

**PSEG LONG ISLAND LLC**  
**On Behalf of and as Agent for the**  
**LONG ISLAND LIGHTING COMPANY d/b/a LIPA**

**Syosset to Oakwood Project**

**EXHIBIT 4**  
**ENVIRONMENTAL IMPACTS**

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## **Exhibit 4 - Environmental Impacts**

### **4.1 Overview of Project Impacts**

This Exhibit summarizes potential environmental impacts associated with Project<sup>1</sup> construction, operation, and maintenance, and describes existing conditions, study methodologies, data considered, and appropriate measures to be implemented to avoid, minimize or mitigate environmental impacts. Copies of all correspondence regarding consultations with Federal and State agencies is included in Appendix A – Agency Correspondence.

The Project has been designed and is planned to be constructed and operated to avoid or minimize impacts to environmental resources in the vicinity of the Project. The following table presents a summary of potential environmental impacts, as further discussed in this exhibit.

<b>Table 4-1 Summary of Project Impacts</b>	
<b>Resource</b>	<b>Impact</b>
Land Use	Anticipated minimal impact due to underground nature of the Project facilities primarily within roadways. Expansion of Oakwood Substation and Woodbury Tap occurs within LIPA easements on LIRR-owned property and on LIPA-owned property near other LIPA facilities.
Visual Resources	Anticipated minimal impact due to underground nature of the Project facilities primarily within roadways. Expansion of Oakwood Substation and Woodbury Tap occurs near other LIPA facilities and within LIPA overhead easements on LIRR-owned property and on LIPA owned property near other LIPA facilities.
Cultural Resources	No anticipated impact to cultural resources. A Phase I assessment and consultations with the SHPO are ongoing <sup>2</sup> .
Wetlands and Water Resources	No anticipated impact to water resources. A wetland delineation and consultations with NYSDEC and USACE are ongoing for avoidance and minimization guidance, as required.
Terrestrial Ecology and Rare Species	Anticipated minimal impact to terrestrial ecology due to required tree clearing. Consultations with NYSDEC, NYNHP, and USFWS will be completed for avoidance and minimization guidance.
Topography and Soils	Anticipated minimal impact to topography and soils due to the installation of structures at Woodbury Tap and the expansion of Oakwood Substation.
Sound	No anticipated increase in operational sound as a part of this Project.
EMF	An EMF study is ongoing.

#### **4.1.1 *Potential Impact Producing Activities***

<sup>1</sup> For clarity and consistency, the Application includes a Glossary that defines terms and acronyms used throughout the Application.

<sup>2</sup> The results of the ongoing agency consultations, wetland field delineations and EMF modelling referenced in Table 4-1 (Summary of Project Impacts), while not required by the Article VII regulations to be filed with this Application, will be submitted promptly as each becomes available.

Due to the nature of the Project as a transmission facility located primarily underground within public roadways between the existing Woodbury Tap and Oakwood Substation, significant environmental impacts associated with the operation and maintenance of the Project are not anticipated. There will be temporary impacts due to the clearing, installation, and restoration activities associated with Project construction.

#### *4.1.1.1 Clearing*

Prior to construction, the Project ROW will be surveyed to clearly mark the ROW edges and the limits of disturbance (“LOD”). Project construction may necessitate a limited amount of trimming or clearing of shrubs and trees along the Project ROW to provide unimpeded and safe access to work sites. Shrubs and low-growing vegetation, and other vegetation that provide visual buffers in visually sensitive areas, will be retained to the maximum extent practical and only removed if they interfere with Project construction or operation activities. Permanent tree clearing at the Oakwood Substation will be required to accommodate the Project. Tree clearing and vegetation removal will be identified during final design and presented in the EM&CP.

Any potential tree mortality will be discussed in the Restoration Plan submitted as part of the EM&CP. The specific clearing and vegetation management techniques to be used for the Project will be detailed in the EM&CP in accordance with the Applicant’s currently-effective standard vegetation management practices outlined in its “Right-of-Way (ROW) and Grounds Maintenance Procedures.” Measures to prevent or control the transport of invasive plant species during construction will also be detailed in the EM&CP.

Erosion and sediment control measures will be implemented due to the anticipated disturbance of greater than one acre and will be detailed in the EM&CP and in a Project-specific Stormwater Pollution Prevention Plan (“SWPPP”). Erosion and sediment control measures will be designed to maintain and protect soil and water resources during both the construction and operational phases of the Project.

#### *4.1.1.2 Staging Area*

Any proposed staging areas for office trailers, parking, and storage purposes during construction will be strategically placed at select locations along or adjacent to the Project ROW or at selected off-ROW locations, and specified in the EM&CP. The sites will be located adjacent to existing public roads where material deliveries can be efficiently conducted. Staging areas will be located to avoid, to the extent practicable, environmentally sensitive features including wetlands, known archeological sites, and habitats that support rare, threatened, and endangered plants and animals, as well as historic or active New York farmlands. Given the availability of developed commercial sites, the use of an undeveloped site for construction staging is not anticipated.

#### *4.1.1.3 Installation*

The method to install the transmission line will primarily be conventional open-cut trenching. Auger bore (trenchless) techniques are anticipated for this Project for one at-grade crossings of the LIRR to avoid construction within the tracks, although final methods will be defined in the EM&CP. Along the majority

of the Project ROW, the general sequence of construction activities will include utility mark-outs, pavement saw-cutting, trench excavation, duct placement, backfilling, and temporary pavement restoration.

**4.1.1.4 Restoration**

Clean-up and restoration activities will be conducted at all disturbed sites. For construction within the public roadways and in areas of pavement disruption, final pavement restoration will be performed to standards negotiated with the authority having jurisdiction over the applicable roadway and will be performed after cable pulling and splicing operations. Areas not under pavement that are disturbed by construction will be restored in accordance with the EM&CP.

**4.2 Land Use**

**4.2.1 Existing Land Use**

The Project will not change existing land use in the Project area. Because the Project is located primarily underground within roadways and aboveground on LIPA-owned property, the Project preserves the natural landscape and minimizes conflict with present and future planned land use. Existing land use adjacent to and within a quarter mile of the Project is shown in Figure 4-1 Land Use Within One Quarter Mile of the Project. The quarter-mile study area includes: residential; agricultural; vacant; wild, forested conservation lands and public parks; commercial; public services; community services; industrial; and recreation and entertainment services land uses.

Table 4-2 Land Use Within 0.25 Miles of the Project quantifies the percentage of each type of land use within the Project area.

<b>Table 4-2 Land Use Within 0.25 Miles of the Project</b>	
<b>Land Use Classification</b>	<b>Percent of Total Area</b>
Residential	45.67%
Agricultural	5.13%
Vacant	4.20%
Wild, Forested, Conservation Lands and Public Parks	26.27%
Commercial	4.87%
Public Services	2.26%
Community Service	4.27%
Industrial	1.70%
Recreation and Entertainment Services	0.97%
No Data	4.66%
<b>Total</b>	<b>100%</b>
Source: Regrid Nationwide Parcel Data, March 2025; NYS ORPS Land Classification	

**4.2.2 Other Land Use Policies**

#### 4.2.2.1 State of New York Public Policies

##### 4.2.2.1.1 *New York State Coastal Management Program*

The New York State Coastal Management Program was established pursuant to the federal Coastal Zone Management Act of 1972 to maintain and manage New York State coastal resources. Approximately 0.25 miles of the Project on Woodbury Road crosses through the Landward Coastal Area Boundary (see Figure 4-2 New York State Coastal Zone). Due to the use of public roadways, the Project is not anticipated to have an impact on coastal resources. Consultations will occur with the DOS.

##### 4.2.2.1.2 *New York State Climate Leadership and Community Protection Act (2019)*

The New York State CLCPA was enacted in July, 2019, and requires the reduction of economy-wide greenhouse gas emissions to 40 percent by 2030 and no less than 85 percent by 2050, compared to 1990 levels. The CLCPA includes additional goals such as, by 2030, 70 percent of electricity in the State will be generated by renewable energy. The CLCPA also provides that projects permitted by State agencies should avoid disproportionately burdening DACs. Accordingly, the Applicant performed an analysis to determine whether DACs or PEJAs exist within the Project area. Figure 4-3, PEJA and DACs Crossed by the Project, shows that the eastern-most portion of the Project along Oakwood Road to the Oakwood Substation expansion is within both a DAC (ID: 361031111003) and PEJA (ID: 15000US361031111003). However, due to the predominantly commercial existing land use of that area, the underground nature of the Project, and the use of public roadways, there is no expected impact. Moreover, Project operations will not result in greenhouse gas or co-pollutant emissions within the DAC. The Applicant's Public Outreach Plan in Appendix C is designed to be consistent with NYSDEC's Commissioner Policy 29.

##### 4.2.2.1.3 *New York State Open Space Conservation Plan (2016)*

The New York State Open Space Conservation Program, first established in 1990, develops a strategy for the State's land conservation efforts. The New York State Open Space Conservation Plan divides New York State into nine regions and identifies priority conservation areas within each region. The proposed route is fully located within Region 1: Long Island. Two areas of protection are within the Project area, namely the Special Groundwater Protection Area ("SGPA") and the Trail View State Park

The stated purpose of the SGPA Plan is to protect overlying land to support the long-term health of Long Island's drinking water supply. The Project will not conflict with the goals of this plan, but will address in the EM&CP appropriate measures to protect drinking water resources from contamination. The Project is within a SGPA from Woodbury Tap to where the proposed route turns off West Pulaski Road. Groundwater and SGPA are further discussed in Section 4.7.4 Groundwater and shown in Figure 4-12 Depth to Groundwater.

The Trail View State Park is located northwest of Woodbury Tap. The Project does not encroach on these trails.

Given the above information and the Project scope, no areas identified in the New York State Open Space Conservation Plan will be impacted by the Project.

#### 4.2.2.2 Regional and Local Policies

LIPA is a corporate municipal instrumentality of the state, a body corporate and politic, and a political subdivision of the state, exercising essential governmental and public powers. Public Authorities Law, § 1020-c(1). In addition, Public Authorities Law § 1020-p provides that:

[i]t is hereby found and declared that the operation of the authority is primarily for the benefit of the people of the state of New York, for the improvement of their health, welfare and prosperity, and is a public purpose, and the authority shall be regarded as performing an essential governmental function in carrying out the provisions of this title.

To carry out its essential governmental purposes, LIPA is required solely to “apply to the appropriate agencies and officials of the federal and state governments for such licenses, permits or approval of its plans or projects as it may deem necessary or advisable....” See Public Authorities Law § 1020-g(e).

##### 4.2.2.2.1 *Nassau County*

The 1998 Nassau County Comprehensive Plan, Nassau County Master Plan Update 2008, and the 2010 Master Plan Draft provides general guidelines for important community resources and sustainable development within the future. The original 1998 Comprehensive Plan acknowledges the county’s historic suburban character and sense of place in culturally important downtown areas. It quantifies and describes the county’s highly diverse community in terms of ethnicity and socioeconomic background. Nassau County was a leader of the original suburbanization boom of the 1960s and single family residences remains a central land use within the county.

The 2008 Master Plan Update and the 2010 Master Plan Draft describe the key issues for future development. Given the densely populated nature of land within Nassau County, environmental protection and land use are especially important. The county has several parks and open space parcels set aside as key conservation areas for wildlife, human enjoyment, and aquifer protection. Considering the high value of land within the county, the master plan outlines key land objectives and establishes a plan for community engagement known as the “Visioning” program: an initiative to encourage public input in community development in a way that protects community resources and spurs economic development. The future planning outlook in the 2010 Master Plan specifically focuses on changing needs of the community, with the elderly class retiring and a recognized need to retain younger workforce. Land conservation, affordable housing, energy conservation, and affordable renewable energy are general topics of interest within the plan. The proposed Project aligns with the following goals through improvement of energy transmission and careful consideration of land use needs.

##### 4.2.2.2.2 *Suffolk County*

In 2015, Suffolk County published the Suffolk County Comprehensive Master Plan 2035. This document, also titled “Framework for the Future,” is centered around three themes (Revitalize, Rebuild, and Reclaim) to be applied to the Suffolk County economy, downtowns, infrastructure, groundwater quality, surface

water and terrestrial resources. The county plans to achieve this through several goals: Updated transit network; fair housing; competitive economic opportunities and innovation (with a focus on tourism, fishing, and agriculture); support vibrant communities; streamline local government and policies; and environmental protection.

The county is heavily focused on open space conservation and the social and environmental benefits the community receives through such conservation. The plan explains the importance of open space to public land access, forest and water resource conservation, and tourism attraction. Suffolk County also prioritizes farmland preservation, through its Farmland Development Rights Program, which ensures the county's farmland will be protected for its historic use in the future. Public policy in Suffolk County aims to protect the agriculture industry in light of the pressing issues of urbanization, development, and rising land costs. Furthermore, aquaculture is an important industry in the county and land conservation measures aim to protect water resources along the coast.

Energy infrastructure upgrades and climate change mitigation are central goals within Suffolk County's development plan, which supports solar and offshore wind development. In order to assist with the attainment of these low carbon energy goals, as well as improving reliability and enhancing resiliency of electric service, the Project constitutes a necessary upgrade to the existing transmission system on Long Island. The Project effectively avoids important land use in the area, such as agriculture and open space, and utilizes existing transmission infrastructure land to minimize land use impacts.

#### *4.2.2.2.3 Town of Oyster Bay*

The Town of Oyster Bay does not have a comprehensive plan. However, the Town of Oyster Bay Planning Division is responsible for zoning and comprehensive community development planning. On its "Economic Development" webpage (2025), it identifies business and industrial development as key factors of managing town goals. The Planning Division represents the community in its engagement with utilities to promote sound and environmentally sensitive economic growth.

Oyster Bay recognizes open space conservation, historic and cultural resource protection, and tourism development as key areas of balance in the need for infrastructure development. The Project does not run along any conservation lands within the Town of Oyster Bay and utilizes existing transportation corridors to mitigate detrimental impacts to community resources.

#### *4.2.2.2.4 Town of Huntington*

The Town of Huntington 2008 Comprehensive Plan ("Comprehensive Plan") outlines the town's goals for effective community development and resource conservation for the near future and beyond. Proper civic engagement and appreciation for the community's small-town culture are central objectives for guiding community development. Robust citizen engagement in the public process, strong commercial and transportation corridors, adequate schooling and community resources, and protecting environmental quality through sound infrastructure are all key objectives to successful implementation of the Comprehensive Plan.

According to the Comprehensive Plan, developing “Green Infrastructure,” which is infrastructure that protects water resources and threatened species, and mitigates climate change, is a key tool in protecting community resources. The Comprehensive Plan references utility planning to meet these objectives, particularly over concerns of street trees. The Applicant has identified key areas of resource protection, including open space, street trees, sensitive receptors, and agricultural lands, and the Project reflects a plan to avoid, minimize or mitigate impacts to those resources by utilizing optimal transportation corridors and existing transmission infrastructure land.

#### **4.2.3 Land Use Mitigation**

The Project will be located primarily within public roadways and land owned in fee by LIPA. The installation of the transmission circuit and substation equipment will not affect nearby land uses. The location and design of Project facilities at the Woodbury Tap and Oakwood Substation minimizes land use impacts.

The proposed route does not traverse FEMA floodplains and therefore the Project will not result in adverse impacts on flood hazard areas. For reference, see Figure 4-4 FEMA-Designated Flood Hazard Areas Crossed by the Project.

The Project borders two NYSAGM-designated Agricultural District parcels on West Pulaski Road (District 3, Code SUFF003). One parcel measures approximately 49.47 acres, and the other measures approximately 1.94 acres. All construction activities are planned to occur within public roadway ROW, thus no adverse impacts to adjacent agricultural lands are anticipated. Erosion control measures will be utilized during construction activities to control sediment and stormwater runoff and minimize any potential impacts to agricultural lands. For reference, see Figure 4-5 Agricultural Districts Cross by the Project Route.

The EM&CP will document the procedures that will be implemented during construction to minimize the effects of the construction on other nearby land uses. It is anticipated that, with the proper measures in place, there will be no significant adverse impacts to land use in the vicinity of the Project.

### **4.3 Visual Resources**

As further discussed below, the Project is not anticipated to result in significant impacts to visual resources.

#### **4.3.1 Existing Aesthetic and Visual Resources**

Table 4-3, Summary of Aesthetic and Visual Resources, lists visual resources within three miles of the Project, some of which may be in visual range of the Project. However, since the Project is largely comprised of underground facilities and will otherwise be located at or near the existing Woodbury Tap or Oakwood Substation, it will have minor visual impacts.

<b>Table 4-3 Summary of Aesthetic and Visual Resources</b>		
<b>NYSDEC Policy System Item</b>	<b>Aesthetic Resource Category</b>	<b>Number of Resources Within Three Miles of Project ROW</b>
A1	A property on or eligible for inclusion in the National or State Register of Historic Places	59
A2	State Parks	2
A3	Heritage Areas	1
A4	State Forest Preserve	0
A5	National Wildlife Refuge	0
A6	National Natural Landmarks	0
A7	The National Park System, Recreation Areas, Seashores, Forests	0
A8	Rivers designated as National or State Wild, Scenic or Recreational	0
A9	A site, area, lake, reservoir, or highway designated or eligible for designation as scenic	1
A10	Scenic Areas of Statewide Significance	0
A11	A State or federally designated trail, or one proposed for designation	2
A12	Adirondack Park Scenic Vistas	0
A13	State Nature and Historic Preserve Areas	2
A14	Palisades Park	0
A15	Bond Act Properties	0
A16	National Heritage Areas	0

### **4.3.2 Aesthetic and Visual Resources Inventoried Within the Project**

#### **4.3.2.1 A1 – Properties on or eligible for inclusion in the National or State Register of Historic Places**

There are 59 properties on or eligible for inclusion in the National or State Register of Historic Places within three miles of the Project. There is one property that directly abuts the Project ROW: Hewlett House, 559 Woodbury Road, Town of Huntington, Suffolk County, and is a national and state-listed property. There is minimal vegetative buffer between this resource and the underground location of the Project within the roadway.

#### **4.3.2.2 A2 – State Parks**

There are two State Parks within three miles of the Project, none of which abut the Project. Trail View State Park is 0.27 miles west of Woodbury Tap, but it is not anticipated to be within visual range of the Project.

#### **4.3.2.3 A3 – Heritage Areas**

There is one Heritage Area within three miles of the Project. The entirety of the underground route is within the Long Island North Shore Heritage Area.

#### 4.3.2.4 A9 – Site, area, lake, reservoir, or highway designated or eligible as scenic

There is one Site, area, lake, reservoir, or highway designated or eligible as scenic within three miles of the Project., but it is not within visual range of the Project.

#### 4.3.2.5 A11 – State or federally designated trail, or one proposed for designation

There are two State or federally designated trails, or one proposed for designation, within three miles of the Project. The Nassau-Suffolk County Greenbelt trail passes through Trail View State Park approximately 0.3 miles from the Project site at Woodbury Tap. Neither are within visual range of the Project.

#### 4.3.2.6 A13 – State Nature and Historic Preserve Areas

There are two State nature or historic preserve areas within three miles of the Project, a coastal oak-laurel forest and a marine back-barrier lagoon. Both are approximately 1.4 miles north of the Project route and are not in visual range of the Project.

#### 4.3.2.7 Schools, Healthcare Clinics, and other Sensitive Receptors

Across from Woodbury Tap, where the route crosses onto Woodbury Road, there is an animal hospital, two health clinics, a fire station, an art school and a music school. North of where the route turns south onto Oakwood Road is the Jefferson Primary School.

### **4.3.3 Visual Resources Impacts and Mitigation**

While there are visual resources within three miles of the Project, and some that may be in visual range of the above ground Project facilities, the Project is largely comprised of underground facilities and will not have lasting visual impacts.

Aboveground construction elements associated with this Project include manhole covers above splice vaults, a riser pole and structures at Woodbury Tap, and the expansion of the Oakwood Substation with termination structures and potheads.

Manhole covers will not result in a dramatic visual change. Other utilities currently exist along the route so the addition of intermittent at-grade manholes will have minimal visual impact.

The structures at Woodbury Tap would present some visual change. However, Woodbury Tap is an existing area with overhead utility structures. While the Project would add utility structures to the visual landscape, the additions would not be completely unique to the surroundings.

The location of the expansion of Oakwood Substation would bring the substation fence line closer to West 11<sup>th</sup> Street, however, due to existing vegetative buffers and distance between the street and the substation due to the LIRR corridor, the expansion of the Oakwood Substation is anticipated to have minimal visual impact. A fence will be installed to contain all of the additional substation equipment. Other measures, such as vegetative buffers, will be determined in the EM&CP.

Tree clearing and vegetation removal will be avoided and minimized as much as practicable. Trees and vegetation within the existing substation expansion area must be permanently removed. Disturbed vegetation within the ROW will be restored as work is completed as detailed in the EM&CP. A restoration plan will be prepared and included as part of the EM&CP for impacted trees and larger vegetation.

#### **4.3.4 Temporary Visual Impacts**

Temporary visual impacts to residents, motorists, and pedestrians will take place during installation of the Project. Visual impacts will include effects resulting from construction equipment staging and operations within and along existing public roadways. Construction activities will progress along the Project ROW exposing each area for a limited amount of time. While Project construction activities will be continuous during the installation and cable route construction period, no one location will be visually impacted for a significant duration because of the generally linear nature of the Project. The EM&CP will address efforts that will be employed to further mitigate potential construction related visual impacts.

#### **4.4 Cultural Resources**

The impact of the Project on cultural resources is anticipated to be minimal due to the degree of observable prior ground disturbance within the LOD. Upon initial review of publicly available data, while cultural resources exist in the general area of the Project, the construction and operation of the facility is not anticipated to affect those resources. This section describes the publicly known existing cultural resources located in the Project area and evaluates the potential impacts to cultural resources which may occur as a result of Project construction, operation, and maintenance.

The Applicant is conducting archaeological and historical studies to evaluate the likelihood that historic architectural and archaeological resources may be affected by the Project. The reports that are being prepared will be submitted for review by OPRHP.

##### **4.4.1 Existing Cultural Resources**

The Applicant surveyed publicly available data from federal and state sources. Several maps by OPRHP were also reviewed for resources of interest to New York State: Archaeological Buffer Areas, Building Points (labeled as Building USN Points in the associated figure) and Building District Polygons (labeled as Building USN Polygons in the associated figure). Review of this online data set does not constitute “consultation” with the New York State Historic Preservation Office under Section 106 of the National Historic Preservation Act of 1966 or with DHP under Section 14.09 of the New York State Historic Preservation Act.

The OPRHP identified three undetermined sites, and two listed sites within 0.25 miles of the Project, as shown in Figure 4-6 Cultural Resources with a Quarter Mile of the Project. The two listed properties, the Dowden Tannery and the Hewlett House, are listed in the National Register. Of these two, only the Hewlett House is located close to the proposed trench in which the line will be installed. It is unlikely that archaeological deposits associated with the historic house would be found beneath the road surface where

the trench will be placed. Neither of these properties are within view of the above-ground elements of this Project.

The Project's 0.25-mile buffer overlaps two archaeological buffer areas identified by OPRHP. One is approximately 0.20 miles south of Woodbury Tap. The other is approximately 0.23 miles north of where the Project diverges from Woodbury Road onto West Pulaski Road. In general, the Project has a very low probability of affecting archaeological sites because the circuit is being installed beneath previously disturbed existing roadway. However, if any previously undisturbed ground will be disturbed by construction elements such as drill pits for trenchless crossings, these areas may be subject to archaeological testing.

