial property acquisitions. In comparing the two projects, however, the MLCIP alternative had significantly more community impacts from commercial and residential property acquisitions, including the complete taking of residential properties and relocating families. In addition, there was significantly more construction work associated with the grade crossings due to previous efforts to keep the railroad tracks at their existing elevation and not raise them as the Proposed Project would. Village shopping areas were therefore much more adversely impacted in the MLCIP alternative as a result of the additional commercial property acquisitions, complete loss of residential homes, deeper roadways under the railroad tracks, and significantly longer construction durations associated with the MLCIP grade crossing alternatives.

## **RECONFIGURED GRADE CROSSINGS ALTERNATIVE**

**Comment 18-5:** One commenter supported the Reconfigured Grade Crossing Alternative since (according to Table 18-1) it would entail less disruption and meet the Proposed Project's goals and objectives.

**Response 18-5:** As noted on page 18-2 of the EIS, this alternative, which includes eliminating the South 12th Street and Main Street grade crossings by simply closing the roadways, is the preferred alternative and is included in the overall analysis of the Proposed Project and is not considered a separate alternative.

## **IMPLEMENT OTHER LIRR CAPITAL PROJECTS ONLY**

**Comment 18-6:** Some commenters referred to a "7-Point Plan" that encompasses a combination of separate LIRR initiatives and will address problems with the switches and rails near Penn Station and Jamaica Station and other railroad infrastructure upgrades. Fixing existing rail infrastructure first was stressed as a priority. It was suggested that LIRR complete all other

planned upgrades first and then reassess whether the third track is still warranted. Commenters suggested improving congestion along the Main Line by correcting inadequate maintenance and improving equipment, rails, signals, and trains. One commenter stated that only those projects with the least impact and the highest contribution to system reliability should proceed. Some commenters stated this alternative addresses many of the Proposed Project's goals.

**Response 18-6:** As noted on pages 18-2 and 18-3 of the EIS, the "Implement Other Capital Projects Only" alternative was dismissed because they do not fulfil the purpose and need of the Proposed Project. These projects are separate from the Proposed Project, have independent utility, and are currently being, or will be, progressed as part of current or future MTA Capital Programs.

### **TRANSPORTATION SYSTEMS MANAGEMENT ALTERNATIVE**

**Comment 18-7:** Some commenters suggested the LIRR purchase double-decker rail cars instead of extending station platforms, and said the EIS did not thoroughly evaluate this alternative. One commenter questioned the EIS's explanation for dismissing the use of double-decker rail cars (restrictions along the Atlantic Avenue Branch), since the LIRR plans to operate shuttles between Atlantic Avenue and Jamaica. One commenter asked why the EIS dismissed the use of existing rail sidings as an alternative without a longer and more fact-based explanation. One commenter recommended improving service by enhancing the existing track bed and cleaning the trains and toilets in the Penn Station yard, at Atlantic Avenue, or near Port Jefferson.

**Response 18-7:** As noted on page 18-7 of the EIS, the double-decker (also known as "bi-level") railcar alternative was dismissed because of reduced operational flexibility. Use of bi-level trainsets and electric cars creates a mixed fleet with destination restrictions. Bi-level trains are precluded from operating to Atlantic Terminal due to weight and clearance restrictions. Similarly, it will not be possible to use bi-level trains for customers destined to Grand Central Terminal, as the trains do not fit within the tunnel that was put in place under the East River in the 1970s. Consequently, additional bi-level cars would reduce scheduling flexibility, and while they add seating capacity, they do not address the reliability and performance goals of the Proposed Project.

As noted on Page 18-8, the enhanced use of additional rail sidings would not meet the Proposed Project's purpose and need. Locating a passing siding must take into account scheduling benefits, track infrastructure, switch locations, vertical and horizontal track curvature, bridges, and station locations. As a result, locating potential areas where a passing siding could be constructed are seriously considered. While the passing siding(s) would not be contiguous and therefore some segments of the corridor would avoid construction impacts, those

locations next to the siding would experience a similar level of construction as building a contiguous third track.

In addition, given the significant volume of trains in the corridor, attempting to run additional service and thread trains by each other utilizing a passing siding would require a degree of scheduling precision that is totally impractical and not viable given the size and demands of the LIRR system.

