Transportation Project Report

Final Design Report

July 2022

PIN 0810.01
SAFETY ENHANCEMENTS
VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON, AND SOUTHOLD
SUFFOLK COUNTY



NEW YORK STATE OF OPPORTUNITY. Department of Transportation

U.S. Department of Transportation
Federal Highway Administration

Project Approval Sheet

Milestones	Signatures	Dates
A. IPP Approval:	The project is ready to be added to the Regional Capital Program and Project Scoping can begin. The IPP was approved by:	
	Joseph Brown, P.E. Regional Director	07/27/2018 Date
B. Recommendation for Scope Approval:	The project cost and schedule are consistent with the Regional Capital Program.	
	Glenn Murrell, Regional Planning Program Manager	Date
C. Scope Approval:	The project cost and schedule are consistent with the Regional Capital Program. The scope was approved by:	
	Richard B. Causin, P.E. Regional Director	
D. Public Hearing Certification:	A public hearing was held on February 09, 2022	
	Garole Valbrun, P.E. Project Manager	Date
E. Categorical Exclusion Determination on Behalf of FHWA:	This Project qualifies as a Categorical Exclusion under the National Environmental Policy Act per the NYSDOT/FHWA Programmatic Agreement Regarding Categorical Exclusions.	
	Richard B. Causin, P.E. Regional Director	Date
F. Recommendation for Design, and Nonstandard Feature Approval:	All requirements requisite to these actions and approvals have been met, the required independent quality control reviews separate from the functional group reviews have been accomplished, and the work is consistent with established standards, policies, regulations and procedures, except as otherwise noted and explained. The nonstandard features have been adequately justified and it is not prudent to eliminate them as part of this project.	
	Ken Murphy, P.E. Regional Design Engineer	Date
G. Design, and Nonstandard Feature Approval:	The required environmental determinations have been made, and the preferred alternative for this project is ready for design. Nonstandard features have been appropriately justified.	
	Rick Wilder, P.E. Deputy Chief Engineer Design	Date

List of Preparers

Group Director Responsible for Production of this Final Design Report (FDR):

Frank Pearson, PE, Director of Transportation Safety, Greenman-Pedersen, Inc (GPI)
Description of Work Performed: Directed the preparation of the FDR in accordance with established standards, policies, regulations and procedures, except as otherwise explained in this document. I visited the project site on November 10, 2020

PLACE P.E. STAMP

Note: *It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect, or land surveyor, to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect, or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.*

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CHAPTER 1 – PROJECT DEVELOPMENT

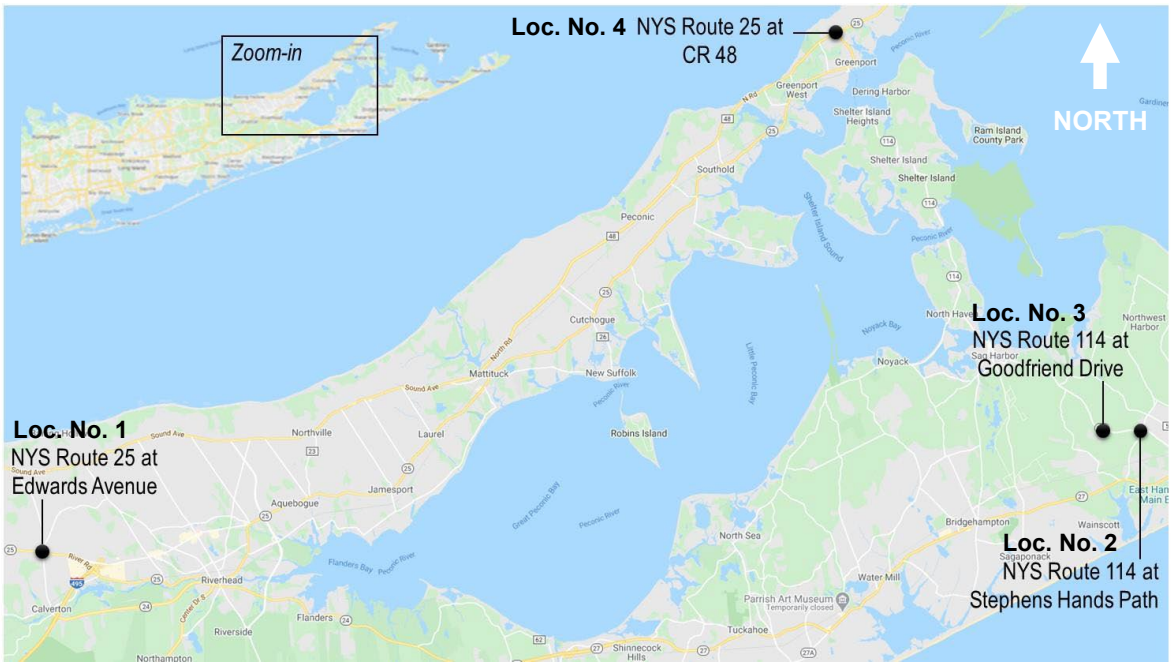
1.1. Introduction

This report was prepared in accordance with the NYSDOT Project Development Manual, 17 NYCRR (New York Codes, Rules and Regulations) Part 15, and 23 CFR (Code of Federal Regulations) 771. Transportation needs have been identified (§1.2.2), objectives established (§1.2.3) to address the needs, and cost-effective alternatives developed (§1.3). This project is 90% federally funded through Highway Safety Improvement Program (HSIP) with 10% state match through State Dedicated Fund (SDF).

1.1.1. Project Location

This project is located at the following four (4) intersections within Suffolk County, as identified below, and depicted in the regional location map below.

- Loc. No. 1 - NY 25 at Edwards Avenue, Town of Riverhead, Suffolk County
- Loc. No. 2 - NY 114 at Stephen Hands Path, Town of East Hampton, Suffolk County
- Loc. No. 3 - NY 114 at Goodfriend Drive, Town of East Hampton, Suffolk County
- Loc. No. 4 – NY 25 at CR 48, Town of Southold, Suffolk County



Regional Location Map

New York State Route 25 (NY 25) is an East–West state highway in downstate New York, that extends for just over 105 miles from east midtown Manhattan in New York City to the Cross-Sound Ferry terminal at Orient Point on the end of Long Island's North Fork. In Suffolk County, NY 25 connects more than 15 communities, running along the northside from Huntington to Orient Point. Two (2) locations along NY 25 were identified by the Regional Safety and Mobility Asset Management Committee for mobility and safety enhancements. These two (2) locations include: (1) NY 25 at Edwards Avenue in the Town of Riverhead, and (2) NY 25 at County Road 48 (CR 48) in the Town of Southold.

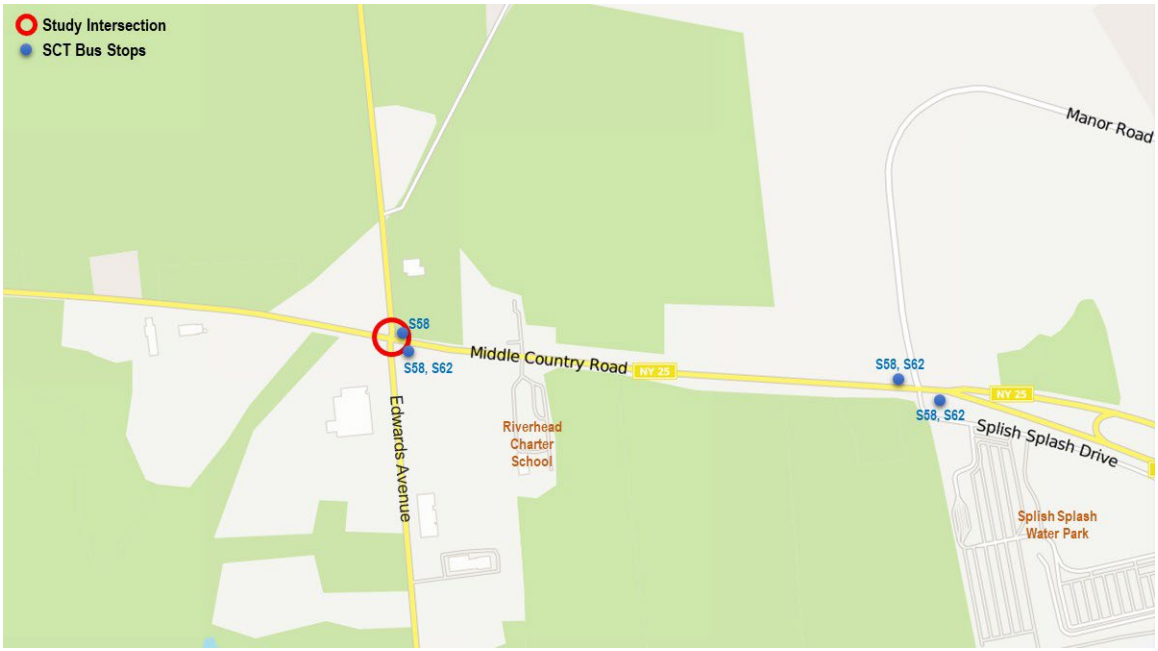
New York State Route 114 (NY 114) is a North-South state highway on the far eastern end of Long Island that serves as a connector between the North and South forks. It connects to NY 25 in Greenport in the north, and to Montauk Highway in East Hampton in the south, crossing Shelter Island in the process. NYSDOT has also marked most of the road as New York State Bicycle Route 114 (NY Bike Route 114) with diversions onto local streets in Sag Harbor, and north and west of the northern terminus along NY 25 in Greenport. Two locations along NY 114 were identified by the Regional Safety and Mobility Asset Management Committee for mobility and safety enhancements. These two (2) locations include: (1) NY 114 at Stephen Hands Path, and (2) NY 114 at Goodfriend Drive, both located in the Town of East Hampton.

Loc. No. 1 - NY 25 at Edwards Avenue, Town of Riverhead, Suffolk County

(1) Route number - NY 25
(2) Route name - Middle Country Road
(3) SH (state highway) number, official highway description - SH#8066, Milepoint 100206041 38.98
(4) City/Village/Township - Town of Riverhead
(5) County - Suffolk County
(6) RM - 25 0704 1392
(7) AADT – 17244, % of Heavy Vehicles – 6.85% (June 2019, NYSDOT Data Services Bureau)



NY 25 at Edwards Avenue - Land Use around the Intersection



NY 25 at Edwards Avenue - Street Network and Transit

(8) Existing Conditions:

The functional classification of NY 25 (Middle Country Road) is Principal Arterial (NYS Urban Functional Classification code - 14). The posted speed limit along NY 25 around this intersection is 50 mph. This intersection is a controlled intersection, with a traffic signal installed. No turn lanes are provided at the intersection. The roadway character is overall level at that location and the pavement condition at the intersection is fair. At the intersection, NY 25 consists of one 12-foot-wide travel lane in each direction with approximately 6-foot-wide shoulders, separated by double yellow solid barrier line.

Edwards Avenue consists of one 12-foot-wide travel lane in each direction as well, separated by a double yellow solid barrier line. The posted speed limit along Edwards Avenue is 45 mph. Edwards Avenue, north of the intersection, is offset to the east by approximately 10 feet.

The land use around this intersection on the northern side is largely agricultural, with commercial and industrial uses on the southern side. The Riverhead Charter School is located approximately 800 feet east of the intersection. Splish Splash Amusement Park, located approximately 0.6 miles east of the intersection, is one of the largest activity generators in the area, in addition to Tanger Outlet Mall. NYS DOT Capital Projects Complete Streets Checklist identified the amusement park as an existing recreational activity generator within the project area that has the potential to generate pedestrian or bicycle traffic or the need for improved transit accommodations.

Bike Route 25 crosses this intersection along NY 25 and supports the larger bicycle facility network in the region. Suffolk County Transit Bus Routes S58 and S62 operate along NY 25 and have bus stops adjacent to this intersection, as shown in the figure above.



-Northbound Approach (Edwards Ave)



Southbound Approach (Edwards Ave)



Eastbound Approach (NY 25)

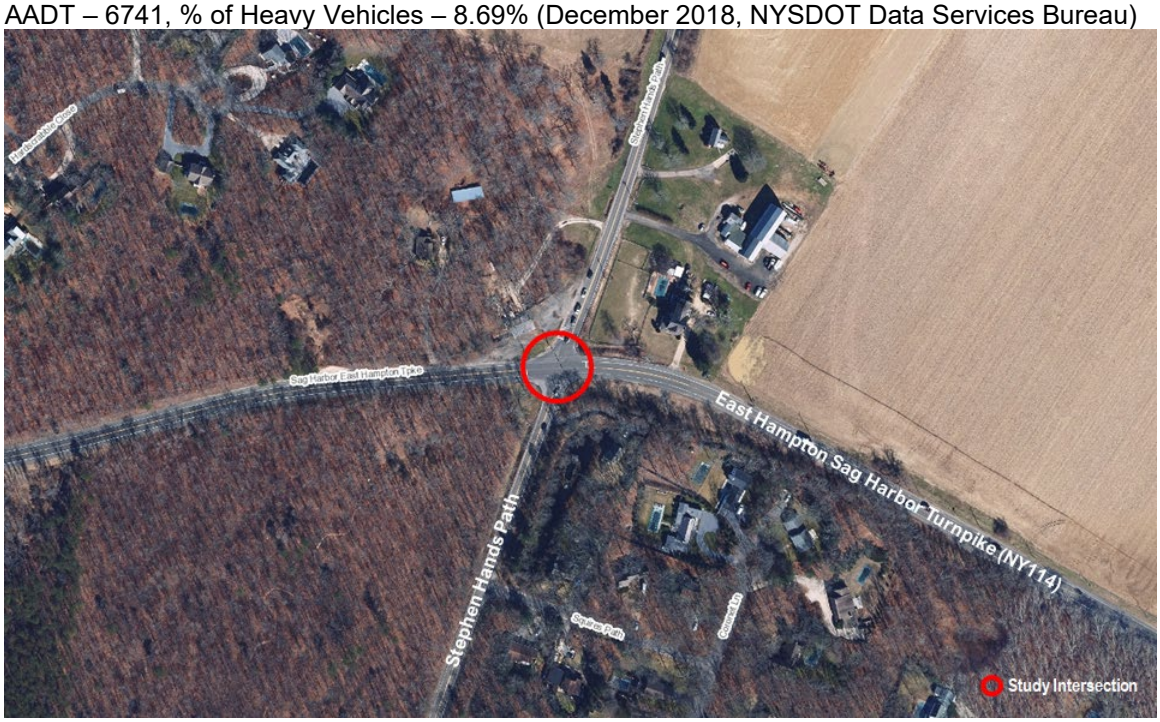


Westbound Approach (NY 25)

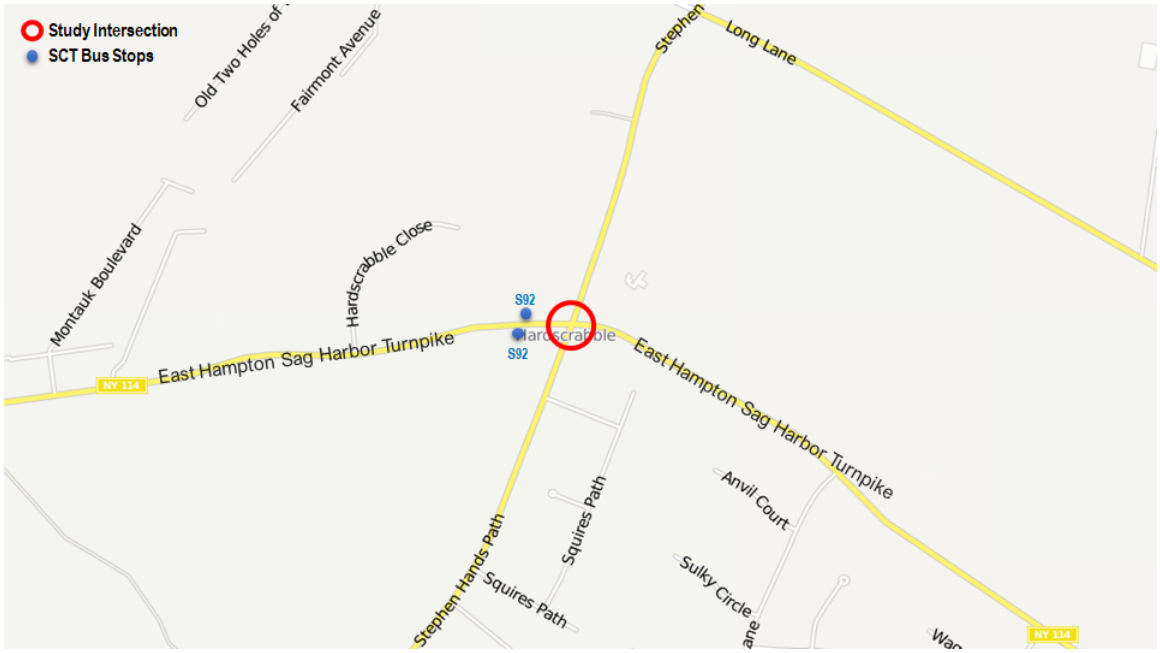
NY 25 at Edwards Avenue - Approaches

Loc. No. 2 - NY Route 114 at Stephen Hands Path, Town of East Hampton, Suffolk County

(1) Route number - NY 114
(2) Route name - East Hampton-Sag Harbor Turnpike / Lost at Sea Memorial Pike
(3) SH (state highway) number, official highway description - SH#846, Milepoint 100037011 1.94
(4) City/Village/Township - Town of East Hampton
(5) County - Suffolk County
(6) RM - 114 0701 1020
(7) AADT – 6741, % of Heavy Vehicles – 8.69% (December 2018, NYSDOT Data Services Bureau)



NY 114 at Stephen Hands Path - Land Use around the Intersection



NY 114 at Stephen Hands Path - Street Network and Transit

(8) Existing Conditions

The functional classification of NY 114 (East Hampton-Sag Harbor Turnpike) is Principal Arterial (NYS Urban Functional Classification code - 14). The posted speed limit along NY 114 is 45 mph, with advisory speeds of 40 mph at curves near the intersection. The roadway character is overall level at that location but curvilinear in alignment. The pavement condition at the intersection is generally good. At the intersection, NY 114 consists of one 12-foot-wide travel lane in each direction with approximately 8 to 10-foot-wide shoulders, separated by a double yellow solid barrier line. This intersection is a controlled intersection and has a traffic signal installed. Southbound NY 114 has a protected-permissive left turn arrow. No turn lanes are provided at the intersection.



Northbound Approach (NY 114)



Southbound Approach (NY 114)



Eastbound Approach (Stephen Hands Path)



Westbound Approach (Stephen Hands Path)

NY 114 at Stephen Hands Path - Approaches

At this intersection, Stephen Hands Path consists of one 12-foot-wide travel lane in each direction separated by a double yellow solid barrier line. The posted speed limit along Stephen Hands Path is 30 mph. Stephen Hands Path has right-turn bays on both northbound and southbound approaches.