#### **4.4.2 Phase IA Literature Search and Sensitivity Study: Methods**

For the ongoing Phase IA assessment, prehistoric and historic information relative to existing cultural resources will be obtained through publicly available municipal reports and documents, OPRHP's online Cultural Resource Information Service, and other various archival literature, maps, and documents. Factors taken into consideration in assessing Project sensitivities and potential effects include:

- The presence or absence of known archaeological sites within the Project's LOD;
- The presence or absence of known historic architectural resources in the Project area;
- Nearby environmental characteristics likely to have influenced prehistoric and historic settlement patterns (e.g., distance to water, slope, soil types); and
- The historical development of the Project area.

The Phase IA assessment has not been completed at the time of filing this Application. Results of that assessment will be discussed in a report that will be communicated to SHPO. Figure 4-6 Cultural Resources with a Quarter Mile of the Project shows publicly available data that will supplement the Phase IA assessment.

#### **4.4.3 Additional Investigations and Impact Mitigation**

While not anticipated, any additional investigations that may be required to evaluate and mitigate project effects on historic architectural and archaeological resources will be undertaken as required by OPRHP using state and federal standards.

### **4.5 Wetlands and Water Resources**

#### **4.5.1 Existing Wetland and Water Resources**

Information relative to existing wetlands, streams, and aquatic resources was obtained through several online, publicly available sources including NYSDEC maps as well as the USFWS National Wetland Inventory ("NWI") maps.

The Project is located within the USGS Southern Long Island Watershed (HUC 8, 02030202) and the Northern Long Island Watershed (HUC 8, 02030201). The Syosset to Oakwood Line 138-676 stretches from the Cold Spring Harbor-Oyster Bay sub-watershed (HUC 12, 0203020202) in the Oyster Bay-

Huntington Bay watershed (HUC 10, 0203020102) to the Massapequa Creek sub-watershed (HUC 12, 020302020201) in the South Oyster Bay-Jones Inlet watershed (HUC 10, 0203020202).

Through analysis of the USWFS NWI mapping, NYSDEC Regulatory Tidal Wetlands mapping, NYSDEC Previously Mapped Freshwater Wetlands (“PMFW”), and NYSDEC Informational Freshwater Wetland Mapping (“IFWM”), no federal water resources, no state-identified tidal wetlands, and only one state-identified freshwater wetland (through IFWM) is present directly in the Project ROW. However, 10 wetlands, identified through state and federal databases, are within 0.25 miles of the Project as shown in Figure 4-7 Wetlands and Waterbodies Crossed by the Project. A summary table of those water resources is below in Table 4-4 Water Resources within 0.25 Miles of the Project. Field investigations will be conducted to verify the publicly-available online data.

Following those field investigations, USACE and NYSDEC will be consulted to confirm presence and jurisdictions of water resources, should any be identified.

<b>Table 4-4 Water Resources within 0.25 Miles of the Project</b>				
<b>Source(s)</b>	<b>Wetland ID</b>	<b>Classification/Description</b>	<b>Total Acres</b>	<b>Acres in Buffer</b>
NWI, IFWM	PEM1Ex & PUBHx	Freshwater Emergent Wetland (Palustrine, Emergent, Persistent, Seasonally Flooded or Saturated, Nontidal, Excavated) & Freshwater Pond (Palustrine, Unconsolidated Bottom, Permanently Flooded, Nontidal, Excavated)	0.04	0.04
IFWM	--	--	0.10	0.10
IFWM	--	--	0.18	0.18
NWI, IFWM	PUBFx	Freshwater Pond (Palustrine, Unconsolidated Bottom, Semi-Permanently Flooded, Nontidal, Excavated)	0.01	0.01
NWI, IFWM	PUBHx	Freshwater Pond (Palustrine, Unconsolidated Bottom, Permanently Flooded, Nontidal, Excavated)	0.01	0.01
PMFW	H-2	Class 2	0.06	0.06
PMFW	H-1	Class 1	62.20	0.68
IFWM <sup>a</sup>	--	--	0.11	0.11
IFWM	--	--	0.12	0.12
IFWM	--	--	0.20	<0.01
Notes: (a) Directly crossed by the Project. Sources:				

NWI: National Wetland Inventory Mapper. Available online at:  
<https://fwspublicservices.wim.usgs.gov/wetlandsmapping/service/Wetlands/MapServer/WMSServer?request=GetCapabilities&service=WMS>.

IFWM: Informational Freshwater Wetland Mapping were identified through the NYSDEC Environmental Resource Mapper. Available online at:  
[https://gisservices.dec.ny.gov/gis/erm/?\\_gl=1\\*pk6ven\\*\\_ga\\*MTQ4MzkzNTkyMC4xNjcwNDM3MDU5\\*\\_ga\\_QEDRGF4PYB\\*MTczOTg4Njc1OS4yMTMuMS4xNzU5ODg2ODI3LjAuMC4w](https://gisservices.dec.ny.gov/gis/erm/?_gl=1*pk6ven*_ga*MTQ4MzkzNTkyMC4xNjcwNDM3MDU5*_ga_QEDRGF4PYB*MTczOTg4Njc1OS4yMTMuMS4xNzU5ODg2ODI3LjAuMC4w).

PMFW: Previously Mapped Freshwater Wetlands were identified through the NYSDEC Environmental Resource Mapper. Available online at:  
[https://gisservices.dec.ny.gov/gis/erm/?\\_gl=1\\*pk6ven\\*\\_ga\\*MTQ4MzkzNTkyMC4xNjcwNDM3MDU5\\*\\_ga\\_QEDRGF4PYB\\*MTczOTg4Njc1OS4yMTMuMS4xNzU5ODg2ODI3LjAuMC4w](https://gisservices.dec.ny.gov/gis/erm/?_gl=1*pk6ven*_ga*MTQ4MzkzNTkyMC4xNjcwNDM3MDU5*_ga_QEDRGF4PYB*MTczOTg4Njc1OS4yMTMuMS4xNzU5ODg2ODI3LjAuMC4w).

#### 4.5.2 Field Investigations

Field investigations are planned to occur in spring or summer of 2025 to confirm the presence or absence of wetlands and water resources within the Project area. In January of 2025, NYSDEC implemented an update to regulation 6 NYCRR Part 664, Freshwater Wetlands Jurisdiction and Classification. The NYSDEC summarized the change as:

*“The current NYS Freshwater Wetlands Maps will no longer limit DEC regulatory jurisdiction to wetlands depicted on those maps. DEC’s regulatory protections of freshwater wetlands will no longer be limited to wetlands depicted on the NYS Freshwater Wetlands Maps. The NYS Freshwater Wetlands Maps will be referred to as Previously Mapped Freshwater Wetlands. Jurisdictional protections for previously mapped freshwater wetlands will remain as DEC’s jurisdictional authority expands to include wetlands meeting the freshwater wetland definition and state jurisdictional criteria for protection. Jurisdictional determinations and wetland classifications will be made remotely based on wetland acreage and characteristics meeting jurisdictional criteria.”*

In addition, regardless of size, wetlands that meet one or more criteria of “unusual importance” will also be considered under state jurisdiction. These criteria are summarized as follows:

- Significant flooding;
- Urban areas;
- Rare plants;
- Rare animals;
- Class I;
- Unusual local importance;
- Vernal pools;
- Floodways;
- Previously mapped wetlands;
- Local or regional significance; and
- Important for protection of New York State’s water quality.

Following state and federal regulations, including the 2025 update to 6 NYCRR Part 664, delineations will use methods described in the USACE Manual, New York State Manual, and the Regional Supplement. Wetlands will receive a field identifier and locations will be recorded using a sub-meter accurate GPS receiver. Delineations will also take note of presumed federal and state jurisdictions, wetland classes, and other notes.

#### **4.5.3 *Wetland and Water Resources Impacts and Mitigation***

One location identified on the NYSDEC Information Freshwater Mapping resource is crossed by the Project. Field investigations will confirm the presence of this resource. Due to the in-roadway nature of the Project, it is not anticipated that construction will impact the wetland. Protective measures will be put in place to avoid and minimize impact to any potential wetlands along the route. Erosion and sediment control measures to be implemented will be detailed in the EM&CP and in a Project-specific SWPPP. Erosion and sediment control measures will be designed to maintain and protect soil and water resources during both the construction and operational phases of the Project.

Use of blasting or other explosives, or the introduction of pollutants, in or near streams or other bodies of water is not anticipated. Accordingly, the Applicant has not proposed mitigation or further protective measures for fish or other aquatic life from harm arising from the use of such explosives or pollutants.

### **4.6 Terrestrial Ecology and Rare Species**

#### **4.6.1 *Significant Natural Communities***

The NYSDEC defines areas known as “Significant Natural Communities” (“SNC”) (or also “Natural Heritage Communities”) as rare or high- quality ecological areas including certain wetlands, forests, grasslands, ponds, streams and other landforms that constitute significant habitats. NYNHP documents the location of natural communities where the community type is rare in New York State, or, for more common community types, where the community at that location is a high-quality example and meets specific, documented criteria for state significance in terms of size, undisturbed and intact condition, and the quality of the surrounding landscape. Not all of New York State lands have been surveyed for the presence of SNCs, nor have the lands been surveyed to definitively delineate the extent of each feature; therefore New York State identifies areas within a half mile buffer to a SNC as a Natural Communities Vicinity (“NCV”). NCVs alert map viewers to the presence of a significant natural community nearby. For purposes of this desktop assessment, a quarter-mile radius was established around the Project to evaluate the potential impact to nearby SNCs. No SNC, or their associated buffer area, overlap with the Project’s buffer. For reference, see Figure 4-8 Natural Heritage Communities Within a Quarter Mile of the Project.

#### **4.6.2 *Vegetation***

Vegetation clearing will be required for proposed construction activities outside of the public roadway and along the roadway shoulders to provide a safe workspace. Permanent and temporary tree clearing, which will be minimized to the extent possible, will be necessary to accommodate the expansion of Oakwood Substation, the riser poles at Woodbury Tap, and the installation of Line 138-676. The Project route is

primarily located within existing public roadways which consist of impervious surfaces and pavement. The installation of the transmission line primarily within the roadway will minimize but not eliminate the need for vegetation and tree trimming and clearing. Disturbance will primarily occur within plant communities along the Project route that are previously disturbed and/or maintained. Some disturbance will occur in more heavily vegetated areas outside of Oakwood Substation to accommodate the expansion and outside of Woodbury Tap. The Applicant will follow USFWS and NYNHP guidance to avoid impact to habitats or species of concern. Tree mortality, particularly at and around splice vaults, may occur due to the mature tree growth across the road. Exact locations of vegetation and tree clearing, as well as a list of activities and description of methods will be included in the EM&CP. A restoration plan will detail substantive plantings. Clearing will occur following protection guidelines set forth by USFWS and NYNHP.

All laydown, staging, and work areas have yet to be defined, however they are planned to be located in areas of impervious cover to the extent practicable and thus will avoid unnecessary ground disturbance.

#### 4.6.3 *Invasive Species*

As defined in 6 NYCRR Part 575, invasive species are those that are nonnative to the ecosystem under consideration, and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Interaction with invasive plant species will be limited to areas that are subject to tree clearing or vegetation removal. Tree clearing and vegetation removal will be minimized and avoided to the extent practicable. Tree clearing and vegetation removal will be identified during final design and presented in the EM&CP.

The NYNHP manages the New York iMap Invasive Species Database and Mapping System. This online database contains records identifying a total of three nonnative plant species occurrences within 0.25 miles of the Project. These invasive plant species are described in Table 4-5 Invasive Species Recorded within 0.25 Miles of the Project. Field investigations will be conducted to verify the publicly available online data.

<b>Species Name</b>	<b>Location in Relation to the Project</b>	<b>Date of Observation</b>	<b>Presence ID</b>
Japanese Stiltgrass ( <i>Microstegium vimineum</i> )	0.03 miles south of line 138-676 on Woodbury Road	September 9, 2020	1068596
Japanese Stiltgrass ( <i>Microstegium vimineum</i> )	0.03 miles south of line 138-676 on Woodbury Road	September 9, 2020	1072638
Bradford Pear ( <i>Pyrus calleryana</i> )	0.10 miles east of line 138-676 on Oakwood Road	March 21, 2005	392387

Source: Nature Serve. iMap Invasives. Available online at: <https://imapinvasives.natureserve.org>.

#### 4.6.4 *Endangered, Threatened, and Special Concern Species*

Section 7(a) of the ESA establishes a national program, headed by the USFWS, for the conservation of federally threatened and endangered species and their respective habitats. The USFWS also maintains protections for federally protected bald and golden eagle species through the Bald and Golden Eagle Protection Act (“BGEPA”) and for migratory bird species under the Migratory Bird Treaty Act (“MBTA”).

The Applicant obtained a species list through the USFWS’s Information for Planning and Consultation (“IPaC) online service (Project Code: 2025-0051776) on February 4, 2025. The potential species of interest included on the initial IPaC report included the endangered northern long-eared bat (*Myotis septentionalis*), the proposed endangered tricolored bat (*Perimyotis subflavus*), the threatened piping plover (*Charadrius melodus*) and Rufa red knot (*Calidris canutus rufa*), and the proposed threatened species the monarch butterfly (*Danaus plexippus*). No critical habitats were listed in the IPaC report. A letter with the IPaC report attached was submitted to the USFWS on April 7, 2025 to request official consultation. The consultation is included in Appendix A – Agency Consultation.

The NYSDEC maintains state listed endangered, threatened, and special concern fish and wildlife species of New York State and regulates threatened and endangered species under the ECL and its implementing regulations 6 NYCRR Part 182. Additionally, New York State maintains protection over native wild species, including birds, under ECL 11-0103. Protected resources may not be pursued, taken, wounded, or killed in any number or quantity at any time of the year, except as permitted.

The Applicant submitted a NYNHP request through the NYSDEC online screening tool on March 11, 2025. A follow up letter request was submitted on April 7, 2025 to the NYNHP for information regarding the presence of state managed threatened and endangered species and unique natural communities in the Project study area. In a letter dated These are included in Appendix A – Agency Consultation.

A consultation request was also submitted to the NYSDEC Region 1 office on April 7, 2025. The NYSDEC correspondence and NYNHP correspondence is included ed in Appendix A – Agency Consultation.

A brief summary of habitat-use requirements for each federal- and state-listed species is presented in Table 4-6 Listed Species Potentially Present within the Project Area and sections below. No plant species or natural communities of concern were identified within the Project area.

<b>Table 4-6 Listed Species Potentially Present within the Project Area</b>			
<b>Classification</b>	<b>Species Name</b>	<b>Federal Status</b>	<b>State Status</b>
Mammal	Northern Long-eared Bat ( <i>Myotis septentionalis</i> )	Endangered	Endangered
	Tricolored bat ( <i>perimyotis subflavus</i> )	Proposed Endangered	Not Listed
Bird	Piping plover ( <i>Charadrius melodus</i> )	Threatened	Endangered
	Rufa red knot ( <i>Calidris canutus rufa</i> )	Threatened	Threatened
Insect	Monarch butterfly ( <i>Danaus plexippus</i> )	Proposed Threatened	Not Listed

#### **4.6.5 *Terrestrial Ecology and Rare Species Impacts and Mitigation***

##### **4.6.5.1 Vegetation**

Impacts to vegetation and trees is discussed in Section 4.6.2 Vegetation. Vegetation and tree clearing (where required) will follow protection guidelines set forth by the species protections for endangered and threatened species. The EM&CP will also have a vegetation and tree restoration plan that will detail plantings and restoration practices.

The Applicant does not anticipate using pesticides or herbicides during construction of the transmission facilities. The Oakwood Substation is currently part of the Applicant's existing annual substation pesticide and herbicide spray program, and the substation expansion is anticipated to be included in that operational vegetation management. Use of pesticides and herbicides at Woodbury Tap has not yet been determined. Final determination of pesticide and herbicide use, location, and application rate at the substation and Tap locations will be included in the EM&CP.

Any pesticides and herbicides used during Project operations will be NYSDEC-approved for use in New York State. Use of pesticides and herbicides must follow NYSDEC laws and regulations and follow the EPA registered label requirements. All pesticide or herbicide application methods will be determined by the Applicant's Vegetation Management group. Pesticide and herbicide application rates will be in accordance with the label rates for the application technique used. All crew members engaged in spray applications shall either be certified applicators, certified technicians, or qualified apprentices supervised in accordance with New York State Pesticide Law.

##### **4.6.5.2 Invasive Species**

To control the introduction or spread of invasive species to unspoiled areas, preventative measures will be employed during construction. These measures will be detailed in the EM&CP and may include: Washing vehicles and equipment before and after moving them from one site to another; monitoring soil movement and stockpiling for invasive species; and providing special protection to invasive-free areas.

##### **4.6.5.3 Endangered, Threatened, and Special Concern Species**

Limited localized disturbance of suburban wildlife may occur during Project construction. Given that the Project is primarily located within a public road ROW and within a highly active suburban location, wildlife will most likely be accustomed to these types of construction activities therefore any disturbances will be minor and temporary. The Applicant will follow guidance provided by NYNHP and USFWS to avoid, minimize, and mitigate. Details will be provided in the EM&CP.

#### **4.7 Topography and Soil**

The use of public roadway ROW for the installation of the Project will avoid high points, steep slopes, heavily timbered areas, and ridge lines and will help preserve the natural landscape. Information relative to the existing topography, geology, soils, and groundwater resources along the proposed route was obtained through USGS databases, GIS data, and literature review.

#### **4.7.1 Topography**

The topography along the proposed route ranges in elevation from approximately 79 feet above mean sea level to approximately 210 feet above mean sea level.

#### **4.7.2 Geology**

Long Island's geology is defined by two terminal moraines. Terminal moraines are low, ridge or hill-like formations that are remnants of historical glacial advances. The terminal moraines on Long Island are associated with glaciation during the last ice age (i.e., the Pleistocene epoch). Two morainal ridges, Harbor Hill Moraine and Ronkonkoma Moraine, run the length of Long Island and diverge east to form the North Fork and South Fork. The moraines are classified as poorly sorted glacial till deposits at the glacial terminus. Areas south of the moraines are classified as outwash plain deposits of sand and gravel.

The entirety of Long Island is near the northern-most portion of the United States' physiographic region, the Atlantic Coastal Plain. Mesozoic and Cenozoic rocks and unlithified sediments make up this plain. The multiple sedimentary layers are made up of sand, clay, and gravel, underlain by southeasterly sloping bedrock. As depicted in Figure 4-9, Depth to Bedrock, bedrock in the Project area is anticipated to be found at great depths. The bedrock is overlain with surficial sediments composed of Cretaceous sand and clay.

The interrelationships of the various geologic deposits dictate how the aquifers are recharged by rainfall and determine how activities on the land surface might affect the quantity and quality of the groundwater. The EPA has designated the aquifers of Long Island in Nassau and Suffolk counties as sole-source aquifers. These formations are the Upper Glacial Aquifer, the Magothy Aquifer, the Raritan Formation and the Lloyd Aquifer.

#### **4.7.3 Soils**

Soils found along the proposed route were mapped based on New York State's Geographic Information System Clearinghouse database and the Soil Survey of Nassau County and Suffolk County, New York shown in Figure 4-10, Soils Crossed by the Project. The most prevalent soil type found within the LOD around Woodbury Tap is Riverhead sandy loam, eight to 15 percent slopes. This is well drained, non-hydric soil. The only soil found at the Oakwood Substation expansion is cut and fill land, gently sloping. Along the proposed route, the Project crosses an additional six soil types.

However, due to the use of existing public roadways, the Project is not anticipated to result in loss of previously undisturbed soil. The average depth of the trenching is five feet, which typically does not penetrate the mineral soil level. The soils within the roadway are sandy with cobbles due to the glacial terrain, and not considered mineral soils by nature. No vegetation or stabilization is planned for the roadways since they will simply be closed back with either the native fill or thermal backfill and repaved. The width of the ROW is the entire road or the limit of disturbance with a minimum of three feet of trenching necessary in width.

For the soils at Woodbury Tap and Oakwood Substation, if any are identified as mineral soils, they will be segregated for potential reuse. However, at both locations, soils and the native vegetation will be removed and replaced with gravel in order to properly operate the facilities.

A summary of the soil types found in Figure 4-10, Soils Crossed by the Project, can be found in Table 4-7 Soils Crossed by the Project.

<b>Table 4-7 Soils Crossed by the Project</b>					
<b>Mapping Unit</b>	<b>Soil Description</b>	<b>Drainage Class</b>	<b>Farmland Class</b>	<b>Percent within Disturbance</b>	<b>Acres within Disturbance</b>
<b>Nassau County Soils</b>				<b>23.7%</b>	<b>4.8</b>
PrD	Plymouth-Riverhead complex, 15 to 35 percent slopes	Excessively drained	Not prime farmland	<0.01%	<0.01
RdB	Riverhead sandy loam, 3 to 8 percent slopes	Well drained	All areas are prime farmland	10.7%	2.2
RdC	Riverhead sandy loam, 8 to 15 percent slopes	Well drained	Farmland of statewide importance	9.2%	1.9
Su	Sudbury sandy loam	Moderately well drained	All areas are prime farmland	3.7%	0.8
<b>Suffolk County Soils</b>				<b>76.3%</b>	<b>15.6</b>
CpE	Carver and Plymouth soils, 15 to 35 percent slopes	Excessively drained	Not prime farmland	12.2%	2.5
CuB	Cut and fill land, gently sloping	N/A	Not prime farmland	5.2%	1.1
HaA	Haven loam, 0 to 2 percent slopes	Well drained	All areas are prime farmland	44.2%	9.1
RdB	Riverhead sandy loam, 3 to 8 percent slopes	Well drained	All areas are prime farmland	11.2%	2.3
Ur	Urban land	N/A	Not prime farmland	3.4%	0.7

The USDA NRCS Web Soil Survey was also used to assess the locations of hydric soils along the proposed route which may be a possible indicator of historic fill. The Project crosses one patch of hydric soil (Sudbury sandy loam) on Woodbury Road as depicted in Figure 4-11, Hydric Soils Crossed by the Project. Historic fill may be encountered when excavating in this area.

#### **4.7.4 Groundwater**

Generally, the water table underlying Long Island forms a linear mound of groundwater that crests under the central portion of the Island. The apex of this crest forms an east-west trending ridge in the water table, known as the groundwater divide, that gradually slopes downward towards the north and south shores of

Long Island. The configuration of this groundwater mound creates a hydraulic gradient, which causes groundwater to flow downslope under gravity in a direction perpendicular to contours of equal elevation (generally toward the north and south shores) as they descend from the groundwater divide. In addition to horizontal flow, water flow within the central and inland portions of the Island is characterized by a deep flow system which exhibits a generally vertical component that provides recharge to the deeper Magothy and Lloyd aquifers, before flowing to the north and south shores in these deeper aquifers. Groundwater recharge along the shorelines tends to flow horizontally in a shallow flow system through the Upper Glacial aquifer and eventually discharges from subsurface systems into streams or marine surface waters (Krulik, 1986).

The Project is within a SGPA from Woodbury Tap to where the proposed route turns off West Pulaski Road. The location of the SGPA is shown in Figure -12, Depth to Groundwater.

The water table in the area of the Project generally slopes down towards lower elevations near the town line between the Town of Oyster Bay and the Town of Huntington (approximately 0 to 25 feet below ground surface [“bgs”]). Depth to groundwater in the vicinity of Woodbury Tap and the southwestern portion of the proposed route ranges from approximately 25 to 100 feet bgs. At Oakwood Substation and generally along the eastern part of the route, the water table ranges from approximately 120 feet bgs to upwards of 160 feet bgs. See Figure 4-12, Depth to Groundwater.

Dewatering can be anticipated at regular intervals throughout the central portion of the Project near the boundary line between the Town of Oyster Bay and Town of Huntington, where the groundwater table is at or near the surface. Future surveys will provide further data on the depth of groundwater.

A summary of the depth to groundwater based on a review of the above referenced data sources is included in Table 4-8 Depth to Groundwater Summary.

