STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of New York Transco LLC and New York Power Authority for a Certificate of Environmental Compatibility and Public Need, Pursuant to Article VII of the New York Public Service Law, to Construct, Operate, and Maintain an Approximately 89.7-Mile Underground Transmission Line through Suffolk, Nassau, Queens, Bronx, and Westchester Counties	Case No. 24-T-0446

NORTH SHORE CENTRAL SCHOOL DISTRICT'S INITIAL STATEMENT IN OPPOSITION TO THE JOINT PROPOSAL WITH ATTACHMENTS

Dated: June 8, 2026
Hauppauge, New York

Respectfully submitted,

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NORTH SHORE CENTRAL SCHOOL DISTRICT'S INITIAL STATEMENT IN OPPOSITION TO THE JOINT PROPOSAL

The North Shore Central School District (the "District") respectfully submits this Initial Statement in Opposition to the Joint Proposal filed on April 30, 2026, in this Article VII proceeding concerning the application of New York Transco LLC and New York Power Authority (collectively, the "Applicant") for a Certificate of Environmental Compatibility and Public Need, pursuant to Article VII of the New York Public Service Law, to construct, operate, and maintain an Approximately 89.7-Mile underground transmission line through Suffolk, Nassau, Queens, Bronx, and Westchester Counties (the "Project").

PRELIMINARY STATEMENT

The Joint Proposal submitted by and among New York Transco LLC and New York Power Authority, New York State Department of Public Service, New York State Department of Environmental Conservation, New York State Department of State, New York State Department of Transportation, New York State Department of Agriculture, City of New York, Long Island Commercial Fishing Association, and Ms. Cecelia McCann (collectively, the "Signatories") is not in the public interest.

While the Signatories purport to present the Joint Proposal as a comprehensive settlement "that resolves all issues in this proceeding among the Signatory Parties"[1], conspicuously absent from the list of Signatories are the vast majority of local municipalities, school districts, residents, local business owners, and civic associations in and around Nassau County who are parties to this proceeding, most of whom also participated in settlement discussions, and all of whom, by virtue

[1] Joint Proposal, Cover Letter, April 30, 2026 (DMM Item No. 284).

of seeking party status, have asserted they will be directly impacted as a result of the Project, if approved.

A critical review of the Joint Proposal reveals that the agreement fundamentally fails to satisfy the statutory requirements of the Public Service Law ("PSL") Article VII. The terms of the Joint Proposal are not just and reasonable and do not represent the public interest. Instead, the Joint Proposal reflects a series of claimed compromises made by and between primarily the Applicant and the State agencies, while failing to protect the interests of those most severely impacted by the proposed Project, including the District.

The District does not generally oppose the State's pursuit of a reliable electric infrastructure or the modernization of the transmission system provided (i) it is necessary and undertaken in a safe, responsible, fiscally sound and efficient manner for the benefit of the community; (ii) does not prevent the District from carrying out its statutory obligations to educate the thousands of students it serves, in a healthy and safe environment; (iii) allows the District to provide safe, reliable, and timely transportation services to its students; and (iv) does not financially burden the District and its taxpayers as a result.

The Joint Proposal does not adequately mitigate substantial adverse impacts to student safety, school transportation operations, emergency access, instructional continuity, the District's statutory obligations to provide educational programs, or safe access to educational facilities during the Project's construction phase, nor does it alleviate the financial burden that will be borne by the District and its taxpayers.

Specifically, the Joint Proposal should be rejected on the following grounds:

1. The Joint Proposal fails to determine the nature of the probable environmental impact as required by PSL § 126(1)(b) related to traffic within the District and

related to the health and safety of the electromagnetic fields produced by the terrestrial transmission cables within the District;

2. The Joint Proposal fails to represent the minimum adverse environmental impact as required by PSL § 126(1)I related to enforceable and adequate traffic-related mitigation measures, routing, and other environmental impacts to the District;
3. The Joint Proposal fails to establish that the Project will serve the public interest, convenience, and necessity as required by PSL § 126(1)(h); and
4. The Joint Proposal relies on a flawed settlement process that evades statutory mandates, subverts robust public participation, and shields critical details from public scrutiny.

For these reasons, as detailed further below, the New York State Public Service Commission ("Commission") cannot legally or factually make the findings required to grant a Certificate of Environmental Compatibility and Public Need based on this Joint Proposal and the current record before the Commission. The District strongly opposes the Joint Proposal and urges the Commission to reject the Joint Proposal. In the event that the Commission does not reject the Joint Proposal and issues a Certificate over the District's strong opposition, the Commission must require modification of the Joint Proposal to include robust, binding conditions to protect the health and safety of the District's thousands of students and staff, the operational integrity of the District, and the school community it serves.

LEGAL STANDARD

Article VII of the New York Public Service Law "requires a full review of the need for and environmental impact of the siting, design, construction, and operation of major transmission

facilities in New York State."[2] Article VII "establishes the forum in which community residents can participate with members of state and local agencies in the review process."[3]

The Commission may issue a Certificate of Environmental Compatibility and Public Need (herein referred to as the "Certificate") only upon findings supported by substantial evidence in the record and consistent with the standards set forth in Article VII of the Public Service Law. Under PSL § 126(1), the Commission may not grant a Certificate for the construction of a major utility transmission facility, unless it shall find and determine:

> (a) the basis of the need for the facility;
> (b) the nature of the probable environmental impact;
> (c) that the facility avoids or minimizes to the extent practicable any significant adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations including but not limited to, the effect on agricultural lands, wetlands, and waterbodies, parklands, and river corridors traversed;
> (d) that the facility avoids or minimizes to the extent practicable any significant adverse impact on active farming operations that produce crops, livestock and livestock products, considering the state of available technology and the nature and economics of various alternatives, and the ownership and easement rights of the impacted property;
> (e) (1) what part, if any, of the line shall be located underground; (2) that such facility conforms to a long-range plan for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems, which will serve the interests of electric system economy and reliability;
> (g) that the location of the facility as proposed conforms to applicable state and local laws and regulations issued thereunder, all of which shall be binding upon the commission, except that the commission may refuse to apply any local ordinance, law, resolution or other action or any regulation issued thereunder or any local standard or requirement which would be otherwise applicable if it finds that as applied to the

[2] "The Certification Review Process For Major Electric and Fuel Gas Transmission Facilities Under Article VII of the New York Service Law", Department of Public Service, June 2024, accessible at https://dps.ny.gov/article-vii-certification-review-process-guide (hereinafter "The Certification Review Process") at 2.
[3] *Id*.

> proposed facility such is unreasonably restrictive in view of the existing technology, or of factors of cost or economics, or of the needs of consumers whether located inside or outside of such municipality;
> (h) that the facility will serve the public interest, convenience, and necessity […].

See also, Joint Proposal Narrative, dated April 30, 2026 (DMM Item No. 284) at 15-16.

The requirements of PSL § 126 must be considered when evaluating the sufficiency of the Joint Proposal and the evidentiary record. In evaluating a proposed settlement or joint proposal, the Commission retains an affirmative obligation to ensure that the record supports each required statutory finding, including findings relating to environmental compatibility, system need, and the adequacy of proposed mitigation measures. Where, as here, the record contains unresolved factual disputes, insufficient environmental analysis, and/or inadequate consideration of local impacts, failing to satisfy PSL § 126, the Commission must reject the Joint Proposal.

In this context, the Commission has explained:

> Where, as here, the parties present a proposed settlement, the Commission's Procedural Guidelines for Settlement require the Commission to consider whether the terms of the proposal are just and reasonable and in the public interest. The following considerations pertain to the instant determination: whether the Joint Proposal is consistent with the law and regulatory, economic, social, and environmental State and Commission policies; whether the terms of the Joint Proposal compare favorably with the likely result of a fully-litigated case and produce a result within the range of reasonable litigated outcomes; and whether the Joint Proposal provides a rational basis for the Commission's decision.[4]

[4] Petition of Niagara Mohawk Power Corporation d/b/a National Grid for a Certificate of Environmental Compatibility and Public Need, Pursuant to Article VII, for the Rebuild of Approximately 50.72 Miles of Transmission Line from Inghams Substation in the Town of Manheim, Herkimer County, to the Rotterdam Substation in the Town of Rotterdam, Schenectady County, Traversing the Towns of Princetown and Rotterdam in Schenectady County, the Towns of Ephratah, Johnstown, Oppenheim, and Perth, and the City of Johnstown in Fulton County, the Towns of St. Johnsville, Amsterdam, Mohawk and Florida, and the Village of Hagaman in Montgomery County, and the Town of Manheim in Herkimer County, and the Construction of the Saltsman Road Substation in the Town of Ephratah, Fulton, No. 25-T-0262, 2026 WL 1454821, at *1 (May 15, 2026), No. 25-T-0262, 2026 WL 1454821, at *3 (May 15, 2026).

The Commission's Settlement Guidelines further state that "in judging a settlement, the Commission shall give weight to the fact that a settlement reflects the agreement by normally adversarial parties."[5] However, the lack of support by entities, including the District and other similarly situation school districts, and individuals living and working in areas directly affected by the construction of the Project should not and cannot be ignored. A subset of adversarial parties cannot and should not speak for the whole of adversarial parties, especially those most impacted by the proposed Project.

Further, while the Settlement Guidelines acknowledge that parties "may reach agreement among themselves on mutually acceptable resolution of *some or all* of the contested issues,"[6] a settlement must be "presented to the Commission for approval or disapproval only in their entirety and not on a piecemeal basis."[7]

The Applicant and other Signatories bear the burden of demonstrating that the proposed facility will serve the public interest, minimize adverse environmental impacts to the maximum extent practicable, and comply with applicable state and local laws unless a waiver is expressly justified[8] and, further, bear the burden of proving that a proposed settlement is in the public interest.[9] The Commission therefore may not approve a negotiated proposal merely because the settling parties have reached consensus; rather, the Commission must independently determine whether the proposal satisfies the statutory requirements and adequately protects the public interest, which it does not. The District submits that the Joint Proposal does not resolve all

[5] Re Procs. for Settlement & Stipulation Agreements, No. 90-M-0255, 1992 WL 487888 (Mar. 24, 1992)
[6] *Id.* at Paragraph A.
[7] *Id.* at Paragraph D.
[8] PSL § 126.
[9] Re Procs. for Settlement & Stipulation Agreements, No. 90-M-0255, 1992 WL 487888 (Mar. 24, 1992).

contested issues and, as such, the Commission, by its own standards, must disapprove the settlement in its entirety.

Accordingly, the District strenuously opposes the Joint Proposal and respectfully requests that the Commission reject the Joint Proposal in its entirety. In the event that the Commission does not reject the Joint Proposal and issues a Certificate over the District's strong opposition, it is submitted that the Commission must, at a minimum, impose additional certificate conditions necessary to adequately and appropriately protect public safety, student health and safety, and statutorily mandated educational and instructional programs and transportation operations. The Project should not be implemented at the expense of the District, its students, staff, school community, and taxpayers.

STATEMENT OF FACTS

The North Shore Central School District is a public school district located in Nassau County. The District serves the communities of Glenwood Landing, Glen Head, Sea Cliff, Old Brookville, and parts of Greenvale and Roslyn Harbor. The District educates a total of 2,551 students. Approximately 16,200 residents/taxpayers, and ratepayers, reside within the District.[10]

The District requested party status in the instant proceeding on January 6, 2025, which was granted by Ruling issued on January 28, 2025.[11] At that time, the District sought party status to address the negative impact of the Project to the District, including to its operations, finances, educational and instructional programs, and its tax base. In addition, the District raised serious concerns with the Project's risks to the health and safety of the District's students, staff, and school

[10] See Affidavit of Dr. Christopher R. Zublionis in Support of North Shore Central School District's Initial Statement in Opposition to the Joint Proposal, dated June 5, 2026 ("Zublionis Aff.") at ¶¶ 7-10, appended hereto as Attachment 1.

[11] Ruling Granting Party Status to New York State Department of Agriculture and Markets, Kathy Wallach, and North Shore Central School District (Issued January 28, 2025) (DMM Item No. 45).

community, during the construction phase, and after. The District continues to maintain its position regarding these issues. The Joint Proposal fails to properly identify, analyze, and mitigate these concerns as discussed more fully herein and, as such, the proposed Joint Proposal is not in the public interest

The Project proposes to install underground transmission lines within the rights-of-way (ROW) of numerous roadways that run through the geographic boundaries of the District[12], which provide critical and safe access to the District's schools, including the District's buses/vans and parents providing District students transportation to and from the District's schools, as well as critical and safe access to the District's buildings and facilities by emergency vehicles and services when needed.

The transmission lines are proposed to be installed in close proximity the District's Transportation Facility, Middle School, and High School, including adjacent to the District's fields and playgrounds, as well as along bus routes, pedestrian access and walkways, and bicycle paths where school-aged children traverse and/or are regularly located, posing significant health and safety risks to the District's students and staff.

Notably, the District's Transportation Facility that is used for District-wide bus and vehicle maintenance, storage and fueling of District vehicles is located on Shore Road in Glenwood Landing. The Transportation Facility is located immediately adjacent to a proposed construction site of a new substation associated with the Project and to two proposed segments of underground transmission lines installation. This Facility is the central hub for the District's entire transportation

[12] See generally, Joint Proposal, Evidentiary Record, Exhibit 5: Location of Facilities (Exhibit 2 of the Application, together with all subsequent revisions).

operations.[13] More specifically, the Facility houses approximately 40 District transportation vehicles (buses and vans) that provide statutorily mandated transportation to District students.[14] The only entrance/exit to the property is on Shore Road.[15]

The Transportation Facility operates with a total of approximately 45 employees and operates continuously from approximately 5:45 a.m. to approximately 5:00 p.m. year-round, but primarily during the school year from on or about September 1st to June 30th.[16] District vehicles and employee's personal vehicles regularly enter and exit the property throughout the day at this sole entrance/exit point. Any disruption or delay in access to the Transportation Facility will severely impact the District's ability to safely and efficiently transport its students. Such disruptions will also prevent the District from providing mandated transportation services to District students.[17]

Construction-related traffic delays, if not properly mitigated, will significantly impact the District's operations and introduce substantial safety concerns and inefficiencies in the District's transportation program that will result in the need to modify bus routes, require earlier pick up and later drop off, increase the length of time students ride the bus and significantly impact transportation staffing and student learning, resulting in increased costs, which will be borne by the District's taxpayers.[18] It should be noted that the foregoing may be further complicated, and even impossible due to existing requirements set forth in existing collective bargaining agreements with multiple unions. The costs associated with the proposed Project's interference of the District's

[13] See Zublionis Aff. at ¶16.
[14] *Id.*
[15] *Id.* at ¶ 18.
[16] *Id.* at ¶ 19.
[17] *Id.*at ¶ 21.
[18] *Id.* at ¶ 47.

statutory mandate to provide education to its students and the District's students' ability to learn cannot be quantified.[19] Further, construction-related delays create the potential for unfunded financial burdens that cannot be absorbed by the District's budget or its taxpayers. These resulting burdens are substantial and in impose a confiscatory impact to the District.[20]

Although the Joint Proposal provides certain limited traffic management measures as it relates to the District, its facilities and operations, the Joint Proposal ultimately leaves many critical mitigation details for later development in a Maintenance and Protection of Traffic (MPT) plans or within the Environmental Management and Construction Plan (EM&CP). The absence of safe, clear and adequate traffic mitigation measures at this stage of the proceeding in the Certificate Conditions, leaves the District without any enforceable mechanism by which to protect its educational operations, its students, and staff. The District, its students, staff, and school community must be adequately and appropriately protected.

ARGUMENT

THE JOINT PROPOSAL IS NOT IN THE PUBLIC INTEREST

The terms of the Joint Proposal are not just and reasonable, nor is the Joint Proposal in the public interest. As a result, and for all the reasons stated herein, it is respectfully submitted that the Joint Proposal must be rejected by the Commission.

Point I – The Joint Proposal Fails to Determine the "Nature of the Probable Environmental Impact" and, as such, Fails to Satisfy Public Service Law § 126(1)(b).

The Joint Proposal must be rejected because the Signatory Parties have failed to sustain their burden of proof under PSL § 126(1)(b). Under this statute, the Commission must find and

[19] *Id.* at 47-48.
[20] *Id.* at 48.

determine the nature of the probable environmental impact. As described in more detail below, the Joint Proposal and the record lack any level of specificity for the Commission to make a genuine finding of the nature of probable environmental impact, particularly as it relates to the adverse impacts to the District.

A. The Record Fails to Establish the Nature of the Probable Environmental Impact Related to Traffic within the North Shore Central School District.

The Joint Proposal, and the attachments allegedly supporting it, fail to provide localized, comprehensive Traffic Impact Studies and, as later discussed, the Applicant has only very recently made available a high-level, superficial, and cursory "analysis" of traffic impacts. Failure to conduct and analyze actual traffic impacts prior to certification prevents the Commission from fulfilling its mandatory statutory obligation under PSL § 126(1)(b). Under this section, the Commission is legally prohibited from granting a certificate unless it can explicitly find and determine "the nature of the probable environmental impact."

The Joint Proposal proposes that the Commission find that the nature of probable, localized environmental impacts resulting from the Project include:

> Temporary disturbance and inconvenience associated with construction activities within existing roadway ROWs, including noise, traffic disruptions, and short-term access limitations, all of which will be managed through measures set forth in the Environmental Management & Construction Plan (EM&CP) and coordination with affected municipalities and landowners.
> […]; and
> Temporary and minor impacts related to noise, transportation, and construction.[21]

However, by providing only high-level phased screening and deferring actual traffic modeling to the post-certification EM&CP phase, the Applicant has submitted a legally deficient

[21] See Joint Proposal, Appendix J, Proposed NYSPSC Findings at Paragraph 2(a).

record. A "temporary" impact is still an environmental and socioeconomic impact that must be accounted for. Moreover, for a school district, a "temporary" impact can result in unquantifiable disruption to the District's educational operations and school calendar. Even if temporary, such impact is not inconsequential. By way of example, any loss of even one school day or interruption to a state mandated examination, can have long lasting impacts on a student and to the District's educational operations and finances. Not to mention potentially falling short of the statutory requirement to provide 180 days of education.[22]

This is especially so here, where the Applicant's own representations make clear that the Joint Proposal and the record fail to establish the nature of probable environmental impact. Specifically, in response to a discovery demand, the Applicant produced[23] an analysis entitled "Traffic Analysis for 1T to 5T Trenching Construction Condition in Support of Construction Permitting" dated April 2026 ("Traffic Analysis").[24] This purported Traffic Analysis was provided for the first time in May 2026.[25] The Applicant further states "these studies are being provided as responsive to the request, but the Applicant reminds the [the District] that Joint Proposal, Appendix D, Certificate Condition 39 requires the Applicant to provide detailed MPT plan(s) with the Project's EM&CP filings. These studies inform the MPT plan(s), which will be the culminating

[22] N.Y. Education Law § 3204.
[23] See New York Transco LLC's and New York Power Authority's Objections and Responses to Interrogatories/Document Request PNYE-NSCSD-1 ("PNYE-NSCSD-1"), which is appended hereto as Attachment 2.
[24] A copy of this Traffic Analysis has been appended hereto as Attachment 3. See also PNYE-NSCSD-1 at Applicant's Response to PNYE-NSCSD-1.1.
[25] Given the production of this Traffic Analysis just one week prior to the deadline imposed by the presiding officers in this matter to submit briefs in support or opposition of the Joint Proposal, and that discovery is ongoing in this proceeding pursuant to the Ruling on Process and Schedule issued May 12, 2026 (DMM Item No. 289), the District reserves its right to seek additional discovery and/or to seek the admission of this or other evidence into the record and reserves the right to seek cross-examination of any witness relative to the Traffic Analysis and/or other information or materials produced by the Applicant in response to pending discovery requests issued by other parties in this proceeding and/or that the within opposition be converted to a motion to dismiss.

work product for traffic control measures in light of current roadway conditions."[26] Notably, the referenced study was initially dated October 2025, and revised in April 2026. Remarkably, the Traffic Analysis does not consider any vehicular accident data and, as such, still falls short in determining the nature of probable environmental impact.

The Applicant's discovery response implies that, absent a formal discovery request, this study would not have been provided to the District, the Article VII parties, the Commission, or the public, prior to the Commission's determination regarding the Joint Proposal, despite having this analysis since at least October 2025, nearly six (6) months prior to the submission of a Joint Proposal. This is clearly not in the public interest.

While the Applicant has consistently tried to hide behind statements such as "not necessary for this stage of the permitting process,"[27] this study and the Applicant's response reveal critical information relevant to a finding of the nature of probable environmental impact. For instance, the Traffic Analysis references locations adjacent to schools as "sensitive locations."[28] With regard to work hour feasibility, the Traffic Analysis provides that "traffic safety and traffic flow were key considerations in evaluating constructability at study intersections."[29] Further, although the locations and dates of field observations were not specified, the Traffic Analysis notes that "for segments 3T, 4T and 5T, overall commercial vehicle traffic was relatively low and generally limited to deliveries, while school bus activity was comparatively high."[30] Further studies are necessary to quantify this non-specific finding.

[26] See Attachment 2, Traffic Analysis.
[27] *Id.*
[28] Traffic Analysis at 3.2
[29] *Id.* at 4.1.
[30] *Id.* at 3.4.4.

Further, the Applicant purports to have conducted "an analysis of the traffic impacts associated with the proposed construction activities along Shore Road in Glenwood Landing" (the "Glenwood Landing Analysis"). A copy of the Glenwood Landing Analysis is enclosed herewith as Attachment 4. While the analysis acknowledges "with the North Shore Middle School and North Shore High School in close proximity to the site, construction activities will aim to avoid significant impacts on school bus operations, student drop-off and pickup, and pedestrian access to any nearby bus stops near the Shore Road Substation, if any,"[31] it is completely silent as to the District's Transportation Facility located on Shore Road. The Glenwood Landing Analysis makes no mention of number of buses traversing on Shore Road in and out of the transportation facility or the times of peak activity surrounding the Transportation Facility. Further, the Glenwood Landing Analysis fails to identify any bus stops and thus does not evaluate potential impacts to the same. Astonishingly, the Glenwood Landing Analysis concludes "while *no adverse impacts are expected with the construction* at the National Grid property, temporary disruptions may occur intermittently."[32] This conclusion strains credulity for all of the reasons discussed herein. As previously discussed, a "temporary" impact is still an environmental and socioeconomic impact that must be accounted for. *How can the Applicant, the Commission, or anyone else evaluate and determine health and safety and traffic-related impacts for approval purposes without first analyzing the same?*

Without considering the District's Transportation Facility and bus stops where students will be standing at or near the ROW (which the Applicant elected to not include in its study), and without considering impact of the proposed Project upon essential roadways within the District

[31] Attachment 4, Glenwood Landing Analysis, at *7.
[32] *Id.* at *8.

utilized for student transportation and by emergency services to protect the health and safety of thousands of students and staff, and analyzing whether the same can be adequately mitigated, the record fails to establish the nature of probable environmental impact to the District's statutorily mandated educational and transportation operations and the health and safety of the District's students. As such, the Applicant has failed to meet its burden and the Joint Proposal should be rejected.

B. The Record Fails to Establish the Nature of Probable Environmental Impact Related to the Health and Safety of the Electromagnetic Fields Produced by the Terrestrial Transmission Cables within the North Shore Central School District.

The Joint Proposal includes a condition in the Proposed Certificate Conditions under "Section C. Public Health and Safety" that states as follows:

> The Certificate Holder shall design, engineer, and construct the Project such that the line is completely buried or otherwise protected and that its operation shall comply with the electric and magnetic field (EMF) guidelines and standards established by the NYSPSC in Opinion No. 78-13, issued June 19, 1978, and the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities, issued September 11, 1990, *or the NYSPSC's most recent electric and magnetic field guidelines and standards in effect at the time the NYSPSC grants the Certificate*.[33](emphasis added).

This Condition merely represents the Applicant's commitment to adhere to 36-year old standards related to electric and magnetic fields ("EMF"). The record appears to focus solely on compliance without consideration of the potential impact to the health and safety of those in close proximity to the transmission lines. The Applicant's Magnetic Field Simulation Report concluded

[33] See Joint Proposal, Appendix D: Proposed Certificate Conditions at Certificate Condition 20. The District submits that an immediate and timely review of these guidelines and standards should be undertaken by the Commission. With the advancement of technology and increase in infrastructure since 1990, it is essential that studies be undertaken for the interest of the public. The Commission must ensure that the health and safety of the public is not negatively affected by all projects, including this Project, before determining whether to grant a Certificate and most certainly before any project is implemented.

"that the contribution to the magnetic field environment from the proposed Project transmission lines are within the *allowable limits* at the edge of the Project rights-of-way (ROW)."[34] Notably, the Report does not even contain the words "safe", "safety", or "health", except for one citation to the National Institute of Environmental *Health* Sciences to provide a summary of common magnetic field sources, including toasters and washing machines.

In response to the District's informal discovery request for "an updated Table 3-1: Summary of Terrestrial Cable Magnetic Field Cases that accurately portrays the current cable installation configurations and includes all case studies to date," the Applicant provided Table 7a-1: Summary of Terrestrial Cable Magnetic Field Cases, providing 24 cases studies which are representative of the expected EMF levels based upon different cable configurations.[35] However, these studies do not reflect actual EMF measurements at or around school properties, along bus routes, pedestrian walkways, or bicycle paths where the District's students are located.

In response to an Interrogatory seeking to understand if the Applicant will analyze post-installation electromagnetic fields at or around the North Shore Middle School, where a transmission cable is proposed immediately adjacent to the school building and property, the Applicant responded "as outlined in Joint Proposal, Appendix D, Condition 20(b), following construction, the Applicant shall conduct four magnetic field measurements in a transect across the transmission facility."[36] As currently proposed, the Applicant will only be required to conduct measurements at four (4) locations of approximately 80.4 miles of new underground terrestrial transmission lines.[37] As such, even once completed and energized, the *actual* EMF measurements

[34] See Joint Proposal, Evidentiary Record, Exhibit 7: Environmental Impacts (Exhibit 4, Appendix K of the Application).
[35] See Joint Proposal, Evidentiary Record, Exhibit 34 at page 38.
[36] PNYE-NSCSD-1 at Applicant's Response to PNYE-NSCSD-1.11.
[37] See also Joint Proposal, Appendix A: Description and Location at A-1.

and resulting compliance, or not, will not be established, let alone whether the EMF emanating from the transmission lines affect the health and safety of the District's students, staff, and school community. This is completely unacceptable. The public health and safety of its students is paramount to the District and must be maintained at all times.[38]

The record fails to establish that compliance with existing, antiquated standards equates to protection of human health and particularly the health of school-aged children. In fact, the Applicant's Proposed NYSPSC Findings make no mention of health and safety associated with the transmission lines. Without such analysis applied to the proposed Project, the Commission cannot make a finding of the probable environmental impact of EMF produced by the transmission lines. As a result, the District opposes the Joint Proposal and the Joint Proposal must be rejected.

Point II – The Joint Proposal Fails to Avoid or Minimize Adverse Environmental Impacts and, as such, Fails to Satisfy Public Service Law § 126(1)(c).

The Joint Proposal must be rejected because the Signatory Parties have failed to sustain their burden of proof under PSL § 126(1)(c). Under this statute, the Commission cannot grant a Certificate unless it explicitly finds and determines that the proposed Project avoids or minimizes to the extent practicable any significant adverse environmental impact. This determination must consider the state of available technology, the nature and economics of various alternatives, and other pertinent considerations. As noted above, the Joint Proposal and the record fail to establish the nature of probable environmental impact. Without an accurate finding and determination of the nature of the probable environmental impact, the Joint Proposal and the record necessarily cannot establish that it represents the minimum adverse environmental impact. In fact, the record evidence demonstrates that the proposed construction schedules and methodologies do not minimize traffic-

[38] See Zublionis Aff. at ¶¶ 33-36.

related and health-related impacts. Instead, they present severe, avoidable impacts to critical roadways utilized by the District and to the health and safety of the District's students, staff, and school community.

A. The Record Fails to Minimize Adverse Environmental Impacts Related to Traffic Impacts.

i. The Proposed Certificate Conditions Fail to Provide Enforceable Traffic-Related Mitigation Measures.

The Joint Proposal fails to avoid or minimize adverse impacts by creating severe traffic and safety risks around school properties. Construction activities will require prolonged lane closures, street blockages, and heavy vehicle mobilization in a densely populated area. These actions will severely disrupt school bus routes, student drop-off and pick-up zones, and pedestrian walking and bicycle paths—amongst others.

The Joint Proposal contains a series of subjective, unenforceable and/or ineffective Certificate Conditions allegedly related to the mitigation of impacts to District operations and defers the identification of specific and critical mitigation measures to the Maintenance and Protection of Traffic Plan (MPT Plan)[39] and the EM&CP stage. As an impacted and interested party, the District should not be forced to argue and re-argue its position at every stage and for each future plan or phase of this proceeding at the expense of the District and its taxpayers. Especially where, as here, there are known, identified impacts to the District and identified measures to mitigate those impacts. Should this Project move forward, notwithstanding the District's strong opposition, adequate, appropriate, and enforceable measures must be required to protect the health and safety of the District's students and staff and adequate mitigation methods

[39] Joint Proposal, Appendix D: Proposed Certificate Conditions at Condition 39(d).

implemented to ensure the District is able to carry out its statutory obligations in a safe and effective manner.

Specifically, as proposed, the Conditions require:

1. The Applicant to "consult with traversed school districts […] prior to the commencement of construction and the MPT Plan will reflect the outcomes of those consultations, including any traffic-related measures taken"[40] (emphasis added);
2. The Applicant to "use best efforts to coordinate its construction schedule with the local school districts to ensure that such construction operations will not interfere with the district's start and dismissal times and bussing schedules"[41] (emphasis added); and
3. "The EM&CP shall demonstrate that the Project will not prohibit safe access to any school district building, facility, or property at any time"[42] (emphasis added).

However, the Joint Proposal fails to define what it means to "consult" and/or what "best efforts" the Applicant must take. Further, "best efforts" is a subjective standard and is insufficient when it applies to the health and safety of students. Promised action, without any adequate enforcement mechanism, does not provide present assurances of student safety. Anything short of ensuring that the health and safety of District students and staff is maintained at all times, before, during, and after construction is unacceptable and should not be supported by the Commission

[40] *Id.*
[41] Joint Proposal, Appendix D: Proposed Certificate Conditions at Condition 39(e).
[42] Joint Proposal, Appendix D: Proposed Certificate Conditions at Condition 39(j).

under any circumstance. Importantly, the proposed Certificate Conditions provide no general recourse for the District should the Applicant's "best efforts" fail to mitigate severe disruption to the District's educational and transportation operations. Furthermore, a requirement to "consult" with the District does not equate to specific, enforceable mitigation measures that address the concerns that might be raised during that consultation. Again, the Certificate Conditions provide no enforcement mechanism should the Applicant fail to implement adequate traffic-related measures as a result of a consultation with the District.

Significantly, the Joint Proposal also fails to define "safe access". The District posits that safe access goes well beyond merely the ability to enter and exit District property and extends to the roadways around District property that are traversed by District buses and vans, student walkers and bicycle riders, parent vehicles, emergency vehicles, law enforcement, and fire-fighting vehicles in order to safely and timely reach both the front and back of the District's school buildings, especially in the event of an emergency.

By failing to identify the traffic-related mitigation methods the Applicant intends to employ around school properties and along major access roads leading to school properties, the Applicant has failed to establish the minimum adverse impacts to the District, its students and staff, and the school community. The Joint Proposal lacks specific, actionable protection(s) for school zones. This sizeable omission leaves children exposed to heightened traffic safety hazards, and poses an overall risk to students and staff should emergency vehicles not be able to timely access school buildings during the school day or during school events. This is not a mere inconvenience. Because the project needlessly and significantly disrupts school operations and compromises the health and safety of students and staff, the District strongly opposes the Joint Proposal. The Commission

cannot make the mandatory findings under PSL § 126(1)(c) and, as a result, the Joint Proposal must be rejected.

ii. The Proposed Certificate Conditions Fail to Define "Safe Access" and, as such, Fails to Avoid or Minimize Adverse Environmental Impacts.

As noted above, the Joint Proposal includes a proposed Certificate Condition that "the EM&CP shall demonstrate that the Project will not prohibit safe access to any school district building, facility, or property at any time."[43] In this regard, coordination around start and dismissal times, as later suggested in the Joint Proposal, is insufficient. Buses, cars, pedestrians, bicyclists, and emergency vehicles must be able to safely access District property *at all times*.

The necessity that safe access to the District's buildings, facilities, and properties be maintained at all times cannot be understated and cannot be deferred to the EM&CP phase. The Joint Proposal provides no enforceable mechanism to ensure that the District's property can be timely accessed by emergency services in the event of an emergency. This is simply unacceptable.

For example, as discussed *supra*, the Applicant does not have final plan drawings currently anticipating cable locations within the ROW and indicates such is not necessary at this stage of the permitting process.[44] However, this level of detail is *necessary* to ensure that safe access is maintained at all times. It is impossible to assess how access will be maintained should cable installation occur in the ROW closest to the District's property and at the District's driveways and curb cuts.

The Joint Proposal contains the following proposed Condition:

> Certificate Holder will require construction personnel to restore driveways or, if no driveway, front entryways, where such access is impacted by ongoing construction activities promptly upon good

[43] Joint Proposal, Appendix D: Proposed Certificate Conditions at Condition 39(j).
[44] PNYE-NSCSD-1 at Applicant's Response to PNYE-NSCSD-1.9.

> faith request and assertion of immediate need for such access of the person owning or occupying such property and, in any case, within 15 minutes of such request. Similarly, Certificate Holder shall require construction personnel to restore the driveway or, if no driveway, front entryway access to each terrestrial property impacted by ongoing construction activities each day before ending construction activities for that day.[45]

However, this Condition does not ensure immediate, safe access to the District's entrances and exits while construction is ongoing, particularly during an emergency. A delay of 15 minutes to restore access to emergency vehicles and personnel during a life-safety event is not only unacceptable, it is irresponsible.[46] The Joint Proposal fails to establish how restoration is to occur. To the extent metal plating will be utilized, the Joint Proposal fails to establish that the same is rated and adequate to support fully loaded and fueled buses or fully loaded and fueled emergency and fire-fighting vehicles. Similarly, the roadways in front of the District's school building and facilities must remain open for emergency access and/or emergency evacuations.[47] Any delay, let alone one of 15 minutes, is unacceptable and could be the difference between life and death. In a school environment, every second counts.[48] Allowing construction near school buildings to occur between 10:00 a.m. and 2:00 p.m., as noted below, does not alleviate the District's concerns regarding access to its buildings and facilities during the day.[49]

As proposed, the Joint Proposal lacks the specificity needed to ensure that the Project poses the minimum adverse impact to the District's transportation operations and to the health and safety of the District's students and staff. Instead, this Project poses *major* adverse environmental impacts. As such, the District strongly opposes the Joint Proposal and submits it must be rejected

[45] Joint Proposal, Appendix D: Proposed Certificate Conditions at Condition 39(k).
[46] See Zublionis Aff. at ¶ 53.
[47] *Id.* at ¶ 54.
[48] *Id.* at ¶¶ 53-55.
[49] *Id.* at ¶ 56.

as it fails to avoid or minimize adverse environmental impacts as required by PSL § 126. In the event that the Commission does not reject the Joint Proposal over the District's strong opposition, it is submitted that the Joint Proposal should prohibit construction at the District's curb cuts, requiring cables to be installed in the ROW furthest from District property and, further, installation of the transmission cables should be confined to the summer months, or late night hours with no lane closures during the school day, in close proximity to District properties in an effort to protect the health and safety of the District's students, staff, and school community. Anything short of this is unacceptable.

iii. The Proposed Certificate Conditions Fail to Provide Adequate Traffic-Related Mitigation Measures.

The Joint Proposal claims that "the Certificate Conditions impose several elevated restrictions and requirements on the Applicant to minimize roadway and traffic impacts."[50] Included in these purported "elevated restrictions," the Joint Proposal highlights that "the Applicant committed to limit construction around school buildings to certain times of the day where bus traffic is not typical."[51]

Specifically, the proposed Certificate Conditions provide:

> Unless otherwise authorized by the governing land use agreement or permit, construction and scheduled maintenance work within 300 feet of a school building or facility shall be confined to 10:00 am to 2:00 PM and 7:00 PM to 5:00 AM when regular school operations are in session Monday through Friday. Standard construction windows control on weekends and when regular school operations are not in session […].[52]

[50] See Joint Proposal Narrative (DMM Item No. 284) at 51.
[51] *Id*. at 52.
[52] See Joint Proposal, Appendix D: Proposed Certificate Conditions at Condition 66.

However, such limitations applying only to construction within 300 feet of a school building or facility does very little, if anything, to alleviate the anticipated safety and traffic impacts related to construction.[53] Similarly, confining construction times to "10:00 am to 2:00 PM and 7:00 PM to 5:00 AM when regular school operations," does not mitigate impacts to the District if access to the District's school building and Transportation Facility is disrupted at any time.[54] For example, and as stated above, the District's transportation facility is located at 340 Shore Road, Glenwood Landing, New York. As currently proposed, two underground transmission lines are proposed to be installed in the ROW of Shore Road, passing in front of and extending on either side of the Transportation Facility's entrance/exit. As noted, the District's entire transportation operations are conducted from this Facility[55] – meaning buses and vehicles must be able to safely and timely enter and exit the Facility at all times throughout the day.

Given the geographic boundaries of the District and the location of its Transportation Facility, most District buses and vehicles enter and exit the property from the South. Measuring 300 feet from the southernmost portion of the Transportation Facility property falls short of even the nearest corner at Glenwood Road.[56] Glenwood Road is another major thoroughfare to and from the transportation facility.[57] Thus, there is little to no practical effect of proposed Certificate Condition 66 as it relates to the District's Transportation Facility.

In addition, the North Shore High School and North Shore Middle School are located at 450 Glen Cove Avenue Glen Head, New York and 505 Glen Cove Avenue, Glen Head, New York, respectively. Glen Cove Avenue is a major access road to both of these school properties and is

[53] See Zublionis Aff. at ¶ 41.
[54] *Id.* at ¶ 56.
[55] *Id.* at ¶ 43.
[56] *Id.* at ¶ 44.
[57] *Id.* at ¶ 20.

also the proposed location for an underground transmission line.[58] Similarly, a measure of 300 feet from the southernmost portion of the North Shore Middle School falls short of any major intersection, which will allow construction elsewhere on these major roads without consideration of the District's operations.[59] Again, there is little to no practical effect of proposed Certificate Condition 66 as it relates to the District's High School and Middle School.

The District's transportation operations rely on succinct routing and scheduling. The arrival and dismissal times of the District's elementary, middle, and high schools are intentionally staggered and utilize the same buses for the transportation of students to and from school. For example, in the morning a bus driver will begin its High School/Middle School route to pick up students and drop them at their respective schools. Thereafter, the same bus driver will then begin the elementary school route. The afternoons follow the same sequence. Any delay in the mobilization or return of the District's transportation fleet or any delay in the length of time of a bus route due to construction activities will have chain reaction effect resulting in compounded delays, elongated bus route times, disruption to the students' educational programs, and the potential need for additional buses and drivers to alleviate such disruptions.[60] This undoubtedly will cost the District, and in turn, its taxpayers. The District's taxpayers should not bear the financial burden of this Project.

Similarly, confining construction times to "10:00 am to 2:00 PM and 7:00 PM to 5:00 AM when regular school operations are in session," does not mitigate impacts to the District if, for example, access to the District's Transportation Facility, the Middle School or the High School is

[58] *Id.* at ¶ 40.
[59] *Id.* at ¶ 41.
[60] *Id.* at ¶ 25.

disrupted at any time. Emergency vehicle access, a critical life-safety requirement, must be available at all times, which includes between 10:00 a.m. and 2:00 p.m. on school days.[61]

Interestingly, the Applicant acknowledges the impact to the District in its responses to discovery requests. Specifically, the Applicant indicated that work on Glen Cove Avenue, North of Glenwood Road "will be sequenced to occur in the summer months as the Applicant understands this segment of road is a primary pathway to access both the NSCSD Middle and High Schools."[62] Indeed, anything other than limiting construction to summer months would therefore fall short of the requirement to "*avoid or minimize*" the environmental impacts.

Thus, the Applicant has conceded that construction schedules can be sequenced in such a way to avoid construction on major access roads to the District's school buildings and facilities during the school year, limiting such construction to summer months when regular school operations are not occurring. In fact, the Applicant previously made similar concessions during a public webinar hosted by the Applicant on June 25, 2025, during which a representative for the Applicant noted that to avoid conflicts with school operations there is an opportunity to work during off-hours or off-season during the summer.[63] This limitation, while not eliminating the District's concerns, could serve to mitigate potential impacts to the District far more than proposed Condition 66. Regardless of limitations of construction activities to certain daytime or even late night hours, the impacted roadways near and around the District's school buildings must be

[61] *Id.* at ¶ 56.
[62] PNYE-NSCSD-1 at Applicant's Response to PNYE-NSCSD-1.8.
[63] The Applicant provided the video recording of the June 25, 2025, 6:00 p.m. Community Webinar hosted by Propel NY Energy in response to the District's discovery demands. See PNYE-NSCSD-1 at Applicant's Response to PNYE-NSCSD-1.12.

restored fully when construction is not occurring. Any lane closures or detours, even without active construction, serve to create the same critical emergency access concerns raised herein.[64]

However, the Joint Proposal fails to make the commitment to sequencing construction on major access roads to the District's school buildings and facilities during the summer months or late-night hours. Yet, the Joint Proposal commits to certain time of year restrictions for construction to avoid impacts to, for example, parks, the Atlantic and shortnose sturgeon, and Northern long-eared bats, etc.[65] Exceptions to construction times and enforceable commitments to the same have been made for parks, sea life, and animal species, *but not for students*. The Commission should require that the Joint Proposal is more attentive to the health and safety of the District's children and staff as it is to local wildlife, not less. There is no acceptable excuse to avoid undertaking all necessary measures to protect the health and safety of children, which includes all school-aged children in the District.

Based upon the foregoing, the District's strenuously opposes the Joint Proposal because the Joint Proposal and the record before the Commission outrightly fails to avoid or minimize adverse environmental impacts, especially in light of the Applicant's representation above, and as a result must be rejected. In the event that the Commission does not reject the Joint Proposal and issues a Certificate over the District's strong opposition, it is submitted that, at a minimum, the Certificate Conditions should include enforceable provisions limiting the terrestrial cable construction on Glen Cove Avenue, North of Glenwood Road and Shore Road to the summer months or late night hours as described above, when regular school operations are not occurring.

[64] See Zublionis Aff. at ¶ 57.
[65] See, e.g., Joint Proposal, Appendix D: Propose Certificate Conditions at Conditions 65 and 74.

B. The Proposed Route Fails to Avoid or Minimizes Adverse Environmental Impacts.

As currently proposed, and noted above, the sole entrance/exit District's Transportation Facility will be surrounded by construction-related activities on Shore Road.[66] According to the Applicant, "it is projected that installation of the vaults, manholes, and duct bank will last approximately 5 to 6 months for the portion of the Project located within Shore Road (Segments 3 and 4) […] it is projected that splicing and cable pulling within Shore Road for Segments 3 and 4 will last approximately 4 to 6 months."[67] As such, the Transportation Facility, and as a result the District's entire transportation operation and, in turn, educational operations, will be severely impacted by numerous months of construction.[68] Further, as noted above, the current proposed Certificate Conditions provide very little to no protection and mitigation measures at or near the Transportation Facility. The consequence is devastating to the District.[69]

As originally proposed, the Project was to install three (3) underground transmission lines along Glenwood/Glen Head Road.[70] The Applicant subsequently modified Segment 5 to avoid Glenwood/Glen Head Road and, as a result, Shore Road, by utilizing Kissam Lane "to respond to a request for reduced magnetic field impacts along Glen Head Road."[71] Thus conceding a viable alternate route (and potential for EMF impacts), avoiding Shore Road, for the transmission cable to reach the New Shore Road Substation. The Applicant claims that it retained this route as a viable

[66] See Zublionis Aff. at ¶ 18.
[67] PNYE-NSCSD-1 at Applicant's Response to PNYE-NSCSD-1.4.
[68] See Zublionis Aff. at ¶ 21.
[69] *Id.*
[70] See generally, Joint Proposal, Evidentiary Record, Exhibit 5: Location of Facilities (Exhibit 2 of the Application, together with all subsequent revisions).
[71] See Joint Proposal Summary at 3.

alternative because "it would minimize route complexity, costs, schedule, and impacts to the surrounding area"[72] and ultimately modified the proposed Project route to include this alternative.