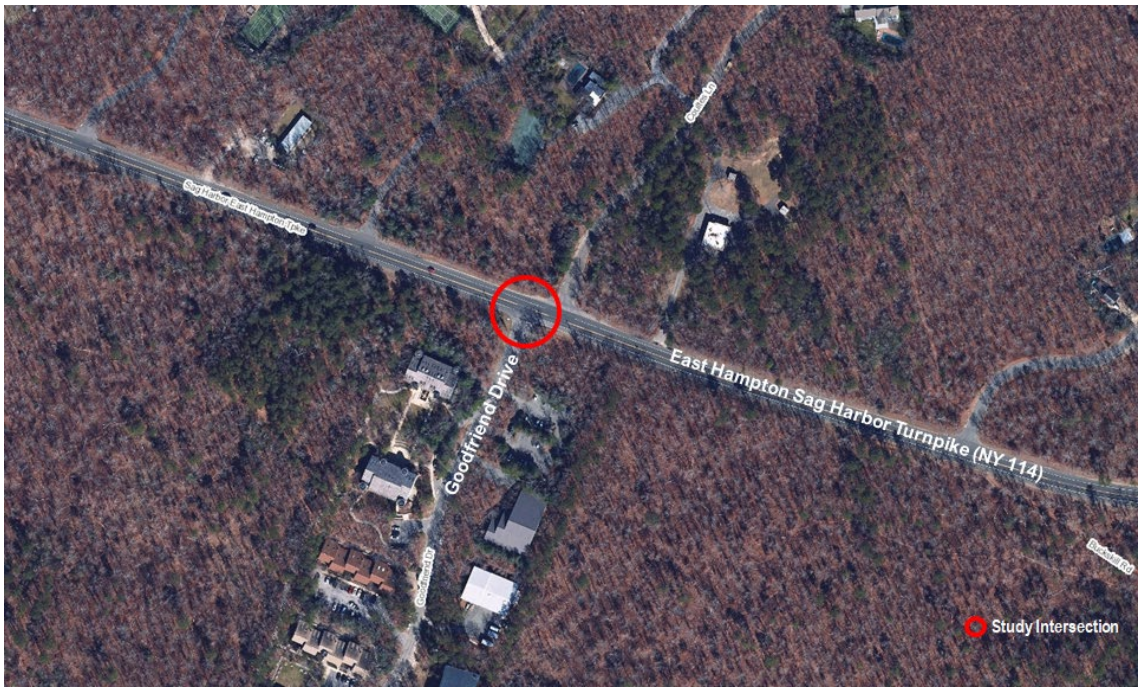
The land use around this intersection is largely low-density residential, with large green open space on the southwest corner. Bike Route 114 crosses this intersection along NY 114 and supports the larger bicycle facility network in the region. This highway is considered important to bicycle tourism by the region. Suffolk County Transit Bus Route S92 operates along NY 114 at this intersection and has bus stops north of the intersection, as shown in the figure below.



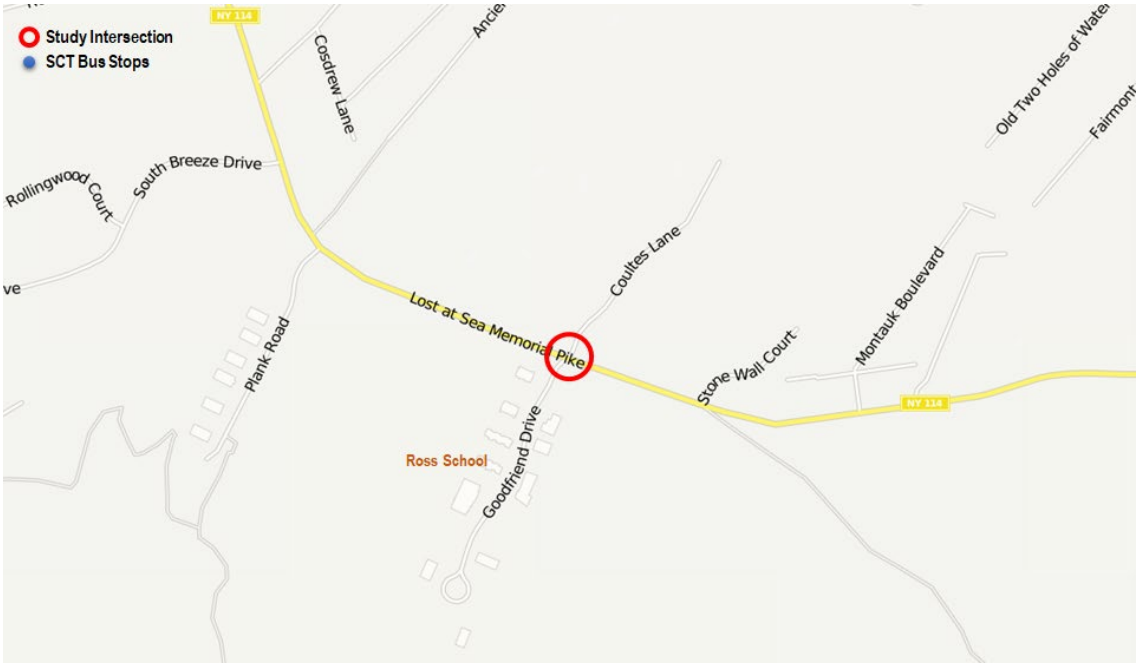
Bike Route 114 along East Hampton-Sag Harbor Turnpike

Loc. No. 3 - NY 114 at Goodfriend Drive, Town of East Hampton, Suffolk County

(1) Route number – NY 114
(2) Route name - East Hampton-Sag Harbor Turnpike
(3) SH (state highway) number, official highway description - SH#846, Milepoint 100037011 2.9
(4) City/Village/Township - Town of East Hampton
(5) County - Suffolk County
(6) RM - 114 0701 1029
(7) AADT – 6741, % of Heavy Vehicles – 8.69% (December 2018, NYSDOT Data Services Bureau)



NY 114 at Goodfriend Drive - Land Use around the Intersection



NY 114 at Goodfriend Drive - Street Network and Transit

(8) Existing Conditions

The functional classification of NY 114 (East Hampton-Sag Harbor Turnpike) is Principal Arterial (NYS Urban Functional Classification code - 14). The posted speed limit along NY 114 around this intersection is 45 mph. The roadway character is overall level at that location and the pavement condition is generally good. This is a stop-controlled T-intersection, with eastbound Goodfriend Drive intersecting East Hampton-Sag Harbor Turnpike. At the intersection, East Hampton-Sag Harbor Turnpike consists of one 12-foot-wide travel lane in each direction with approximately 13-foot-wide shoulders, separated by a double yellow solid barrier line. No turn lanes are provided at the intersection.



Northbound Approach (NY 114)



Southbound Approach (NY 114)



Eastbound Approach (Goodfriend Drive)



Westbound Approach (Coultes Lane)

NY 114 at Goodfriend Drive - Approaches

Goodfriend Drive is a two-way street that intersects East Hampton-Sag Harbor Turnpike. It provides access to the Ross School, Veterinary Clinic of East Hampton, and a few other businesses on the southern end. Coultes Lane, east of the intersection, is offset from Goodfriend Drive approximately 60 feet to the south and provides access to a residential neighborhood.

The land use around this intersection on the north side is largely low-density residential, with large green open space on the east side and the Ross School on the west side.

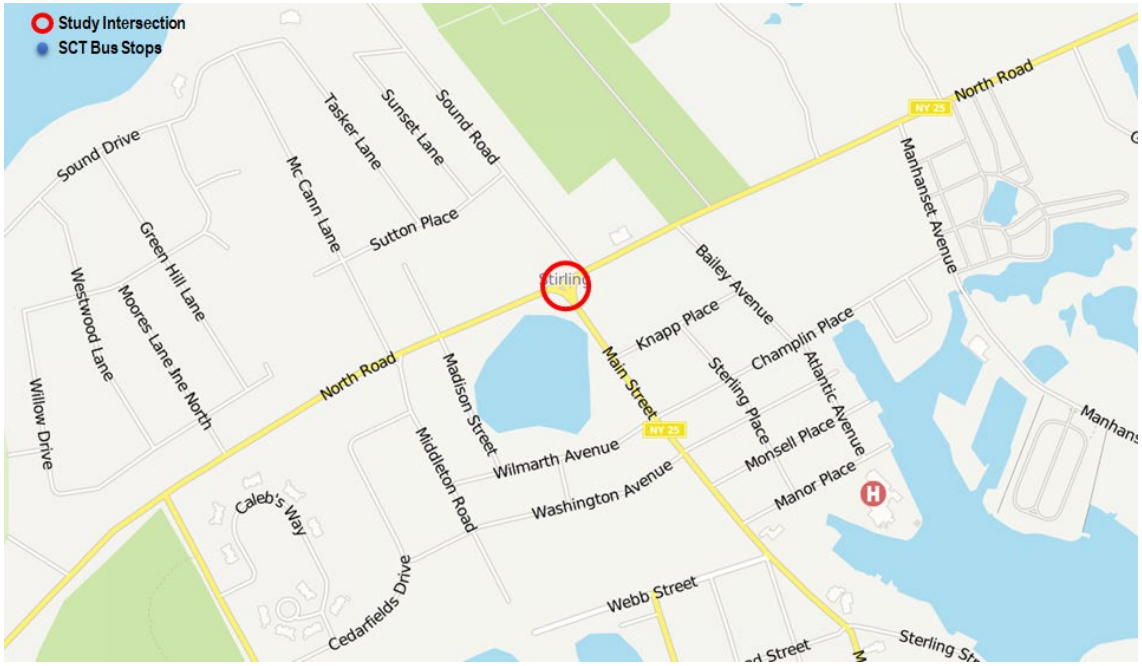
Bike Route 114 crosses this intersection along NY 114 and supports the larger bicycle facility network in the region. This highway is considered important to bicycle tourism by the region. Suffolk County Transit Bus Route S92 operates along NY 114 and passes through this intersection.

Loc. No. 4 – NY 25 at CR 48, Town of Southold, Suffolk County

(1) Route number – NY 25
(2) Route name – North Road / Main Road
(3) SH (state highway) number, official highway description - SH#8380, Milepoint 100206041 66.80
(4) City/Village/Township – Town of Southold
(5) County – Suffolk County
(6) RM – 25 0704 1671
(7) AADT – 4669, % of Heavy Vehicles – 3.98% (June 2019, NYSDOT Data Services Bureau)



NY 25 at CR 48 - Land Use around the Intersection



NY 25 at CR 48 - Street Network and Transit

(8) Existing Conditions

The functional classification of NY 25 (Main Street) is Minor Arterial (NYS Urban Functional Classification code - 16), and NY 25 (Main Road) is classified as “Principal Arterial (NYS Urban Functional Classification Code 14). The posted speed limit along NY 25 (Main Street) around this intersection is 30 mph, and when it turns east at the intersection, the posted speed limit along NY 25 (Main Road) is 45 mph. The roadway character is overall level at that location and the pavement condition at the intersection is generally good. This is a T-intersection that is stop-controlled, with a flashing red signal on the northbound approach and a flashing yellow signal for the eastbound and westbound approaches.



Northbound Approach (NY 25/Main Street)



Southbound Approach (Sound Road)



Eastbound Approach (CR48 / North Road)



Westbound Approach (NY 25/Main Road)

NY 25 at CR 48 - Approaches

At the intersection, NY 25 consists of one 12-foot-wide travel lane in each direction, separated by a striped hatched median. At the intersection, the westbound approach has a left-turn bay.

The eastern terminus of CR 48 meets NY25 at this intersection. CR 48 consists of one 12-foot-wide travel lane in each direction as well, separated by a double yellow solid barrier line that expands to a striped hatched median closer to the intersection. The posted speed limit along CR 48 along this intersection is 45 mph.

The land use around this intersection on the north side is largely residential, with commercial uses on the northern corner. Bike Route 25 crosses this intersection along NY 25 and supports the larger bicycle facility network in the region. This highway is considered important to bicycle tourism by the region. Suffolk County Transit Bus Route S92 operates along NY 25 and passes through this intersection, but no stops are located close to the intersection.

1.2. Purpose and Need and Objectives

1.2.1. Project Need

This project is needed to enhance safety and improve traffic operations at the following four intersections:

- Loc. No. 1 - NY 25 at Edwards Avenue, Town of Riverhead, Suffolk County
- Loc. No. 2 - NY 114 at Stephen Hands Path, Town of East Hampton, Suffolk County
- Loc. No. 3 - NY 114 at Goodfriend Drive, Town of East Hampton, Suffolk County
- Loc. No. 4 – NY 25 at CR 48, Town of Southold, Suffolk County

1.2.2. Project Purpose

The purpose of this project is to provide safety and operational enhancements at the four (4) intersections, listed in §1.2.1, to improve traffic flow and decrease the potential for crashes.

1.2.3. Project Objectives

(1) Improve overall traffic conditions using cost effective methods to reduce delay and to provide an acceptable level of service, for a design period of 10 years. (20 years for roundabout)
(2) Upgrade roadway geometry to improve traffic flow and facilitate traffic operations.
(3) Improve safety by using cost effective accident reduction measures such that accident reduction benefits equal or exceed project costs attributable to safety work.
(4) Improve existing facilities and services using cost effective measures to eliminate the degradation of mainline level of service and improve level of service or reduce the hours of delay at LOS E for the design year.

1.3. Project Alternatives

The following alternatives are being considered for this project:

No-Build Alternative:
Under the No-Build Alternative, no improvements would be built, and only routine preventative maintenance and corrective action would be undertaken. The No-Build Alternative serves as a baseline for comparing the anticipated environmental, transportation, social, and economic benefits and impacts of the proposed alternatives.

Build Alternatives:
The estimated construction cost of each build alternative at each project location is summarized and noted below.

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County
- Widening the intersection and adding turn lanes on all approaches
- Total estimated construction cost of this alternative is $3.1M

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton, Suffolk County
- Widening the intersection and adding turn lanes on all approaches
- Total estimated cost of this alternative is $2.6M.

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County
- Widening the intersection and adding turn lane on northbound approach
- Total estimated cost of this alternative is $0.77M.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold, Suffolk County
- Construction of a mini-roundabout
- Total estimated cost of this alternative is $2.03M

Left-turn lanes are proposed at the following intersections:

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County.
Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton, Suffolk County.
Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County.

Exclusive left-turn lanes for vehicles remove stopped vehicles waiting to make turns from the through-traffic stream, thus substantially reducing the potential for rear-end crashes. Because they provide a sheltered location for drivers to wait for a gap in opposing traffic, left-turn lanes may encourage drivers to be more selective in choosing a gap to complete the left-turn maneuver. This may reduce the potential for crashes between left-turn and opposing through vehicles. A major synthesis of research on left-turn lanes demonstrated that exclusive turn lanes reduce crashes between 18 to 77 percent (50 percent average) and reduce rear-end collisions between 60 and 88 percent.[1]

Left-turn lanes also substantially increase the capacity of many roadways. A shared left-turn and through lane has about 40 to 60 percent the capacity of a standard through lane.[1] A synthesis of research on this topic found a 25 percent increase in capacity, on average, for roadways that added a left-turn lane.[2]

Location No. 4 – NYS Route 25 at County Road 48, Town of Southold, Suffolk County proposes construction of a mini-roundabout. Roundabouts represent a potential solution for intersections with many conflict points and have demonstrated reduction in crashes. Roundabouts reduced injury crashes by 75 percent at intersections where stop signs or signals were previously used for traffic control, according to a study by the Insurance Institute for Highway Safety (IIHS). Studies by the IIHS and Federal Highway Administration have shown that roundabouts typically achieve a 37% reduction in overall collisions, 75% reduction in injury collisions, 90% reduction in fatality collisions, and 40% reduction in pedestrian collisions.[3] Contrary to many peoples' perceptions, roundabouts actually move traffic through an intersection more quickly, and with less congestion on approaching roads. Roundabouts promote a continuous flow of traffic. Unlike intersections with traffic signals, drivers do not have to wait for a green light at a roundabout to get through the intersection. Traffic is not required to stop – only yield – so the intersection can handle more traffic in the same amount of time. Studies by Kansas State University measured traffic flow at intersections before and after conversion to roundabouts. In each case, installing a roundabout led to a 20 percent reduction in delays. Additional studies by the IIHS of intersections in three states, including Washington, found that roundabouts contributed to an 89 percent reduction in delays and 56 percent reduction in vehicle stops.[3]

Please note the installation of a three-color traffic signal at location 4 had been previously evaluated by NYSDOT. Two separate traffic studies were conducted, and, in both cases, it was determined that a traffic signal was not warranted at NYS Route 25 and CR 48. Therefore, the installation of a traffic signal is not being evaluated under this project. (These studies can be made available upon request.)

It should also be noted that a traffic circle had existed at this location. The intersection was modified in the mid-1980s to its current configuration. The traffic circle was offset almost entirely south of the existing edge of pavement along CR 48 / NY 25 and, therefore, did not impact or slow down traffic EB or WB along CR 48 / NY 25. While it may seem to be similar to what is being proposed, it is very different. The design characteristics of modern roundabouts provide safe and efficient traffic operations compared to other intersection types. The following are some of the key differences between modern roundabouts and traffic circles:

i. Roundabouts have yield control on all entering roadways, while the circulatory roadway has no control. Some traffic circles use stop-sign control, or no control on one or more entering roadways.

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[1] *Gluck, J., H. S. Levinson, and V. Stover, 1999, Impacts of Access Management Techniques, NCHRP Report 420, Transportation Research Board*

[2] *S/K Transportation Consultants, Inc., 2000, National Highway Institute Course Number 133078: Access Management, Location, and Design, April.*

[3] *Washington State Department of Transportation, Roundabout Benefits, https://wsdot.wa.gov/Safety/roundabouts/benefits.htm*

ii. The circulating vehicles have the right-of-way in roundabouts, and entering vehicles must yield. In some traffic circles, circulating traffic yields to entering traffic.

iii. In roundabouts, all vehicles circulate counterclockwise and pass to the right of the central island; however, for some traffic circles, traffic may pass on the left of the central island.

iv. Modern roundabouts implement traffic calming, resulting in slower and similar speeds for entering and circulating vehicles. Some traffic circles are large or have little deflection, allowing for high speeds within the intersection.

For a more in-depth discussion of the design criteria and nonstandard features see Section 3.2.3. Design Criteria for Reasonable Alternative(s).

1.4 Project Effects

This project is being progressed as a NEPA Class II Categorical Exclusion and SEQR Non Type II Action. While significant environmental impacts are not anticipated, these safety enhancements will require ROW acquisition for construction.

1.4.1 Environmental Classification

Exhibit 1.4.1
Environmental Classification Summary

NEPA Classification	Class II, Categorical Exclusion	BY	NYSDOT
SEQR Type:	Non Type II	BY	NYSDOT

1.4.2 Comparison of Considered Alternatives

Exhibits 1.4.2.1 – 1.4.2.4 provide an overview of anticipated environmental, social, and economic impacts at each of the four locations, for all alternatives considered.