<b>Table 4-8 Depth to Groundwater Summary</b>	
<b>Depth to Groundwater Interval</b>	<b>Linear Feet of Project (out of a total of 14,270 feet)</b>
0 feet to 25 feet bgs	855 feet
25 feet to 50 feet bgs	2,466 feet
50 feet to 75 feet bgs	1,359 feet
75 feet to 100 feet bgs	313 feet
Greater than (>) 100 feet bgs	9,277 feet

#### **4.7.5 Topography, Geology, Soils, and Groundwater Impacts and Mitigation**

##### **4.7.5.1 Topography**

Construction of the Project is not expected to have a significant impact on topographic features. Significant grading and filling will not be necessary for installation of the cable. After construction is complete, the soil will be restored to pre-existing contours. Disturbed areas will be restored to preexisting conditions

(vegetative restoration, pavement replacement, etc.). Areas of disturbed vegetation will be addressed in accordance with the restoration plan, which will be included with the EM&CP.

#### 4.7.5.2 Geology

No long-term impacts on geologic features in the Project area are anticipated to occur as a result of the Project's construction. Significant grading and filling will not be necessary for installation of the cable.

#### 4.7.5.3 Soils

As typically associated with construction projects, potential project-related impacts to soils include the possibility of loss of topsoil through erosion or by the re-stratification of topsoil during trench backfilling, grading, or unanticipated spills of petroleum-based products from construction equipment. The Project will employ best management practices and other measures to reduce or eliminate construction-related impacts. As a result, Project impacts to soils are expected to be minimal.

The Applicant will file its standard spill prevention plan with the EM&CP. For the Project, no oil-filled equipment is planned to be added to Woodbury Tap or Oakwood Substation. The spill prevention plan will be created in compliance with the NYSDEC spill standards to be used during construction. The construction activities will be completed in a manner to minimize impacts to soil to the extent practicable.

Erosion and sediment control measures, including potential topsoil replacement, to be implemented during construction will be detailed in the EM&CP and in a project-specific SWPPP. Erosion and sediment control measures will be designed to maintain and protect soil and water resources during both the construction and operational phases of the Project.

A subsurface environmental and geotechnical investigation will be performed along the proposed route during development of the EM&CP. The investigation will document soil types and identify any areas where contamination could be encountered during construction activities. The information gathered during the subsurface investigation will assist in the final design and construction of the Project. Excess soils generated within a corridor of known risk of encountering contaminated soils will be managed in accordance with a material handling plan during the construction phase of the Project. To protect vegetation and topsoil not cleared, excess soils generated outside a corridor of known risk of encountering contaminated soils will be recycled or used as thermal backfill wherever possible, or will be disposed properly in an identified approved facility, in accordance with a material handling plan and the EM&CP. Necessary soil disposal and soil handling procedures will be in accordance with NYSDEC guidance and will be identified in the EM&CP.

#### 4.7.5.4 Groundwater

No long-term impacts on groundwater resources or hydrology in the Project area are anticipated to occur as a result of the Project's construction, operation, or maintenance. Cable trench depths found to be stable on past similar underground transmission projects will be utilized. The installation of the Project will not result in the degradation of groundwater given that solid dielectric conductor cable is proposed, and

components will not contain dielectric fluids or hazardous materials or liquids that pose a threat to the aquifer.

Dewatering may be necessary along the proposed route, particularly for splice vault excavations which will be advanced to approximate depths of 15 feet below grade and trenchless crossings which reach approximate depths of four to six feet below grade. Portions of the duct bank installations will also likely require dewatering. Necessary dewatering activities and groundwater handling procedures will be managed in accordance with a material handling plan and identified in the EM&CP and developed in accordance with Blue Book protocols. Dewatering discharge sampling will be conducted as necessary to assure compliance with NYSDEC discharge requirements. Pre-treatment of pumped groundwater may be conducted prior to discharge if contaminants are identified in the samples. The installation of the splice vaults along the Project will not increase impervious coverage, and stormwater runoff will continue to be managed with the existing storm sewer system.

## **4.8 Sound**

The operation and maintenance of the underground transmission component of the Project is not anticipated to result in sound impact. The facilities to be installed at the existing tap and substations to accommodate the transmission facilities are not expected to result in any increase to sound levels. This section evaluates the potential sound impacts introduced by the installation of the Project as well as the mitigation methods to limit these impacts. Potential sound impacts were evaluated based on guidelines and standards from NYSDEC, with consideration to typical and expected construction activity sound levels, and operational sound levels after construction is completed.

### ***4.8.1 Existing Sound Policies and Regulatory Controls Introduction***

For the purposes of the Project, sound policies and regulatory guidelines from NYSDEC were reviewed and summarized below. Figure 4-13 Sound Sensitive Receptors Within One Mile of the Project shows the locations of sound sensitive receptors in the vicinity of the Project route, such as medical centers, places of worship, museums, police stations, post offices, public buildings, fire houses, libraries, childcare facilities, colleges, schools and other park and recreation areas.

#### ***4.8.1.1 New York State Department of Environmental Conservation Guidelines***

The NYSDEC guidelines are defined in their publication “Assessing and Mitigating Noise Impacts.” This document states that loudness, or sound pressure level, increases from zero to three decibels should have no appreciable effect on receptors; increases of three to six decibels may have the potential for adverse impact only in cases where the most sensitive of receptors are present; and increases of more than six decibels may require a closer analysis of impact potential depending on existing sound levels and character of surrounding land use. NYSDEC also indicates that the addition of any permanent sound source should not raise ambient levels above 65 dBA in non-industrial settings. NYSDEC recommends that projects exceeding these threshold levels should explore the feasibility of implementing mitigation. This Project will not result in any permanent sound source. Therefore, under NYSDEC guidelines, sound mitigation is

not recommended. In Exhibit 7 – Local Ordinances, the Applicant summarizes relevant local sound ordinances and identifies those substantive requirements that the Applicant considers unduly restrictive.

#### **4.8.2 Existing Sound Conditions**

Baseline ambient sound level measurements have not been established for the Project. Due to the linear nature of Project construction, it will pass through multiple zones and sound receptor locations. Changes to sound levels in these receptor locations are temporary in nature and typical of roadway construction. No permanent increases in sound levels are anticipated at the existing Oakwood Substation or Woodbury Tap as a result of the limited Project modifications at those locations.

#### **4.8.3 Sound Effects and Mitigation**

The operation of the Project is expected to result in no increased permanent sound levels to surrounding properties and nearby receptors. The sound associated with the Project will be limited to the construction phase of the Project, which is temporary and will take place primarily, but not exclusively, during daytime hours. Sound associated with the construction phase is estimated to range from 65 dBA to 83 dBA at distances of 100 to 200 feet from the construction activity. Estimated construction sound levels at distances of 100 feet or more do not exceed the FTA daytime residential sound level guideline of 90 dBA. At distances of 500 feet or more, construction sound levels are estimated to be 69 dBA or less. Indoor sound levels would be lower than outdoor sound levels by 15 dBA or more. As such, the estimates provided in Table 4-9, Typical Sound Emission Levels for Construction Equipment, can be attenuated by an additional 15 dBA within structures. Construction equipment will be equipped with engine sound control devices, such as exhaust mufflers and acoustic casing enclosures, in accordance with federal, state, and local regulations. In addition to proper maintenance and operation of construction machinery, several means of controlling construction sound impacts will be employed as needed, and as may be practical, including:

- Route heavily loaded truck traffic and heavy equipment movements to minimize impacts on sensitive receptors;
- Equip construction vehicles or equipment, fixed or mobile, with properly operating and maintained mufflers; and
- Avoid unnecessary idling of internal combustion engines.

Standard hours of Project construction operations will be 7 a.m. to 7 p.m. on Mondays through Saturdays. However, specific activities (such as splicing to allow for clean work environments) are required to be performed continuously and therefore will occur outside of these planned construction periods, including during overnight hours. Exceptions to this will be addressed on a case-by-case basis and will be described in the EM&CP. Project construction activities are likely to temporarily increase ambient sound levels for residences and other sensitive receptors closest to the construction activity, but such impacts will be localized, temporary and mitigated to the extent practicable via measures described above and which will be further detailed in the EM&CP. To the extent practicable, sound generating construction activity in sound sensitive areas (see Figure 4-13 Sound Sensitive Receptors Within One Mile of the Project) will be scheduled in accordance with NYSDEC guidelines and standards.

<b>Table 4-9 Typical Sound Emission Levels for Construction Equipment</b>	
<b>Equipment Item</b>	<b>Sound Level at 50 Feet (dBA)</b>
Augured earth drill	80
Backhoe	83 – 86
Cement mixer	63 – 71
Chain saw cutting trees	75 – 81
Compressor	67
Jack hammer	82
Paving breaker	82
Woodchipper	89
Bulldozer	50
Grader	85
Truck	91
Generator	78
Rock Drill	98
Source: Cowan, James P., 1994. Handbook of Environmental Acoustics. As cited in NYSDEC. 2001. Assessing and Mitigating Noise Impacts. Available online: <a href="https://extapps.dec.ny.gov/docs/permits_ej_operations_pdf/noise2000.pdf">https://extapps.dec.ny.gov/docs/permits_ej_operations_pdf/noise2000.pdf</a> .	

## 4.9 Electromagnetic Fields

### 4.9.1 Current Applicable Standards

EMF are found wherever there is electricity, whether it is within wiring, appliances, computers or power lines. Transmission lines create EMF because they carry electric currents at relatively high voltages. EMF decrease in size as the distance from the source increases, so EMF are highest closest to the lines (typically near the center of the transmission line ROW) and decrease as the distance from the transmission corridor increases.

The NYSPSC has an edge-of-ROW magnetic field interim standard of 200 mG. As defined, this interim standard is to be applied to magnetic fields at one meter above the ground surface for loading conditions corresponding to winter-normal conductor ratings. This interim standard is based on modeled average edge-of-ROW magnetic fields for a large sample of 345kV transmission lines in New York State for assumed loading conditions at the winter-normal conductor ratings. The Interim Policy Statement provides guidance for applying the interim standard when there is no defined ROW edge, stating that the standard is applicable to magnetic field levels 50 feet from the centerline of transmission circuits operating voltages less than 230kV.

The NYSPSC also has both on-ROW and edge-of-ROW standards for electric fields, although they are not relevant to this Project given the absence of aboveground electric fields from underground transmission lines.

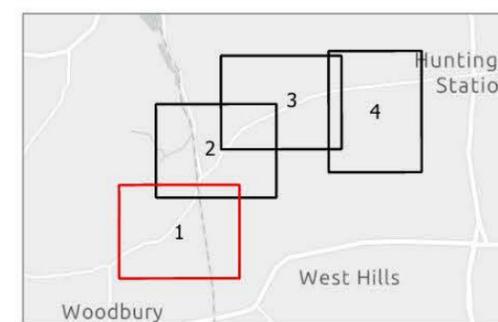
**4.9.2**      ***EMF Investigations***

At the time of filing, the Applicant is completing a magnetic field study to confirm compliance with the applicable NYSPSC policy.

**Figure 4-1 Land Use Within One Quarter Mile of the Project**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Quarter Mile Buffer of Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
- NYS ORPS Land Classification**
- Agricultural
  - Residential
  - Vacant
  - Commercial
  - Recreation and Entertainment Services
  - Community Services
  - Industrial
  - Public Services
  - Wild, Forested, Conservation Lands and Public Parks
  - No Data
- Sources:**
1. Project details prepared by Burns & McDonnell, January 2025
  2. Regrid Parcel Data with NYS ORPS Property Type Classification Codes, December 2024
  3. Esri World Imagery



**PROJECT TITLE**

**PSEG | LONG ISLAND**

**Syosset to Oakwood Project**

**SHEET TITLE**

**Figure 4-1**  
**Land Use Within**  
**One Quarter Mile of the Project**

Page 1 of 4  
 SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025

DRN. BY CR/MK

CHK. BY SH

FIGURE NO. 4-1

**BURNS MCDONNELL**

**PRELIMINARY - NOT FOR CONSTRUCTION**

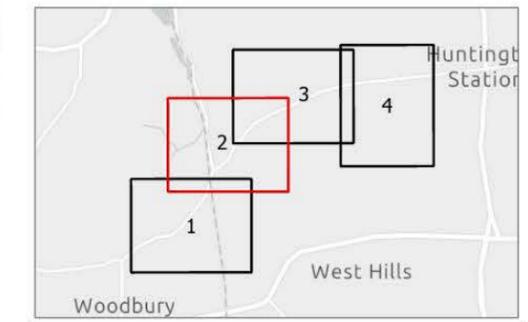




**LEGEND**

- Proposed Route
- Proposed Area of Disturbance
- Quarter Mile Buffer of Proposed Area of Disturbance
- Parcel
- Town/Village Boundary
- Mapsheet Matchline
- NYS ORPS Land Classification**
- Agricultural
- Residential
- Vacant
- Commercial
- Recreation and Entertainment Services
- Community Services
- Industrial
- Public Services
- Wild, Forested, Conservation Lands and Public Parks
- No Data

Sources:  
 1. Project details prepared by Burns & McDonnell, January 2025  
 2. Regrid Parcel Data with NYS ORPS Property Type Classification Codes, December 2024  
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**PROJECT TITLE**



Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-1  
 Land Use Within  
 One Quarter Mile of the Project

Page 2 of 4

SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025  
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FIGURE NO. 4-1

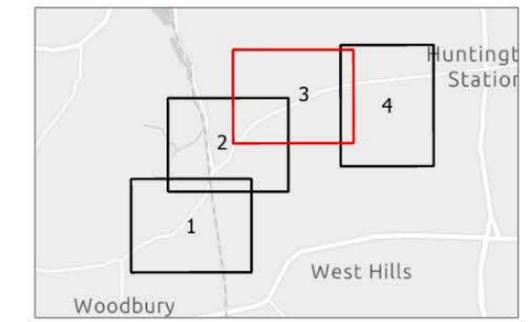
**PRELIMINARY - NOT FOR CONSTRUCTION**



**LEGEND**

- Proposed Route
- Proposed Area of Disturbance
- Quarter Mile Buffer of Proposed Area of Disturbance
- Parcel
- Town/Village Boundary
- Mapsheet Matchline
- NYS ORPS Land Classification**
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- Residential
- Vacant
- Commercial
- Recreation and Entertainment Services
- Community Services
- Industrial
- Public Services
- Wild, Forested, Conservation Lands and Public Parks
- No Data

Sources:  
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 3. Esri World Imagery



**PROJECT TITLE**



Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-1  
 Land Use Within  
 One Quarter Mile of the Project

Page 3 of 4

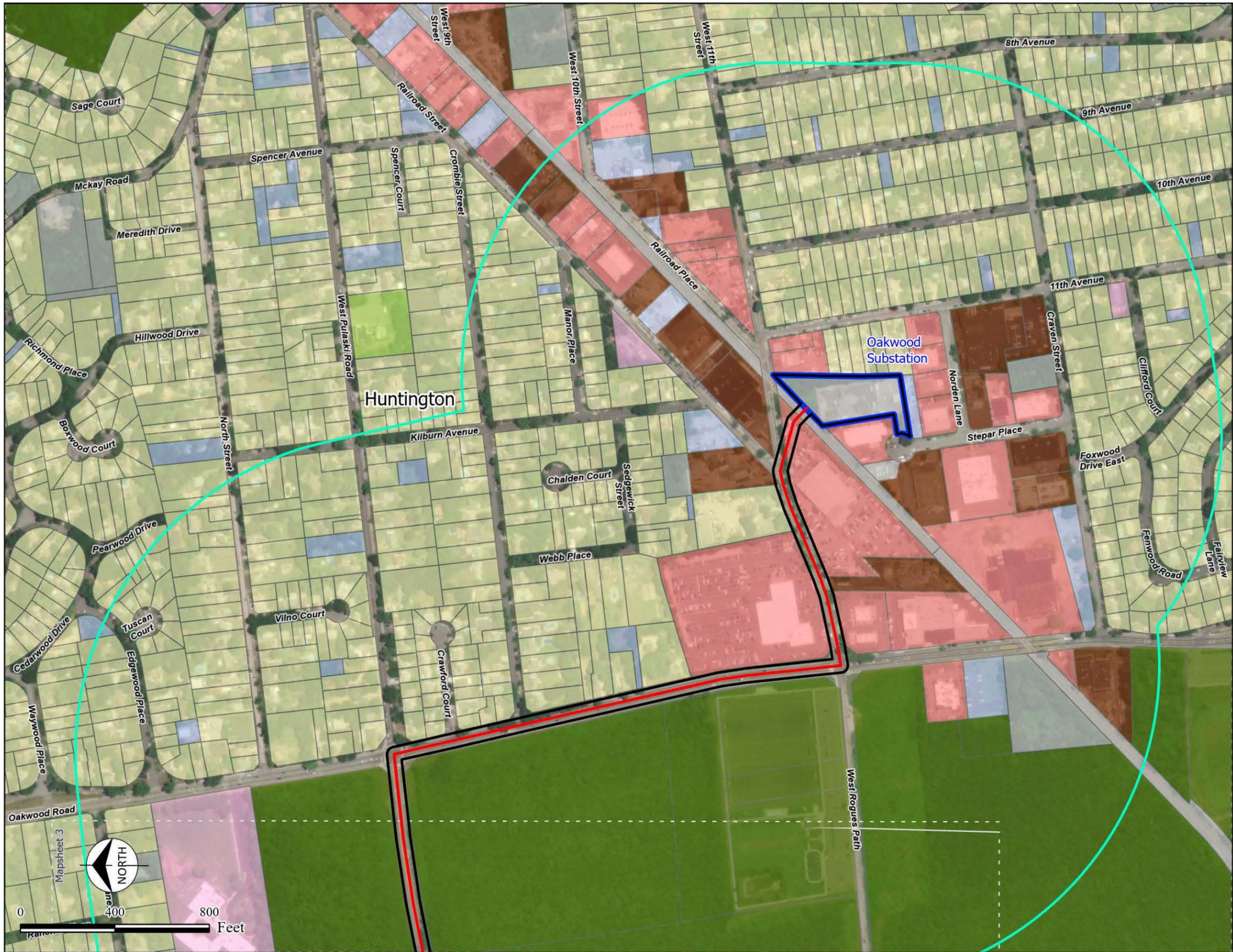
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DATE 04/11/2025  
 DRN. BY CR/MK  
 CHK. BY SH



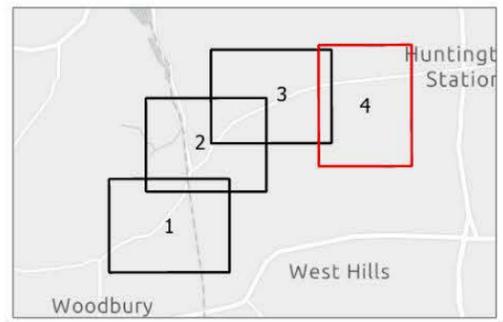
FIGURE NO. 4-1

**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Quarter Mile Buffer of Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
- NYS ORPS Land Classification**
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  - Residential
  - Vacant
  - Commercial
  - Recreation and Entertainment Services
  - Community Services
  - Industrial
  - Public Services
  - Wild, Forested, Conservation Lands and Public Parks
  - No Data

Sources:  
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 2. Regrid Parcel Data with NYS ORPS Property Type Classification Codes, December 2024  
 3. Esri World Imagery



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**SHEET TITLE**

Figure 4-1  
 Land Use Within  
 One Quarter Mile of the Project

Page 4 of 4  
 SCALE 1" = 400' (Printed on 11"x17")

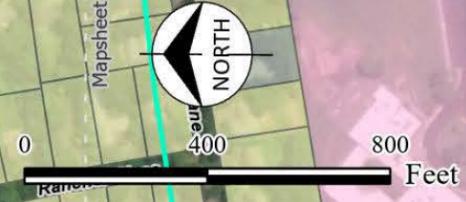
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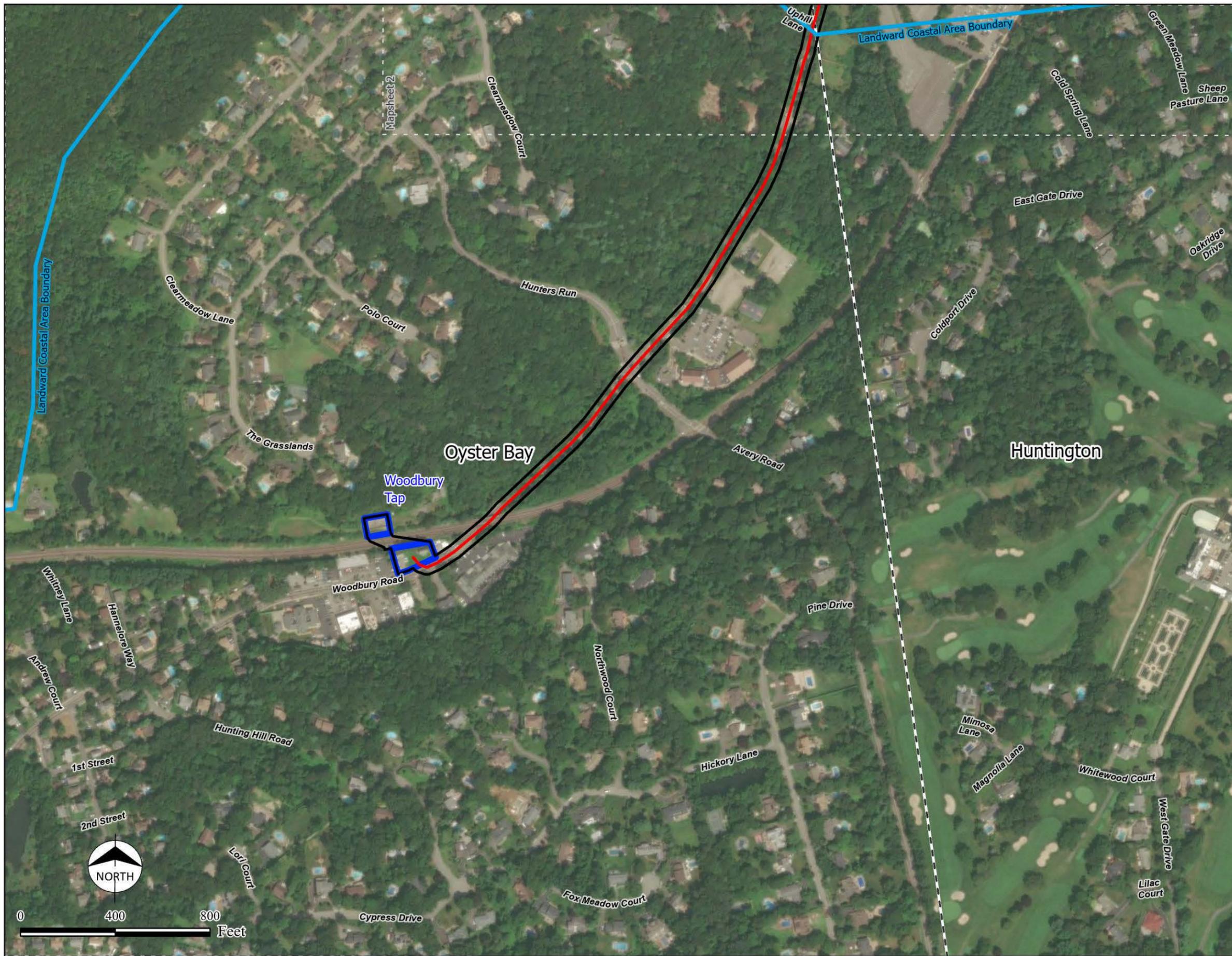
CHK. BY SH