The Applicant further claims that Segments 3 and 4 require utilization of Glenwood Road and Shore Road to approach the Shore Road Substation from the West due to the location these Segments will interconnect with the Substation.[73] Beyond this conclusory statement, the record fails to reflect why Segments 3 and 4 could not be routed differently to "minimize route complexity, costs, schedule, and impacts to the surrounding area" or why the cable route could not be accomplished within the Substation property to reach its required destination.

The Applicant's "convenience" should not override the District's ability to fulfill its statutorily mandated transportation operations and educational responsibilities to thousands of students at the expense of the District's taxpayers and, more importantly, not at the expense of the health and safety of the District's students and staff. For these reasons, the District strongly opposes the Joint Proposal and submits that the Joint Proposal should be rejected.

C. The Record Fails to Avoid or Minimize Adverse Environmental Impacts Related to Other Environmental Impacts to the District, its Students, and its Educational Programs.

The Joint Proposal utterly fails to minimize community impacts. The proposed open-trench construction method will, among other things, deploy heavy machinery, generate extreme noise, and create substantial fugitive dust. This disruptive activity will occur immediately adjacent to active school buildings and recreational areas where school-aged children are regularly located. These impacts will directly compromise the learning environment and jeopardize the health and

[72] See Joint Proposal, Exhibit 6: Alternatives (Exhibit 3 of the Application, together with all subsequent revisions and supplements) at 3.5.1.5.2.
[73] *Id.*

safety of students. Furthermore, the record shows that the Applicant's construction schedule fails to avoid or even consider peak academic periods or activities, for example, testing periods, outdoor recess and/or physical education programs, indoor/outdoor school events, including extracurricular and sporting events and activities. To the contrary, the proposed schedule directly places students in harm's way. This failure will inevitably force students and faculty to endure months, if not years, of avoidable disruption, the loss of which can never be fully quantified. By failing to require a construction timeline restricted to summer months or non-school hours, which do not impact educational programs and events, the Joint Proposal fails to minimize the project's human environmental impact.

The Joint Proposal acknowledges the need for certain mitigation measures required during construction activities, but yet again defers the identification of such measures until the EM&CP phase. The health and safety of the District's students should be of paramount importance and not an afterthought deferred to some later, post-certification phase without robust and binding Conditions to inform the EM&CP. Again, specific measures have been incorporated for the protection of other species and properties; school-aged children should certainly not be given less deference.[74] This must not be countenanced or allowed by the Commission.

i. Fugitive Dust.

The Joint Proposal contains a single proposed Certificate Condition to address fugitive dust from construction activities as follows:

> The Certificate Holder shall take appropriate measures, as outlined in the EM&CP, to minimize fugitive dust and airborne debris from construction activities. Except where such activities may create ice, exposed soils and roadways shall be wetted as needed during extended dry periods to minimize dust generation. To the extent

[74] See, e.g., Joint Proposal, Appendix D: Propose Certificate Conditions at Conditions 65 and 74.

> practicable, water for dust control shall come from municipal water supplies/sources and measures must be taken to prevent water, dust control substances, debris, sediments, or other substances from entering any catch basins, manholes, or storm sewers.[75]

This Condition, like others, does not provide binding, enforceable conditions upon the Applicant to protect the health and safety of the District's students and staff. As noted above, the underground transmission cables are proposed to be installed adjacent to the District's Middle School the District's Transportation Facility and along major roadway running through the District that serve as drop-off and pick-up points for students being transported to and from school by the District and that are traversed by District vehicles, parents, pedestrians and bicyclists.

The Joint Proposal provides no information as to how fugitive dust and airborne debris from construction activities will be managed, especially near bus stops and/or the District's buildings, fields and playgrounds. The Joint Proposal provides no method by which to test fugitive dust and airborne debris for contaminants to inform the required level of mitigation efforts. The Joint Proposal provides no mechanism by which the District can stop work should fugitive dust and airborne debris encroach upon District properties or impact a student's ability to safely wait at their bus stop. Instead, the Joint Proposal relies on the EM&CP phase to "specify appropriate measures that will be used to minimize fugitive dust and airborne debris from construction activity."[76]

The Joint Proposal limits construction within 300 feet of a school building or property to between 10:00 a.m. and 2:00 p.m. These hours directly coincide with the District's physical education programs, recess times, and lunch times, that often occur outside, weather permitting.

[75] See Joint Proposal, Appendix D: Certificate Conditions at Condition 99.
[76] See Joint Proposal, Appendix E: Specifications for Development of Environmental Management and Construction Plan at A(15).

Students cannot be outside if fugitive dust is present or lingering. Further, stopping construction at 2:00 p.m. does not guarantee that fugitive dust and airborne debris from construction activities has fully dissipated by the time students are exiting school buildings to load on to buses.[77]

In addition, the record fails to include any study or documentation to adequately and appropriately address how fugitive dust will be addressed near highly sensitive locations, such as the schools located within the District, or how any contaminated soil and related dust particles encountered will be handled near highly sensitive locations. Without even a basic mitigation plan or an enforceable Condition, the Joint Proposal fails to establish the minimum adverse impact to the health and safety of the District's students, staff, and school community related to fugitive dust and airborne debris associated with construction activities. The Applicant should not be allowed to shield itself from enforceable conditions with the hope that these issues "may" be addressed during a later phase down the road. The District's students deserve better. The District's school community and the taxpayers deserve better. For these reasons, the District strongly opposes the Joint Proposal and submits that the Joint Proposal should be rejected.

ii. Noise.

The Joint Proposal contains various proposed Certificate Conditions pertaining to noise and sound levels related to the construction and operation of Substations.[78] As it relates to terrestrial cable construction, the Joint Proposal contains a single Condition that states: "The Certificate Holder shall implement construction noise mitigation measures set forth in the EM&CP."[79] The Joint Proposal notes that "installation of any portion of the Project outside of

[77] See Zublionis Aff. at ¶ 67.
[78] See Joint Proposal, Appendix D: Certificate Conditions at Conditions 51
[79] *Id.* at Condition 68.

NYC that relies on trenchless technology may be performed on a 24-hour, 7 days a week basis" and mentions a "Construction Noise Control Plan appended as Appendix I to these Certificate Conditions."[80] Appendix I to the Joint Proposal contains a theoretical framework of what Construction Noise Control Plan will be implemented at the EM&CP stage, but again leaves the details of any identification and mitigation of potential impacts to school-aged children to post-certification.[81] In this respect and others, the Joint Proposal treats impacted entities and species disparately.

For example, specific to the avoidance and protection of bald eagles, the proposed Certificate Conditions indicate that "if the bald eagle(s) show signs of distress due to noise associated with the work, then all work, except as necessary for protection of human life or property necessary to maintain grid reliability, must immediately cease."[82] As it relates to construction noise around school buildings that will impact educational programs and student activities, the Joint Proposal is essentially silent. Although the Conditions require the Applicant to "coordinate its construction schedule with a traversed school district to minimize interfere to the *maximum extent practicable* with school district operations,"(emphasis added)[83] the Joint Proposal fails to define the "maximum extent practicable", another subjective standard without any enforcement mechanism available to the District should construction-related noise negatively impact the District's educational programs.[84]

Students are highly susceptible to stress from noisy environments, repetitive noise and distracting noise. Allowing construction near school buildings during the day between 10:00 a.m.

[80] *Id.* at Condition 71.
[81] See Joint Proposal, Appendix I: Construction Noise Control Plan Scope of Work.
[82] See Joint Proposal, Appendix D: Proposed Certificate Conditions at Condition 74(b)(iii)(4).
[83] *Id.* at Condition 66.
[84] See Zublionis Aff. at ¶ 72.

and 2:00 p.m. does nothing to alleviate this concern and will only serve to distract and disrupt active educational programs.[85]

Without restricting construction activities in close proximity to school buildings to times when school is not in session, the Joint Proposal fails to establish that the Project reflects the minimum adverse environmental impact. At the very least, should this Project move forward over the District's strong opposition, the Applicant should be required to avoid construction activities during the school year and most certainly during any testing periods, State mandated testing dates, and school events. For these reasons, the District strongly opposes the Joint Proposal and submits that the Joint Proposal should be rejected. The public interest surely cannot be students trying to learn with major construction occurring right outside their windows for months, if not years. *What happens if the District's students or staff show signs of distress due to noise associated with the work?*

iii. Utility Outages.

The Joint Proposal acknowledges the need to "coordinate with relevant utilities […] to minimize outages and to discuss appropriate notice to be provided to end-use customers" and, further provides *after* a Certificate is issued "the Certificate holder will begin the process of consulting with relevant utilities regarding the Project's construction schedule to, among other things, coordinate system outage requirements, if any, and avoid or minimize conflicts with relevant utilities' internal construction programs."[86]

[85] *Id.*at ¶ 71.
[86] See Joint Proposal, Appendix D: Proposed Certificate Conditions at Condition 96.

The Joint Proposal requires coordination with relevant utility companies to avoid or minimize conflicts with the utilities' internal construction programs, while only requiring "appropriate notification", whatever that shall mean, to the end-use customers.

The District is prohibited from operating if there is a disruption to its utility services, including electric, water, and sewage.[87] As such, the District asked the Applicant: "How will the Applicant prevent disruption or interruption to any and all utility services to the North Shore CSD's school buildings, facilities, and properties during construction activities?" The Applicant responded that "based on the Applicant's extensive research, survey, and coordination with co-located infrastructure owners, it is the Applicant's position that [we] have minimized the potential for unforeseen damage to existing infrastructure. Although highly unlikely that any school-owned infrastructure (i.e., a sidewalk) at or near the ROW will be damaged by the construction of the Project, if school-owned infrastructure is damaged, it will be replaced in kind."[88]

The Applicant, like the Joint Proposal, completely misses the mark. While damage to a sidewalk or any other damage to school property caused by the Project (should it move forward) should certainly be replaced in kind by the Applicant, the Joint Proposal fails to address outages, disruption, or interruption to any and all utility services required to keep the District's school buildings, facilities, and properties operating safely during construction activities should the Project move forward over the District's strong opposition. *Any* disruption could result in an emergency condition resulting in building closures, necessitating evacuation and interruption to the District's educational programs.

[87] See New York Education Law § 409; see also 8 NYCRR Part 155.
[88] PNYE-NSCSD-1 at Applicant's Response to PNYE-NSCSD-1.2.

At all times the District must operate and maintain critical life-safety equipment such as smoke detectors and fire alarms; safely light interior corridors and staircases; maintain State-regulated temperatures in classrooms; maintain fresh air ventilation in classrooms; maintain food safety through refrigeration and warming; and maintain refrigeration for student medications. The District cannot operate under uncertainties, nor can it take risks with students' health and safety.[89] The Applicant must not be allowed to compromise these life-safety systems as part of its construction operations.

Once again, these impacts are reduced, not eliminated, by confining construction activities near school buildings to summer months or evening hours when regular school operations are not in session as noted above. Even during summer months, year-round staff are on site performing deep cleaning, systems maintenance, building repairs, basic construction projects, groundskeeping, clerical activity, etc. Without consideration of these impacts and coordinated construction schedules to minimize the potential for utility outages or, at a minimum, providing appropriate monitoring and notification to the District, the Joint Proposal fails to establish the Project results in the minimum adverse environment impact and, as a result, the District strongly opposes the Joint Proposal and submits that it must be rejected.

iv. EMF Exposure.

As noted above, based upon the record, the Commission is unable to make a finding of the nature of probable environmental impact associated with EMF produced by the underground transmission cable. Even if it were, the Joint Proposal fails to avoid or minimize adverse environmental impacts associated with EMF.

[89] See Zublionis Aff. at ¶¶ 59-62.

The District inquired of the Applicant, where in the ROW the transmission line will be installed on Kissam Lane, adjacent to the North Shore Middle School. The Applicant responded that "[the Applicant] does not have final plan drawings of the currently anticipated cable locations within Kissam Lane adjacent to the North Shore Middle School, nor is that necessary for this stage of the permitting process."[90]

Yet again, the Applicant defers to establish critical information relevant to the environmental impact, and instead relies on "the NYSPSC has regularly and recently issued CECPNs for other major electric transmission projects—both terrestrial and submarine—with the same level of detail and accepted that final centerline information and plan drawings will be provided during the EM&CP process."[91] Just because the Commission may have approved projects elsewhere lacking specificity, does not mean the same should be done here, where a public school district has sought party status to ensure that impacts to the District, its students, staff, and school community are identified and appropriately mitigated – *the very purpose of an Article VII proceeding*. It should further be noted that the size and magnitude of this Project cannot be ignored or compared with other Article VII projects that are not substantially similar, located in densely populated areas, on two-lane roads, and directly located near and/or adjacent to school facilities that serve and are responsible for the health and safety and education of thousands of students.

Without assessing where in the ROW the transmission line will be installed, particularly in relation to the ROW adjacent to school property, including its fields, playgrounds, pedestrian walkways and bicycle paths where students access and are frequently located, the Joint Proposal fails to establish the minimum adverse impact. For these reasons, the District strongly opposes the

[90] PNYE-NSCSD-1 at Applicant's Response to PNYE-NSCSD-1.9.
[91] *Id.*

Joint Proposal and submits that the Joint Proposal should be rejected. In the event that the Commission does not reject the Joint Proposal and issues a Certificate over the District's strong opposition, at a minimum, the Applicant should be required to install the transmission cable at the point in the ROW furthest from the District's property.

POINT III – The Joint Proposal Fails to Establish that the Project will "Serve the Public Interest, Convenience, and Necessity" and, as such, Fails to Satisfy Public Service Law § 126(1)(h).

For all of the reasons outlined above, the Commission cannot find that the Project will serve the public interest, convenience, and necessity as required by PSL § 126(1)(h). The severe, unmitigated impacts to the District, its students, staff, school community, and taxpayers are not a mere inconvenience and pose serious health and safety concerns.

Outdated and antiquated EMF standards do not provide assurances for the protection of human life associated with the inevitable increase of cumulative EMF produced by the transmission lines at and near school property and student drop-off/pick-up locations. Gridlock near school facilities or construction at the entrances of District property poses an unacceptable risk to emergency life-saving vehicle access (fire, police, ambulances) during the school day and during school events. Unmitigated traffic that forces longer bus routes and/or re-routing of buses creates unbudgeted operational costs for the District (e.g., additional driver hours, fuel, or contract modifications) to be borne by the District's taxpayers. Traffic congestion leading to widespread student and staff tardiness, impacting instructional times, directly impairs the District's ability to fulfill its state-mandated educational mission and will negatively impact the District's educational and instructional programs, the result of which can never be fully quantified. Unmitigated construction-related fugitive dust and noise will negatively impact student's learning, testing, and

outdoor educational activities. Unmitigated utility outages will disrupt the District's ability to safely maintain and operate its buildings forcing closures and/or evacuations.

The above consequences of the Project, individually and collectively, do not represent the public interest, convenience and necessity. Quite the contrary. Since the Joint Proposal cannot satisfy PSL § 126(1)(h), the District strongly opposes the Joint Proposal as the Joint Proposal is not in the public interest and, therefore, the Commission must reject the Joint Proposal.

POINT IV – The Commission Must Reject the Joint Proposal Because it Relies on a Flawed Settlement Process that Evades Statutory Mandates, Subverts Robust Public Participation, and Shields Critical Details from Public Scrutiny.

In this matter, a Notice of Impending Settlement was issued by the Applicant on March 28, 2025.[92] A Second Notice of Impending Settlement was issued by the Applicant on April 7, 2025.[93] The Notice asserts that settlement discussions "will encompass any and all issues concerning the issuance of the requested Certificate of Environmental Compatibility and Public Need pursuant to PSL Article VII that, if not resolved via settlement, would trigger the need for an evidentiary hearing."[94]

According to the Applicant, the following parties participated in settlement discussions[95]:

- New York Transco LLC;
- New York Power Authority;
- New York State Department of Public Service;
- New York State Department of Environmental Conservation;
- New York State Department of State;
- New York State Department of Transportation;
- New York State Department of Agriculture and Markets;
- Consolidated Edison Company of New York, Inc.;
- Long Island Power Authority;
- PSEG Long Island;

[92] Notice of Impending Settlement, March 28, 2025 (DMM Item No. 97).
[93] Second Notice of Impending Settlement, April 7, 2025 (DMM Item No. 111).
[94] *Id.* It should be noted that there has been no waiver of an evidentiary hearing or cross examination, or the need for the same.
[95] See Joint Proposal Narrative, April 30, 2026 (DMM Item No. 284).

- City of New York;
- Town of Oyster Bay;
- Town of Hempstead;
- Town of North Hempstead;
- Village of Sea Cliff;
- North Shore Central School District;
- Roslyn Union Free School District;
- Syosset Central School District;
- Iroquois Gas Transmission Systems, L.P.;
- Long Island Commercial Fishing Association;
- Gold Coast Business Association;
- Greenvale Civic Association;
- Glen Head – Glenwood Civic Council;
- Gladsky Commercial Marine, Inc.;
- Property Owners' Association of North Shore Acres;
- Sutton Manor Association;
- Protect Our Coast (POC) LINY, Inc.;
- Self-Consolidated Parties (consisting of Matthew Abraham Eldred, Esq., the Papiro Parties, Christine Panzeca, Douglas Augenthaler, John Laliotis, and Rocco Romito);
- Beth Costello;
- Ceceilia McCann;
- Daniel McAcree;
- Lori Ruggiero;
- C. Michael Monahan;
- Caren Riskin;
- Joan Matthews;
- Jennifer Mahoney;
- Karen Yanelli;
- Maryann Hojnowski;
- Michael Batel;
- Stacey Richardson;
- Linda and Any Delguadio; and
- R. McMahon

Ultimately, a Joint Proposal, was submitted on April 30, 2026. The Joint Proposal is signed by[96]:

- New York Transco LLC;
- New York Power Authority;
- New York State Department of Public Service;
- New York State Department of Environmental Conservation;

[96] *Id.*

- New York State Department of State;
- New York State Department of Transportation;
- New York State Department of Agriculture;
- City of New York;
- Long Island Commercial Fishing Association; and
- Ms. Cecelia McCann.

The Signatories account for ten (10) of the forty-two (42) entities who participated in settlement, the majority of which do not reside in or near the District and have no personal connection to or understanding of the daily obstacles faced within the boundaries of the District as it relates to roadways, busing, scheduling, educational programs, instructional programs, or the expenses and financial resources, or lack thereof, associated therewith.

The Commission's Settlement Guidelines purport that "the rights of interested parties to participate fully in shaping a settlement agreement must be protected." [97] The Guidelines further state that "it is necessary to have available for our review as complete a record as feasible, setting forth the positions of each major party." The term "major party" is not defined. Is a major party a State agency or Authority? Or is a "major party" one who is significantly impacted by the Application and proposed Project? The District respectfully suggests that it should be the latter and that the District, as a party seeking to protect the health, safety, and education of the thousands of students for whom it is responsible, is in fact a "major party." A major party which opposes the Joint Proposal.

Importantly, parties participating in settlement discussions are held to strict confidence in accordance with 16 NYCRR § 3.9, which in relevant part states:

> Confidentiality of settlement discussions. No discussion, admission, concession or offer to stipulate or settle, whether oral or written, made during any negotiation session concerning a stipulation or settlement shall be subject to discovery, or admissible in any

[97] Re Procs. for Settlement & Stipulation Agreements, No. 90-M-0255, 1992 WL 487888 (Mar. 24, 1992) at Preamble.

> evidentiary hearing against any participant who objects to its admission. Participating parties, their representatives and other persons attending settlement negotiations shall hold confidential such discussions, admissions, concessions, and offers to settle and shall not disclose them outside the negotiations except to their principals, who shall also be bound by the confidentiality requirement, without the consent of the parties participating in the negotiations.

As such, although interested parties are encouraged to participate in good faith to learn and understand the magnitude of the Project and its potential impacts, the very nature of the settlement process hides key details from the public and prevents a non-signatory party from revealing any discussions it may have been a part of, including unsuccessful attempts to shape the settlement. Settlement should not be used as a shield to protect the Applicant from factual information necessary for the Commission to render a determination and for the public to be adequately informed. The District submits that the genesis of the established Settlement Guidelines does not support this interpretation.

Although the Settlement Guidelines direct that "in judging a settlement, the Commission shall give weight to the fact that a settlement reflects the agreement by normally adversarial parties,"[98] the Joint Proposal should be reviewed to the highest degree of scrutiny because the process through which it was developed produced an incomplete and biased evidentiary record while excluding the public and, more specifically, the communities who will be most greatly impacted by the Project. The Commission cannot ignore the number of parties who have not signed the Joint Proposal, for reasons that may be shielded by confidentiality and unknown to the Commission.

[98] *Id.* at F(1)(b).

The Commission's obligation under Article VII is not merely to ratify agreements reached among "selected" settlement participants, but to determine whether the proposed Project is in the public interest based upon a comprehensive and balanced evidentiary record. The Joint Proposal process in this proceeding utterly fails to satisfy that standard. This is particularly evident where, as discussed above, the Applicant withheld critical and relevant information, such as the Traffic Analysis during settlement discussions, only to release it after a Joint Proposal was submitted. It begs the question: how much additional critical and relevant information is the Applicant in possession of that the District, the Article VII parties, the Commission, and the public are not privy to "at this stage of the permitting process"?

For nearly a year, intensive discussions occurred behind closed doors among a limited group of parties. During that period, substantive discussions concerning routing, environmental impacts, mitigation measures, and permit conditions[99] were conducted outside the public record. Thus, the public is presented with an alleged "finished product" put together by the Applicant and other Signatories, rather than a transparent decision-making process. This could not and should not be the final product. Similarly, the record before the Commission reflects primarily the negotiated outcome rather than the underlying evidence, assumptions, disagreements, and alternatives that informed that outcome. This is not and was not the basis for the implementation of the Settlement Guidelines, nor the spirit and purpose of the Article VII process.

For these reasons, the District vehemently opposes the Joint Proposal and the very process that led to it. The District respectfully requests that the Joint Proposal be rejected.

[99] See, Joint Proposal Summary (DMM Item No. 287) at 2-4.

CONCLUSION

For all of the foregoing reasons, the District strongly opposes the Joint Proposal and respectfully urges the Public Service Commission to reject the Joint Proposal as presented. The evidentiary record before the Commission fails to establish that the Joint Proposal is in the public interest as it fails to adequately quantify, mitigate, or avoid impacts to the District and is a product of a flawed settlement process shielded from the public. In addition, the Commission will impose a confiscatory burden upon the District, causing irreparable harm, by approving a Joint Proposal that fails to appropriately and adequately mitigate impacts to the District and its ability to satisfy its state-mandated obligations to provide educational and instructional programs and transportation services to its students.

Should the Commission be inclined to adopt the Joint Proposal notwithstanding the District's strong opposition for all the reasons raised herein, at a minimum, the Commission should first require modification the Joint Proposal to include necessary, robust, enforceable Certificate Conditions to ensure and protect the health and safety of thousands of students and staff, school transportation operations, emergency access, instructional continuity, financial burdens, and the District's statutory obligations to provide educational programs and safe access to educational facilities during and after the Project's construction phase.

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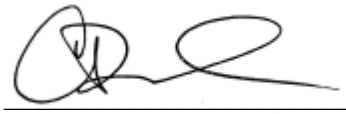
Dated: June 8, 2026
Hauppauge, New York

Respectfully Submitted,

By: 

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cdurant@ingermansmith.com

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of New York Transco LLC and New York Power Authority for a Certificate of Environmental Compatibility and Public Need, Pursuant to Article VII of the New York Public Service Law, to Construct, Operate, and Maintain an Approximately 89.7-Mile Underground Transmission Line through Suffolk, Nassau, Queens, Bronx, and Westchester Counties	Case No. 24-T-0446

NORTH SHORE CENTRAL SCHOOL DISTRICT'S INITIAL STATEMENT IN OPPOSITION TO THE JOINT PROPOSAL

ATTACHMENT 1 –

Affidavit of Dr. Christopher Zublionis in Support of North Shore Central School District's Initial Statement in Opposition to the Joint Proposal, dated June 5, 2026

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Case No. 24-T-0446

Petition of New York Transco LLC and New York Power Authority for a Certificate of Environmental Compatibility and Public Need, Pursuant to Article VII of the New York Public Service Law, to Construct, Operate, and Maintain an Approximately 89.7-Mile Underground Transmission Line through Suffolk, Nassau, Queens, Bronx, and Westchester Counties

AFFIDAVIT OF DR. CHRISTOPHER ZUBLIONIS IN SUPPORT OF NORTH SHORE CENTRAL SCHOOL DISTRICT'S INITIAL STATEMENT IN OPPOSITION TO THE JOINT PROPOSAL

STATE OF NEW YORK)
)
COUNTY OF NASSAU)ss.:

CHRISTOPHER ZUBLIONIS, being duly sworn, deposes and says:

1. I am the Superintendent of Schools of the North Shore Central School District (the "District") and have held this position since July 1, 2022. As Superintendent of Schools, I oversee all departments of the District and am, in effect, the Chief Executive Officer of the District.

2. I am fully familiar with the facts and circumstances concerning the within Proceeding and make this Affidavit in support of the North Shore Central School District's Initial Statement in Opposition to the Joint Proposal concerning the Application of New York Transco LLC and New York Power Authority (collectively, the "Applicant") for a Certificate of Environmental Compatibility and Public Need, pursuant to Article VII of the New York Public Service Law, to construct, operate, and maintain an Approximately 89.7-Mile underground transmission line through Suffolk, Nassau, Queens, Bronx, and Westchester Counties (the "proposed Project").

3. Unless otherwise stated, the facts set forth below are based upon my personal knowledge and the books and records maintained by the District.

4. By and through its attorneys, the District requested party status in this Article VII Proceeding on January 6, 2025, which was subsequently granted on January 28, 2025.

5. The District sought party status to address the negative impact of the proposed Project to the District, including to its operations, finances, educational and instructional programs, and its tax base, as well as to the health and safety of the District's students, staff, and school community.

6. For the reasons stated herein, the District strenuously opposes the Joint Proposal filed in this matter and respectfully requests that the Public Service Commission reject the Joint Proposal in its entirety.

The North Shore Central School District

7. The District is a public school district located in Nassau County, New York.

8. The District serves the communities of Glenwood Landing, Glen Head, Sea Cliff, Old Brookville, and parts of Greenvale and Roslyn Harbor. Upon information and belief, approximately 16,200 residents/taxpayers reside within the District.

9. The District provides statutorily mandated educational and instructional programs to the school-aged children residing within the District's boundaries.

10. The District is responsible for educating approximately 2,551 students, Pre-kindergarten through Twelfth grade.

11. The District is comprised of three (3) elementary schools, one (1) middle school, and (1) high school.

12. All students who reside within the District are zoned to attend the North Shore Middle School located at 505 Glen Cove Ave. Glen Head, New York and the North Shore High School, located at 70 South Woods Road, Syosset, New York.

13. Glen Cove Avenue is a narrow two-lane major access road to both of these school properties and is also the proposed location for an underground transmission line.

14. Glen Cove Avenue regularly experiences substantial heavy traffic volumes and significant traffic congestion in both directions.

15. Any disruption or delay in access to the Middle School and High School will severely impact the District's ability to safely and efficiently transport its students and, in turn, negatively impact the District's educational and instructional programs.

16. The District's Transportation Facility that is used for District-wide bus and vehicle maintenance, storage and fueling of District vehicles is located on Shore Road in Glenwood Landing. This Facility is the central hub for the District's entire transportation operations and houses approximately 40 District transportation vehicles (buses and vans). The Transportation Facility also regularly provides service to buses and vehicles of neighboring school districts.

17. The proposed Project proposes to install two (2) underground transmission lines on Shore Road connecting to an existing and proposed new substation, immediately adjacent to the District's Transportation Facility.

18. The only entrance/exit to the Transportation Facility is on Shore Road.

19. The Transportation Facility operates with a total of approximately 45 employees and operates continuously from approximately 5:45 a.m. to approximately 5:00 p.m. year-round, but primarily during the school year from on or about September 1st to June 30th. District vehicles

and employee's personal vehicles regularly enter and exit the property throughout the day at this sole entrance/exit point.

20. Glenwood Road is another major thoroughfare to and from the Transportation Facility, also where two (2) transmission lines are proposed to be installed.

21. Any activities along Shore Road and Glenwood Road that impede unobstructed and uninterrupted vehicular and bus access to and from the Transportation Facility will not only cripple the District's transportation operations and statutorily mandated transportation services provided to thousands of students, but will also substantially disrupt the District's obligation to provide educational and instructional programs for all students throughout the District. Such interference is confiscatory and would have far-reaching consequences, severely affecting the District's ability to ensure the timely, safe and effective delivery of both transportation and educational services.

The District's Mandated Student Transportation Program

22. Under New York State law, the District is mandated to provide transportation services to and from school for public and private school students residing in the District who live a certain distance from the schools they attend.

23. The District's transportation operations involve the use of over 40 buses/vehicles, making approximately 85 runs daily during the school year, excluding transportation provided for extracurricular activities and during the summer months.

24. Parents of students attending our schools also provide transportation to and from school for their child(ren), as well as students who walk, ride bikes, or drive cars to school.

25. The District's elementary, middle, and high schools start and dismissal times are staggered such that the same buses and drivers are utilized for transportation to each of the District's schools. For example, in the morning, a bus/driver will begin a bus route to pick up high

school and middle school students and drop those students at their respective schools. That same bus/driver will then run an elementary school route. The same process occurs in the afternoon to pick up students from their respective schools for transport to their home bus stops. Any disruption or delay to a single bus, will have a domino effect on that bus's subsequent routes, and as a consequence significantly disrupt the District's educational operations.

26. Frequent tardiness of students and staff will negatively impact the District's ability to provide its state-mandated educational programs.

The Proposed Project's Adverse Impacts to the District

27. The proposed Project proposes to install underground transmission lines within the rights-of-way (ROW) of numerous roadways that run through the geographic boundaries of the District, which provide critical and safe access to the District's schools.

28. As noted above, the proposed Project proposes to install an underground transmission line on Glen Cove Avenue, a major access road to the District's Middle School and High School, that will also run adjacent to the Middle School property, including its school building and recreational fields.

29. As further noted above, the proposed Project proposes to install two (2) underground transmission lines on Shore Road, immediately adjacent to the District's Transportation Facility and are proposed to connect to an existing and proposed new substation on Shore Road, also adjacent to the Transportation Facility.

30. The proposed locations of the underground transmission lines, and the construction associated therewith, will severely impact the District, its operations, finances, educational and instructional programs, and its tax base.

31. The District has serious and significant concerns with the proposed Project's adverse impact upon the health and safety of the District's students, staff, and school community associated with hazardous conditions created by construction, as well as electromagnetic fields produced by the underground transmission lines installed in close proximity to the District's school buildings and facilities near the District's fields and playground areas frequented by the District's students, and on roadways traversed by the District's buses transporting its students and where students stand waiting for their bus and/or traverse and for students who walk or ride their bicycles to school.

The Policy and Guidelines for Electric and Magnetic Fields Must be Carefully Evaluated

32. It is my understanding that the electric and magnetic fields standards applied by the Applicant rely upon the Public Service Commission's Interim Policy on Magnetic Fields of Major Electric Transmission Facilities, which was issued approximately 36 years ago.

33. District legal counsel has informed me that the Joint Proposal includes a "Public Health and Safety" Condition that requires the Applicant to comply with this Interim Policy and further states that the Applicant will comply with the Public Service Commission's ("NYSPSC") "most recent electric and magnetic field guidelines and standards in effect at the time the NYSPSC grants the Certificate."

34. The public health and safety of our students and staff is paramount to the District.

35. For these reasons, the District opposes the Joint Proposal. Should this proposed Project move forward over the District's strenuous objections, the District urges the Commission to undertake all necessary studies and issue current electric and magnetic field standards and guidelines to ensure that the health and safety of our students is protected at all costs.

36. The health and safety of our students, staff and school community must be maintained at all times before this proposed Project, or any other, moves forward.

Applicant's Construction Time of Day Time of Year Restrictions Negatively Impact the District

37. It is my understanding that the Joint Proposal also includes a Condition that requires construction and scheduled maintenance work within 300 feet of a school building or facility to be confined to 10:00 am to 2:00 PM and 7:00 PM to 5:00 AM when regular school operations are in session Monday through Friday, and that standard construction windows apply on weekends and when regular school operations are not in session.

38. This Condition fails to address the District's concerns, or the significant and critical impact that this proposed Project will have on the District and its operations.

39. Limitations to construction applying only within 300 feet of a school building or facility does nothing to alleviate the anticipated traffic impacts related to construction.

40. Glen Cove Avenue is a major artery that leads to the District's Middle School and High School.

41. A measure of 300 feet from the District's property in either direction falls short of any major intersection, thus eliminating any potential routes for detours.

42. Alternative routes to the District's Middle School and High School are further limited by the Long Island Railroad (LIRR) tracks to the East and by a large golf course/country club and the Hempstead Harbor to the West.

43. In addition, and as noted above, the District's Transportation Facility, the central hub for the District's entire transportation operations, is located on Shore Road, where two (2) underground transmission lines are proposed to be installed.

44. A measure of 300 feet from the District's Transportation Facility in either direction falls short of any major intersection, thus eliminating any potential routes for detours and, as noted, the only access to the District's Transportation Facility is on Shore Road. A disruption to Shore Road during the school year as proposed by the Applicant and the Conditions contained in the Joint Proposal make it impossible for the District to safely operate without the potential for catastrophic consequences.

45. Moreover, reducing the major roadways to single lanes near the District's buildings during the school year will impede traffic flow and prevent buses and passenger vehicles from queuing safely and efficiently along the roadway. The resulting bottlenecks would adversely affect site operations and create unsafe conditions for students, staff, parents and motorists. This Condition also fails to address the fundamental requirement of maintaining safe, continuous and reliable access to District sites and buildings throughout the construction period. Safe access must be maintained at all times as further detailed below.

46. Disruption to Glen Cove Avenue or Shore Road during the school year will make it impossible for the District to safely operate without the potential for catastrophic consequences.

47. Construction-related traffic delays will significantly impact the District's operations and introduce substantial safety concerns and inefficiencies in the District's transportation program that will result in the need to modify bus routes, require earlier pick up and later drop off, increase the length of time students ride the bus and significantly impact transportation staffing and student learning, resulting in increased costs, which will be borne by the District's taxpayers. It should be noted that the foregoing may be further complicated, and even impossible due to existing contractual obligations.

48. The costs associated with the proposed Project's interference of the District's statutory mandate to provide instructional and transportation services to its students and the District's students' ability to learn cannot be quantified. Further, construction-related delays create the potential for unfunded financial burdens that cannot be absorbed by the District's budget or its taxpayers. These resulting burdens are substantial and in impose a confiscatory impact to the District.

49. District's legal counsel has informed me that the Joint Proposal includes a commitment by the Applicant to undertake its construction during certain time of year restrictions for the protection of parkland and wildlife species such as the Atlantic and shortnose sturgeon and Northern long-eared bats. It is submitted that the Commission should require that the Joint Proposal provide more protective measures for the health and safety of children. The school-aged children, staff and our school community are deserving of more protections, not less.

50. For these reasons, the District opposes the Joint Proposal. Should this proposed Project move forward over the District's strenuous objections, the concerns raised by the District may be mitigated, to some extent, if construction near the District's school buildings and on roadways that serve as main arteries for school traffic is limited to summer months, when regular school operations, both educational and transportation, are not in session.

Safe Access to District Buildings and Property Must be Maintained at All Times

51. All curb cuts to school property must remain accessible **at all times** so emergency vehicles and equipment can access and use of school entrances most appropriate and efficient for the response needed, and so fire-fighting equipment can access all sides of a school structure. Emergency vehicles must be able to access our schools and school property during a life-safety event.

52. In addition, there are confidential portions of school safety plans and evacuation plans that must not be impeded while school is in session.

53. Traffic congestion, worsened by construction impacts and lane reductions or flagmen, will most certainly impede emergency vehicle access to the school campuses. Where life safety is concerned, delays of even a few minutes can have devastating consequences. A delay of fifteen minutes as proposed by the Joint Proposal to restore access for emergency vehicles during a life-safety event is not only unacceptable, it is irresponsible.

54. Roadways in front of schools must remain open and accessible at all times in the event of emergency. This is not a theoretical concern, or a mere inconvenience, it is a reality.

55. Delayed access to the District's school buildings and facilities could quite literally mean the difference between life and death, not just of the District's students and staff, but for members of the surrounding community.

56. Moreover, allowing construction on critical roadways leading to the District's school buildings during the school day, even if limited to between 10:00 a.m. and 2:00 p.m., does not mitigate these concerns. Uninterrupted access must be preserved at all times for emergency responders, daily operations, deliveries, and services. Any construction plan which compromises site accessibility or restricts emergency access is not acceptable. Emergency vehicle access, a critical life-safety requirement, must be available at all times, which includes between 10:00 a.m. and 2:00 p.m. on school days.

57. Regardless of limitations of construction activities to certain daytime or even late night hours, the impacted roadways near and around the District's school buildings must be restored fully when construction is not occurring. Any lane closures or detours, even without active construction, serve to create the same critical emergency access concerns raised herein.

58. For these reasons, the District opposes the Joint Proposal. Should this proposed Project move forward over the District's strenuous objections, the District strongly demands that access to its buildings and facilities be mandated by the Commission at all times. This includes not only the ability to enter/exit District property, but also the ability to safely and timely travel to and from school properties on the roadways within the District.

Potential Utility Outages will Result in School Closures

59. Under the New York State Education Law, the District is mandated to adhere to the Commissioner of Education's regulations "for the purpose of insuring the health and safety of pupils and staff in relation to proper heating, lighting, ventilation, sanitation and health, fire and accident protection." N.Y. Education Law Section 409.

60. As a result, and to ensure the health and safety of the District's students and staff, utility services to District school building and facilities must be maintained at all times. Utility outages – by definition – create an emergency condition for schools.

61. Outages often result in building evacuations because they impact:

a. The operation of critical life-safety equipment like smoke detectors, fire alarms, public address systems, and telephones;

b. The ability to safely light interior corridors and staircases;

c. The ability to maintain State-regulated temperatures in classrooms;

d. The ability to maintain fresh air ventilation in classrooms;

e. The ability to maintain food safety through refrigeration and warming;

f. The ability to maintain refrigeration for student medications; etc.

62. *Any* disruption to the District's utility services could result in an emergency condition resulting in building closures, necessitating evacuation and interruption to the District's educational programs.

63. For these reasons, the District opposes the Joint Proposal. Should this proposed Project move forward over the District's strenuous objections, the District strongly demands that enforceable measures must be in place to avoid disruption to the District's utilities at all times.

Fugitive Dust Negatively Impacts Students and Staff

64. It is my understanding that the Joint Proposal contains Certificate Condition that address the potential for fugitive dust and airborne debris from construction activities, but defers defining what measures will be taken to address construction-related fugitive dust and airborne debris to a later stage of the proceeding.

65. As such, it is my understanding that there is no current plan for testing any fugitive dust or airborne debris from construction activities to determine the most aggressive and appropriate plan for mitigation, or whether the fugitive dust is contaminated.

66. In addition and as noted, underground transmission lines are proposed to be installed in close proximity to the District's school buildings and facilities, including immediately adjacent to the District's Middle School building and recreational fields, as well as, immediately adjacent to the District's Transportation Facility.

67. The Joint Proposal limits construction within 300 feet of a school building or property to between 10:00 a.m. and 2:00 p.m. These hours directly coincide with the District's physical education programs, recess times, and lunch times, that often occur outside, weather permitting. Further, stopping construction at 2:00 p.m. does not guarantee that fugitive dust and airborne debris from construction activities has fully dissipated by the time students are exiting

school buildings to load onto buses, or when District employees are entering and exiting the Transportation Facility.

68. The Joint Proposal provides no binding, enforceable mechanism by which the District can stop construction activities should fugitive dust and airborne debris encroach into school property where the District's students and staff are located.

69. Should this proposed Project move forward over the District's strenuous objections, the District strongly demands that enforceable measures must be in place to properly test fugitive dust and airborne debris and robust mitigation measures must be implemented to prevent fugitive dust and airborne debris from encroaching into the District's school buildings, facilities, and properties.

Construction Noise will Negatively Impact Instructional and Educational Operations

70. It is my understanding that the Joint Proposal addresses noise and sound levels associated with the construction and operations of Substations associated with the proposed Project, but fails to provide a construction-related noise mitigation plan for the terrestrial cable installation, including in close proximity to the District's school building, and reserves the creation and implementation of a mitigation plan to a later time.

71. It is also my understanding that the Joint Proposal contains specific Certificate Conditions protecting certain animal species from adverse impacts of construction-related noise. Students are also highly susceptible to stress from noisy environments, repetitive noise and distracting noise. Certificate Conditions should take these into account every bit as much as it takes into account the impact of noise for other species and animals.

72. Although the Joint Proposal requires the Applicant to "coordinate its construction schedule with a traversed school district to minimize interfere to the *maximum extent practicable*

with school district operations," the Joint Proposal fails to define the "maximum extent practicable", another subjective standard without any enforcement mechanism available to the District should construction-related noise negatively impact the District's educational programs.

73. As result, the District's staff and students will be subjected to months, if not years, of construction noises impacting their ability to instruct and to learn.

74. Again, allowing construction near school buildings during the day between 10:00 a.m. and 2:00 p.m. does nothing to alleviate this concern and will only serve to distract and disrupt active educational programs. To the contrary, it directly causes our concerns.

75. The District is left without any enforceable way to protect the health and safety of its students and staffs and the integrity of its educational programs.

76. Should this proposed Project move forward over the District's strenuous objections, the District strongly demands that enforceable measures that require the Applicant to avoid construction activities in close proximity to the District's school buildings during the school year and most certainly during any testing periods, State mandated testing dates, and school events.

The Joint Proposal Fails to Adequately Mitigate the Impact to the District, its Students, Staff and School Community

77. The District submits that the Joint Proposal as a whole fails to properly identify, analyze, and mitigate the District's legitimate and serious concerns.

78. For these reasons, the District opposes the Joint Proposal and respectfully requests that the Public Service Commission reject the Joint Proposal in its entirety.

79. If the Commission adopts the Joint Proposal and grants the Applicant's requested Certificate, the resulting irreparable harm to the District will be significant for all of the reasons stated herein. In addition, the Commission will impose a confiscatory burden upon the District by approving a Joint Proposal that fails to appropriately and adequately mitigate impacts to the

District and its ability to satisfy its state-mandated obligations to provide educational and transportation services to its students.

80. Should the Commission be inclined to adopt the Joint Proposal and grant the Certificate, notwithstanding the District's strenuous opposition for all the reasons raised herein and in the District's Initial Statement in Opposition to the Joint Proposal, at the very least, the Commission must modify the Joint Proposal to include necessary, robust, enforceable Certificate Conditions to ensure and protect the health and safety of thousands of students and staff, school transportation operations, emergency access, instructional continuity, financial burdens placed on the District and its taxpayers, and the District's statutory obligations to provide educational programs and safe access to educational facilities during and after the proposed Project's construction phase. Anything short of ensuring that the health and safety of District students and staff is maintained at all times, before, during and after construction is unacceptable and irresponsible and should not be supported by the Commission under any circumstance.

Christopher Zublionis, Ed.D.