With regard to track bed improvement and the cleaning of trains, these actions are beyond the scope of the Proposed Project.

**Comment 18-8:** A few commenters suggested expanding other transportation modes, such as expanding the “contraflow” lane on the Long Island Expressway (LIE) and extending it to all rush hours, which would encourage carpooling and motor-coach commuter bus service. More thorough analysis of a bus rapid transit route was also suggested. One commenter recommended a cost-benefit analysis of a contraflow lane compared to the Proposed Project.

**Response 18-8:** Bus Rapid Transit is discussed on page 18-8 of the EIS. Expanding the LIE contraflow lane may offer benefits for commuters who drive, but would not address the Proposed Project’s goal of improving mass transit reliability.

#### **UPGRADE SWITCHES & SIGNAL SYSTEMS ONLY ALTERNATIVE**

**Comment 18-9:** Some commenters suggested redirecting Proposed Project funds toward improving the existing antiquated system, signals, interchanges, and safety technologies. One commenters noted the inefficiencies of boarding trains at Floral Park or Bellerose and then stopping at the Queens Village interlocking and then again in Jamaica, and suggested redirecting funds to fix these and other issues at Jamaica Station. Some commenters suggested fixing all existing railroad infrastructure first, and then evaluating the funding situation before proceeding with the third track. Several people commented on days when LIRR experienced delays due to broken rails or signal malfunctions and used such incidents as proof that we need to existing infrastructure first before adding more.

**Response 18-9:** As noted on page 18-9, the LIRR continues to make improvements to Main Line infrastructure through an on-going program of maintenance and system upgrades.

Regarding the sequencing of independent projects (i.e. the completion of all projects before the Proposed Project), see Response 18-2. As noted in Response 1-87, future service patterns along the Main Line in Eastern Queens will be reviewed.

**Comment 18-10:** One commenter said the idea of implementing a “moveable block” system (such as communications based train control) warrants additional consideration.

**Response 18-10:** As noted on page 18-9, a moveable block system would be complex, costly, and would not significantly improve capacity in the corridor or address the existing bottleneck.

## **OTHER SUGGESTED ALTERNATIVES**

### *CENTRAL BRANCH ALTERNATIVE*

**Comment 18-11:** Several commenters proposed reinstating service on the Central Branch, specifically, a two-track electrified segment between Garden Interlocking and B Interlocking. Existing tracks from the Main Line that cross Meadowbrook Parkway in east Garden City towards Roosevelt Field could tie into the existing system and provide additional redundancy and “run around” routes. Since the ROW already exists, substantial property takings would not be required. This route would provide connectivity through eastern Garden City, East Meadow, Levittown, Island Trees, Plainedge, and beyond. Proponents of this alternative said it could provide more reliability than simply expanding the Main Line, because an incident along the Main Line would likely put all three tracks out of service, adding it is a natural high-speed route with little to no curvatures or gradients. It could also include a dedicated station at one of the largest employment centers on Long Island—the Nassau Hub in eastern Garden city and result in substantial economic benefits. One commenter recommended a cost-benefit analysis of Central Branch reactivation compared to the Proposed Project.

**Response 18-11:** The Central Branch is an abandoned portion of the LIRR network that was constructed in the late 19<sup>th</sup> century and connected Garden City with Bethpage and Farmingdale, but was abandoned for passenger service back in 1939. Although the rail has been largely removed from the ROW, much of the ROW remains intact and can be seen on maps. Reactivation of the former Central Branch may have regional transportation mobility benefits such as providing additional track capacity, redundancy for Ronkonkoma and Montauk Branch trains, and new station locations for increased mobility to economic generators such as Roosevelt Field Mall. . However, reactivation is likely to have substantial environmental impacts that would likely require extensive mitigation. As noted on Page 18-1, “if an alternative is judged to have significantly more impacts...it is not considered further.”