FIGURE NO. 4-1

**PRELIMINARY - NOT FOR CONSTRUCTION**

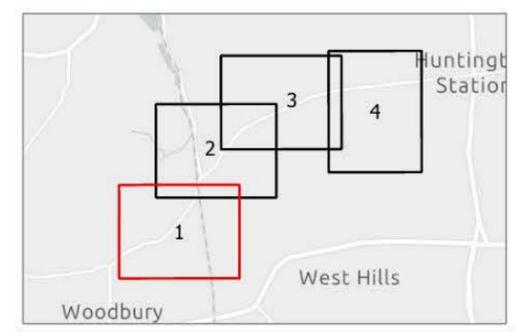


## **Figure 4-2 New York State Coastal Zone**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Landward Coastal Area Boundary

Sources:  
 1. Project details prepared by Burns & McDonnell, January 2025  
 2. NYS OPDCI NY State Coastal Zone, January 2025  
 3. Esri World Imagery



**PROJECT TITLE**

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Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-2  
 New York State Coastal Zone  
 Page 1 of 4  
 SCALE 1" = 400' (Printed on 11"x17")

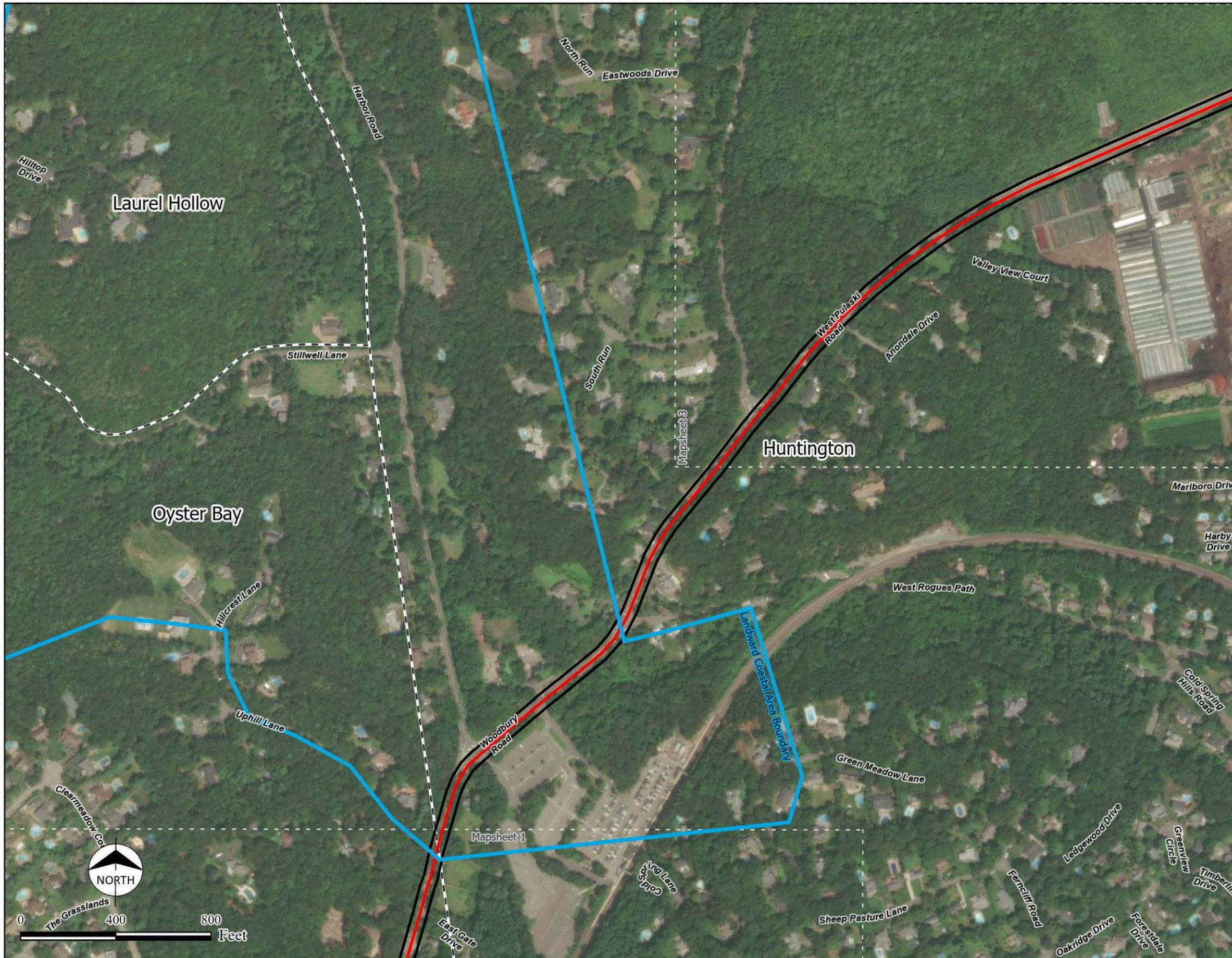
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DRN. BY CR/MK

CHK. BY SH

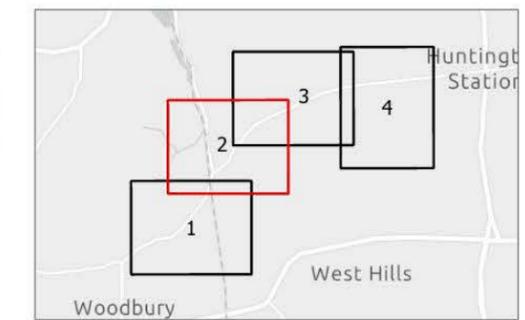
FIGURE NO. 4-2

**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Landward Coastal Area Boundary

Sources:  
 1. Project details prepared by Burns & McDonnell, January 2025  
 2. NYS OPDCI NY State Coastal Zone, January 2025  
 3. Esri World Imagery



PROJECT TITLE



Syosset to Oakwood Project

SHEET TITLE

Figure 4-2  
 New York State Coastal Zone

Page 2 of 4

SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025

DRN. BY CR/MK

CHK. BY SH

FIGURE NO. 4-2

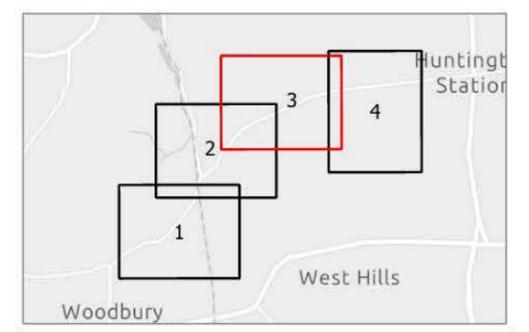


**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Landward Coastal Area Boundary

Sources:  
 1. Project details prepared by Burns & McDonnell, January 2025  
 2. NYS OPDCI NY State Coastal Zone, January 2025  
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**PROJECT TITLE**

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Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-2  
 New York State Coastal Zone  
 Page 3 of 4  
 SCALE 1" = 400' (Printed on 11"x17")

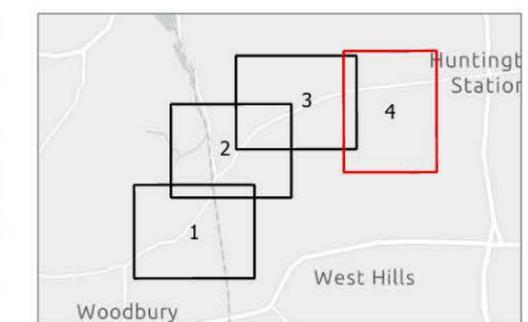
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**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Landward Coastal Area Boundary

Sources:  
 1. Project details prepared by Burns & McDonnell, January 2025  
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**PROJECT TITLE**

**PSEG | LONG ISLAND**

Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-2  
 New York State Coastal Zone  
 Page 4 of 4  
 SCALE 1" = 400' (Printed on 11"x17")

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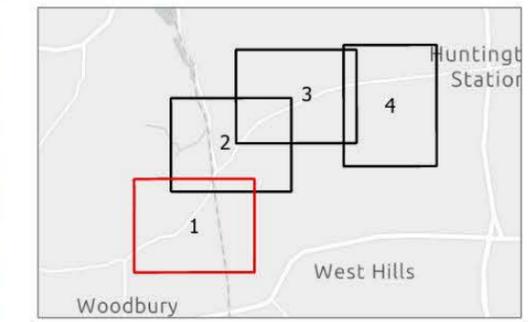
**PRELIMINARY - NOT FOR CONSTRUCTION**

## **Figure 4-3 PEJA and DAC Crossed by the Project**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Potential Environmental Justice Area (PEJA) Community
  - Disadvantaged Community (DAC)

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. NYSDEC PEJA, June 2022
  3. NYSERDA DAC, March 2023
  4. NYS GIS Data Clearinghouse
  5. Esri World Imagery



**PROJECT TITLE**

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Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-3  
PEJA and DAC  
Crossed by the Project

Page 1 of 4

SCALE 1" = 400' (Printed on 11"x17")

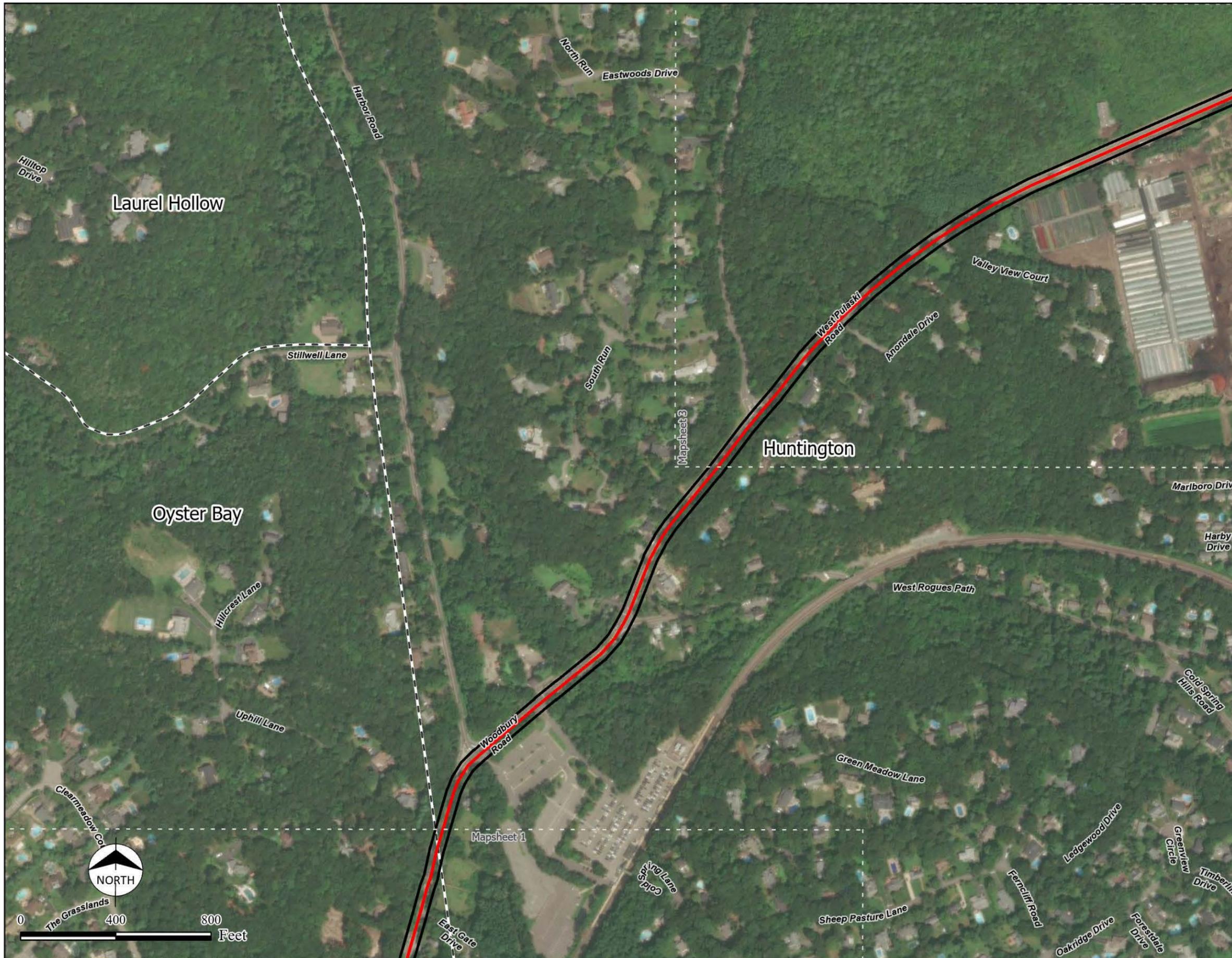
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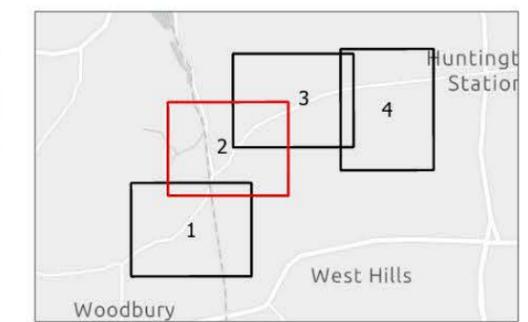
FIGURE NO. 4-3

**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Potential Environmental Justice Area (PEJA) Community
  - Disadvantaged Community (DAC)

- Sources:
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  2. NYSDEC PEJA, June 2022
  3. NYSERDA DAC, March 2023
  4. NYS GIS Data Clearinghouse
  5. Esri World Imagery



PROJECT TITLE

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Syosset to Oakwood Project

SHEET TITLE

Figure 4-3  
PEJA and DAC  
Crossed by the Project

Page 2 of 4

SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025

DRN. BY CR/MK

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FIGURE NO. 4-3

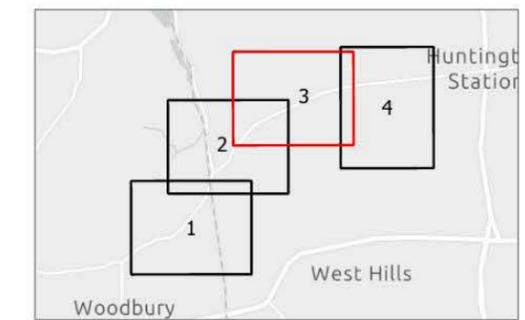
**BURNS MCDONNELL**

**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Potential Environmental Justice Area (PEJA) Community
  - Disadvantaged Community (DAC)

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. NYSDEC PEJA, June 2022
  3. NYSERDA DAC, March 2023
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  5. Esri World Imagery



PROJECT TITLE



Syosset to Oakwood Project

SHEET TITLE  
 Figure 4-3  
 PEJA and DAC  
 Crossed by the Project

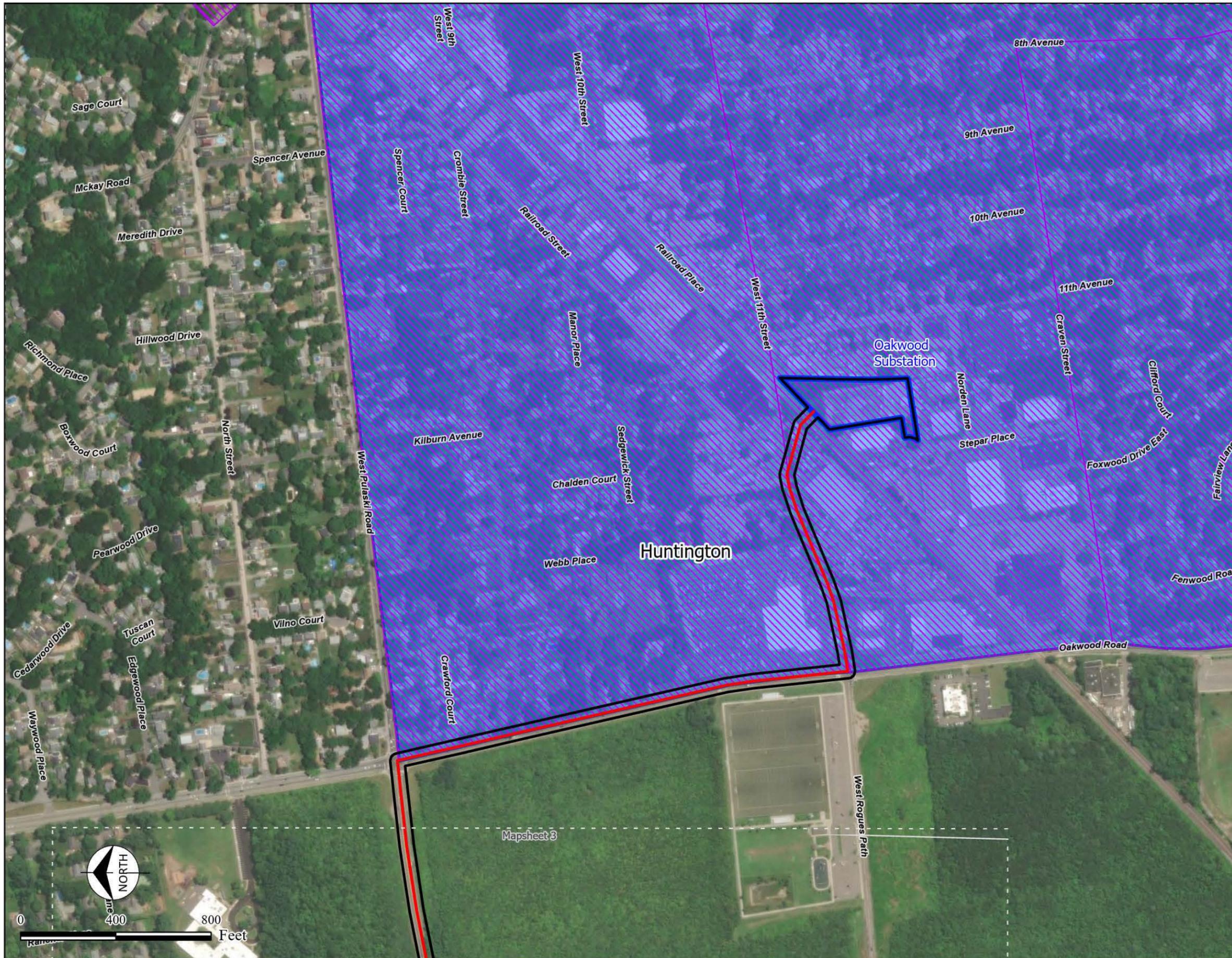
Page 3 of 4

SCALE 1" = 400' (Printed on 11"x17")

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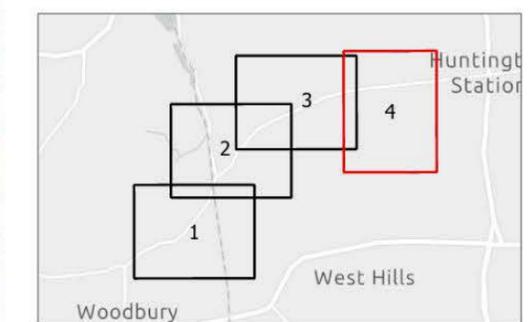
FIGURE NO. 4-3

**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Potential Environmental Justice Area (PEJA) Community
  - Disadvantaged Community (DAC)

- Sources:
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  3. NYSERDA DAC, March 2023
  4. NYS GIS Data Clearinghouse
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PROJECT TITLE

**PSEG | LONG ISLAND**

Syosset to Oakwood Project

SHEET TITLE

Figure 4-3  
PEJA and DAC  
Crossed by the Project

Page 4 of 4

SCALE 1" = 400' (Printed on 11"x17")

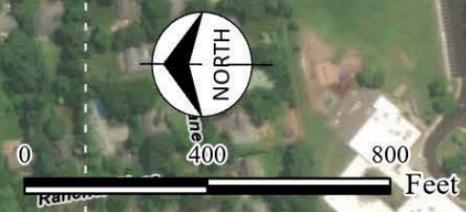
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DRN. BY CR/MK

CHK. BY SH

FIGURE NO. 4-3

**PRELIMINARY - NOT FOR CONSTRUCTION**



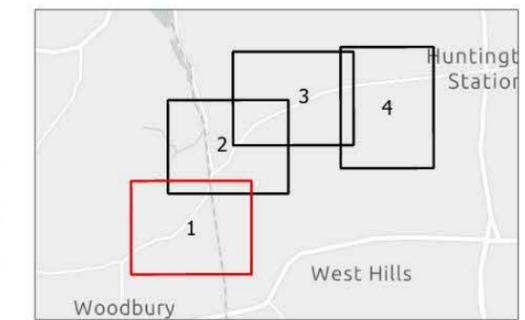
**Figure 4-4 FEMA-Designated Flood Hazard Areas  
Crossed by the Project**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - 0.2% Annual Chance Flood Hazard
  - 1% Annual Chance Flood Hazard
  - Future Conditions 1% Annual Chance Flood Hazard
  - Regulatory Floodway
  - Area with Reduced Risk Due to Levee
  - Special Floodway

\*FEMA Flood Hazard Data is not present within current extent\*

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. USA Flood Hazard Reduced Set, FEMA, Accessed March 2025
  3. Esri World Imagery



PROJECT TITLE



Syosset to Oakwood Project

SHEET TITLE  
 Figure 4-4  
 FEMA-Designated Flood Hazard Areas  
 Crossed by the Project

Page 1 of 4

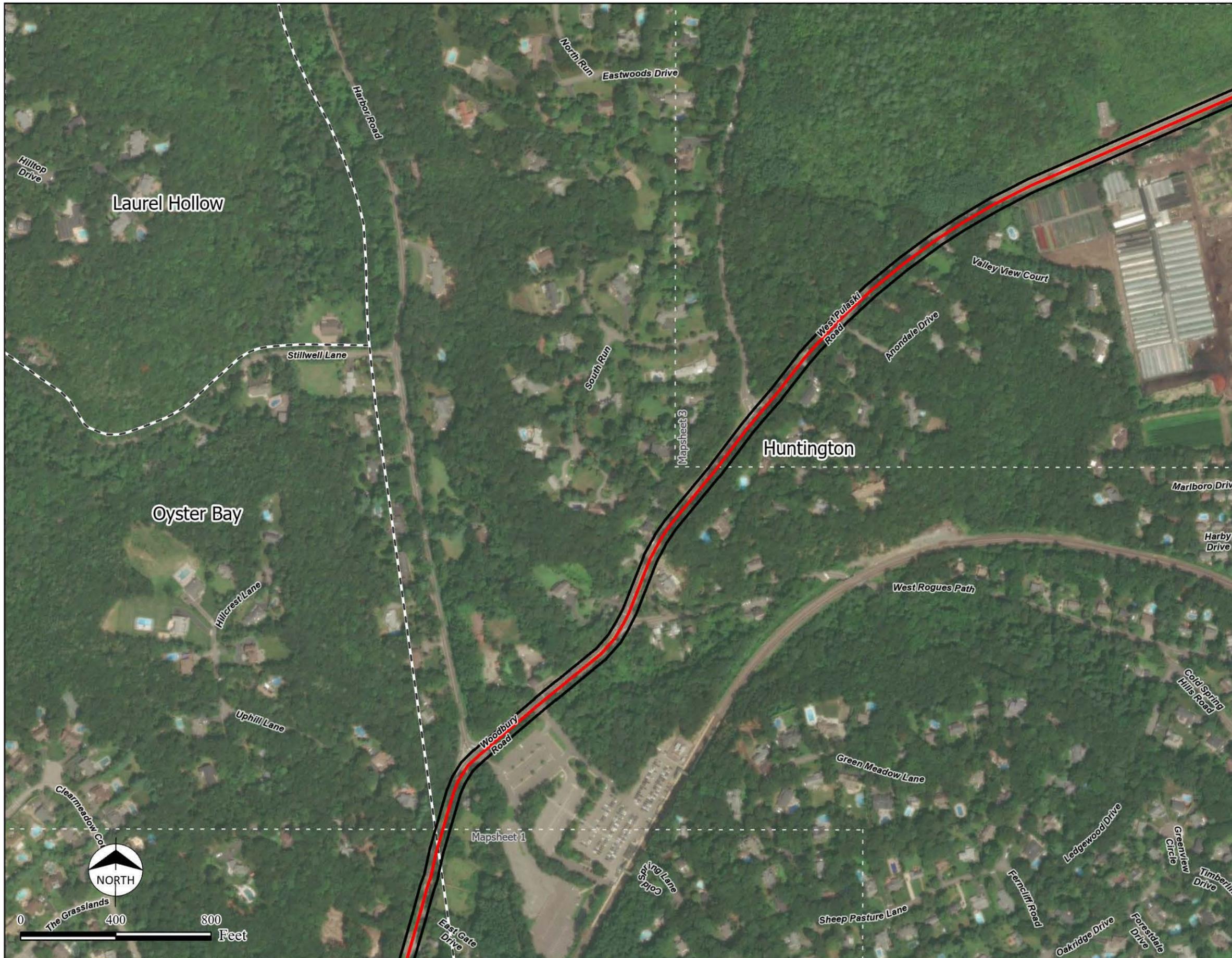
SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025  
 DRN. BY CR/MK  
 CHK. BY SH