Sworn to before me on this

5th day of June, 2026

James R. Pappas

Notary Public

JAMES R. PAPPAS
NOTARY PUBLIC, STATE OF NEW YORK
NO. 01PA6073688
QUALIFIED IN SUFFOLK COUNTY
COMMISSION EXPIRES 2/24/2027

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of New York Transco LLC and New York Power Authority for a Certificate of Environmental Compatibility and Public Need, Pursuant to Article VII of the New York Public Service Law, to Construct, Operate, and Maintain an Approximately 89.7-Mile Underground Transmission Line through Suffolk, Nassau, Queens, Bronx, and Westchester Counties	Case No. 24-T-0446

NORTH SHORE CENTRAL SCHOOL DISTRICT'S
INITIAL STATEMENT IN OPPOSITION TO THE JOINT PROPOSAL

ATTACHMENT 2 –

New York Transco LLC's and New York Power Authority's Objections and Responses to Interrogatories/Document Request PNYE-NSCSD-1

CASE 24-T-0446

NEW YORK TRANSCO LLC'S AND NEW YORK POWER AUTHORITY'S OBJECTIONS AND RESPONSE TO INTERROGATORY/DOCUMENT REQUEST PNYE-NSCSD-1

Request No.:	PNYE-NSCSD-1
Information Requested of:	New York Transco LLC and New York Power Authority
Date of Request:	May 22, 2026
Date of Response:	May 27, 2026
Name & Position of Respondent:	Jesse Lubbers (NY Transco), Aryeh Lemberger (WSP), Shaun Suehr (WSP)
Subject:	Traffic Analyses, Construction Times, EMF Measurements, Community Presentations

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NEW YORK TRANSCO LLC'S AND NEW YORK POWER AUTHORITY'S GENERAL DEFINITIONS

1. "Applicant" shall mean NY Transco and NYPA.
2. "Application" shall mean the PSL Article VII application the Applicant filed in the above-referenced docket as deemed complete and as since supplemented.
3. "General Objections" shall mean the general objections listed in the Applicant's response to PNYE-NSCSD-1 below.
4. "Joint Proposal" shall mean the Joint Proposal filed in this proceeding on April 30, 2026.
5. "NSCSD" shall mean the North Shore Central School District.
6. "NY Transco" shall mean New York Transco LLC.
7. "NYPA" shall mean the New York Power Authority.
8. "NYSDEC" shall mean the New York State Department of Environmental Conservation.
9. "NYSDOS" shall mean the New York State Department of State.
10. "NYSPSC" shall mean the New York State Public Service Commission.
11. "Project" shall mean the Propel NY Energy Project that is the subject of this proceeding.
12. "PSL" shall mean the New York Public Service Law.

***

GENERAL OBJECTIONS

The Applicant makes the following general objections (collectively, General Objections), which shall be incorporated by reference into the below specific responses, as if expressly restated therein, without limiting or waiving any other objections to the instant information requests (individually, the Request and collectively, the Request) proffered by the NSCSD:

1. The Applicant objects to the Request to the extent it seeks information or production of documents that is or are subject to the attorney-client privilege, constitute attorney work product, are protected under state or federal law or are proprietary or confidential, or constitute draft and/or non-final documents and/or communications containing or concerning same. The inadvertent disclosure of any information or production of any document that is confidential, privileged, was prepared in anticipation of litigation, or is otherwise irrelevant and/or immune from discovery, shall not constitute a waiver of any such privilege or of any ground for objection with respect to such information or document, the subject matter of the information or document, or of the Applicant's rights to the use of any such information or document in any regulatory proceeding or lawsuit. The Applicant reserves its right to request the return of any such documents or information in the event of any inadvertent disclosure.

2. The Applicant objects to the Request to the extent it is not tailored to this proceeding, is not commensurate with the importance of the issues to which each Request relates, and/or seeks information or documents that is or are not relevant to any matter within the NYPSC's jurisdiction.

3. The Applicant objects to the Request to the extent it seeks documents or information regarding matters, or from entities, over which the NSCSD and/or NYSPSC has no authority or jurisdiction under the PSL.

4. The Applicant objects to the Request to the extent it seeks information concerning matters that, due to federal preemption or preclusion, are not subject to regulation by the State of New York.

5. The Applicant objects to Request as overbroad or unduly burdensome to the extent that it: (a) is cumulative; (b) calls for the production of documents not in the Applicant's possession, custody, or control; (c) calls for the review, compilation or production of publicly-available documents that could be obtained by the requesting party in a less-burdensome manner, including on a public website; (d) calls for the review, compilation, and/or production of a voluminous number of documents at great expense to the Applicant; or (e) is duplicative of discovery requests already issued in this proceeding and responded to by the Applicant.

6. The Applicant objects to the Request to the extent it seeks documents and information already known to or possessed by the requesting party, or which are available to those entities from documents in their own files or from public sources including, but not limited to, online sources.

PNYE-NSCSD-1 continued.

7. The Applicant objects to the Request to the extent it seeks sensitive, proprietary and/or competitive information, trade secret information, confidential commercial information, work product, and/or material that is the subject of confidentiality agreements with third parties. To the extent the Applicant has elected to produce any confidential commercial information and/or trade secret information, such information is being produced solely for use in the above-captioned proceeding pursuant to the Protective Order issued in this proceeding.

8. The Applicant objects to the Request to the extent it seeks disclosure of confidential settlement communications. The NYSPSC's Settlement Guidelines issued in Case 90-M-0255 expressly protect settlement discussions, including information disclosed or discussed during settlement negotiations, from disclosure.

9. The Applicant objects to the Request to the extent it seeks information and documents that are not known or reasonably available to the Applicant. The Applicant further objects to the Request to the extent it seeks to compel the Applicant to generate or to create information and/or documents that do not already exist.

10. The Applicant objects to the Request to the extent it seeks CEII.

11. The Applicant's agreement to provide information or documents in response to the Request is not: (a) an acceptance of, or agreement with, any of the characterizations or purported descriptions of the transactions or events contained in the Request; (b) a concession or admission that the requested material is relevant to any matter within the jurisdiction of the State of New York or any of its agencies; (c) a waiver of the objections herein; (d) an admission that any such information or documents exist; or (e) an agreement to provide information or documents pursuant to any other Request.

12. Each response reflects the information or documents located by the Applicant given the scope and nature of the Request at issue and as evidenced by the sponsor(s) of such response, after a reasonable, diligent search in the response period in which NSCSD has requested a response to be provided, particularly in light of the scope and breadth of the Request. The Applicant reserves its right to amend or supplement the responses, including the assertion of additional objections, and any production of information and documents as additional discovery and investigations continue, in the event that additional information is identified, or in the event of error, inadvertent mistake, or omission.

***

I. Interrogatories

PNYE-NSCSD-1.1

Have any other traffic studies or analyses been completed aside from the May 12, 2025 Study titled "Traffic Analysis for the Areas Adjacent to and Surrounding the National Grid Facility, Glenwood Landing, NY 11547"?

Applicant's Response to PNYE-NSCSD-1.1 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

Traffic analyses that have been completed since the previously provided May 12, 2025, study titled "Traffic Analysis for the Areas Adjacent to and Surrounding the National Grid Facility, Glenwood Landing, NY 11547" include:

- "Traffic Analysis for 1T to 5T Trenching Construction Condition In Support of Construction Permitting," Version 1 dated April 2026; and
- "Traffic Analysis for 6T Trenching Condition In Support of Construction Permitting," dated February 2026.
    - Note, this is related to the Project's Segment 6, which is *not* located on Long Island.

They are provided as PNYE-NSCSD-1.1 Attachment.

These studies apply to uniform Statewide standards, principally the New York State Department of Transportation (NYSDOT) Highway Design Manual (HDM) Chapter 5 and also comply with the more stringent City Environmental Quality Review (CEQR) standards set by the New York City Department of Transportation (NYC DOT), ensuring a consistent and rigorous evaluation across all transmission segments. The traffic analyses for the terrestrial alignments in these reports focus specifically on the Trenching Conditions, including the trenching, Horizontal Directional Drilling (HDD), and conduit installation required for the Project. These analyses included evaluating the necessary lane closures, traffic diversions, and their impact on intersection operations due to these activities.

These traffic analyses followed a structured, multi-step workflow designed to identify, evaluate, and quantify potential impacts of trenching construction along the transmission line corridors. For instance, the 1T to 5T analysis includes a screening of more than 900 intersections to determine which locations warrant detailed evaluation. Additional screening was then applied to focus on intersections with custom Maintenance and Protection of Traffic (MPT) plans or those with the highest traffic volumes within each jurisdiction. Following screening, detailed data collection efforts were undertaken, including traffic counts, field observations, and inventory of roadway characteristics. These data informed capacity analyses prepared using Synchro, which were

PNYE-NSCSD-1 continued.

calibrated against observed conditions to ensure reliability. Finally, the calibrated models were applied to Existing, No Action, and Trenching Conditions to identify and assess any impacts of construction activities.

These studies are being provided as responsive to the request, but the Applicant reminds the NSCSD that Joint Proposal, Appendix D, Certificate Condition 39 requires the Applicant to provide detailed MPT plan(s) with the Project's EM&CP filings. These studies inform the MPT plan(s), which will be the culminating work product for traffic control measures in light of current roadway conditions.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.2

How will the Applicant prevent disruption or interruption to any and all utility services to the North Shore CSD's school buildings, facilities, and properties during construction activities?

Applicant's Response to PNYE-NSCSD-1.2 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

The Applicant's Contractor will follow all permit requirements and will call 811 prior to excavation to have a third-party mark out known utilities. In addition, the Contractor, as necessary, will perform exploration that could include test pits, Z-Cuts, and ground-penetrating radar to identify and locate utilities and obstructions prior to excavation. In areas of high congestion, the Contractor will employ passive means of excavation to ensure no interruptions of utilities, including hand digging and pneumatic transportation of spoils.

Based on the Applicant's extensive research, survey, and coordination with co-located infrastructure owners, it is the Applicant's position that we have minimized the potential for unforeseen damage to existing infrastructure. Although highly unlikely that any school-owned infrastructure (i.e., a sidewalk) at or near the ROW will be damaged by the construction of the Project, if school-owned infrastructure is damaged, it will be replaced in kind.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.3

Were site visits conducted within the geographic boundaries of the North Shore CSD to observe traffic conditions? If so, when and at what locations?

Applicant's Response to PNYE-NSCSD-1.3 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

The Applicant conducted site visits along the entire route in 2025. Site visits to observe traffic conditions within the Oyster Bay area, including the NSCSD, were conducted during July and August of 2025. The site visits were to observe traffic conditions and roadway operations along the alignment, including vehicles, walkers, and cyclists. Intersection geometry (required for traffic modeling) was also inventoried at the following five locations that were identified as significant signalized intersections of interest due to volume of traffic, construction activity, and/or location based on the criteria noted in response PNYE-NSCSD-1.1 above:

a. Shore Road at Glenwood Road
b. Glen Head Road at Glen Cove Avenue
c. Kissam Lane at Glen Cove Avenue
d. Back Road at Glen Cove Road
e. Glen Cove Road at Glen Head Road

Note that, while these additional site visits were conducted in July and August 2025, the Applicant's primary traffic data collection effort occurred during the school year in November and December 2024, which was used to inform the traffic analyses provided in response PNYE-NSCSD-1.1 above.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.4

How long is construction anticipated to take place specifically on Shore Road?

Applicant's Response to PNYE-NSCSD-1.4 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

As with all PSL Article VII applications, the NYSPSC's process involves two primary components: (1) the decision to grant a Certificate of Environmental Compatibility and Public Need (CECPN); and (2) the decision to approve an EM&CP, which may be issued in phases. The decision to grant a CECPN is based on the statutory requirements in PSL § 126. None of those statutory requirements address specific construction timing by location or sequencing and, as a result, these Requests are irrelevant to the NYSPSC's current decision as to granting the Applicant a CECPN. If the CECPN is granted, the NYSPSC will then decide whether to approve the Applicant's EM&CPs, which will provide, among other details, an MPT for each roadway directly affected by construction, including signage, lane closure procedures, any necessary detours, and traffic control measures necessary to maintain at least one lane of travel where practicable, among other details (see Joint Proposal, Appendix D, Condition 39) and other schedules that detail construction sequencing and timing. In addition to the general irrelevancy of the details sought in this Request due to their premature nature, the Applicant is still procuring the numerous terrestrial contractors that will be utilized to build the Project and, until that procurement process is complete and contractors are onboarded, the Applicant will not have a final construction schedule with the level of specificity that NSCSD seeks in this Request. In addition to those items, it is important to recognize that there are a multitude of conditions that will affect daily productivity (e.g., daily work hours, depth to ground water, soil conditions, existing utilities). Subject to and without waiving these objections and points, as a continued good-faith showing, the Applicant provides below its preliminary construction schedule or plan responsive to the Request, which is subject to change as contractors are onboarded, the Project's MPT is finalized, and subject to variation once actually constructing in the field.

On average in this area, based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions—notably with very limited construction hours around NSCSD's facilities and the limitation to only one road of impact at a time north of Northern Boulevard (see Joint Proposal, Appendix D, Conditions 66, 67, and 68)—it is projected that installation of the vaults, manholes, and duct bank will last approximately 5 to 6 months for the portion of the Project located within Shore Road (Segments 3 and 4). Based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions, it is projected that splicing and cable pulling within Shore Road for Segments 3 and 4 will last approximately 4 to 6 months. Some of the latter timeframe may run contemporaneously with the former timeframe. Workspaces associated with splicing and cable pulling will be smaller than those required for duct bank and localized to each of the splice boxes.

PNYE-NSCSD-1 continued.

Please note that the Applicant intends to conduct as much of this work overnight as authorized to minimize daytime impacts. In addition, construction on Shore Road is some of the most complex construction anticipated across the Project's footprint, resulting in slower than typical production rates.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.5

How long is construction anticipated to take place specifically on Glenwood Road?

Applicant's Response to PNYE-NSCSD-1.5 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

As with all PSL Article VII applications, the NYSPSC's process involves two primary components: (1) the decision to grant a Certificate of Environmental Compatibility and Public Need (CECPN); and (2) the decision to approve an EM&CP, which may be issued in phases. The decision to grant a CECPN is based on the statutory requirements in PSL § 126. None of those statutory requirements address specific construction timing by location or sequencing and, as a result, these Requests are irrelevant to the NYSPSC's current decision as to granting the Applicant a CECPN. If the CECPN is granted, the NYSPSC will then decide whether to approve the Applicant's EM&CPs, which will provide, among other details, an MPT for each roadway directly affected by construction, including signage, lane closure procedures, any necessary detours, and traffic control measures necessary to maintain at least one lane of travel where practicable, among other details (see Joint Proposal, Appendix D, Condition 39) and other schedules that detail construction sequencing and timing. In addition to the general irrelevancy of the details sought in this Request due to their premature nature, the Applicant is still procuring the numerous terrestrial contractors that will be utilized to build the Project and, until that procurement process is complete and contractors are onboarded, the Applicant will not have a final construction schedule with the level of specificity that NSCSD seeks in this Request. In addition to those items, it is important to recognize that there are a multitude of conditions that will affect daily productivity (e.g., daily work hours, depth to ground water, soil conditions, existing utilities). Subject to and without waiving these objections and points, as a continued good-faith showing, the Applicant provides below its preliminary construction schedule or plan responsive to the Request, which is subject to change as contractors are onboarded, the Project's MPT is finalized, and subject to variation once actually constructing in the field.

On average in this area, based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions—notably with very limited construction hours around NSCSD's facilities and the limitation to only one road of impact at a time north of Northern Boulevard—it is projected that installation of the vaults, manholes, and duct bank will last approximately 12 months for the portion of the Project located within Glenwood Road (Segments 3 and 4). Based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions, it is projected that splicing and cable pulling within Glenwood Road for Segments 3 and 4 will last approximately 8 to 10 months. Some of the latter timeframe may run contemporaneously with the former timeframe. Workspaces associated with splicing and cable pulling will be smaller than those required for duct bank and localized to each of the splice boxes.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.6

How long is construction anticipated to take place specifically on Kissam Lane?

Applicant's Response to PNYE-NSCSD-1.6 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

As with all PSL Article VII applications, the NYSPSC's process involves two primary components: (1) the decision to grant a Certificate of Environmental Compatibility and Public Need (CECPN); and (2) the decision to approve an EM&CP, which may be issued in phases. The decision to grant a CECPN is based on the statutory requirements in PSL § 126. None of those statutory requirements address specific construction timing by location or sequencing and, as a result, these Requests are irrelevant to the NYSPSC's current decision as to granting the Applicant a CECPN. If the CECPN is granted, the NYSPSC will then decide whether to approve the Applicant's EM&CPs, which will provide, among other details, an MPT for each roadway directly affected by construction, including signage, lane closure procedures, any necessary detours, and traffic control measures necessary to maintain at least one lane of travel where practicable, among other details (see Joint Proposal, Appendix D, Condition 39) and other schedules that detail construction sequencing and timing. In addition to the general irrelevancy of the details sought in this Request due to their premature nature, the Applicant is still procuring the numerous terrestrial contractors that will be utilized to build the Project and, until that procurement process is complete and contractors are onboarded, the Applicant will not have a final construction schedule with the level of specificity that NSCSD seeks in this Request. In addition to those items, it is important to recognize that there are a multitude of conditions that will affect daily productivity (e.g., daily work hours, depth to ground water, soil conditions, existing utilities). Subject to and without waiving these objections and points, as a continued good-faith showing, the Applicant provides below its preliminary construction schedule or plan responsive to the Request, which is subject to change as contractors are onboarded, the Project's MPT is finalized, and subject to variation once actually constructing in the field.

In addition to those items, it is important to recognize that there are a multitude of conditions that will affect daily productivity (e.g., daily work hours, depth to ground water, soil conditions, existing utilities). With all of that said, on average in this area, based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions—notably with very limited construction hours around NSCSD's facilities and the limitation to only one road of impact at a time north of Northern Boulevard—it is projected that installation of the vaults, manholes, and duct bank will last approximately 6 months for the portion of the Project located within Kissam Lane (Segment 5). Based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions, it is projected that splicing and cable pulling within Kissam Lane for Segment 5 will last approximately 5 to 7 months. Some of the latter timeframe may run contemporaneously with the former timeframe. Workspaces associated with splicing and

PNYE-NSCSD-1 continued.

cable pulling will be smaller than those required for duct bank and localized to each of the splice boxes.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.7

How long is construction anticipated to take place specifically on Glen Head Road between Glen Cove Avenue and Glen Cove Road?

Applicant's Response to PNYE-NSCSD-1.7 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

As with all PSL Article VII applications, the NYSPSC's process involves two primary components: (1) the decision to grant a Certificate of Environmental Compatibility and Public Need (CECPN); and (2) the decision to approve an EM&CP, which may be issued in phases. The decision to grant a CECPN is based on the statutory requirements in PSL § 126. None of those statutory requirements address specific construction timing by location or sequencing and, as a result, these Requests are irrelevant to the NYSPSC's current decision as to granting the Applicant a CECPN. If the CECPN is granted, the NYSPSC will then decide whether to approve the Applicant's EM&CPs, which will provide, among other details, an MPT for each roadway directly affected by construction, including signage, lane closure procedures, any necessary detours, and traffic control measures necessary to maintain at least one lane of travel where practicable, among other details (see Joint Proposal, Appendix D, Condition 39) and other schedules that detail construction sequencing and timing. In addition to the general irrelevancy of the details sought in this Request due to their premature nature, the Applicant is still procuring the numerous terrestrial contractors that will be utilized to build the Project and, until that procurement process is complete and contractors are onboarded, the Applicant will not have a final construction schedule with the level of specificity that NSCSD seeks in this Request. In addition to those items, it is important to recognize that there are a multitude of conditions that will affect daily productivity (e.g., daily work hours, depth to ground water, soil conditions, existing utilities). Subject to and without waiving these objections and points, as a continued good-faith showing, the Applicant provides below its preliminary construction schedule or plan responsive to the Request, which is subject to change as contractors are onboarded, the Project's MPT is finalized, and subject to variation once actually constructing in the field.

In addition to those items, it is important to recognize that there are a multitude of conditions that will affect daily productivity (e.g., daily work hours, depth to ground water, soil conditions, existing utilities). With all of that said, on average in this area, based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions—notably with very limited construction hours around NSCSD's facilities and the limitation to only one road of impact at a time north of Northern Boulevard—it is projected that installation of the two trenchless crossings of the Long Island Railroad Tracks, vaults, manholes, and duct bank will last approximately 12 non-consecutive months for the portion of the Project located within Glen Head Road between Glen Cove Avenue and Glen Cove Road (Segments 3 and 4). Based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions, it is

PNYE-NSCSD-1 continued.

projected that splicing and cable pulling within Glen Head Road between Glen Cove Avenue and Glen Cove Road for Segments 3 and 4 will last approximately 8 to 10 months. Some of the latter timeframe may run contemporaneously with the former timeframe. Workspaces associated with splicing and cable pulling will be smaller than those required for duct bank and localized to each of the splice boxes.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.8

How long is construction anticipated to take place specifically on Glen Cove Avenue, North of Glen Head Road associated with Segment 5 (Syosset to Shore Road)?

Applicant's Response to PNYE-NSCSD-1.8 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

As with all PSL Article VII applications, the NYSPSC's process involves two primary components: (1) the decision to grant a Certificate of Environmental Compatibility and Public Need (CECPN); and (2) the decision to approve an EM&CP, which may be issued in phases. The decision to grant a CECPN is based on the statutory requirements in PSL § 126. None of those statutory requirements address specific construction timing by location or sequencing and, as a result, these Requests are irrelevant to the NYSPSC's current decision as to granting the Applicant a CECPN. If the CECPN is granted, the NYSPSC will then decide whether to approve the Applicant's EM&CPs, which will provide, among other details, an MPT for each roadway directly affected by construction, including signage, lane closure procedures, any necessary detours, and traffic control measures necessary to maintain at least one lane of travel where practicable, among other details (see Joint Proposal, Appendix D, Condition 39) and other schedules that detail construction sequencing and timing. In addition to the general irrelevancy of the details sought in this Request due to their premature nature, the Applicant is still procuring the numerous terrestrial contractors that will be utilized to build the Project and, until that procurement process is complete and contractors are onboarded, the Applicant will not have a final construction schedule with the level of specificity that NSCSD seeks in this Request. In addition to those items, it is important to recognize that there are a multitude of conditions that will affect daily productivity (e.g., daily work hours, depth to ground water, soil conditions, existing utilities). Subject to and without waiving these objections and points, as a continued good-faith showing, the Applicant provides below its preliminary construction schedule or plan responsive to the Request, which is subject to change as contractors are onboarded, the Project's MPT is finalized, and subject to variation once actually constructing in the field.

In addition to those items, it is important to recognize that there are a multitude of conditions that will affect daily productivity (e.g., daily work hours, depth to ground water, soil conditions, existing utilities). With all of that said, on average in this area, based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions—notably with very limited construction hours around NSCSD's facilities and the limitation to only one road of impact at a time north of Northern Boulevard—it is projected that installation of the vaults, manholes, and duct bank will last approximately 5 weeks for the portion of the Project located within Glen Cove Avenue North of Glen Head Road (Segment 5). Note this construction will be sequenced to occur in the summer months as the Applicant understands this segment of road is a primary pathway to access both the NSCSD Middle and High Schools. Based on preliminary estimates and given the restrictions on construction negotiated into the Certificate Conditions, it is projected that splicing

PNYE-NSCSD-1 continued.

and cable pulling within Glen Cove Avenue North of Glen Head Road for Segment 5 will last approximately 2 to 3 months. Some of the latter timeframe may run contemporaneously with the former timeframe. Workspaces associated with splicing and cable pulling will be smaller than those required for duct bank and localized to each of the splice boxes.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.9

As currently designed, where in the ROW will the transmission line be installed on Kissam Lane, adjacent to the North Shore Middle School?

Applicant's Response to PNYE-NSCSD-1.9 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

The Applicant does not have final plan drawings of the currently anticipated cable locations within Kissam Lane adjacent to the North Shore Middle School, nor is that necessary for this stage of the permitting process. As outlined in Joint Proposal, Appendix D, Condition 2, Joint Proposal Appendix B includes maps depicting the "Project Corridor," including the portion thereof within Kissam Lane, but it includes "for reference only" the Project's potential centerline throughout. The NYSPSC has regularly and recently issued CECPNs for other major electric transmission projects—both terrestrial and submarine—with the same level of detail and accepted that final centerline information and plan drawings will be provided during the EM&CP process.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.10

Has the Applicant analyzed existing electromagnetic fields at or around the North Shore Middle School?

Applicant's Response to PNYE-NSCSD-1.10 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

For the route segment near North Shore Middle School, Case 24 models the 138-kV cable within a flowable cement fill duct bank. That model (Case 24) was provided to the NSCSD in response to its request for the same on April 16, 2026, and has since been incorporated into the record of this proceeding on April 30, 2026, in the Application supplement.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.11

Will the Applicant analyze post-installation electromagnetic fields at or around the North Shore Middle School?

Applicant's Response to PNYE-NSCSD-1.11 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

As outlined in Joint Proposal, Appendix D, Condition 20(b), following construction , the Applicant shall conduct four magnetic field measurements in a transect across the transmission facility. The transect measurement locations will be determined with DPS Staff following energization. Following confirmation of the transect locations by DPS Staff, the measurements at each transect location will be taken during the period of highest expected load on the transmission facility to demonstrate compliance. Results of these terrestrial measurements will be filed along with the as-built modeling results.

As previously explained by the Applicant's subject matter experts, as-built modeling is the most appropriate and reliable resource to confirm post-construction compliance with the electromagnetic field (EMF) Standard.

PNYE-NSCSD-1 continued.

II. Document Requests

PNYE-NSCSD-1.12

Provide the video recording of the June 25, 2025, 6:00 p.m. Community Webinar hosted by Propel NY Energy.

Applicant's Response to PNYE-NSCSD-1.12 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

The video recording of the June 25, 2025, 6:00 p.m. Community Webinar hosted by Propel NY Energy is provided as PNYE-NSCSD-1.12 Attachment (video file: PNYE-NSCSD-1.12_Attachment.mp4).

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.13

Provide any available transcripts of the June 25, 2025, 6:00 p.m. Community Webinar hosted by Propel NY Energy.

Applicant's Response to PNYE-NSCSD-1.13 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

The Applicant did not prepare any official transcript for the meeting, but to view the recording of the meeting, see PNYE-NSCSD-1.12 Attachment.

PNYE-NSCSD-1 continued.

PNYE-NSCSD-1.14

Provide any traffic studies or analyses which may be referenced in Applicant's response to Interrogatory No. 1.

Applicant's Response to PNYE-NSCSD-1.14 The Applicant hereby incorporates the General Objections. Subject to and without waiving any of those objections, the Applicant provides the following response:

The traffic studies referenced in response to PNYE-NSCSD-1.1 are included as PNYE-NSCSD-1.1 Attachment.

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of New York Transco LLC and New York Power Authority for a Certificate of Environmental Compatibility and Public Need, Pursuant to Article VII of the New York Public Service Law, to Construct, Operate, and Maintain an Approximately 89.7-Mile Underground Transmission Line through Suffolk, Nassau, Queens, Bronx, and Westchester Counties	Case No. 24-T-0446

NORTH SHORE CENTRAL SCHOOL DISTRICT'S
INITIAL STATEMENT IN OPPOSITION TO THE JOINT PROPOSAL

ATTACHMENT 3 –

"Traffic Analysis for 1T to 5T Trenching Construction Condition in Support of Construction Permitting" dated April 2026

PROPEL NY ENERGY PROJECT

TRAFFIC ANALYSIS FOR 1T TO 5T TRENCHING CONSTRUCTION CONDITION IN SUPPORT OF CONSTRUCTION PERMITTING

Prepared for:

PROPEL NY ENERGY

Prepared by:

WSP USA INC.
One Penn Plaza
New York, NY 10019

April 2026

REVISION HISTORY

Version No.	Date	Author	Reviewer	Approver	Key Differences
0	October 2025	WSP Traffic Team	Dave Albers		
1	April 2026	WSP Traffic Team	Dave Albers		Described in **Section 9: Addendum**

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APPENDICES

ACRONYMS AND ABBREVIATIONS

ATR Counts	Automatic Traffic Recorder Counts
BPM	New York Metropolitan Transportation Council Best Practice Model
CEQR	City Environmental Quality Review
DPS	Department of Public Service
HCM	Highway Capacity Manual
HDD	Horizontal Directional Drilling
HDM	Highway Design Manual
HV%	Heavy Vehicle Percentages
LN	Late Night
LOS	Level of Service
MPT	Maintenance and Protection of Traffic
MUTCD	Manual on Uniform Traffic Control Devices
MOEs	Measures of Effectiveness
MD	Midday
MPH	Miles per Hour
PCPHPL	Passenger Cars per Hour per Lane
PHF	Peak Hour Factors
Propel NY	Propel NY Energy Project
NCDPW	Nassau County Department of Public Works
NYCDOT	New York City Department of Transportation
NYPA	New York Power Authority
NYS	New York State
NYSDOT	New York State Department of Transportation
NY Transco	New York Transco LLC
RTOR	Right Turn on Red
SFR	Saturated Flow Rate
TEAs	Traffic Enforcement Agents
TMCs	Turning Movement Counts
V/C Ratio	Volume-to-Capacity Ratio

1 EXECUTIVE SUMMARY

1.1 PROJECT OVERVIEW

The Propel NY Energy Project (Propel NY) is a new electric transmission solution being developed by New York Transco LLC (NY Transco) and the New York Power Authority (NYPA). The Project includes approximately 89.5 miles of new underground transmission lines (approximately 78.6 miles at 345 kilovolts [kV] and approximately 10.9 miles at 138 kV) and direct interconnection with nine existing and/or new substations across Suffolk, Nassau, Queens, Bronx, and Westchester counties. The Project is organized into six primary segments; this report focuses on Segments 1T to 5T in Suffolk, Nassau, Queens, and Bronx counties.

1.2 PURPOSE AND STUDY FOCUS

Trenching construction along Segments 1T to 5T will occur within and adjacent to active roadways and will require Maintenance and Protection of Traffic (MPT) plans to maintain safety and mobility. This report evaluates temporary traffic impacts associated with MPTs for trenching conditions, including trenching, horizontal directional drilling (HDD), and conduit installation. Splice vault installation will occur during a separate construction phase and is not included in this analysis.

1.3 STUDY APPROACH

A structured screening and modeling process was used to focus analysis on intersections most likely to experience construction-related impacts:

- Screening: A total of 853 intersections were initially identified along Segments 1T through 5T. Through a multi-level screening process based on traffic demand, geometric and operational complexity, land use sensitivity, and MPT requirements, 126 intersections were selected for detailed analysis.
- Data Collection: Traffic data were collected in December 2024, January 2025, and April 2025, including turning movement counts, 24-hour automatic traffic recorder volumes, and queue observations.
- Operational Analysis: Synchro 11 was used to evaluate operations under three scenarios:
    - Existing Conditions (based on calibrated traffic models using recent traffic counts and field observations)
    - No Action Conditions (2030 traffic volumes without construction)
    - Trenching Conditions (temporary lane closures, detours, and work zone operations)
- Evaluation Criteria: Impacts were assessed using changes in delay and Level of Service (LOS), with lane-group results evaluated against City Environmental Quality Review (CEQR)-style screening thresholds.

1.4 EXISTING AND NO ACTION CONDITIONS

Under Existing Conditions, most analyzed intersections operate at Level of Service (LOS) D or better across the analyzed peak periods. For Segments 1T and 2T, these include midday (MD) and late night (LN) conditions, while Segments 3T through 5T were evaluated during AM, PM,

and LN periods. A limited number of intersections operate at LOS E during higher demand periods. Late-night conditions generally operate at LOS D or better due to reduced traffic demand.

No Action (2030) results are generally similar to Existing Conditions, reflecting modest background growth. These findings indicate that most operational constraints during construction are attributable to temporary lane reductions and staging requirements rather than long-term traffic growth.

1.5 TRENCHING CONDITIONS

Trenching Conditions were modeled by modifying the No Action models to reflect proposed MPT staging, lane reductions, and detours. Results indicate that trenching activities may generate substantial temporary congestion at several intersections, particularly during higher demand periods when capacity is reduced or traffic is reassigned to detours.

Daytime construction scenarios produce notable increases in delay at several intersections, while late-night conditions generally perform better due to reduced traffic demand. As a result, late-night work periods are expected to be more feasible at locations with constrained geometry or higher traffic volumes, while some intersections may accommodate daytime construction based on operational results.

1.6 KEY CONCLUSIONS

- Trenching construction along Segments 1T through 5T is expected to produce temporary traffic impacts, particularly during higher demand periods. For Segments 1T and 2T, impacts are most pronounced during the MD peak period, while for Segments 3T through 5T, impacts are greatest during the AM and PM peak periods.
- Because trenching activities occur in short-duration phases, the preferred strategy is to manage impacts through work hour selection, staging refinements, and field traffic control rather than permanent signal modifications.
- Construction hours will be coordinated with roadway-owning agencies and municipalities to balance traffic mobility, safety, and community noise considerations.

1.7 USE OF RESULTS

The results of this analysis support MPT planning and will be used to inform construction sequencing, traffic control strategies, and permitting. This includes road use approvals and coordination with NYSDOT and affected municipalities along the Segments 1T to 5T alignment.

2 INTRODUCTION

The Propel NY Energy (PYNE) project is an innovative electric transmission solution that will be constructed, operated, and maintained by the New York Transco LLC (NY Transco) and the New York Power Authority (NYPA).

The Project involves submarine and terrestrial components within New York State (NYS), including approximately 89.5 miles of new underground transmission lines (approximately 78.6 miles at 345 kilovolts [kV] and approximately 10.9 miles at 138 kV) and direct interconnection with nine existing and/or new substations located within Suffolk, Nassau, Queens, Bronx, and Westchester counties. Of the approximately 89.5 miles of new underground transmission lines, three components are within NYS waters. The first component is an approximately 9.1-mile submarine cable crossing of the Long Island Sound between the Town of Oyster Bay and the City of New Rochelle. The other two components are two terrestrial cable crossings; one of the crossings is an approximately 0.9-mile crossing of the East River and the other crossing is an approximately 0.2-mile crossing of the Westchester Creek in Bronx County. **Figure 1** depicts an overview of the Project.

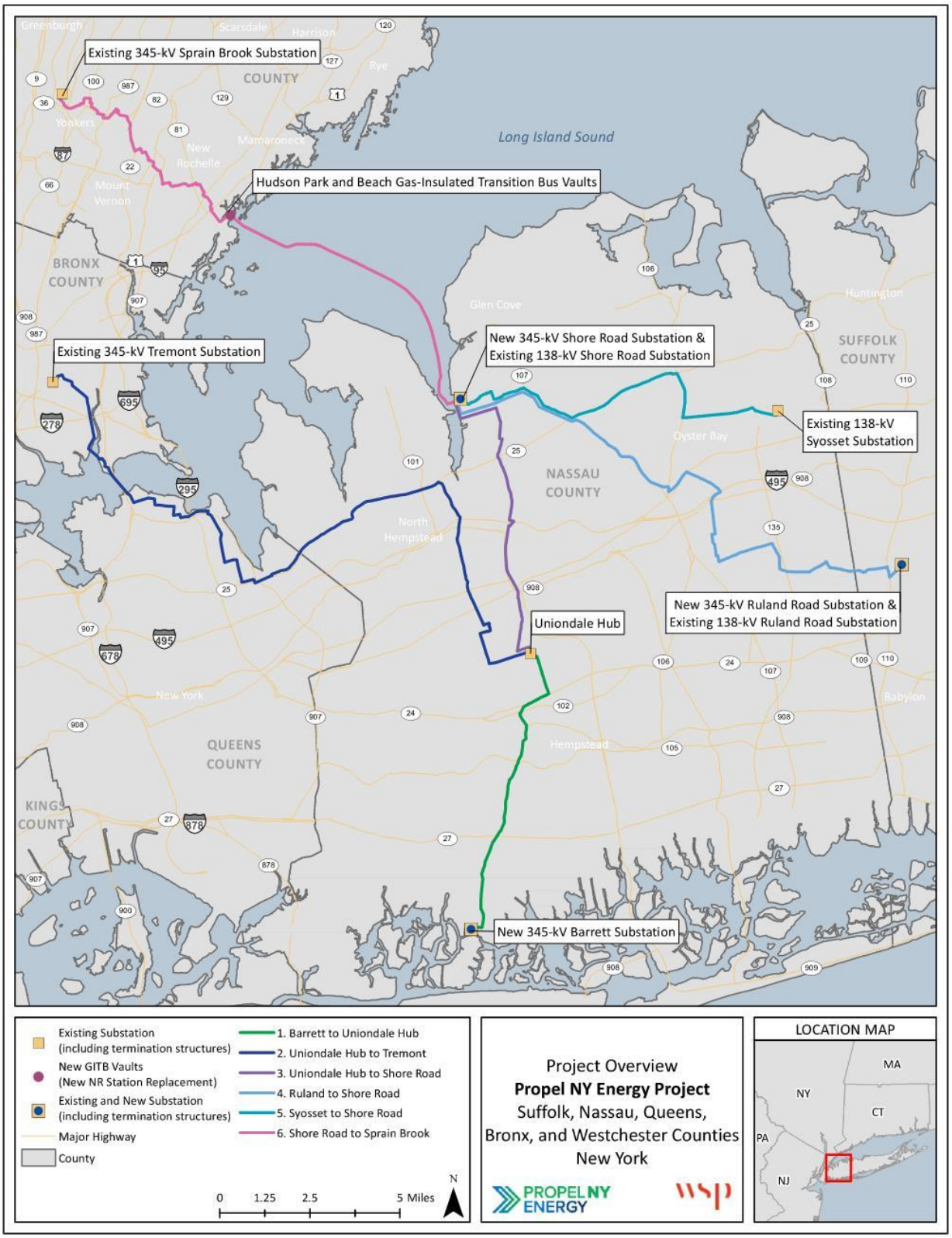


Figure 1: Project Overview

The Project includes six primary segments: (1) Barrett to Uniondale Hub Substation (Uniondale Hub), (2) Uniondale Hub to Tremont, (3) Uniondale Hub to Shore Road, (4) Ruland Road to Shore Road, (5) Syosset to Shore Road, and (6) Shore Road to Sprain Brook. The Project also includes three new substations and a new transition station.

Trenching Construction along segments 1T through 5T will require work within and adjacent to active roadways, necessitating traffic analysis and Maintenance and Protection of Traffic (MPT) planning to maintain safety and mobility. Traffic operations were evaluated using standard and custom MPT plans that reflect anticipated lane closures, staging, and detour assumptions across multiple municipal and agency jurisdictions.

This study applies to a uniform statewide standard, principally the New York State Department of Transportation (NYSDOT) Highway Design Manual (HDM) Chapter 5. It also complies with the more stringent City Environmental Quality Review (CEQR) standards set by the New York City Department of Transportation (NYCDOT), ensuring a consistent and rigorous evaluation across all transmission segments.

The traffic analysis for the 1T, 2T, 3T, 4T, and 5T alignments in this report focuses specifically on the **Trenching Conditions**, including the trenching, HDD, and conduit installation required for the project. This included evaluating the necessary lane closures, traffic diversions, and their impact on intersection operations due to these activities. The analysis for segment 6T is provided under a separate report.

This report documents analysis of locations where trenching construction assumptions, maintenance and protection of traffic, and roadway configurations are defined at a level sufficient to support detailed operational evaluation as of the date of this report. Additional construction details or changes subsequent to the date of this report will be evaluated and documented through future addenda to this report or standalone traffic analysis reports.

Note that the **Vault Construction Condition** takes place during a different phase of construction and will require separate traffic control measures and a larger work zone from the activities described in this report and are not included in this analysis. The traffic impacts due to splice vault installation will be separately assessed, and their specific impacts and mitigation strategies will be detailed in a separate analysis report.

The results of this analysis will be used to seek Permit 32 (Highway Work Application for Utility Work) and Permit 75 (Consolidated Application and Permit for Highway Work and Use & Occupancy for Fiber Optic Facilities and Supporting Infrastructure) within New York State as well as pursuing Road Use Agreements and applicable permits within New York City, Nassau County, and relevant towns and villages.

3 TRAFFIC ANALYSIS METHODOLOGY

The traffic analysis followed a structured, multi-step workflow designed to identify, evaluate, and quantify potential impacts of trenching construction along the transmission line corridors. The analysis began with a screening of intersections to identify locations that warrant a detailed evaluation based on a combination of traffic demand, geometric and operational complexity, proximity to sensitive land uses, and whether a location requires a standard or custom Maintenance and Protection of Traffic (MPT) plan.

Additional screening was then applied to focus on intersections with custom MPT plans or those with the highest traffic volumes within each jurisdiction. Following screening, detailed data collection efforts were undertaken, including traffic counts, field observations, and inventory of roadway characteristics. These analyses were prepared using Synchro and were calibrated against observed conditions to ensure reliability. Finally, the calibrated models were compared to Existing, No Action, and Trenching Conditions to identify and assess any impacts of construction activities. The following subsections describe each step of the traffic analysis in greater detail, beginning with the broad initial screening process.

3.1 TRAFFIC ANALYSIS FRAMEWORK

The traffic analysis framework was designed to apply uniform evaluation standards while accommodating variations in municipal requirements and roadway conditions. The methodology incorporated the appended MPT plans for trenching at intersections along segment 1T through 5T, with a focus on locations where roadway geometry and traffic volumes warranted detailed evaluation.

This report describes the analytical methods, assumptions, criteria, and thresholds used to assess intersections along segments 1T, 2T, 3T, 4T, and 5T. It evaluates potential impacts associated with trenching construction activities and, where appropriate, informs refinement of MPT assumptions and potential mitigation measures. The analysis covers the following segments: Barrett Substation to Uniondale Hub (1T), Uniondale Hub to Tremont (2T), Uniondale Hub to Shore Road Substation (3T), Ruland Road Substation to Shore Road Substation (4T), and Syosset Substation to Shore Road Substation (5T).

Figure 2 illustrates the 1T, 2T, 3T, 4T, and 5T transmission lines while highlighting the New York State Department of Transportation (NYSDOT)-owned and Nassau County Department of Public Works (NCDPW)-owned road crossings, which generally represent larger intersections along the corridor.

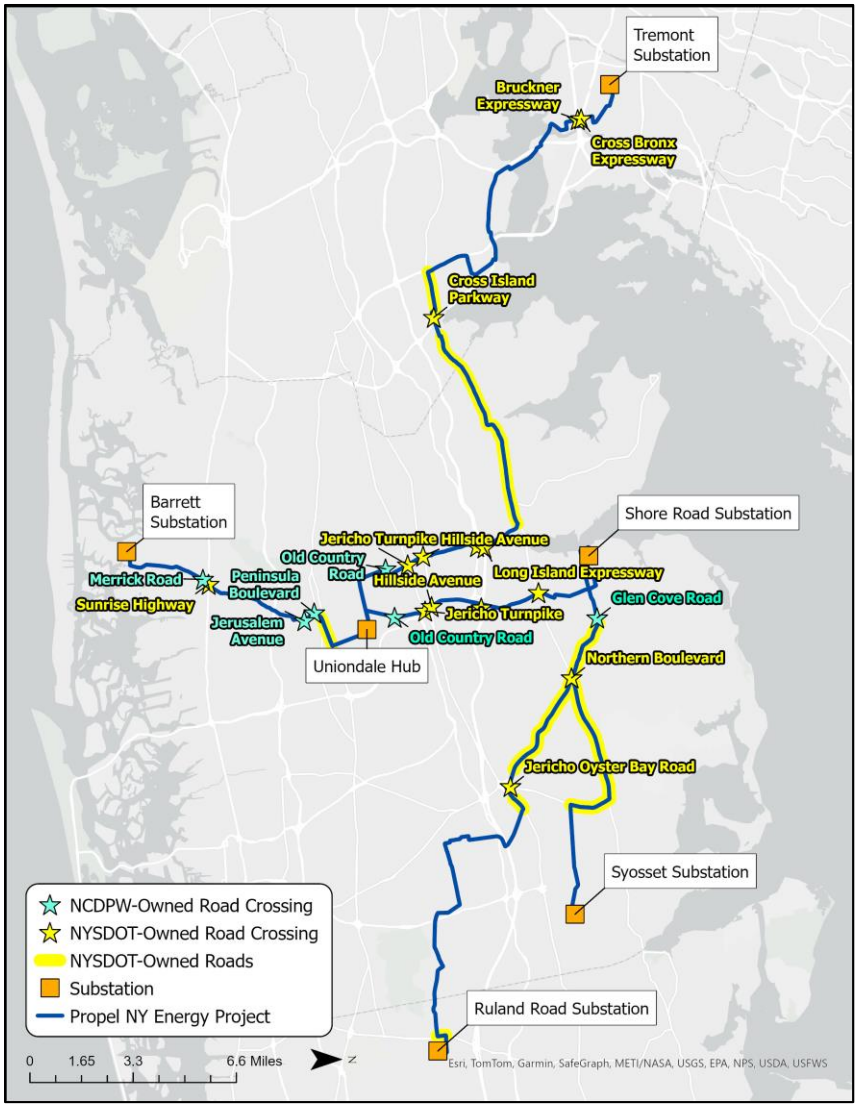


Figure 2: 1T to 5T Transmission Line Alignments with Major Road Crossings

3.2 INITIAL SCREENING

Across Propel NY segments 1T through 5T, 853 signalized and unsignalized intersections were identified. To efficiently focus detailed traffic analysis on locations most likely to experience construction-related impacts, a three-level screening process was applied.