Although significant portions of the ROW remains relatively “undeveloped,” the reintroduction of rail service along this branch could result in substantial environmental impacts for communities along the route. In many cases, a meaningful change in community character and/or land use would occur. These communities largely developed after the cessation of regular service in 1939. The degree of mitigation required could be substantial; e.g. for noise and vibration in residential areas. There are also at least twenty locations where a road crosses the ROW, and extensive planning and engineering work would be needed to determine whether the new tracks would be grade separated or at

grade. The tracks would also have to cross three parkways, which could have significant impacts to north-south vehicular travel on Long Island during construction. Physical obstacles to construction exist as well, such as the need to construct track through Eisenhower Park, as well as through development that has since occurred in the Mitchel Field / Nassau Hub / Garden City area.

### *FOUR-TRACK ALTERNATIVE*

**Comment 18-12:** Some commenters said a three-track Main Line will not make enough of an improvement, and suggested evaluation of a four-track alternative, as it would enable true express service in both directions, unlike the three-track alternative.

**Response 18-12:** While desirable from a rail operations perspective, construction of a four-track Main Line would require an expanded ROW and result in substantially greater property and construction impacts, as well as potentially additional environmental impacts not yet evaluated.

### *COMBINATION ALTERNATIVES*

**Comment 18-13:** The New Hyde Park LIRR Third Track Task Force suggested implementation of a combination of alternatives described above as an interim measure, while newer train technologies are developed that will allow for improved train throughput.

**Response 18-13:** Temporary measures that improve train throughput alone do not fully address the purpose and need of the Proposed Project, which includes eliminating the existing Main Line bottleneck between Floral Park and Hicksville, as well as safety benefits associated with grade crossing eliminations. Increased throughput would not be optimized if there is no flexibility to bypass delays and/or offer continuous bi-directional service.

### *PHASED PROJECT ALTERNATIVE*

**Comment 18-14:** One commenter suggested separating out the third track components from the grade crossings, and allowing each community when and if to address each grade crossing. The commenter explained that the construction impacts are largely due to the grade crossing work, and the third track impacts are less disruptive. Forcing the communities to live through the entirety of the construction effort is more severe than necessary, and it could instead be staggered over time.

**Response 18-14:** Staggering or phasing the grade crossing eliminations to allow communities to determine when and if they are addressed would lead to significantly longer construction periods which would in turn have greater impacts on local villages, their residents, businesses, and schools. Rather than the proposed plan to streamline the design and construction of all project elements under one design-build contract, contractors would “reenter” communities at an undetermined later date

to address their grade crossings after the alignment-related improvements are made. Grade separation work in that scenario would certainly be more costly, more time consuming, and have greater community impacts as future grade crossing eliminations would have to deal with the efforts to build a new roadway underneath three tracks rather than two.

#### *OTHER ALTERNATIVES*

**Comment 18-15:** Some commenters suggested the use of new rail interlockings to allow trains to bypass problems. Some commenters stated that installation of double gates would remedy safety concerns at grade crossings. One commenter suggested placing the LIRR in an underground tunnel, especially in New Hyde Park, citing benefits including above-ground parking spaces and retaining streets and lesser construction disruption. Other commenters requested conversion to an all-electric fleet. One commenter acknowledged the importance of additional parking in Hicksville but questioned the need for 10 miles of construction to accomplish that goal.

**Response 18-15:** Installing additional interlockings on a two-track system would offer minimal help in bypassing incidents during peak periods, as the Main Line would still effectively narrow to a one-track system. The usefulness of the additional interlockings would be completely dependent on a future incident happening in the exact location near the new siding

While the installation of “double-gates” (known as four-quadrant gates) offers some safety benefits, the safest alternative, and the stated preference of New York State, is to eliminate or separate crossings wherever possible.

Placing the Main Line in a tunnel, whether through all or part of the corridor, would be extremely costly, and pose substantial geotechnical challenges. As noted in the Final Scoping Document:

...constructing a tunnel would be inordinately complicated and disruptive, and would require lengthy tunnel approaches as well as sizeable ventilation shafts that would likely have significant adverse impacts to land use and community character. Such an alternative would require substantial property takings, extensive community disruption, and conflict with the goals and objectives of the Proposed Project and thus is not considered a reasonable alternative to the Proposed Project that should be studied in the DEIS.