FIGURE NO. 4-4

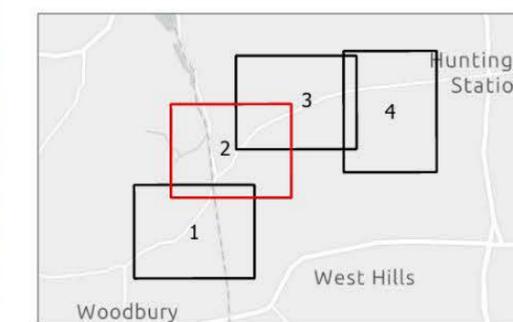
**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - 0.2% Annual Chance Flood Hazard
  - 1% Annual Chance Flood Hazard
  - Future Conditions 1% Annual Chance Flood Hazard
  - Regulatory Floodway
  - Area with Reduced Risk Due to Levee
  - Special Floodway

\*FEMA Flood Hazard Data is not present within current extent\*

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. USA Flood Hazard Reduced Set, FEMA, Accessed March 2025
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**PROJECT TITLE**

**PSEG** | LONG ISLAND

Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-4  
 FEMA-Designated Flood Hazard Areas  
 Crossed by the Project

Page 2 of 4  
 SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025

DRN. BY CR/MK

CHK. BY SH

FIGURE NO. 4-4

**PRELIMINARY - NOT FOR CONSTRUCTION**

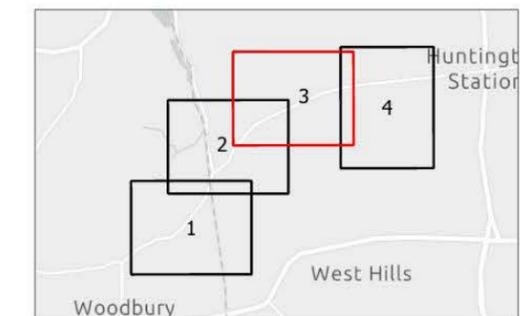


**LEGEND**

- Proposed Route
- Proposed Area of Disturbance
- Parcel
- Town/Village Boundary
- Mapsheet Matchline
- 0.2% Annual Chance Flood Hazard
- 1% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
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- Area with Reduced Risk Due to Levee
- Special Floodway

\*FEMA Flood Hazard Data is not present within current extent\*

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. USA Flood Hazard Reduced Set, FEMA, Accessed March 2025
  3. Esri World Imagery



**PROJECT TITLE**



Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-4  
FEMA-Designated Flood Hazard Areas  
Crossed by the Project

Page 3 of 4

SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025  
DRN. BY CR/MK  
CHK. BY SH



FIGURE NO. 4-4

**PRELIMINARY - NOT FOR CONSTRUCTION**

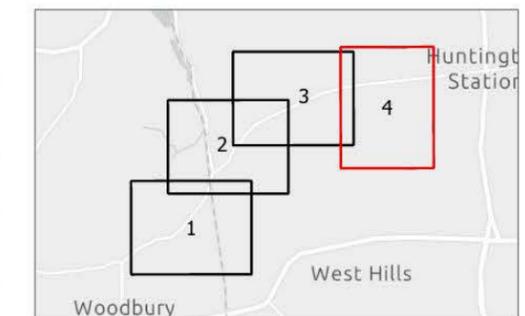


**LEGEND**

- Proposed Route
- Proposed Area of Disturbance
- Parcel
- Town/Village Boundary
- Mapsheet Matchline
- 0.2% Annual Chance Flood Hazard
- 1% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area with Reduced Risk Due to Levee
- Special Floodway

\*FEMA Flood Hazard Data is not present within current extent\*

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. USA Flood Hazard Reduced Set, FEMA, Accessed March 2025
  3. Esri World Imagery



**PROJECT TITLE**



**Syosset to Oakwood Project**

**SHEET TITLE**

Figure 4-4  
FEMA-Designated Flood Hazard Areas  
Crossed by the Project

Page 4 of 4

SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025  
DRN. BY CR/MK  
CHK. BY SH



FIGURE NO. 4-4

**PRELIMINARY - NOT FOR CONSTRUCTION**

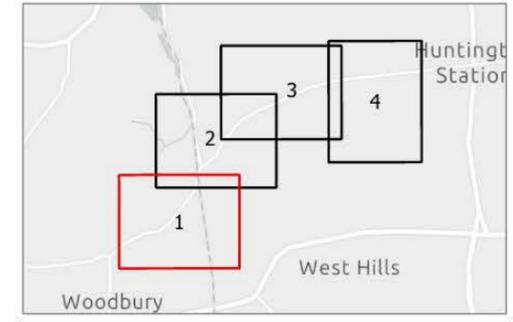
**Figure 4-5 Agricultural Districts Crossed by the Project**



- LEGEND**
- Proposed Route
  - Proposed Area of Disturbance
  - Parcel
  - Town/Village Boundary
  - Mapsheet Matchline
  - Agricultural District

\*No NYS Agricultural Districts are in Nassau County\*

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. NYSDOS Agricultural Districts, Accessed March 2025
  3. ESRI World Imagery



**PROJECT TITLE**

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Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-5  
Agricultural Districts  
Crossed by the Project

Page 1 of 4  
SCALE 1" = 400' (Printed on 11"x17")

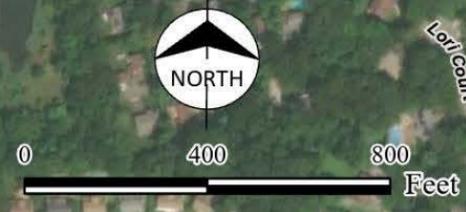
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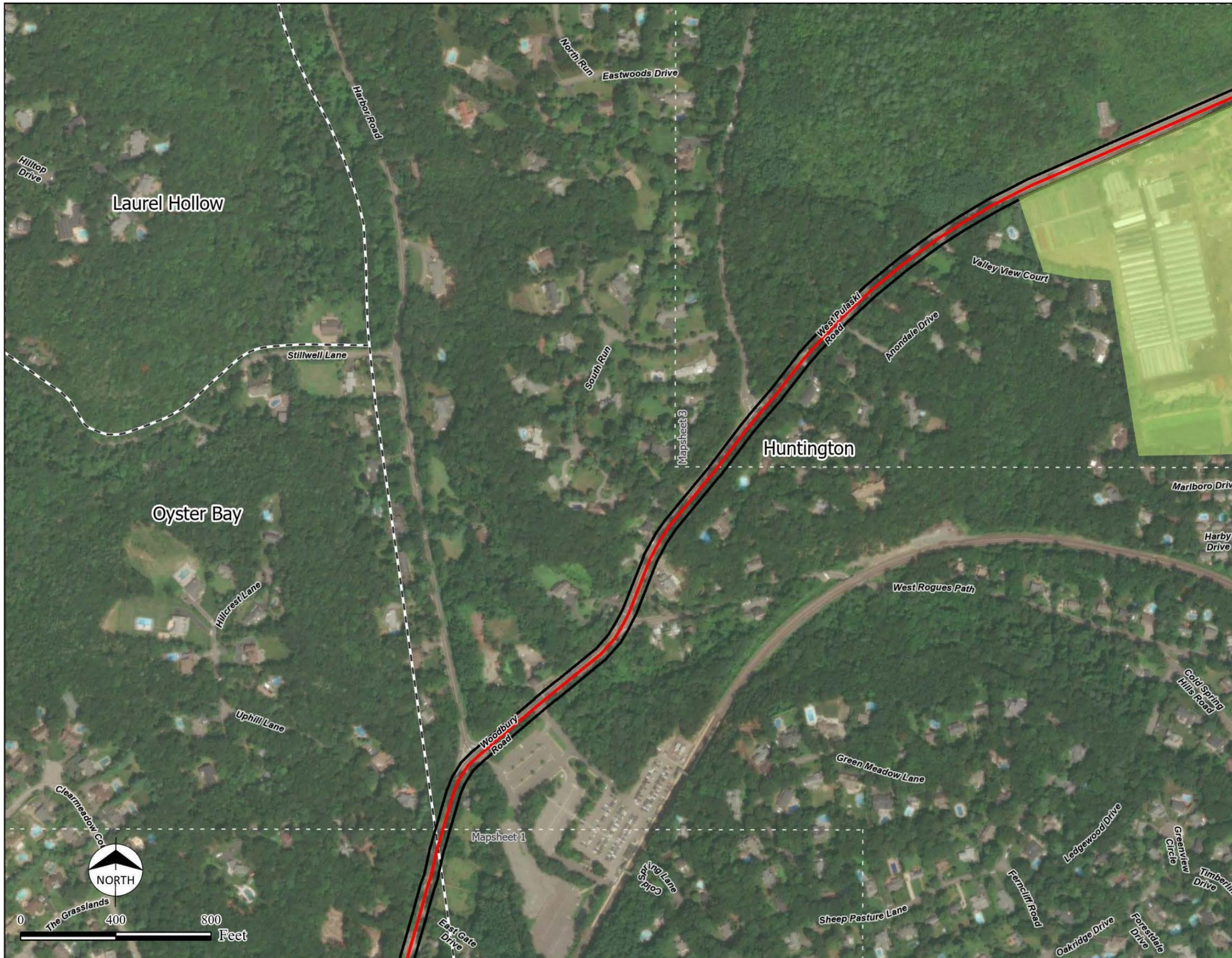
DRN. BY CR/MK

CHK. BY SH

FIGURE NO. 4-5

**PRELIMINARY - NOT FOR CONSTRUCTION**



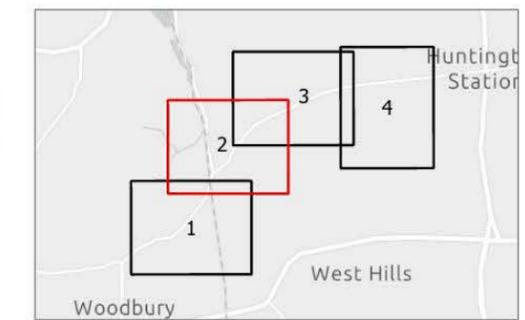


LEGEND

- Proposed Route
- Proposed Area of Disturbance
- Parcel
- Town/Village Boundary
- Mapsheet Matchline
- Agricultural District

\*No NYS Agricultural Districts are in Nassau County\*

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. NYSDOS Agricultural Districts, Accessed March 2025
  3. ESRI World Imagery



PROJECT TITLE



Syosset to Oakwood Project

SHEET TITLE

Figure 4-5  
Agricultural Districts  
Crossed by the Project

Page 2 of 4

SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025

DRN. BY CR/MK

CHK. BY SH

FIGURE NO. 4-5



PRELIMINARY - NOT FOR CONSTRUCTION

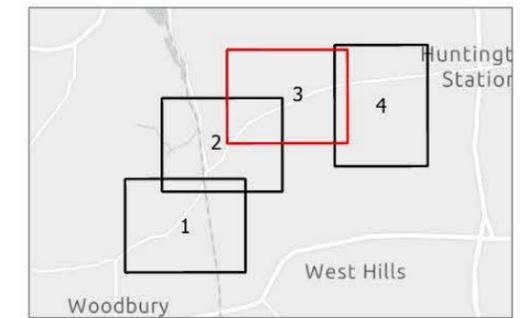


**LEGEND**

- Proposed Route
- Proposed Area of Disturbance
- Parcel
- Town/Village Boundary
- Mapsheet Matchline
- Agricultural District

\*No NYS Agricultural Districts are in Nassau County\*

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. NYSDOS Agricultural Districts, Accessed March 2025
  3. ESRI World Imagery



**PROJECT TITLE**



Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-5  
Agricultural Districts  
Crossed by the Project

Page 3 of 4

SCALE 1" = 400' (Printed on 11"x17")

DATE 04/11/2025  
DRN. BY CR/MK  
CHK. BY SH



FIGURE NO. 4-5

**PRELIMINARY - NOT FOR CONSTRUCTION**

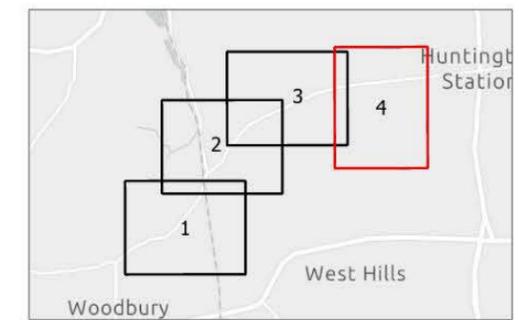


**LEGEND**

- Proposed Route
- Proposed Area of Disturbance
- Parcel
- Town/Village Boundary
- Mapsheet Matchline
- Agricultural District

\*No NYS Agricultural Districts are in Nassau County\*

- Sources:
1. Project details prepared by Burns & McDonnell, January 2025
  2. NYSDOS Agricultural Districts, Accessed March 2025
  3. ESRI World Imagery



**PROJECT TITLE**



Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-5  
Agricultural Districts  
Crossed by the Project

Page 4 of 4

SCALE 1" = 400' (Printed on 11"x17")

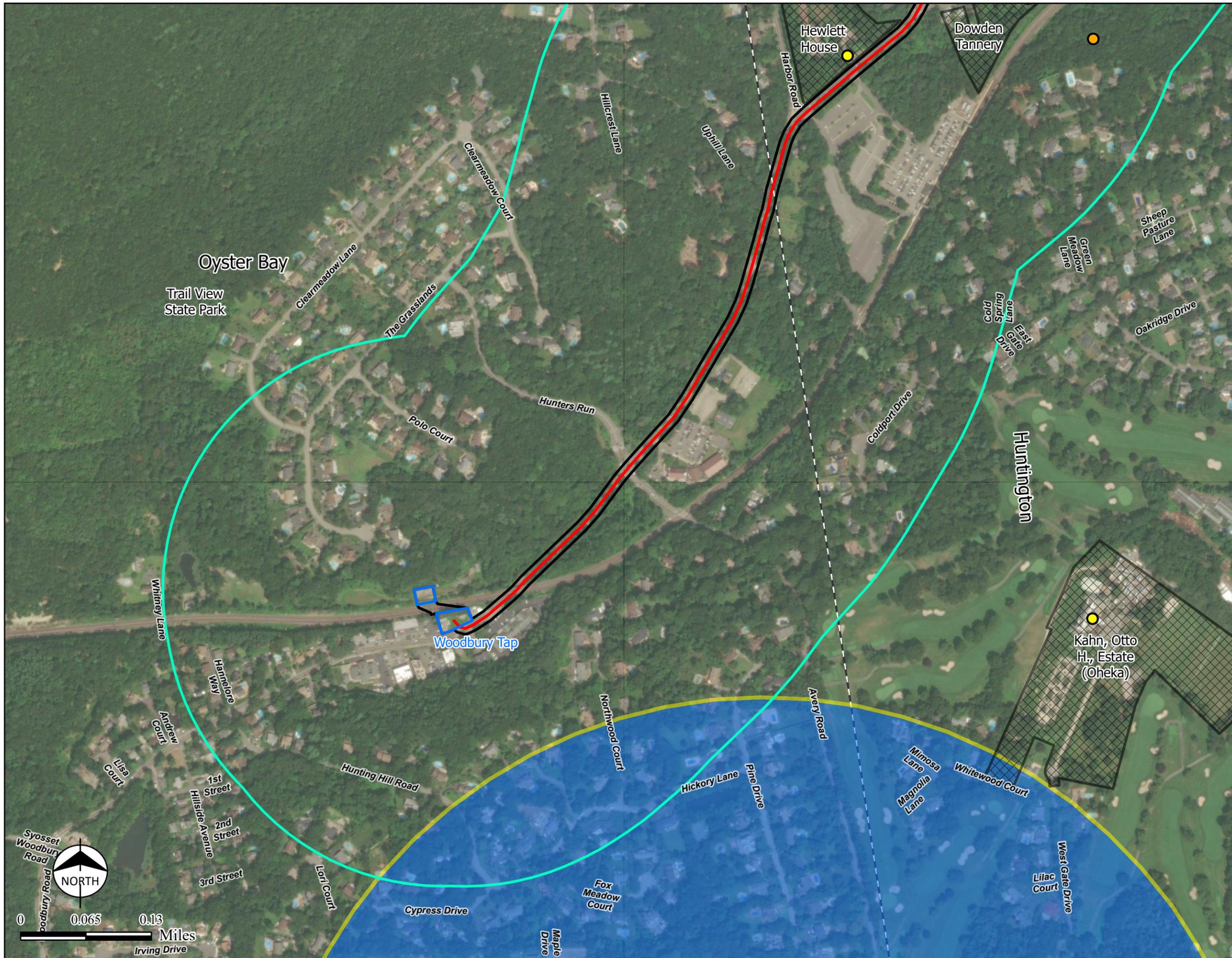
DATE 04/11/2025  
DRN. BY CR/MK  
CHK. BY SH



FIGURE NO. 4-5

**PRELIMINARY - NOT FOR CONSTRUCTION**

**Figure 4-6 Cultural Resources Within a Quarter Mile  
of the Project**



**LEGEND**

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Substation Parcel
- Town/Village Boundary
- Archaeological Buffer Areas
- National Register Building Listings

**Building USN Points**

- Listed
- Undetermined

**Sources:**

1. Prepared details prepared by Burns & McDonnell, January 2025.
2. Division for Historic Preservation, New York State Office of Parks, Recreation and Historic Preservation - Building Points, Building Districts, National Register Building Listings, and Archaeological Buffer Areas, 01/2025
3. ESRI World Imagery, January 2025.



**PROJECT TITLE**

**PSEG | LONG ISLAND**

Syosset to Oakwood

**SHEET TITLE**

Figure 4-6  
Cultural Resources Within a  
Quarter Mile of the Project

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025

DRN. BY: DO

CHK. BY: KB

FIGURE NO. 4-6 Page 1 of 3

**BURNS  
MCDONNELL**

**P&S**

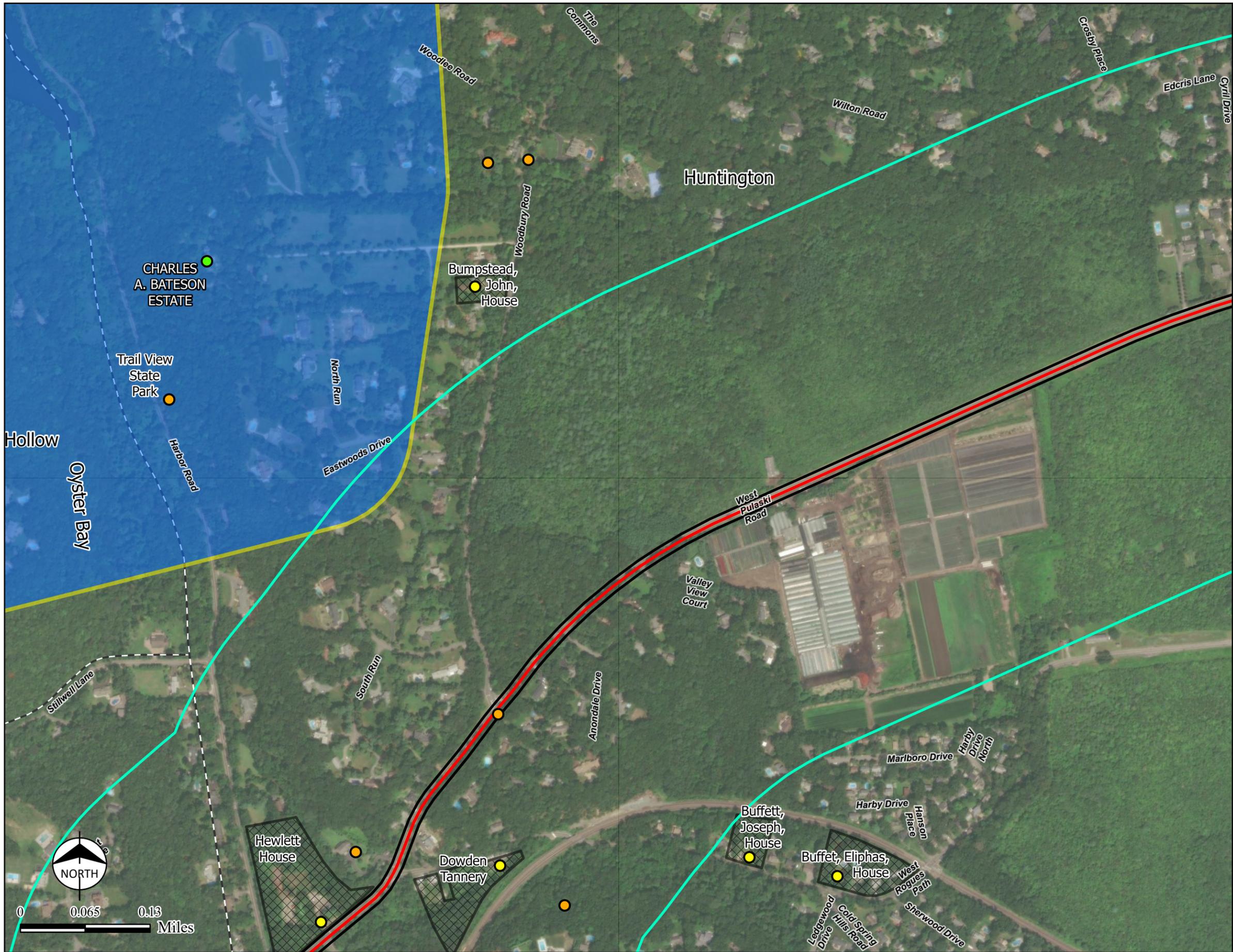
PRELIMINARY - NOT FOR CONSTRUCTION

NORTH

0 0.065 0.13 Miles

Irving Drive

ESRI, METI/NASA, NGA, USGS, US Census Bureau, FEMA, TomTom, Garmin, FAO, NOAA, EPA, NPS, USFWS, SafeGraph, GeoTechnologies, Inc



**LEGEND**

- 1/4 Mile Buffer of Proposed Area of Disturbance
  - Proposed Route
  - Proposed Area of Disturbance
  - Town/Village Boundary
  - Archaeological Buffer Areas
  - National Register Building Listings
- Building USN Points**
- Eligible
  - Listed
  - Undetermined

**Sources:**  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. Division for Historic Preservation, New York State Office of Parks, Recreation and Historic Preservation - Building Points, Building Districts, National Register Building Listings, and Archaeological Buffer Areas, 01/2025  
 3. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-6  
 Cultural Resources Within a  
 Quarter Mile of the Project

SCALE 1" = 500' (Printed on 11"x17")