Level 1 Screening was conducted to identify intersections along Segments 1T through 5T that have the greatest potential to be affected by trenching construction based on corridor-wide characteristics. This screening was designed to capture intersections that are representative of a broad range of conditions, including:

(1) critical intersections that serve as major thoroughfares;

(2) highly congested or at-capacity intersections;

(3) sensitive locations such as those adjacent to schools and railroad crossings;

(4) intersections with extensive utility infrastructure; and

(5) geometrically complex intersections.

Including a diverse range of intersection types allows findings at representative locations to be reasonably applied to similar intersections along the alignment.

To support Level 1 Screening, a wide array of data was indexed for each intersection and roadway segment to develop a comprehensive understanding of existing conditions. This data included intersection geometry, traffic volumes, estimated volume-to-capacity (v/c) ratios, functional classifications, jurisdictional boundaries, signal ownership, and potential construction constraints. New York State GIS Clearinghouse data was used to compile much of this information. Historic traffic volume patterns were supplemented using StreetLight Data, which provides insights into origin-destination patterns, routing behavior, travel speeds, and temporal demand. Additional desktop reviews using Google Earth, Google Street View, and targeted field visits were conducted to verify geometry and observe general traffic conditions. Utility survey information collected in Spring 2024 and supplemented in Spring 2025 was also reviewed to assess relative construction complexity at each intersection.

Along segments 1T through 5T, 853 intersections were evaluated under Level 1 Screening. Based on the screening criteria and professional judgment, 515 intersections were advanced for further consideration.

Level 2 Screening was then applied to further refine the study area by grouping intersections with similar roadway functional classification, geometric layout, traffic control, traffic demand, and surrounding land use characteristics. Within each group, a representative “worst-case” intersection typically exhibiting the highest volumes, most restrictive geometry, or most limiting MPT configuration was selected for detailed analysis. This approach negated the need to analyze intersections expected to perform similarly or better under construction conditions by ensuring that only the most constrained or impactful locations were carried forward. As a result of Level 2 Screening, 193 intersections were identified for more detailed evaluation.

A detailed description of the screening methodology and criteria is provided in **Appendix B**. Because the project alignment has been refined over time, intersections that no longer fall along the current alignment were removed, and newly impacted intersections were reviewed and incorporated into the analysis. Those intersections that are included in the project and analysis can be seen in **Section 3.3**.

3.3 TRENCHING CONDITIONS SCREENING

Following the Level 2 screening, an additional, more detailed Level 3 screening was performed to determine which intersections should be analyzed under the Trenching conditions. This screening evaluated intersections with custom MPT plans and those with the highest traffic volumes within each jurisdiction. Intersections with custom MPT plans were selected because their irregular or unique geometry could lead to higher traffic impacts. The screening then identified the intersections with the highest volume within each jurisdiction such as towns and villages, so that the analysis captured locations most representative of local operational conditions during construction.

Of the 193 intersections progressed into Level 3 Screening, 126 intersections were advanced for detailed study. Once the intersections for detailed study were identified, the next step involved collecting field data to establish baseline traffic conditions.

The full list of intersections can be found in **Appendix A**. **Figure 3** shows the screening process flow.

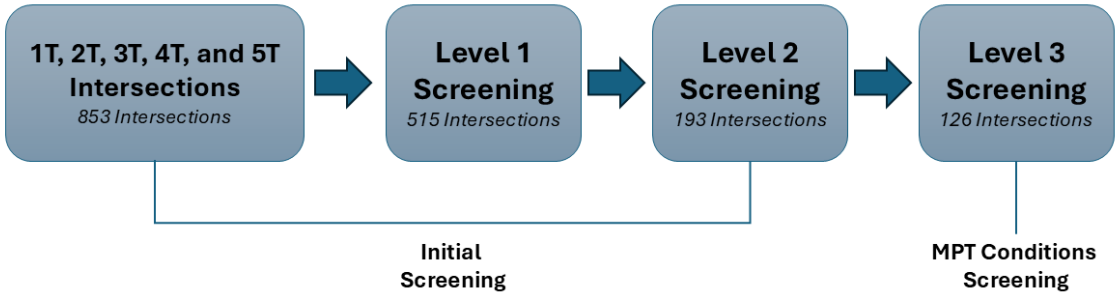


Figure 3: Screening Results

Table 1 shows the list of intersections being analyzed. Some intersections in segments 3T, 4T and 5T overlap.

Table 1: Analysis Intersections

Alignment	Intersection	Owner
1T	Long Beach Road & Daly Boulevard	Nassau County
1T	Long Beach Road & Mott Street	Nassau County
1T	Long Beach Road & Davison Avenue	Nassau County
1T	Long Beach Road & Lincoln Avenue	Nassau County
1T	North Long Beach Road & Merrick Road	Nassau County
1T	North Long Beach Road & Sunrise Hwy	NYSDOT
1T	North Long Beach Road & DeMott Avenue	Nassau County
1T	Long Beach Road & Baldwin Road	Nassau County
1T	Henry Street & Tompkins Place	Nassau County
1T	Henry Street & Greenwich Street	Nassau County
1T	Henry Street & Peninsula Boulevard	Nassau County
1T	Clinton Street & Peninsula Boulevard	Nassau County
1T	Front Street & Peninsula Boulevard	Nassau County
1T	North Long Beach Road & Monroe Street	Nassau County
1T	Fulton Avenue & Bennett Avenue/Peninsula Boulevard	Nassau County
1T	Hempstead Turnpike & Oak Street	NYSDOT
1T	Oak Street & Westbury Boulevard/Meadow Street	Nassau County
1T	Commercial Avenue & Oak Street	Nassau County
2T/3T	Stewart Avenue & Clinton Road	Nassau County
2T	Franklin Avenue & Stewart Avenue	Nassau County
2T	Franklin Avenue & 11th Street	Nassau County
2T	Franklin Avenue & Old Country Road	Nassau County
2T	Old Country Road & Willis Avenue	Nassau County
2T	Willis Avenue & Jericho Turnpike	NYSDOT
2T	Willis Avenue & Hillside Avenue	NYSDOT
2T	Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	Nassau County
2T	Willis Avenue & Powerhouse Road	NYSDOT
2T	Mineola Avenue & Powerhouse Road	NYSDOT

Alignment	Intersection	Owner
2T	Mineola Avenue & Warner Avenue	Nassau County
2T	Old Northern Boulevard & Mineola Avenue	Nassau County
2T	Northern Boulevard & Center Drive	NYSDOT
2T	Northern Boulevard & Middle Neck Road	NYSDOT
2T	Northern Boulevard & Port Washington Boulevard	NYSDOT
2T	Northern Boulevard & Americana Manhasset	NYSDOT
2T	Northern Boulevard & Copley Road	NYSDOT
2T	Northern Boulevard & Shelter Rock Road	NYSDOT
2T	Northern Boulevard & Maple Street	NYSDOT
2T	Northern Boulevard & East Shore Road	NYSDOT
2T	Northern Boulevard & Susquehanna Avenue	NYSDOT
2T	Northern Boulevard & Lakeville Road	NYSDOT
2T	Northern Boulevard & Great Neck Road	NYSDOT
2T	Northern Boulevard & Little Neck Parkway	New York City
2T	Northern Boulevard & Douglaston Parkway	New York City
2T	Northern Boulevard & 223rd Street	New York City
2T	Bell Boulevard & 26th Avenue	New York City
2T	Bell Boulevard & Totten Road	New York City
2T	Totten Avenue to Cross Island Parkway Northbound & Totten Avenue	New York City
2T	14th Road & Utopia Parkway	New York City
2T	Zerega Avenue & Randall Avenue	New York City
2T	Zerega Avenue & Bruckner Boulevard Eastbound	New York City
2T	Zerega Avenue & Westchester Avenue	New York City
2T	Castle Hill Avenue & Lyvere Street	New York City
2T	Castle Hill Avenue & East Tremont Avenue	New York City
2T	East Tremont Avenue & Bronxdale Avenue	New York City
2T	Bronxdale Avenue & Van Nest Avenue	New York City
2T	Willis Avenue & 2nd Street	Nassau County
2T	Willis Avenue & Dartmouth Street/Center Street	Nassau County
2T	Willis Avenue & I U Willets Road South	Nassau County
2T	Willis Avenue & Cambridge Street/Hillturn Lane	Nassau County
2T	Willis Avenue & Oxford Street	Nassau County
2T	Northern Boulevard & Bell Boulevard	New York City
2T	Northern Boulevard & Corporal Kennedy Street	New York City
2T	26th Avenue & Clearview Expressway Service Road Northbound	New York City
2T	Cross Island Parkway & Utopia Parkway	New York City
2T	Cross Island Parkway & 160th Street	New York City
2T	Cross Island Parkway & 154th Street	New York City
2T	Cross Island Parkway & Clintonville Street	New York City
2T	Cross Island Parkway & 150th Street	New York City
2T	Cross Island Parkway & 14th Avenue/149th Street	New York City
2T	Whitestone Expressway & 3rd Avenue	New York City
2T	Zerega Avenue & Homer Avenue	New York City
2T	Havemeyer Avenue & Homer Avenue	New York City
2T	Zerega Avenue & Cross Bronx Service Road North	New York City
2T	Havemeyer Avenue & Waterbury Avenue	New York City
2T	Zerega Avenue & Waterbury Avenue	New York City
3T	Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	Nassau County
3T	Glen Cove Road & Jericho Turnpike	NYSDOT
3T	Glen Cove Road & Hillside Avenue	NYSDOT
3T	Glen Cove Road & Old Westbury Road Eastbound	NYSDOT
3T	Glen Cove Road & Old Westbury Road Westbound	NYSDOT

Alignment	Intersection	Owner
3T	Glen Cove Road & Harbor Hill Road	Nassau County
3T	Glen Cove Road & Wheatley Plaza	Nassau County
3T	Glen Cove Road & Back Road	NYSDOT
3T	Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	NYSDOT
3T	Glen Cove Road & Northern Boulevard	NYSDOT
3T/5T	Glen Cove Avenue & Glenwood Road/Glen Head Road	Nassau County
3T	Glenwood Road & Viola Street	Nassau County
3T/4T	Glenwood Road & Shore Road	Nassau County
3T	Old Country Road & Glen Cove Road/Clinton Road	Nassau County
4T	Broadhollow Road & Duryea Road	NYSDOT
4T	Spagnoli Road & Broadhollow Road	NYSDOT
4T	Haypath Road & Old Bethpage Road	Nassau County
4T	Old Country Road & Stauber Drive	Nassau County
4T	Grohmans Lane & Old Country Road	Nassau County
4T	Old Country Road & South Oyster Bay Road	Nassau County
4T	East Old Country Road & New South Road	Nassau County
4T	Robbins Lane & Marlene Drive	Nassau County
4T	Robbins Lane & Miller Place	NYSDOT
4T	East Street/Miller Road & Woodbury Road	Nassau County
4T	Jericho Turnpike & Robbins Lane	NYSDOT
4T	Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	NYSDOT
4T	Cedar Swamp Road & Apple Road North	NYSDOT
4T/5T	Cedar Swamp Road & Hegemans Lane	NYSDOT
4T/5T	Glen Head Road & Cedar Swamp Road	Nassau County
4T/5T	Glen Head Road & Glen Cove Road	NYSDOT
4T	Jericho Oyster Bay Road & Old Cedar Swamp Road/Old Jericho Turnpike	Nassau County
4T/5T	Northern Boulevard & Cedar Swamp Road	NYSDOT
5T	Glen Head Road & Wall Street	Nassau County
5T	Syosset Woodbury Road & Cold Spring Road	Nassau County
5T	Muttontown Road & Cold Spring Road	Nassau County
5T	Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	Nassau County
5T	Jericho Oyster Bay Road & Muttontown Road	NYSDOT
5T	Oyster Bay Road & Northern Boulevard	NYSDOT
5T	Northern Boulevard & Mill River Road	NYSDOT
5T	Northern Boulevard & Brookville Road	NYSDOT
5T	Glen Cove Avenue & Kissam Lane	Nassau County

3.4 DATA COLLECTION

3.4.1 Traffic Counts

Traffic data was collected in December 2024, January 2025, and April 2025 to establish the existing traffic patterns and conditions at intersections in . Various data was collected, including turning movement counts (TMCs), automatic traffic recorder (ATR) counts, and queue recordings at the study intersections as shown on **Figure 4**.

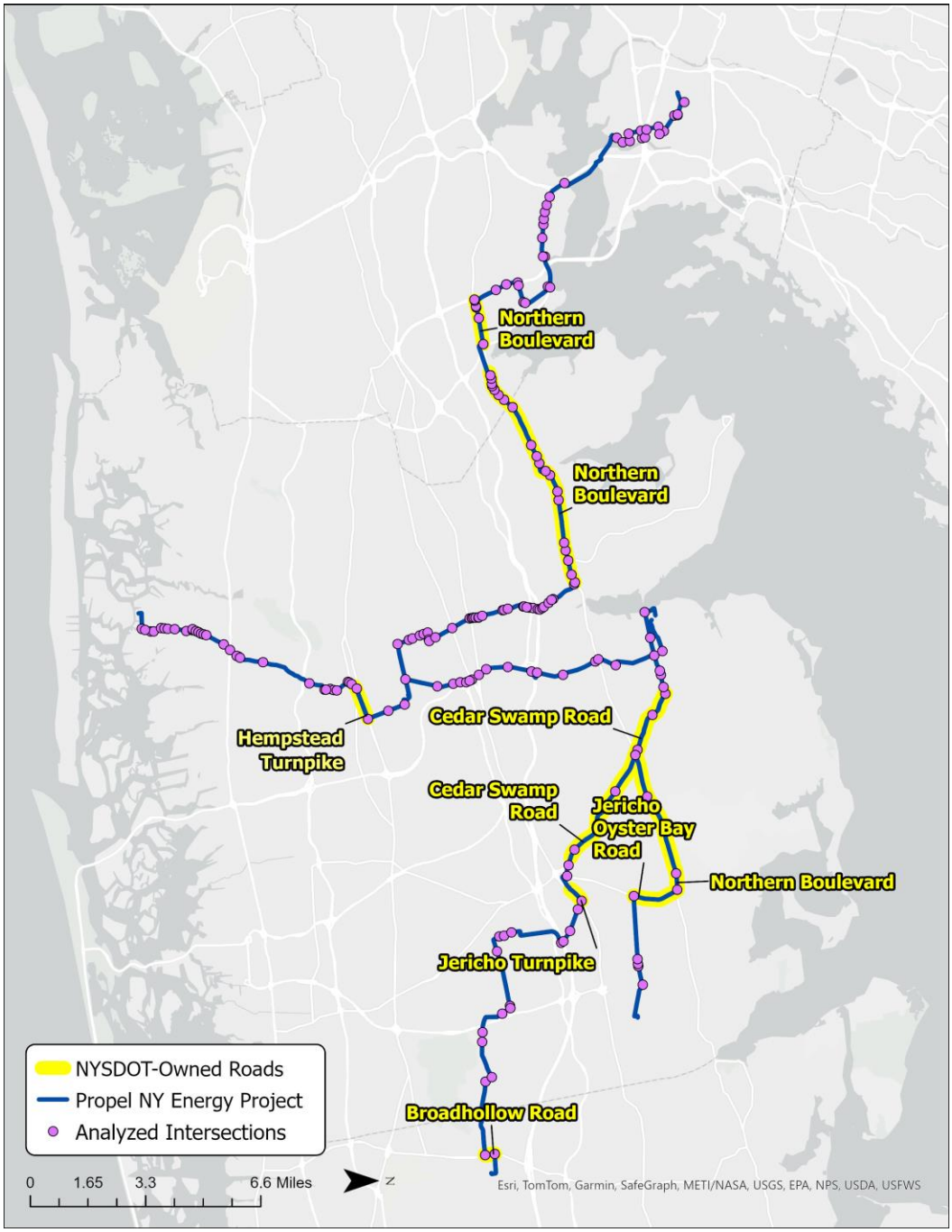


Figure 4: Study Intersections – 1T through 5T

3.4.2 Turning Movement Counts (TMC)

Turning movement counts (TMCs) were collected at screened-in intersections along segments 1T through 5T to quantify vehicle, pedestrian, and bicycle activity during representative peak periods and to support assessment of potential construction related impacts.

To capture peak periods, the time periods processed were weekdays from 7:00 AM to 10:00 AM, 11:00 AM to 1:00 PM, and 3:00 PM to 6:00 PM. Camera recordings of the study intersections

were processed to determine TMCs by vehicle class and pedestrian crosswalk volumes for the peak periods. Traffic recorded in the TMCs were classified into four vehicle categories: autos, buses (including non-articulated buses, articulated buses, and jitneys), medium trucks, and heavy trucks.

Pedestrian and bicyclist movements at the intersections were counted simultaneously with vehicle turning movement counts to accurately model traffic conflicts between vehicles.

3.4.3 Automatic Traffic Recorder (ATR) Counts

Continuous 24-hour, two-way ATR counts were collected at screened-in locations, with most study locations counted bi-directionally, for a total of 271 ATR locations over 9 days. The ATR counts were collected using pneumatic count tubes and were summarized in 15-minute intervals.

ATR counts are primarily used to verify that the flow of traffic supports the understanding of traffic volumes throughout the day. ATR counts were also used to identify representative peak periods Data provided by the ATR counts was limited to vehicle volumes. The count locations were selected at locations along the alignment where the Trenching Condition is expected to reduce the travel throughput.

3.4.4 Field Observations

Field observations were conducted at selected locations over several midweek days to supplement collected traffic data and verify key roadway characteristics, including lane geometry, parking regulatory signs and other regulatory signs, bus stops, designated official and unofficial school bus stops and student activities. Assumptions were validated through targeted spot checks and incorporated into the Existing Condition models, providing a feasible alternative to exhaustive field measurements for all intersections. The purpose of these observations was to supplement the collected traffic data and provide critical validation inputs for the Existing Condition models.

Key findings from field observations include the following:

- **Corridor Character** – Residential neighborhoods account for majority of the alignment, though portions of the corridor traverse commercial areas.
- **Traffic Composition** – Commercial intersections function as feeder roadways during AM and PM commuter periods. School buses and trucks were most notable along Northern Boulevard and Glen Cove Avenue. For segments 3T, 4T and 5T, overall commercial vehicle traffic was relatively low and generally limited to deliveries, while school bus activity was comparatively high.
- **Peak Period Timing** – ATR data were used to identify representative peak periods. For Segments 1T and 2T, ATR data supported selection of the MD peak period due to sustained daytime demand, while for Segments 3T through 5T, ATR data identified distinct AM and PM peak periods. A more detailed explanation can be found in **Section 3.7**.
- **Mode Activity** – Pedestrian activity was generally limited, particularly along segment 5T east of Glenwood Landing, while school bus traffic was prominent along segments 3T through 5T.
- **Congestion Patterns:** Persistent congestion was observed throughout much of the day on segments 3T, 4T and 5T north of Northern Blvd. There is also limited east-west and north-south connectivity other than Glenwood Road, Back Road, Glen Cove Avenue, and

Glen Cove Road. Along with segments 1T and 2T south of Northern Boulevard, congestion patterns indicate that the peak traffic activity is influenced in part by school-related travel in addition to traditional commuter.

3.5 CAPACITY ANALYSIS

Capacity analysis was conducted for screened-in intersections using Synchro 11, with evaluations performed under three conditions: Existing, No Action, and Trenching Conditions. The analysis followed the Highway Capacity Manual 7th Edition (HCM) which defines Level of Service (LOS) as a qualitative measure of operational conditions. LOS ranges from LOS A, representing free-flow conditions, to LOS F, representing high levels of delays associated with congestion. These represent a qualitative measure of operational conditions within a traffic stream, and the perception of conditions by motorists and/or passengers. Depending on the type of facility being analyzed, LOS is based on density (freedom to maneuver), delay (traffic flow interruptions), and comfort and convenience (for non-motorized road users) providing an index to the quality of traffic flow.

Because delays alone do not fully capture operations at oversaturated intersections, LOS is also assessed relative to the volume to capacity (v/c) ratio. When v/c exceeds 1.0, indicating that demand exceeds available capacity, the intersection is considered to operate at LOS F regardless of calculated delay.

The LOS thresholds applied in this analysis are summarized in **Table 2** below. These thresholds formed the basis for evaluating capacity and operational performance in the Synchro model.

Table 2: LOS for Signalized Intersections

Control Delay (Sec/Veh)	LOS By Volume-To-Capacity Ratio (V/C)	
	v/c ≤ 1.0	v/c > 1.0
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

Source: HCM 7, Exhibit 19-8

3.5.1 Synchro Inputs

To establish the uncalibrated Existing Conditions Synchro model, a combination of field-collected data and agency-provided information was incorporated, including the following inputs:

- **Heavy Vehicle Percentages (HV%)** – The estimated HV% is based on vehicle classification counts collected concurrently with turning movement counts. According to the HCM: "The heavy-vehicle factor accounts for the additional space occupied by these vehicles and for the difference in operating capabilities of heavy vehicles compared with passenger cars." Therefore, all buses — including those that stop at a near-side or far-side bus stop within 250 feet of the stop line, as well as those buses not stopping at bus stops — are accounted for in the HV% because these buses occupy additional space in the traffic stream and have different operating capabilities than passenger cars.

- **Timing/Phasing** – Signal timing and phasing used in the Synchro analysis were obtained from the respective agencies where available. At locations where official signal timing information was unavailable, field observations were conducted to manually document cycle length, phase splits, and timing patterns for the AM, PM, and late-night periods. These field observed timings were coded into the Synchro models.
- **Traffic Volumes** – If traffic volumes are not balanced between adjacent intersections, all sinks and sources are identified.
- **Lane Widths** – Field-verified instead of default lane widths are used in the Synchro analysis. Any lane width modifications as part of improvement/mitigation measures use whole numbers. Lane width calculation methodology for lane groups with multiple lanes of varying width is documented.
- **Right Turn On Red (RTOR) –** Unless a posted sign prohibiting RTOR has been observed in the field, RTOR is allowed in the model.
- **Parking Maneuvers** – For lane groups adjacent to the parking lane, parking maneuvers were calculated. Different formulas from the CEQR Manual were used to calculate parking maneuvers based on the type of parking (non-metered, two or more hour metered, or one-hour metered).
- **Bus Blockages** – Bus blockages are applied where near and/or far side bus stops are present within 250 feet of an intersection (excluding bus stops that are in dedicated bus bays). The bus blockages are applied to through lane groups only and not a conflicting left or right turn. However, buses moving in the traffic stream (not stopping at bus stops) are considered part of the heavy vehicle percentage.
- **Conflicting Pedestrians** – The number of pedestrians crossing at crosswalks collected concurrently with turning movement counts are included in the model.
- **Conflicting Bicycles** – The number of bicycles crossing at crosswalks collected concurrently with turning movement counts are included in the model.

Detailed information on the inputs used in developing the uncalibrated Existing Conditions models can be found in **Appendix C**.

3.5.2 Synchro Calibration Methodology

Synchro calibration procedures were based on methodologies developed by NYCDOT to support replication of observed real-world conditions. This approach provides a consistent method of Synchro calibration across multiple municipalities so that existing conditions are reasonably represented in the model.

To guard against the use of unreasonably low peak hour factors (PHF) under the Existing Condition which may lead to results that are not representative of typical field conditions, the formula below, also developed by NYCDOT, was used to calculate a minimum PHF utilized in the analysis. The use of a minimum PHF helps prevent overestimating delays at low-volume intersections in the analysis.

Minimum Peak Hour Factor formula:

$$PHF_{\text{Minimum}} = 0.8033 \times 1.000083^{\text{Volume}}$$

$$1 \leq \text{Volume} \leq 2300$$

A calibrated Existing Conditions model was created using the uncalibrated model. The calibrated Synchro model was calibrated with the primary targets of all lane groups having v/c ratios no higher than 1.05. Model calibration or adjustment to the default parameter values were applied when the v/c ratio for a lane group exceeded 1.05 under Existing Conditions. Calibration parameters that were adjusted from the default values were documented.

For calibration purposes, the following adjustments to default values were applied according to the order below:

- **Saturation Flow Rate (SFR)** – While 1,900 passenger cars per hour per lane (pcphpl) is the default value, the maximum allowable SFR under NYCDOT calibration guidelines is 2,050 pcphpl. However, any increase to the maximum permissible SFR of 2,050 pcphpl or decrease to the default 1,900 pcphpl is based on field-verifiable and quantifiable information. When increasing the SFR is justifiable, it is generally good practice to use 2,050 pcphpl rather than any other arbitrary increments.
- **Lost Time Adjustment** – Synchro combines the Start-up Lost Time and the Extension of Green with one Lost Time Adjustment factor, which is 0.0 seconds. Consistent with the preceding two sections, the Lost Time Adjustment factor is reduced to as low as -2.0 seconds, if warranted. Any further decrease to Lost Time Adjustment is only done if supported by field verified/quantified information.
- **Parking Maneuvers** – The number of default parking maneuvers for an area with high parking turnover is 20 maneuvers per hour. Intersections without on-street parking nearby are set to zero to establish a reasonable adjusted saturation flow rate (capacity).
- **Lane Utilization** – The Lane Utilization adjustment factor for a lane-group should be closer to 1.0 as demand approaches capacity. On the contrary, if not all lanes are observed to be equally utilized by motorists (for example: far side lane drops, or lanes approaching tunnels or bridges), the appropriate adjustment to Lane Utilization factor is made for proper calibration. In addition, the Lane Utilization factor could decrease to account for spillback of a turn bay, double parking, or illegal standing in a curbside travel lane. Any adjustment to the Lane Utilization factor is based on actual traffic volume data.
- **Right-Turn and Left-Turn Values** – The estimated right-turn and left-turn factors in Synchro were not modified unless supported by quantified information collected in the field.

Calibrating the traffic models relied heavily on review of video footage of intersections to estimate queue lengths, rather than continuous field based measurements. While direct field observations provide the most robust dataset for understanding real-world conditions, video review allowed the team to capture detailed snapshots of queue formation and dissipation at study intersections.

Queue information is critical for accurate and reliable models because it provides a sample of real-world data for understanding bottlenecks, identifying congested areas along corridors where some of the demand volumes are not processed, and identifying areas where the traffic flows

operate outside of the expected range. By incorporating this data, models can be fine-tuned to reflect existing conditions more accurately.

Where the Synchro reported 95th percentile queues were longer than field-observed queues, no further calibration was pursued, and the analysis was considered a conservative assessment. When the Synchro reported 95th percentile queues were shorter than field-observed queues, further investigation was pursued by:

- Observing the upstream and downstream volumes of the approach of interest
- Observing the queue spillback of adjacent turn lanes/bays

To address differences between observed queues (video) and Synchro reported 95th percentile queues, additional adjustments were made to saturation flow rates. These adjustments were not tied to fixed field measurements, but were used as calibration 'parameters' to fine-tune the model so that the Synchro model reasonably replicated real-world congestion patterns without forcing unrealistic assumptions. By treating these parameters as flexible calibration tools rather than restrict inputs, the model was able to more accurately simulate observed traffic conditions and provide a more robust and adaptable model to simulate traffic conditions under varying scenarios. The log of changes in pursuit of calibration due to queues can be found in **Appendix D**. Only the saturation flow rates were adjusted as calibrations.

Once the Existing Conditions Synchro models were calibrated and validated, the adjusted calibration parameters were retained for the future No Action and Trenching conditions analyses.

3.5.2.1 Synchro Measures of Effectiveness

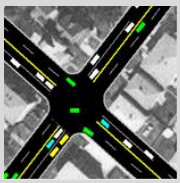
When generating LOS results, outputs were reported by lane group. The default Synchro report was used to provide all Measures of Effectiveness (MOEs) including delay, v/c ratio, LOS, and 50th percentile and 95th percentile queue lengths.

The primary MOE for the Synchro analysis is the change in delay and LOS between future No Action and Trenching Conditions. The following criteria were applied to determine whether the Trenching Conditions result in a significant impact that requires mitigation. These thresholds were selected to produce a conservative assessment consistent with CEQR practice:

- If the LOS for a defined lane group under the Trenching Conditions is LOS A, B, C, or D there is no significant impact, unless it is determined that the neighborhood character may be adversely affected.
- An increase in movement delay of 5 or more seconds at LOS E during the peak hour is considered to have a significant impact.
- An increase in movement delay of 4 or more seconds at LOS F during the peak hour is considered a significant impact.

Additional output statistics, such as queue length (50th percentile and 95th percentile) and v/c ratio were also generated. **Table 3** shows the relationship between vehicle delay and LOS at signalized and unsignalized intersections.

Table 3: Level of Service Average Control Delay Criteria

	Level of Service	Signalized Intersection Average Control Delay (Sec/Veh)	Unsignalized Intersection Average Control Delay (Sec/Veh)
	A	≤ 10	≤ 10
	B	> 10 and ≤ 20	> 10 and ≤ 15
	C	> 20 and ≤ 35	> 15 and ≤ 25
	D	> 35 and ≤ 55	> 25 and ≤ 35
	E	> 55 and ≤ 80	> 35 and ≤ 50
	F	> 80	> 50

Source: Highway Capacity Manual. 7th Edition. Transportation Research Board, National Research Council, Washington D.C.

3.6 TRAFFIC ANALYSIS SCENARIOS

The traffic analysis was conducted for the following conditions:

- Existing Condition: Represents current traffic operations based on recently collected data. This condition establishes the baseline against which all other scenarios are compared.
- No Action Condition: Represents future traffic conditions in the analysis year (2030) without construction. Growth factors and background traffic increases were applied to the Existing Condition, providing the benchmark to assess whether changes are attributable to construction activities.
- Trenching Conditions: Represents traffic conditions during construction with lane closures, detours, or other restrictions in place, as depicted in MPT plans. This condition reflects the temporary impacts associated with trenching activities and is the focus of the impact analysis.

These conditions provide a framework for evaluating how construction affects roadway operation traffic patterns. A more detailed description of each condition, as well as the analytical results, is presented in the following sections.

3.7 PEAK HOURS

To produce representative and conservative assessment of traffic conditions during construction, the effects of trenching activities were evaluated during time periods that reflect the highest demand on the roadway network. Peak periods were identified based on a review of 24-hour average ATR data collected along the project corridors. **Figure 5** and **Figure 6** present the weekday 24-hour traffic volume profile for segment 1T and 2T, and segment 3T through 5T, respectively.

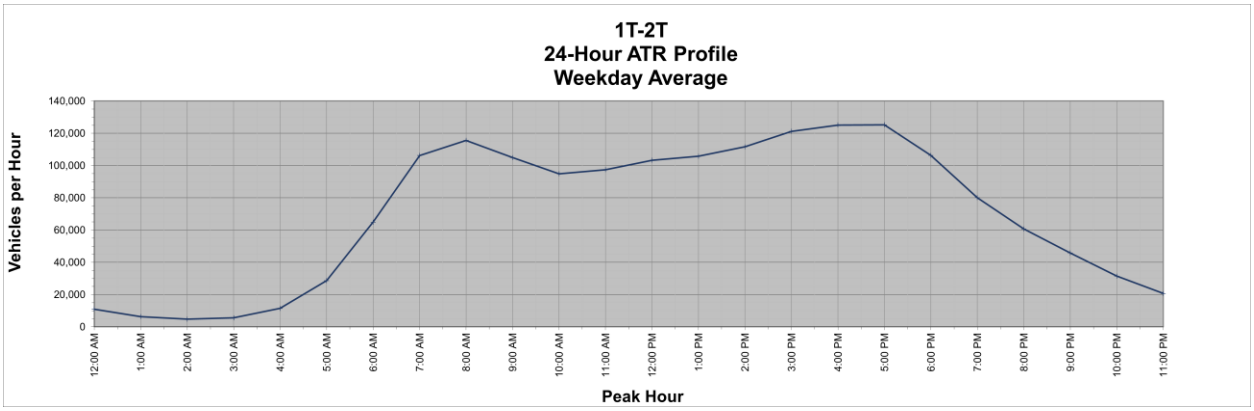


Figure 5: 24-Hour Volume Profile for Weekdays – 1T and 2T

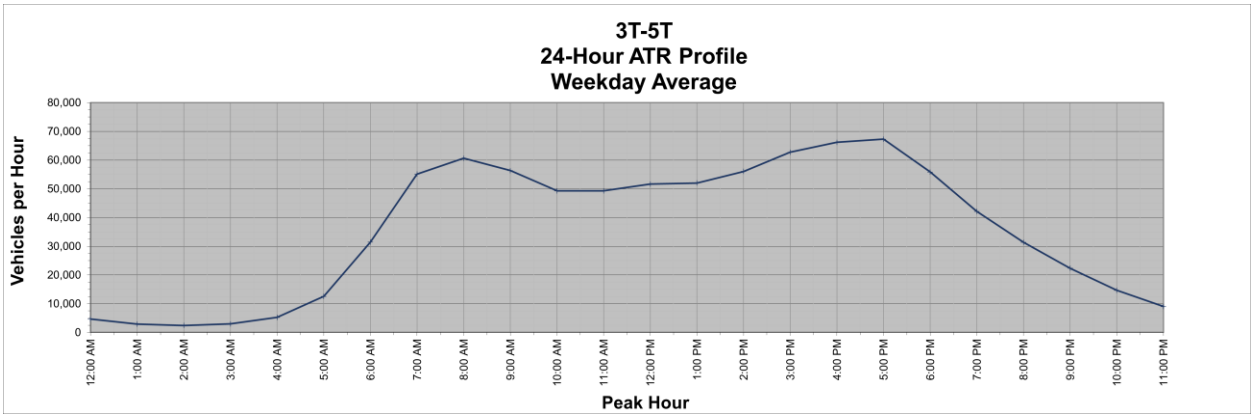


Figure 6: 24-Hour Volume Profile for Weekdays – 3T through 5T

A review of ATR data indicates that Segments 1T and 2T experience a broad plateau of elevated traffic volumes throughout the daytime period, with midday volumes comparable to peak conditions and without sharply defined AM or PM peaks. As such, the MD peak period was selected as the representative worst-case daytime condition. This period is supplemented by late-night analysis to evaluate construction impacts under reduced traffic demand conditions.

In contrast, Segments 3T through 5T exhibit distinct AM and PM peak periods, with more concentrated volumes and pronounced commuter-driven demand, while midday volumes are comparatively lower. Accordingly, AM, PM, and late-night periods were analyzed to capture both peak and off-peak operational conditions.

This approach ensures that the analysis is aligned with observed traffic characteristics and anticipated construction work windows. Based on the ATR data collected, the following analysis periods were selected:

- Segments 1T and 2T:
  - Weekday Midday (MD) - 1:00 PM to 2:00 PM
  - Weekday Late Night (LN) - 10:00 PM to 11:00 PM
- Segments 3T through 5T:
  - Weekday AM - 7:30 AM to 8:30 AM
  - Weekday PM - 4:45 PM to 5:45 PM
  - Weekday Late Night (LN) - 10:00 PM to 11:00 PM

3.7.1 Construction Hours

Construction hours were evaluated based on a combination of traffic operational considerations, roadway characteristics, surrounding land use, and constructability constraints. These considerations were informed by qualitative feedback obtained through coordination with roadway-owning agencies and municipalities, as well as engineering judgment regarding anticipated construction staging and Maintenance and Protection of Traffic (MPT) requirements.

Construction activities may occur during both daytime and late-night periods, depending on site-specific conditions. These include adjacent land use (e.g., residential versus commercial areas), traffic demand characteristics, roadway geometry, and community considerations such as access and potential noise impacts. As such, construction work windows are expected to vary along the corridor and will ultimately be determined through coordination with the applicable jurisdictions.

It should be noted that the analysis periods selected in **Section 3.7** represent peak traffic conditions for evaluation purposes only and do not necessarily correspond to the full duration or exact timing of construction activities. These analysis periods were selected to conservatively assess potential traffic impacts under representative high-demand and off-peak conditions.

3.7.1.1 Analysis Hour for Segments 1T and 2T

The MD peak hour was directly derived from processed turning movement count (TMC) data and used without adjustment to represent existing conditions for segments 1T and 2T. This period reflects sustained daytime traffic demand observed in ATR data and was selected as the representative worst-case daytime condition. The hours of construction for segments 1T and 2T were determined to be dependent on different factors for each intersection and surrounding land use characteristics. A detailed discussion of constructability considerations including community impacts, safety, regulatory constraints, and work hour determinations is provided in **Section 4.1**. For analysis intersections selected in segments 1T and 2T, a MD peak hour analysis and an LN peak hour analysis were produced.

To establish the LN peak hour, a structured approach was applied using available data and operations constraints. Because a traditional peak hour does not exist for a typical late night construction shift between 10:00 PM and 6:00 AM, and because construction hours had not yet been approved by the various jurisdictions at the time of this analysis, a series of sensitivity tests were conducted to estimate the earliest hour that late night construction could start without causing significant traffic impact at most locations. Based on the sensitivity tests, a weekday LN peak hour of 10:00 PM to 11:00 PM was identified for analysis. StreetLight data analysis confirmed that LN traffic patterns closely resemble MD peak hour volumes. Accordingly, MD peak-hour TMCs were scaled using LN adjustment factors. These adjustment factors were developed for each intersection by comparing the MD peak hour ATR volumes to the LN peak hour ATR volumes to scale up or down the TMCs depending on the ATR proportion. The estimated LN peak hour TMC volumes established the basis for the Existing Conditions volumes in the analysis scenarios. The formula for the LN adjustment factor is:

$$LN_{\text{Adj Factor}} = (\text{LN Hourly ATR Volume})/(\text{MD Peak Hour ATR Volume})$$

$$\text{LN Volume Analyzed} = LN_{\text{Adj Factor}} \times (\text{MD TMC Volume})$$

3.7.1.2 Analysis Hours for Segments 3T, 4T, and 5T

The hours of construction for segments 3T, 4T, and 5T were determined to be dependent on different factors for each intersection and surrounding land use characteristics. A detailed discussion of constructability considerations including community impacts, safety, regulatory constraints, and work hour determinations is provided in **Section 4.1**. For analysis intersections selected in segments 3T through 5T, AM peak hour, PM peak hour, and LN peak hour analyses were produced for each intersection.

3.8 ANALYSIS YEARS AND BACKGROUND GROWTH

The project proposes to be constructed along segments 1T through 5T over five years between 2026 and 2030. As a conservative measure of analysis, the final year of construction (2030) was used as the peak construction year which represents the most critical construction period during the five-year construction timeline, allowing for the most conservative traffic analysis. Therefore, the No Action Condition and Trenching Conditions analysis year is 2030.

To determine the 2030 equivalent volumes of existing counts, an annual traffic growth factor was developed from socioeconomic data (population) for Nassau County, Queens County, and Bronx County and their surrounding areas in the New York Metropolitan Transportation Council Best Practice Model (BPM). Travel demand in the BPM was compared between the years 2019 and 2050. Because the 1T through 5T alignments stretch across a large region with different land uses and population density, zones were created to best represent growth rates at a more local level. The growth rate for each respective zone was applied to the intersections analyzed within the zone in which it is located. Twelve zones were established for 1T through 5T.

Figure 7 illustrates the travel demand model limits and the zones. Zone 1 includes intersections located in the Village of Hempstead and the Village Rockville Centre. Zone 2 includes intersections located only in the Village of Hempstead. Zone 3 includes intersections located in the Village of Garden City and in the Village of Mineola. Zone 4 and Zone 5 include intersections in the Town of North Hempstead, the Village of Rosyln, the Village of Roslyn Estates, the Village of Flower Hill, and the Village of Thomaston. Zone 6 includes intersections in Queens and Zone 7 includes intersections in the Bronx.

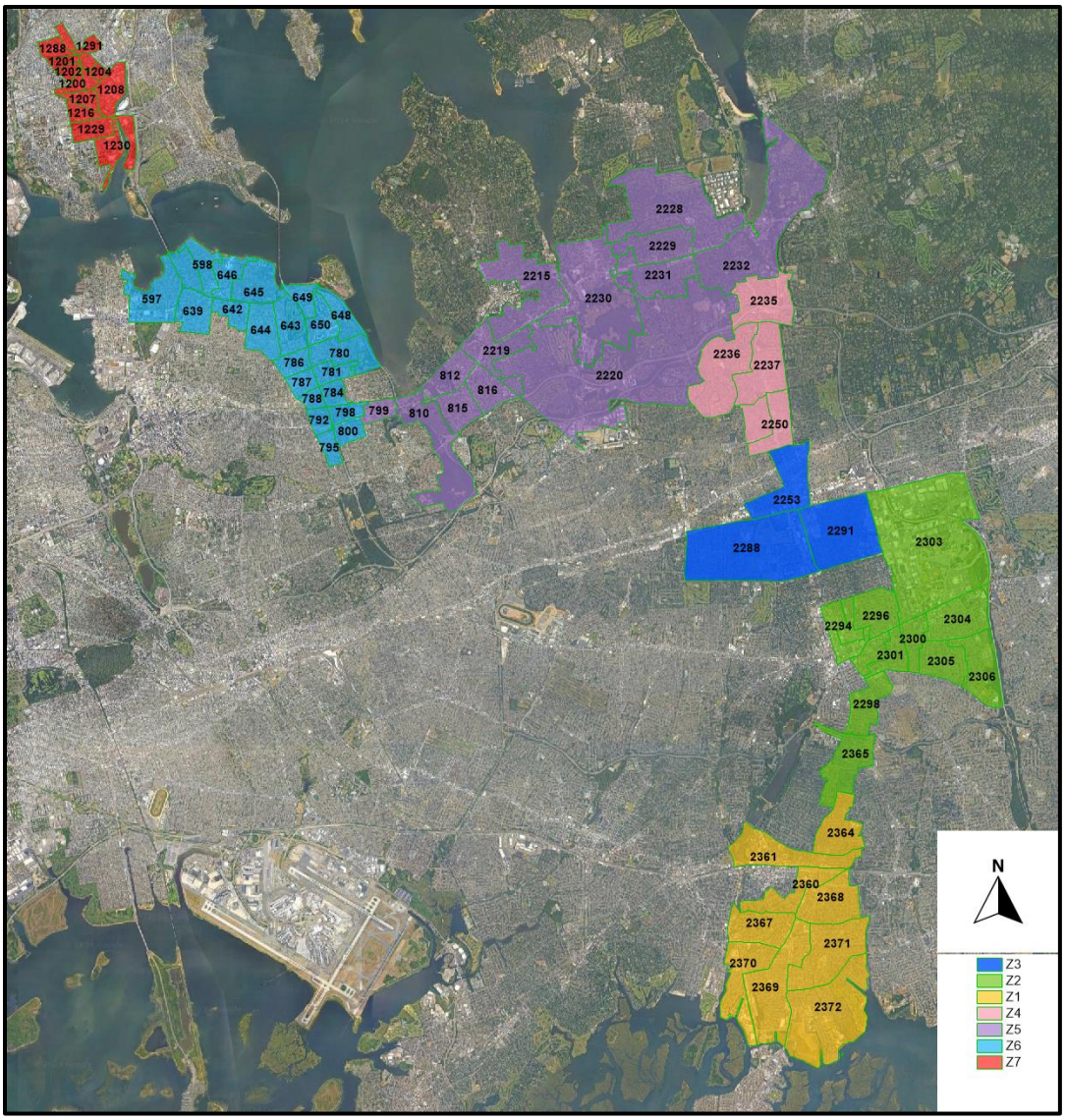


Figure 7: Travel Demand Model Subarea – 1T and 2T

Figure 8 illustrates the travel demand model limits and the zones for 3T, 4T and 5T. Zone 8 includes intersections located in the Village of Westbury, the Village of Old Westbury, the Village of East Hills, the Village of Roslyn Harbor, and the Town of North Hempstead. Zone 9 includes intersections located in the Town of Oyster Bay and the Village of Old Brookville. Zone 10 includes intersections located in the Town of Oyster Bay, the Village of Brookville, and the Village of Upper Brookville. Zone 11 includes intersections located in the Town of Oyster Bay and the Town of Huntington. Zone 12 includes intersections in the Town of Oyster Bay, the Village of Muttontown, and the Village of Upper Brookville.