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County

Exhibit 1.4.2.1
Comparison of Alternatives

Category	Alternatives Evaluated	
	No Build	**Preferred Alt. 1**
Environmental Impacts		
Critical Environmental Area	None	Site is located within the Peconic Estuary Protection Area and is located within the Nassau-Suffolk Sole Source Aquifer (SSA). Site is located 0.7 miles north of Pine Barrens Compatible Growth Area (CGA)
Wetlands	None	None
Cultural Resources (Section 106)	None	The Zeh Family Farm, located at 3768 Middle Country Road, Calverton (within Location 1) has been found Eligible for the National Historic Register, but SHPO has concurred that there will be no adverse effects to the property under this Alternative
Section 4(f)	None	Yes. Northwest quadrant of intersection. (de minimis)
Noise	None	None expected
Social Impacts		
Property/Relocations	None	The proposed enhancements will require ROW acquisitions as noted on the Abstract Requests Maps and Spread Sheet located in Appendix H. These takings are non-De Minimis.
Mobility (Pedestrian, bicycle, transit, etc.)	No Effect	Improved pedestrian and bicycle safety

Environmental Justice	No Effect	No disproportionate high and adverse effects to minority or low-income populations
General Social Groups	No Effect	No Effect
Crash Costs	High	Low
Economic and/or Operational Impacts		
Economic Impacts	No Effect	No change to vehicular access to businesses
Temporary Detours	No Effect	None anticipated
Reduction of Parking	No Effect	No Effect
Operation at ETC +10 (maximum peak hour delay)	46.9 sec	29.5 sec
Utilities	None	Utilities will need to be relocated
Construction Cost	None	$3.1M

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton, Suffolk County

Exhibit 1.4.2.2 Comparison of Alternatives		
Category	**Alternatives Evaluated**	
	No Build	**Preferred Alt. 1**
Environmental Impacts		
Critical Environmental Area	None	Site is located within the Special Groundwater Protection Area and the Nassau-Suffolk Sole Source Aquifer (SSA)
Wetlands	None	None
Cultural Resources (Section 106)	None	None
Section 4(f)	None	Yes. Southwest quadrant of intersection (de minimis)
Noise	None	None expected
Significant Natural Community	None	Coastal Oak - Heath Forest, Pitch Pine - Oak Forest
Social Impacts		
Property/Relocations	None	The proposed enhancements will require ROW acquisitions as noted on the Abstract Requests Maps and Spread Sheet located in Appendix H. These takings are non-De Minimis.
Mobility (Pedestrian, bicycle, transit, etc.)	No Effect	Improved pedestrian and bicycle safety
Environmental Justice	No Effect	No disproportionate high and adverse effects to minority or low-income populations
General Social Groups	No Effect	No Effect
Crash Costs	High	Low
Economic and/or Operational Impacts		
Economic Impacts	No Effect	No change to vehicular access to businesses
Temporary Detours	No Effect	None anticipated
Reduction of Parking	No Effect	No Effect
Operation at ETC +10 (maximum peak hour delay)	86.8 sec	21.0 sec
Utilities	None	Utilities may need to be relocated
Construction Cost	None	$2.6M

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County

Exhibit 1.4.2.3 Comparison of Alternatives		
Category	**Alternatives Evaluated**	
	No Build	**Preferred Alt. 1**
Environmental Impacts		
Critical Environmental Area	None	Site is located within the Special Groundwater Protection Area and the Nassau-Suffolk Sole Source Aquifer (SSA)
Wetlands	None	None
Cultural Resources (Section 106)	None	None
Section 4(f)	None	None
Noise	None	none expected
Significant Natural Community	None	Coastal Oak - Heath Forest, Pitch Pine - Oak Forest
Social Impacts		
Property/Relocations	None	The proposed enhancements will not require ROW acquisitions.
Mobility (Pedestrian, bicycle, transit, etc.)	No Effect	No Effect
Environmental Justice	No Effect	No disproportionate high and adverse effects to minority or low-income populations
General Social Groups	No Effect	Improves access to school
Crash Costs	High	Low
Economic and/or Operational Impacts		
Economic Impacts	No Effect	No change to vehicular access to businesses
Temporary Detours	No Effect	None anticipated
Reduction of Parking	No Effect	No Effect
Operation at ETC +10 (maximum peak hour delay)	5.2 sec	5.1 sec
Utilities	None	Temporary utility relocations may be required
Construction Cost	None	$0.77M

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold, Suffolk County – Mini-roundabout

Exhibit 1.4.2.4 Comparison of Alternatives		
Category	**Alternatives Evaluated**	
	No Build	**Preferred Alt. 1 (Mini-roundabout)**
Environmental Impacts		
Critical Environmental Area	None	Site is located within the Nassau-Suffolk Sole Source Aquifer (SSA)
Wetlands	None	NYS Wetland on southwest corner, 12.9 acres
Cultural Resources (Section 106)	None	No Adverse Effect, Booth House (USN#10310.001110) located at 1221 Main Street, Southold
Section 4(f)	None	None
Noise	None	None expected
Significant Natural Community	None	Coastal Oak - Hickory Forest, Southern Sprite
Social Impacts		
Property/Relocations	None	The proposed enhancements will require ROW acquisitions as noted on the Abstract Requests Maps and Spread Sheet located in Appendix H. These takings are non-De Minimis.
Mobility (Pedestrian, bicycle, transit, etc.)	No Effect	Improved pedestrian and bicycle safety
Environmental Justice	No Effect	No disproportionate high and adverse effects to minority or low-income populations
General Social Groups	No Effect	No Effect
Crash Costs	High	Low
Economic and/or Operational Impacts		
Economic Impacts	No Effect	Modification to vehicular access to businesses
Temporary Detours	No Effect	Temporary interruptions may occur, but businesses will still be able to operate
Reduction of Parking	No Effect	No Effect
Operation at ETC +20 (maximum peak hour delay)	38.9 sec	13.6 sec
Utilities	None	Relocation of utilities will be required
Construction Cost	None	$2.03M

1.4.3 Anticipated Permits/Certifications/Coordination

Project locations have been reviewed and there are no other projects currently scheduled that would require coordination.

Exhibit 1.4.3 Anticipated Permits/Certifications/Coordination
Permits
NYS Department of Environmental Conservation (NYSDEC):
• State Pollutant Discharge Elimination System (SPDES) General Permit
• Article 24- Freshwater Wetlands Permit
• Coastal Zone Erosion Permit
Others
•
Coordination
NYSDEC (pursuant to the "NYSDEC/NYSDOT Memorandum of Understanding Regarding ECL Articles 15 & 24")
Federal Highway Administration
New York State Historic Preservation Officer (SHPO)
New York Natural Heritage Program
Central Pine Barrens Joint Planning & Policy Commission Peconic Estuary Protection Committee
Section 1424(e) review by FHWA and EPA (sole source aquifer) (Nassau Suffolk SSA)
Municipality(ies) – Town of Riverhead, Town of Southold, Town of East Hampton
Metropolitan Planning Organization – New York Metropolitan Transportation Council (NYMTC)
Utility(ies) – PSEGLI, National Grid, SCWA, Verizon, Crown Castle, Riverhead Water
Certifications
NYS Department of State Coastal Zone Local Waterfront Revitalization Certification

1.5. Preferred Alternative

At Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, there is only one build alternative: widen each approach to provide left turn bays and realign Edwards Avenue to eliminate offset between the northbound and southbound approaches. This choice will help reduce overall LOS F at this intersection to LOS C. It will also reduce crashes at this intersection, particularly rear-end and left-turn crashes.

At Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton, there is only one build alternative: widen each approach to provide left turn bays. This choice will help reduce overall LOS F at this intersection to LOS C. It will also reduce crashes, particularly rear-end and left-turn crashes.

No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, there is only one build alternative: widen NY 114 to provide a two-way left turn lane for access to Goodfriend Drive and Coultes Lane. This choice will help reduce crashes at this intersection, particularly rear-end and left-turn crashes. This location will retain a non-standard feature, namely a 5-foot shoulder (the standard width is 8 feet). Therefore, an approval is requested for this referred non-standard feature.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold, has only one build alternative: Construct a mini-roundabout. This choice will help reduce crashes. Roundabouts are safer compared to traditional intersection as there are less conflict points. They also have a positive environmental impact as number of stops and delays are reduced considerably. Roundabouts of are also a traffic calming device. Due to reduced speeds, roundabouts help in reducing crash severity.

For more detail on costs for each alternative refer to Section 3.2.1.

1.6. Project Schedule and Cost

All reasonable alternatives are under consideration. Refer to Exhibit 1.6b for the costs of the reasonable alternatives. Design Approval is scheduled for May 31, 2022, and Construction is scheduled to last 15 months beginning in February/March of 2024. The table below is consistent with current approved schedule. The total project construction cost is estimated at $8.5M.

Exhibit 1.6A
Project Schedule

Activity	Date Occurred/Tentative
Scoping Approval	July 2022
Design Approval	July 2022
ROW Acquisition	November 2022
Construction Start	Early 2024
Construction Complete	Early 2025

Exhibit 1.6B Project Costs - Design Bid Build Location 1: NY 25 at Edwards Avenue		
Potential Activies		**Alt 1**
Earthwork		$176,000
Pavement and Subbase		$670,000
Drainage		$400,000
Large Culvert		$0
Guide Rail and Median Barrier		$0
Sidewalks and Curb Ramps		$210,000
Signs & Pavement Markers		$70,000
Retaining Walls and Noise Barriers		$0
Traffic Signals		$200,000
Lighting		$0
Misc. Utilities (Water/Sewer)		$44,400
WZTC		$142,080
Landscaping		$50,000
Bridge		$0
Structures Demolition		$0
Wetland Mitigation		$0
Stormwater/SPDES		$35,520
Miscellaneous/Incidentals	10%	$199,800
Field Change	5%	$110,000
Mobilization	4%	$92,312
Subtotal in Base Year Dollars		**$2,400,112**
Contingency/Risk	15%	$360,017
Subtotal in Base Year Dollars		**$2,760,129**
Cost Data Year and Midpoint of Construction Year	*2018*	*2022*
Inflation/Escalation to Midpoint of Construction	3%	$331,215
Award/Construction Cost		**$3,091,344**
Final Design	10%	$309,134
QC & Administration of Final Design and Contract	3%	$92,740
Construction Inspection	10%	$309,134
ROW		$1,320,591
Total Project Cost		**$5,122,944**
Rounded to nearest $10K		**$5,120,000**

Exhibit 1.6B Project Costs - Design Bid Build Location 2: NY 114 at Stephen Hands Path		
Potential Activies		**Alt 1**
Earthwork		$201,000
Pavement and Subbase		$670,000
Drainage		$310,000
Large Culvert		$0
Guide Rail and Median Barrier		$0
Sidewalks and Curb Ramps		$6,000
Signs & Pavement Markers		$70,000
Retaining Walls and Noise Barriers		$0
Traffic Signals		$200,000
Lighting		$0
Misc. Utilities (Water/Sewer)		$37,425
WZTC		$119,760
Landscaping		$40,000
Bridge		$0
Structures Demolition		$0
Wetland Mitigation		$0
Stormwater/SPDES		$29,940
Miscellaneous/Incidentals	10%	$168,413
Field Change	5%	$93,000
Mobilization	4%	$77,822
Subtotal in Base Year Dollars		**$2,023,359**
Contingency/Risk	15%	$303,504
Subtotal in Base Year Dollars		**$2,326,863**
Cost Data Year and Midpoint of Construction Year	*2018*	*2022*
Inflation/Escalation to Midpoint of Construction	3%	$279,224
Award/Construction Cost		**$2,606,086**
Final Design	10%	$260,609
QC & Administration of Final Design and Contract	3%	$78,183
Construction Inspection	10%	$260,609
ROW		$419,864
Total Project Cost		**$3,625,350**
Rounded to nearest $10K		**$3,630,000**

Exhibit 1.6B Project Costs - Design Bid Build Location 3: NY 114 at Goodfriend Drive		
Potential Activities		**Alt 1**
Earthwork		$29,787
Pavement and Subbase		$358,107
Drainage		$0
Large Culvert		$0
Guide Rail and Median Barrier		$0
Sidewalks and Curb Ramps		$20,150
Signs & Pavement Markers		$36,432
Retaining Walls and Noise Barriers		$0
Traffic Signals		$0
Lighting		$0
Misc. Utilities (Water/Sewer)		$0
WZTC		$26,675
Landscaping		$17,883
Bridge		$0
Structures Demolition		$0
Wetland Mitigation		$0
Stormwater/SPDES		$8,892
Miscellaneous/Incidentals	10%	$49,793
Field Change	5%	$27,000
Mobilization	4%	$22,989
Subtotal in Base Year Dollars		**$597,707**
Contingency/Risk	15%	$89,656
Subtotal in Base Year Dollars		**$687,363**
Cost Data Year and Midpoint of Construction Year	*2018*	*2022*
Inflation/Escalation to Midpoint of Construction	3%	$82,484
Award/Construction Cost		**$769,847**
Final Design	10%	$76,985
QC & Administration of Final Design and Contract	3%	$23,095
Construction Inspection	10%	$76,985
ROW		
Total Project Cost		**$946,912**
Rounded to nearest $10K		**$950,000**

Exhibit 1.6B Project Costs - Design Bid Build Location 4: NY 25 at CR 48 (mini roundabout)		
Potential Activies		**Alt 1**
Earthwork		$139,000
Pavement and Subbase		$360,000
Drainage		$210,000
Large Culvert		$0
Guide Rail and Median Barrier		$0
Sidewalks and Curb Ramps		$350,000
Signs & Pavement Markers		$50,000
Retaining Walls and Noise Barriers		$0
Traffic Signals		$30,000
Lighting		$0
Misc. Utilities (Water/Sewer)		$29,225
WZTC		$93,520
Landscaping		$30,000
Bridge		$0
Structures Demolition		$0
Wetland Mitigation		$0
Stormwater/SPDES		$23,380
Miscellaneous/Incidentals	10%	$131,513
Field Change	5%	$72,000
Mobilization	4%	$60,746
Subtotal in Base Year Dollars		**$1,579,383**
Contingency/Risk	15%	$236,907
Subtotal in Base Year Dollars		**$1,816,290**
Cost Data Year and Midpoint of Construction Year	*2018*	*2022*
Inflation/Escalation to Midpoint of Construction	3%	$217,955
Award/Construction Cost		**$2,034,245**
Final Design	10%	$203,425
QC & Administration of Final Design and Contract	3%	$61,027
Construction Inspection	10%	$203,425
ROW		$259,545
Total Project Cost		**$2,761,667**
Rounded to nearest $10K		**$2,760,000**

1.7. Public Involvement

Refer to Appendix G for the project's Public Involvement Plan and for related project correspondence.

One EDPL Hearing (virtual) for all four project locations – February 09, 2022, Public Involvement in Scoping Phase.

Exhibit 1.7
Public Involvement Plan Schedule of Milestone Dates

Activity	Date Occurred/Tentative
Initial Environmental Findings	September 2021
Meeting with Town Reps.	October 2021
Public Hearing /Information Meeting	February 09, 2022
Current Project Letting date	November 2023

For additional information or to provide comments, please contact.

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Telephone: (631)952-6654

Please include the six-digit Project Identification Number (PIN) 0810.01 in any correspondence.

or visit the Project Website: https://www.dot.ny.gov/EastEndSafety

The deadline for submitting comments is February 19, 2022.

The remainder of this report is a detailed technical evaluation of existing conditions, anticipated impacts of the one reasonable/preferred alternative and comparison to the null alternative, copies of technical reports and plans and other supporting information.

CHAPTER 2 – PROJECT CONTEXT: HISTORY, TRANSPORTATION PLANS, CONDITIONS AND NEEDS

This chapter addresses the history and existing context of the project site, including the existing conditions, deficiencies, and needs for enhancements at the four intersections.

2.1. Project History

The four locations were identified for safety enhancements based on the concerns and requests presented by the elected officials and the community. At Loc. No. 1, community presented congestion concerns with traffic backing up and safety concerns regarding the misalignment of Edwards Avenue, north and south of the intersection. Loc. No. 2 also presented traffic congestion concerns. At Loc. No. 3, the Ross School had requested for a left-turn lane to keep the buses out of the through travel lanes. At Loc. No. 4, the community expressed concerns towards safety and traffic congestion at that intersection.

Section 1 of this Draft Design Report (DDR) provides a map of the four study intersections, summarizes the existing conditions at these locations, and discusses the alternatives being considered in the DDR.

2.2. Transportation Plans and Land Use

2.2.1. Local Plans for the Project Area

2.2.1.1. Local Comprehensive Plans (“Master Plan”) -

The safety enhancements proposed at Loc. No. 1 within the Town of Riverhead is consistent with the local planning goals. The Town of Riverhead in its Comprehensive Plan[4] completed in 2003 encouraged NYSDOT to conduct a study of the Route 25 corridor between the Brookhaven border and the LIE. The plan’s goal included enhancing traffic safety as a priority and working on it as an ongoing work.

The safety enhancements proposed at Loc. No. 2 and Loc. No. 3, within the Town of East Hampton are consistent with the local planning goals. The Town of East Hampton in its Comprehensive Plan[5] completed in 2005 identified traffic safety as one of their objectives.

The safety enhancements proposed at Loc. No. 4 are consistent with the local planning goals. The Town of Southold recently had a Comprehensive Plan[6] completed in February 2020 which identified this intersection as a high-crash location.

2.2.1.2. Local Private Development Plans –

There are no approved developments planned within the project area that will impact traffic operations.

2.2.2. Transportation Corridor

Each of these locations are isolated intersections and these enhancements are not linked to a transportation corridor or a regional network

2.2.2.1. Importance of the Project Route Segment –

[4] Town of Riverhead. Town of Riverhead Comprehensive Plan. November 2003. Available at https://www.townofriverheadny.gov/pview.aspx?id=18809

[5] Town of East Hampton. Town of East Hampton Comprehensive Plan. May 2005. Available at https://ehamptonny.gov/DocumentCenter/View/1319/2005-Town-Comprehensive-Plan-PDF

[6]Town of Southold. Southold Town Comprehensive Plan. February 2020. Available at http://www.southoldtownny.gov/DocumentCenter/View/7855/Southold-Town-Comprehensive-Plan-Vol-1.

Each of the four project locations are standalone intersections, and the proposed enhancements will improve safety and traffic operations at the four intersections. The enhancements will improve the traffic flow along NYS Routes 114 and 25 at these intersections and decrease the potential for crashes.

2.2.2.2. Alternate Routes –

There are no alternative routes that would be suitable as a permanent detour.

2.2.2.3. Corridor Deficiencies and Needs -

There are no other identified corridor needs / deficiencies.

2.2.2.4. Transportation Plans -

This project is on the 2020 – 2023 New York State Department of Transportation State Transportation Improvement Program (STIP) for Region 10.[7] Funding sources for this project include HSIP, CMAQ and SDF.

2.2.2.5. Abutting Highway Segments and Future Plans for Abutting Highway Segments -

The abutting highway segments generally match the typical section of the existing highway within the project limits. Future plans and projects located at and adjacent to the project locations are noted below.

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead:

PIN 0808.74- Drainage Improvements Project, one of the locations is NY 25 (Middle Country Rd) w/o Edwards Ave. The project will Improve debilitated drainage systems and isolated flooding areas; control flooding to promote safer traffic movement; improve quality of highway runoff to adjacent surface waters in the towns of E. Hampton, Riverhead, Southampton & Southold, Suffolk
Anticipated Letting: Summer 2022

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton:
Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton:

PIN 0008.22- South Ferry Dock at NY114 Improvements
This project proposes improvements to the South Ferry Dock at NY114 in the Town of Southampton in Suffolk County. The work includes overlaying with two (2) inches of asphalt the approach roadway to meet the existing dock, construction of new east bulkhead, raising the adjacent gravel parking area as needed, and drainage work.
Anticipated Letting Date: 07/07/2022

PIN 0008.23- NY114 Pavement Resurfacing, Stephen Hands Path to South Ferry
This project proposes to restore the pavement riding surface on NY114 (Sag Harbor Turnpike) from Stephen Hands Path to the South Ferry in the Towns of East Hampton and Southampton, Suffolk County to a smooth and distress free condition by milling and resurfacing the existing pavement. All proposed pavement work is expected to increase safety and provide a smooth riding surface for vehicular travel for the next 10 to 12 years.
Anticipated Letting Date: 09/09/2021

Stephen Hands Path major drainage improvements are planned by the Town of East Hampton. The drainage improvements are being planned along Stephen Hand Path from Long Lane to a point approximately 1000 feet south of NY 114. Preliminary discussions with the Town and their contracted Consulting Engineer have identified a portion of the proposed drainage improvements being considered

[7] New York State Department of Transportation. Statewide Transportation Improvement Program (STIP) for Region 10. Available at https://www.dot.ny.gov/programs/stip/files/R10.pdf. Page 26 of 57.

by the Town to cross under NY 114 and Stephen Hand Path. Continued discussion between the Town of East Hampton and NYSDOT are ongoing to coordinate the proposed drainage improvements and sequencing of the Town's anticipated drainage improvements and the NYSDOT safety enhancements.
Anticipated Letting Date: Expected in 2022 but undetermined by the Town of East Hampton at the time of this writing.

Roundabout construction proposed on Stephen Hands Path and Long Lane (approximately 2,000 feet northeast of NY 114, currently under design by the Town of East Hampton's contracted Consulting Engineer.
Anticipated Letting Date: Undetermined by the Town of East Hampton at the time of this writing.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
There are no known future construction projects planned at this location.

The Regional Planning Group has confirmed that there are no major reconstruction projects planned at the four (4) locations noted above, within the next 20 years.

2.3. Transportation Conditions, Deficiencies and Engineering Considerations

2.3.1. Operations (Traffic and Safety) & Maintenance

2.3.1.1. Functional Classification and National Highway System (NHS) –

Exhibit - 2.3.1.1
Classification Data – Location No. 1 - 4

Location Number	Loc. No. 1	Loc. No. 2	Loc. No. 3	Loc. No. 4
Route(s)	NYS Route 25	NYS Route 114	NYS Route 114	NYS Route 25
Functional Classification	NYS Route 25 - Urban Principal Arterial Other (14) Edwards Avenue Minor Arterial (16)	NYS Route 114 - Urban Principal Arterial Other (14) Stephen Hands Path Minor Arterial (16) s/o NY 114 Major Collector (17) n/o NY 114	Urban Principal Arterial Other (14)	Main Road – Urban Principal Arterial Other (14); Main Street – Urban Minor Arterial (16)
National Highway System (NHS)	Yes (NYS Route 25) No (Edwards Avenue)	Yes (NYS Route 114) No (Stephen Hands Path)	Yes	Yes (Main Road) No (Main Street)
Designated Truck Access Route	Yes (NYS Route 25) Yes (Edwards Ave s/o NY 25)	No (NYS Route 114 and Stephen Hands Path)	No	No
Qualifying Highway	No	No	No	No
Within 1 mile of a Qualifying Highway	No	No	No	No
Within the 16 ft vertical clearance network	No	No	No	No

2.3.1.2. Access Control

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead:
Access to NY 25 and Edwards Avenue is unrestricted.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton:
Access to NYS Route 114 and Stephen Hands Path is unrestricted.