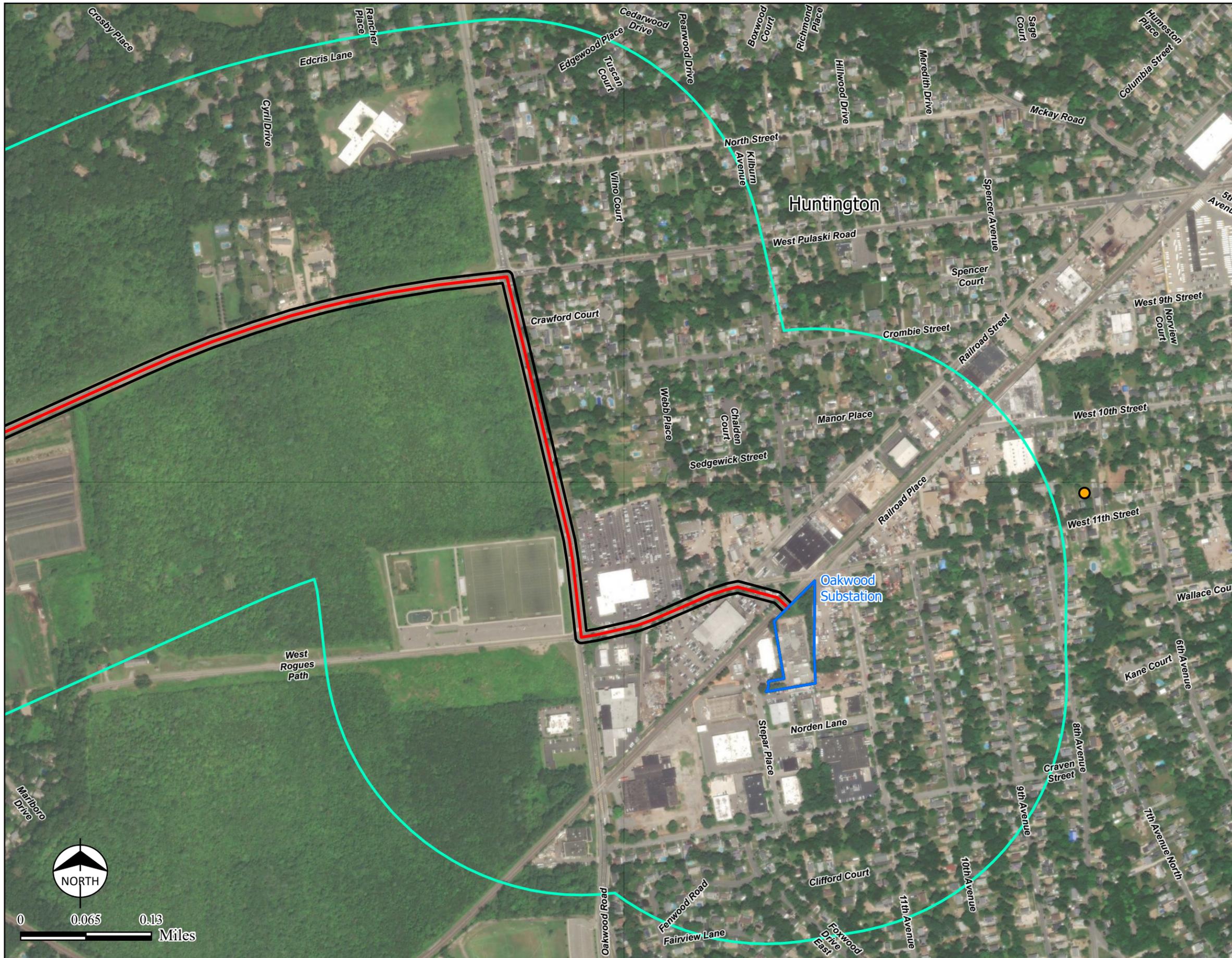
DATE 3/26/2025  
 DRN. BY: DO  
 CHK. BY: KB



FIGURE NO. 4-6 Page 2 of 3

**PRELIMINARY - NOT FOR CONSTRUCTION**

ESRI, METI/NASA, NGA, USGS, US Census Bureau, FEMA, TomTom, Garmin, FAO, NOAA, EPA, NPS, USFWS, SafeGraph, GeoTechnologies, Inc



LEGEND

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Substation Parcel
- Town/Village Boundary
- Building USN Points
  - Undetermined

Sources:  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. Division for Historic Preservation, New York State Office of Parks, Recreation and Historic Preservation - Building Points, Building Districts, National Register Building Listings, and Archaeological Buffer Areas, 01/2025  
 3. ESRI World Imagery, January 2025.



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-6  
 Cultural Resources Within a  
 Quarter Mile of the Project

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025

DRN. BY: DO

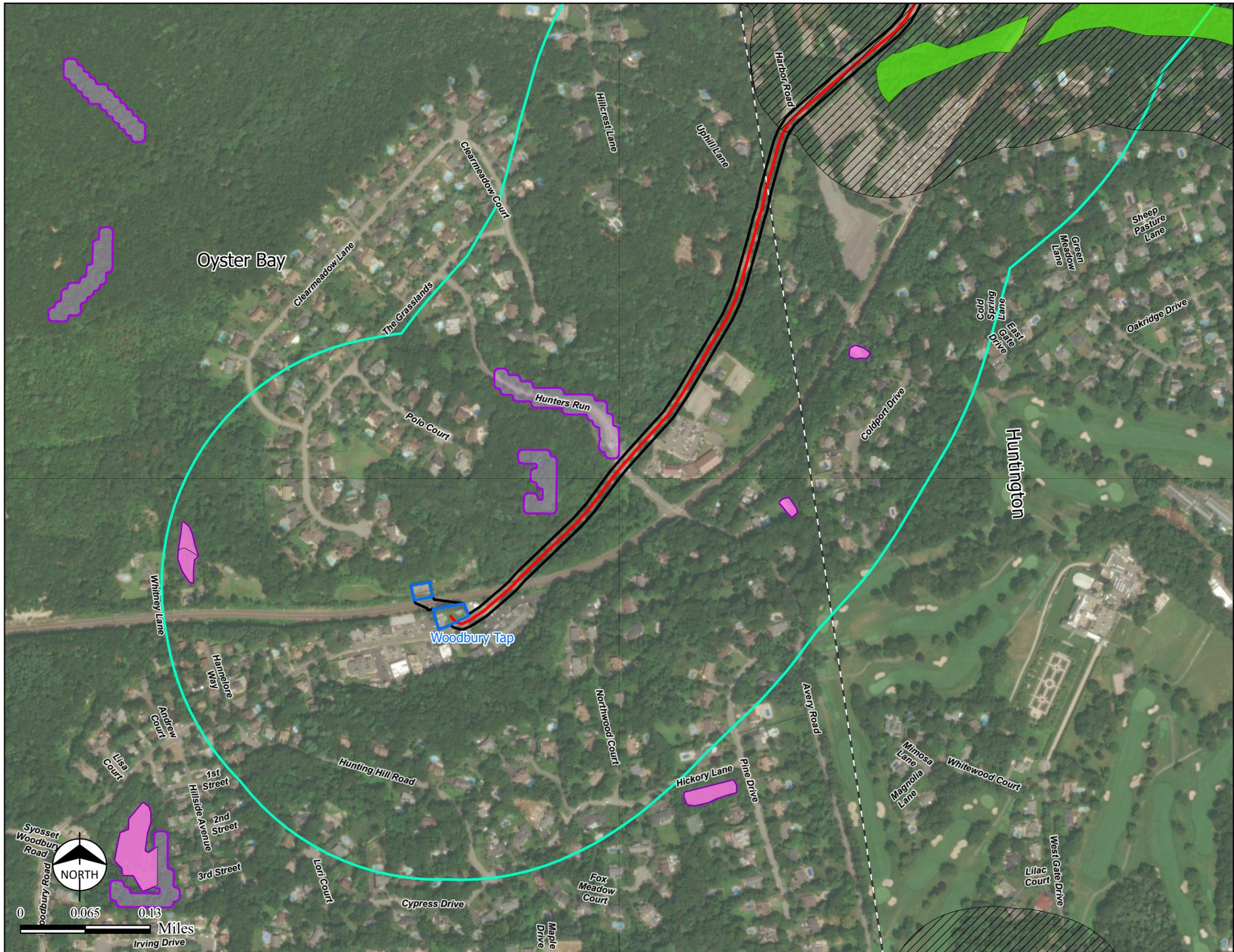
CHK. BY: KB

FIGURE NO. 4-6 Page 3 of 3



PRELIMINARY - NOT FOR CONSTRUCTION

**Figure 4-7 Wetlands and Waterbodies Crossed by the Project**



**LEGEND**

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Substation Parcel
- NYSDEC Previously Mapped Freshwater Wetlands
- NYSDEC Wetland Checkzones
- USFWS NWI Wetlands & Waterbodies
- NYSDEC Informational Freshwater Wetland Mapping

**Sources:**  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. NYSDEC Previously Mapped Freshwater Wetlands, 12/30/2024.  
 3. NYSDEC Informational Freshwater Wetland Mapping, 01/21/2025.  
 4. USGS National Hydrography Dataset, 06/22/2020.  
 4. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-7  
 Wetlands and Waterbodies  
 Crossed by the Project

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025

DRN. BY: DO

CHK. BY: KB

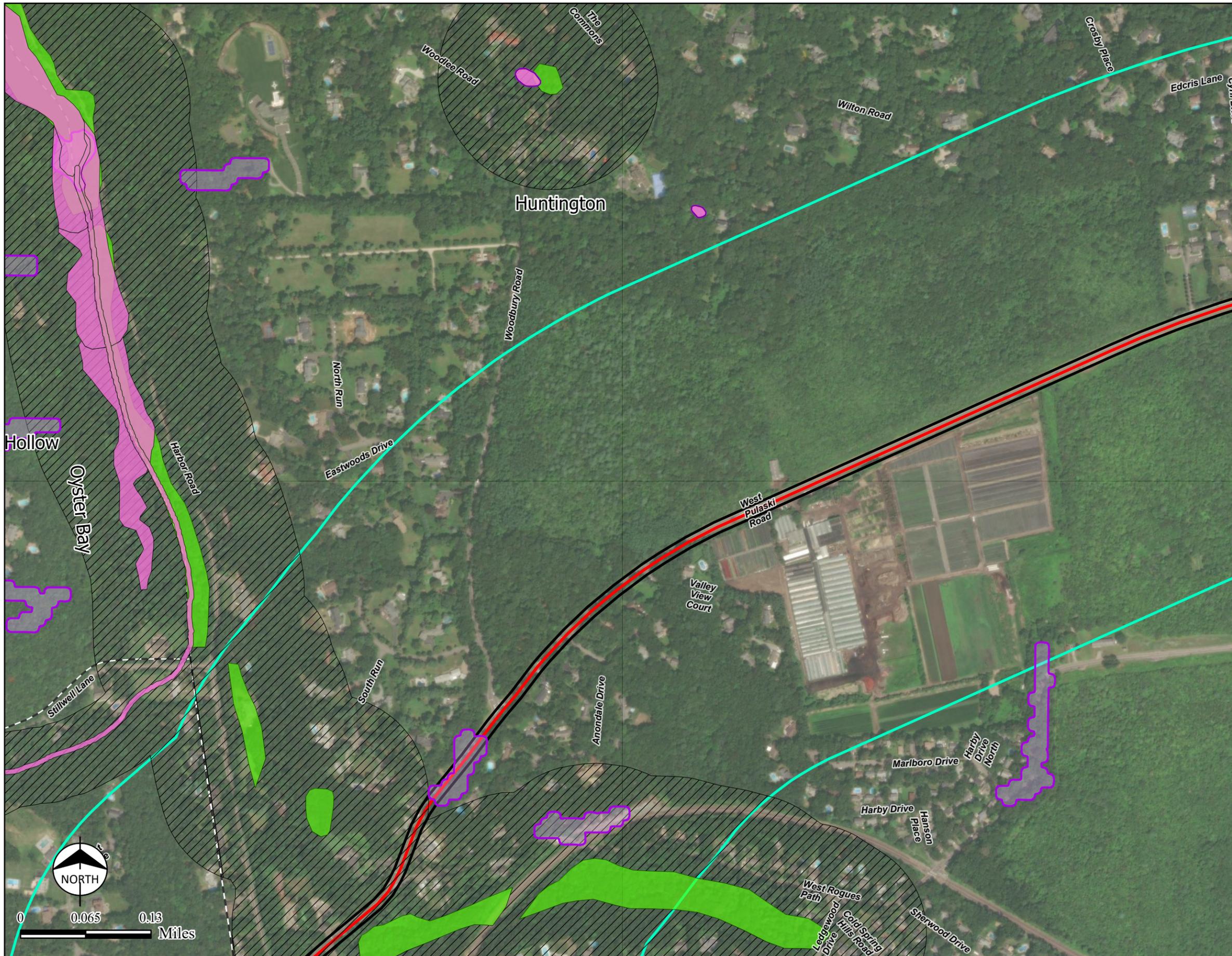
FIGURE NO. 4-7

Page 1 of 3



**PRELIMINARY - NOT FOR CONSTRUCTION**

ESRI, METI/NASA, NGA, USGS, US Census Bureau, FEMA, TomTom, Garmin, FAO, NOAA, EPA, NPS, USFWS, SafeGraph, GeoTechnologies, Inc



**LEGEND**

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Town/Village Boundary
- NYSDEC Previously Mapped Freshwater Wetlands
- NYSDEC Wetland Checkzones
- USFWS NWI Wetlands & Waterbodies
- NYSDEC Informational Freshwater Wetland Mapping

**Sources:**

1. Prepared details prepared by Burns & McDonnell, January 2025.
2. NYSDEC Previously Mapped Freshwater Wetlands, 12/30/2024.
3. NYSDEC Informational Freshwater Wetland Mapping, 01/21/2025.
4. USGS National Hydrography Dataset, 06/22/2020.
4. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-7  
Wetlands and Waterbodies  
Crossed by the Project

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025

DRN. BY: DO

CHK. BY: KB

FIGURE NO. 4-7

Page 2 of 3



**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- 1/4 Mile Buffer of Proposed Area of Disturbance
  - Proposed Route
  - Proposed Area of Disturbance
  - Substation Parcel
  - USFWS NWI Wetlands & Waterbodies
  - NYSDEC Informational Freshwater Wetland Mapping

**Sources:**

1. Prepared details prepared by Burns & McDonnell, January 2025.
2. NYSDEC Previously Mapped Freshwater Wetlands, 12/30/2024.
3. NYSDEC Informational Freshwater Wetland Mapping, 01/21/2025.
4. USGS National Hydrography Dataset, 06/22/2020.
4. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-7  
Wetlands and Waterbodies  
Crossed by the Project

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025  
DRN. BY: DO  
CHK. BY: KB



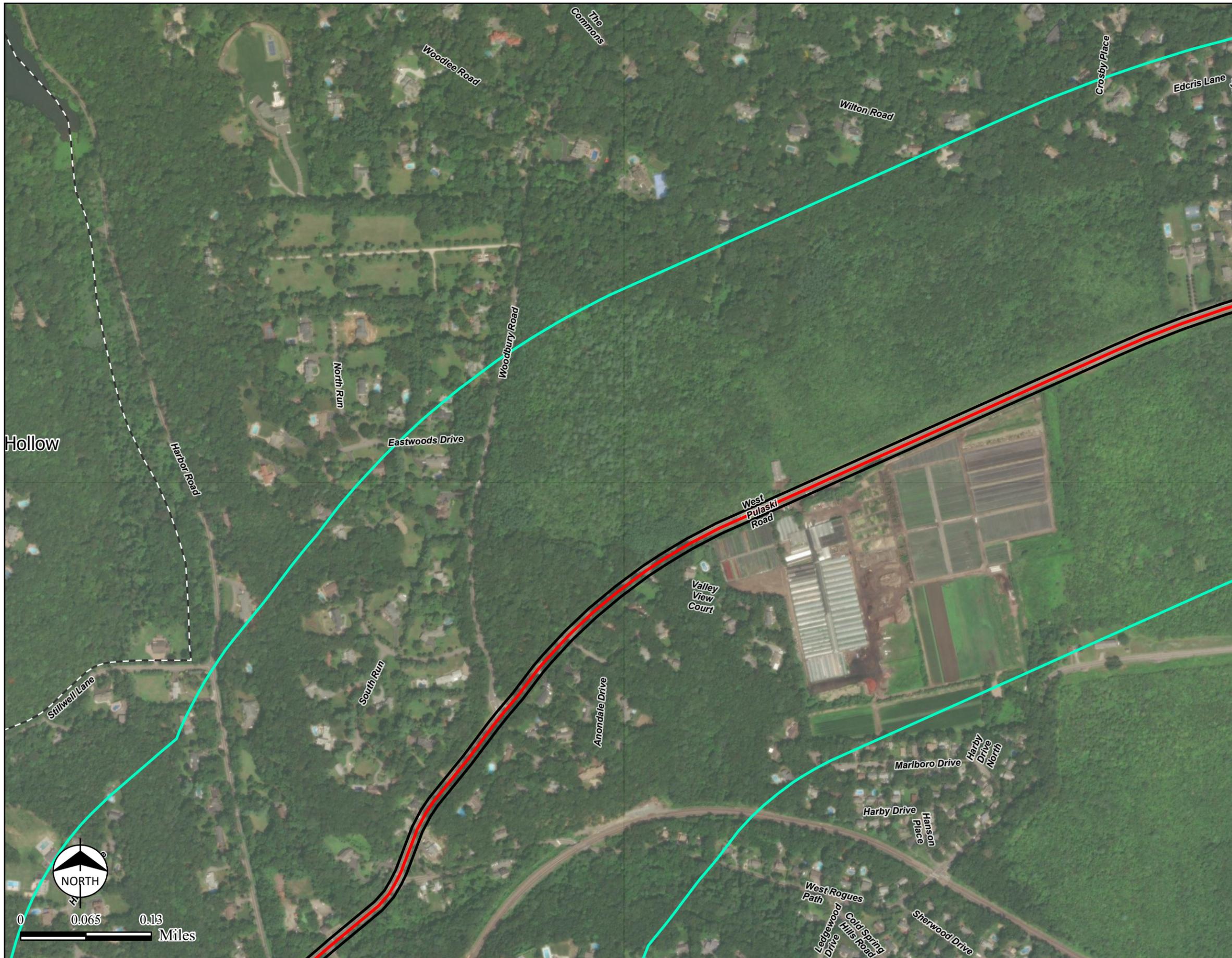
FIGURE NO. 4-7 Page 3 of 3

**PRELIMINARY - NOT FOR CONSTRUCTION**

ESRI, METI/NASA, NGA, USGS, US Census Bureau, FEMA, TomTom, Garmin, FAO, NOAA, EPA, NPS, USFWS, SafeGraph, GeoTechnologies, Inc

**Figure 4-8 Natural Heritage Communities Within a  
Quarter Mile of the Project**





LEGEND

-  1/4 Mile Buffer of Proposed Area of Disturbance
-  Proposed Route
-  Proposed Area of Disturbance
-  Town/Village Boundary

Notes:  
 1. Natural Heritage Community data is not present within current map extent.

Sources:  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. NYSDEC Natural Heritage Communities, 11/14/2024  
 3. ESRI World Imagery, January 2025



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-8  
 Natural Heritage Communities  
 Within a Quarter Mile  
 of the Project

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025

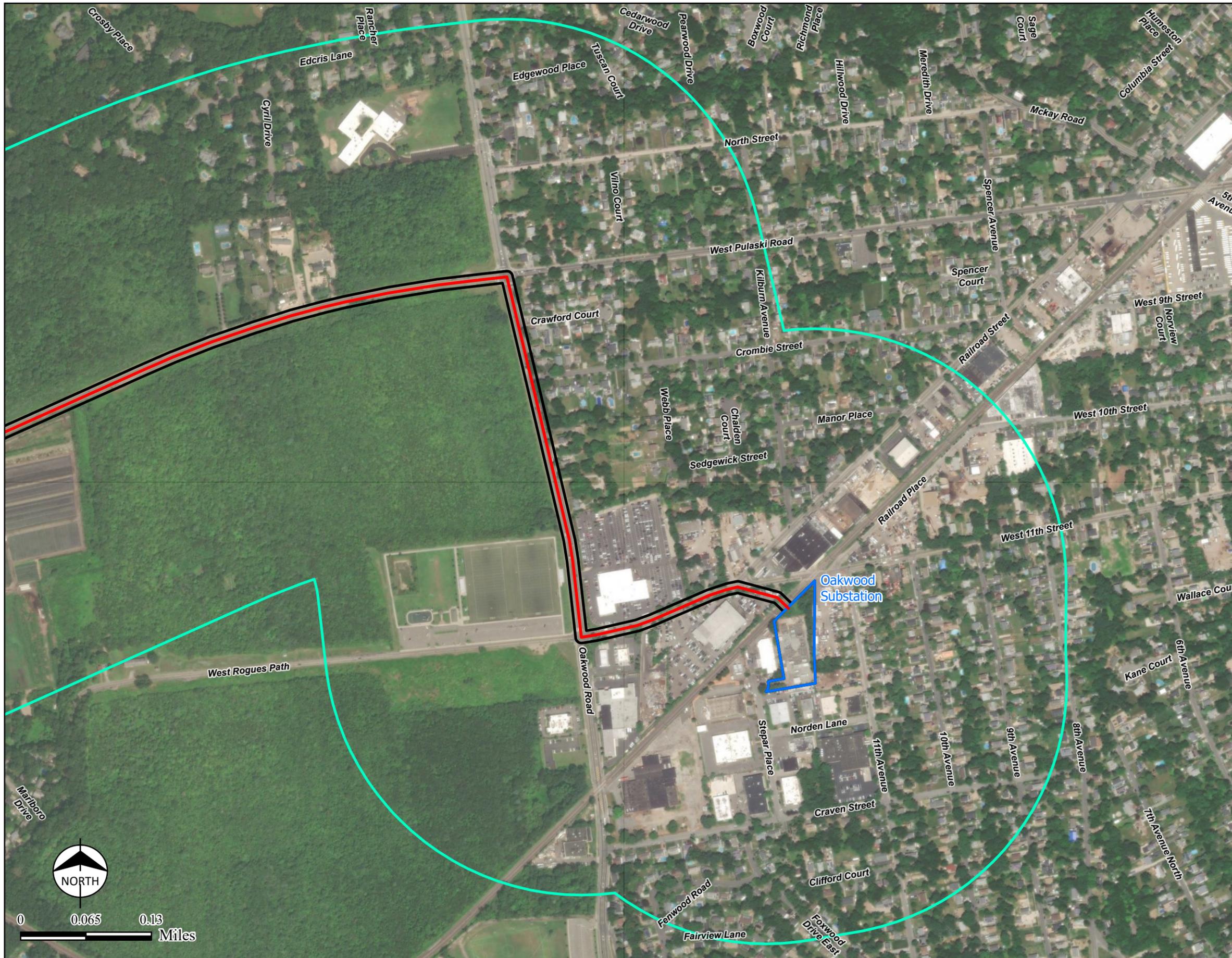
DRN. BY: DO

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FIGURE NO. 4-8 Page 2 of 3



PRELIMINARY - NOT FOR CONSTRUCTION



LEGEND

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Substation Parcel

Notes:  
 1. Natural Heritage Community data is not present within current map extent.