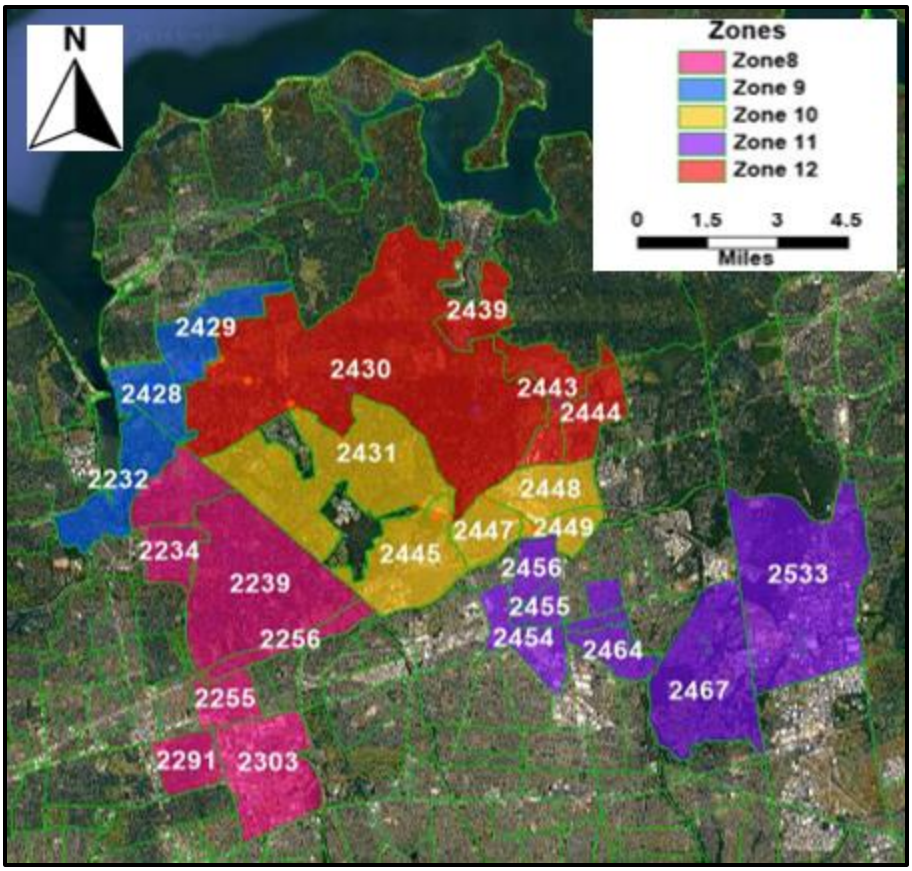


Figure 8: Travel Demand Model Subarea – 3T through 5T

Travel demand modeling zones offer a granular framework for analyzing growth potential across subareas within the New York–Long Island region. By integrating variables such as population density, land use patterns, and socioeconomic characteristics, these zones enable the ability to forecast travel behavior with greater precision. This spatial disaggregation is particularly valuable when evaluating conditions during the final year of construction, which is the most conservative scenario, when traffic volumes are expected to peak and network stress is highest. The annual traffic growth rates for each zone are shown in **Table 4**.

Table 4: Travel Demand Subarea Statistics

Area	Annual Growth Rate
Zone 1 (Z1)	0.42%
Zone 2 (Z2)	0.53%
Zone 3 (Z3)	0.46%
Zone 4 (Z4)	0.38%
Zone 5 (Z5)	0.55%
Zone 6 (Z6)	0.50%
Zone 7 (Z7)	0.25%
Zone 8 (Z8)	0.72%
Zone 9 (Z9)	0.36%
Zone 10 (Z10)	0.27%
Zone 11 (Z11)	0.33%
Zone 12 (Z12)	0.29%

It is expected that No Action Condition projects such as new developments, other construction, infrastructural changes, and policy changes may occur and alter the anticipated 2030 No Action volumes. These projects were not included in the No Action Condition because it was determined that the general background growth rate sufficiently captures the anticipated changes in traffic conditions because of several reasons. First, these projects often reflect incremental changes in demand and are inherently reflected in the background growth. Second, accounting for projects runs the risk of accounting for an impact that remains uncertain until fully defined. Finally, the study aims to evaluate the broader study area impacts while many individual No Action Condition projects reflect localized effects.

Any No Action Condition project identified in the future that has the potential to cause a significant and lasting impact on the traffic analysis will be assessed at that time to determine whether its inclusion in the analysis is necessary.

4 CONSTRUCTABILITY

The constructability of trenching work along the terrestrial alignment considers two major components: (1) the feasibility of conducting construction dependent on time of day, and (2) the production rate which represents how much construction can be accomplished during a specified time period along the terrestrial segment dependent on location.

The time-of-day feasibility and production rate of construction is important because the time-of-day feasibility informs the construction hours, and the production rate informs the duration of construction to be conducted. While production rates do not directly impact the overall traffic analysis approach, results for locations identified as lower production rates that have the likeliness to have longer construction durations were observed in greater detail.

4.1 TIME OF DAY FEASIBILITY

Construction work hour assumptions used in this analysis were developed by the Propel NY project team in coordination with project planning inputs and represent typical daytime and nighttime construction windows (e.g., approximately 8:00 AM to 4:00 PM for daytime work and 9:00 PM to 5:00 AM for nighttime work), as well as consideration of school-related time constraints, where applicable. The feasibility of construction time of day is determined based on four factors: compliance, community impact, safety and traffic flow, and construction efficiency.

Constructability of segments 1T through 5T is heavily influenced by environmental and regulatory constraints such as noise, vibration of plating thresholds, and traffic congestion. While each municipality will be consulted when acquiring Road Use Agreements and Work Permits, certain conditions specific to this project are being identified and described in the Certificate of Environmental Compatibility and Public Need issued under the Article VII of the New York State Public Service Law by the New York State Department of Public Service (DPS), who is responsible for overseeing public utilities and infrastructure projects in New York State.

Constructability also considers community impacts. The alignment was assessed for adjacent land use type, and qualitative field observations were conducted to confirm whether surrounding areas are residential, commercial, or industrial. Construction staging and sequencing requires healthy tradeoffs between disruptions to accessibility for residents and noise grievances during construction.

Traffic safety and traffic flow were key considerations in evaluating constructability at study intersections. Potential impacts included conflict with school activities, disruption to school bus access, and reduced accessibility for residents. To address these, proximity to schools was considered and factored into the work hour selection to avoid conflicts during pick up and drop off times; proximity to residential roadways was also factored in.

Preliminary constructability work hours were determined by classifying roadway segments as commercial or residential. The classifications by roadway segment are shown in **Appendix L**. Commercial corridors were generally assigned to late night work to minimize traffic disruption, while residential roadways were assigned to daytime work to reduce nighttime noise impacts. However, subsequent field review and coordination revealed that this binary classification was not always accurate or feasible. In some cases, segments flagged as residential had notable commercial activity, while other corridors contained a mix of uses that made a single designation difficult. These locations require compromises that balance operational efficiency, community concerns, and safety consideration, resulting in adjusted work-hour determinations.

Working hours, as of the time of this report, were standardized to guide constructability analysis:

- Days: 8:00 AM – 4:00 PM
- Nights: 9:00 PM – 5:00 AM
- Schools: 10:00 AM – 2:00 PM (restricted hours to minimize conflicts with bus arrivals and dismissals)

Table 5, **Table 8**,

Table 9, **Table 8**, and

Table 9 present the proposed construction time periods for intersections we are analyzing along segments 1T, 2T, 3T, 4T, and 5T respectively. The determination incorporated qualitative assessments of constructability, existing roadway capacity, current demands, daytime and nighttime traffic conditions.

A guiding principle of this assessment is that intersections already unstable or near-failure under existing conditions are expected to perform worse during construction and would likely only be feasible for late night construction. For this analysis unstable conditions are defined as LOS D (average delay 35-54 seconds, v/c ratio approaching 1.0), where traffic operations are strained and queues regularly form. Near-failure conditions are defined as LOS E or worse (average delay greater than 54 seconds, v/c ratio greater than or equal 1.0), where intersections are operating at or beyond capacity with persistent queues and minimal reverse capacity.

Because the constructability work hours are still only preliminary proposed, this report includes day and night analyses.

Final construction work hours and allowable lane closure configurations will be determined through coordination with NYSDOT and other applicable agencies and jurisdictions during the permitting process. As such, the results of this analysis are intended to inform this coordination by identifying potential traffic impacts under both daytime and nighttime conditions. The analysis results support this framework by demonstrating that higher-demand periods (e.g., MD for Segments 1T and 2T and AM/PM for Segments 3T through 5T) represent more constrained operating conditions, while nighttime periods generally provide greater operational flexibility. Work hour ranges shown represent assumed construction windows used for analysis purposes. The final allowable work hours will be subject to agency review and permitting requirements.

Table 5: Proposed Constructability Work Hours – 1T

Intersection	Proposed Construction Time Period
Long Beach Road & Daly Boulevard	Nights
Long Beach Road & Mott Street	Nights
Long Beach Road & Davison Avenue	Nights
Long Beach Road & Lincoln Avenue	Days
North Long Beach Road/South Long Beach Road & Merrick Road	Nights
North Long Beach Road & Sunrise Highway	Nights
North Long Beach Road & DeMott Avenue/Brower Avenue	Days
Long Beach Road/Homan Boulevard & Baldwin Road	Days
Henry Street/Baldwin Road & East Graham Avenue/Tompkins Place	Days
Henry Street & Greenwich Street	Days
Henry Street & Peninsula Boulevard	Days
Clinton Street & Peninsula Boulevard	Days
Peninsula Boulevard & Front Street	Days
Commercial Avenue & Oak Street	Days
Fulton Avenue & Peninsula Boulevard/Bennett Avenue	Days
Hempstead Turnpike & Oak Street	Nights
Oak Street & Westbury Boulevard/Meadow Street	Nights
Commercial Avenue & Oak Street	Days

Table 6: Proposed Constructability Work Hours – 2T

Intersection	Proposed Construction Time Period
Stewart Avenue & Clinton Road	Days
Franklin Avenue & Stewart Avenue	Nights
Franklin Avenue & 11th Street	Nights
Franklin Avenue & Old Country Road	Days
Old Country Road & Willis Avenue	Days
Willis Avenue & Jericho Turnpike	Nights
Willis Avenue & Hillside Avenue	Nights
Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	Nights
Willis Avenue & Powerhouse Road/South Service Road	Nights
Mineola Avenue/Willis Avenue & Powerhouse Road	Nights
Mineola Avenue & Warner Avenue/The Intervale	Nights
Old Northern Boulevard & Mineola Avenue	Nights
Northern Boulevard & Center Drive/Mineola Avenue	Nights
Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard	Days
Northern Boulevard & Port Washington Boulevard/Searingtown Road	Days
Northern Boulevard & Americana Manhasset	Days
Northern Boulevard & Copley Road/The Gate	Days
Northern Boulevard & Shelter Rock Road	Days
Northern Boulevard & Maple Street	Days
Northern Boulevard & East Shore Road/Community Drive	Days
Northern Boulevard & Susquehanna Avenue	Days
Northern Boulevard & Lakeville Road/South Middle Neck Road	Days
Northern Boulevard & Great Neck Road/Buttonwood Road/Driveway	Days
Northern Boulevard & Little Neck Parkway	Days
Northern Boulevard & Douglaston Parkway	Days
Northern Boulevard & 223rd Street	Nights
Bell Boulevard & 26th Avenue	Days
Bell Boulevard/Cross Island Parkway & Totten Road/212th Street	Days
Cross Island Boulevard & Totten Road	Days
14th Road/Cross Island Boulevard & Utopia Parkway	Days
Zerega Avenue & Randall Avenue	Days
Zerega Avenue & Bruckner Boulevard	Days
Zerega Avenue & Westchester Avenue	Days
Castle Hill Avenue & Zerega Avenue/Lyvere Street	Days
Castle Hill Avenue & East Tremont Avenue	Days
East Tremont Avenue & Bronxdale Avenue	Days
Van Nest Avenue & Bronxdale Avenue	Days
Willis Avenue & 2nd Street	Days

Intersection	Proposed Construction Time Period
Willis Ave & Dartmouth Street/Center Street	Days
Willis Ave & I U Willets Road	Days
Willis Ave & Cambridge Street/Hillturn Lane	Days
Willis Ave & Oxford Street	Days
Northern Boulevard & Bell Boulevard	Nights
Northern Boulevard & Corporal Kennedy Street	Nights
26th Avenue & Clearview Expressway Service Road	Days
Utopia Parkway & Cross Island Parkway	Days
Cross Island Parkway & 160th Street	Days
Cross Island Parkway & 154th Street/Cryders Lane	Days
Cross Island Parkway & Clintonville Street	Days
Cross Island Parkway & 150th Street/14th Road	Days
Cross Island Parkway & 14th Avenue/149th Street	Days
Whitestone Expressway & 3rd Avenue	Days
Zerega Avenue & Homer Avenue	Days
Havemeyer Avenue & Homer Avenue	Days
Zerega Avenue & Cross Bronx Service Road North	Days
Waterbury Avenue & Havemeyer Avenue	Days
Zerega Avenue & Waterbury Avenue	Days

Table 7: Proposed Constructability Work Hours – 3T

Intersection	Proposed Construction Time Period
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	Nights
Glen Cove Road & Jericho Turnpike	Days
Glen Cove Road & Hillside Avenue	Days
Glen Cove Road & Old Westbury Road Eastbound	Days
Glen Cove Road & Old Westbury Road Westbound	Days
Glen Cove Road & Harbor Hill Road	Days
Glen Cove Road & Wheatley Plaza	Nights
Glen Cove Road & Back Road	Days
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	Nights
Glen Cove Road & Northern Boulevard	Nights
Glenwood Road & Glen Cove Avenue	Days
Glenwood Road & Viola Street	Days
Glenwood Road & Shore Road	Days
Old Country Road & Glen Cove Road	Nights
Stewart Avenue & Clinton Road	Days

Table 8: Proposed Constructability Work Hours – 4T

Intersection	Proposed Construction Time Period
Glenwood Road & Shore Road	Days
Broadhollow Road & Duryea Road	Nights
Spagnoli Road & Broadhollow Road	Nights
Haypath Road & Old Bethpage Road	Days
Old Country Road & Stauber Drive	Days
Grohmans Lane & Old Country Road	Days
Old Country Road & South Oyster Bay Road	Days
East Old Country Road & New South Road	Days
Robbins Lane & Marlene Drive	Days
Robbins Lane & Miller Place	Days
Miller Road & Woodbury Road	Days
Jericho Turnpike & Robbins Lane	Nights
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	Days
Cedar Swamp Road & Apple Road North	Days
Cedar Swamp Road & Hegemans Lane	Days
Glen Head Road & Cedar Swamp Road	Nights
Glen Head Road & Glen Cove Road	Nights
Jericho Oyster Bay Road & Old Cedar Swamp Road	Days
Northern Boulevard & Cedar Swamp Road	Days

Table 9: Proposed Constructability Work Hours – 5T

Intersection	Proposed Construction Time Period
Glen Head Road & Wall Street	Days
Glenwood Road & Glen Cove Avenue	Days
Cedar Swamp Road & Hegemans Lane	Days
Glen Head Road & Cedar Swamp Road	Days
Glen Head Road & Glen Cove Road	Days
Syosset Woodbury Road & Cold Spring Road	Days
Jackson Avenue & Cold Spring Road	Days
Muttontown Eastwoods Road & Jackson Ave/Berry Hill Road/Split Rock Road	Days
Jericho Oyster Bay Road & Muttontown Eastwoods Road	Days
Oyster Bay Road & Northern Boulevard	Days
Northern Boulevard & Mill River Road	Days
Northern Boulevard & Brookville Road/Wolver Hollow Road	Days
Northern Boulevard & Cedar Swamp Road	Days
Glen Cove Avenue & Kissam Lane	Days

4.2 PRODUCTION RATES

Production rate is the quantity of construction that can be accomplished along the terrestrial segment during a given time period. The production rate defines the expected daily progress of trenching and duct bank installation under different field conditions and has been divided into three categories for this project: 25 feet per day (difficult), 50 feet per day (medium), and 75 feet per day (easy). These benchmarks are critical in evaluating construction sequencing and duration.

Factors affecting production rate include presence of utilities, need for utility relocations, soil conditions and other geotechnical considerations, and logistics of getting construction equipment to and from the site. For example, along the 3T segment near Clinton Road, Trenching Conditions are classified as difficult due to utility density and roadway constraints, limiting crews to approximately 25 feet per day. Similarly, in the 3T/4T segments near Glenwood Landing, challenging filed conditions also require lower production rate assumptions. These constraints underscore the importance of sequencing construction activities.

Production rates did not directly impact the overall traffic analysis approach, but the traffic analysis results for locations identified as more difficult that have a probability of longer construction durations were observed in greater detail. **Appendix L** describes the production rate for all segments along the alignments.

5 EXISTING CONDITION

To establish an Existing Condition Synchro model that accurately reflects current traffic conditions, an initial uncalibrated model was analyzed using default parameters. Using the calibration methodology described in **Section 3.5.2**, the uncalibrated model was calibrated, and the parameters adjusted from default values were documented (e.g., modification of saturation flow rates, adjustment of start-up lost times, extension of green time, etc.). These adjustments are provided in **Appendix E**.

5.1 RESULTS

Results for the calibrated Existing Conditions analysis are summarized in Table 10 through Table 22. Results for the calibrated 1T Existing Condition analysis for the MD and LN conditions are shown in **Table 10** and **Table 11** respectively. Results for the calibrated 2T Existing Condition analysis for the MD and LN conditions are shown in **Table 12** and **Table 13** respectively. Results for the calibrated 3T Existing Condition analysis for the AM, PM, and LN conditions are shown in **Table 14**, **Table 15**, and **Table 16** respectively. Results for the calibrated 4T Existing Condition analysis for the AM, PM, and LN conditions are shown in **Table 17**, **Table 18**, and **Table 19** respectively. Results for the calibrated 5T Existing Condition analysis for the AM, PM, and LN conditions are shown in **Table 20**, **Table 21**, and **Table 22** respectively. The tables include the intersections analyzed, the average intersection delay, and the intersection LOS for Existing Conditions. Intersections with average delays of greater than 55 seconds or operating at LOS E/F are highlighted in the tables. These thresholds represent locations with the highest levels of congestion and reduced operational performance. A complete summary of the results, including volumes, v/c ratio, delay, LOS, and queue lengths for each approach, is in **Appendix F**.

Most intersections for segments 1T and 2T operate at a LOS D or better during the MD peak hour except for the following intersections that are operating at a LOS E:

- 2T: Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard
- 2T: Northern Boulevard & Port Washington Boulevard/Searingtown Road

Most intersections for segments 3T, 4T and 5T operate at a LOS D or better during the AM and PM peak hour except for the following intersections that are operating at a LOS E or LOS F:

- 3T: Glen Cove Road & Jericho Turnpike – AM & PM
- 3T: Glen Cove Road & Northern Boulevard – AM & PM
- 3T: Old Country Road & Glen Cove Road – AM & PM
- 3T: Stewart Avenue & Clinton Road – PM
- 4T: Old Country Road & South Oyster Bay Road – AM
- 4T: Jericho Turnpike & Robbins Lane – PM
- 4T: Glen Head Road & Glen Cove Road – AM & PM
- 4T: Northern Boulevard & Cedar Swamp Road – AM & PM
- 5T: Glen Head Road & Glen Cove Road – AM & PM
- 5T: Syosset Woodbury Road & Cold Spring Road – PM

- 5T: Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road – PM
- 5T: Oyster Bay Road & Northern Boulevard – AM & PM
- 5T: Northern Boulevard & Brookville Road/Wolver Hollow Road – AM & PM
- 5T: Northern Boulevard & Cedar Swamp Road – AM & PM

Existing Condition LN peak hour volumes for segments 1T through 5T are relatively low compared to volumes during daytime peak hours. Therefore, the demand volume at the analyzed intersections does not indicate any notable operational issues. All intersections for the five segments are operating at a LOS D or better during LN conditions except for the following intersection that is operating at a LOS E:

- 3T: Old Country Road & Glen Cove Road

The Existing Condition levels of service summarized in the tables below reflect general congestion observed during peak hours. The Existing Condition Synchro model accurately represents the traffic conditions observed in the field.

Table 10: Intersection LOS Summary – 1T Existing MD Peak Hour

Intersection Name	Delay (sec)	LOS
	MD Existing Calibrated	MD Existing Calibrated
Long Beach Road & Daly Boulevard	28.7	C
Long Beach Road & Mott Street	40.7	D
Long Beach Road & Davison Avenue	13.4	B
Long Beach Road & Lincoln Avenue	18.5	B
North Long Beach Road/South Long Beach Road & Merrick Road	20.1	C
North Long Beach Road & Sunrise Highway	41.1	D
North Long Beach Road & DeMott Avenue/Brower Avenue	25.4	C
Long Beach Road/Homan Boulevard & Baldwin Road	14.8	B
Henry Street/Baldwin Road & East Graham Avenue/Tompkins Place	14.4	B
Henry Street & Greenwich Street	19.4	B
Henry Street & Peninsula Boulevard	20.7	C
Clinton Street & Peninsula Boulevard	13.2	B
Peninsula Boulevard & Front Street	23.8	C
North Long Beach Road & Monroe Street/Greystone Road	6.7	A
Fulton Avenue & Peninsula Boulevard/Bennett Avenue	24.2	C
Hempstead Turnpike & Oak Street	25.5	C
Oak Street & Westbury Boulevard/Meadow Street	15.6	B
Commercial Avenue & Oak Street	18.0	B

Table 11: Intersection LOS Summary – 1T Existing LN Peak Hour

Intersection Name	Delay (sec)	LOS
	LN Existing Calibrated	LN Existing Calibrated
Long Beach Road & Daly Boulevard	13.2	B
Long Beach Road & Mott Street	14.1	B
Long Beach Road & Davison Avenue	9.5	A
Long Beach Road & Lincoln Avenue	25.5	C
North Long Beach Road/South Long Beach Road & Merrick Road	9.0	A
North Long Beach Road & Sunrise Highway	38.0	D
North Long Beach Road & DeMott Avenue/Brower Avenue	14.9	B
Long Beach Road/Homan Boulevard & Baldwin Road	10.7	B
Henry Street/Baldwin Road & East Graham Avenue/Tompkins Place	10.0	B
Henry Street & Greenwich Street	16.0	B
Henry Street & Peninsula Boulevard	13.8	B
Clinton Street & Peninsula Boulevard	10.2	B
Peninsula Boulevard & Front Street	16.1	B
North Long Beach Road & Monroe Street/Greystone Road	2.2	A
Fulton Avenue & Peninsula Boulevard/Bennett Avenue	17.6	B
Hempstead Turnpike & Oak Street	21.0	C
Oak Street & Westbury Boulevard/Meadow Street	10.6	B
Commercial Avenue & Oak Street	10.5	B

Table 12: Intersection LOS Summary – 2T Existing MD Peak Hour

Intersection Name	Delay (sec)	LOS
	MD Existing Calibrated	MD Existing Calibrated
Stewart Avenue & Clinton Road	46.7	D
Franklin Avenue & Stewart Avenue	34.8	C
Franklin Avenue & 11th Street	27.4	C
Franklin Avenue & Old Country Road	37.4	D
Old Country Road & Willis Avenue	16.9	B
Willis Avenue & Jericho Turnpike	49.0	D
Willis Avenue & Hillside Avenue	35.0	D
Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	23.2	C
Willis Avenue & Powerhouse Road/South Service Road	18.5	B
Mineola Avenue/Willis Avenue & Powerhouse Road	27.0	C
Mineola Avenue & Warner Avenue/The Intervale	11.4	B
Old Northern Boulevard & Mineola Avenue	20.9	C
Northern Boulevard & Center Drive/Mineola Avenue	25.6	C
Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard	56.3	E
Northern Boulevard & Port Washington Boulevard/Searingtown Road	65.7	E
Northern Boulevard & Americana Manhasset	10.0	B
Northern Boulevard & Copley Road/The Gate	42.7	D

Intersection Name	Delay (sec)	LOS
	MD Existing Calibrated	MD Existing Calibrated
Northern Boulevard & Shelter Rock Road	34.6	C
Northern Boulevard & Maple Street	14.4	B
Northern Boulevard & East Shore Road/Community Drive	47.1	D
Northern Boulevard & Susquehanna Avenue	6.2	A
Northern Boulevard & Lakeville Road/South Middle Neck Road	52.3	D
Northern Blvd & Great Neck Rd/Buttonwood Road/Driveway	43.1	D
Northern Boulevard & Little Neck Pkwy	23.6	C
Northern Boulevard & Douglaston Pkwy	25.4	C
Northern Boulevard & 223rd Street	20.7	C
Bell Boulevard & 26th Avenue	15.7	B
Bell Boulevard/Cross Island Parkway & Totten Road/212th Street	45.1	D
Cross Island Boulevard & Totten Road	19.3	B
14th Road/Cross Island Boulevard & Utopia Parkway	22.3	C
Zerega Avenue & Randall Avenue	0.4	A
Zerega Avenue & Bruckner Boulevard	23.6	C
Zerega Avenue & Westchester Avenue	18.8	B
Castle Hill Avenue & Zerega Avenue/Lyvere Street	33.6	C
Castle Hill Avenue & East Tremont Avenue	28.3	C
East Tremont Avenue & Bronxdale Avenue	15.4	B
Van Nest Avenue & Bronxdale Avenue	13.1	B
Willis Avenue & 2nd Street	18.4	B
Willis Ave & Dartmouth Street/Center Street	3.5	A
Willis Ave & I U Willets Road	4.9	A
Willis Ave & Cambridge Street/Hillturn Lane	4.0	A
Willis Ave & Oxford Street	2.1	A
Northern Boulevard & Bell Boulevard	26.6	C
Northern Boulevard & Corporal Kennedy Street	11.8	B
26th Avenue & Clearview Expressway Service Road	14.5	B
Utopia Parkway and Cross Island Parkway	26.8	C
Cross Island Parkway & 160th Street	12.6	B
Cross Island Parkway & 154th Street/Cryders Lane	13.6	B
Cross Island Parkway & Clintonville Street	18.8	B
Cross Island Parkway & 150th Street/14th Road	12.4	B
Cross Island Parkway & 14th Avenue/149th Street	29.4	C
Whitestone Expressway & 3rd Avenue	8.7	A
Zerega Avenue & Homer Avenue	0.6	A
Havemeyer Avenue & Homer Avenue	2.2	A
Zerega Avenue & Cross Bronx Service Road N	24.3	C
Waterbury Avenue & Havemeyer Avenue	12.3	B
Zerega Avenue & Waterbury Avenue	12.1	B

Table 13: Intersection LOS Summary – 2T Existing LN Peak Hour

Intersection Name	Delay (sec)	LOS
	LN Existing Calibrated	LN Existing Calibrated
Stewart Avenue & Clinton Road	21.6	C
Franklin Avenue & Stewart Avenue	15.6	B
Franklin Avenue & 11th Street	14.8	B
Franklin Avenue & Old Country Road	18.8	B
Old Country Road & Willis Avenue	9.6	A
Willis Avenue & Jericho Turnpike	38.9	D
Willis Avenue & Hillside Avenue	30.5	C
Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	7.8	A
Willis Avenue & Powerhouse Road/South Service Road	14.0	B
Mineola Avenue/Willis Avenue & Powerhouse Road	20.7	C
Mineola Avenue & Warner Avenue/The Intervale	4.8	A
Old Northern Boulevard & Mineola Avenue	10.0	B
Northern Boulevard & Center Drive/Mineola Avenue	22.6	C
Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard	38.0	D
Northern Boulevard & Port Washington Boulevard/Searingtown Road	48.6	D
Northern Boulevard & Americana Manhasset	7.0	A
Northern Boulevard & Copley Road/The Gate	30.1	C
Northern Boulevard & Shelter Rock Road	26.6	C
Northern Boulevard & Maple Street	9.1	A
Northern Boulevard & East Shore Road/Community Drive	43.8	D
Northern Boulevard & Susquehanna Avenue	2.6	A
Northern Boulevard & Lakeville Road/South Middle Neck Road	35.3	D
Northern Blvd & Great Neck Rd/Buttonwood Road/Driveway	30.7	C
Northern Boulevard & Little Neck Pkwy	18.1	B
Northern Boulevard & Douglaston Pkwy	20.8	C
Northern Boulevard & 223rd Street	15.1	B
Bell Boulevard & 26th Avenue	12.4	B
Bell Boulevard/Cross Island Parkway & Totten Road/212th Street	32.8	C
Cross Island Boulevard & Totten Road	16.4	B
14th Road/Cross Island Boulevard & Utopia Parkway	16.5	B
Zerega Avenue & Randall Avenue	0.2	A
Zerega Avenue & Bruckner Boulevard	19.1	B
Zerega Avenue & Westchester Avenue	15.0	B
Castle Hill Avenue & Zerega Avenue/Lyvere Street	26.6	C
Castle Hill Avenue & East Tremont Avenue	20.0	C
East Tremont Avenue & Bronxdale Avenue	12.5	B
Van Nest Avenue & Bronxdale Avenue	11.4	B
Willis Avenue & 2nd Street	13.3	B
Willis Avenue & Dartmouth Street/Center Street	2.6	A
Willis Avenue & I U Willets Road	3.0	A
Willis Avenue & Cambridge Street/Hillturn Lane	2.1	A
Willis Avenue & Oxford Street	1.5	A
Northern Boulevard & Bell Boulevard	24.2	C
Northern Boulevard & Corporal Kennedy Street	10.4	B

Intersection Name	Delay (sec)	LOS
	LN Existing Calibrated	LN Existing Calibrated
26th Avenue & Clearview Expressway Service Road	11.6	B
Utopia Parkway and Cross Island Parkway	9.2	A
Cross Island Parkway & 160th Street	11.4	B
Cross Island Parkway & 154th Street/Cryders Lane	10.7	B
Cross Island Parkway & Clintonville Street	15.4	B
Cross Island Parkway & 150th Street/14th Road	10.4	B
Cross Island Parkway & 14th Avenue/149th Street	25.4	C
Whitestone Expressway & 3rd Avenue	9.6	A
Zerega Avenue & Homer Avenue	0.7	A
Havemeyer Avenue & Homer Avenue	1.8	A
Zerega Avenue & Cross Bronx Service Road N	19.1	B
Waterbury Avenue & Havemeyer Avenue	10.3	B
Zerega Avenue & Waterbury Avenue	11.0	B

Table 14: Intersection LOS Summary – 3T Existing AM Peak Hour

Intersection Name	Delay (sec)	LOS
	AM Existing Calibrated	AM Existing Calibrated
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	26.7	C
Glen Cove Road & Jericho Turnpike	71.4	E
Glen Cove Road & Hillside Avenue	35.3	D
Glen Cove Road & Old Westbury Road Eastbound	25.1	C
Glen Cove Road & Old Westbury Road Westbound	42.6	D
Glen Cove Road & Harbor Hill Road	20.2	C
Glen Cove Road & Wheatley Plaza	11.6	B
Glen Cove Road & Back Road	26.0	C
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	10.0	B
Glen Cove Road & Northern Boulevard	74.4	E
Glenwood Road & Glen Cove Avenue	30.6	C
Glenwood Road & Viola Street	8.8	A
Glenwood Road & Shore Road	6.6	A
Old Country Road & Glen Cove Road	57.6	E
Stewart Avenue & Clinton Road	52.6	D

Table 15: Intersection LOS Summary – 3T Existing PM Peak Hour

Intersection Name	Delay (sec)	LOS
	PM Existing Calibrated	PM Existing Calibrated
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	38.4	D
Glen Cove Road & Jericho Turnpike	83.2	F
Glen Cove Road & Hillside Avenue	39.3	D
Glen Cove Road & Old Westbury Road Eastbound	41.7	D
Glen Cove Road & Old Westbury Road Westbound	26.4	C
Glen Cove Road & Harbor Hill Road	13.5	B
Glen Cove Road & Wheatley Plaza	13.6	B
Glen Cove Road & Back Road	28.4	C
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	11.9	B
Glen Cove Road & Northern Boulevard	82.6	F
Glenwood Road & Glen Cove Avenue	46.1	D
Glenwood Road & Viola Street	8.4	A
Glenwood Road & Shore Road	5.2	A
Old Country Road & Glen Cove Road	58.1	E
Stewart Avenue & Clinton Road	71.1	E

Table 16: Intersection LOS Summary – 3T Existing LN Peak Hour

Intersection Name	Delay (sec)	LOS
	LN Existing Calibrated	LN Existing Calibrated
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	9.2	A
Glen Cove Road & Jericho Turnpike	50.5	D
Glen Cove Road & Hillside Avenue	15.9	B
Glen Cove Road & Old Westbury Road Eastbound	16.2	B
Glen Cove Road & Old Westbury Road Westbound	20.4	C
Glen Cove Road & Harbor Hill Road	3.0	A
Glen Cove Road & Wheatley Plaza	5.2	A
Glen Cove Road & Back Road	17.6	B
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	8.0	A
Glen Cove Road & Northern Boulevard	49.2	D
Glenwood Road & Glen Cove Avenue	7.5	A
Glenwood Road & Viola Street	7.1	A
Glenwood Road & Shore Road	2.7	A
Old Country Road & Glen Cove Road	58.9	E
Stewart Avenue & Clinton Road	21.6	C

Table 17: Intersection LOS Summary – 4T Existing AM Peak Hour

Intersection Name	Delay (sec)	LOS
	AM Existing Calibrated	AM Existing Calibrated
Glenwood Road & Shore Road	6.6	A
Broadhollow Road & Duryea Road	37.3	D
Spagnoli Road & Broadhollow Road	39.2	D
Haypath Road & Old Bethpage Road	12.9	B
Old Country Road & Stauber Drive	8.4	A
Grohmans Lane & Old Country Road	15.0	B
Old Country Road & South Oyster Bay Road	58.2	E
East Old Country Road & New South Road	20.0	C
Robbins Lane & Marlene Drive	12.7	B
Robbins Lane & Miller Place	18.5	B
Miller Road & Woodbury Road	11.6	B
Jericho Turnpike & Robbins Lane	45.3	D
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	31.9	C
Cedar Swamp Road & Apple Road North	43.1	D
Cedar Swamp Road & Hegemans Lane	35.9	D
Glen Head Road & Cedar Swamp Road	5.8	A
Glen Head Road & Glen Cove Road	62.7	E
Jericho Oyster Bay Road & Old Cedar Swamp Road	4.4	A
Northern Boulevard & Cedar Swamp Road	78.8	E

Table 18: Intersection LOS Summary – 4T Existing PM Peak Hour

Intersection Name	Delay (sec)	LOS
	PM Existing Calibrated	PM Existing Calibrated
Glenwood Road & Shore Road	5.2	A
Broadhollow Road & Duryea Road	30.9	C
Spagnoli Road & Broadhollow Road	47.8	D
Haypath Road & Old Bethpage Road	16.8	B
Old Country Road & Stauber Drive	6.5	A
Grohmans Lane & Old Country Road	16.6	B
Old Country Road & South Oyster Bay Road	54.6	D
East Old Country Road & New South Road	27.2	C
Robbins Lane & Marlene Drive	14.5	B
Robbins Lane & Miller Place	19.2	B
Miller Road & Woodbury Road	11.4	B
Jericho Turnpike & Robbins Lane	62.4	E
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	23.1	C
Cedar Swamp Road & Apple Road North	38.1	D
Cedar Swamp Road & Hegemans Lane	32.1	C
Glen Head Road & Cedar Swamp Road	14.2	B
Glen Head Road & Glen Cove Road	71.0	E
Jericho Oyster Bay Road & Old Cedar Swamp Road	4.7	A
Northern Boulevard & Cedar Swamp Road	73.8	E

Table 19: Intersection LOS Summary – 4T Existing LN Peak Hour

Intersection Name	Delay (sec)	LOS
	LN Existing Calibrated	LN Existing Calibrated
Glenwood Road & Shore Road	2.7	A
Broadhollow Road & Duryea Road	31.5	C
Spagnoli Road & Broadhollow Road	23.4	C
Haypath Road & Old Bethpage Road	4.6	A
Old Country Road & Stauber Drive	1.5	A
Grohmans Lane & Old Country Road	3.2	A
Old Country Road & South Oyster Bay Road	48.8	D
East Old Country Road & New South Road	11.3	B
Robbins Lane & Marlene Drive	6.2	A
Robbins Lane & Miller Place	8.1	A
Miller Road & Woodbury Road	5.1	A
Jericho Turnpike & Robbins Lane	29.2	C
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	23.2	C
Cedar Swamp Road & Apple Road North	35.7	D
Cedar Swamp Road & Hegemans Lane	2.2	A
Glen Head Road & Cedar Swamp Road	1.7	A
Glen Head Road & Glen Cove Road	16.7	B
Jericho Oyster Bay Road & Old Cedar Swamp Road	0.8	A
Northern Boulevard & Cedar Swamp Road	44.4	D

Table 20: Intersection LOS Summary – 5T Existing AM Peak Hour

Intersection Name	Delay (sec)	LOS
	AM Existing Calibrated	AM Existing Calibrated
Glen Head Road & Wall Street	3.2	A
Glenwood Road & Glen Cove Avenue	30.6	C
Cedar Swamp Road & Hegemans Lane	35.9	D
Glen Head Road & Cedar Swamp Road	5.8	A
Glen Head Road & Glen Cove Road	62.7	E
Syosset Woodbury Road & Cold Spring Road	53.7	D
Jackson Avenue & Cold Spring Road	9.6	A
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	39.2	D
Jericho Oyster Bay Road & Muttontown Eastwoods Road	32.1	C
Oyster Bay Road & Northern Boulevard	68.1	E
Northern Boulevard & Mill River Road	16.4	B
Northern Boulevard & Brookville Road/Wolver Hollow Road	62.7	E
Northern Boulevard & Cedar Swamp Road	78.8	E
Glen Cove Avenue & Kissam Lane	2.5	A

Table 21: Intersection LOS Summary – 5T Existing PM Peak Hour

Intersection Name	Delay (sec)	LOS
	PM Existing Calibrated	PM Existing Calibrated
Glen Head Road & Wall Street	2.1	A
Glenwood Road & Glen Cove Avenue	46.1	D
Cedar Swamp Road & Hegemans Lane	32.1	C
Glen Head Road & Cedar Swamp Road	14.2	B
Glen Head Road & Glen Cove Road	71.0	E
Syosset Woodbury Road & Cold Spring Road	67.8	E
Jackson Avenue & Cold Spring Road	26.1	C
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	57.4	E
Jericho Oyster Bay Road & Muttontown Eastwoods Road	25.9	C
Oyster Bay Road & Northern Boulevard	91.6	F
Northern Boulevard & Mill River Road	14.0	B
Northern Boulevard & Brookville Road/Wolver Hollow Road	58.4	E
Northern Boulevard & Cedar Swamp Road	73.8	E
Glen Cove Avenue & Kissam Lane	1.6	A

Table 22: Intersection LOS Summary – 5T Existing LN Peak Hour

Intersection Name	Delay (sec)	LOS
	LN Existing Calibrated	LN Existing Calibrated
Glen Head Road & Wall Street	0.5	A
Glenwood Road & Glen Cove Avenue	7.5	A
Cedar Swamp Road & Hegemans Lane	2.2	A
Glen Head Road & Cedar Swamp Road	1.7	A
Glen Head Road & Glen Cove Road	16.7	B
Syosset Woodbury Road & Cold Spring Road	21.9	C
Jackson Avenue & Cold Spring Road	1.4	A
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	37.4	D
Jericho Oyster Bay Road & Muttontown Eastwoods Road	6.8	A
Oyster Bay Road & Northern Boulevard	26.0	C
Northern Boulevard & Mill River Road	4.5	A
Northern Boulevard & Brookville Road/Wolver Hollow Road	18.8	B
Northern Boulevard & Cedar Swamp Road	44.4	D
Glen Cove Avenue & Kissam Lane	0.4	A

6 NO ACTION CONDITION

In order to isolate the potential impacts of construction during the Trenching Conditions, the Existing Condition Synchro models were modified to reflect the traffic volume projections for the year 2030. The existing volumes were grown to the No Action Condition volumes by using growth rates as described in **Section 3.8**. The models were analyzed to assess the capacity, LOS, delay, and queueing under the No Action Condition to estimate traffic operations in 2030. The No Action Condition analysis results serve as the future baseline to be compared against the Trenching Conditions analysis to identify traffic impacts.

6.1 RESULTS

Results for the 1T No Action Condition analysis compared to the 1T Existing Condition analysis for the MD and LN periods are shown in **Table 23** and **Table 24** respectively. Results for the 2T No Action Condition analysis compared to the 2T Existing Condition analysis for the MD and LN periods are shown in **Table 25** and **Table 26** respectively. Results for the 3T No Action Condition analysis compared to the 3T Existing Condition analysis for the AM, PM, and LN periods are shown in **Table 27**, **Table 28**, and **Table 29** respectively. Results for the 4T No Action Condition analysis compared to the 4T Existing Condition analysis for the AM, PM, and LN periods are shown in **Table 30**, **Table 31**, and **Table 32** respectively. Results for the 5T No Action Condition analysis compared to the 5T Existing Condition analysis for the AM, PM, and LN periods are shown in **Table 33**, **Table 34**, and **Table 35** respectively. These tables include the intersections analyzed, the average intersection delay, and the intersection LOS for both conditions. A complete summary of the results, including volumes, v/c ratio, delay, LOS, and queue lengths by each approach, is provided in **Appendix G**.

Future No Action Condition volumes remain relatively similar to the respective volumes in the Existing Condition for segments 1T through 5T. The following intersections are operating with a worse LOS in the No Action Condition:

- 3T: Glen Cove Road & Jericho Turnpike – AM
- 3T: Glen Cove Road & Northern Boulevard – AM
- 3T: Stewart Avenue & Clinton Road – AM & PM
- 4T: Northern Boulevard & Cedar Swamp Road – AM
- 4T: Old Country Road & South Oyster Bay Road – PM
- 5T: Jackson Avenue & Cold Spring Road – AM
- 5T: Northern Boulevard & Cedar Swamp Road – AM

Minor variations in average intersection delay between the Existing and No Action conditions reflect Synchro/HCM calculation sensitivity and changes in volume distribution. In these instances, the LOS remains unchanged, indicating no meaningful change in overall intersection operations.