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton:
Access to NYS Route 114 and Goodfriend Drive is unrestricted.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
Access to NYS 25 and CR 48 is unrestricted.

2.3.1.3. Traffic Control Devices

Traffic Signs

The existing signs around the four intersections are regulatory, warning and guide signs. The regulatory signs posted include speed limit signs and parking regulations. The guide signs include destination and information signs, route markers, and bicycle route signs. There are some warning signs including curve warning signs and advisory speed signs. The signs are generally in fair to good condition.

Pavement Markings

The pavement markings provided around the four intersections consists mainly of thermoplastic white and yellow stripes and bike route markings. Most existing pavement markings are in fair to good condition, except at Loc. No. 1.

Traffic Signals

Only two locations – Loc. No. 1 and Loc. No. 2 have existing 3-color traffic signals with pedestrian push buttons on each signal pole and no man/hand signals are installed. Both traffic signals are semi-actuated and uncoordinated.

For Loc. No. 1 all directions have 2 signal faces with three 12 inch LED bulbs. There is a No Turn on Red restriction at all approaches except for the westbound NY 25 approach.

Traffic Signal at Loc. No, 1 has two phases and the phase timings are shown in the table below:

Phase Times [1.1.1]								
	1	2	3	4	5	6	7	8
Min Green		40		5		40		5
Gap, Ext		5		3		5		3
Max 1		70		30		70		30
Max 2								
Yel Clearance		5		4		5		4
Red Clearance		2		2		2		2
Walk				7				7
Ped Clearance				15				15
Red Revert								
Add Initial		2				2		
Max Initial		35				35		
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap		5		3		5		3
DyMaxLim								
Max Step								

For Loc. No. 2 all directions have 2 signal faces with three 12 inch LED bulbs except for the following: Southbound NY 114 has one 3-section signal head and one 5-section signal head to allow protected / permissive left turns and the Westbound Stephen Hands Path approach has one 3-section signal head and one 5-section head for a right turn overlap during the aforementioned protected left turn arrow. The NY 114 approaches have backplates installed on the signal heads. Traffic Signal at Loc. No. 2 has three phases and the phase timings are shown in the table below:

Phase Times [1.1.1]								
	1	2	3	4	5	6	7	8
Min Green		20		8	3	20		8
Gap, Ext		6		3	2	6		3
Max 1		50		25	20	50		25
Max 2								
Yel Clearance		4.7		3.6	3	4.7		3.6
Red Clearance		2		2	2	2		2
Walk				7				7
Ped Clearance				13				13
Red Revert								
Add Initial		2				2		
Max Initial		30				30		
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Loc. No. 4 has 2 flashing overhead yellow signal heads for eastbound and westbound approaches and one flashing overhead red signal head on northbound approach.

2.3.1.4. Intelligent Transportation Systems (ITS) –

There are no ITS systems in operation or planned for the project area.

2.3.1.5. Speeds and Delay

Exhibit - 2.3.1.5 Speed Data				
Location Number	Loc. No. 1	Loc. No. 2	Loc. No. 3	Loc. No. 4
Route(s)	NYS Route 25	NYS Route 114	NYS Route 114	NYS Route 25
Existing Speed Limit (mph)	50 mph	45 mph	45 mph	45 mph
85th Percentile Operating Speed (Radar Spot Speed Study Method) **	EB* – 48 mph WB* – 49 mph	EB* – 48 MPH WB* – 49 MPH	EB* – 48 MPH WB* – 49 MPH	EB* – 45 MPH WB* – 46 MPH

* EB – Eastbound, WB – Westbound

** Data collected during off-peak hour of a typical weekday.

A radar spot speed study was conducted in July 2020 at the following four locations in eastbound and westbound directions during off-peak traffic hours:

- Loc. No. 1 - NY 25 at Edwards Avenue, Town of Riverhead, Suffolk County
- Loc. No. 2 - NY 114 at Stephen Hands Path, Town of East Hampton, Suffolk County
- Loc. No. 3 - NY 114 at Goodfriend Drive, Town of East Hampton, Suffolk County
- Loc. No. 4 – NY 25 at CR 48, Town of Southold, Suffolk County

A minimum sample size of 100 vehicles was kept at all of these locations in each direction. The results of the Spot Speed survey show that during off-peak hours, the existing 85th percentile speed at these intersections was between 45 mph and 49 mph in either direction. Refer to Appendix C for the spot-speed summary sheets and associated graphs.

2.3.1.6. Traffic Volumes

Turning Movement Counts

Traffic volumes on many of State's roadways saw a dramatic decline in March and April because of COVID-19 pandemic and as a result of the "New York State on PAUSE" plan. After early months of pandemic, traffic volumes have been on a steady incline back up, however they are still not where they would be during "normal" conditions.

As per the Regional Traffic Safety & Mobility Group's guidance, turning movement counts were taken from past studies. These counts were used for the analysis of each intersection using a growth rate of 0.47% per year. These counts were collected during typical weekday AM, Midday and PM peak hours except for Location 4, where Saturday peak analysis was also performed. These counts also included vehicle classification counts (including Auto and Heavy Vehicles) needed to determine the constraints associated with various traffic operating modes in a traffic stream. Pedestrian and bicycle counts were also conducted during these peak time periods.

Automatic Traffic Recorder (ATR) Counts

The ATR traffic counts were also taken from past studies. These counts are used to calculate the AADT, DHV, DDHV and vehicle classifications. The past count data was used to determine approach volumes at all four locations.

Refer to Appendix C for traffic data used for analysis of all four intersections.

2.3.1.6. (1) Existing traffic volumes –

Refer to Exhibits 2.3.1.6-1 and 2.3.1.6-2 for a summary of the traffic data. Traffic data used to calculate AADT, DHV and DDHV are included in Appendix C.

Exhibit - 2.3.1.6-1
Traffic Data

Location Number	Loc. No. 1	Loc. No. 2	Loc. No. 3	Loc. No. 4
Route(s)	NYS Route 25	NYS Route 114	NYS Route 114	NYS Route 25
Directional Distribution	EB-72%, WB-28% (AM), EB-55%, WB-45% (MD), EB-45%, WB-55% (PM)	SB-69%, NB-31% (AM), SB-59%, NB-41% (MD), SB-47%, NB-53% (PM)	SB-58%, NB-42% (AM), SB-44%, NB-56% (MD), SB-38%, NB-62% (PM)	EB-54%, WB-46% (AM), EB-46%, WB-54% (MD), EB-36%, WB-64% (PM), EB-36%, WB-64% (SAT)
% Peak Hour Trucks	10%AM, 7%MD, 5%PM	12%AM, 8%MD, 8%PM	12%AM, 8%MD, 8%PM	8%AM, 5%MD, 4%PM
% Daily Trucks	7%	9%	9%	4%

Exhibit - 2.3.1.6-2 Existing and Forecast Traffic Volumes								
Location Number	Loc. No. 1		Loc. No. 2		Loc. No. 3		Loc. No. 4	
Route(s)	NYS Route 25		NYS Route 114		NYS Route 114		NYS Route 25	
Year	AADT	DHV	AADT	DHV	AADT	DHV	AADT	DHV
Existing (2020)	17,325	1,313	6,804	1,062	6,804	850	4,691	1,131
ETC (2023)	17,569	1,332	6,900	1,077	6,900	882	4,757	1,147
ETC+10 (2033)	18,379	1,393	7,216	1,127	7,216	902	4,976	1,200
ETC+20 (2043)	-	-	-	-	-	-	5,196	1,253

Notes: ETC is the Estimated Time of Completion
AADT is Average Annual Daily Traffic (vehicles/day)
DHV is Design Hour Volume (vehicles/hour)

Peak hour traffic volumes were established utilizing turning movement counts at intersections. Peak hours for each period are listed below:

Loc. No. 1 - NY 25 at Edwards Avenue
- Weekday AM peak – 8:00 am to 9:00 am
- Weekday Midday peak – 12:15 pm to 1:15 pm
- Weekday PM peak – 4:15 pm to 5:15 pm

Loc. No. 2 - NY 114 at Stephen Hands Path
- Weekday AM peak – 8:00 am to 9:00 am
- Weekday Midday peak – 12:15 pm to 1:15 pm
- Weekday PM peak – 4:30 pm to 5:30 pm

Loc. No. 3 - NY 114 at Goodfriend Drive
- Weekday AM peak – 8:00 am to 9:00 am
- Weekday Midday peak – 12:00 pm to 1:00 pm
- Weekday PM peak – 4:00 pm to 5:00 pm

Loc. No. 4 - NY 25 at CR 48
- Weekday AM peak – 7:45 am to 8:45 am
- Weekday Midday peak – 1:00 pm to 2:00 pm
- Weekday PM peak – 4:00 pm to 5:00 pm
- Saturday Midday peak – 12:00 pm to 1:00 pm

Refer to Appendix C for the peak hour traffic data.

2.3.1.6. (2) Future no-build design year traffic volume forecasts

The Estimated Time of Completion (ETC) is 2023. Design year is considered as ETC+10 (2033) for all the intersections except for Location 4 where design year is considered as ETC+20 (2043). All the traffic volumes for future no-build conditions are increased by the NYMTC approved linear growth rate of 0.47% per year. All the future no-build design year traffic volumes are included in Appendix C.

2.3.1.7. Level of Service and Mobility -

2.3.1.7. (1) Existing level of service and capacity analysis
In order to determine existing and future design year no-build traffic operating conditions, capacity analyses were conducted utilizing the SYNCHRO 10 software package. This software utilizes the highway capacity analysis techniques outlined in the 2010 Highway Capacity Manual (published by the Transportation Research Board). Under this methodology, the analysis determines the traffic operations in terms of flow rates, volume to capacity (v/c) ratios, traffic delays and Levels of Service (LOS). These are the typical Measures of Effectiveness (MOEs) used to evaluate the traffic impacts at an intersection. LOS is a letter designation that describes a range of traffic operating conditions on a particular type of roadway facility. A LOS 'A' typically represents the best traffic operating condition, while LOS 'E/F' represents constrained traffic operations, with traffic flow at or near the capacity of the facility.

The capacity analyses are based on the existing roadway components including intersection geometry, peak hour factors, traffic controls and traffic signal timing, signage, posted speed and the traffic volume mix (vehicle classifications). The analyses are conducted for the weekday AM, Midday, PM peak and Saturday Midday peak (only for Location 4) travel periods, as determined by the traffic data. Exhibits 2.3.1.7-1, 2.3.1.7-2, and 2.3.1.7-3 show the results of these analyses.

2.3.1.7. (2) Future no-build design year level of service –
The future no-build condition analysis typically quantifies the traffic operations that are expected to occur if the proposed project is not constructed. For this project, the estimated time of completion (ETC) is 2023, and the design year has been established as ETC+10 years (2033) for Locations 1, 2 and 3; while ETC+20 years (2043) for Location 4. An interim analysis period of ETC+5, ETC+15 years has also been identified for examination. Thus, the future no-build condition traffic analyses are conducted for ETC, ETC +5, ETC+10, ETC+15 (Location 4 only) and ETC + 20 (Location 4 only) years.

As indicated before, to estimate the conditions that will prevail during the future no-build ETC, ETC +5, ETC+10, ETC+15 and ETC + 20 years scenarios, the background traffic volumes are increased by the NYMTC-approved linear growth factor of 0.47% per year. No other planned projects are identified at any of four location's vicinity.

Exhibits 2.3.1.7-1, 2.3.1.7-2, and 2.3.1.7-3 provide the results of these future no-build condition analyses for various years of operation

Exhibit - 2.3.1.7-1 Highway Design Year Level of Service and Delays (sec)		
Location 1: NYS Route 25, RM - 25 0704 1392		
YEAR	**LOS**	**Delays (sec)**
Existing (2020)	AM – D, Midday – C, PM – D	AM – 35.7, Midday – 30.1, PM – 40.0
ETC	AM – D, Midday – C, PM – D	AM – 36.8, Midday – 31.1, PM – 41.0
ETC+10	AM – D, Midday – C, PM – D	AM – 41.5, Midday – 34.7, PM – 46.9
Location 2: NYS Route 114, RM - 114 0701 1020		
YEAR	**LOS**	**Delays (sec)**
Existing (2020)	AM – E, Midday – D, PM – D	AM – 66.9, Midday – 40.4, PM – 44.2
ETC	AM – E, Midday – D, PM – D	AM – 71.8, Midday – 42.4, PM – 46.3
ETC+10	AM – F, Midday – D, PM – E	AM – 86.8, Midday – 49.2, PM – 55.6
Location 3: NYS Route 114, RM - 114 0701 1029		
YEAR	**LOS**	**Delays (sec)**
Existing (2020)	AM – A, Midday – A, PM – A	AM – 3.5, Midday – 1.5, PM – 4.6
ETC	AM – A, Midday – A, PM – A	AM – 3.5, Midday – 1.6, PM – 4.7
ETC+10	AM – A, Midday – A, PM – A	AM – 3.8, Midday – 1.6, PM – 5.2
Location 4: NYS Route 25, RM - 25 0704 1671		
YEAR	**LOS**	**Delays (sec)**
Existing (2020)	AM – A, Midday – A, PM – A, Sat – B	AM –3.1, Midday –5.4, PM –6.2, Sat –12.9
ETC	AM – A, Midday – A, PM – A, Sat – B	AM –3.1, Midday –5.6, PM –6.4, Sat –13.4
ETC+10	AM – A, Midday – A, PM – A, Sat – C	AM –3.2, Midday –6.4, PM –7.7, Sat –24.6
ETC+20	AM – A, Midday – A, PM – B, Sat – E	AM –3.4, Midday –7.3, PM –11.5, Sat –38.9

Exhibit - 2.3.1.7-2 Intersection Level of Service and Delays (sec)						
YEAR	**Peak**	**EB**	**WB**	**NB**	**SB**	**Overall***
Location 1: Intersection of NY 25 at Edwards Avenue						
ETC 2023	AM Peak	26.9 (C)	9.8 (A)	74.6 (E)	68.9 (E)	36.8 (D)
	Midday Peak	16.9 (C)	13.7 (B)	87.0 (F)	51.4 (D)	31.1 (C)
	PM Peak	15.3 (B)	21.1 (C)	118.9 (F)	40.5 (D)	41.0 (D)
ETC+10 2033	AM Peak	32.4 (C)	10.2 (B)	81.7 (F)	74.3 (E)	41.5 (D)
	Midday Peak	18.2 (B)	14.5 (B)	102.4 (F)	55.9 (E)	34.7 (C)
	PM Peak	16.3 (B)	24.0 (C)	140.1 (F)	41.7 (D)	46.9 (D)
Location 2: Intersection of NY 114 at Stephen Hands Path**						
ETC 2023	AM Peak	128.7 (F)	128.5 (F)	16.2 (B)	78.8 (E)	71.8 (E)
	Midday Peak	126.6 (F)	53.3 (D)	16.0 (B)	32.2 (C)	42.4 (D)
	PM Peak	114.6 (F)	55.8 (E)	22.5 (C)	44.5 (D)	46.3 (D)
ETC+10 2033	AM Peak	145.8 (F)	148.9 (F)	17.2 (B)	103.1 (F)	86.8 (F)
	Midday Peak	142.1 (F)	57.6 (E)	16.7 (B)	43.2 (D)	49.2 (D)
	PM Peak	130.8 (F)	63.0 (E)	25.7 (C)	61.0 (E)	55.6 (E)
Location 3: Intersection of NY 114 at Goodfriend Drive**						
ETC 2023	AM Peak	27.6 (D)	16.0 (C)	0.0 (A)	0.0 (A)	3.5 (A)
	Midday Peak	18.1 (C)	13.0 (B)	0.0 (A)	0.0 (A)	1.6 (A)
	PM Peak	36.2 (E)	16.7 (C)	0.0 (A)	0.0 (A)	4.7 (A)
ETC+10 2033	AM Peak	30.6 (D)	16.8 (C)	0.0 (A)	0.0 (A)	3.8 (A)
	Midday Peak	19.0 (C)	13.4 (B)	0.0 (A)	0.0 (A)	1.6 (A)
	PM Peak	42.4 (E)	17.6 (C)	0.0 (A)	0.0 (A)	5.2 (A)

Exhibit - 2.3.1.7-2 Intersection Level of Service and Delays (sec)						
YEAR	Peak	EB	WB	NB	SB	Overall*
Location 4: Intersection of NY 25 at CR 48						
ETC 2023	AM Peak	0.0 (A)	8.6 (A)	11.4 (B)	NA	3.1 (A)
	Midday Peak	0.0 (A)	8.6 (A)	17.1 (C)	NA	5.6 (A)
	PM Peak	0.0 (A)	8.4 (A)	22.4 (C)	NA	6.4 (A)
	Sat Peak	0.0 (A)	8.6 (A)	51.3 (F)	NA	13.4 (B)
ETC+10 2033	AM Peak	0.0 (A)	8.7 (A)	12.1 (B)	NA	3.2 (A)
	Midday Peak	0.0 (A)	8.7 (A)	20.2 (C)	NA	6.4 (A)
	PM Peak	0.0 (A)	8.5 (A)	27.8 (D)	NA	7.7 (A)
	Sat Peak	0.0 (A)	8.7 (A)	99.0 (F)	NA	24.6 (C)
ETC+20 2043	AM Peak	0.0 (A)	8.7 (A)	12.8 (B_	NA	3.4 (A)
	Midday Peak	0.0 (A)	8.8 (A)	24.1 (C)	NA	7.3 (A)
	PM Peak	0.0 (A)	8.6 (A)	44.5 (E)	NA	11.5 (B)
	Sat Peak	0.0 (A)	8.8 (A)	160.1 (F)	NA	38.9 (E)

Notes:
1. * These values represent weighted average delays for all approaches.
2. ** NY 114 is a north-south road, although the alignment is east-west at Loc. No. 2 and No. 3.
3. NA = Not applicable

2.3.1.8. Safety Considerations, Accident History and Analysis –

An accident analysis was performed in accordance with the Highway Design Manual. The crash analysis was conducted at each of the study intersections from the most recent data provided by the New York State Department of Transportation (NYSDOT). The crash data covered a time period between April 2016 and June 2019 (39-month period). Backup of this crash inventory for each location is presented in the appendix along with the collision diagrams (that were prepared using HSA 3.0 software), and the comparative state-wide crash rate calculations.

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County
An initial review of this section of NYS Route 25 within ½ of the Edwards Avenue intersection identified 85 crashes resulting in a crash rate of 3.8 accidents per million vehicle mile (acc/mvm). This rate is 1 % higher than the statewide average for similar type facilities. Since this is an intersection improvement project, the detailed crash analysis below focused on crashes proximate to the intersection.

The information on crash types and resulting injuries/fatalities are presented in Exhibit 2.3.1.8.2. There was a combined total of 40 crashes (or 12.3 crashes per year) at this signalized intersection during the study period. The crash investigation further indicates that 26 crashes (65%) resulted in property damages, 12 crashes (30%) resulted in injuries, and the remaining 2 crashes (5%) were non-reportable. The predominate accident types are:

Exhibit - 2.3.1.8.1 Predominant Collision Summary for Loc. No. 1		
Type of Collision	Number	Percentage
Rear-end crash	16	40
Left-turn crash	7	18
Right-angle crash	6	15
Overtaking crash	3	8

Important to note is there were no fatal, pedestrian or bicycle crashes at this intersection during the study period. The main contributing factors to these crashes include driver's inattention, failure to yield right of way, following too closely, drivers under the influence of illegal substance and turning improperly. Also, important to note is a vast majority of these crashes (88% or 35 crashes) occurred under clear weather conditions and on dry pavement surface. About 28 crashes (70%) occurred during daylight hours.