Sources:  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. NYSDEC Natural Heritage Communities, 11/14/2024  
 3. ESRI World Imagery, January 2025



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-8  
 Natural Heritage Communities  
 Within a Quarter Mile  
 of the Project

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025

DRN. BY: DO

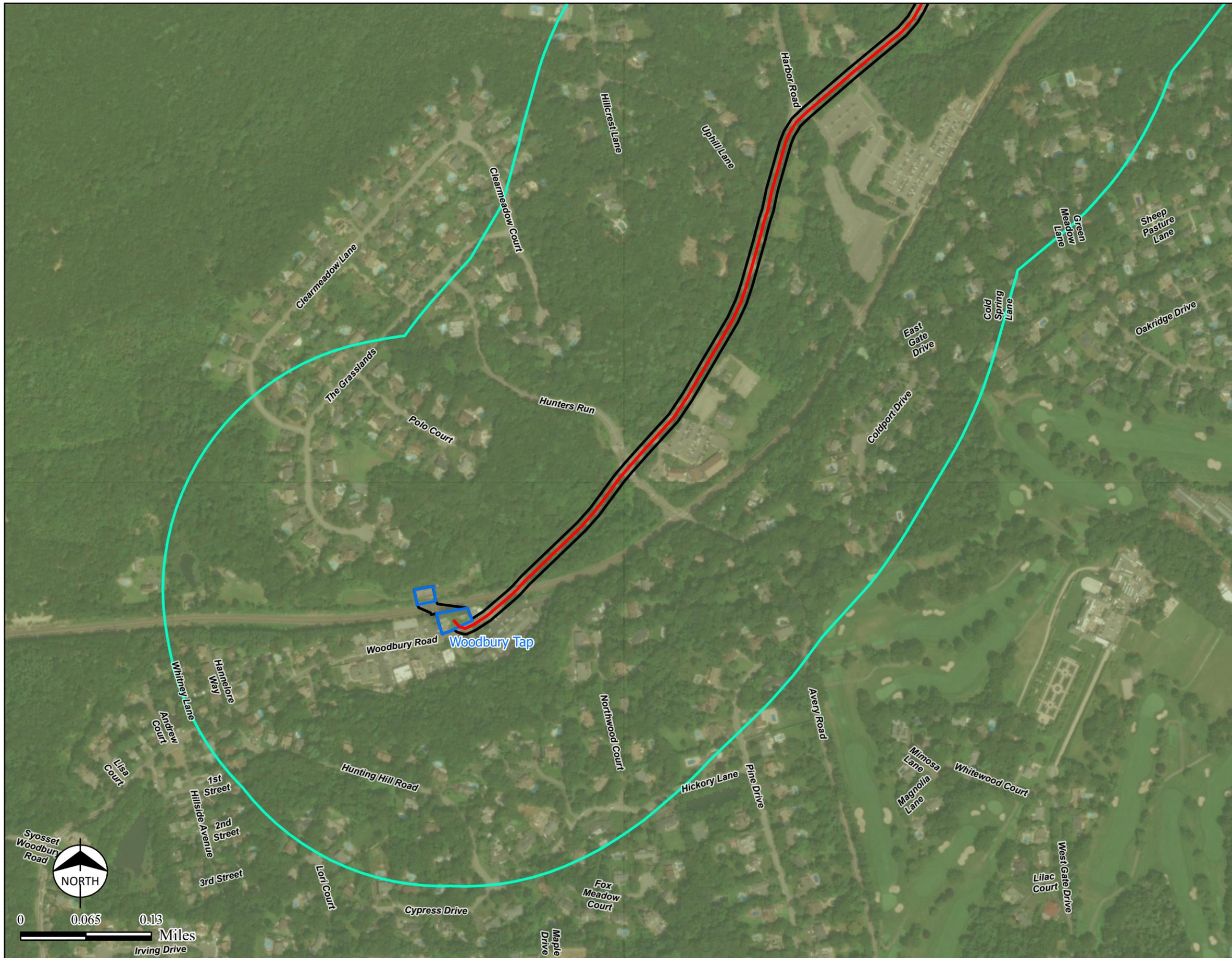
CHK. BY: KB

FIGURE NO. 4-8 Page 3 of 3



PRELIMINARY - NOT FOR CONSTRUCTION

## **Figure 4-9 Depth to Bedrock**



**LEGEND**

- 1/4 Mile Buffer of Proposed Area of Disturbance
  - New Proposed Route
  - Proposed Area of Disturbance
  - Substation Parcel
- Depth to Bedrock
- 0 - 2000'

Sources:  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. NYS Geologic Survey, Lower Hudson Bedrock, 1995  
 3. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-9  
 Depth to Bedrock

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/25/2025

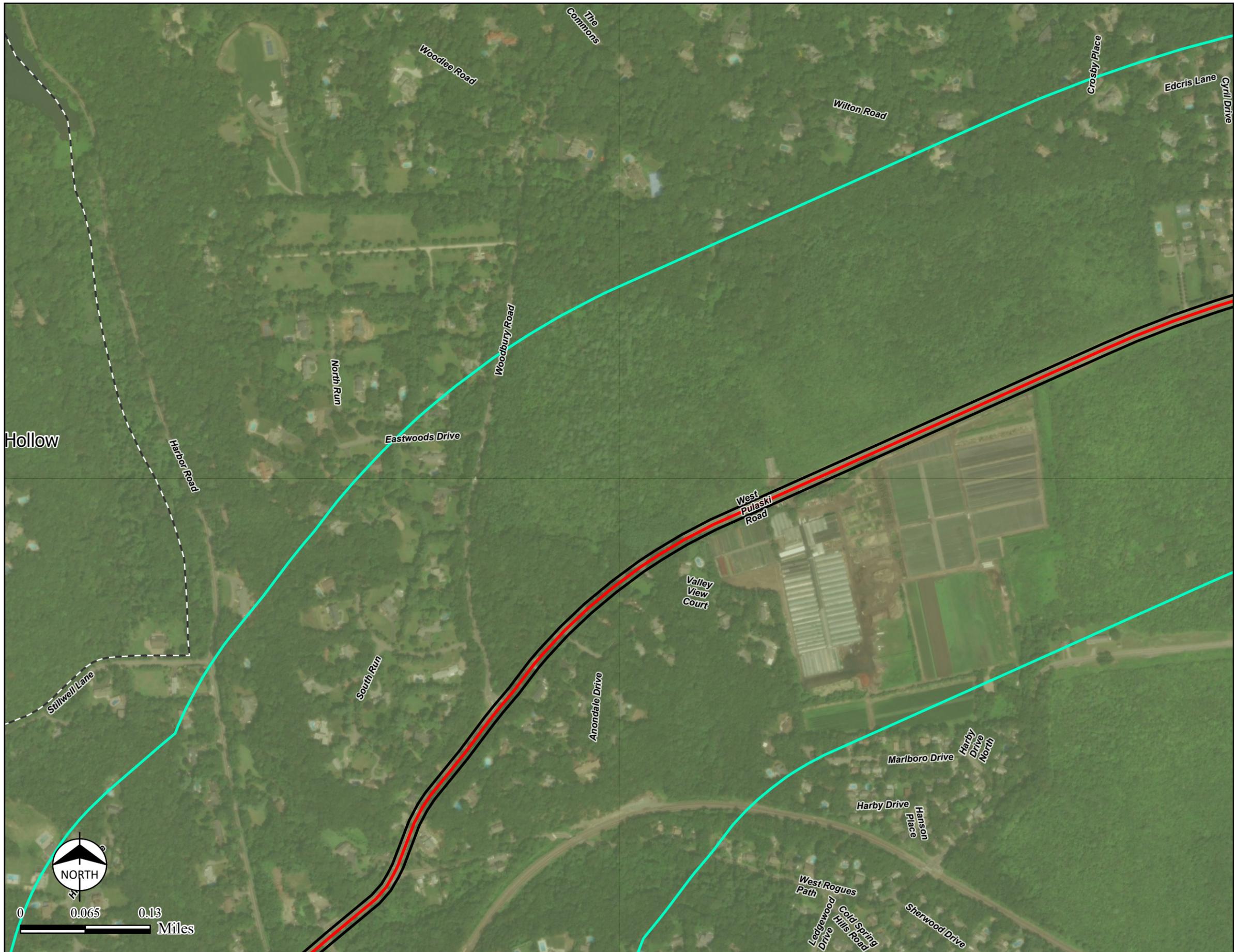
DRN. BY: DO

CHK. BY: KB

FIGURE NO. 4-9 Page 1 of 3



**PRELIMINARY - NOT FOR CONSTRUCTION**



**LEGEND**

- 1/4 Mile Buffer of Proposed Area of Disturbance
- New Proposed Route
- Proposed Area of Disturbance
- Substation Parcel
- Town/Village Boundary

**Depth to Bedrock**

- 0 - 2000'

Sources:  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. NYS Geologic Survey, Lower Hudson Bedrock, 1995  
 3. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-9  
 Depth to Bedrock

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/25/2025  
 DRN. BY: DO  
 CHK. BY: KB  
 FIGURE NO. 4-9 Page 2 of 3




**PRELIMINARY - NOT FOR CONSTRUCTION**

ESRI, METI/NASA, NGA, USGS, US Census Bureau, FEMA, TomTom, Garmin, FAO, NOAA, EPA, NPS, USFWS, SafeGraph, GeoTechnologies, Inc



LEGEND

-  1/4 Mile Buffer of Proposed Area of Disturbance
  -  New Proposed Route
  -  Proposed Area of Disturbance
  -  Substation Parcel
- Depth to Bedrock
-  0 - 2000'

- Sources:
1. Prepared details prepared by Burns & McDonnell, January 2025.
  2. NYS Geologic Survey, Lower Hudson Bedrock, 1995
  3. ESRI World Imagery, January 2025.



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-9  
Depth to Bedrock

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/25/2025

DRN. BY: DO

CHK. BY: KB

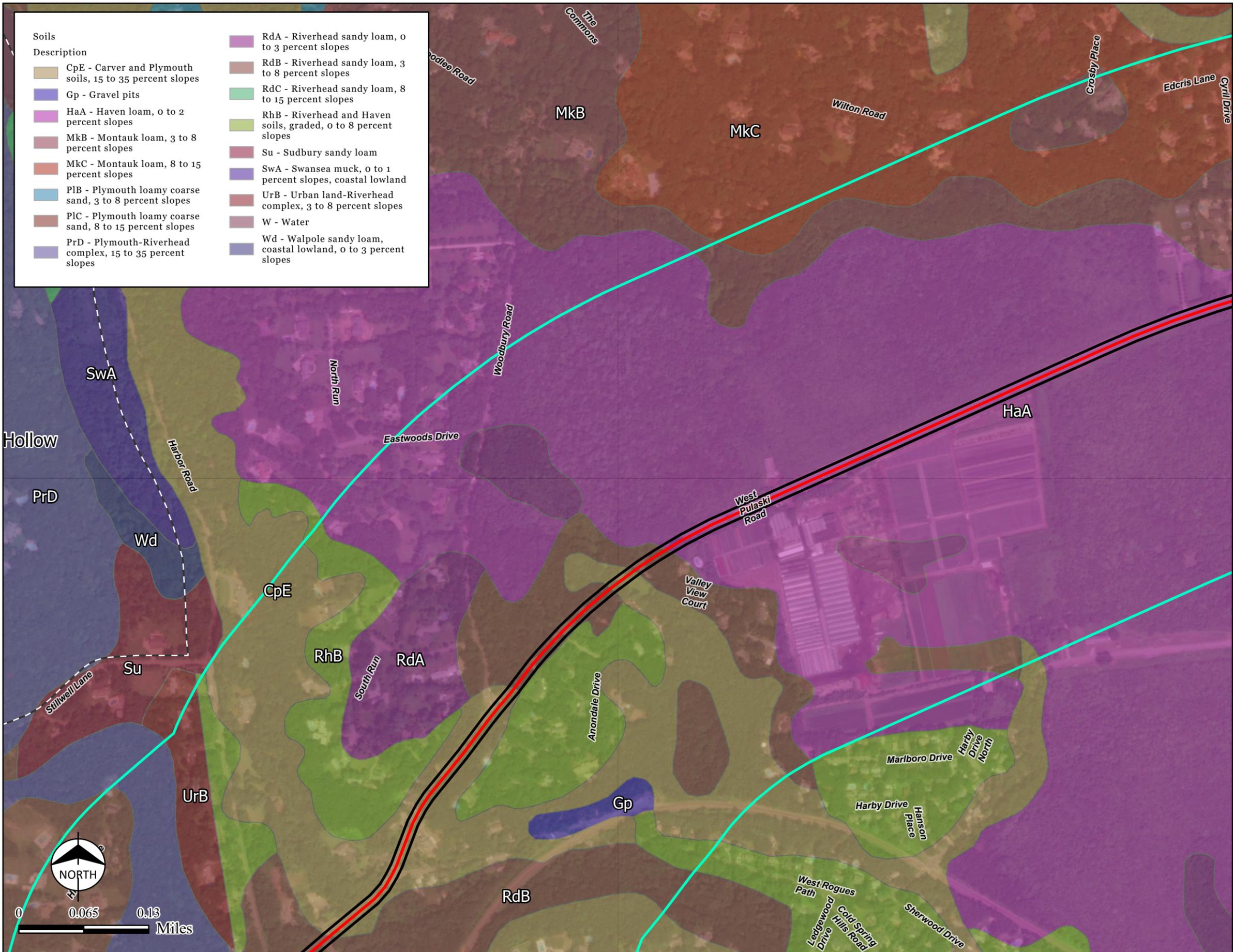
FIGURE NO. 4-9 Page 3 of 3



PRELIMINARY - NOT FOR CONSTRUCTION

## **Figure 4-10 Soils Crossed by the Project**





LEGEND

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Town/Village Boundary

Sources:  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. Soil Survey Geographic (SSURGO) database for Nassau & Suffolk County, New York, 2020  
 3. ESRI World Imagery, January 2025.



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-10  
 Soils Crossed  
 by the Project

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025

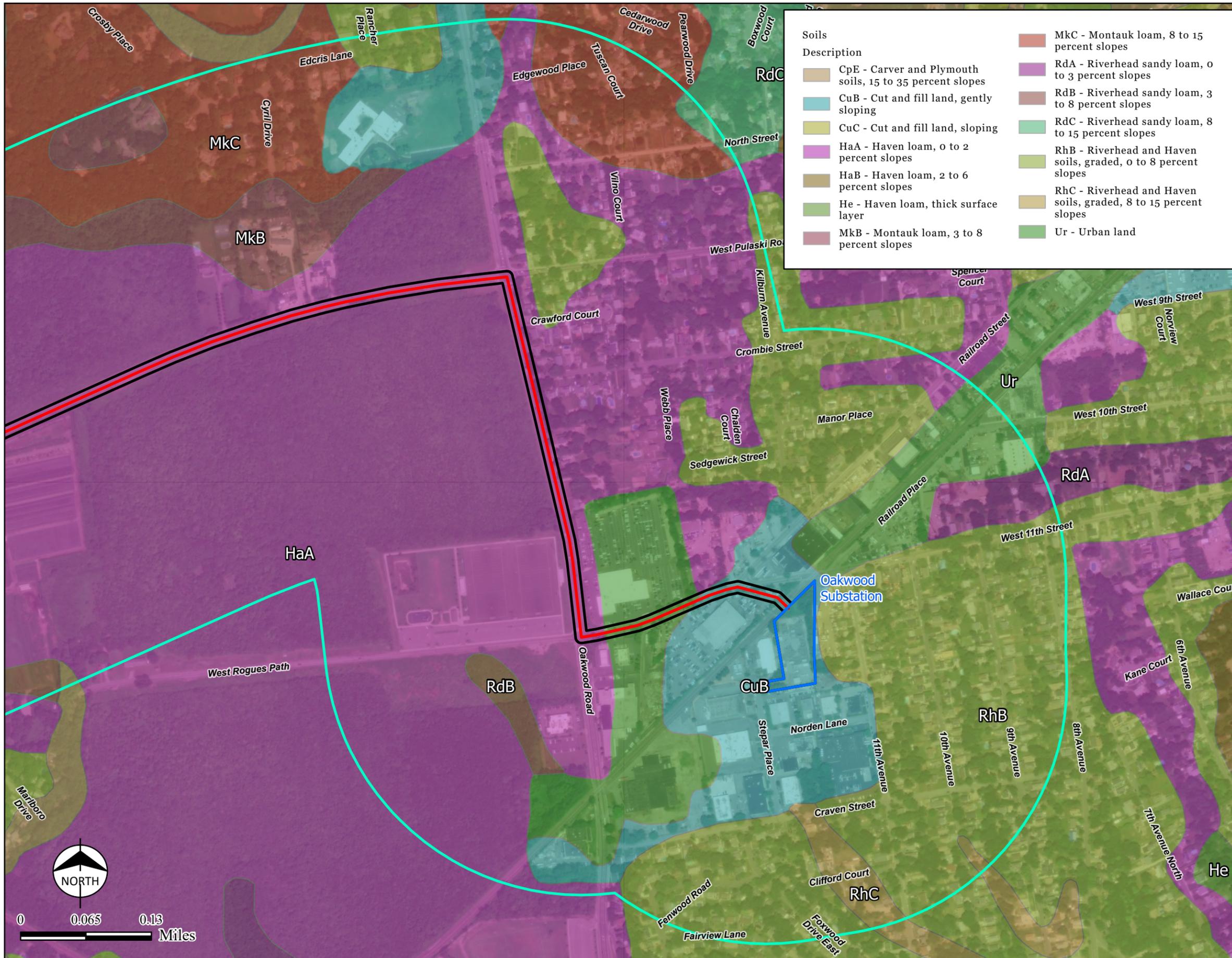
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FIGURE NO. 4-10 Page 2 of 3



PRELIMINARY - NOT FOR CONSTRUCTION



Soils	
Description	
CpE - Carver and Plymouth soils, 15 to 35 percent slopes	MkC - Montauk loam, 8 to 15 percent slopes
CuB - Cut and fill land, gently sloping	RdA - Riverhead sandy loam, 0 to 3 percent slopes
CuC - Cut and fill land, sloping	RdB - Riverhead sandy loam, 3 to 8 percent slopes
HaA - Haven loam, 0 to 2 percent slopes	RdC - Riverhead sandy loam, 8 to 15 percent slopes
HaB - Haven loam, 2 to 6 percent slopes	RhB - Riverhead and Haven soils, graded, 0 to 8 percent slopes
He - Haven loam, thick surface layer	RhC - Riverhead and Haven soils, graded, 8 to 15 percent slopes
MkB - Montauk loam, 3 to 8 percent slopes	Ur - Urban land

**LEGEND**

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Substation Parcel

**Sources:**  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. Soil Survey Geographic (SSURGO) database for Nassau & Suffolk County, New York, 2020  
 3. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-10  
 Soils Crossed  
 by the Project

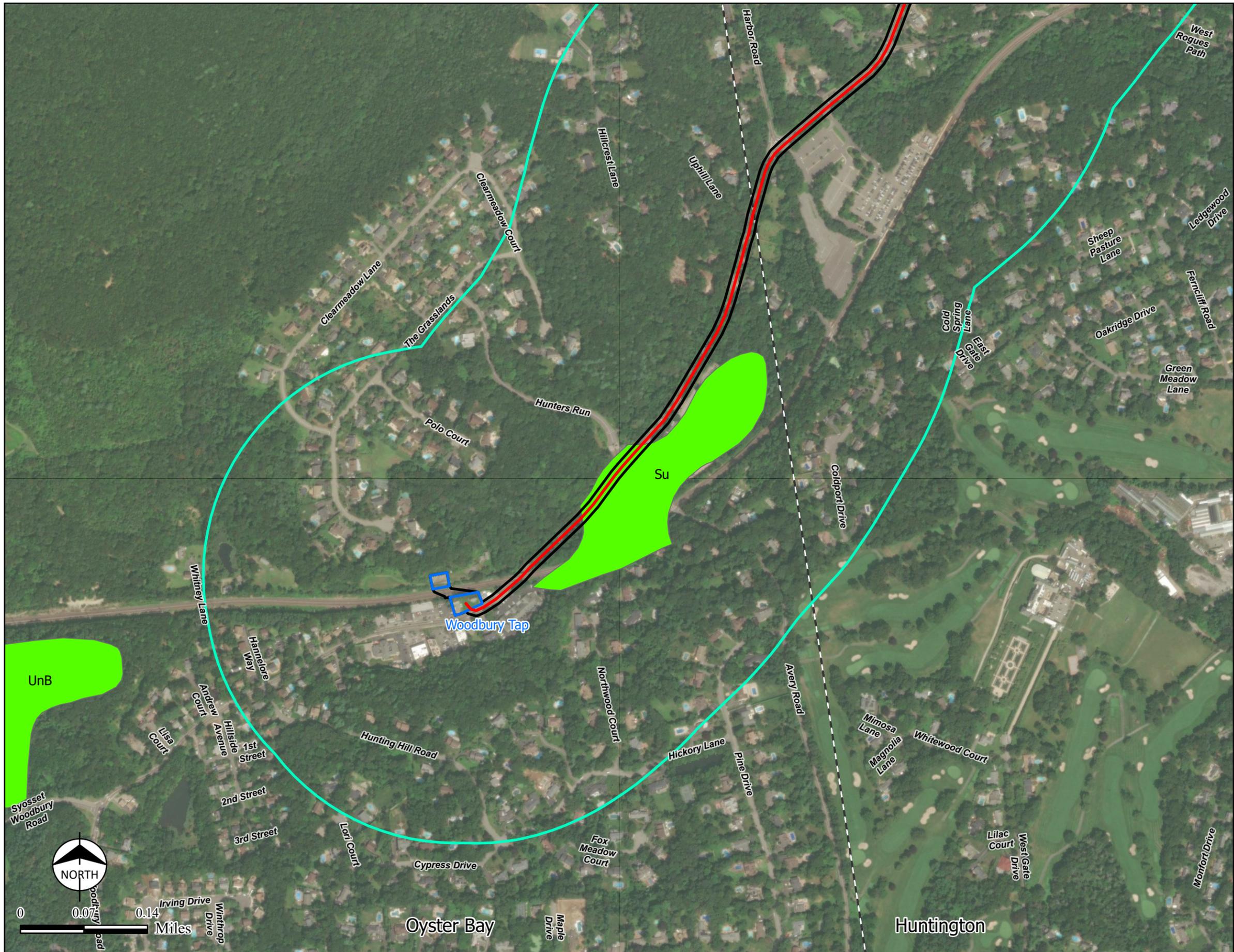
SCALE 1" = 500' (Printed on 11"x17")

DATE 3/26/2025  
 DRN. BY: DO  
 CHK. BY: KB  
 FIGURE NO. 4-10 Page 3 of 3



**PRELIMINARY - NOT FOR CONSTRUCTION**

## **Figure 4-11 Hydric Soils Crossed by the Project**



- LEGEND**
- 1/4 Mile Buffer of Proposed Area of Disturbance
  - Proposed Route
  - Proposed Area of Disturbance
  - Hydric Soil
  - Substation Parcel
  - Town/Village Boundary

**Hydric Soils Classification:**

Su - Sudbury sandy loam  
 UnB - Urban land-Montauk complex, 3 to 8 percent slopes

- Sources:**
1. Prepared details prepared by Burns & McDonnell, January 2025.
  2. Soil Survey Geographic (SSURGO) database for Nassau & Suffolk County, New York, 2020
  3. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-11  
 Hydric Soils  
 Crossed by the Project