Conversion to an all-electric fleet would not address the purpose and need of the Proposed Project, and is outside the scope of the Proposed Project.

Regarding parking at Hicksville, the LIRR recognizes that the Proposed Project presents an opportunity to address existing and future parking shortfalls. As noted on page 10-76,

The overall findings of the parking assessment are: 1) parking lots and garages available to serve LIRR commuters today are nearly generally 90 to 100 percent occupied as the peak morning commute period ends with little if any capacity to accommodate significant additional parkers; 2) parking demands that would be generated by the Proposed Project itself are not substantial and would not generate the need for additional station area parking; and 3) the East Side Access Project would generate a substantial need for more parking, not directly associated with the Proposed Project. However, the Proposed Project includes the addition of parking at several stations recognizing the overall need for more parking along the Project Corridor

**Comment 18-16:** With respect to recovering from rail accidents, one commenter suggested the use of Sikorsky helicopters and emergency responses teams to more rapidly reinstate rail service. One commenter suggested weekly infrastructure inspections to prevent problems.

**Response 18-16:** LIRR employs a rigorous infrastructure inspection schedule, the frequency and duration of which varies by prescribed standards for asset being inspected (e.g. track, signals, bridges). LIRR crews strive to expeditiously respond to incidents; the creation of air-based response teams for this purpose is outside the scope of the Proposed Project.

**Comment 18-17:** One commenter suggested creating a new line (via tunneling) that would bypass Jamaica provide much-needed rail service to underserved areas including Elmont, Franklin Square, East Meadow, Levittown, etc. and could connect to the Farmingdale Branch. Others shared similar ideas of express tunnels and bridges to improve commutes.

**Response 18-17:** Regarding tunneling alternatives, see Response 18-15. Similarly, an extensive network of bridges and/or viaducts would require extensive construction and property takings, and would result in adverse impacts to land use and community character.

**Comment 18-18:** Several residents of the Flower View Garden Apartments in Floral Park submitted a form letter recommending a suite of alternative actions, including: eliminating the seven grade crossings; upgrading signals, switches, sidings, and power equipment; installing PTC; increasing the number of cars per train from 6 to 12; replacing existing track from Jamaica to Floral Park; instituting more westbound and eastbound evening peak Main Line service; express trains (skipping Queens Village through Woodside); including Floral Park (Nassau) stops on the Hicksville, Oyster Bay, Port Jefferson lines; purchasing new trains for the Main Line; making Floral Park Station ADA-compliant; and requiring Suffolk County to truck or barge their refuse.



**Response 18-18:** The above comments, taken collectively, do not meet the Proposed Project's purpose and need to reduce delays to Main Line congestion and rippling effects and adding operational flexibility eastbound and westbound. To the contrary, some of these recommendations, such as adding additional eastbound evening peak Main Line service, and adding Floral Park Station stops to Hicksville, Oyster Bay, and Port Jefferson branches would only exacerbate the fragility of the system and would do nothing to add resiliency or accelerate recovery time. The recommendation to add westbound evening peak Main Line service cannot occur without the Third Track.

Comments that substantially call for implementing existing and planned projects have been addressed in Responses 18-2 and 18-9.

Comments concerning Hempstead Branch / Floral Park service have been addressed in Responses 1-84 through 1-88.

Requiring Suffolk County to truck or barge their refuse is a request that is outside of MTA / LIRR purview.

Train lengths are adjusted accordingly based on ridership demand and fleet availability, as noted in Response 1-69.

As a result of ongoing consultation with village residents and officials, ADA accessibility improvements at Floral Park Station would be included in the Proposed Project.

**Comment 18-19:** One commenter suggested replacing the existing grade crossing gates with the old-fashioned gates that blocked both sides of the road, suggesting this would be a simpler and more cost-effective way to reduce accidents and noise.