Table 23: Intersection LOS Summary – 1T MD Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	MD Existing Calibrated	MD No Action	Δ	MD Existing Calibrated	MD No Action
Long Beach Road & Daly Boulevard	28.7	29.4	0.7	C	C
Long Beach Road & Mott Street	40.7	41.8	1.1	D	D
Long Beach Road & Davison Avenue	13.4	13.6	0.2	B	B
Long Beach Road & Lincoln Avenue	18.5	18.4	-0.1	B	B
North Long Beach Road/South Long Beach Road & Merrick Road	20.1	20.9	0.8	C	C
North Long Beach Road & Sunrise Highway	41.1	41.5	0.4	D	D
North Long Beach Road & DeMott Avenue/Brower Avenue	25.4	25.7	0.3	C	C
Long Beach Road/Homan Boulevard & Baldwin Road	14.8	15.2	0.4	B	B
Henry Street/Baldwin Road & East Graham Avenue/Tompkins Place	14.4	16.1	1.7	B	B
Henry Street & Greenwich Street	19.4	19.6	0.2	B	B
Henry Street & Peninsula Boulevard	20.7	21.1	0.4	C	C
Clinton Street & Peninsula Boulevard	13.2	13.4	0.2	B	B
Peninsula Boulevard & Front Street	23.8	25.2	1.4	C	C
North Long Beach Road & Monroe Street/Greystone Road	6.7	6.7	0.0	A	A
Fulton Avenue & Peninsula Boulevard/Bennett Avenue	24.2	25.8	1.6	C	C
Hempstead Turnpike & Oak Street	25.5	25.8	0.3	C	C
Oak Street & Westbury Boulevard/Meadow Street	15.6	15.9	0.3	B	B
Commercial Avenue & Oak Street	18.0	18.7	0.7	B	B

Table 24: Intersection LOS Summary – 1T LN Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	LN Existing Calibrated	LN No Action	Δ	LN Existing Calibrated	LN No Action
Long Beach Road & Daly Boulevard	13.2	13.2	0.0	B	B
Long Beach Road & Mott Street	14.1	15.2	1.1	B	B
Long Beach Road & Davison Avenue	9.5	9.6	0.1	A	A
Long Beach Road & Lincoln Avenue	25.5	25.5	0.0	C	C
North Long Beach Road/South Long Beach Road & Merrick Road	9.0	9.0	0.0	A	A
North Long Beach Road & Sunrise Highway	38.0	38.2	0.2	D	D
North Long Beach Road & DeMott Avenue/Brower Avenue	14.9	14.9	0.0	B	B
Long Beach Road/Homan Boulevard & Baldwin Road	10.7	10.7	0.0	B	B
Henry Street/Baldwin Road & East Graham Avenue/Tompkins Place	10.0	10.1	0.1	B	B
Henry Street & Greenwich Street	16.0	16.2	0.2	B	B
Henry Street & Peninsula Boulevard	13.8	14.0	0.2	B	B
Clinton Street & Peninsula Boulevard	10.2	10.3	0.1	B	B
Peninsula Boulevard & Front Street	16.1	16.3	0.2	B	B
North Long Beach Road & Monroe Street/Greystone Road	2.2	2.2	0.0	A	A
Fulton Avenue & Peninsula Boulevard/Bennett Avenue	17.6	18.0	0.4	B	B
Hempstead Turnpike & Oak Street	21.0	21.1	0.1	C	C
Oak Street & Westbury Boulevard/Meadow Street	10.6	10.6	0.0	B	B
Commercial Avenue & Oak Street	10.5	10.5	0.0	B	B

Table 25: Intersection LOS Summary – 2T MD Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	MD Existing Calibrated	MD No Action	Δ	MD Existing Calibrated	MD No Action
Stewart Avenue & Clinton Road	46.7	49.7	3.0	D	D
Franklin Avenue & Stewart Avenue	34.8	40.4	5.6	C	D
Franklin Avenue & 11th Street	27.4	27.9	0.5	C	C
Franklin Avenue & Old Country Road	37.4	38.2	0.8	D	D
Old Country Road & Willis Avenue	16.9	17.1	0.2	B	B
Willis Avenue & Jericho Turnpike	49.0	49.5	0.5	D	D
Willis Avenue & Hillside Avenue	35.0	35.2	0.2	D	D
Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	23.2	24.4	1.2	C	C
Willis Avenue & Powerhouse Road/South Service Road	18.5	18.7	0.2	B	B
Mineola Avenue/Willis Avenue & Powerhouse Road	27.0	27.3	0.3	C	C
Mineola Avenue & Warner Avenue/The Intervale	11.4	11.6	0.2	B	B
Old Northern Boulevard & Mineola Avenue	20.9	21.4	0.5	C	C
Northern Boulevard & Center Drive/Mineola Avenue	25.6	26.3	0.7	C	C
Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard	56.3	57.7	1.4	E	E
Northern Boulevard & Port Washington Boulevard/Searingtown Road	65.7	76.0	10.3	E	E
Northern Boulevard & Americana Manhasset	10.0	11.6	1.6	B	B
Northern Boulevard & Copley Road/The Gate	42.7	44.2	1.5	D	D
Northern Boulevard & Shelter Rock Road	34.6	35.2	0.6	C	D
Northern Boulevard & Maple Street	14.4	14.6	0.2	B	B
Northern Boulevard & East Shore Road/Community Drive	47.1	47.8	0.7	D	D
Northern Boulevard & Susquehanna Avenue	6.2	6.3	0.1	A	A
Northern Boulevard & Lakeville Road/South Middle Neck Road	52.3	53.2	0.9	D	D
Northern Blvd & Great Neck Rd/Buttonwood Road/Driveway	43.1	43.3	0.2	D	D
Northern Boulevard & Little Neck Pkwy	23.6	24.0	0.4	C	C
Northern Boulevard & Douglaston Pkwy	25.4	25.7	0.3	C	C
Northern Boulevard & 223rd Street	20.7	21.2	0.5	C	C
Bell Boulevard & 26th Avenue	15.7	15.9	0.2	B	B
Bell Boulevard/Cross Island Parkway & Totten Road/212th Street	45.1	48.7	3.6	D	D
Cross Island Boulevard & Totten Road	19.3	19.5	0.2	B	B
14th Road/Cross Island Boulevard & Utopia Parkway	22.3	22.9	0.6	C	C
Zerega Avenue & Randall Avenue	0.4	0.4	0.0	A	A
Zerega Avenue & Bruckner Boulevard	23.6	23.6	0.0	C	C
Zerega Avenue & Westchester Avenue	18.8	18.7	-0.1	B	B
Castle Hill Avenue & Zerega Avenue/Lyvere Street	33.6	35.2	1.6	C	D
Castle Hill Avenue & East Tremont Avenue	28.3	28.2	-0.1	C	C
East Tremont Avenue & Bronxdale Avenue	15.4	15.5	0.1	B	B
Van Nest Avenue & Bronxdale Avenue	13.1	13.1	0.0	B	B
Willis Avenue & 2nd Street	18.4	18.5	0.1	B	B
Willis Ave & Dartmouth Street/Center Street	3.5	3.7	0.2	A	A
Willis Ave & I U Willets Road	4.9	5.0	0.1	A	A
Willis Ave & Cambridge Street/Hillturn Lane	4.0	4.0	0.0	A	A
Willis Ave & Oxford Street	2.1	2.1	0.0	A	A
Northern Boulevard & Bell Boulevard	26.6	26.8	0.2	C	C
Northern Boulevard & Corporal Kennedy Street	11.8	11.8	0.0	B	B
26th Avenue & Clearview Expressway Service Road	14.5	14.7	0.2	B	B

Intersection Name	Delay (sec)			LOS	
	MD Existing Calibrated	MD No Action	Δ	MD Existing Calibrated	MD No Action
Utopia Parkway and Cross Island Parkway	26.8	26.8	0.0	C	C
Cross Island Parkway & 160th Street	12.6	12.6	0.0	B	B
Cross Island Parkway & 154th Street/Cryders Lane	13.6	14.1	0.5	B	B
Cross Island Parkway & Clintonville Street	18.8	19.3	0.5	B	B
Cross Island Parkway & 150th Street/14th Road	12.4	12.7	0.3	B	B
Cross Island Parkway & 14th Avenue/149th Street	29.4	30.7	1.3	C	C
Whitestone Expressway & 3rd Avenue	8.7	8.6	-0.1	A	A
Zerega Avenue & Homer Avenue	0.6	0.6	0.0	A	A
Havemeyer Avenue & Homer Avenue	2.2	2.3	0.1	A	A
Zerega Avenue & Cross Bronx Service Road N	24.3	24.4	0.1	C	C
Waterbury Avenue & Havemeyer Avenue	12.3	12.3	0.0	B	B
Zerega Avenue & Waterbury Avenue	12.1	12.2	0.1	B	B

Table 26: Intersection LOS Summary – 2T LN Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	LN Existing Calibrated	LN No Action	Δ	LN Existing Calibrated	LN No Action
Stewart Avenue & Clinton Road	21.6	21.6	0.0	C	C
Franklin Avenue & Stewart Avenue	15.6	15.7	0.1	B	B
Franklin Avenue & 11th Street	14.8	14.8	0.0	B	B
Franklin Avenue & Old Country Road	18.8	19.2	0.4	B	B
Old Country Road & Willis Avenue	9.6	9.7	0.1	A	A
Willis Avenue & Jericho Turnpike	38.9	39.0	0.1	D	D
Willis Avenue & Hillside Avenue	30.5	30.5	0.0	C	C
Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	7.8	7.8	0.0	A	A
Willis Avenue & Powerhouse Road/South Service Road	14.0	14.0	0.0	B	B
Mineola Avenue/Willis Avenue & Powerhouse Road	20.7	20.7	0.0	C	C
Mineola Avenue & Warner Avenue/The Intervale	4.8	4.8	0.0	A	A
Old Northern Boulevard & Mineola Avenue	10.0	10.0	0.0	B	B
Northern Boulevard & Center Drive/Mineola Avenue	22.6	22.7	0.1	C	C
Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard	38.0	38.2	0.2	D	D
Northern Boulevard & Port Washington Boulevard/Searingtown Road	48.6	48.5	-0.1	D	D
Northern Boulevard & Americana Manhasset	7.0	7.1	0.1	A	A
Northern Boulevard & Copley Road/The Gate	30.1	30.3	0.2	C	C
Northern Boulevard & Shelter Rock Road	26.6	28.0	1.4	C	C
Northern Boulevard & Maple Street	9.1	9.2	0.1	A	A
Northern Boulevard & East Shore Road/Community Drive	43.8	44.4	0.6	D	D
Northern Boulevard & Susquehanna Avenue	2.6	2.5	-0.1	A	A
Northern Boulevard & Lakeville Road/South Middle Neck Road	35.3	35.5	0.2	D	D
Northern Blvd & Great Neck Rd/Buttonwood Road/Driveway	30.7	30.8	0.1	C	C
Northern Boulevard & Little Neck Pkwy	18.1	18.2	0.1	B	B
Northern Boulevard & Douglaston Pkwy	20.8	20.8	0.0	C	C
Northern Boulevard & 223rd Street	15.1	15.1	0.0	B	B
Bell Boulevard & 26th Avenue	12.4	12.4	0.0	B	B
Bell Boulevard/Cross Island Parkway & Totten Road/212th Street	32.8	32.9	0.1	C	C

Intersection Name	Delay (sec)			LOS	
	LN Existing Calibrated	LN No Action	Δ	LN Existing Calibrated	LN No Action
Cross Island Boulevard & Totten Road	16.4	16.4	0.0	B	B
14th Road/Cross Island Boulevard & Utopia Parkway	16.5	16.6	0.1	B	B
Zerega Avenue & Randall Avenue	0.2	0.2	0.0	A	A
Zerega Avenue & Bruckner Boulevard	19.1	19.1	0.0	B	B
Zerega Avenue & Westchester Avenue	15.0	15.0	0.0	B	B
Castle Hill Avenue & Zerega Avenue/Lyvere Street	26.6	26.9	0.3	C	C
Castle Hill Avenue & East Tremont Avenue	20.0	20.0	0.0	C	C
East Tremont Avenue & Bronxdale Avenue	12.5	12.5	0.0	B	B
Van Nest Avenue & Bronxdale Avenue	11.4	11.3	-0.1	B	B
Willis Avenue & 2nd Street	13.3	13.2	-0.1	B	B
Willis Avenue & Dartmouth Street/Center Street	2.6	2.6	0.0	A	A
Willis Avenue & I U Willets Road	3.0	3.0	0.0	A	A
Willis Avenue & Cambridge Street/Hillturn Lane	2.1	2.1	0.0	A	A
Willis Avenue & Oxford Street	1.5	1.5	0.0	A	A
Northern Boulevard & Bell Boulevard	24.2	24.3	0.1	C	C
Northern Boulevard & Corporal Kennedy Street	10.4	10.4	0.0	B	B
26th Avenue & Clearview Expressway Service Road	11.6	11.6	0.0	B	B
Utopia Parkway and Cross Island Parkway	9.2	9.3	0.1	A	A
Cross Island Parkway & 160th Street	11.4	11.5	0.1	B	B
Cross Island Parkway & 154th Street/Cryders Lane	10.7	10.8	0.1	B	B
Cross Island Parkway & Clintonville Street	15.4	15.4	0.0	B	B
Cross Island Parkway & 150th Street/14th Road	10.4	10.4	0.0	B	B
Cross Island Parkway & 14th Avenue/149th Street	25.4	25.5	0.1	C	C
Whitestone Expressway & 3rd Avenue	9.6	9.7	0.1	A	A
Zerega Avenue & Homer Avenue	0.7	0.6	-0.1	A	A
Havemeyer Avenue & Homer Avenue	1.8	1.8	0.0	A	A
Zerega Avenue & Cross Bronx Service Road N	19.1	19.1	0.0	B	B
Waterbury Avenue & Havemeyer Avenue	10.3	10.3	0.0	B	B
Zerega Avenue & Waterbury Avenue	11.0	10.9	-0.1	B	B

Table 27: Intersection LOS Summary – 3T AM Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	AM Existing Calibrated	AM No Action	Δ	AM Existing Calibrated	AM No Action
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	26.7	31.6	4.9	C	C
Glen Cove Road & Jericho Turnpike	71.4	80.4	9.0	E	F
Glen Cove Road & Hillside Avenue	35.3	36.1	0.8	D	D
Glen Cove Road & Old Westbury Road Eastbound	25.1	26.6	1.5	C	C
Glen Cove Road & Old Westbury Road Westbound	42.6	49.7	7.1	D	D
Glen Cove Road & Harbor Hill Road	20.2	23.7	3.5	C	C
Glen Cove Road & Wheatley Plaza	11.6	12.2	0.6	B	B
Glen Cove Road & Back Road	26.0	27.0	1.0	C	C
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	10.0	10.2	0.2	B	B
Glen Cove Road & Northern Boulevard	74.4	82.3	7.9	E	F
Glenwood Road & Glen Cove Avenue	30.6	32.1	1.5	C	C
Glenwood Road & Viola Street	8.8	8.8	0.0	A	A
Glenwood Road & Shore Road	6.6	6.7	0.1	A	A
Old Country Road & Glen Cove Road	57.6	56.6	-1.0	E	E
Stewart Avenue & Clinton Road	52.6	57.1	4.5	D	E

Table 28: Intersection LOS Summary – 3T PM Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	PM Existing Calibrated	PM No Action	Δ	PM Existing Calibrated	PM No Action
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	38.4	45.1	6.7	D	D
Glen Cove Road & Jericho Turnpike	83.2	91.2	8.0	F	F
Glen Cove Road & Hillside Avenue	39.3	41.3	2.0	D	D
Glen Cove Road & Old Westbury Road Eastbound	41.7	50.8	9.1	D	D
Glen Cove Road & Old Westbury Road Westbound	26.4	28.3	1.9	C	C
Glen Cove Road & Harbor Hill Road	13.5	14.2	0.7	B	B
Glen Cove Road & Wheatley Plaza	13.6	15.6	2.0	B	B
Glen Cove Road & Back Road	28.4	29.9	1.5	C	C
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	11.9	12.4	0.5	B	B
Glen Cove Road & Northern Boulevard	82.6	88.0	5.4	F	F
Glenwood Road & Glen Cove Avenue	46.1	50.1	4.0	D	D
Glenwood Road & Viola Street	8.4	8.5	0.1	A	A
Glenwood Road & Shore Road	5.2	5.3	0.1	A	A
Old Country Road & Glen Cove Road	58.1	61.1	3.0	E	E
Stewart Avenue & Clinton Road	71.1	80.1	9.0	E	F

Table 29: Intersection LOS Summary – 3T LN Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	LN Existing Calibrated	LN No Action	Δ	LN Existing Calibrated	LN No Action
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	9.2	9.4	0.2	A	A
Glen Cove Road & Jericho Turnpike	50.5	52.3	1.8	D	D
Glen Cove Road & Hillside Avenue	15.9	15.8	-0.1	B	B
Glen Cove Road & Old Westbury Road Eastbound	16.2	15.8	-0.4	B	B
Glen Cove Road & Old Westbury Road Westbound	20.4	20.5	0.1	C	C
Glen Cove Road & Harbor Hill Road	3.0	3.0	0.0	A	A
Glen Cove Road & Wheatley Plaza	5.2	5.3	0.1	A	A
Glen Cove Road & Back Road	17.6	17.7	0.1	B	B
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	8.0	8.0	0.0	A	A
Glen Cove Road & Northern Boulevard	49.2	49.1	-0.1	D	D
Glenwood Road & Glen Cove Avenue	7.5	7.5	0.0	A	A
Glenwood Road & Viola Street	7.1	7.1	0.0	A	A
Glenwood Road & Shore Road	2.7	2.6	-0.1	A	A
Old Country Road & Glen Cove Road	58.9	59.4	0.5	E	E
Stewart Avenue & Clinton Road	21.6	21.6	0.0	C	C

Table 30: Intersection LOS Summary – 4T AM Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	AM Existing Calibrated	AM No Action	Δ	AM Existing Calibrated	AM No Action
Glenwood Road & Shore Road	6.6	6.7	0.1	A	A
Broadhollow Road & Duryea Road	37.3	38.7	1.4	D	D
Spagnoli Road & Broadhollow Road	39.2	39.8	0.6	D	D
Haypath Road & Old Bethpage Road	12.9	13.1	0.2	B	B
Old Country Road & Stauber Drive	8.4	8.5	0.1	A	A
Grohmans Lane & Old Country Road	15.0	15.3	0.3	B	B
Old Country Road & South Oyster Bay Road	58.2	60.1	1.9	E	E
East Old Country Road & New South Road	20.0	20.2	0.2	C	C
Robbins Lane & Marlene Drive	12.7	12.8	0.1	B	B
Robbins Lane & Miller Place	18.5	18.9	0.4	B	B
Miller Road & Woodbury Road	11.6	11.8	0.2	B	B
Jericho Turnpike & Robbins Lane	45.3	46.0	0.7	D	D
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	31.9	32.0	0.1	C	C
Cedar Swamp Road & Apple Road North	43.1	45.2	2.1	D	D
Cedar Swamp Road & Hegemans Lane	35.9	38.4	2.5	D	D
Glen Head Road & Cedar Swamp Road	5.8	6.2	0.4	A	A
Glen Head Road & Glen Cove Road	62.7	65.7	3.0	E	E
Jericho Oyster Bay Road & Old Cedar Swamp Road	4.4	4.5	0.1	A	A
Northern Boulevard & Cedar Swamp Road	78.8	82.9	4.1	E	F

Table 31: Intersection LOS Summary – 4T PM Existing vs. No Action

4T PM Peak Hour					
Intersection Name	Delay (sec)			LOS	
	PM Existing Calibrated	PM No Action	Δ	PM Existing Calibrated	PM No Action
Glenwood Road & Shore Road	5.2	5.3	0.1	A	A
Broadhollow Road & Duryea Road	30.9	31.3	0.4	C	C
Spagnoli Road & Broadhollow Road	47.8	48.9	1.1	D	D
Haypath Road & Old Bethpage Road	16.8	17.2	0.4	B	B
Old Country Road & Stauber Drive	6.5	6.6	0.1	A	A
Grohmans Lane & Old Country Road	16.6	16.7	0.1	B	B
Old Country Road & South Oyster Bay Road	54.6	55.3	0.7	D	E
East Old Country Road & New South Road	27.2	27.6	0.4	C	C
Robbins Lane & Marlene Drive	14.5	14.9	0.4	B	B
Robbins Lane & Miller Place	19.2	19.6	0.4	B	B
Miller Road & Woodbury Road	11.4	11.4	0.0	B	B
Jericho Turnpike & Robbins Lane	62.4	64.6	2.2	E	E
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	23.1	22.9	-0.2	C	C
Cedar Swamp Road & Apple Road North	38.1	39.6	1.5	D	D
Cedar Swamp Road & Hegemans Lane	32.1	34.8	2.7	C	C
Glen Head Road & Cedar Swamp Road	14.2	16.5	2.3	B	B
Glen Head Road & Glen Cove Road	71.0	74.6	3.6	E	E
Jericho Oyster Bay Road & Old Cedar Swamp Road	4.7	5.0	0.3	A	A
Northern Boulevard & Cedar Swamp Road	73.8	77.5	3.7	E	E

Table 32: Intersection LOS Summary – 4T LN Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	LN Existing Calibrated	LN No Action	Δ	LN Existing Calibrated	LN No Action
Glenwood Road & Shore Road	2.7	2.6	-0.1	A	A
Broadhollow Road & Duryea Road	31.5	31.5	0.0	C	C
Spagnoli Road & Broadhollow Road	23.4	23.4	0.0	C	C
Haypath Road & Old Bethpage Road	4.6	4.5	-0.1	A	A
Old Country Road & Stauber Drive	1.5	1.5	0.0	A	A
Grohmans Lane & Old Country Road	3.2	3.2	0.0	A	A
Old Country Road & South Oyster Bay Road	48.8	48.8	0.0	D	D
East Old Country Road & New South Road	11.3	11.2	-0.1	B	B
Robbins Lane & Marlene Drive	6.2	6.2	0.0	A	A
Robbins Lane & Miller Place	8.1	8.1	0.0	A	A
Miller Road & Woodbury Road	5.1	5.1	0.0	A	A
Jericho Turnpike & Robbins Lane	29.2	29.3	0.1	C	C
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	23.2	23.2	0.0	C	C
Cedar Swamp Road & Apple Road North	35.7	35.7	0.0	D	D
Cedar Swamp Road & Hegemans Lane	2.2	2.2	0.0	A	A
Glen Head Road & Cedar Swamp Road	1.7	1.7	0.0	A	A
Glen Head Road & Glen Cove Road	16.7	16.9	0.2	B	B
Jericho Oyster Bay Road & Old Cedar Swamp Road	0.8	0.8	0.0	A	A
Northern Boulevard & Cedar Swamp Road	44.4	44.6	0.2	D	D

Table 33: Intersection LOS Summary – 5T AM Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	AM Existing Calibrated	AM No Action	Δ	AM Existing Calibrated	AM No Action
Glen Head Road & Wall Street	3.2	3.2	0.0	A	A
Glenwood Road & Glen Cove Avenue	30.6	32.1	1.5	C	C
Cedar Swamp Road & Hegemans Lane	35.9	38.4	2.5	D	D
Glen Head Road & Cedar Swamp Road	5.8	6.2	0.4	A	A
Glen Head Road & Glen Cove Road	62.7	65.7	3.0	E	E
Syosset Woodbury Road & Cold Spring Road	53.7	54.9	1.2	D	D
Jackson Avenue & Cold Spring Road	9.6	10.4	0.8	A	B
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	39.2	39.2	0.0	D	D
Jericho Oyster Bay Road & Muttontown Eastwoods Road	32.1	32.6	0.5	C	C
Oyster Bay Road & Northern Boulevard	68.1	69.3	1.2	E	E
Northern Boulevard & Mill River Road	16.4	16.6	0.2	B	B
Northern Boulevard & Brookville Road/Wolver Hollow Road	62.7	63.9	1.2	E	E
Northern Boulevard & Cedar Swamp Road	78.8	82.9	4.1	E	F
Glen Cove Avenue & Kissam Lane	2.5	2.6	0.1	A	A

Table 34: Intersection LOS Summary – 5T PM Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	PM Existing Calibrated	PM No Action	Δ	PM Existing Calibrated	PM No Action
Glen Head Road & Wall Street	2.1	2.1	0.0	A	A
Glenwood Road & Glen Cove Avenue	46.1	50.1	4.0	D	D
Cedar Swamp Road & Hegemans Lane	32.1	34.8	2.7	C	C
Glen Head Road & Cedar Swamp Road	14.2	16.5	2.3	B	B
Glen Head Road & Glen Cove Road	71.0	74.6	3.6	E	E
Syosset Woodbury Road & Cold Spring Road	67.8	69.8	2.0	E	E
Jackson Avenue & Cold Spring Road	26.1	28.3	2.2	C	C
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	57.4	59.6	2.2	E	E
Jericho Oyster Bay Road & Muttontown Eastwoods Road	25.9	26.2	0.3	C	C
Oyster Bay Road & Northern Boulevard	91.6	93.0	1.4	F	F
Northern Boulevard & Mill River Road	14.0	14.1	0.1	B	B
Northern Boulevard & Brookville Road/Wolver Hollow Road	58.4	60.0	1.6	E	E
Northern Boulevard & Cedar Swamp Road	73.8	77.5	3.7	E	E
Glen Cove Avenue & Kissam Lane	1.6	1.7	0.1	A	A

Table 35: Intersection LOS Summary – 5T LN Existing vs. No Action

Intersection Name	Delay (sec)			LOS	
	LN Existing Calibrated	LN No Action	Δ	LN Existing Calibrated	LN No Action
Glen Head Road & Wall Street	0.5	0.5	0.0	A	A
Glenwood Road & Glen Cove Avenue	7.5	7.5	0.0	A	A
Cedar Swamp Road & Hegemans Lane	2.2	2.2	0.0	A	A
Glen Head Road & Cedar Swamp Road	1.7	1.7	0.0	A	A
Glen Head Road & Glen Cove Road	16.7	16.9	0.2	B	B
Syosset Woodbury Road & Cold Spring Road	21.9	21.9	0.0	C	C
Jackson Avenue & Cold Spring Road	1.4	1.4	0.0	A	A
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	37.4	37.4	0.0	D	D
Jericho Oyster Bay Road & Muttontown Eastwoods Road	6.8	6.8	0.0	A	A
Oyster Bay Road & Northern Boulevard	26.0	26.0	0.0	C	C
Northern Boulevard & Mill River Road	4.5	4.3	-0.2	A	A
Northern Boulevard & Brookville Road/Wolver Hollow Road	18.8	18.8	0.0	B	B
Northern Boulevard & Cedar Swamp Road	44.4	44.6	0.2	D	D
Glen Cove Avenue & Kissam Lane	0.4	0.4	0.0	A	A

7 TRENCHING CONDITION

The MPT design framework provides a basis for construction phasing by classifying intersections and roadway segments as suitable for standard layouts or requiring custom layouts depending on geometric, operational, and construction considerations.

7.1 ASPECTS OF THE MPT DESIGN

7.1.1 Intersection Grouping for Standard MPT

MPT plans were grouped into standard geometric configurations (e.g., T-intersections, crossroads) to simplify work zone planning. Where possible, standard MPT plans were utilized for each group to be applied across similar locations. Complex intersections necessitating custom MPT plans were also identified. Some MPT plans for more complicated intersections with unique intersection layouts or with five or more approaches to a single intersection require staging the work zone with multiple substages. This approach was utilized to minimize traffic disruptions, generally limiting the size of the work zone within each substage to minimize the level of disturbance.

The MPT design approach categorized intersections into twenty categories based on their operational characteristics. A summary of the twenty categories and their descriptions is shown in **Table 36**.

Table 36: MPT Intersection Grouping Categories

Category	Description
1	T-intersection (2 phases, bidirectional 1 lane)
1A	T-intersection (2 phases, road shift)
1B	T-intersection (2 phases, road shift V2)
1C	T-intersection (bidirectional 1 lane operation in road, no closure)
1D	T-intersection (road shift, no closure)
1E	T-intersection (road shift V2, no closure)
1F	T-intersection (middle lane closure)
2	Small intersection (crossroad 1 lane in each direction, 1 sided closure of the minor road)
2A	Small intersection (crossroad 1 lane in each direction, staggered crossing, 2 phase closure)
2B	Small intersection (crossroad 1 lane in each direction, middle lane closure, minor roads remain open)
2C	Small intersection at 2 local roads (detour around block, 1 lane operations)
2D	Small intersection (crossroad 1 lane in each direction, 1 sided closure of the minor road, road shift on main road)
2E	Small intersection (crossroad 1 lane in each direction, 1 sided closure of the minor road, road shift on main road, alternative design)
3	Medium intersection (multilane operation)
3A	Medium intersection (multilane operation), middle closure
3B	Medium intersection (multilane operation with 3 lanes shifting to 1 lane)
4	Detour (intersection closed completely)
5A	T-intersection (one way road, 2 phases, bidirectional 1 lane)
5B	T-intersection (one way road, no closure)
5C	Small intersection (one way road, 1 sided closure of the minor road)
C	Custom MPT Plan

The standard MPT plans served as templates for similar intersections, supporting a consistent approach to traffic control and staging. Standard MPT designs referenced applicable New York State standard sheets and Manual on Uniform Traffic Control Devices (MUTCD) guidance where possible. The Standard MPT plans developed for each category are included in **Appendix I**.

The trench construction screening process described in **Section 3.3** resulted in 126 unique intersections for analysis. Of the 126 intersections to analyze, 31 had standard MPTs. Each of these intersections has been matched with an appropriate MPT category based on their geometric and operational characteristics. The selected intersections organized by alignment, TMC identification used in the Synchro models, and intersection name with their corresponding MPT categories are shown in **Table 37**.

Table 37: Intersections with Typical MPT

Alignment	Intersection	Typical Category
1T	North Long Beach Road & Merrick Road	3A
1T	Henry Street & Greenwich Street	3
1T	Oak Street & Westbury Boulevard/Meadow Street	2D
2T	Franklin Avenue & 11th Street	3A
2T	Mineola Avenue & Warner Avenue	2E
2T	Northern Boulevard & Susquehanna Avenue	1F
2T	Northern Boulevard & Little Neck Parkway	3A
2T	Northern Boulevard & Douglaston Parkway	3A
2T	Zerega Avenue & Randall Avenue	NYSDOT Standard Sheet
2T	Zerega Avenue & Westchester Avenue	2
2T	Willis Avenue & 2nd Street	2
2T	Willis Avenue & Dartmouth Street/Center Street	1F
2T	Willis Avenue & I U Willets Road South	1F
2T	Willis Avenue & Cambridge Street/Hillturn Lane	1F
2T	Willis Avenue & Oxford Street	1F
2T	Northern Boulevard & Bell Boulevard	3A
2T	Northern Boulevard & Corporal Kennedy Street	1F
2T	Cross Island Parkway & 160th Street	5C
2T	Cross Island Parkway & Clintonville Street	5C
3T	Glen Cove Road & Wheatley Plaza	3A
3T	Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	1F
3T	Glenwood Road & Viola Street	2A
4T	Old Country Road & Stauber Drive	1F
4T	East Old Country Road & New South Road	2E
4T	Cedar Swamp Road & Apple Road North	1D
4T	Cedar Swamp Road & Hegemans Lane	1E
4T	Northern Boulevard & Cedar Swamp Road	3
5T	Glen Head Road & Wall Street	2A
5T	Cedar Swamp Road & Hegemans Lane	1
5T	Northern Boulevard & Mill River Road	1A
5T	Northern Boulevard & Brookville Road	2E

7.1.2 Intersections with Custom MPT

Custom MPT solutions were created where standard details do not adequately address traffic control needs (e.g., unique intersection layouts or mid-block crossings). These intersections did not fit into standard MPT categories and therefore warranted tailored traffic control solutions. Of the 126 unique intersections to analyze, there are 103 intersections with custom MPT plans. Some intersections have multiple custom MPT plans since they are a part of multiple alignments. These intersections are shown in **Table 38** organized by alignment, TMC identification used in the Synchro models, and intersection name.

Table 38: Intersections with Custom MPT

Alignment	Intersection
1T	Long Beach Road & Daly Boulevard
1T	Long Beach Road & Mott Street
1T	Long Beach Road & Davison Avenue
1T	Long Beach Road & Lincoln Avenue
1T	North Long Beach Road & Sunrise Hwy
1T	North Long Beach Road & DeMott Avenue
1T	Long Beach Road & Baldwin Road
1T	Henry Street & Tompkins Place
1T	Henry Street & Peninsula Boulevard
1T	Clinton Street & Peninsula Boulevard
1T	Front Street & Peninsula Boulevard
1T	North Long Beach Road & Monroe Street
1T	Fulton Avenue & Bennett Avenue/Peninsula Boulevard
1T	Hempstead Turnpike & Oak Street
1T	Commercial Avenue & Oak Street
2T/3T	Stewart Avenue & Clinton Road
2T	Franklin Avenue & Stewart Avenue
2T	Franklin Avenue & 11th Street
2T	Franklin Avenue & Old Country Road
2T	Old Country Road & Willis Avenue
2T	Willis Avenue & Jericho Turnpike
2T	Willis Avenue & Hillside Avenue
2T	Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue
2T	Willis Avenue & Powerhouse Road
2T	Mineola Avenue & Powerhouse Road
2T	Mineola Avenue & Warner Avenue
2T	Old Northern Boulevard & Mineola Avenue
2T	Northern Boulevard & Center Drive
2T	Northern Boulevard & Middle Neck Road
2T	Northern Boulevard & Port Washington Boulevard
2T	Northern Boulevard & Americana Manhasset
2T	Northern Boulevard & Copley Road
2T	Northern Boulevard & Shelter Rock Road
2T	Northern Boulevard & Maple Street
2T	Northern Boulevard & East Shore Road
2T	Northern Boulevard & Susquehanna Avenue
2T	Northern Boulevard & Lakeville Road
2T	Northern Boulevard & Great Neck Road
2T	Northern Boulevard & Little Neck Parkway
2T	Northern Boulevard & Douglaston Parkway

Alignment	Intersection
2T	Northern Boulevard & 223rd Street
2T	Bell Boulevard & 26th Avenue
2T	Bell Boulevard & Totten Road
2T	Totten Avenue to Cross Island Parkway Northbound & Totten Avenue
2T	14th Road & Utopia Parkway
2T	Zerega Avenue & Randall Avenue
2T	Zerega Avenue & Bruckner Boulevard Eastbound
2T	Zerega Avenue & Westchester Avenue
2T	Castle Hill Avenue & Lyvere Street
2T	Castle Hill Avenue & East Tremont Avenue
2T	East Tremont Avenue & Bronxdale Avenue
2T	Bronxdale Avenue & Van Nest Avenue
2T	Willis Avenue & 2nd Street
2T	Willis Avenue & Dartmouth Street/Center Street
2T	Willis Avenue & I U Willets Road South
2T	Willis Avenue & Cambridge Street/Hillturn Lane
2T	Willis Avenue & Oxford Street
2T	Northern Boulevard & Bell Boulevard
2T	Northern Boulevard & Corporal Kennedy Street
2T	26th Avenue & Clearview Expressway Service Road Northbound
2T	Cross Island Parkway & Utopia Parkway
2T	Cross Island Parkway & 160th Street
2T	Cross Island Parkway & 154th Street
2T	Cross Island Parkway & Clintonville Street
2T	Cross Island Parkway & 150th Street
2T	Cross Island Parkway & 14th Avenue/149th Street
2T	Whitestone Expressway & 3rd Avenue
2T	Zerega Avenue & Homer Avenue
2T	Havemeyer Avenue & Homer Avenue
2T	Zerega Avenue & Cross Bronx Service Road North
2T	Havemeyer Avenue & Waterbury Avenue
2T	Zerega Avenue & Waterbury Avenue
3T	Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound
3T	Glen Cove Road & Jericho Turnpike
3T	Glen Cove Road & Hillside Avenue
3T	Glen Cove Road & Old Westbury Road Eastbound
3T	Glen Cove Road & Old Westbury Road Westbound
3T	Glen Cove Road & Harbor Hill Road
3T	Glen Cove Road & Back Road
3T	Glen Cove Road & Northern Boulevard
3T/5T	Glen Cove Avenue & Glenwood Road/Glen Head Road
3T/4T	Glenwood Road & Shore Road
3T	Old Country Road & Glen Cove Road/Clinton Road
4T	Broadhollow Road & Duryea Road
4T	Spagnoli Road & Broadhollow Road
4T	Haypath Road & Old Bethpage Road
4T	Grohmans Lane & Old Country Road
4T	Old Country Road & South Oyster Bay Road
4T	Robbins Lane & Marlene Drive
4T	Robbins Lane & Miller Place
4T	East Street/Miller Road & Woodbury Road
4T	Jericho Turnpike & Robbins Lane

Alignment	Intersection
4T	Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road
4T/5T	Glen Head Road & Cedar Swamp Road
4T/5T	Glen Head Road & Glen Cove Road
4T	Jericho Oyster Bay Road & Old Cedar Swamp Road/Old Jericho Turnpike
5T	Syosset Woodbury Road & Cold Spring Road
5T	Muttontown Road & Cold Spring Road
5T	Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Rd/Split Rock Rd
5T	Jericho Oyster Bay Road & Muttontown Road
5T	Oyster Bay Road & Northern Boulevard
5T	Northern Boulevard & Cedar Swamp Road
5T	Glen Cove Avenue & Kissam Lane

Custom MPT plans for each intersection requiring a tailored design approach are included in **Appendix I**.

7.1.3 Work Zone Parameters

The Trenching Condition analyzed in this report include a minimum 16.5-foot-wide work zone, consisting of a 12-foot work area and 4.5-foot buffer inclusive of the trench. The estimated length of each work zone is 200 feet, but the actual length of the work zone will depend on site conditions.

Construction staging was modeled using up to four phases, with each designed to maintain traffic flow and safety during different stages of construction, including lane closures, traffic diversions, and the implementation of custom work zone layouts to accommodate unique intersection geometries. MPT setups are expected to be in place only during active construction shifts (e.g., late night or daytime depending on location). Outside of those hours, traffic operations will generally be restored to normal conditions. At most intersections, active work on each construction stage is anticipated to last a few days to one week, depending on construction complexity. These parameters provided a consistent framework for traffic modeling and represent conservative conditions for evaluating potential impacts.

For New York State and Nassau County-owned and operated roadways, agencies typically temporarily reduce speed limits in construction areas. In order to minimize work zone incidents while maintaining optimal traffic flow, the speed limit after reduction must be at least 25 miles per hour (mph) and cannot be more than 20 mph lower than the posted speed limit. After an in-depth review of the project intersections, speed reductions were not incorporated in the Synchro models.

7.1.4 Traffic Considerations & Design Coordination

Turning movements, traffic volumes, and roadway connectivity were primary factors in determining construction phasing at each intersection. Temporary lane shifts and detours were evaluated where necessary, with an emphasis on minimizing full closures. Standard and custom MPT plans were refined using an iterative process to minimize disruptions to traffic operations while maintaining sufficient work zone space and adhering to work zone standards and regulations. Details and stipulations of both the standard and custom MPT plans will be refined based on agency feedback and contractor input during implementation.

To develop the Trenching Condition Synchro model, modifications reflecting lane closures and traffic diversions were systematically incorporated into the No Action Condition Synchro model. These adjustments were carefully logged to maintain transparency in the modeling process and

provide a basis for evaluating the anticipated traffic conditions under the proposed Trenching Conditions. A detailed record of all geometry updates and detour edits is included in **Appendix J**.

7.2 FLAGGERS

Some of the MPT plans require the presence of flaggers or Traffic Enforcement Agents (TEAs) to manage and direct traffic during construction. Flaggers and TEAs are a necessary and important component of these plans, as they provide active control to improve both traffic safety and work zone accessibility under constrained conditions.

For intersections that have MPT plans with flaggers or TEAs, signal timings were modified in the respective Synchro models to mimic what signal timing could be like with a flagger or TEA present. This assumption is necessary since real world flagging operations typically override programmed signal timings to safely sequence traffic through constrained work zones.

Signal timings were modified to be actuated-uncoordinated signals with split signal phases for approaches that will have flaggers/TEAs. Split phases provide dedicated green time to one approach at a time, simulating manual traffic control. Pedestrian phases were removed, and additional clearance time was added to some signal phases to allow vehicles to clear the respective construction zone distance. A detailed record of all signal timing changes included in the Synchro analysis is included in **Appendix J**.

7.3 CONSTRUCTION DETOURS

In an effort to minimize adversely impacting local and regional traffic conditions, detours were avoided wherever possible during construction phasing to minimize the limits of disturbance, avoid disruptions outside of the work zone area, and maintain the existing traffic flow. This limits construction activities from adversely impacting local and regional traffic, especially in residential areas. By discouraging detours, the potential for increased congestion and delays outside of the work zone area from diverted traffic minimized.

Where unavoidable, some alignments were recommended to include detours due to the geometric layout and necessary work zone configurations. These detours were developed to follow the shortest logical travel path, in order to minimize driver confusion and local disruption to neighborhoods outside the construction area. Analysis of detours was reflected in the Trenching Conditions Synchro model by adjusting incremental detour volumes at each location. General traffic diversions away from the construction area, aimed at avoiding congestion or work zone delays, were not factored into the detour volume calculations, allowing for a conservative estimation of congestion during the Trenching Conditions.

Specific detour routes and other detour assumptions for each approach for each of the analysis intersections are described in **Appendix J**. **Appendix I** contains maps that show the detour routes.

7.4 RESULTS

The Trenching Conditions Synchro models were developed from the No Action Condition Synchro models by incorporating lane closures, reduced capacities, and detours routing consistent with the proposed MPT plans. As described in **Section 7.1.1**, some MPT plans consisted of multiple substages or phases. For every analysis intersection, each MPT phase was analyzed individually. For segments 1T and 2T, all intersections were analyzed for MD and LN peak hours. For

segments 3T, 4T, and 5T, all intersections were analyzed for AM, PM, and LN peak hours. Additional information about constructability peak hours can be found in **Section 3.7.1.2**.

For construction along all five segments, construction duration for all phases at any intersection is expected to only last between several days to one week and traffic is assumed to be restored outside of work hours. Individual phases may occur for only a portion of this duration and do not warrant full signal re-coordination, particularly where signals are actuated and/or coordinated. Flaggers or TEAs are expected to manage and direct traffic in response to observed, real time traffic demand and queue conditions. Under the currently proposed signal timing, lost dedicated turning capacity is not compensated, rendering certain daytime work infeasible without revised signal timing, turn movement restrictions, or extensive deployment of flaggers and TEAs. As a results late night construction is generally recommended.

The following subsections detail the Trenching Conditions results for each respective segment.

7.4.1 Segment 1T

Results for the 1T Trenching Conditions analysis compared to the 1T No Action Condition analysis for the MD and LN periods are shown in **Table 39** and **Table 40** respectively. The tables include the intersections analyzed, the average intersection delay, and the intersection LOS for both conditions. A complete summary of the results, including volumes, v/c ratio, delay, LOS, and queue length for each approach is in **Appendix H**.

Result tables highlight intersections with average delays exceeding 55 seconds or with LOS E or F, since these conditions indicate substantial congestion and potential deficiencies.

Table 39: Intersection LOS Summary – 1T MD No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	MD No Action	MD Trenching Conditions	Δ	MD No Action	MD Trenching Conditions
Long Beach Road & Daly Boulevard	29.4	255.8	226.4	C	F
Long Beach Road & Mott Street	41.8	68.8	27.0	D	E
Long Beach Road & Davison Avenue	13.6	26.5	12.9	B	C
Long Beach Road & Lincoln Avenue	18.4	11.8	-6.6*	B	B
North Long Beach Road/South Long Beach Road & Merrick Road	20.9	78.5	57.6	C	E
North Long Beach Road & Sunrise Highway	41.5	234.9	193.4	D	F
North Long Beach Road & DeMott Avenue/Brower Avenue	25.7	522.0	496.3	C	F
Long Beach Road/Homan Boulevard & Baldwin Road	15.2	25.0	9.8	B	C
Henry Street/Baldwin Road & East Graham Avenue/Tompkins Place	16.1	19.3	3.2	B	B
Henry Street & Greenwich Street	19.6	35.0	15.4	B	D
Henry Street & Peninsula Boulevard	21.1	46.6	25.5	C	D
Clinton Street & Peninsula Boulevard	13.4	179.7	166.3	B	F
Peninsula Boulevard & Front Street	25.2	67.7	42.5	C	E
North Long Beach Road & Monroe Street/Greystone Road	6.7	9.3	2.6	A	A
Fulton Avenue & Peninsula Boulevard/Bennett Avenue	25.8	39.3	13.5	C	D
Hempstead Turnpike & Oak Street	25.8	88.6	62.8	C	F
Oak Street & Westbury Boulevard/Meadow Street	15.9	29.9	14.0	B	C
Commercial Avenue & Oak Street	18.7	35.2	16.5	B	D

*Delay reduction attributed to volumes detoured away from intersection

Table 40: Intersection LOS Summary – 1T LN No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	LN No Action	LN Trenching Conditions	Δ	LN No Action	LN Trenching Conditions
Long Beach Road & Daly Boulevard	13.2	17.0	3.8	B	B
Long Beach Road & Mott Street	15.2	14.0	-1.2*	B	B
Long Beach Road & Davison Avenue	9.6	9.6	0.0	A	A
Long Beach Road & Lincoln Avenue	25.5	5.1	-20.4*	C	A
North Long Beach Road/South Long Beach Road & Merrick Road	9.0	22.7	13.7	A	C
North Long Beach Road & Sunrise Highway	38.2	36.7	-1.5*	D	D
North Long Beach Road & DeMott Avenue/Brower Avenue	14.9	70.3	55.4	B	E
Long Beach Road/Homan Boulevard & Baldwin Road	10.7	4.5	-6.2*	B	A
Henry Street/Baldwin Road & East Graham Avenue/Tompkins Place	10.1	10.4	0.3	B	B
Henry Street & Greenwich Street	16.2	19.2	3.0	B	B
Henry Street & Peninsula Boulevard	14.0	36.5	22.5	B	D
Clinton Street & Peninsula Boulevard	10.3	21.5	11.2	B	C
Peninsula Boulevard & Front Street	16.3	21.3	5.0	B	C
North Long Beach Road & Monroe Street/Greystone Road	2.2	2.3	0.1	A	A
Fulton Avenue & Peninsula Boulevard/Bennett Avenue	18.0	14.7	-3.3*	B	B
Hempstead Turnpike & Oak Street	21.1	25.8	4.7	C	C
Oak Street & Westbury Boulevard/Meadow Street	10.6	12.0	1.4	B	B
Commercial Avenue & Oak Street	10.5	11.2	0.7	B	B

*Delay reduction attributed to volumes detoured away from intersection

Several construction phase results show reduced delay compared to the No Action Condition, which does not necessarily indicate that construction improves operations. Rather, the reduction is often a byproduct of traffic diversions associated with detours or shifts in travel demand during specific construction phases.