Table 2.3.1.8.2 – Summary of Intersection Crashes

NY-25/North-Road @ Edwards Avenue - Crash Summary - 3+ Year Crash Types Summary (2016 - 2019)																	
Cross Street	All Types	Head-On	Rear End	Overtaking	Right Angle	Left Turn	Right Turn	Sideswipe	Backing	Fixed Object	Pedestrian	Bicycle	Animal	Fatal	Injury	Property Damage Only	Non-Reportable
Edwards Avenue	40	1	16	3	6	7	3	1	1	1			1		12	26	2
Total Studied Crashes	40	1	16	3	6	7	3	1	1	1			1		12	26	2
Crashes Per Year	13		5		2	3	1						1		4	8	

Following the Highway Design Manual guidelines, crash rate for this intersection was calculated to be 1.48 accidents per million entering vehicles - (accidents/MEV). This rate is about 165% higher than the NY Statewide average crash rate of 0.56 accidents/MEV for similar roadways (i.e., Urban Functional Class 4-Legged Intersections Signal 1-4 Lanes).

The crash inventory reveals a significantly high crash rate when compared to the state-wide average crash rate at this intersection. Based on the crash assessment, consideration should be given to installing separate left-turn bays on all approaches, realigning Edwards Avenue to eliminate the offset between the northbound and southbound approaches and retiming the traffic signal in order to reduce crashes and improve intersection safety. Consideration may also be given to a separate left-turn phase, if/where warranted. These countermeasures are anticipated to particularly help in reducing the left-turn and rear-end crashes. Furthermore, separating left turning vehicles from through and right-turning traffic will also help in improving traffic operations.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton, Suffolk County
An initial review of this section of NYS Route 114 within ½ of the Stephen Hands Path intersection identified 16 crashes resulting in a crash rate of 1.8 accidents per million vehicle mile (acc/mvm). This rate is 51% lower than the statewide average for similar type facilities. Since this is an intersection improvement project, the detailed crash analysis below focused on crashes proximate to the intersection.

The information on crash types and resulting injuries/fatalities are presented in Table 2.3.1.8.4. There was a combined total of 13 crashes (or 4 crashes per year) at this signalized intersection during the study period. The crash investigation further indicates that 11 crashes (85%) resulted in property damage only, and the remaining 2 crashes (15%) resulted in injuries. The predominate accident types are:

Exhibit - 2.3.1.8.3 Predominant Collision Summary for Loc. No. 2		
Type of Collision	**Number**	**Percentage**
Rear-end crash	8	62
Crash with animal	2	15

Important to note is there were no fatal, pedestrian or bicycle crashes at this intersection during the study period. The main contributing factors to these crashes include driver inattention and following too closely. Also, important to note is a vast majority of these crashes (77% or 10 crashes) occurred under clear weather conditions and on dry pavement surface.

Table 2.3.1.8.4 **– Summary of Intersection Crashes**

East Hampton Sag Harbor Turnpike / NY114 & Stephen Hands Path - 3+ Year Crash Types Summary (2016 - 2019)																	
Cross Street	All Types	Head-On	Rear End	Overtaking	Right Angle	Left Turn	Right Turn	Sideswipe	Backing	Fixed Object	Pedestrian	Bicycle	Animal	Fatal	Injury	Property Damage Only	Non-Reportable
Stephen Hands Path	13		8			1		1		1			2		2	11	
Total Studied Crashes	13		8			1		1		1			2		2	11	
Crashes Per Year	4		3										1		1	4	

Following the Highway Design Manual guidelines, crash rate for this intersection was calculated to be 0.44 accidents per million entering vehicles (accidents/MEV). This rate is about 21% lower than the NY Statewide average crash rate of 0.56 accidents/MEV for similar roadways (i.e., Urban Functional Class 4-Legged Intersections Signal 1-4 Lanes).

The crash inventory reveals a lower crash rate when compared to the state-wide average crash rate at this intersection. Based on the crash assessment, consideration should be given to installing separate left-turn bays on all approaches, extending the westbound Stephen Hands Path exclusive right turn lane and retiming the traffic signal in order to reduce crashes and improve intersection safety. Consideration may also be given to a separate left-turn phase, if/where warranted. These countermeasures are anticipated to particularly help in reducing the rear-end crashes. Separating left turning vehicles from through and right-turning traffic will also help in improving traffic operations, as through traffic along NYS Route 114 generally operates at a higher speed (Note: 85th percentile speed at this intersection along NYS Route 114 is 48 mph or above, whereas, the posted regulatory speed on is 45 mph).

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County
An initial review of this section of NYS Route 114 within ½ of the Goodfriend Drive intersection identified 12 crashes resulting in a crash rate of 1.4 accidents per million vehicle mile (acc/mvm). This rate is 63% lower than the statewide average for similar type facilities. Since this is an intersection improvement project, the detailed crash analysis below focused on crashes proximate to the intersection.

The information on crash types and resulting injuries/fatalities are presented in Table 2.3.1.8.6 below. The table indicated that there was a combined total of 3 crashes (or 1 crash per year) occurred at this unsignalized intersection during the study period. The crash investigation further indicates that 2 crashes (67%) resulted in property damage only, while the remaining crash (33%) resulted in injuries. The predominate accident types are:

Exhibit - 2.3.1.8.5 Predominant Collision Summary for Loc. No. 3		
Type of Collision	**Number**	**Percentage**
Head-on crash	1	33.3
Right-turn crash	1	33.3
Crash with a fixed object	1	33.3

Important to note is there were no fatal, pedestrian or bicycle crashes at this intersection during the study period. The head-on collision was due to one of the drivers falling asleep. Two crashes occurred during daylight hours, under clear weather conditions and on dry pavement surfaces, while 1 crash took place on a rainy day on wet road surface.

Table 2.3.1.8.6 **– Summary of Intersection Crashes**

East Hampton Sag Harbor Turnpike / NY114 - 3+ Year Crash Types Summary (2016 - 2019)																	
Cross Street	All Types	Head-On	Rear End	Overtaking	Right Angle	Left Turn	Right Turn	Sideswipe	Backing	Fixed Object	Pedestrian	Bicycle	Animal	Fatal	Injury	Property Damage Only	Non-Reportable
Good Friend Drive	3	1					1			1					1	2	
Total Studied Crashes	3	1					1			1					1	2	
Crashes Per Year	1															1	

Following the Highway Design Manual guidelines, crash rate for this intersection was calculated to be 0.25 accidents per million entering vehicles (accidents/MEV). This rate is about 20% lower than the NY Statewide average crash rate of 0.31 accidents/MEV for similar roadways *(i.e., Urban Functional Class 4-Legged Intersections Sign 1-3 Lanes)*.

The crash inventory reveals a lower crash rate when compared to the state-wide average crash rate at this intersection. Even though the crash inventory did not reveal any substantial number of crashes or patterns, with the school on Goodfriend Drive, existing conditions reveal, school buses as well as residents must remain idle in a through lane on NY 114 waiting for an opening to make a left turn on to Goodfriend Drive. Thus, consideration could be given to installing left turn bays along NYS Route 114 at this intersection in order to facilitate left turns. This measure will help in separating the slow turning or stopped vehicles from through traffic that are presently sharing the lane and are generally moving at a higher speed under free-flow conditions. (Note: 85th percentile speed at this intersection along NYS Route 114 is 48 mph or above, whereas, the posted regulatory speed on is 45 mph). Thus, both approaches along NYS Route 114 to this intersection should be considered for installation of left turns bays.

Loc. No. 4 - NYS Route 25 at County Road 48, Town of Southold, Suffolk County

An initial review of this section of NYS Route 25 within ½ of the CR 48 intersection identified 57 crashes resulting in a crash rate of 9.4 accidents per million vehicle mile (acc/mvm). This rate is 76% higher than the statewide average for similar type facilities. The vast majority of crashes were outside the influence of the CR 48 intersection. Since this is an intersection improvement project, the detailed crash analysis below focused on crashes proximate to the intersection.

The information on crash types and resulting injuries/fatalities are presented in Table 2.3.1.8.8 below. There was a combined total of 16 crashes (or 5 crashes per year) at this unsignalized intersection during the study period. The crash investigation further indicates that 14 crashes (88%) resulted in property damage only, while the remaining 2 crashes (12%) resulted in injuries. The predominate accident types are:

Exhibit - 2.3.1.8.7 Predominant Collision Summary for Loc. No. 4		
Type of Collision	**Number**	**Percentage**
Rear-end crash	10	63
Left-turn crash	3	19

Important to note is there were no fatal, pedestrian or bicycle crashes at this intersection during the study period. Eight of the ten rear-end crashes occurred on the northbound approach to eastbound NY 25 which is controlled by a Yield sign. This most likely due to drivers turning their heads to look west for a gap and not seeing the vehicle ahead of them stopped waiting for traffic to clear. The main contributing

factors to these crashes include drivers following too closely and failure to yield right of way. All 16 crashes (100%) occurred during daylight hours, under clear weather conditions and on dry pavement.

2.3.1.9. Existing Police, Fire Protection and Ambulance Access -

There are no existing emergency services – police stations, fire departments, and hospital/medical centers located within a mile of the four intersections. However, emergency vehicles most likely use these intersections routinely since NY 25 and NY 114 are the main thoroughfares in these areas.

2.3.1.10. Parking Regulations and Parking Related Conditions –

There are currently parking restrictions near the Suffolk County Transit bus stops located at NY 25 and Edwards Avenue, and on the westbound approach at NY 114 @ Stephen Hands Path. There are no parking restrictions at Loc. No. 3 and 4.

2.3.1.11. Lighting –

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead:
Street lighting is provided within the project limits in the form of luminaries attached to utility poles along NY 25 and Edwards Avenue.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton:
Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton:
There is no street lighting within the highway limits and no known plans for to install lighting.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
Street lighting is provided within the project limits in the form of luminaries attached to utility poles along NY 25 and County Road 48.

Where lighting exists, it is maintained by the local municipality.

2.3.1.12. Ownership and Maintenance Jurisdiction –

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead:
NYSDOT owns and maintains NYS Route 25. The Town of Riverhead owns and maintains Edwards Avenue.

Exhibit - 2.3.1.12
Existing Maintenance Jurisdiction

Part No.	Highway	Limits	Feature(s) being Maintained	Centerline (mile)	Lane (mile)	Agency	Authority
1	NYS Route 25	Within NYS Route 25 Highway Boundary Lines. Varying ROW Width.	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, Traffic Signals, Sidewalk	0.22	0.44	NYSDOT	
2	Edwards Ave.	Within Edwards Ave. Highway Boundary Lines, both North and South of NYS Route 25 HB Lines. Varying ROW Width.	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, Lighting, Sidewalk	0.20	0.40	Town of Riverhead	

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton:
NYSDOT owns and maintains NYS Route 114. The Town of East Hampton owns and maintains Stephen Hands Path.

Exhibit - 2.3.1.12 Existing Maintenance Jurisdiction							
Part No.	**Highway**	**Limits**	**Feature(s) being Maintained**	**Centerline (mile)**	**Lane (mile)**	**Agency**	**Authority**
1	NYS Route 114	Within NYS Route 114 Highway Boundary (HB) Lines (Varying ROW Width	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, Traffic Signals, Sidewalk	0.23	0.46	NYSDOT	
2	Stephen Hands Path	Within Stephen Hands Path Highway Boundary Lines, both West (South) and East (North) of NYS Route 114 HB Lines. Varying ROW Width.	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, , Sidewalk	0.13	0.26	Town of East Hampton	

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton:
NYSDOT owns and maintains NYS Route 114. Goodfriend Drive is a private road. The Town of East Hampton owns and maintains Coultes Lane.

Exhibit - 2.3.1.12 Existing Maintenance Jurisdiction							
Part No.	**Highway**	**Limits**	**Feature(s) being Maintained**	**Centerline (mile)**	**Lane (mile)**	**Agency**	**Authority**
1	NYS Route 114	Within NYS Route 114 Highway Boundary (HB) Lines (Varying ROW Width	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, , Sidewalk	0.23	0.46	NYSDOT	
2	Goodfriend Drive / Coultes Lane	Within Goodfriend Drive and Coultes Lane Highway Boundary Lines, both West (South) and East (North) of NYS Route 114 HB Lines. Varying ROW Width.	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, , Sidewalk	0.08	0.16	Private (Goodfriend Park Inc.) /Town of East Hampton	

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
NYSDOT owns and maintains NYS Route 25. Suffolk County owns and maintains County Road 48.

Exhibit - 2.3.1.12
Existing Maintenance Jurisdiction

Part No.	Highway	Limits	Feature(s) being Maintained	Centerline (mile)	Lane (mile)	Agency	Authority
1	County Road (CR) 48	Within CR 48 Highway Boundary (HB) Lines (Varying ROW Width	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, Sidewalk	0.10	0.20	SCDPW	
2	NYS Route 25	Within NYS Route 25 Highway Boundary (HB) Lines (Varying ROW Width	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, Sidewalk	0.11	0.22	NYSDOT	
3	NYS Route 25 (Main Street)	Within NYS Route 25 (Main Street) Highway Boundary (HB) Lines (Varying ROW Width	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, Sidewalk	0.04	0.08	NYSDOT	
4	Sound Avenue	Within Sound Avenue Highway Boundary (HB) Lines (Varying ROW Width	Pavement, Snow and Ice Removal, Drainage systems, Signage, Pavement Markings, Lighting, Sidewalk	0.01	0.02	Town of Southold	

2.3.2. Multimodal

2.3.2.1. Pedestrians

The general land use around Loc. No. 1 is agricultural with industrial and commercial uses on southern side. Sidewalk is available on the southern side along NY 25 and provides pedestrian connectivity to the Riverhead Charter School and other commercial uses near the intersection. The sidewalk on the eastbound approach ends abruptly with no accessible ramp. The sidewalk was likely built when the business was constructed in the southeast corner and limited work to their respective property. Pedestrians on the north side may cross over to use sidewalk on south side. There is minimal pedestrian activity along Edwards Avenue.

The general land use around Loc. No. 2 and Loc. No .3 is primarily low-density residential development that generates infrequent pedestrian travel. Sidewalks or crosswalks are not available at these two intersections. Pedestrians legally use the existing shoulder per the provisions of NYS Vehicle and Traffic Law Section 1156(b).

The land use around Loc. No. 4 is mix of residential and commercial. Sidewalk is available along NY 25 / Main Street / Main Road. Considering the location's proximity to Downtown Greenport, pedestrian activity can be expected at this location.

2.3.2.2. Bicyclists

All four intersections are located along designated NYS Bike Routes. NYS Bike Route 25, runs from Smithtown east to Orient Point, crosses Loc. No. 1 and Loc. No. 4 along NY 25. NYS Bike Route 114, runs from East Hampton east to Greenport, crosses Loc. No. 2 and Loc. No. 3 along NY 114. Both these bike facilities support the larger bicycle network in the region and are considered important to bicycle tourism by the region. There are commercial and recreational generators of bicycle traffic in proximity to the project intersections, especially Loc. No. 1 and Loc. No. 2.

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead:
The existing shoulders in both the eastbound westbound directions of NY 25 are generally 5' wide. However, there is a small section where NY 25 crosses over the existing drainage culvert where the shoulders are reduced to 3'-4" wide (length of approximately 145'). As shown in the Pavement Evaluation Treatment and Selection Report (PETSR) prepared in February of 2021, the existing right shoulders are in good condition with little to no drop off along the longitudinal travel lane joint. Random/minor cracking is exhibited in areas of ponding water. All drainage structures are fitted with bicycle safe grates.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton:
The existing shoulder in both the northbound and southbound directions of NY 114 are a minimum of 8' wide. As shown in the Pavement Evaluation Treatment and Selection Report (PETSR) prepared in February of 2021, the existing right shoulders are in good condition with little to no drop off along the longitudinal travel lane joint. Random/minor cracking is exhibited in areas of ponding water. All drainage structures are fitted with bicycle safe grates or are located outside the travel path of bicyclists.

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton:
The existing shoulder in both the northbound and southbound directions of NY 114 are a minimum of 8' wide. As shown in the Pavement Evaluation Treatment and Selection Report (PETSR) prepared in February of 2021, the existing right shoulders are in good condition with little to no drop off along the longitudinal travel lane joint. Areas of random cracking and/or pop-outs exist along the flowline of intersecting streets where ponding water accumulates and deteriorates the asphalt riding surface. All drainage structures are fitted with bicycle safe grates or are located outside the travel path of bicyclists.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
The existing shoulders along County Road 48 (west of the intersection) vary from 6' wide to 1' wide. The shoulders along NYS Route 25 (east of the intersection) vary from 1' wide to 10' wide. As shown in the Pavement Evaluation Treatment and Selection Report (PETSR) prepared in February of 2021, the existing right shoulders are in good condition with little to no drop off along the longitudinal travel lane joint. Random/minor cracking is exhibited in areas of ponding water. All drainage structures are fitted with bicycle safe grates.

2.3.2.3. Transit
Suffolk County Transit (SCT) operates fixed-route transit in proximity to two of the four study intersections. SCT Bus Route S58 and S62 operate along NY 25 at Loc. No.1 and has bus stops adjacent to that intersection. SCT Bus Route S92 operates along NY 114 at Loc. No. 2 and has bus stops north of that intersection. Route S92 also passes through Loc. No. 3 and Loc. No .4 but makes no stop at those intersections.

2.3.2.4. Airports, Railroad Stations, and Ports
There are no railroad stations or port entrances in close vicinity of the four intersections. The East Hampton Airport is located within 2 miles of Loc. No. 2 and 3. The Town of East Hampton Airport is situated on 600 acres on the western border of the Town of East Hampton. It is comprised of 2 runways, a Terminal Building, a seasonal control tower (operated only during the summer season) and 62 private hangars that house aircraft for general aviation. There is one Fixed Base Operator (FBO) that provides fueling (JetA and Avgas), aircraft charters, catering and ramp service. There is also an additional charter service and flight school at the airport.

2.3.2.5. Access to Recreation Areas (Parks, Trails, Waterways, State Lands)
Splish Splash Amusement park located approximately 0.6 miles east of Loc. No. 1. However, there are no entrances to recreation areas in close proximity to any of the four intersections.

2.3.3. Infrastructure

2.3.3.1. Existing Highway Section

See Typical Sections, Plan and Profile sheets in Appendix A.

2.3.3.2. Geometric Design Elements Not Meeting Minimum Standards –

There is one existing nonstandard feature (horizontal curve radius) within the project limits of Location 2. The identified nonstandard feature will be eliminated as part of this project. The parameters for this existing nonstandard feature are shown in Exhibit 2.3.3.2 below.

Exhibit 2.3.3.2
Existing Nonstandard Features

Critical Design Element	Operating Speed	Standard (from HDM Chapter 2, Rural Town, Suburban, Urban, and Urban Core Arterials - NHS)	Existing Condition	Adverse Accident History? (Yes/No)	Remarks
Location 2 – NYS Route 114: Minimum Horizontal Radius between stations EST 12+40 and EST 14+70	50 mph (based on 45 mph speed limit and speed study)	833 ft min. at e max = 6% (from HDM Exhibit 2-4a)	600 ft	No	

2.3.3.2.(1) Other Design Parameters

There are two existing nonconforming features (headlight sight distance) at Locations 1 and 2.

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

There is an existing nonconforming stopping sight distance (headlight) along NYS Route 25 within the project limits. The minimum stopping sight distance required is 495 feet. The existing stopping sight distance is currently 295 feet. The Preferred Alternative will slightly increase the stopping sight distance to 300 feet; however, this still is below the minimum 495 feet required.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

There is an existing nonconforming stopping sight distance (headlight) along NYS Route 114 within the project limits. The minimum stopping sight distance required is 425 feet. The existing stopping sight distance is currently 236 feet. The Preferred Alternative will slightly increase the stopping sight distance to 264 feet; however, this still is below the minimum 425 feet required.

2.3.3.3. Pavement and Shoulder -

The overall pavement condition rating is 6-8 at all locations. A summary of the Pavement Evaluation and Treatment Selection Report (PETSR) is included in Appendix D.