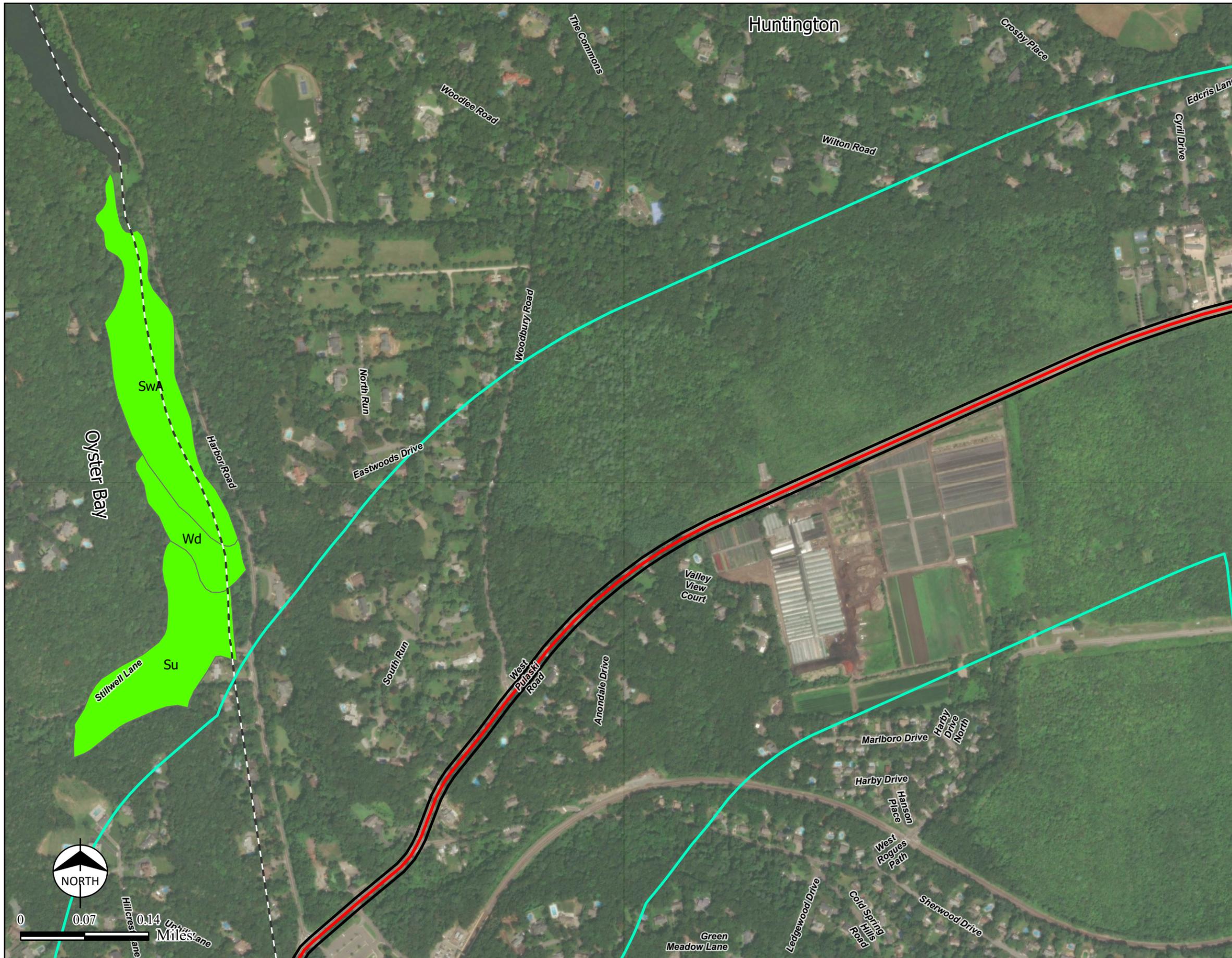
SCALE 1" = 550' (Printed on 11"x17")

DATE 3/26/2025  
 DRN. BY: DO  
 CHK. BY: KB  
 FIGURE NO. 4-11 Page 1 of 3



**PRELIMINARY - NOT FOR CONSTRUCTION**

ESRI, METI/NASA, NGA, USGS, US Census Bureau, FEMA, TomTom, Garmin, FAO, NOAA, EPA, NPS, USFWS, SafeGraph, GeoTechnologies, Inc



**LEGEND**

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Hydric Soil
- Substation Parcel
- Town/Village Boundary

**Hydric Soils Classification:**

- Su - Sudbury sandy loam
- SwA - Swansea muck, 0 to 1 percent slopes, coastal lowland
- Wd - Walpole sandy loam, coastal lowland, 0 to 3 percent slopes

**Sources:**

1. Prepared details prepared by Burns & McDonnell, January 2025.
2. Soil Survey Geographic (SSURGO) database for Nassau & Suffolk County, New York, 2020
3. ESRI World Imagery, January 2025.



**PROJECT TITLE**



Syosset to Oakwood

**SHEET TITLE**

Figure 4-11  
Hydric Soils  
Crossed by the Project

SCALE 1" = 550' (Printed on 11"x17")

DATE 3/26/2025

DRN. BY: DO

CHK. BY: KB

FIGURE NO. 4-11 Page 2 of 3



**PRELIMINARY - NOT FOR CONSTRUCTION**



LEGEND

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Hydric Soil
- Substation Parcel
- Town/Village Boundary

Note:  
1. There are no hydric soils within the map extent

Sources:  
1. Prepared details prepared by Burns & McDonnell, January 2025.  
2. Soil Survey Geographic (SSURGO) database for Nassau & Suffolk County, New York, 2020  
3. ESRI World Imagery, January 2025.



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-11  
Hydric Soils  
Crossed by the Project

SCALE 1" = 550' (Printed on 11"x17")

DATE 3/26/2025

DRN. BY: DO

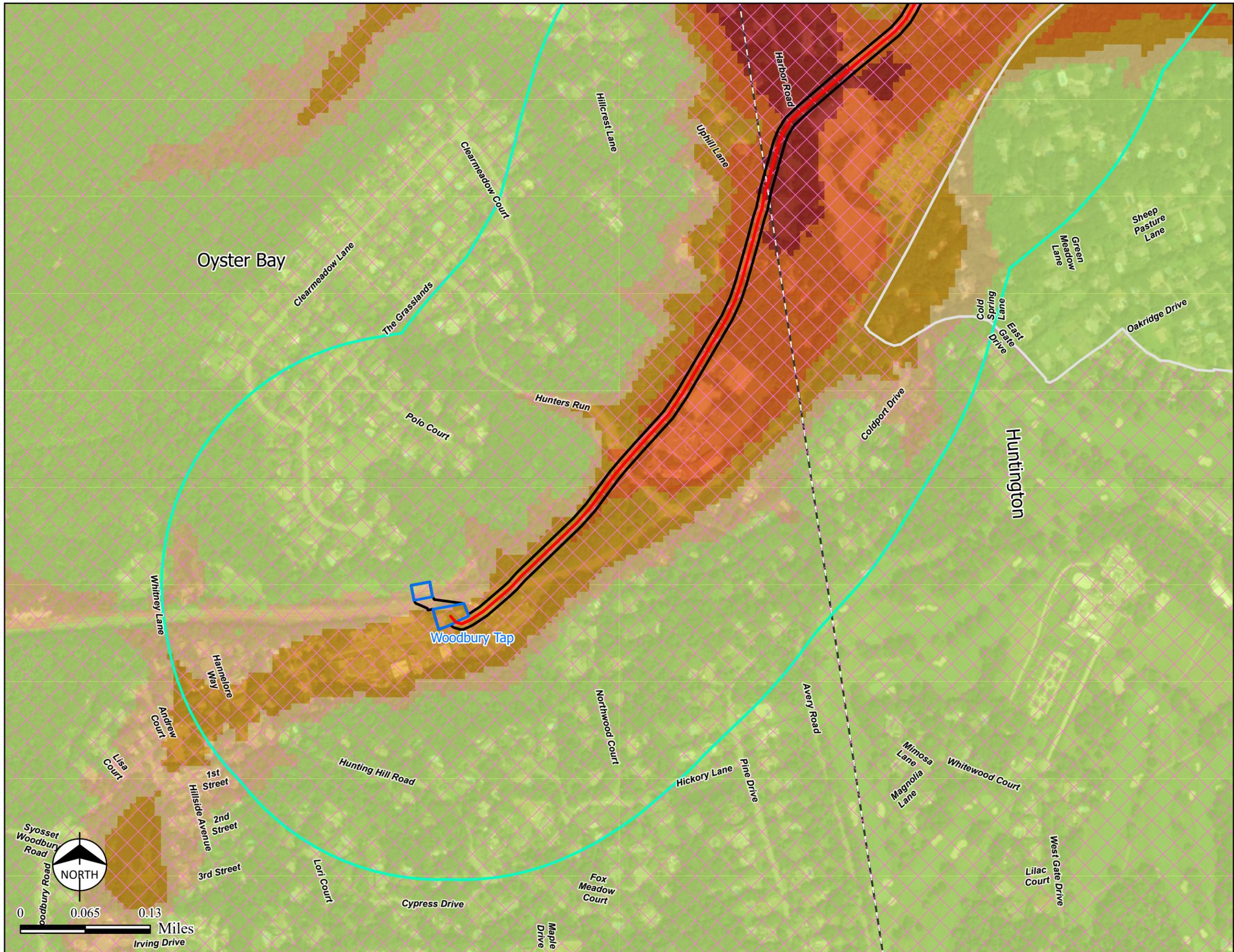
CHK. BY: KB

FIGURE NO. 4-11 Page 3 of 3



PRELIMINARY - NOT FOR CONSTRUCTION

## **Figure 4-12 Depth to Groundwater**



- LEGEND**
- 1/4 Mile Buffer of Proposed Area of Disturbance
  - Proposed Route
  - Proposed Area of Disturbance
  - Substation Parcel
  - Town/Village Boundary
  - NYSDEC CEA Special Groundwater Protection Area

Depth to Groundwater  
Feet Below Surface

- 0 - 25
- 25 - 50
- 50 - 75
- 75 - 100
- 100 - 325

Sources:  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. USGS Depth to Groundwater on Long Island, New York, 05/2016  
 3. NYSDEC CEA Special Groundwater Protection Areas, 2024  
 4. ESRI World Imagery, January 2025.



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-12  
Depth to Groundwater

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/25/2025

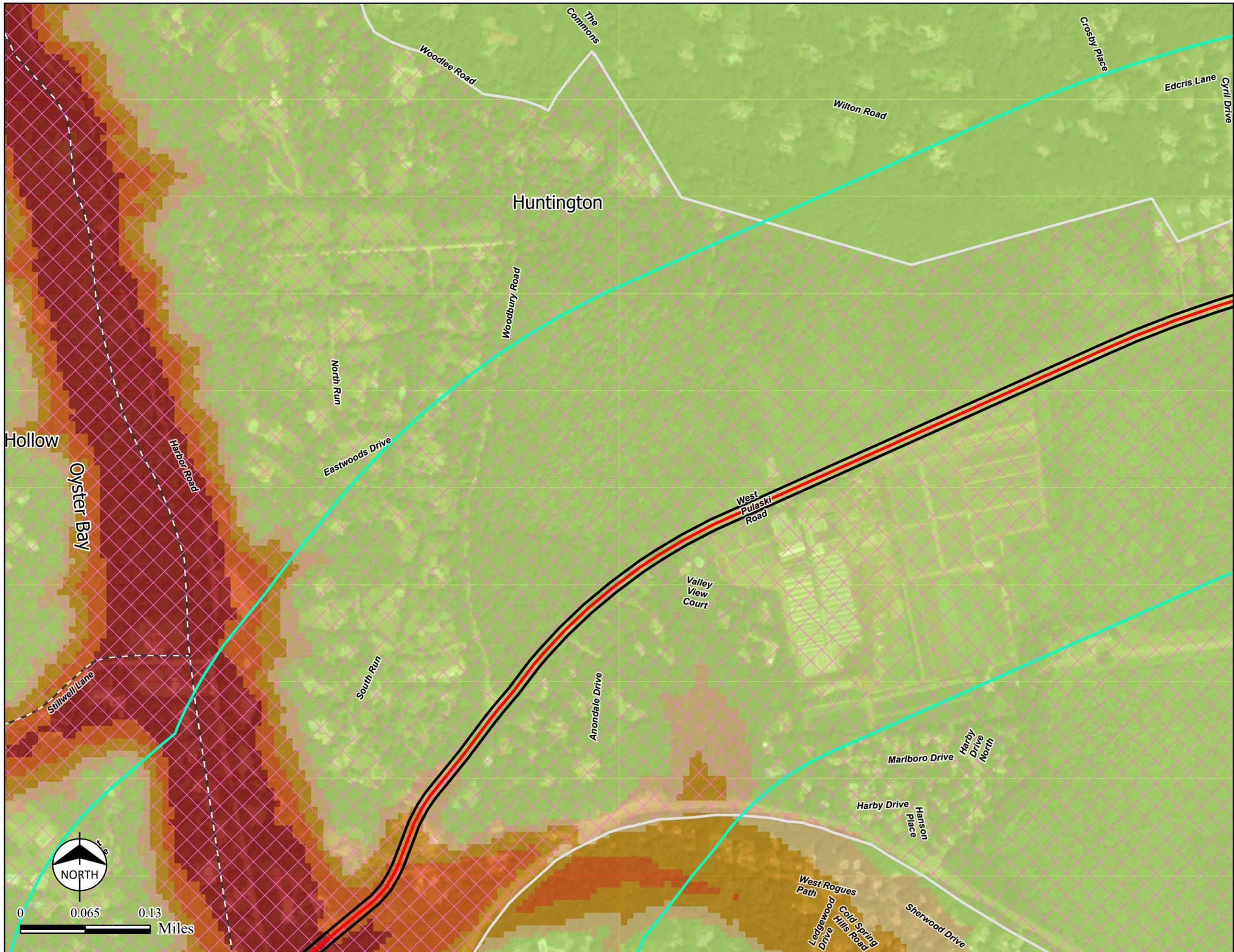
DRN. BY: DO

CHK. BY: KB

FIGURE NO. 4-12 Page 1 of 3



**PRELIMINARY - NOT FOR CONSTRUCTION**



- LEGEND**
- 1/4 Mile Buffer of Proposed Area of Disturbance
  - Proposed Route
  - Proposed Area of Disturbance
  - Substation Parcel
  - Town/Village Boundary
  - NYSDEC CEA Special Groundwater Protection Area

- Depth to Groundwater**  
Feet Below Surface
- 0 - 25
  - 25 - 50
  - 50 - 75
  - 75 - 100
  - 100 - 325

**Sources:**  
 1. Prepared details prepared by Burns & McDonnell, January 2025.  
 2. USGS Depth to Groundwater on Long Island, New York, 05/2016  
 3. NYSDEC CEA Special Groundwater Protection Areas, 2024  
 4. ESRI World Imagery, January 2025.



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-12  
Depth to Groundwater

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/25/2025

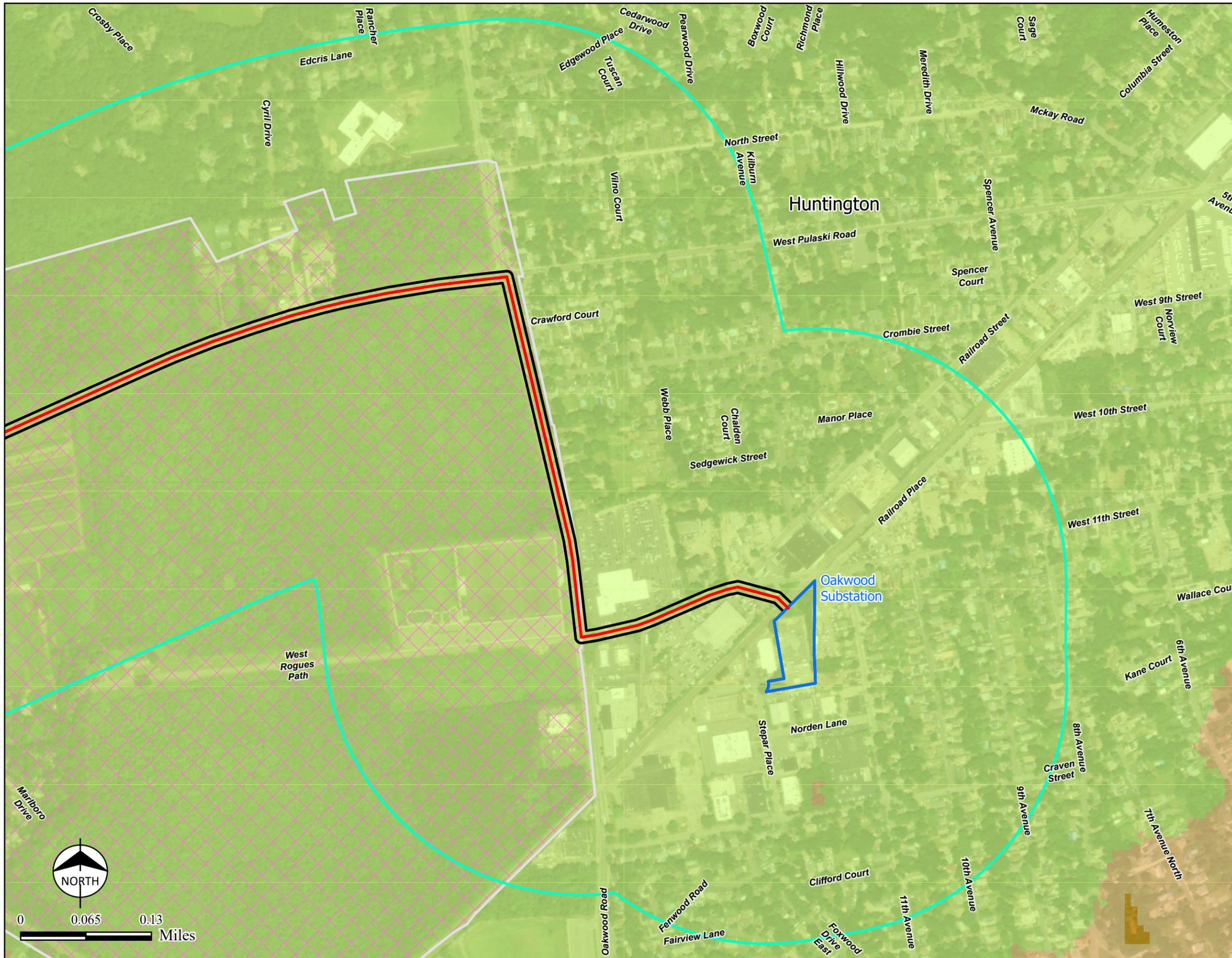
DRN. BY: DO

CHK. BY: KB

FIGURE NO. 4-12 Page 2 of 3



**PRELIMINARY - NOT FOR CONSTRUCTION**



LEGEND

- 1/4 Mile Buffer of Proposed Area of Disturbance
- Proposed Route
- Proposed Area of Disturbance
- Substation Parcel
- Town/Village Boundary
- NYSDEC CEA Special Groundwater Protection Area

Depth to Groundwater

Feet Below Surface

- 50 - 75
- 75 - 100
- 100 - 325

Sources:

1. Prepared details prepared by Burns & McDonnell, January 2025.
2. USGS Depth to Groundwater on Long Island, New York, 05/2016
3. NYSDEC CEA Special Groundwater Protection Areas, 2024
4. ESRI World Imagery, January 2025.



PROJECT TITLE



Syosset to Oakwood

SHEET TITLE

Figure 4-12  
Depth to Groundwater

SCALE 1" = 500' (Printed on 11"x17")

DATE 3/25/2025

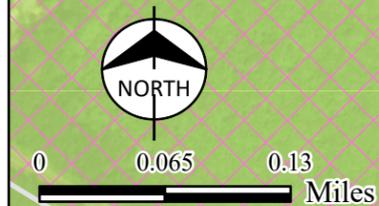
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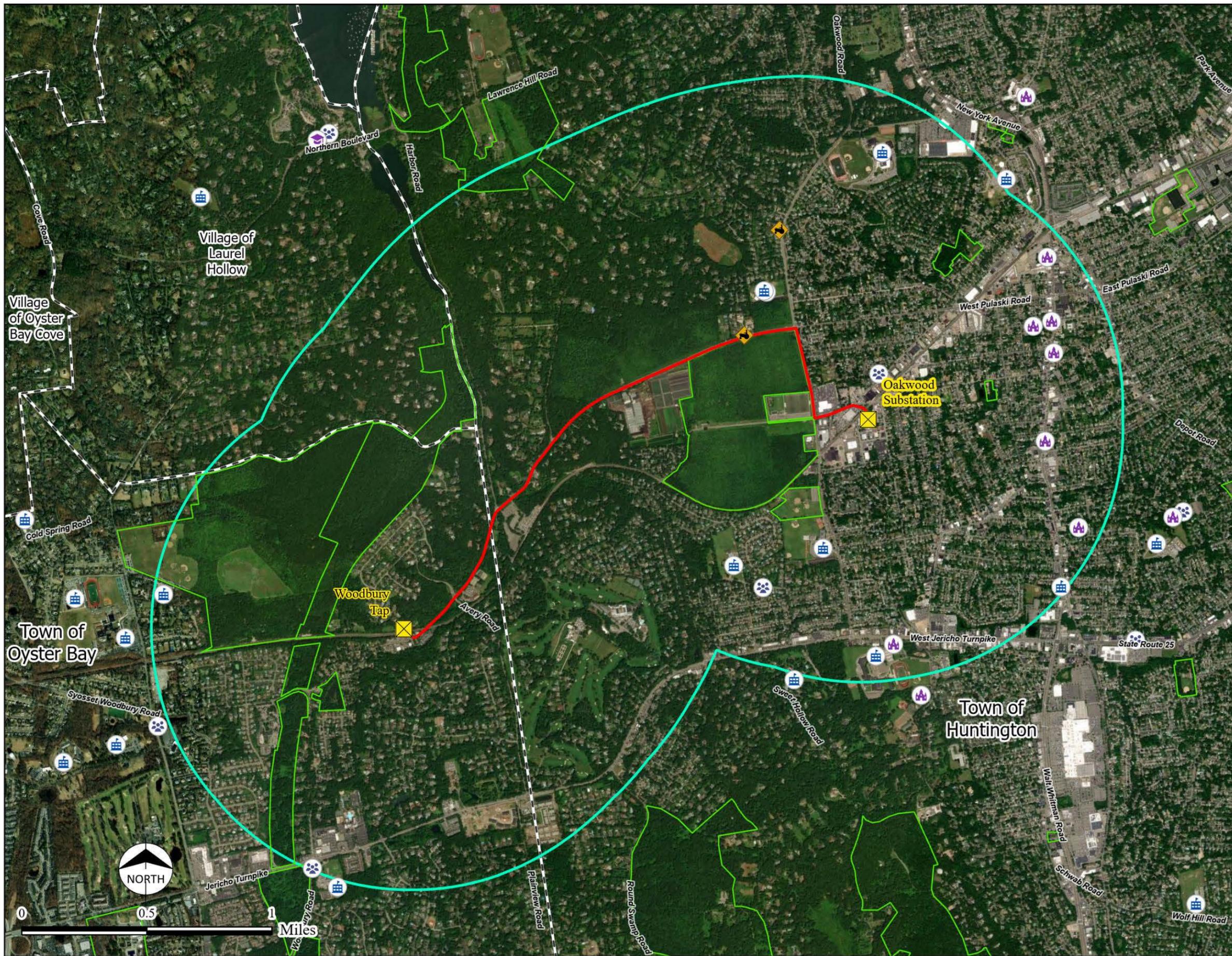
FIGURE NO. 4-12 Page 3 of 3



PRELIMINARY - NOT FOR CONSTRUCTION



**Figure 4-13 Sound Sensitive Receptors Within One Mile of the Project**



- LEGEND**
- Project Tap/Substation
  - Proposed Route
  - One Mile Buffer of Proposed Area of Disturbance
  - Towns/Village Boundary
  - K-12 School
  - College/University
  - Childcare Center
  - Place of Worship
  - Farmstand
  - Park

- Sources:**
1. Project details prepared by Burns & McDonnell, January 2025
  2. ESRI USA Institutions (Places of Worship)
  3. NYS GIS Data Clearinghouse (Schools, Colleges)
  4. HIFLD (Places of Worship, Childcare Centers)
  5. Nassau County (Parks)
  6. Suffolk County (Places of Worship, Farmstands, Parks)
  6. Esri World Imagery



**PROJECT TITLE**

**PSEG** | LONG ISLAND

Syosset to Oakwood Project

**SHEET TITLE**

Figure 4-13  
Sound Sensitive Receptors  
Within One Mile of the Project

SCALE 1" = 2,000' (Printed on 11"x17")

DATE 04/11/2025

DRN. BY CR/MK

CHK. BY SH

FIGURE NO. 4-13

**PRELIMINARY - NOT FOR CONSTRUCTION**