**Response 18-19:** Comments regarding gates that block both sides of the road are addressed in Response 18-15.

**Comment 18-20:** One commenter suggested a light rail connection from Oyster Bay to Mitchell Field.

**Response 18-20:** Comment noted; however, this proposal does not address the Proposed Project's purpose and need.

## **G. COMMENTS PERTAINING TO THE EIS PROCESS**

### **EIS COMMENT PERIOD**

**Comment G-1:** Some commenters objected to the length of the EIS comment period and its spanning the holiday season, and requested more time (some suggesting an extension until end of April). Some commenters stated that the local villages are not equipped to review and analyze a document as long and complex as the EIS and therefore outside professional help

## **Long Island Rail Road Expansion Project**

---

was required and obtained. Since such outside legal and engineering help is being sought at the villages' expense, the commenters requested that responses to any comment letters be provided.

**Response G-1:** The EIS was prepared in accordance with SEQRA and the EIS comment period was extended to February 15th, 2017 in order to provide additional time for public review. The DEIS comment period was as long as or longer than similar comment periods for other major transportation projects in the area.

**Comment G-2:** Other commenters thanked Governor Cuomo for extending the EIS comment period from January 31, 2017 to February 15, 2017. One commenter stated that any further extensions would delay the start of this much-needed project.

**Response G-2:** Comment noted.

### **PUBLIC OUTREACH**

**Comment G-3:** Some commenters praised MTA and LIRR for holding the public hearings in locations convenient for local residents, empowering communities, and conducting an overall extensive outreach program. Some commenters thanked MTA, LIRR, NYSDOT, and Governor's Office staff for their responsiveness and cooperation and for facilitating an open and interactive process. The Carle Place Civic Association residents expressed appreciation for the one-on-one community meetings that were held in Carle Place and asked for the ongoing opportunity for this "unincorporated" area to secure an equal voice as a distinct community as the Proposed Project continues.

**Response G-3:** Comment noted.

**Comment G-4:** Others questioned the thoroughness of the outreach program, including the door-to-door component. One commenter expressed disappointment in the Scoping process within the Hamlet of Carle Place and stated the area has been neglected. Some commenters, including the Village of New Hyde Park LIRR Third Track Task Force, acknowledge meetings with Project Representatives, but stated that ideas and concepts were not truly solicited or accepted; any ideas that were inconsistent with the Proposed Project were dismissed.

**Response G-4:** Governor Cuomo directed that an unprecedented public outreach program be instituted with regard to the Proposed Project. Accordingly, LIRR established a walk-in project office at the LIRR Mineola Station, where anyone can acquire information about the Proposed Project from project staff. LIRR, NYSDOT and other staff conducted hundreds of meetings with residents, municipal representatives, and other stakeholders. Twelve Public Hearings were held – six in May 2016 coinciding with the public distribution of the Proposed Project's Draft Scoping Document, and six in January 2017 coinciding with the public distribution of the DEIS. In response to these hearings and the public comment periods mandated by SEQRA, nearly 1680 comments were

received. The current state of the Proposed Project is a direct reflection of public and municipal input.

**Comment G-5:** Some commenters explained that during the prior project comment period (for the MLIP), a petition with more than 10,000 signatures in opposition was delivered, and stated that the current petition with 4,500 signatures in support of the Proposed Project was circulated by paid employees. One commenter noted that the Proposed Project proponents did not circulate the supportive petition at the stations within the Project Corridor. Others emphasized the very vocal and consistent opposition to this and prior projects throughout the past decade, and requested the release of all public comments received during past iterations of similar projects (MLCIP).

**Response G-5:** Comment noted. The LIRR Expansion Project is a completely new project with no residential property takings and substantially fewer commercial property acquisitions. LIRR has received numerous responses in favor and in opposition to the Proposed Project. All comments, regardless of source or method of submission, were considered and evaluated.

**Comment G-6:** The Town of Oyster Bay's DER said the MTA and LIRR must reach out to the Town of Oyster Bay elected officials and staff as soon as possible to discuss concerns and resolve issues.

**Response G-6:** LIRR has been in regular contact with the Town of Oyster Bay regarding the LIRR Expansion Project and will continue coordination with the Town of Oyster Bay and other municipalities regarding the Proposed Project.

**Comment G-7:** One commenter offered ideas for improving the presentation of the Proposed Project's benefits on the Proposed Project's website—more heavily emphasizing the replacement of all existing signal equipment, installation of high-speed switches, a new SCADA system, remote control of interlockings, automated track laying, concrete ties to reduce broken rail incidents, elimination of broken crossing gates, reduced bridge strikes, and more.