2.3.3.4. Drainage Systems –

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead:

The existing drainage system within the vicinity of the intersection enhancements consists of numerous leaching basins along both NYS Route 25 and Edwards Avenue, mainly located along the intersection quadrants. There is an existing low point along NYS Route 25 just east of Edwards Avenue. A leaching basin at the low point and two flanker structures are located along the north edge of NYS Route 25 and are utilized to capture runoff. Leaching basins are also located along the south curb line on NYS Route east of Edwards Avenue. These structures are located upstream of the two existing driveway openings. West of Edwards Avenue there is another low point on NYS Route 25. Runoff sheet flows off the pavement and is directed to a natural swale/low lying area. Existing headwalls on the north and south side of NYS Route 25 are connected via a 36" RCP pipe which allows sheet flow to pass under NYS Route 25 from the north to the south.

Edwards Avenue slopes from the south to the north. South of NYS Route 25 there are only two leaching basins within the project limits. These leaching basins are located along the driveway curb lines of the FED-EX shipping center and are assumed to be privately owned. North of NYS Route 25 there is an existing low point on Edwards Avenue. Leaching basins on the east and west side of Edwards Avenue are placed here to collect runoff.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton:

The existing drainage system within the vicinity of the intersection enhancements consists of a combination of leaching structures and interconnected structures that discharge into the natural stream/channel located along the north side of Stephen Hands Path west of NYS Route 114. NYS Route 114 contains a low point located just north of Stephen Hands Path while there is a high point located on Stephen Hands Path east of NYS Route 114. Along NYS Route 114 north of Stephen Hands Path there are two leaching basins (one on the west side and one on the east side) that are connected with a drainage pipe that crosses under NYS Route 114. The size and material of this pipe are unknown at this time. Another single leaching structure is located along the east side of NYS Route 114, approximately 300', north of the intersection. In the vicinity of the low point on NYS Route 114, along the east side of the road there is a series of three leaching structures (8'x8'x11' deep) interconnected with 15" RCP. There is also an individual 8'x4'x10' deep leaching structure along the edge of pavement in the westbound to northbound quadrant. South of Stephen Hands Path, the roadway is superelevated and pitches to the west. There is a tip-up gutter along the west side of NYS Route 114 which directs runoff to a single leaching structure. Any runoff that bypasses this structure would be directed along the edge of pavement from the west side of NYS Route 114 to the south side of Stephen Hands Path and away from the intersection.

Along Stephen Hands Path east of NYS Route 114, runoff is directed to roadside drainage swales/ditches. Pipes connecting these ditches cross over Stephen Hands Path from the north side to the south side and then back to the north side. Here a 24" RCP conveys runoff under the existing driveway and then changes over to a 24" CPP that runs along the north shoulder line until it connects with an existing manhole. Runoff is then conveyed to an existing drainage chamber located along the south side of Stephen Hands Path via a 24" CPP. This existing drainage chamber has a frame and grate on top to collect roadway runoff as well as a frame cast into the south wall to collect any runoff from the drainage swale along the south side of Stephen Hands Path and the east side of NYS Route 114. Runoff is then conveyed west via an existing 2'x3' box culvert that crosses under NYS Route 114. This box culvert changes to a 24" HDPE pipe before connecting with an existing manhole located off the south shoulder of Stephen Hands Path just west of NYS Route 114. This manhole is connected to a 24" RCP which crosses under Stephen Hands Path and discharges runoff to the existing stream/channel located along the north side of Stephen Hands Path west of NYS Route 114.

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton:

There are only two drainage structures located within the project limits of Location 3. There are two leaching basins located on the east and west sides of NYS Route 114 north of the intersection with Goodfriend Drive. These structures are interconnected via a 15" RCP.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

The existing drainage in the vicinity of the intersection enhancements consists of a closed drainage system of catch basins and pipes that discharges to a low lying natural wooded area located on the west side of NYS Route 25 (Main Street) approximately 350' south of the intersection with County Road 48. A network of catch basins and 18" RCP are located along the north curb line of NYS Route 25 (Main Road) just east of the intersection with NYS Route 25 (Main Street) and County Road 48. Catch Basins on the east and west sides of Sound Road are tied into this system via an 18" RCP that connects with an existing manhole located at the intersection of Sound Road and NYS Route 25 (Main Road). Runoff is then conveyed under NYS Route 25 (Main Road) via a 24" RCP that connects the last catch basin on the north curb line to a catch basin on the south curb line. These catch basins are located approximately 275' east of the intersection with NYS Route 25 (Main Street). Runoff is then piped back to the west via 24" RCP and catch basins located along the south curb line A 24" RCP connects the western most catch basin on the south curb line of NYS Route 25 (Main Road) with a catch basin located along the east curb line of NYS Route 25 (Main Street). Runoff is then piped south along the east curb line on NYS Route 25 (Main Street) to a catch basin located approximately 350' south of the intersection. Runoff is then piped under NYS Route 25 (Main Street) to a headwall which discharges into a low lying natural wooded area.

There are no drainage structures located along County Road 48 west of the intersection with NYS Route 25 within the project limits.

2. 2.3.1.8. Geotechnical –

There are no special geotechnical concerns with the soils or rock slopes within the project area.

2.3.3.6. Structure –

There are no bridges within the project limits. An existing 36" concrete box culvert is located near the western limit of project location 1, where runoff flows from North to South under NY 25.

2.3.3.7. Hydraulics of Bridges and Culverts –

There are no bridges or culverts over waterways within the project limits. There are no dams in the vicinity of the project that would be adversely affected.

2.3.3.8. Guide Railing, Median Barriers and Impact Attenuators –

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

There are two (2) runs of existing outdated heavy post blocked-out (HPBO) corrugated beam guide railing located along both eastbound and westbound shoulders of NYS Route 25, approximately 250 feet west of the intersection with Edwards Avenue. The runs of railing have approach and departure anchorage units which are not in conformance with current practices. The eastbound run of HPBO corrugated beam guide railing is 105 feet in length and is in good condition. The westbound run of HPBO corrugated beam guide railing is 215 feet in length and is also in good condition. The existing runs of railing were installed to protect the existing headwalls for the drainage culvert located approximately 350 feet west of Edwards Avenue which allow sheet flow of stormwater through the natural swale/channel to pass under NYS Route 25. These runs of guide railing will be impacted by the proposed preferred alternative and will need to be replaced with systems which meet current standards.

There are no median barriers or impact attenuators within the project limits of Location 1.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:
There is an existing run of heavy post blocked out (modified) (HPBO (Mod.)) corrugated beam guide railing approximately 440 feet in length located along the southeast corner of the intersection (northbound NYS Route 114 to eastbound Stephen Hands Path). The existing guide railing has experienced numerous vehicular strikes and a portion of this rail was replaced in 2017. The replaced section of rail has also experienced a vehicular strike recently. This existing run of guide railing was installed to protect the large drainage structures/box culvert and heavily vegetated drainage swale which are present at this location. The entire run of this guide railing will be impacted by the proposed preferred alternative and will need to be replaced.

There is an existing run of corrugated beam guide railing approximately 450 feet in length located along the northwest corner of the intersection (southbound NYS Route 114 to westbound Stephen Hands Path, on westbound Stephen Hands Path). This run of railing consists of corrugated beam railing attached to heavy posts at 12'-6" spacing. This run of guide railing was installed due to the close proximity of the stream/channel located off the shoulder. This railing is in fair-to-good condition, however, the approach end anchorage/terminus, which appears to be an outdated "boxing glove", is severely damaged. The trailing terminus is an outdated "boxing glove" which is in good condition, however, is not in conformance with current standards. Approximately half of the length of this guide railing will be impacted by the proposed preferred alternative. Since the existing run and its terminal conditions are outdated, coupled with the need to replace approximately one-half the length to accommodate the proposed preferred alternative, the entire run should be replaced to meet current standards as noted above.

There are no median barriers or impact attenuators within the project limits of Location 2.
Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:
There are no existing guide railings, median barriers, or impact attenuators located along NYS Route 114 or Goodfriend Drive within the project limits of Location 3.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
There are no existing guide railings, median barriers, or impact attenuators located along NYS Route 25 or County Road 48 within the project limits of Location 4.
A summary of the impacts to existing guide railings, median barriers, and impact attenuators is provided in Exhibit 2.3.3.8.

Exhibit - 2.3.3.8
Existing Guide Railing, Median Barriers and Impact Attenuators

Type	Location/Side	Length	Condition
HPBO Corrugated Guide Railing	Location 1 – NYS Route 25/EB	105 feet	Good, not compliant with current standards (impacted by preferred alternative, to be replaced)
Corrugated Guide Railing	Location 1 – NYS Route 25/WB	215 feet	Good, not compliant with current standards (impacted by preferred alternative, to be replaced)
HPBO Corrugated Guide Railing	Location 2 – NY 114 NB to Stephen Hands Path EB	440 feet	Fair, portions not compliant with current standards (impacted by preferred alternative, to be replaced)
Corrugated Guide Railing	Location 2 – NY 114 SB to Stephen Hands Path WB	450 feet	Fair, not compliant with current standards (impacted by preferred alternative, to be replaced)

2.3.3.9. Utilities –

The utility information provided herein is based on: (1) preliminary SUE information supplied by SoftDig from underground mapping services performed on May 29, 2020 and (2) current plates from the affected utility companies, where available. Utility information will continue to be updated during subsequent design phases if more information becomes available, or if changes have been made by the respective utility owners subsequent to design approval.

Underground Utilities

The underground utilities within the existing ROW at the four (4) project locations consist of gas mains, electrical conduits, water mains, telephone/communication/fiber optic lines and their appurtenances (i.e., manholes, valves, hydrants, etc.).

Refer to Exhibit 2.3.3.9 for a summary of the existing underground utilities within all four (4) project locations. The lengths noted in Exhibit 2.3.3.9 reflect approximate distances within the project limits for which the utility exists. Total utility length varies. Refer to respective utility owner's record plans for more information.

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

Exhibit - 2.3.3.9
Existing Utilities

Owner	Type	Location/Side	Length	Condition/Conflict
National Grid	6" Steel Gas Main	NYS Route 25 eastbound	1195 feet	Condition Unknown, no obvious conflicts
	6" Steel Gas Main	Edwards Avenue (south of NYS Route 25)	635 feet	Condition Unknown, no obvious conflicts
	8" HDPE Gas Main	Edwards Avenue (north of NYS Route 25)	730 feet	Condition Unknown, no obvious conflicts
PSE&G (Assumed owner)	Electrical	Edwards Avenue northbound	1410 feet	Condition Unknown, no obvious conflicts
Verizon	Telephone Lines/Ducts	NYS Route 25 westbound	1185 feet	Condition Unknown, no obvious conflicts
Crown Castle	Fiber Optic Lines	NYS Route 25 westbound	585 feet	Condition Unknown, no obvious conflicts
		Edwards Avenue (north of NYS Route 25)	540 feet	Condition Unknown, no obvious conflicts
Riverhead Water	Water Main	NYS Route 25 eastbound (west of Edwards Avenue)	615 feet	Condition Unknown, no obvious conflicts
		NYS Route 25 westbound (east of Edwards Avenue)	555 feet	Condition Unknown, no obvious conflicts
		Edwards Avenue southbound (south of NYS Route 25)	650 feet	Condition Unknown, no obvious conflicts
		Edwards Avenue northbound (north of NYS Route 25)	725 feet	Condition Unknown, no obvious conflicts

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

Exhibit - 2.3.3.9 Existing Utilities				
Owner	**Type**	**Location/Side**	**Length**	**Condition/Conflict**
PSE&G	Electrical – 6 5/8" O.D. Pipe	NYS Route 114 northbound	1145 feet	Condition Unknown, no obvious conflicts
	Electrical – Unknown Size	Stephen Hands Path eastbound	900 feet	Condition Unknown, no obvious conflicts
Verizon	Telephone Lines/Ducts	Stephen Hands Path eastbound	300 feet	Condition Unknown, no obvious conflicts
SCWA	12" Water Main	NYS Route 114 northbound	1150 feet	Condition Unknown, no obvious conflicts
	16" Water Main	Stephen Hands Path eastbound (west of NYS Route 114)	550 feet	Condition Unknown, no obvious conflicts

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:

Exhibit - 2.3.3.9 Existing Utilities				
Owner	**Type**	**Location/Side**	**Length**	**Condition/Conflict**
PSE&G	Electrical	NYS Route 114 northbound	875 feet	Condition Unknown, no obvious conflicts
		Goodfriend Drive eastbound/westbound	N/A	Condition Unknown, no obvious conflicts
Verizon	Telephone Lines/Ducts	NYS Route 114 southbound	300 feet	Condition Unknown, no obvious conflicts
		Goodfriend Drive westbound	N/A	Condition Unknown, no obvious conflicts
		Coultes Lane eastbound	325 feet	Condition Unknown, no obvious conflicts
SCWA	12" Water Main	NYS Route 114 northbound	875 feet	Condition Unknown, no obvious conflicts
		Goodfriend Drive westbound	110 feet	Condition Unknown, no obvious conflicts
		Access Driveway to SCWA Pump House	25 feet	Condition Unknown, no obvious conflicts

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

Exhibit - 2.3.3.9 Existing Utilities				
Owner	**Type**	**Location/Side**	**Length**	**Condition/Conflict**
National Grid	6" Steel Gas Main	CR 48 eastbound (west of NYS Route 25)	325 feet	Condition Unknown, no obvious conflicts
	6" Steel Gas Main (Retired)	CR 48/NYS Route 25 eastbound	200 feet	Condition Unknown, no obvious conflicts
	4" Steel Gas Main (Retired)	NYS Route 25 eastbound	515 feet	Condition Unknown, no obvious conflicts
	8" PE Gas Main	CR 48/NYS Route 25 westbound	550 feet	Condition Unknown, no obvious conflicts
	4" Steel Gas Main	NYS Route 25 southbound	595 feet	Condition Unknown, no obvious conflicts
	6" Steel Gas Main	NYS Route 25 northbound	150 feet	Condition Unknown, no obvious conflicts
	2" Steel Gas Main	Sound Avenue	490 feet	Condition Unknown, no obvious conflicts
	2" Steel Gas Main (Retired)	Sound Avenue	65 feet	Condition Unknown, no obvious conflicts
Verizon	Telephone Lines/Ducts	CR 48/NYS Route 25 eastbound	1140 feet	Condition Unknown, no obvious conflicts
		NYS Route 25 northbound	240 feet	Condition Unknown, no obvious conflicts
SCWA	Water Main – Unknown Diameter	CR 48/NYS Route 25 westbound	1035 feet	Condition Unknown, no obvious conflicts
	12" Water Main	CR 48/NYS Route 25 westbound	1050 feet	Condition Unknown, no obvious conflicts
	8" Water Main	NYS Route 25 northbound	690 feet	Condition Unknown, no obvious conflicts
	6" Water Main	Sound Avenue	485 feet	Condition Unknown, no obvious conflicts

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:
Existing utility poles carrying overhead electric/telephone/fiber optic lines are located on the south side (eastbound direction) of NYS Route 25 as well as the west side (southbound direction) of Edwards Avenue throughout the project limits for Location 1.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:
Existing utility poles carrying overhead electric/telephone lines are located on the east side (northbound direction) of NYS Route 114 as well as the south side (eastbound direction) of Stephen Hands Path throughout the project limits for Location 2.

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:
Existing utility poles carrying overhead electric/telephone lines are located on the west side (southbound direction) of NYS Route 114 throughout the project limits for Location 3. There are no utility poles located along Goodfriend Drive.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
Existing utility poles carrying overhead electric/telephone lines are located on both the north side (westbound direction) and south side (eastbound direction) of CR 48/NYS Route 25 throughout the project limits for Location 4. Several poles also carry street lighting mast arms and luminaires. Existing utility poles are also present on the east side of NYS Route 25 (northbound direction) within the Location 4 project limits.

2.3.3.10. Railroad Facilities –

There are no railroads within the project limits and no at-grade crossings within 1 mile that could impact traffic conditions.

2.3.4. Potential Enhancement Opportunities

This section focuses on the existing areas to identify potential enhancement opportunities related to the project and to help avoid and minimize impacts. Chapter 4 focuses on the impacts, enhancements, and mitigation.

2.3.4.1. Landscape -

2.3.4.1. (1) Terrain –
The terrain at the subject intersections is considered flat, typically slopes between 0 and 5 percent. In accordance with the Highway Design Manual, chapter 2, section 2.5.2 Terrain it would be classified as level.

2.3.4.1. (2) Unusual Weather Conditions-
The subject sites typically do not exhibit unusual weather conditions that would affect project design any differently than normally considered in this region.

2.3.4.1. (3) Visual Resources -
The visual character and quality of the scenes or viewshed at the subject sites are typical of eastern Long Island. The roadway corridors are suburban to rural in nature. The adjacent land use varies from farmland to natural wooded areas to sites developed for commercial business or individual single family residential. The density of the land use is low and therefore the visual scene is intact and consistent.

2.3.4.2. Opportunities for Environmental Enhancements –

There are no practical opportunities for environmental enhancements in the project limits.

CHAPTER 3 – Alternatives

This chapter discusses the alternatives considered and examines the engineering aspects for all reasonable alternatives to address project objectives in Chapter 1 of this report.

3.1. Alternatives Considered and Eliminated from Further Study

For Loc. No. 4 - NYS Route 25 at County Road 48, Town of Southold, two alternatives: to install a full three-color traffic signal and a modern roundabout, in place of the existing flashing signal was considered. The alternative to install a three-color traffic signal had been considered by the region. Two separate traffic studies were conducted, and, in both cases, it was determined that a traffic signal was not warranted. Therefore, the installation of a traffic signal is not being evaluated under this project. (These studies can be made available upon request.) The alternative to install a modern roundabout was dismissed based on its ROW impact.

3.2. Reasonable Build Alternatives

3.2.1. Description of Reasonable Alternatives

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County

Alternative 1 - This alternative consists of addition of left-turn bays and realigning Edwards Avenue to match the north and south alignment.

Key elements of this alternative include:

Geometry	• This alternative includes correcting north-south misalignment on Edwards Avenue. • This alternative includes addition of left-turn bays at the intersection.
Operational	• This alternative will improve traffic operations and safety by removing left turns from the through travel lanes, realigning Edwards Ave on its approaches to NY 25 and providing a northbound left turn arrow.
Control of Access	• Control of access will not change.
Right of Way	• The proposed enhancements will require ROW acquisitions as noted on the Abstract Requests Maps and spreadsheet located in Appendix H.
Environmental	• There are no wetland impacts. • There are no significant noise or visual impacts associated with the enhancements.
Cost	• Total estimated construction cost of this alternative is $3.1M.
Project Goals	• These enhancements meet the overall objective to improve traffic operations and reduce the potential for crashes.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton, Suffolk County

Alternative 1 - This alternative consists of addition of left-turn bays along NY 114 and Stephen Hand Path at this intersection.

Key elements of this alternative include:

Geometry	• This alternative includes addition of left-turn bays on NY 114.
Operational	• This alternative will improve traffic operations and safety by removing left turns from the through travel lanes and extending the right turn lane on Stephen Hands Path to northbound NY 114.
Control of Access	• Control of access will not change.
Right of Way	• The proposed enhancements will require ROW acquisitions as noted on the Abstract Requests Maps and spreadsheet located in Appendix H.
Environmental	• There are no wetland impacts. • There are no significant noise or visual impacts associated with the enhancements.
Cost	• Total estimated cost of this alternative is $2.6M.
Project Goals	• These enhancements meet the overall objective to improve traffic operations and reduce the potential for crashes.

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County

Alternative 1 - This alternative consists of addition of left-turn bays on NY 114 at this intersection.

Key elements of this alternative include:

Geometry	• This alternative includes a center left turn lane on NY 114.
Operational	• This alternative will improve traffic operations and safety by removing left turns from the through travel lanes.
Control of Access	• Control of access will not change.
Right of Way	• There are no proposed ROW acquisitions.
Environmental	• There are no wetland impacts. • There are no significant noise or visual impacts associated with the enhancements.
Cost	• Total estimated cost of this alternative is $0.77M.
Project Goals	• These enhancements meet the overall objective to improve traffic operations and reduce the potential for crashes.