When compared to the No Action Condition, the Trenching Condition for segment 1T had two intersections with impacts in at least one of the MPT phases, in at least one lane group, and in at least one peak period during the proposed construction time period. These increases in delay exceed the more stringent NYCDOT thresholds described in **Section 3.5.2.1**. For more details of individual lane groups and the impacts, refer to the LOS tables in **Appendix H**.

Table 41 presents the feasibility of the proposed construction time periods based on the Trenching Condition results. The proposed construction time periods reflected in the table are described in **Section 4.1**.

Table 41: Constructability Work Hours Feasibility - 1T

Intersection	Proposed Construction Time Period	Feasibility
Long Beach Road & Daly Boulevard	Nights	Yes
Long Beach Road & Mott Street	Nights	Yes
Long Beach Road & Davison Avenue	Nights	Yes
Long Beach Road & Lincoln Avenue	Days	Yes
North Long Beach Road/South Long Beach Road & Merrick Road	Nights	Yes
North Long Beach Road & Sunrise Highway	Nights	Yes
North Long Beach Road & DeMott Avenue/Brower Avenue	Days	No
Long Beach Road/Homan Boulevard & Baldwin Road	Days	Yes
Henry Street/Baldwin Road & East Graham Avenue/Tompkins Place	Days	Yes
Henry Street & Greenwich Street	Days	Yes
Henry Street & Peninsula Boulevard	Days	Yes
Clinton Street & Peninsula Boulevard	Days	No
Peninsula Boulevard & Front Street	Days	Yes
Commercial Avenue & Oak Street	Days	Yes
Fulton Avenue & Peninsula Boulevard/Bennett Avenue	Days	Yes
Hempstead Turnpike & Oak Street	Nights	Yes
Oak Street & Westbury Boulevard/Meadow Street	Nights	Yes
Commercial Avenue & Oak Street	Days	Yes

- North Long Beach Road & DeMott Avenue/Brower Avenue
  - Having construction occur during the day appears less feasible at North Long Beach Road & DeMott Avenue/Brower Avenue due to poor Trenching Condition results for the MD peak period. Delay increases by 496.3s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. In the Phase 1 MPT plan, there are lane reductions in the westbound, northbound, and southbound approaches. In the Phase 1 MPT plan, the eastbound and northeastbound approaches are closed. There are various detours due to the lane reductions or closures. For Phase 1, the northbound and southbound approaches have a single lane shared by the northbound and southbound movements with the presence of flaggers or TEAs. Phase 1 has worse results for the northbound through, southbound through, and westbound left movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. With the current MPT design for Phase 1, there will also be an increase in delay at this intersection during LN construction hours, changing from a LOS C in No Action Condition to a LOS F in the Trenching Condition. Nevertheless, construction during LN hours appears more feasible based on the respective analysis results. Refinements to the corresponding MPT plans can also be considered.

- Clinton Street & Peninsula Boulevard
    - Having construction occur during the day appears less feasible at Clinton Street & Peninsula Boulevard due to poor Trenching Condition results for the MD peak period. Delay increases by 166.3s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. In Phase 2, there are lane reductions in the eastbound and southbound approaches. The westbound approach is also closed. The adjacent intersection of Henry Street & Peninsula Boulevard has geometry changes based on the same MPT designs. There are corresponding detours due to the geometry updates. Phase 2 has worse results for the southbound right movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

More details of individual lane groups, volumes, timing, phasing, queues, and simulation settings are in **Appendix K**.

7.4.2 Segment 2T

Results for the 2T Trenching Condition analysis compared to the 2T No Action Condition analysis for the MD and LN periods are shown in **Table 42** and **Table 43** respectively. The tables include the intersections analyzed, the average intersection delay, and the intersection LOS for both conditions. A complete summary of the results, including volumes, v/c ratio, delay, LOS, and queue length for each approach is in **Appendix H**.

Result tables highlight intersections with average delays exceeding 55 seconds or with LOS E or F, since these conditions indicate substantial congestion and potential deficiencies.

Table 42: Intersection LOS Summary – 2T MD No Action vs. Trenching Condition

Intersection Name	Delay (sec)			LOS	
	MD No Action	MD Trenching Conditions	Δ	MD No Action	MD Trenching Conditions
Stewart Avenue & Clinton Road	49.7	363.5	313.8	D	F
Franklin Avenue & Stewart Avenue	40.4	774.6	734.2	D	F
Franklin Avenue & 11th Street	27.9	269.9	242.0	C	F
Franklin Avenue & Old Country Road	38.2	1693.0	1654.8	D	F
Old Country Road & Willis Avenue	17.1	131.4	114.3	B	F
Willis Avenue & Jericho Turnpike	49.5	7438.0	7388.5	D	F
Willis Avenue & Hillside Avenue	35.2	626.5	591.3	D	F
Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	24.4	52.6	28.2	C	D
Willis Avenue & Powerhouse Road/South Service Road	18.7	71.3	52.6	B	E
Mineola Avenue/Willis Avenue & Powerhouse Road	27.3	88.9	61.6	C	F
Mineola Avenue & Warner Avenue/The Intervale	11.6	61.1	49.5	B	E
Old Northern Boulevard & Mineola Avenue	21.4	35.1	13.7	C	D
Northern Boulevard & Center Drive/Mineola Avenue	26.3	49.7	23.4	C	D
Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard	57.7	421.6	363.9	E	F

Intersection Name	Delay (sec)			LOS	
	MD No Action	MD Trenching Conditions	Δ	MD No Action	MD Trenching Conditions
Northern Boulevard & Port Washington Boulevard/Searingtown Road	76.0	9821.3	9745.3	E	F
Northern Boulevard & Americana Manhasset	11.6	346.9	335.3	B	F
Northern Boulevard & Copley Road/The Gate	44.2	201.0	156.8	D	F
Northern Boulevard & Shelter Rock Road	35.2	91.8	56.6	D	F
Northern Boulevard & Maple Street	14.6	32.0	17.4	B	C
Northern Boulevard & East Shore Road/Community Drive	47.8	218.4	170.6	D	F
Northern Boulevard & Susquehanna Avenue	6.3	28.1	21.8	A	C
Northern Boulevard & Lakeville Road/South Middle Neck Road	53.2	5980.5	5927.3	D	F
Northern Blvd & Great Neck Rd/Buttonwood Road/Driveway	43.3	78.1	34.8	D	E
Northern Boulevard & Little Neck Pkwy	24.0	47.0	23.0	C	D
Northern Boulevard & Douglaston Pkwy	25.7	282.5	256.8	C	F
Northern Boulevard & 223rd Street	21.2	77.1	55.9	C	E
Bell Boulevard & 26th Avenue	15.9	15.7	-0.2*	B	B
Bell Boulevard/Cross Island Parkway & Totten Road/212th Street	48.7	198.4	149.7	D	F
Cross Island Boulevard & Totten Road	19.5	18.9	-0.6*	B	B
14th Road/Cross Island Boulevard & Utopia Parkway	22.9	17.2	-5.7*	C	B
Zerega Avenue & Randall Avenue	0.4	0.4	0.0	A	A
Zerega Avenue & Bruckner Boulevard	23.6	36.3	12.7	C	D
Zerega Avenue & Westchester Avenue	18.7	83.7	65.0	B	F
Castle Hill Avenue & Zerega Avenue/Lyvere Street	35.2	74.2	39.0	D	E
Castle Hill Avenue & East Tremont Avenue	28.2	121.1	92.9	C	F
East Tremont Avenue & Bronxdale Avenue	15.5	40.2	24.7	B	D
Van Nest Avenue & Bronxdale Avenue	13.1	13.7	0.6	B	B
Willis Avenue & 2nd Street	18.5	411.9	393.4	B	F
Willis Ave & Dartmouth Street/Center Street	3.7	27.7	24.0	A	C
Willis Ave & I U Willets Road	5.0	26.7	21.7	A	C
Willis Ave & Cambridge Street/Hillturn Lane	4.0	37.9	33.9	A	D
Willis Ave & Oxford Street	2.1	668.1	666.0	A	F
Northern Boulevard & Bell Boulevard	26.8	55.4	28.6	C	E
Northern Boulevard & Corporal Kennedy Street	11.8	28.3	16.5	B	C
26th Avenue & Clearview Expressway Service Road	14.7	16.5	1.8	B	B
Utopia Parkway and Cross Island Parkway	26.8	1428.2	1401.4	C	F
Cross Island Parkway & 160th Street	12.6	972.0	959.4	B	F
Cross Island Parkway & 154th Street/Cryders Lane	14.1	26.6	12.5	B	C
Cross Island Parkway & Clintonville Street	19.3	960.7	941.4	B	F
Cross Island Parkway & 150th Street/14th Road	12.7	33.1	20.4	B	C
Cross Island Parkway & 14th Avenue/149th Street	30.7	40.4	9.7	C	D
Whitestone Expressway & 3rd Avenue	8.6	8.8	0.2	A	A
Zerega Avenue & Homer Avenue	0.6	0.6	0.0	A	A
Havemeyer Avenue & Homer Avenue	2.3	2.2	-0.1*	A	A
Zerega Avenue & Cross Bronx Service Road N	24.4	26.0	1.6	C	C
Waterbury Avenue & Havemeyer Avenue	12.3	12.0	-0.3*	B	B
Zerega Avenue & Waterbury Avenue	12.2	10.9	-1.3*	B	B

*Delay reduction attributed to volumes detoured away from intersection

Table 43: Intersection LOS Summary – 2T LN No Action vs. Trenching Condition

Intersection Name	Delay (sec)			LOS	
	LN No Action	LN Trenching Conditions	Δ	LN No Action	LN Trenching Conditions
Stewart Avenue & Clinton Road	21.6	27.7	6.1	C	C
Franklin Avenue & Stewart Avenue	15.7	14.2	-1.5*	B	B
Franklin Avenue & 11th Street	14.8	12.4	-2.4*	B	B
Franklin Avenue & Old Country Road	19.2	17.9	-1.3*	B	B
Old Country Road & Willis Avenue	9.7	11.7	2.0	A	B
Willis Avenue & Jericho Turnpike	39.0	46.7	7.7	D	D
Willis Avenue & Hillside Avenue	30.5	35.8	5.3	C	D
Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	7.8	4.5	-3.3*	A	A
Willis Avenue & Powerhouse Road/South Service Road	14.0	15.1	1.1	B	B
Mineola Avenue/Willis Avenue & Powerhouse Road	20.7	22.4	1.7	C	C
Mineola Avenue & Warner Avenue/The Intervale	4.8	38.6	33.8	A	D
Old Northern Boulevard & Mineola Avenue	10.0	10.0	0.0	B	B
Northern Boulevard & Center Drive/Mineola Avenue	22.7	19.9	-2.8*	C	B
Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard	38.2	40.3	2.1	D	D
Northern Boulevard & Port Washington Boulevard/Searingtown Road	48.5	70.6	22.1	D	E
Northern Boulevard & Americana Manhasset	7.1	5.5	-1.6*	A	A
Northern Boulevard & Copley Road/The Gate	30.3	57.6	27.3	C	E
Northern Boulevard & Shelter Rock Road	28.0	31.1	3.1	C	C
Northern Boulevard & Maple Street	9.2	7.9	-1.3*	A	A
Northern Boulevard & East Shore Road/Community Drive	44.4	38.2	-6.2*	D	D
Northern Boulevard & Susquehanna Avenue	2.5	12.6	10.1	A	B
Northern Boulevard & Lakeville Road/South Middle Neck Road	35.5	35.9	0.4	D	D
Northern Blvd & Great Neck Rd/Buttonwood Road/Driveway	30.8	29.9	-0.9*	C	C
Northern Boulevard & Little Neck Pkwy	18.2	14.6	-3.6*	B	B
Northern Boulevard & Douglaston Pkwy	20.8	18.1	-2.7*	C	B
Northern Boulevard & 223rd Street	15.1	17.7	2.6	B	B
Bell Boulevard & 26th Avenue	12.4	13.1	0.7	B	B
Bell Boulevard/Cross Island Parkway & Totten Road/212th Street	32.9	32.5	-0.4*	C	C
Cross Island Boulevard & Totten Road	16.4	16.0	-0.4*	B	B
14th Road/Cross Island Boulevard & Utopia Parkway	16.6	15.4	-1.2*	B	B
Zerega Avenue & Randall Avenue	0.2	0.2	0.0	A	A
Zerega Avenue & Bruckner Boulevard	19.1	22.2	3.1	B	C
Zerega Avenue & Westchester Avenue	15.0	31.5	16.5	B	C
Castle Hill Avenue & Zerega Avenue/Lyvere Street	26.9	26.9	0.0	C	C
Castle Hill Avenue & East Tremont Avenue	20.0	26.2	6.2	C	C
East Tremont Avenue & Bronxdale Avenue	12.5	13.3	0.8	B	B
Van Nest Avenue & Bronxdale Avenue	11.3	11.4	0.1	B	B
Willis Avenue & 2nd Street	13.2	59.2	46.0	B	E
Willis Avenue & Dartmouth Street/Center Street	2.6	23.2	20.6	A	C
Willis Avenue & I U Willets Road	3.0	16.4	13.4	A	B
Willis Avenue & Cambridge Street/Hillturn Lane	2.1	30.4	28.3	A	C

Intersection Name	Delay (sec)			LOS	
	LN No Action	LN Trenching Conditions	Δ	LN No Action	LN Trenching Conditions
Willis Avenue & Oxford Street	1.5	39.9	38.4	A	D
Northern Boulevard & Bell Boulevard	24.3	27.5	3.2	C	C
Northern Boulevard & Corporal Kennedy Street	10.4	16.8	6.4	B	B
26th Avenue & Clearview Expressway Service Road	11.6	12.0	0.4	B	B
Utopia Parkway and Cross Island Parkway	9.3	407.4	398.1	A	F
Cross Island Parkway & 160th Street	11.5	182.7	171.2	B	F
Cross Island Parkway & 154th Street/Cryders Lane	10.8	11.9	1.1	B	B
Cross Island Parkway & Clintonville Street	15.4	64.3	48.9	B	E
Cross Island Parkway & 150th Street/14th Road	10.4	11.2	0.8	B	B
Cross Island Parkway & 14th Avenue/149th Street	25.5	26.6	1.1	C	C
Whitestone Expressway & 3rd Avenue	9.7	11.2	1.5	A	B
Zerega Avenue & Homer Avenue	0.6	0.6	0.0	A	A
Havemeyer Avenue & Homer Avenue	1.8	1.8	0.0	A	A
Zerega Avenue & Cross Bronx Service Road North	19.1	21.3	2.2	B	C
Waterbury Avenue & Havemeyer Avenue	10.3	11.0	0.7	B	B
Zerega Avenue & Waterbury Avenue	10.9	9.3	-1.6*	B	A

*Delay reduction attributed to volumes detoured away from intersection

Several construction phase results show reduced delay compared to the No Action Condition, which does not necessarily indicate that construction improves operations. Rather, the reduction is often a byproduct of traffic diversions associated with detours or shifts in travel demand during specific construction phases.

When compared to the No Action Condition, the Trenching Condition for segment 2T had nineteen intersections with impacts in at least one of the MPT phases, in at least one lane group, and in at least one peak period during the proposed construction time period. These increases in delay exceed the more stringent NYCDOT thresholds described in **Section 3.5.2.1**. For more details of individual lane groups and the impacts, refer to the LOS tables in **Appendix H**.

Table 44 presents the feasibility of the proposed construction time periods based on the Trenching Condition results. The proposed construction time periods reflected in the table are described in **Section 4.1**.

Table 44: Constructability Work Hours Feasibility - 2T

Intersection	Proposed Construction Time Period	Feasibility
Stewart Avenue & Clinton Road	Days	No
Franklin Avenue & Stewart Avenue	Nights	Yes
Franklin Avenue & 11th Street	Nights	Yes
Franklin Avenue & Old Country Road	Days	No
Old Country Road & Willis Avenue	Days	No
Willis Avenue & Jericho Turnpike	Nights	Yes
Willis Avenue & Hillside Avenue	Nights	Yes
Willis Avenue & Exit 28 Northern State Parkway Westbound to Willis Avenue	Nights	Yes

Intersection	Proposed Construction Time Period	Feasibility
Willis Avenue & Powerhouse Road/South Service Road	Nights	Yes
Mineola Avenue/Willis Avenue & Powerhouse Road	Nights	Yes
Mineola Avenue & Warner Avenue/The Intervale	Nights	Yes
Old Northern Boulevard & Mineola Avenue	Nights	Yes
Northern Boulevard & Center Drive/Mineola Avenue	Nights	Yes
Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard	Days	No
Northern Boulevard & Port Washington Boulevard/Searingtown Road	Days	No
Northern Boulevard & Americana Manhasset	Days	No
Northern Boulevard & Copley Road/The Gate	Days	No
Northern Boulevard & Shelter Rock Road	Days	No
Northern Boulevard & Maple Street	Days	Yes
Northern Boulevard & East Shore Road/Community Drive	Days	No
Northern Boulevard & Susquehanna Avenue	Days	Yes
Northern Boulevard & Lakeville Road/South Middle Neck Road	Days	No
Northern Boulevard & Great Neck Road/Buttonwood Road/Driveway	Days	Yes
Northern Boulevard & Little Neck Parkway	Days	Yes
Northern Boulevard & Douglaston Parkway	Days	No
Northern Boulevard & 223rd Street	Nights	Yes
Bell Boulevard & 26th Avenue	Days	Yes
Bell Boulevard/Cross Island Parkway & Totten Road/212th Street	Days	No
Cross Island Boulevard & Totten Road	Days	Yes
14th Road/Cross Island Boulevard & Utopia Parkway	Days	Yes
Zerega Avenue & Randall Avenue	Days	Yes
Zerega Avenue & Bruckner Boulevard	Days	Yes
Zerega Avenue & Westchester Avenue	Days	No
Castle Hill Avenue & Zerega Avenue/Lyvere Street	Days	Yes
Castle Hill Avenue & East Tremont Avenue	Days	No
East Tremont Avenue & Bronxdale Avenue	Days	Yes
Van Nest Avenue & Bronxdale Avenue	Days	Yes
Willis Avenue & 2nd Street	Days	No
Willis Ave & Dartmouth Street/Center Street	Days	Yes
Willis Ave & I U Willets Road	Days	Yes
Willis Ave & Cambridge Street/Hillturn Lane	Days	Yes
Willis Ave & Oxford Street	Days	No
Northern Boulevard & Bell Boulevard	Nights	Yes
Northern Boulevard & Corporal Kennedy Street	Nights	Yes
26th Avenue & Clearview Expressway Service Road	Days	Yes
Utopia Parkway & Cross Island Parkway	Days	No
Cross Island Parkway & 160th Street	Days	No
Cross Island Parkway & 154th Street/Cryders Lane	Days	Yes

Intersection	Proposed Construction Time Period	Feasibility
Cross Island Parkway & Clintonville Street	Days	No
Cross Island Parkway & 150th Street/14th Road	Days	Yes
Cross Island Parkway & 14th Avenue/149th Street	Days	Yes
Whitestone Expressway & 3rd Avenue	Days	Yes
Zerega Avenue & Homer Avenue	Days	Yes
Havemeyer Avenue & Homer Avenue	Days	Yes
Zerega Avenue & Cross Bronx Service Road North	Days	Yes
Waterbury Avenue & Havemeyer Avenue	Days	Yes
Zerega Avenue & Waterbury Avenue	Days	Yes

- Stewart Avenue & Clinton Road
    - Having construction occur during the day appears less feasible at Stewart Avenue & Clinton Road due to poor Trenching Condition results for the MD peak period. Delay increases by 99.9s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, and by 313.8s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 includes lane reductions in the northbound, southbound, and westbound approaches. Phase 2 has lane reductions in all four approaches with corresponding detours. Phase 2 has a detour for the eastbound right movement. Phase 1 has worse results for the northbound through and southbound through movements. Phase 2 has worse results for the northbound, southbound, and eastbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.
- Franklin Avenue & Old Country Road
    - Having construction occur during the day appears less feasible at Franklin Avenue & Old Country Road due to poor Trenching Condition results for the MD peak period. Delay increases by 1654.8s in the MD peak period from the No Action Condition to Phase 1 and Phase 2 of the Trenching Condition, and by 46.5s in the MD peak period from the No Action Condition to Phase 3 of the Trenching Condition. The LOS of Phase 3 becomes LOS F. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. Phase 1 and Phase 2 have lane reductions in all four approaches, while Phase 3 has lane reductions in only the westbound approach. Phase 1 and Phase 2 have worse results for all four through movements. Phase 3 has worse results for the westbound through movement. Turning bays were removed based on the MPT design, which causes high delays for turning movements that affect the through movements results, specifically for Phase 1 and Phase 2. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Old Country Road & Willis Avenue
    - Having construction occur during the day appears less feasible at Old Country Road & Willis Avenue due to poor Trenching Condition results for the MD peak period. Delay increases by 114.3s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 2 has lane reductions in the southbound, eastbound, and westbound approaches. Phase 2 has worse results for the eastbound through and westbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.
- Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard
    - Having construction occur during the day appears less feasible at Northern Boulevard & Middle Neck Road/The Locusts/Old Northern Boulevard due to poor Trenching Condition results for the MD peak period. Delay increases by 97.5s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, by 34.3s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition, and by 9363.9s in the MD peak period from the No Action Condition to Phase 3 of the Trenching Condition. The LOS of Phase 2 becomes LOS F. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 has lane reductions in the eastbound and northwestbound approaches. Phase 2 has lane reductions in the southbound and eastbound approaches and has closures in the northbound and northwestbound approaches. Phase 2 also has extensive detours due to the lane closures. Phase 3 has lane reductions in the southbound and eastbound approaches. Phase 1 has worse results for the eastbound through and northwestbound left movements. Phase 2 has worse results for the westbound through and right movements. Phase 3 has worse results for the eastbound through movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.
- Northern Boulevard & Port Washington Boulevard/Searingtown Road
    - Having construction occur during the day appears less feasible at Northern Boulevard & Port Washington Boulevard/Searingtown Road due to poor Trenching Condition results for the MD peak period. Delay increases by 9745.3s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, and by 7099.4s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. Phase 1 and Phase 2 have lane reductions in all four approaches. Phase 1 and Phase 2 have worse results for all four through movements. Turning bays were removed based on the MPT design, which causes high delays for turning movements that affect the through movements results. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Americana Manhasset

    - Having construction occur during the day appears less feasible at Northern Boulevard & Americana Manhasset due to poor Trenching Condition results for the MD peak period. Delay increases by 335.3s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 has lane reductions in the northbound, eastbound, and westbound approaches. There are also corresponding detours in Phase 1 for the westbound left and northbound left movements. Phase 1 has worse results for the eastbound through movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Copley Road/The Gate

    - Having construction occur during the day appears less feasible at Northern Boulevard & Copley Road/The Gate due to poor Trenching Condition results for the MD peak period. Delay increases by 156.8s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, by 97.8s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition, and by 71.1s in the MD peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 and Phase 3 have lane reductions in the eastbound approach. For Phase 2 and Phase 3, the southbound approach has a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. There are also corresponding detours in Phase 2 for the northbound through movement. Phase 1 has worse results for the eastbound through movement. Phase 2 has worse results for the northbound and eastbound through movements. Phase 3 has worse results for the northbound through, northbound right, and eastbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Shelter Rock Road

    - Having construction occur during the day appears less feasible at Northern Boulevard & Shelter Rock Road due to poor Trenching Condition results for the MD peak period. Delay increases by 56.6s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. Phase 2 has lane reductions in the northbound, eastbound, and westbound approaches. Phase 2 has worse results for the northbound left, eastbound through, and westbound left movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & East Shore Road/Community Drive

    - Having construction occur during the day appears less feasible at Northern Boulevard & East Shore Road/Community Drive due to poor Trenching Condition results for the MD peak period. Delay increases by 129.1s in the MD peak period from the No Action

Condition to Phase 1 of the Trenching Condition, by 156.7s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition, and by 170.6s in the MD peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. All three phases have lane reductions in all four approaches. There are corresponding detours in all three phases. Phase 1 has worse results for the eastbound and westbound through movements. Phase 2 has worse results for the southbound and westbound through movements. Phase 3 has worse results for the southbound, eastbound, and westbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Lakeville Road/South Middle Neck Road

    - Having construction occur during the day appears less feasible at Northern Boulevard & Lakeville Road/South Middle Neck Road due to poor Trenching Condition results for the MD peak period. Delay increases by 210.3s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, and by 5927.3s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. Phase 1 has lane reductions in the northbound, southbound, and westbound approaches while Phase 2 has lane reductions in all four approaches. Phase 1 and Phase 2 have worse results for the northbound through and southbound through movements. Turning bays were removed based on the MPT design, which causes high delays for turning movements that affect the through movements results. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Douglaston Parkway

    - Having construction occur during the day appears less feasible at Northern Boulevard & Douglaston Parkway due to poor Trenching Condition results for the MD peak period. Delay increases by 255.5s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, by 85.4s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition, and by 256.8s in the MD peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. The northbound, eastbound, and westbound approaches have lane reductions in Phase 1, all four approaches have lane reductions in Phase 2, and the southbound, eastbound, and westbound approaches have lane reductions in Phase 3. All three phases have worse results for the eastbound through movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Bell Boulevard/Cross Island Parkway & Totten Road/212th Street

    - Having construction occur during the day appears less feasible at Bell Boulevard/Cross Island Parkway & Totten Road/212th Street due to poor Trenching Condition results for the MD peak period. Delay increases by 56.9s in the MD peak

period from the No Action Condition to Phase 1 of the Trenching Condition, by 149.7s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition, and by 58.1s in the MD peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 has lane reductions in the westbound approach, and Phase 2 and Phase 3 have lane reductions in all four approaches. Phase 2 has corresponding detours for the eastbound left, northbound left, and southbound through movements. Phase 1 has worse results for the eastbound left and westbound through movements. Phase 2 and Phase 3 have worse results for the westbound through movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Zerega Avenue & Westchester Avenue

    - Having construction occur during the day appears less feasible at Zerega Avenue & Westchester Avenue due to poor Trenching Condition results for the MD peak period. Delay increases by 65.0s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phase 2, the northbound approach has a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. The southbound approach also has a reduced lane width. Phase 2 has worse results for the southbound through movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Castle Hill Avenue & East Tremont Avenue

    - Having construction occur during the day appears less feasible at Castle Hill Avenue & East Tremont Avenue due to poor Trenching Condition results for the MD peak period. Delay increases by 92.9s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. There are northbound, eastbound, and westbound lane reductions for Phase 2. Based on the MPT design, the adjacent intersection of East Tremont Avenue & Bronxdale Avenue also has eastbound and westbound lane reductions. These additional geometry changes impact the results of Castle Hill Avenue & East Tremont Avenue. Phase 2 has worse results for the northbound, eastbound, and westbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Willis Avenue & 2nd Street

    - Having construction occur during the day appears less feasible at Willis Avenue & 2nd Street due to poor Trenching Condition results for the MD peak period. Delay increases by 333.2s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, and by 393.4s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phase 1, the northbound

approach has a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. In Phase 1, The eastbound and westbound approaches also have a single lane shared by eastbound and westbound movements with the presence of flaggers or TEAs. For Phase 2, the northbound approach has a single lane shared by northbound and southbound movements and the westbound approach has a single lane shared by eastbound and westbound movements. The single shared lanes in Phase 2 have the presence of flaggers or TEAs. Phase 2 also has a lane reduction in the southbound approach. Both Phase 1 and Phase 2 have worse results for the eastbound through, westbound through, and southbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Willis Ave & Oxford Street

    - Having construction occur during the day appears less feasible at Willis Ave & Oxford Street due to poor Trenching Condition results for the MD peak period. Delay increases by 666.0s in the MD peak period from the No Action Condition to Phase 1 and Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phase 1 and Phase 2, the westbound approach has a single lane shared by eastbound and westbound movements with the presence of flaggers or TEAs. There are also lane reductions in the northbound and southbound approaches. Phase 1 and Phase 2 have worse results for the northbound and southbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

- Utopia Parkway & Cross Island Parkway

    - Having construction occur during the day appears less feasible at Utopia Parkway & Cross Island Parkway due to poor Trenching Condition results for the MD peak period. Delay increases by 1401.4s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, and by 53.9s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The LOS of Phase 2 becomes LOS F The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. For Phase 1 and Phase 2, the northbound and southbound approaches have a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. There are other geometry changes in the northbound and southbound approaches for Phase 1 and in the southbound approach for Phase 2. Phase 2 has corresponding detours for the northbound left movement. Phase 1 has worse results for the northbound through, southbound through, and southbound right movements. Phase 2 has worse results for the northbound through movement. Turning bays were removed based on the MPT design, which causes high delays for turning movements that affect the through movements results. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. With the current MPT design for Phase 1, there will also be an increase in delay at this intersection during LN construction hours, changing from a LOS B in No Action Conditions to a LOS F in Trenching Conditions. Nevertheless, construction during LN hours appears more feasible based on the respective analysis results. Refinements to the corresponding MPT plans can also be considered

- Cross Island Parkway & 160th Street
    - Having construction occur during the day appears less feasible at Cross Island Parkway & 160th Street due to poor Trenching Condition results for the MD peak period. Delay increases by 959.4s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, and by 320.1s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. There are westbound approach lane reductions in Phase 1 and Phase 2. For Phase 1, the northbound and southbound approaches have a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. For Phase 2, the southbound approach has a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. Phase 1 has worse results for the northbound, southbound, and westbound through movements. Phase 2 has worse results for the northbound and westbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Turning bays were removed based on the MPT design, which causes high delays for turning movements that affect through movements results. With the current MPT design for Phase 1, there will also be an increase in delay at this intersection during LN construction hours, changing from a LOS B in No Action Conditions to a LOS F in Trenching Conditions Nevertheless, construction during LN hours appears more feasible based on the respective analysis results. Refinements to the corresponding MPT plans can also be considered.

- Cross Island Parkway & Clintonville Street
    - Having construction occur during the day appears less feasible at Cross Island Parkway & Clintonville Street due to poor Trenching Condition results for the MD peak period. Delay increases by 941.4s in the MD peak period from the No Action Condition to Phase 1 of the Trenching Condition, and by 478.7s in the MD peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. There are westbound approach lane reductions in Phase 1 and Phase 2. For Phase 1, the northbound and southbound approaches have a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. For Phase 2, the southbound approach has a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. Phase 1and Phase 2 have worse results for the northbound, southbound, and westbound through movements. Turning bays were removed based on the MPT design, which causes high delays for turning movements that affect the through movements results. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Construction during LN hours appears more feasible based on the respective analysis results.

More details of individual lane groups, volumes, timing, phasing, queues, and simulation settings are in **Appendix K**.

7.4.3 Segment 3T

Results for the 3T Trenching Conditions analysis compared to the 3T No Action Condition analysis for the AM, PM, and LN periods are shown in **Table 45**, **Table 46**: Intersection LOS Summary – 3T PM No Action vs. Trenching Conditions, and **Table 47** respectively. The tables include the intersections analyzed, the average intersection delay, and the intersection LOS for both conditions. A complete summary of the results, including volumes, v/c ratio, delay, LOS, and queue length for each approach is in **Appendix H**.

Result tables highlight intersections with average delays exceeding 55 seconds or with LOS E or F, since these conditions indicate substantial congestion and potential deficiencies.

Table 45: Intersection LOS Summary – 3T AM No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	AM No Action	AM Trenching Conditions	Δ	AM No Action	AM Trenching Conditions
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	31.6	119.7	88.1	C	F
Glen Cove Road & Jericho Turnpike	80.4	336.5	256.1	F	F
Glen Cove Road & Hillside Avenue	36.1	72.9	36.8	D	E
Glen Cove Road & Old Westbury Road Eastbound	26.6	171.0	144.4	C	F
Glen Cove Road & Old Westbury Road Westbound	49.7	256.0	206.3	D	F
Glen Cove Road & Harbor Hill Road	23.7	370.8	347.1	C	F
Glen Cove Road & Wheatley Plaza	12.2	99.8	87.6	B	F
Glen Cove Road & Back Road	27.0	164.4	137.4	C	F
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	10.2	45.5	35.3	B	D
Glen Cove Road & Northern Boulevard	82.3	739.2	656.9	F	F
Glenwood Road & Glen Cove Avenue	32.1	114.9	82.8	C	F
Glenwood Road & Viola Street	8.8	144.6	135.8	A	F
Glenwood Road & Shore Road	6.7	10.3	3.6	A	B
Old Country Road & Glen Cove Road	56.6	192.4	135.8	E	F
Stewart Avenue & Clinton Road	57.1	407.0	349.9	E	F

*Delay reduction attributed to volumes detoured away from intersection

Table 46: Intersection LOS Summary – 3T PM No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	PM No Action	PM Trenching Conditions	Δ	PM No Action	PM Trenching Conditions
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	45.1	155.9	110.8	D	F
Glen Cove Road & Jericho Turnpike	91.2	382.4	291.2	F	F
Glen Cove Road & Hillside Avenue	41.3	113.7	72.4	D	F
Glen Cove Road & Old Westbury Road Eastbound	50.8	328.4	277.6	D	F
Glen Cove Road & Old Westbury Road Westbound	28.3	77.8	49.5	C	E
Glen Cove Road & Harbor Hill Road	14.2	143.8	129.6	B	F
Glen Cove Road & Wheatley Plaza	15.6	60.1	44.5	B	E
Glen Cove Road & Back Road	29.9	110.2	80.3	C	F
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	12.4	83.8	71.4	B	F
Glen Cove Road & Northern Boulevard	88.0	617.4	529.4	F	F
Glenwood Road & Glen Cove Avenue	50.1	190.9	140.8	D	F
Glenwood Road & Viola Street	8.5	129.1	120.6	A	F
Glenwood Road & Shore Road	5.3	6.6	1.3	A	A
Old Country Road & Glen Cove Road	61.1	256.4	195.3	E	F
Stewart Avenue & Clinton Road	80.1	584.8	504.7	F	F

*Delay reduction attributed to volumes detoured away from intersection

Table 47: Intersection LOS Summary – 3T LN No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	LN No Action	LN Trenching Conditions	Δ	LN No Action	LN Trenching Conditions
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	9.4	9.9	0.5	A	A
Glen Cove Road & Jericho Turnpike	52.3	111.4	59.1	D	F
Glen Cove Road & Hillside Avenue	15.8	16.9	1.1	B	B
Glen Cove Road & Old Westbury Road Eastbound	15.8	18.1	2.3	B	B
Glen Cove Road & Old Westbury Road Westbound	20.5	23.0	2.5	C	C
Glen Cove Road & Harbor Hill Road	3.0	7.8	4.8	A	A
Glen Cove Road & Wheatley Plaza	5.3	3.8	-1.5*	A	A
Glen Cove Road & Back Road	17.7	38.9	21.2	B	D
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	8.0	10.6	2.6	A	B
Glen Cove Road & Northern Boulevard	49.1	57.3	8.2	D	E
Glenwood Road & Glen Cove Avenue	7.5	9.5	2.0	A	A
Glenwood Road & Viola Street	7.1	38.7	31.6	A	D
Glenwood Road & Shore Road	2.6	2.8	0.2	A	A
Old Country Road & Glen Cove Road	59.4	62.8	3.4	E	E
Stewart Avenue & Clinton Road	21.6	27.2	5.6	C	C

*Delay reduction attributed to volumes detoured away from intersection

Several construction phase results show reduced delay compared to the No Action Condition, which does not necessarily indicate that construction improves operations. Rather, the reduction is often a byproduct of traffic diversions associated with detours or shifts in travel demand during specific construction phases.

When compared to the No Action Condition, the Trenching Conditions for segment 3T had nine intersections with impacts in at least one of the MPT phases, in at least one lane group, and in at least one peak period during the proposed construction time period. These increases in delay exceed the more stringent NYCDOT thresholds described in **Section 3.5.2.1**. For more details of individual lane groups and the impacts, refer to the LOS tables in **Appendix H**.

Table 48 presents the feasibility of the proposed construction time periods based on the Trenching Condition results. The proposed construction time periods reflected in the table are described in **Section 4.1**.

Table 48: Constructability Work Hours Feasibility - 3T

Intersection	Proposed Construction Time Period	Feasibility
Glen Cove Road & Glen Cove Road to Northern State Parkway Eastbound	Nights	Yes
Glen Cove Road & Jericho Turnpike	Days	No
Glen Cove Road & Hillside Avenue	Days	No
Glen Cove Road & Old Westbury Road Eastbound	Days	No
Glen Cove Road & Old Westbury Road Westbound	Days	No
Glen Cove Road & Harbor Hill Road	Days	No
Glen Cove Road & Wheatley Plaza	Nights	Yes
Glen Cove Road & Back Road	Days	No
Glen Cove Road & Glen Cove Road to Northern State Parkway Westbound	Nights	Yes
Glen Cove Road & Northern Boulevard	Nights	Yes
Glenwood Road & Glen Cove Avenue	Days	No
Glenwood Road & Viola Street	Days	No
Glenwood Road & Shore Road	Days	Yes
Old Country Road & Glen Cove Road	Nights	Yes
Stewart Avenue & Clinton Road	Days	No

- Glen Cove Road & Jericho Turnpike
    - Having construction occur during the day appears less feasible at Glen Cove Road & Jericho Turnpike due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 68.0s in the AM peak period and by 256.3s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 105.6s in the AM peak period and by 291.2s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 256.1s in the AM peak period and by 189.9s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. Delay increases by 243.1s in the AM peak period and by 223.9s in the PM peak period from the No Action Condition to

Phase 4 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. The eastbound approach has a reduced number of lanes in Phases 1, 2, and 3 while the northbound approach has a reduction in all four Phases. The westbound and southbound approaches have reduced lanes in Phases 2, 3, and 4. Phase 2 has detours for the removed westbound left and southbound left movements. Phase 3 has detours for the removed eastbound left and southbound left movements. Due to edits based on the corresponding MPT, Phase 1 has worse results for the eastbound through, westbound left, westbound through, and southbound through movements for the AM peak period, Phase 1 has worse results for the eastbound through, eastbound right, westbound left, northbound left, and southbound through movements for the PM peak period. Phase 2 has worse results for the eastbound through, westbound through, and southbound through movements for the AM peak period. Phase 2 has worse results for the eastbound through, eastbound right, westbound through, northbound left, and southbound through movements for the PM peak period. Phase 3 has worse results for the westbound left, westbound through, and southbound through movements for the AM peak period. Phase 3 has worse results for the eastbound through, eastbound right, westbound left, westbound through, northbound left, and southbound through movements for the PM peak period. Phase 4 has worse results for the westbound left, westbound through, and southbound through movements for the AM peak period. Phase 4 has worse results for the eastbound through, eastbound right, westbound left, westbound though, and southbound through movements for the PM peak period. With the current MPT design for Phase 4, there will also be an increase in delay at this intersection during LN construction hours, changing from a LOS D in the No Action Condition to a LOS F in the Trenching Condition. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Nevertheless, construction during LN hours appears more feasible based on the respective analysis results. Refinements to the corresponding MPT plans can also be considered.

- Glen Cove Road & Hillside Avenue

    - Having construction occur during the day appears less feasible at Glen Cove Road & Hillside Avenue due to poor Trenching Condition results for the PM peak period. Delay increases by 72.4s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delays is caused by capacity reductions proposed in the respective MPT plan. There is a reduction in the number of lanes in the westbound, northbound, and southbound approaches. Due to the capacity reduction, the southbound through movement has worse results in the PM peak hour analysis of Phase 3. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Glen Cove Road & Old Westbury Road Eastbound

    - Having construction occur during the day appears less feasible at Glen Cove Road & Old Westbury Road Eastbound due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 144.4s in the AM peak period and by 92.8s in the PM peak period from the No Action Condition to Phase 1 of the Trenching

Condition. Delay increases by 206.3s in the AM peak period and by 277.6s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 250.2s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. There are lane reductions in the eastbound approach in all three phases. Phase 1 and Phase 2 also have lane reductions in the northbound approach. There is a detour in Phase 2 for the closed northbound right movement. Phase 1 has worse results for the eastbound left and northbound through movements in the AM peak period and the eastbound through and northbound through movements in the PM peak period. Phase 2 has worse results for the eastbound left and eastbound through movements in the AM peak period and the eastbound through movement in the PM peak period. Phase 3 was worse results for the eastbound through movement in the PM peak period. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Glen Cove Road & Old Westbury Road Westbound

    - Having construction occur during the day appears less feasible at Glen Cove Road & Old Westbury Road Westbound due to poor Trenching Condition results for the AM peak period. Delay increases by 69.2s in the AM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 206.3s in the AM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 133.6s in the AM peak period from the No Action Condition to Phase 3 of the Trenching Condition. Delay increases by 97.1s in the AM peak period from the No Action Condition to Phase 4 of the Trenching Condition The increase in delay is caused by capacity reductions proposed in the respective MPT plan. There are lane reductions and modifications for the westbound approach in all phases and there are lane reductions in the northbound approach for Phases 3 and 4. Westbound through movements produce worse results in Phase 1 and Phase 2. Phase 3 has worse results for the westbound through and northbound through movements while Phase 4 has worse results for the northbound through movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Glen Cove Road & Harbor Hill Road

    - Having construction occur during the day appears less feasible at Glen Cove Road & Harbor Hill Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 241.2s in the AM peak period and by 120.6s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 347.1s in the AM peak period and by 129.6s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delays is caused by capacity reductions proposed in the respective MPT plan. Phase 1 has proposed eastbound and northbound approach lane reductions and Phase 3 has proposed westbound and northbound approach lane reductions. Northbound through movements produce the worst results for Phases 1 and 3. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to

surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Glen Cove Road & Back Road

    - Having construction occur during the day appears less feasible at Glen Cove Road & Back Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 137.4s in the AM peak period and by 80.3s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 79.3s in the AM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 59.8s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delays is caused by capacity reductions proposed in the respective MPT plan. There are proposed reductions in lanes for the southbound approach for Phase 1 and Phase 2. Phase 3 has proposed reductions in lanes for the eastbound approach. The southbound through movement produces the worst results for Phase 1 AM and PM peak periods as well as for Phase 2 AM peak period. Phase 3 PM peak period has the worst results for the eastbound through movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Glenwood Road & Glen Cove Avenue

    - Having construction occur during the day appears less feasible at Glenwood Road & Glen Cove Avenue due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 82.8s in the AM peak period and by 140.8s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. The northbound approach is closed for Phase 1 which results in corresponding detours. Phase 1 AM peak period has worse results for the westbound through and southbound through approaches. Phase 1 PM peak period has worse results for the eastbound through and westbound through approaches. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Glenwood Road & Viola Street

    - Having construction occur during the day appears less feasible at Glenwood Road & Viola Street due to poor Trenching Condition results for the PM peak period. Delay increases 67.4s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phase 2, the westbound approach has a single lane shared by westbound and eastbound movements. The northbound approach also has a single lane shared by northbound and southbound movements. All four approaches have the presence of flaggers or TEAs. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience

similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Stewart Avenue & Clinton Road

    - Having construction occur during the day appears less feasible at Stewart Avenue & Clinton Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 143.6s in the AM peak period and by 240.4s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 349.9s in the AM peak period and by 504.7s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 289.0s in the AM peak period and by 296.5s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 has a lane reduction in the eastbound approach. Phase 2 has lane reductions in the eastbound and westbound approaches. Phase 3 has lane reductions in all four approaches. There are also detours in Phase 3 for the eastbound left and westbound right movements. Phase 1 AM peak period has worse results for the eastbound and westbound through movements. Phase 1 PM peak period has worse results for the eastbound, westbound, and southbound through movements. Phase 2 both the AM and PM peak periods have worse results for the eastbound and westbound through movements. Phase 3 AM peak period has worse results for westbound, northbound, and southbound through movements. Phase 3 PM peak period has worse results for eastbound through, westbound left, westbound through, and southbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

More details of individual lane groups, volumes, timing, phasing, queues, and simulation settings are in **Appendix K**.