**Response G-7:** Comment noted.

**Comment G-8:** The Town of Oyster Bay's DER suggested a Facebook page for the Proposed Project.

**Response G-8:** Comment noted.

**Comment G-9:** One commenter said a Technical Oversight Board with direct representation from the adjacent communities is required.

**Response G-9:** LIRR will continue to work with communities to ensure a comprehensive community outreach and communication program.

**Comment G-10:** One commenter noted that the Proposed Project website was an http:// rather than an https:// which indicates a lack of security, and suggested for future projects when requesting personal information such as name and address that the Railroad takes precautions to ensure this information is kept safely and securely.

**Response G-10:** Websites that start with https:// rather than http:// require the use of a security protocol (SSL) usually reserved for transmitting highly confidential information, such as credit card numbers and social security numbers via the internet. LIRR is strongly committed to protecting personal information collected through the LIRR Expansion Project website against unauthorized access, use, or disclosure. LIRR limits employee access to personal information collected through this website to only those employees who need access to the information in the performance of their official duties. Employees who have access to this information are required to follow appropriate procedures in connection with any disclosures of personal information. In addition, LIRR has implemented procedures to safeguard the integrity of its information technology assets, including authentication, monitoring, auditing, and encryption. These security procedures have been integrated into the design, implementation, and day-to-day operations of the Proposed Project website as part of LIRR's continuing commitment to the security of electronic content and the electronic transfer of information.

### FEDERAL OVERSIGHT

**Comment G-11:** Some commenters questioned why the Proposed Project was not being conducted in accordance with the National Environmental Policy Act (NEPA), which would open the Proposed Project to federal oversight and a more rigorous environmental review. Some commenters stated that by not adhering to NEPA, the Project Sponsors were forfeiting access to federal funds and grants. Some commenters, including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park, said the avoidance of NEPA raises suspicion that LIRR wants to avoid any federal involvement, even at the expense of receiving additional funding and further burdening New York tax payers. Others stated the Proposed Project was not fully complying with all federal regulations.

**Response G-11:** As noted on page 1-2 of the EIS, the EIS has been prepared pursuant to the requirements of SEQRA because no federal funding or approvals are sought or required for the Proposed Project. Accordingly, NEPA review is not required.

**Comment G-12:** One commenter cited a 2008 MTA press release indicating the NEPA EIS would eventually be made available for public review, noting that said document was never released to the public.

**Response G-12:** As noted in the EIS, the prior project is no longer being considered by the LIRR.

## SEQRA REQUIREMENTS

**Comment G-13:** Some commenters, including the combined comments from the Villages of Floral Park, Garden City, and New Hyde Park, stated the EIS is deficient with respect to SEQRA, lacks the required level of data and analysis, is superficial, and is more comparable to an expanded Scoping Document than an EIS. Some commenters concluded the EIS does not provide the public with all information needed to perform an informed evaluation of all potential impacts of the Proposed Project, and urged MTA and LIRR to use all EIS public comments to prepare a corrected EIS and re-initiate a new public review and comment period.

**Response G-13:** LIRR believes that the EIS complies with SEQRA and its regulations in all respects.

## INCORPORATION OF SCOPING COMMENTS

**Comment G-14:** Some commenters were pleased with the incorporation of their Scoping comments into the EIS, whereas other commenters were disappointed that their Scoping comments were not explicitly addressed in the EIS. Others resubmitted their comments on the Draft Scoping Document to emphasize the points that have not yet been addressed to their satisfaction.

**Response G-14:** LIRR reviewed all comments made on the Scoping Document and incorporated all relevant and substantive comments into the Final Scoping Document released in August 2016. Approximately 700 comments were received during the EIS comment period, which included comments resubmitted from the Scoping process. These comments were received through a variety of methods, including: written comment letters submitted by mail; private and public oral testimony submitted at the public hearings; written comment forms submitted at various meetings; comments received at the Project Information Center; comments submitted by email; and comments submitted through the Proposed Project website. All substantive comments received by February 15, 2017 have been reviewed and summarized in this Chapter. The full text of each comment can be found in Appendix 22.