Loc. No. 4 - NYS Route 25 at CR48, Town of Greenport, Suffolk County

Alternative 1 - This alternative consists of installing a mini-roundabout at this intersection.
Key elements of this alternative include:

Geometry	• Replacing the flashing signal with a mini-roundabout.
Operational	• This alternative will improve traffic operations and safety by reducing approach speeds, number of conflict points, and stopped vehicle delays.
Control of Access	• Control of access will not change.
Right of Way	• The proposed enhancements will require ROW acquisitions as noted on the Abstract Requests Maps and spreadsheet located in Appendix H.
Environmental	• There is a NYS wetland located on southwest corner, about 12.9 acres in size. However, there are no wetland impacts anticipated. • There are no significant noise or visual impacts associated with the enhancements.
Cost	• Total estimated cost of this alternative is $2.03M.
Project Goals	• These enhancements meet the overall objective to improve traffic operations and reduce the potential for crashes.

3.2.2 Preferred Alternative

All reasonable alternatives are under consideration. A decision will be made after evaluating the alternatives' impacts, comments on the draft design approval document, and comments from the public hearing.

3.2.3. Design Criteria for Reasonable Alternative(s)

Exhibit 3.2.3.2-(1)
Critical Design Elements for NYS Route 25

PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Principal Arterial - Other	**NHS**	☑	**Non-NHS**	☐
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	18,379	**Percentage of Trucks:**		7%	
Truck Access or Qualifying Highway (QH)?	Truck Access Highway	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		High	

	Element	Standard	Existing Condition	Proposed Condition[2]
1	Design Speed	55 mph[1] HDM Section 2.7.2.4.A	50 mph posted	55
2	Lane Width	11 ft HDM Exhibit 2-4a	12 ft	12 ft
3	Shoulder Width Uncurbed Curbed	8 ft HDM Exhibit 2-3a 4 ft min./5 ft des. HDM Exhibit 2-4a	4'-8" min. (EB) 3'-4" (WB) min. 5'-3" (EB) min.	6 ft (curbed)
4	Horizontal Curve Radius	1060 ft Min (at e_{max}= **6%**) HDM Exhibit 2-4a	2865 ft	2000 ft
5	Superelevation	e_{max} = **6%** HDM Exhibit 2-1b	4.1% @ e_{max} = **6%**	5.0% @ e_{max} = **6%**
6	Stopping Sight Distance (Horizontal and Vertical)	495 ft Min. HDM Exhibit 2-4a	295 ft	787 ft (Vert) 670 ft (Horiz.)
7	Maximum Grade	5% HDM Exhibit 2-4a	2.34%	2.34%
8	Cross Slope	1.5% Min., 2.5% Max. HDM Section 2.7.2.4.H	Varies 1.2% to 4.6%	2.0%
9	Vertical Clearance	14 ft Min.BM Section 2.3.1, Table 2-2	Minimum of 15.5' for wires and signal heads	Minimum of 15.5' for wires and signal heads
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle HDM Section 19.5.3	Existing 36" culvert located 350' west of Edwards Ave. Condition unknown.	Existing culvert to remain

Exhibit 3.2.3.2-(1) Critical Design Elements for NYS Route 25					
PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Principal Arterial - Other	**NHS**	☑	**Non-NHS**	☐
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	18,379	**Percentage of Trucks:**		7%	
Truck Access or Qualifying Highway (QH)?	Truck Access Highway	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		High	

	Element	Standard	Existing Condition	Proposed Condition[2]
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	Facilities will be evaluated in final design	Proposed pedestrian facilities will comply with HDM Chapter 18

Notes:

1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 55 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.

2 ** Denotes non-standard feature

3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 3.2.3.2-(1) Critical Design Elements for Edwards Avenue (North of NY 25)					
PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Minor Arterial	**NHS**	☐	**Non-NHS**	☑
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	4,318	**Percentage of Trucks:**		4%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	No	**Anticipated level of bicycle activity**		Low	

	Element	Standard	Existing Condition	Proposed Condition[2]
1	Design Speed	45 mph[1] HDM Section 2.7.2.3.A	45 mph posted	45
2	Lane Width	11 ft HDM Exhibit 2-4	12 ft	11 ft

Exhibit 3.2.3.2-(1)
Critical Design Elements for Edwards Avenue (North of NY 25)

PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Minor Arterial	**NHS**	☐	**Non-NHS**	☑
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	4,318	**Percentage of Trucks:**		4%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	No	**Anticipated level of bicycle activity**		Low	

	Element	Standard	Existing Condition	Proposed Condition[2]
3	Shoulder Width Uncurbed Curbed	4 ft HDM Exhibit 2-3 0 ft min./4 ft des. HDM Exhibit 2-4	Varies 1' min. to 3' (SB) - Uncurbed Varies 1' min. to 5' (NB) - Uncurbed	6 ft Uncurbed Transitions to 1' to meet existing
4	Horizontal Curve Radius	436 ft Min (at e_{max}= **6%**) HDM Exhibit 2-4	No existing curves	500 ft
5	Superelevation	e_{max} = **6%** HDM Exhibit 2-1b	No existing curves	6.0% @ e_{max} = **6%**
6	Stopping Sight Distance (Horizontal and Vertical)	327 ft Min. HDM Exhibit 2-4	488 ft	431 ft (Vert.) 691 ft (Horiz.)
7	Maximum Grade	6% HDM Exhibit 2-4	3.54%	3.54%
8	Cross Slope	1.5% Min., 3.0 % Max. HDM Section 2.7.2.3.H	Varies 1.2% to 5.9%	2.0%
9	Vertical Clearance	14 ft Min.BM Section 2.3.1, Table 2-2	Minimum of 15.5' for wires and signal heads	Minimum of 15.5' for wires and signal heads
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle HDM Section 19.5.3	No structures in project limits	No structures in project limits
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	Facilities will be evaluated in final design	Proposed pedestrian facilities will comply with HDM Chapter 18

Notes:

1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 45 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.

2 ** Denotes non-standard feature

3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 3.2.3.2-(1) Critical Design Elements for Edwards Avenue (South of NY 25)					
PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Minor Arterial	**NHS**	☐	**Non-NHS**	☑
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	8,298	**Percentage of Trucks:**		11%	
Truck Access or Qualifying Highway (QH)?	Truck Access Highway	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		High	

	Element	Standard	Existing Condition	Proposed Condition[2]
1	Design Speed	45 mph[1] HDM Section 2.7.2.3.A	45 mph posted	45
2	Lane Width	11 ft HDM Exhibit 2-4	12 ft	11 ft
3	Shoulder Width Uncurbed Curbed	4 ft HDM Exhibit 2-3 4 ft min./5 ft des. HDM Exhibit 2-4	Varies 3.5' min. to 5' (NB/SB) - Curbed	6 ft Curbed
4	Horizontal Curve Radius	436 ft Min (at e_{max}= **6%**) HDM Exhibit 2-4	No existing curves	500 ft
5	Superelevation	e_{max} = **6%** HDM Exhibit 2-1b	No existing curves	6.0% @ e_{max} = **6%**
6	Stopping Sight Distance (Horizontal and Vertical)	327 ft Min. HDM Exhibit 2-4	>1000 ft	>1000 ft (Vert.) 572 ft (Horiz.)
7	Maximum Grade	6% HDM Exhibit 2-4	1.71%	0.96%
8	Cross Slope	1.5% Min., 3.0 % Max. HDM Section 2.7.2.3.H	Varies 1.2% to 5.9%	2.0%
9	Vertical Clearance	14 ft Min.BM Section 2.3.1, Table 2-2	Minimum of 15.5' for wires and signal heads	Minimum of 15.5' for wires and signal heads
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Design Live Load and NYSDOT Design Permit Vehicle with LRFR 1.2 or higher BM Sections 1.3 and 1.5 NYSDOT LRFD Specifications AASHTO HL-93 Live Load	No structures in project limits	No structures in project limits

Exhibit 3.2.3.2-(1) Critical Design Elements for Edwards Avenue (South of NY 25)					
PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Minor Arterial	**NHS**	☐	**Non-NHS**	☑
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	8,298	**Percentage of Trucks:**		11%	
Truck Access or Qualifying Highway (QH)?	Truck Access Highway	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		High	

	Element	Standard	Existing Condition	Proposed Condition[2]
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	Facilities will be evaluated in final design	Proposed pedestrian facilities will comply with HDM Chapter 18

Notes:

1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 45 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.

2 ** Denotes non-standard feature

3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 3.2.3.2-(2) Critical Design Elements for NYS Route 114					
PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Principal Arterial - Other	**NHS**	☑	**Non-NHS**	☐
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	7,216	**Percentage of Trucks:**		9%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		High	

	Element	Standard	Existing Condition	Proposed Condition[2]
1	Design Speed	50 mph[1] HDM Section 2.7.2.4.A	45 mph posted	50
2	Lane Width	11 ft min./12 ft des. HDM Exhibit 2-4a	12 ft	12 ft
3	Shoulder Width		8 ft uncurbed	8 ft (uncurbed)

Exhibit 3.2.3.2-(2)
Critical Design Elements for NYS Route 114

PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Principal Arterial - Other	**NHS**	☑	**Non-NHS**	☐
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	7,216	**Percentage of Trucks:**		9%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		High	

	Element	Standard	Existing Condition	Proposed Condition[2]
	Uncurbed Curbed	8 ft HDM Exhibit 2-3a 4 ft min./5 ft des. HDM Exhibit 2-4a		
4	Horizontal Curve Radius	833 ft Min (at e_{max}= **6%**) HDM Exhibit 2-4a	600 ft	833 ft
5	Superelevation	e_{max} = **6%** HDM Exhibit 2-1b	8.8% @ e_{max} = **6%**	6% @ e_{max} = **6%**
6	Stopping Sight Distance (Horizontal and Vertical)	425 ft Min. HDM Exhibit 2-4a	236 ft	545 ft (Vert.) 440 ft. (Horiz.)
7	Maximum Grade	6% HDM Exhibit 2-4a	2.28%	2.58%
8	Cross Slope	1.5% Min., 2.5% Max. HDM Section 2.7.2.4.H	Varies 1.3 to 3.6%	2.0%
9	Vertical Clearance	14 ft Min.BM Section 2.3.1, Table 2-2	Minimum of 15.5' for wires and signal heads	Minimum of 15.5' for wires and signal heads
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Design Live Load and NYSDOT Design Permit Vehicle with LRFR 1.2 or higher BM Sections 1.3 and 1.5 NYSDOT LRFD Specifications AASHTO HL-93 Live Load and	No structures in project limits	No structures in project limits
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	No existing pedestrian facilities	No new proposed pedestrian facilities

Notes:

1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 50 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.

2 ** Denotes non-standard feature

3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 3.2.3.2-(2)
Critical Design Elements for Stephen Hands Path (North/East of NY 114)

PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Major Collector	**NHS**	☐	**Non-NHS**	☑
Design Class:	Collector	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	11,385	**Percentage of Trucks:**		4%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	No	**Anticipated level of bicycle activity**		Low	

	Element	Standard	Existing Condition	Proposed Condition[2]
1	Design Speed	30 mph[1] HDM Section 2.7.3.3.A	30 mph posted	30
2	Lane Width	10 ft min./12 ft des. HDM Exhibit 2-6	12 ft	12 ft
3	Shoulder Width Uncurbed Curbed	6 ft HDM Exhibit 2-5 0' min./4' des. HDM Exhibit 2-6	1 ft (SB) - Uncurbed 1 ft. min to 3' (NB) - Uncurbed	Varies 1' to 6 ft uncurbed
4	Horizontal Curve Radius	177 ft Min (at e_{max}= **6%**) HDM Exhibit 2-4	No existing curves	No proposed curves
5	Superelevation	e_{max} = **6%** HDM Exhibit 2-1b	**No existing curves**	**No proposed curves**
6	Stopping Sight Distance (Horizontal and Vertical)	175 ft Min. HDM Exhibit 2-6	>1000 ft	766 ft (Vert.) No horizontal curves
7	Maximum Grade	9% HDM Exhibit 2-6	1.49%	1.54%
8	Cross Slope	1.5% Min., 3% Max. HDM Section 2.7.3.3.H	Varies 1.0 to 4.5%	2.0%
9	Vertical Clearance	14 ft Min.BM Section 2.3.1, Table 2-2	Minimum of 15.5' for wires and signal heads	Minimum of 15.5' for wires and signal heads
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Design Live Load and NYSDOT Design Permit Vehicle with LRFR 1.2 or higher BM Sections 1.3 and 1.5 NYSDOT LRFD Specifications AASHTO HL-93 Live	No structures in project limits	No structures in project limits
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	No existing pedestrian facilities	No new proposed pedestrian facilities

Notes:

1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.

2 ** Denotes non-standard feature

3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 3.2.3.2-(2)
Critical Design Elements for Stephen Hands Path (South/West of NY 114)

PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Minor Arterial	**NHS**	☐	**Non-NHS**	☑
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	7,007	**Percentage of Trucks:**		4%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	No	**Anticipated level of bicycle activity**		Low	

	Element	Standard	Existing Condition	Proposed Condition[2]
1	Design Speed	30 mph[1] HDM Section 2.7.2.3.A	30 mph posted	30
2	Lane Width	11 ft min./12 ft des. HDM Exhibit 2-4	12 ft	12 ft
3	Shoulder Width Uncurbed Curbed	4 ft HDM Exhibit 2-3 0' min./4' des. HDM Exhibit 2-6	1 ft (SB) - Uncurbed 1 ft. min to 8' (NB) - Uncurbed	Varies 1' to 6 ft uncurbed
4	Horizontal Curve Radius	177 ft Min (at e_{max}= **6%**) HDM Exhibit 2-4	No existing curves	No proposed curves
5	Superelevation	e_{max} = **6%** HDM Exhibit 2-1b	**No existing curves**	**No proposed curves**
6	Stopping Sight Distance (Horizontal and Vertical)	175 ft Min. HDM Exhibit 2-4	>1000 ft	766 ft (Vert.) No horizontal curves
7	Maximum Grade	7% HDM Exhibit 2-4	0.59%	1.54%
8	Cross Slope	1.5% Min., 3% Max. HDM Section 2.7.2.3.H	Varies 1.1 to 7.0%	2.0%
9	Vertical Clearance	14 ft Min.BM Section 2.3.1, Table 2-2	Minimum of 15.5' for wires and signal heads	Minimum of 15.5' for wires and signal heads
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Design Live Load and NYSDOT Design Permit Vehicle with LRFR 1.2 or higher BM Sections 1.3 and 1.5 NYSDOT LRFD Specifications	No structures in project limits	No structures in project limits

Exhibit 3.2.3.2-(2) Critical Design Elements for Stephen Hands Path (South/West of NY 114)					
PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Minor Arterial	**NHS**	☐	**Non-NHS**	☑
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	7,007	**Percentage of Trucks:**		4%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	No	**Anticipated level of bicycle activity**		Low	

	Element	**Standard**	**Existing Condition**	**Proposed Condition[2]**
		AASHTO HL-93 Live Load		
11	Americans with Disabilities Act Compliance[3]	HDM Chapter 18	No existing pedestrian facilities	No new proposed pedestrian facilities

Notes:

1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification's range of design speeds for terrain and volume.

2 ** Denotes non-standard feature

3 Refer to Section 2.3.5 for detailed pedestrian facility information.

Exhibit 3.2.3.2-(3) Critical Design Elements for NYS Route 114 at Goodfriend Drive					
PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Principal Arterial - Other	**NHS**	☑	**Non-NHS**	☐
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	7,216	**Percentage of Trucks:**		9%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		Low	

	Element	**Standard**	**Existing Condition**	**Proposed Condition[2]**
1	Design Speed (Main Line NY 114)	50 mph HDM Section 2.7.2.2	45 mph posted	50 mph
2	Lane Width	11 ft HDM Exhibit 2-4a	12 ft	11 ft
3	Shoulder Width Uncurbed Curbed	8 ft HDM Exhibit 2-3a 4 ft min./5 ft des. HDM Exhibit 2-4a	8 ft min uncurbed on approaches to intersection 10' min curbed at int.	5 ft. minimum(striped as bike lane)**
4	Horizontal Curve Radius	833 ft Min (at e_{max}=**6%**) HDM Exhibit 2-4a	Tangent	Tangent
5	Superelevation	e_{max} = **6%** HDM Exhibit 2-1b, suburban arterials use the required superelevation table for either 6% or 8%.	Tangent	Tangent
6	Stopping Sight Distance (Horizontal and Vertical)	425 ft Min. HDM Exhibit 2-4a	>425 ft	> 425 ft
7	Maximum Grade	6% HDM Exhibit 2-4a	< 5%	< 5%
8	Cross Slope	1.5% Min., 2.5% Max. HDM Section 2.7.2.4.H	1.5%	2% and varies

Exhibit 3.2.3.2-(3) Critical Design Elements for NYS Route 114 at Goodfriend Drive					
PIN	0810.01	**BIN** (if applicable)			
Functional Class:	Urban Principal Arterial - Other	**NHS**	☑	**Non-NHS**	☐
Design Class:	Arterial	**Context Class:**		Suburban	
Project Type:	Minor Intersection Reconstruction	**Terrain:**		Flat	
Design Year AADT:	7,216	**Percentage of Trucks:**		9%	
Truck Access or Qualifying Highway (QH)?	Neither	**If not a QH, is project within 1 mi of a QH?**		No	
Existing or Proposed Bicycle Route?	Yes	**Anticipated level of bicycle activity**		Low	

Element	Standard	Existing Condition	Proposed Condition[2]
9	Vertical Clearance	14 ft Min. BM Section 2.3.1, Table 2-2	Utility wires estimated at minimum of 20’	Utility wires estimated at minimum of 20’
10	Design Loading Structural Capacity	NYSDOT LRFD Specifications AASHTO HL-93 Design Live Load and NYSDOT Design Permit Vehicle with LRFR 1.2 or higher BM Sections 1.3 and 1.5 NYSDOT LRFD Specifications AASHTO HL-93 Live Load and NYSDOT Design Permit Vehicle HDM Section 19.5.3	No structures in project limits	No structures in project limits
11	Americans with Disabilities Act Compliance	HDM Chapter 18	No existing pedestrian facilities	No new proposed pedestrian facilities are proposed.

Notes:

1 The Regional Traffic Engineer has concurred that the proposed Design Speed of 50 mph is consistent with the anticipated off-peak 85th percentile speed and is within the design classification’s range of design speeds for terrain and volume.

2 ** Denotes non-standard feature

3 Refer to Section 2.3.5 for detailed pedestrian facility information.

3.2.3.3. Other Design Parameter

Exhibit 3.2.3.3-1
Other Design Parameters – Location 1: NY 25 at Edwards Avenue

Highway or Feature			
	Element	**Criteria**	**Proposed Condition**
1	Stopping Sight Distance (headlight)	495 ft min. HDM Exhibit 2-4a	300 ft
2	Intersection Level of Service	Urban – D, Rural - C (minimum) HDM 5.9.2.1	C
3	Design Storm for Culverts	50 yr. HDM 8.3.2.4	50
4	Design Storm for Closed Drainage	5 yr. (minor arterials/collectors) HDM 8.3.2.4	5
5	Guiderail	HDM Chapter 10, AASHTO Roadside Design Guide	Proposed guiderail to be designed to meet or exceed minimums at final design
6	Curbing	Curb Use Restrictions HDM 10.2.2.4	Curb type selection and locations to be determined at final design
7	Bay (Queue) Storage Length	HDM 5.9.8.2.F/G	100 ft (minimum)
8	Bay Taper Length	Desirable = 50’ – 100’ HDM 5.9.8.2.E	70 ft (minimum)

Exhibit 3.2.3.3-2
Other Design Parameters – Location 2: NY 114 at Stephen Hands Path

Highway or Feature			
	Element	**Criteria**	**Proposed Condition**
1	Stopping Sight Distance (headlight)	425 ft min. HDM Exhibit 2-4a	264 ft
2	Intersection Level of Service	Urban – D, Rural - C (minimum) HDM 5.9.2.1	C
3	Design Storm for Closed Drainage	5 yr. (minor arterials/collectors) HDM 8.3.2.4	5
4	Guiderail	HDM Chapter 10, AASHTO Roadside Design Guide	Proposed guiderail to be designed to meet or exceed minimums at final design
5	Bay (Queue) Storage Length	HDM 5.9.8.2.F/G	100 ft (minimum)
6	Bay Taper Length	Desirable = 50’ – 100’ HDM 5.9.8.2.E	70 ft (minimum)

Exhibit 3.2.3.3-3
Other Design Parameters – Location 3: NY 114 at Goodfriend Drive

Highway or Feature			
	Element	**Criteria**	**Proposed Condition**
1	Intersection Level of Service	Urban – D, Rural - C (minimum) HDM 5.9.2.1	A
2	Two-way Left Turn Lane (TWLTL) Length	Desirable minimum 0f 260’ HDM 5.9.8.2.C	320 ft.
3	Bay Taper Length	Desirable = 50’ – 100’ HDM 5.9.8.2.E	70 ft (minimum)

These two non-conforming features (shown in red above) are discussed further in Section 3.3.3.2. (2) Non-Conforming Features.