7.4.4 Segment 4T

Results for the 4T Trenching Condition analysis compared to the 4T No Action Condition analysis for the AM, PM, and LN periods are shown in **Table 49**, **Table 50**, and **Table 51** respectively. The tables include the intersections analyzed, the average intersection delay, and the intersection LOS for both conditions. A complete summary of the results, including volumes, v/c ratio, delay, LOS, and queue length for each approach is in **Appendix H**.

Result tables highlight intersections with average delays exceeding 55 seconds or with LOS E or F, since these conditions indicate substantial congestion and potential deficiencies.

Table 49: Intersection LOS Summary – 4T AM No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	AM No Action	AM Trenching Conditions	Δ	AM No Action	AM Trenching Conditions
Glenwood Road & Shore Road	6.7	10.3	3.6	A	B
Broadhollow Road & Duryea Road	38.7	136.2	97.5	D	F
Spagnoli Road & Broadhollow Road	39.8	291.5	251.7	D	F
Haypath Road & Old Bethpage Road	13.1	17.4	4.3	B	B
Old Country Road & Stauber Drive	8.5	47.4	38.9	A	D
Grohmans Lane & Old Country Road	15.3	24.1	8.8	B	C
Old Country Road & South Oyster Bay Road	60.1	148.4	88.3	E	F
East Old Country Road & New South Road	20.2	276.0	255.8	C	F
Robbins Lane & Marlene Drive	12.8	22.1	9.3	B	C
Robbins Lane & Miller Place	18.9	88.4	69.5	B	F
Miller Road & Woodbury Road	11.8	17.0	5.2	B	B
Jericho Turnpike & Robbins Lane	46.0	198.3	152.3	D	F
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	32.0	116.5	84.5	C	F
Cedar Swamp Road & Apple Road North	45.2	45.4	0.2	D	D
Cedar Swamp Road & Hegemans Lane	38.4	29.6	-8.8*	D	C
Glen Head Road & Cedar Swamp Road	6.2	4.4	-1.8*	A	A
Glen Head Road & Glen Cove Road	65.7	164.0	98.3	E	F
Jericho Oyster Bay Road & Old Cedar Swamp Road	4.5	115.0	110.5	A	F
Northern Boulevard & Cedar Swamp Road	82.9	1264.5	1181.6	F	F

*Delay reduction attributed to volumes detoured away from intersection

Table 50: Intersection LOS Summary – 4T PM No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	PM No Action	PM Trenching Conditions	Δ	PM No Action	PM Trenching Conditions
Glenwood Road & Shore Road	5.3	6.6	1.3	A	A
Broadhollow Road & Duryea Road	31.3	80.1	48.8	C	F
Spagnoli Road & Broadhollow Road	48.9	324.7	275.8	D	F
Haypath Road & Old Bethpage Road	17.2	101.1	83.9	B	F
Old Country Road & Stauber Drive	6.6	45.8	39.2	A	D
Grohmans Lane & Old Country Road	16.7	22.3	5.6	B	C
Old Country Road & South Oyster Bay Road	55.3	121.9	66.6	E	F
East Old Country Road & New South Road	27.6	506.0	478.4	C	F
Robbins Lane & Marlene Drive	14.9	252.4	237.5	B	F
Robbins Lane & Miller Place	19.6	192.6	173.0	B	F
Miller Road & Woodbury Road	11.4	19.5	8.1	B	B
Jericho Turnpike & Robbins Lane	64.6	499.9	435.3	E	F
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	22.9	42.0	19.1	C	D
Cedar Swamp Road & Apple Road North	39.6	39.7	0.1	D	D
Cedar Swamp Road & Hegemans Lane	34.8	23.8	-11.0*	C	C
Glen Head Road & Cedar Swamp Road	16.5	6.4	-10.1*	B	A
Glen Head Road & Glen Cove Road	74.6	257.4	182.8	E	F
Jericho Oyster Bay Road & Old Cedar Swamp Road	5.0	35.9	30.9	A	D
Northern Boulevard & Cedar Swamp Road	77.5	1449.5	1372.0	E	F

*Delay reduction attributed to volumes detoured away from intersection

Table 51: Intersection LOS Summary – 4T LN No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	LN No Action	LN Trenching Conditions	Δ	LN No Action	LN Trenching Conditions
Glenwood Road & Shore Road	2.6	2.7	0.1	A	A
Broadhollow Road & Duryea Road	31.5	35.0	3.5	C	D
Spagnoli Road & Broadhollow Road	23.4	32.0	8.6	C	C
Haypath Road & Old Bethpage Road	4.5	9.1	4.6	A	A
Old Country Road & Stauber Drive	1.5	30.0	28.5	A	C
Grohmans Lane & Old Country Road	3.2	2.4	-0.8*	A	A
Old Country Road & South Oyster Bay Road	48.8	53.4	4.6	D	D
East Old Country Road & New South Road	11.2	70.2	59.0	B	E
Robbins Lane & Marlene Drive	6.2	6.3	0.1	A	A
Robbins Lane & Miller Place	8.1	10.1	2.0	A	B
Miller Road & Woodbury Road	5.1	5.9	0.8	A	A
Jericho Turnpike & Robbins Lane	29.3	33.2	3.9	C	C
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	23.2	29.3	6.1	C	C
Cedar Swamp Road & Apple Road North	35.7	35.8	0.1	D	D
Cedar Swamp Road & Hegemans Lane	2.2	2.2	0.0	A	A
Glen Head Road & Cedar Swamp Road	1.7	0.8	-0.9*	A	A
Glen Head Road & Glen Cove Road	16.9	14.3	-2.6*	B	B
Jericho Oyster Bay Road & Old Cedar Swamp Road	0.8	15.1	14.3	A	B
Northern Boulevard & Cedar Swamp Road	44.6	50.2	5.6	D	D

*Delay reduction attributed to volumes detoured away from intersection

Several construction phase results show reduced delay compared to the No Action Condition, which does not necessarily indicate that construction improves operations. Rather, the reduction is often a byproduct of traffic diversions associated with detours or shifts in travel demand during specific construction phases.

When compared to the No Action Condition, the Trenching Condition for segment 4T had eight intersections with impacts in at least one of the MPT phases, in at least one lane group, and in at least one peak period during the proposed construction time period. These increases in delay exceed the more stringent NYCDOT thresholds described in **Section 3.5.2.1**. For more details of individual lane groups and the impacts, refer to the LOS tables in **Appendix H**.

Table 52 presents the feasibility of the proposed construction time periods based on the Trenching Condition results. The proposed construction time periods reflected in the table are described in **Section 4.1**.

Table 52: Constructability Work Hours Feasibility - 4T

Intersection	Proposed Construction Time Period	Feasibility
Glenwood Road & Shore Road	Days	Yes
Broadhollow Road & Duryea Road	Nights	Yes
Spagnoli Road & Broadhollow Road	Nights	Yes
Haypath Road & Old Bethpage Road	Days	No
Old Country Road & Stauber Drive	Days	Yes
Grohmans Lane & Old Country Road	Days	Yes
Old Country Road & South Oyster Bay Road	Days	No
East Old Country Road & New South Road	Days	No
Robbins Lane & Marlene Drive	Days	No
Robbins Lane & Miller Place	Days	No
Miller Road & Woodbury Road	Days	Yes
Jericho Turnpike & Robbins Lane	Nights	Yes
Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road	Days	No
Cedar Swamp Road & Apple Road North	Days	Yes
Cedar Swamp Road & Hegemans Lane	Days	Yes
Glen Head Road & Cedar Swamp Road	Nights	Yes
Glen Head Road & Glen Cove Road	Nights	Yes
Jericho Oyster Bay Road & Old Cedar Swamp Road	Days	No
Northern Boulevard & Cedar Swamp Road	Days	No

- Haypath Road & Old Bethpage Road
    - Having construction occur during the day appears less feasible at Haypath Road & Old Bethpage Road due to poor Trenching Condition results for the PM peak period. Delay increases by 83.9s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. In Phase 2, the eastbound approach is closed, and the northbound and southbound approaches have reductions in the number of lanes. The eastbound approach closure results in corresponding detours. The northbound through movement produces the worst results for Phase 2 PM peak period. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Old Country Road & South Oyster Bay Road

    - Having construction occur during the day appears less feasible at Old Country Road & South Oyster Bay Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 88.3s in the AM peak period and by 56.0s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 66.6s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. There are lane reductions for the westbound approach in Phase 1. There are lane reductions for all four approaches in Phase 2. Phase 1 has detours for the removed westbound left movement. Phase 2 has detours for the removed westbound left and northbound left movements. The worst results for Phase 1 AM and PM peak periods are for the westbound through movement. The worst results for Phase 2 PM peak period are for the eastbound through and northbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- East Old Country Road & New South Road

    - Having construction occur during the day appears less feasible at East Old Country Road & New South Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 255.8s in the AM peak period and by 478.4s in the PM peak period from the No Action Condition to Phase 1 and to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phases 1 and 2, the eastbound and westbound approaches have decreased the number of lanes. The northbound and southbound approaches have a single lane with shared movements and with the presence of flaggers or TEAs. With the current MPT design for Phase 1 and Phase 2, there will also be an increase in delay at this intersection during LN construction hours, changing from a LOS B in No Action Conditions to a LOS E in Trenching Condition. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Nevertheless, construction during LN hours appears more feasible based on the respective analysis results. Refinements to the corresponding MPT plans can also be considered.

- Robbins Lane & Marlene Drive

    - Having construction occur during the day appears less feasible at Robbins Lane & Marlene Drive due to poor Trenching Condition results for the PM peak period. Delay increases by 111.6s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 237.5s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. There are southbound approach lane reductions for Phases 2 and 3. Due to the new lane configuration changes and because there are a lot of southbound left movements, the worst results for Phases 2 and 3 PM peak periods are for the southbound through movement. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar

changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Robbins Lane & Miller Place

  - Having construction occur during the day appears less feasible at Robbins Lane & Miller Place due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 173.0s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 69.5s in the AM peak period and by 148.9s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. There are lane reductions for the westbound and southbound approaches for Phase 1 and Phase 2. Phase 1 also has a detour associated with the removal of the westbound left movement. There are worse results for the southbound through movement for Phase 1 PM peak period. For Phase 2 there are worse results for the westbound through movement for AM peak period and for the westbound through and southbound through movements for the PM peak period. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road

  - Having construction occur during the day appears less feasible at Old Cedar Swamp Road/Cedar Swamp Road & Connecting Road due to poor Trenching Condition results for the AM peak period. Delay increases by 84.5s in the AM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 74.6s in the AM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 77.3s in the AM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delays is caused by capacity reductions proposed in the respective MPT plan. For Phase 1 and Phase 2, the eastbound and westbound approaches have a single lane shared by westbound and eastbound movements with the presence of flaggers or TEAs. For Phase 3, only the eastbound approach has a single lane shared by westbound and eastbound movements with the presence of flaggers or TEAs. Phase 2 has an additional southbound approach lane reduction. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Jericho Oyster Bay Road & Old Cedar Swamp Road

  - Having construction occur during the day appears less feasible at Jericho Oyster Bay Road & Old Cedar Swamp Road due to poor Trenching Condition results for the AM peak period. Delay increases by 110.5s in the AM peak period from the No Action Condition to Phase 4 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. For Phase 4, the eastbound approach has a single lane shared by westbound and eastbound

movements with the presence of flaggers or TEAs. There are also westbound and southbound approach lane reductions. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Cedar Swamp Road

    - Having construction occur during the day appears less feasible at Northern Boulevard & Cedar Swamp Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 88.2s in the AM peak period and by 177.6s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 1181.6s in the AM peak period and by 1372.0s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 120.5s in the AM peak period and by 84.4s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. There are lane reductions for the eastbound and northbound approaches for Phase 1, the eastbound, northbound, and southbound approaches for Phase 2, and the eastbound and southbound approaches for Phase 3. Phase 1 AM peak hour has worse results for the eastbound through and westbound through movements. Phase 1 PM peak hour has worse results for the eastbound through, westbound through, and northbound through movements. Phase 2 AM and PM peak hours have worse results for eastbound through, northbound through, and southbound through movements. Phase 3 AM peak hour has worse results for eastbound through, westbound through, and southbound through movements. Phase 3 PM peak hour has worse results for eastbound through and westbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

More details of individual lane groups, volumes, timing, phasing, queues, and simulation settings are in **Appendix K**.

7.4.5 Segment 5T

Results for the 5T Trenching Condition analysis compared to the 5T No Action Condition analysis for the AM, PM, and LN periods are shown in **Table 53**, **Table 54**, and **Table 55** respectively. The tables include the intersections analyzed, the average intersection delay, and the intersection LOS for both conditions. A complete summary of the results, including volumes, v/c ratio, delay, LOS, and queue length for each approach is in **Appendix H**.

Result tables highlight intersections with average delays exceeding 55 seconds or with LOS E or F, since these conditions indicate substantial congestion and potential deficiencies.

Table 53: Intersection LOS Summary – 5T AM No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	AM No Action	AM Trenching Conditions	Δ	AM No Action	AM Trenching Conditions
Glen Head Road & Wall Street	3.2	172.1	168.9	A	F
Glenwood Road & Glen Cove Avenue	32.1	645.7	613.6	C	F
Cedar Swamp Road & Hegemans Lane	38.4	39.8	1.4	D	D
Glen Head Road & Cedar Swamp Road	6.2	169.2	163.0	A	F
Glen Head Road & Glen Cove Road	65.7	289.4	223.7	E	F
Syosset Woodbury Road & Cold Spring Road	54.9	140.1	85.2	D	F
Jackson Avenue & Cold Spring Road	10.4	0.1	-10.3*	B	A
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	39.2	361.6	322.4	D	F
Jericho Oyster Bay Road & Muttontown Eastwoods Road	32.6	68.2	35.6	C	E
Oyster Bay Road & Northern Boulevard	69.3	259.5	190.2	E	F
Northern Boulevard & Mill River Road	16.6	93.5	76.9	B	F
Northern Boulevard & Brookville Road/Wolver Hollow Road	63.9	476.2	412.3	E	F
Northern Boulevard & Cedar Swamp Road	82.9	325.2	242.3	F	F
Glen Cove Avenue & Kissam Lane	2.6	452.5	449.9	A	F

*Delay reduction attributed to volumes detoured away from intersection

Table 54: Intersection LOS Summary – 5T PM No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	PM No Action	PM Trenching Conditions	Δ	PM No Action	PM Trenching Conditions
Glen Head Road & Wall Street	2.1	295.5	293.4	A	F
Glenwood Road & Glen Cove Avenue	50.1	828.2	778.1	D	F
Cedar Swamp Road & Hegemans Lane	34.8	38.4	3.6	C	D
Glen Head Road & Cedar Swamp Road	16.5	272.5	256.0	B	F
Glen Head Road & Glen Cove Road	74.6	400.1	325.5	E	F
Syosset Woodbury Road & Cold Spring Road	69.8	356.6	286.8	E	F
Jackson Avenue & Cold Spring Road	28.3	0.3	-28.0*	C	A
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	59.6	479.6	420.0	E	F
Jericho Oyster Bay Road & Muttontown Eastwoods Road	26.2	100.4	74.2	C	F
Oyster Bay Road & Northern Boulevard	93.0	516.3	423.3	F	F
Northern Boulevard & Mill River Road	14.1	29.8	15.7	B	C
Northern Boulevard & Brookville Road/Wolver Hollow Road	60.0	462.7	402.7	E	F
Northern Boulevard & Cedar Swamp Road	77.5	207.9	130.4	E	F
Glen Cove Avenue & Kissam Lane	1.7	1141.2	1139.5	A	F

*Delay reduction attributed to volumes detoured away from intersection

Table 55: Intersection LOS Summary – 5T LN No Action vs. Trenching Conditions

Intersection Name	Delay (sec)			LOS	
	LN No Action	LN Trenching Conditions	Δ	LN No Action	LN Trenching Conditions
Glen Head Road & Wall Street	0.5	57.2	56.7	A	E
Glenwood Road & Glen Cove Avenue	7.5	77.0	69.5	A	E
Cedar Swamp Road & Hegemans Lane	2.2	2.2	0.0	A	A
Glen Head Road & Cedar Swamp Road	1.7	6.1	4.4	A	A
Glen Head Road & Glen Cove Road	16.9	16.5	-0.4*	B	B
Syosset Woodbury Road & Cold Spring Road	21.9	21.9	0.0	C	C
Jackson Avenue & Cold Spring Road	1.4	0.0	-1.4*	A	A
Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road	37.4	75.5	38.1	D	E
Jericho Oyster Bay Road & Muttontown Eastwoods Road	6.8	7.1	0.3	A	A
Oyster Bay Road & Northern Boulevard	26.0	36.3	10.3	C	D
Northern Boulevard & Mill River Road	4.3	14.5	10.2	A	B
Northern Boulevard & Brookville Road/Wolver Hollow Road	18.8	32.1	13.3	B	C
Northern Boulevard & Cedar Swamp Road	44.6	52.2	7.6	D	D
Glen Cove Avenue & Kissam Lane	0.4	120.2	119.8	A	F

*Delay reduction attributed to volumes detoured away from intersection

Several construction phase results show reduced delay compared to the No Action Condition, which does not necessarily indicate that construction improves operations. Rather, the reduction is often a byproduct of traffic diversions associated with detours or shifts in travel demand during specific construction phases.

When compared to the No Action Condition, the Trenching Condition for segment 5T had eleven intersections with impacts in at least one of the MPT phases, in at least one lane group, and in at least one peak period during the proposed construction time period. These increases in delay exceed the more stringent NYCDOT thresholds described in **Section 3.5.2.1**. For more details of individual lane groups and the impacts, refer to the LOS tables in **Appendix H**.

Table 56 presents the feasibility of the proposed construction time periods based on the Trenching Condition results. The proposed construction time periods reflected in the table are described in **Section 4.1**.

Table 56: Constructability Work Hours Feasibility - 5T

Intersection	Proposed Construction Time Period	Feasibility
Glen Head Road & Wall Street	Days	No
Glenwood Road & Glen Cove Avenue	Days	No
Cedar Swamp Road & Hegemans Lane	Days	Yes
Glen Head Road & Cedar Swamp Road	Days	No
Glen Head Road & Glen Cove Road	Days	No
Syosset Woodbury Road & Cold Spring Road	Days	No
Jackson Avenue & Cold Spring Road	Days	Yes
Muttontown Eastwoods Road & Jackson Ave/Berry Hill Road/Split Rock Road	Days	No
Jericho Oyster Bay Road & Muttontown Eastwoods Road	Days	Yes
Oyster Bay Road & Northern Boulevard	Days	No
Northern Boulevard & Mill River Road	Days	No
Northern Boulevard & Brookville Road/Wolver Hollow Road	Days	No
Northern Boulevard & Cedar Swamp Road	Days	No
Glen Cove Avenue & Kissam Lane	Days	No

- Glen Head Road & Wall Street
    - Having construction occur during the day appears less feasible at Glen Head Road & Wall Street due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 58.9s in the AM peak period and by 139.1s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 112.3s in the AM peak period and by 216.2s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 168.9s in the AM peak period and by 293.4s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phase 1, the westbound approach has a single lane shared by westbound and eastbound movements. For Phase 2, the westbound approach has a single lane shared by westbound and eastbound movements and the southbound approach has a single lane shared by southbound and northbound movements. For Phase 3, the westbound and eastbound approaches have a single lane shared by westbound and eastbound movements and the southbound approach has a single lane shared by southbound and northbound movements. There are flaggers or TEAs present at all four approaches for all three phases. With the current MPT design for Phase 3, there will also be an increase in delay at this intersection during LN construction hours, changing from LOS A in No Action Condition to LOS E in Trenching Condition. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Nevertheless, construction during LN hours appears more feasible based on the respective analysis results. Refinements to the corresponding MPT plans can also be considered.

- Glenwood Road & Glen Cove Avenue

    - Having construction occur during the day appears less feasible at Glenwood Road & Glen Cove Avenue due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 172.5s in the AM peak period and by 613.6s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 174.2s in the AM peak period and by 778.1s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 has a lane reduction in the southbound approach. The westbound and northbound approaches are closed in Phase 1, leading to detours. The southbound through movement is the worst phase for Phase 1 AM peak period and the eastbound through and southbound through movements are the worst phases for Phase 1 PM peak period. The worse through movement results are due to high left turn volumes. For Phase 2, the southbound approach has a single lane shared by southbound and northbound movements with the presence of flaggers or TEAs. With the current MPT design for Phase 2, there will also be an increase in delays at this intersection during LN construction hours, changing from a LOS A in No Action Condition to a LOS E in Trenching Condition. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Nevertheless, construction during LN hours appears more feasible based on the respective analysis results. Refinements to the corresponding MPT plans can also be considered.

- Glen Head Road & Cedar Swamp Road

    - Having construction occur during the day appears less feasible at Glen Head Road & Cedar Swamp Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 163.0s in the AM peak period and by 256.0s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 also has detours for northbound through movements. There are worse results for the northbound left and southbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Glen Head Road & Glen Cove Road

    - Having construction occur during the day appears less feasible at Glen Head Road & Glen Cove Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 152.7s in the AM peak period and by 193.9s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. Delay increases by 325.5s in the PM peak period from the No Action Condition to Phase 4 of the Trenching Condition. Delay increases by 165.5s in the PM peak period from the No Action Condition to Phase 5 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phases 3, 4, and 5 have lane reductions in all four approaches. Phase 3 has detours due to removal of westbound left and northbound left movements. Phase 4 and Phase 5 have detours due to removal of westbound through, northbound left, and southbound

right movements. Phase 3 has worse results for the eastbound through and southbound through movements during AM and PM peak periods. Phase 4 and Phase 5 AM peak periods have worse results for the eastbound through and southbound through movements. Phase 4 and Phase 5 PM peak periods have worse results for the eastbound through, northbound through, and southbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Syosset Woodbury Road & Cold Spring Road

    - Having construction occur during the day appears less feasible at Syosset Woodbury Road & Cold Spring Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 85.2s in the AM peak period and by 286.8s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. The increase in delays is caused by capacity reductions proposed in the respective MPT plan. Phase 1 has lane reductions in the eastbound and westbound approaches. The eastbound through movement has the worst results due to high eastbound left turn volumes. Phase 1 PM peak hour also has worse results for the westbound through movement due to high westbound right volumes. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Muttontown Eastwoods Road & Jackson Ave/Berry Hill Road/Split Rock Road

    - Having construction occur during the day appears less feasible at Muttontown Eastwoods Road & Jackson Ave/Berry Hill Road/Split Rock Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 108.8s in the AM peak period and by 259.6s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 86.4s in the AM peak period and by 420.0s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. Delay increases by 322.4s in the AM peak period and by 366.9s in the PM peak period from the No Action Condition to Phase 3 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. Phase 1 includes lane reductions for the northbound, southbound, eastbound, and southwestbound approaches. The westbound approach is also closed with corresponding detours. Phase 2 also has lane reductions for the northbound, southbound, eastbound, and southwestbound approaches. There are corresponding detours for prohibited movements in Phase 2. Phase 3 has lane reductions in the northbound and southwestbound approaches, closure of the eastbound approach, and the southbound approach has a single lane shared by southbound and northbound movements with the presence of flaggers or TEAs. There are detours for Phase 3. The northbound though movement has the worst results for Phase 1 due to high northbound left turn volumes. Phase 2 has worse results for the southwestbound left movement in the AM peak period and for the northbound right and southwestbound left movements in the PM peak period. For Phase 3, the worst results are produced by the westbound through, northbound through, southbound through, and southwestbound left movements. These results are caused by the large quantity of prohibited movements which create multiple detours.

Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Oyster Bay Road & Northern Boulevard

    - Having construction occur during the day appears less feasible at Oyster Bay Road & Northern Boulevard due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 190.2s in the AM peak period and by 423.3s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. The increase in delay is caused by capacity reductions and detours proposed in the respective MPT plan. For Phase 1, there are lane reductions in the eastbound and northbound approaches. There is also a detour due to removal of northbound right movements. Phase 1 has worse results for the eastbound through, westbound left, northbound left, northbound through, and southbound left movements for both AM and PM peak hours. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Mill River Road

    - Having construction occur during the day appears less feasible at Northern Boulevard & Mill River Road due to poor Trenching Condition results for the AM peak period. Delay increases by 76.9s in the AM peak period from the No Action Condition to Phase 1 and to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phase 1 & Phase 2, the southbound approach has a single lane shared by southbound and northbound movements with the presence of flaggers or TEAs. The westbound approach also has lane reductions. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Brookville Road/Wolver Hollow Road

    - Having construction occur during the day appears less feasible at Northern Boulevard & Brookville Road/Wolver Hollow Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 412.3s in the AM peak period and by 402.7s in the PM peak period from the No Action Condition to Phase 1 and to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phase 1 & Phase 2, the northbound approach has a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. The eastbound, westbound, and southbound approaches also have lane reductions. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Northern Boulevard & Cedar Swamp Road

    - Having construction occur during the day appears less feasible at Northern Boulevard & Cedar Swamp Road due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 128.0s in the AM peak period and by 130.4s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 242.3s in the AM peak period and by 119.2s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. There are lane reductions in Phase 1 for the westbound and southbound approaches. There are lane reductions in Phase 2 for the eastbound, westbound, and southbound approaches. The worst results for Phase 1 and Phase 2 AM peak periods are for the eastbound through, westbound left, westbound through, and southbound through movements. The worst results for Phase 1and Phase 2 PM peak periods are for the eastbound through, westbound through, northbound left, northbound through, and southbound through movements. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Construction during LN hours appears more feasible based on the respective analysis results.

- Glen Cove Avenue & Kissam Lane

    - Having construction occur during the day appears less feasible at Glen Cove Avenue & Kissam Lane due to poor Trenching Condition results for the AM and PM peak periods. Delay increases by 449.9s in the AM peak period and by 1139.5s in the PM peak period from the No Action Condition to Phase 1 of the Trenching Condition. Delay increases by 447.6s in the AM peak period and by 1137.5s in the PM peak period from the No Action Condition to Phase 2 of the Trenching Condition. The increase in delay is caused by capacity reductions proposed in the respective MPT plan. For Phase 1, the northbound approach has a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. For Phase 2, the eastbound approach has a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. Phase 2 also has the northbound and southbound approaches have a single lane shared by northbound and southbound movements with the presence of flaggers or TEAs. With the current MPT design for Phase 1 and Phase 2, there will also be an increase in delay at this intersection during LN construction hours, changing from a LOS A in the No Action Condition to a LOS F in the Trenching Condition. Alternative detours may not fully alleviate the delays at this intersection and may move the bottleneck to surrounding intersections. Intersections with similar changes proposed in the MPTs are expected to experience similar traffic issues. Nevertheless, construction during LN hours appears more feasible based on the respective analysis results. Refinements to the corresponding MPT plans can also be considered.

More details of individual lane groups, volumes, timing, phasing, queues, and simulation settings are in **Appendix K**.

8 CONCLUSIONS

This traffic analysis evaluates potential traffic impacts at the screened in intersections along segments 1T through 5T for the Trenching Condition. The analysis was conducted with a conservative and rigorous approach, adhering to both NYSDOT and NYCDOT standards.

Construction hours along segments 1T through 5T were determined based on evaluation of constructability of the alignment.

This traffic analysis results in conservative results based upon these assumptions:

- Construction year is estimated to be in 2030, which represents the highest volumes that will be present during the construction duration between 2026 and 2030.
- While the duration of the various construction phases in each work zone may vary by the difficulty to construct, the worst-case phase was selected to be described in this report. Even if it is the shortest in duration, the single most challenging phase was selected and thoroughly investigated and discussed.
- The traffic analysis examined peak vehicular volumes within a 24-hour period for clusters of closely spaced intersections to identify the peak periods for each cluster. This produces the most conservative analysis because the most congested time period is analyzed. Typical conditions of construction would be more modest than described in this report because the actual consideration of daytime construction falls between AM and PM peak hours. As the construction hours become finalized, the results can be scaled down using the 24-hour ATR profile to evaluate the shoulder hours in which the actual daytime construction would occur.
- Consistent with the CEQR standards, the study assumes no driver adaptation and detouring beyond official detour routing as part of the MPT plans. The analysis assumes drivers will not alter their travel patterns, routes or times, in response to congestion, thus demand is assumed to show up and be forced through the constrained work zone, providing the most quantitatively rigorous and conservative estimate.

The analysis demonstrates that construction along the study corridor will generate periods of significant congestion, particularly during the MD peak hours for segments 1T and 2T, and during the AM and PM peak hours for segments 3T through 5T. While intersection performance varies, the broader finding is that many locations are already operating at or near capacity in the No Action Condition, which amplifies the effects of capacity constraints and reduction of lanes during the Trenching Condition. However, the temporary nature of the Trenching Condition makes signal timing optimization and temporary signals impractical. As such, mitigation planning should not focus on eliminating all delays, but practical measures to manage operations, maintain safe work zones, maintain access as much as possible, and community engagement to encourage mode shift, trip elimination or diversions throughout construction, and adjust construction hours.

Ultimately, construction hours will be determined by municipalities that own and operate each roadway. This decision requires balancing traffic impacts and residential noise concerns; late night construction may reduce congestion but may raise community objections, while day time work is less disruptive for residents but leads to longer delays and extended construction duration.

9 ADDENDUM

This addendum describes additions to the traffic analysis and report since the previous submission on October 2025.

The following are new intersections analyzed. These are intersections where MPT plans were completed after the previous October 2025 submission.

- 3T
  - Glen Cove Road & Old Westbury Road EB
  - Glen Cove Road & Old Westbury Road WB
  - Glen Cove Road & Harbor Hill Road
- 4T
  - Glenwood Road & Shore Road
  - Haypath Road & Old Bethpage Road
  - Grohmans Lane & Old Country Road
  - Old Country Road & South Oyster Bay Road
  - Robbins Lane & Marlene Drive
  - Robbins Lane & Miller Place
  - East Street/Miller Road & Woodbury Road
- 5T
  - Glen Cove Avenue & Glenwood Road/Glen Head Road
  - Glen Head Road & Cedar Swamp Road
  - Muttontown Road & Cold Spring Road
  - Muttontown Eastwoods Road & Jackson Avenue/Berry Hill Road/Split Rock Road
  - Jericho Oyster Bay Road & Muttontown Road
  - Oyster Bay Road & Northern Boulevard
  - Northern Boulevard & Cedar Swamp Road
  - Glen Cove Avenue & Kissam Lane

The following are intersections with additional AM and PM peak periods analyzed. These are intersections where only late night peak period was analyzed in the previous submission.

- 3T
  - Glen Cove Road & Glen Cove Road to Northern State Parkway EB
  - Glen Cove Road & Jericho Turnpike
  - Glen Cove Road & Wheatley Plaza

- Glen Cove Road & Glen Cove Road to Northern State Parkway WB
- Glen Cove Road & Northern Boulevard
- Old Country Road & Glen Cove Road/Clinton Road

- 4T
  - Broadhollow Road & Duryea Road
  - Spagnoli Road & Broadhollow Road
  - Jericho Turnpike & Robbins Lane
  - Glen Head Road & Cedar Swamp Road
  - Glen Head Road & Glen Cove Road

An additional MD peak period analysis is included for all intersections in Segments 1T and 2T where only late night peak period was analyzed in the previous submission.

The following are intersections with new results based on updated MPTs:

- 3T
  - Clinton Road & Stewart Avenue
  - Glenwood Road & Shore Road

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of New York Transco LLC and New York Power Authority for a Certificate of Environmental Compatibility and Public Need, Pursuant to Article VII of the New York Public Service Law, to Construct, Operate, and Maintain an Approximately 89.7-Mile Underground Transmission Line through Suffolk, Nassau, Queens, Bronx, and Westchester Counties	Case No. 24-T-0446

NORTH SHORE CENTRAL SCHOOL DISTRICT'S
INITIAL STATEMENT IN OPPOSITION TO THE JOINT PROPOSAL

ATTACHMENT 4 –

"Traffic Analysis for the Areas Adjacent to and Surrounding the National Grid Facility, Glenwood Landing, NY 11547" dated May 12, 2025

PROPEL NY ENERGY PROJECT

TRAFFIC ANALYSIS FOR THE AREAS ADJACENT TO AND SURROUNDING THE NATIONAL GRID FACILITY, GLENWOOD LANDING, NY 11547

Prepared for:

New York Transco
Building a Clean Energy Future Together

Prepared by:

WSP

May 12th, 2025

TABLE OF CONTENTS

1 BACKGROUND

This technical memorandum provides an analysis of the traffic impacts associated with the proposed construction activities along Shore Road in Glenwood Landing. Glenwood Landing is mainly within the Town of Oyster Bay with a small section on the southwest corner in the Town of North Hempstead. The substation at Glenwood Landing serves as a critical component in the overall power transmission network, facilitating the transition between the submarine and terrestrial cable systems for 6T as well as providing service for 3T, 4T and 5T. The purpose of the traffic analysis for the areas adjacent to and surrounding the Shore Road Substation facility situated within the National Grid property in Glenwood Landing is to evaluate existing traffic conditions, assess potential impacts from construction activities, and identify any mitigation measures required for minimal disruption to surrounding roadways.

This traffic analysis evaluates potential impacts from construction activities associated with the installation of submarine cables transitioning to terrestrial infrastructure only within the Shore Road Substation facility at Glenwood Landing including:

- Four submarine cables making landfall at Hempstead Harbor.
- Transition joint bays for interconnection to terrestrial cables.
- Twelve terrestrial interconnect cables running from the transition joint bays to the substation.
- Associated construction activities occurring on private property owned by Shore Road Substation.

The method of construction is primarily horizontal directional drills (HDDs). After the HDD's are completed, vaults will be installed and submarine cables will be pulled through the ducts on site into these vaults for connection to the terrestrial system.

Construction is estimated to occur in phases, with work expected to span multiple years due to potential seasonal restrictions. While terrestrial work is not subject to seasonal constraints, marine operations may be limited by time-of-year restrictions, which are currently being defined. The traffic analysis assumes work occurring between November and March over several years.

Figure 1: Area Location

2 TRAFFIC CONSIDERATIONS

2.1 EXPECTED TRIP GENERATION

This traffic analysis evaluates traffic generated by construction activities at the Shore Road Substation. Equipment mobilization will include heavy machinery being brought onto the property as a one-time activity, with the equipment remaining on-site until completion. Submarine-related construction activities on the Shore Road Substation are expected to generate less than 50 vehicle trips per day.

2.2 INTERSECTION ANALYSIS

The Shore Road Substation is proposed for construction along Shore Road. The Shore Road corridor from Scudders Lane to Laurel Avenue, along which the Nation Grid property entrance is located, has an Average Daily Traffic (ADT) of approximately 9,300 vehicles per day, with truck volumes estimated at 4%, in 2023 per NYSDOT data[1]. Terrestrial substation construction activities are expected to generate daily construction vehicle volumes which are not expected to exceed 50 vehicle trips per day. These construction-generated trips are expected to utilize five proximate intersections to arrive at the site. Potential adverse impacts found as part of this intersection analysis will require further analysis.

Traffic volume data was then obtained from the big data platform, Streetlight Data, to ascertain traffic conditions near the Shore Road Substation property. Streetlight Data uses a sample of

traffic volumes from January 2021 to December 2021 to estimate the average weekday traffic volume.

3 SUMMARY OF FINDINGS

3.1 TOTAL VEHICLE VOLUMES AND PEAK HOURS

Streetlight traffic volume data was collected at five intersections that provide area access to the Shore Road Substation to evaluate any construction-related effects. The five intersections are:

1. Glenwood Road & Shore Road
2. Shore Road & Shore Road Substation Driveway
3. Prospect Avenue & Littleworth Lane
4. Glenwood Road & Glen Cove Avenue
5. Glen Cove Avenue & Kissam Lane

Table 1 details the Streetlight traffic volumes and peak hours for each intersection.

Intersection #	Name	Approach	Daily Volume	AM		PM		Overnight	
				Peak Hour[1]	Volume	Peak Hour[1]	Volume	Peak Hour[1]	Volume
1	Glenwood Road & Shore Road	NB	3113	7:00 AM - 8:00 AM	66	3:30 PM - 4:30 PM	302	10:00 PM - 11:00 PM	110
		SB	3613		187		296		112
		WB	1684		86		131		48
2	Shore Road & Shore Road Substation Driveway	NB	3645		100		334		134
		SB	3457		182		288		107
		WB	21		-		-		-
3	Prospect Avenue & Littleworth Lane	NB	3414		88		320		144
		SB	2690		142		240		87
		WB	929		71		69		17
4	Glenwood Road & Glen Cove Avenue	NB	6085		401		492		168
		EB	2714		178		212		69
		SB	8355		432		696		197
		WB	4932		355		391		124
5	Glen Cove Avenue & Kissam Lane	NB	8303		724		648		211
		EB	1151		246		72		13
		SB	8231		422		684		198

Table 1: Volumes and Peak Hours

[1] Peak hours estimated from the NYSDOT Traffic Data Viewer Hourly Direction Report.

Figures 2 and 3 illustrate estimated daily traffic volumes in the area based on StreetLight 2021 data. Figure 2 shows the daily volume distribution along the 3T and 4T alignments, while Figure 3 highlights daily volumes along the 5T alignment. These figures help visualize existing traffic activity near the proposed construction at the Shore Road Substation.

Figure 2: Daily Volumes – 3T and 4T Alignments (2021 Estimate)

Figure 3: Daily Volumes – 5T Alignment (2021 Estimate)

Counts included daily volumes and peak hour volumes during the AM, PM, and overnight periods. The daily peak hours for the five intersections were identified as 7:00 AM to 8:00 AM and 3:30 PM to 4:30 PM, for the AM and PM peak hours, respectively. The volumes across the five intersections were summed to identify the global peak hours. Note that the specific peak hour for the construction site at Shore Road and Shore Road Substation driveway is at 7:15 AM to 8:15 AM and 3:30 PM to 4:30 PM, for the AM and PM peak hours respectively. The highest hourly volumes observed are as follows:

- Highest Hourly Total Volumes: 622 vehicles per hour at 3:30 PM to 4:30 PM
    - Northbound: 334 vehicles per hour at 3:30 PM to 4:30 PM
    - Southbound: 288 vehicles per hour from 3:30 PM to 4:30 PM

The intersections along Glen Cove Avenue (Intersections 4 and 5) recorded the highest traffic volumes, particularly in the northbound and southbound directions, with peak hour volumes during both AM and PM periods significantly higher than those near the substation entrance on Shore Road.

The peak hour data highlights the times of greatest congestion and helps assess the potential impact of construction-related traffic from the substation.

- **Highest Hourly Total Volumes**: 724 vehicles per hour (northbound) at Glen Cove Avenue & Kissam Lane during the AM peak (7:00 AM – 8:00 AM).

- **Northbound Peak**: 724 vehicles per hour at 7:00 AM – 8:00 AM.
- **Southbound Peak**: 696 vehicles per hour at Glenwood Road & Glen Cove Avenue from 3:30 PM – 4:30 PM.

While the origins and destinations of construction related vehicle trips to and from the Shore Road Substation have not been determined, the intersection at Glen Cove Avenue at Glenwood Road is likely to serve construction vehicles access to and from Northern Boulevard (25A) as regional trips.

Based on the existing volumes at the five intersections and the minimal trips generated by construction at the Shore Road Substation, construction related vehicle trips are not expected to impact existing traffic conditions. Potential adverse impacts are not expected at the five intersections identified.

3.2 TRUCKS

In addition to total vehicle volumes, medium and heavy truck traffic was assessed at each of the five study intersections for the potential impact of construction related vehicle movements, especially those involving material deliveries and equipment transport. Table 2 summarizes the average daily truck volumes and their corresponding percentage of total traffic. This information helped identify intersections where truck activity may already be significant and indicating a higher likelihood of adverse effects.

Intersection #	Name	Approach	Medium Truck		Heavy Truck	
			Daily Volume	Percentage	Daily Volume	Percentage
1	Glenwood Road & Shore Road	NB	112	3.60%	9	0.29%
		SB	134	3.71%	8	0.22%
		WB	84	4.99%	7	0.42%
2	Shore Road & Shore Road Substation Driveway	NB	136	3.73%	8	0.22%
		SB	118	3.41%	6	0.17%
		WB	7	33.33%	-	-
3	Prospect Avenue & Littleworth Lane	NB	119	3.49%	7	0.21%
		SB	104	3.87%	6	0.22%
		WB	41	4.41%	2	0.22%
4	Glenwood Road & Glen Cove Avenue	NB	171	2.81%	15	0.25%
		EB	117	4.31%	14	0.52%
		SB	214	2.56%	22	0.26%
		WB	156	3.16%	18	0.36%
5	Glen Cove Avenue & Kissam Lane	NB	216	2.60%	21	0.25%
		EB	39	3.39%	2	0.17%
		SB	209	2.54%	25	0.30%

Table 2: Medium and Heavy Truck Volume

Truck traffic generated by construction activities is expected to be minimal. Most heavy equipment will be delivered to the site during an initial, one-time mobilization phase. Once mobilized, equipment will remain on-site for the duration of work, significantly reducing the need for ongoing truck deliveries or removals. As a results, daily truck trips are anticipated to be infrequent and limited.

4 TRANSPORTATION MANAGEMENT STRATEGIES

Although construction related traffic impacts are not expected, the project team recognizes the importance of identifying strategies to manage temporary transportation disruptions to the local surrounding communities. A range of transportation management strategies were as part of the construction planning process. These strategies will focus on safety, mobility, and coordination with local stakeholders. Key transportation management strategies include:

- **Maintenance and Protection of Traffic (MPT) Plans:**
  Site specific MPT plans will be developed to provide safe and efficient traffic flow around active work areas. Plans will include signage, temporary lane closures (if necessary), flagger control, and staging areas that minimize interference with public travel lanes and driveways.

- **Incident Management Plan:**
  When crashes, breakdowns or work zone intrusions occur, procedures related to coordination and rapid clearance will be established. Work zone monitoring, such as speed display signs, will be recommended to the local municipalities.

- **Truck Routing and Scheduling:**
  Construction vehicle movements will be limited to designated haul routes with restricted operating hours to avoid peak periods. Deliveries and equipment mobilization will be scheduled during off-peak hours where feasible, and staging will occur at the Shore Road Substation to avoid congestion on Shore Road and Glen Cove Avenue.

- **Coordination with Local Authorities:**
  The project team will maintain regular coordination with the Towns of Oyster Bay and North Hempstead, Nassau County DPW, and any other relevant agencies to review traffic control measures and adjust plans based on municipal requirements or community feedback.

- **School Coordination:**
  With the North Shore Middle School and North Shore High School in close proximity to the site, construction activities will aim to avoid significant impacts on school bus operations, student drop-off and pickup, and pedestrian access to any nearby bus stops near the Shore Road Substation, if any.

- **Driveway and Pedestrian Access:**
  Access to local driveways and pedestrian facilities will be maintained throughout

construction. Where temporary closures or rerouting are required, safe, accessible alternatives will be provided, with advance notice to affected property owners.

- **Public Communication:**
  A communications strategy will be established to provide timely updates to residents and stakeholders regarding construction schedules, traffic changes, and any expected disruptions. This may include signage, online notices, and direct outreach to adjacent property owners.
- **Evacuation Routes:**
  Traffic management planning will ensure that designated evacuation routes remain accessible and unobstructed at all times. Preliminary assessment has indicated that the Shore Road will not experience reduction in capacity to adversely impact the evacuation routes.
- **Emergency Vehicle Access**:
  Construction phasing and traffic control setups will ensure that emergency vehicle access is maintained at all times. This includes clear, documented access routes, adequate turning radii, and communication with local first responders regarding any temporary traffic modifications.

5 NEXT STEPS

While no adverse impacts are expected with the construction at the National Grid property, temporary disruptions may occur intermittently. Transportation management strategies that have been identified as part of this investigation will be shared with the Town of Oyster Bay and the Town of North Hempstead as part of the Road Use Agreements application. Further recommendations for refinement will be coordinated with the contractor.