In addition to the comments summarized herein, many comments were submitted that are unrelated to or beyond the scope of the Proposed Project. Such comments are not directly relevant to the Proposed Project or the EIS, and therefore no responses are provided and no revisions to the EIS were made to address these comments.

## SEGMENTATION AND RELATIONSHIP TO OTHER PROJECTS

**Comment G-15:** One commenter stated that failure to consider the Proposed Project's impact on the system reliability as a whole and relative to other improvements results (e.g., East Side Access, Double Track Project, etc.) in segmentation of the larger LIRR system, which is a

violation of SEQRA rules against segmentation of projects. The Town of Oyster Bay's DER said the Hicksville Station Improvements Project was segmented from this environmental review.

**Response G-15:** SEQRA regulations define segmentation as “the division of environmental review of an action such that various activities or stages are addressed as though they were independent, unrelated activities, needing individual determinations of significance.” The rules require a lead agency to consider all “long term, short-term and cumulative effects, including other simultaneous or subsequent actions which are: (1) included in any long range plan of which the action under consideration is a part; (2) likely to be undertaken as a result thereof; or (3) dependent thereon.” For the purposes of a segmentation analysis, individual components that are “functionally independent,” i.e., can function in the absence of other projects, are not considered to be the same project. Likewise, an environmental review will not be considered to be segmented if the project under consideration has independent utility so that taking the proposed action will not commit the agency to take any subsequent action. The East Side Access and Double Track Projects are separate projects that were the subjects of independent environmental review that pre-dated the review of the Proposed Project. Construction is underway for both of those projects, while the Proposed Project remains under consideration. With regard to the Hicksville Station Improvements Project, see Response 14-5.

### PROJECT SPONSORS / RESPONSIBLE AGENCIES

**Comment G-16:** One commenter questioned why the Proposed Project is being managed by MTA Capital Construction, which is a separate division from the LIRR, and concerns that MTA Capital Construction will not be as concerned with service to LIRR commuters.

**Response G-16:** Please see “Regulatory Context” on page 1-2 of the EIS.

**Comment G-17:** Some commenters expressed confusion about NYSDOT's role in the Proposed Project, since they did not issue the EIS.

**Response G-17:** Please see page 1-2 of the EIS. NYS DOT is an involved agency.

### INVOLVED AGENCIES / APPROVALS

**Comment G-18:** The NCDPW stated that Nassau County is an Involved Agency in accordance with SEQRA and that pursuant to the NYS General Municipal Law (GML), the Nassau County Department of Public Works maintains design review and approval jurisdiction for all proposed projects adjacent to County-owned property and ROWs that may impact the County's infrastructure. Since the Proposed Project directly alters traffic patterns, drainage, sanitary sewer collection, etc., Nassau County must review and approve the MTA-LIRR designs, which should adhere to standard County specifications. The commenter asked that the EIS

reference the County's design review jurisdiction and provide the status of County review for each engineering discipline.

**Response G-18:** Nassau County is an interested agency, as set forth in the EIS, and has been integrally involved in the planning and review of the Proposed Project. Under Section 239-f of the New York State General Municipal Law, Nassau County maintains design approval prior to a municipality's approval of a building permit or subdivision plat for any projects adjacent to county properties. The general triggering requirement for design approval is an application by a project sponsor for a building permit or subdivision plat approval. As the MTA and NYSDOT each maintain separate statutory exemptions from local land use approvals, no building permits or subdivision plat approvals are required for the Proposed Project. As such, Nassau County does not maintain design approval for the Proposed Project. Although they are not an involved agency with a discretionary approval under SEQRA, MTA and NYSDOT will continue to work with Nassau County, an interested agency, to ensure that any concerns can be adequately addressed.

**Comment G-19:** The Town of Oyster Bay's DER said additional Town approvals, including maintenance agreements for the proposed parking garages, should be listed in the "Summary of Required Approvals" table in Chapter 1.

**Response G-19:** The Summary of Required Approvals refers to all permits that may be required in connection with the proposed project. Contracts and Memoranda of Understanding, such as those that would be negotiated in connection with the Proposed Project, are not considered approvals.

✱