Exhibit 3.2.3.3-4
Other Design Parameters CR Route 48 and NY Route 25 - Mini Roundabout Controlling Features

Element		Parameter[1]		West Leg	South Leg	East Leg
1	Design Vehicle	See HDM § 5.7.1[7]		WB 67	WB 40	WB 67
2	Maximum Entry Speed 20 mph Mini	Entry Path Radius Method Per Equation 6.3[2]		20 MPH	20 MPH	20 MPH
3	Entry Width	12' - 23' - 1 lane		14’	14'	14'
4	Entry Radius	65’ – 150’ 90’-110' typ.		70’	65’	65’
5	Entry Angle[4, 5]	Crit. #1 - 20°-60° (30°-40° des.)		38°25'	38°34'	39°12'
6	Entry Angle of Visibility	≥75° per Section 6.7.4[3]		129°22'	104°34'	91°10'
7	Splitter Island Length					
	Approach ≥45 mph	≥ 50' (≥ 100' des.) 1 lane		265'	N/A	305'*
	Approach <45 mph	≥ 30' (≥ 50' des.) 1 lane		N/A	52'	N/A
8	Approach Stopping Sight Distance	Per Section 6.7.3[3]		>365’	>200’	>365’
9	Circulating Roadway Sight Distance	Per Section 6.7.3[3]		>65’	>65’	>65’
10	Intersection Sight Distance	Per Section 6.7.3[3]		d1 = N/A* d2 = >100’	d1 = 125’ d2 = >100’	d1 = 125’ d2 = >100’
11	Sight Distance to Crosswalk	Per Section 6.7.3[3]		Entry –>365’ Exit -115'	Entry – >200’ Exit - 115'	Entry – >365’ Exit - 115'
12	Inscribed Circle Diameter	45' - 90' - Mini		90'	90'	90'

Exhibit 3.2.3.3-4 Other Design Parameters CR Route 48 and NY Route 25 - Mini Roundabout Controlling Features						
Element		Parameter[1]		West Leg	South Leg	East Leg
13	Circulatory Roadway Width	12'-23', 16'- 20' typ. - 1 lane **		15'	15'	15'
14	Minimum Exit Radius[6]	Single lane - 65' – ∞, 300' - 800' typ.		200'	150'	150’
15	Americans with Disabilities Act Compliance[10]	Comply with HDM Chapter 18		Facilities will be evaluated in final design	Facilities will be evaluate d in final design	Facilities will be evaluated in final design
16	Truck Access Highway or Oversize/Overweight Route	See HDM § 5.7.1		Neither	Neither	Neither

* - Intersection Sight Distance (ISD) d1 condition does not apply since there is no northern approach. ISD d2 controls.
** - NCHRP 672 Section 6.6.1 does not provide a specific circulatory roadway width range recommendation. The circulatory roadway width guidance recommends that a bus should be able to navigate the circulatory way without riding onto the truck apron so that the passengers are not jostled. A 15-foot circulatory width is proposed to accommodate a large school bus within the circulatory width while achieving the required entry speed deflection for the approaches.

3.3. Engineering Considerations

3.3.1. Operations (Traffic and Safety) & Maintenance

3.3.1.1. Functional Classification and National Highway System - This project will not change the functional classification of the highway.

3.3.1.2. Control of Access - Access to NYS Route 114 and NYS Route 25 will remain uncontrolled.

3.3.1.3. Traffic Control Devices -

3.3.1.3. (1) Traffic Signals - The proposed improvements at Locations 1 and 2 will require that the existing traffic signals be rebuilt with new signal poles and signal heads. Under Loc. No. 1, a protected-permissive left turn arrow with presence detection will be in installed for the northbound Edwards Avenue approach. All signals will be designed as per Region 10 practice to handle anticipated future needs during final design. Pedestrian push buttons will be installed. Location 4 has an existing flashing traffic signal that will be removed when the mini-roundabout is constructed.

3.3.1.3. (2) Signs - Existing signs will be evaluated and replaced as necessary. New signs will be added where required. Curve warning and speed advisory signs will be added for the non-standard curvature.

3.3.1.4. Intelligent Transportation Systems (ITS) – No ITS measures are proposed.

3.3.1.5. Speeds and Delay -

3.3.1.5. (1) Proposed Speed Limit - The posted speed limit within the project limits will be retained. NYS Route 25 at intersection of Edwards Avenue has speed limit of 50 mph while speed limit is 45 mph at the intersection of County Road 48. NYS Route 114 has a speed limit of 45 mph at both intersections - Stephen Hands Path and Goodfriend Drive.

3.3.1.5. (2) Travel Time Estimates –
Travel time estimates are not applicable as this is an intersection enhancement project.

3.3.1.6. Traffic Volumes –

Since there are no anticipated changes in traffic volumes from these enhancements other than normal background growth see Section 2.3.1.6 for existing traffic volumes**.** Refer to Appendix C for turning movement counts backup. Refer to Exhibits 2.3.1.6-1 and 2.3.1.6-2 for a summary of the traffic data. Peak hour turning movement volumes for intersections with identified accident problems, all major intersections, & major traffic generator driveways/entrances are included in Appendix C.

3.3.1.7. Level of Service and Mobility –

3.3.1.7 (1) At Project Completion & Design Year –
The Synchro 10 intersections developed for the project was modified to reflect future conditions at the Estimated Time of Completion (ETC) and for the design years (ETC+10 and ETC+20). For ETC conditions, the enhancements to be constructed under the Preferred Alternative include providing left turn lanes, optimization of the traffic signal timings and construction of a new mini-roundabout at the intersection of NYS Route 25 at County Road 48. The details of enhancements are shown in Appendix C

Exhibit 3.3.1.7 - 1
Highway Design Year Level of Service and Delays

Location 1: Intersection of NY 25 at Edwards Avenue		
YEAR	**LOS**	**Delays (sec)**
ETC	AM – D, Midday – C, PM – D	AM – 36.8, Midday – 31.1, PM – 41.0
ETC+10	AM – D, Midday – C, PM – D	AM – 41.5, Midday – 34.7, PM – 46.9
ETC+10 w/Mitigation	AM – C, Midday – C, PM – C	AM – 25.3, Midday – 20.5, PM – 29.5
Location 2: Intersection of NY 114 at Stephen Hands Path		
YEAR	**LOS**	**Delays (sec)**
ETC	AM – E, Midday – D, PM – D	AM – 71.8, Midday – 42.4, PM – 46.3
ETC+10	AM – F, Midday – D, PM – E	AM – 86.8, Midday – 49.2, PM – 55.6
ETC+10 w/Mitigation	AM – C, Midday – B, PM – C	AM – 21.0, Midday – 19.5, PM – 25.4
Location 3: Intersection of NY 114 at Goodfriend Drive		
YEAR	**LOS**	**Delays (sec)**
ETC	AM – A, Midday – A, PM – A	AM – 3.5, Midday – 1.6, PM – 4.7
ETC+10	AM – A, Midday – A, PM – A	AM – 3.8, Midday – 1.6, PM – 5.2
ETC+10 w/Mitigation	AM – A Midday – A, PM – A	AM – 3.7, Midday – 1.6, PM – 5.1
Location 4: Intersection of NY 25 at CR 48		
YEAR	**LOS**	**Delays (sec)**
ETC	AM – A, Midday – A, PM – A, Sat – B	AM –3.1, Midday –5.6, PM –6.4, Sat –13.4
ETC+10	AM – A, Midday – A, PM – A, Sat – C	AM –3.2, Midday –6.4, PM –7.7, Sat –24.6
ETC+20	AM – A, Midday – A, PM – B, Sat – E	AM –3.4, Midday –7.3, PM –11.5, Sat –38.9
ETC+20 w/Mitigation - Roundabout	AM – A, Midday – A, PM – B, Sat – B	AM –8.1, Midday –9.7, PM –10.5, Sat –13.6
ETC+20 w/Mitigation – Traffic Signal	AM – B, Midday – B, PM – B, Sat – B	AM –12.0, Midday –15.0, PM –14.2, Sat –16.7

Exhibit 3.3.1.7-1 provides the results of the overall intersection LOS and Delays (sec) with Preferred Alternative. Compared to the design year Level of Service and Delays, with mitigation options will provide improved operations at each intersection.

Exhibit 3.3.1.7 - 2 Intersection Level of Service and Delays (sec) with Preferred Alternative						
YEAR	**Peak**	**EB**	**WB**	**NB**	**SB**	**Overall***
Location 1: Intersection of NY 25 at Edwards Avenue						
ETC 2023	AM Peak	26.9 (C)	9.8 (A)	74.6 (E)	68.9 (E)	36.8 (D)
	Midday Peak	16.9 (C)	13.7 (B)	87.0 (F)	51.4 (D)	31.1 (C)
	PM Peak	15.3 (B)	21.1 (C)	118.9 (F)	40.5 (D)	41.0 (D)
ETC+10 2033	AM Peak	32.4 (C)	10.2 (B)	81.7 (F)	74.3 (E)	41.5 (D)
	Midday Peak	18.2 (B)	14.5 (B)	102.4 (F)	55.9 (E)	34.7 (C)
	PM Peak	16.3 (B)	24.0 (C)	140.1 (F)	41.7 (D)	46.9 (D)
ETC+10 2033 Mitigation	AM Peak	23.1 (C)	8.1 (A)	35.3 (D)	45.6 (D)	25.3 (C)
	Midday Peak	12.7 (B)	9.7 (A)	41.9 (D)	44.7 (D)	20.5 (C)
	PM Peak	21.5 (C)	29.3 (C)	27.8 (C)	49.1 (D)	29.5 (C)
Location 2: Intersection of NY 114** at Stephen Hands Path						
ETC 2023	AM Peak	128.7 (F)	128.5 (F)	16.2 (B)	78.8 (E)	71.8 (E)
	Midday Peak	126.6 (F)	53.3 (D)	16.0 (B)	32.2 (C)	42.4 (D)
	PM Peak	114.6 (F)	55.8 (E)	22.5 (C)	44.5 (D)	46.3 (D)
ETC+10 2033	AM Peak	145.8 (F)	148.9 (F)	17.2 (B)	103.1 (F)	86.8 (F)
	Midday Peak	142.1 (F)	57.6 (E)	16.7 (B)	43.2 (D)	49.2 (D)
	PM Peak	130.8 (F)	63.0 (E)	25.7 (C)	61.0 (E)	55.6 (E)
ETC+10 2033 Mitigation	AM Peak	28.0 (C)	44.8 (D)	24.8 (C)	13.4 (B)	21.0 (C)
	Midday Peak	40.0 (D)	37.6 (D)	21.7 (C)	8.5 (A)	19.5 (B)
	PM Peak	48.7 (D)	33.2 (C)	30.1 (C)	8.5 (A)	25.4 (C)
Location 3: Intersection of NY 114** at Goodfriend Drive						
ETC 2023	AM Peak	27.6 (D)	16.0 (C)	0.0 (A)	0.0 (A)	3.5 (A)
	Midday Peak	18.1 (C)	13.0 (B)	0.0 (A)	0.0 (A)	1.6 (A)
	PM Peak	36.2 (E)	16.7 (C)	0.0 (A)	0.0 (A)	4.7 (A)
ETC+10 2033	AM Peak	30.6 (D)	16.8 (C)	0.0 (A)	0.0 (A)	3.8 (A)
	Midday Peak	19.0 (C)	13.4 (B)	0.0 (A)	0.0 (A)	1.6 (A)
	PM Peak	42.4 (E)	17.6 (C)	0.0 (A)	0.0 (A)	5.2 (A)
ETC+10 2033 Mitigation	AM Peak	30.1 (D)	16.7 (C)	0.0 (A)	0.0 (A)	3.7 (A)
	Midday Peak	18.9 (C)	13.4 (B)	0.0 (A)	0.0 (A)	1.6 (A)
	PM Peak	40.7 (E)	17.3 (C)	0.0 (A)	0.0 (A)	5.1 (A)
Location 4: Intersection of NY 25 at CR 48						
ETC 2023	AM Peak	0.0 (A)	8.6 (A)	11.4 (B)	NA	3.1 (A)
	Midday Peak	0.0 (A)	8.6 (A)	17.1 (C)	NA	5.6 (A)
	PM Peak	0.0 (A)	8.4 (A)	22.4 (C)	NA	6.4 (A)
	Sat Peak	0.0 (A)	8.6 (A)	51.3 (F)	NA	13.4 (B)
ETC+10 2033	AM Peak	0.0 (A)	8.7 (A)	12.1 (B)	NA	3.2 (A)
	Midday Peak	0.0 (A)	8.7 (A)	20.2 (C)	NA	6.4 (A)
	PM Peak	0.0 (A)	8.5 (A)	27.8 (D)	NA	7.7 (A)
	Sat Peak	0.0 (A)	8.7 (A)	99.0 (F)	NA	24.6 (C)
ETC+20 2043	AM Peak	0.0 (A)	8.7 (A)	12.8 (B_	NA	3.4 (A)
	Midday Peak	0.0 (A)	8.8 (A)	24.1 (C)	NA	7.3 (A)
	PM Peak	0.0 (A)	8.6 (A)	44.5 (E)	NA	11.5 (B)
	Sat Peak	0.0 (A)	8.8 (A)	160.1 (F)	NA	38.9 (E)
ETC+20 2043 Mitigation (Roundabout)	AM Peak	9.5 (A)	6.9 (A)	6.6 (A)	NA	8.1 (A)
	Midday Peak	9.2 (A)	10.8 (B)	8.2 (A)	NA	9.7 (A)
	PM Peak	8.4 (A)	13.1 (B)	7.4 (A)	NA	10.5 (B)
	Sat Peak	9.4 (A)	18.3 (C)	8.4 (A)	NA	13.6 (B)

Notes:

1. * These values represent weighted average delays for all approaches.
2. ** NY 114 is a north-south road, although the alignment is east-west at Loc. No. 2 and No. 3.
3. NA = Not applicable

Exhibit 3.3.1.7-2 shows various future conditions capacity analysis results anticipated at four intersections. With preferred alternative and mitigations, all four intersections will experience improved intersection operations, with significant reductions in intersection delays and improved LOS. Total of seven movements under various conditions are experiencing LOS of E or worse. After mitigation only one movement will experience LOS E and none will be at LOS F. At the Design Year for intersection of Intersection of NY 25 at Edwards Avenue, overall intersection delays will reduce by 59% in the PM peak. For intersection of NY 114 at Stephen Hands Path, overall intersection delays will reduce by 400% in the AM peak. For intersection of NY 114 at Goodfriend Drive, overall intersection delays will reduce by 2% in the PM peak. And for intersection of NY 25 at CR 48, overall intersection delays will reduce by 286% in the Saturday peak.

3.3.1.7 (2) – Work Zone Safety & Mobility –

A. Work Zone Traffic Control Plan -
The expected temporary work zone traffic control (WZTC) measures include lane width reductions, staged construction, and shifting of traffic within the limits of existing ROW, Temporary, and Permanent Easements. Short-term/nighttime closures are expected to be minimal and may result in motorists detouring. No signed vehicular detours are expected. ADA compliant accommodations for pedestrians and bicyclists will be provided. All temporary work zone traffic control measures will be designed according to MUTCD and NYSDOT standards.

The expected effect to users will be increased travel time. Signage and portable variable message signs (PVMS) will be installed prior to the start of construction to alert roadway users and to allow them to plan alternative routes in order to avoid delays.

As the project enters later stages of design, the work zone traffic control will be developed further. Concerns received from stakeholders during the public involvement process will be taken into consideration during the finalization of the WZTC plans in order to minimize impacts where practical.

B. Special Provisions –
No special provisions have been identified at this time.

C. Significant Projects (per 23 CFR 630.1010) -
The Region has determined that the subject project is not significant per 23 CFR 630.1010. A Transportation Management Plan (TMP) will be prepared for the project consistent with 23 CFR 630.1012. The TMP will consist of a Temporary Traffic Control (TTC) plan. Transportation Operations (TO) and Public Information (PI) components of a TMP will be considered during final design.

3.3.1.8. Safety Considerations, Accident History and Analysis –

Based on the accident analysis, the following countermeasures are being considered at the four intersections:

- Location 1: Installation of separate left-turn bays on all approaches, realigning Edwards Avenue to eliminate the offset between the northbound and southbound approaches and retiming the traffic signal. A protected / permissive left turn arrow with presence detection will be installed on the northbound Edwards Avenue approach. The new signal poles should be sized to handle left turn arrows on the remaining approaches to facilitate their installation in future if turn arrows are warranted.
- Location 2: Installation of separate left-turn bays on all approaches, extending the westbound Stephen Hands Path exclusive right turn lane and retiming the traffic signal. The existing NY 114 southbound left turn arrow and westbound Stephen Hands Path right turn overlap will be retained. The new signal poles should be sized to handle left turn arrows on the remaining approaches to facilitate their installation in future if turn arrows are warranted.
- Location 3: Installation of two-way left turn lane along NYS Route 114.
- Location 4: Installation of a mini-roundabout.

These measures are anticipated to reduce potential for crashes and improve overall traffic safety.

3.3.1.9. Impacts on Police, Fire Protection and Ambulance Access -

Refer to Section 3.3.1.7(2) for a discussion of the anticipated impacts during construction. No major impacts are anticipated on emergency access after the enhancements are in place.

3.3.1.10. Parking Regulations and Parking Related Issues –

No changes to parking availability or regulations are proposed.

3.3.1.11. Lighting –

No changes to street lighting are proposed at locations 1, 2 and 3. The existing street lighting will be further evaluated as part of the final design of the mini-roundabout at location 4 and upgraded as needed.

3.3.1.12. Ownership and Maintenance Jurisdiction **–**

No changes to ownership or maintenance responsibilities are proposed. Refer to section 2.3.1.12 for existing ownership and maintenance details. NYSDOT will continue ownership and maintenance responsibilities for the highway.

3.3.1.13. Constructability Review -

The Regional Construction Group will review the DDR and any concerns presented will be addressed.

3.3.2. Multimodal Considerations

3.3.2.1. Pedestrians –

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead:
The general land use is agricultural and industrial resulting in infrequent pedestrian travel. However, there is continuous sidewalk on the south side of NY 25. Under the Preferred Alternative, sidewalks will be installed along NYS Route 25 eastbound starting from the east side of the existing 1907 Middle Country Road residential driveway (approximately 420' west of Edwards Avenue intersection). A new pedestrian ramp will be required at the existing driveway. The sidewalk will continue to the west side of the first driveway east of the intersection (a distance of approximately 125'). The existing sidewalk located along NYS Route 25 eastbound (from the east side of the first driveway east of the intersection to the eastern project limits) will be retained.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton:
Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton:
The general land use around Loc. No. 2 and Loc. No .3 is primarily low-density residential development that generates infrequent pedestrian travel. Pedestrians may legally use the 6-ft. paved shoulder per the provisions of NYS Vehicle and Traffic Law Section 1156(b).

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
The land use around Loc. No. 4 is mix of residential and commercial. Sidewalk is available along NY 25 / Main Street / Main Road. Considering the location's proximity to Downtown Greenport, pedestrian activity can be expected at this location. The enhancements will maintain and/or enhance the sidewalks at this location.

The pedestrian facilities will be designed in conformance with HDM Chapter 18 and the Complete Streets Checklist (Appendix C).

3.3.2.2. Bicyclists –
Existing bicycle facilities along NY 25 and NY 114 will be maintained and/or upgraded. The proposed enhancements for Loc. No. 3 include a striped 5' wide bike lane. Enhancements at Loc. No. 4 include the addition of a shared-use path and will support the existing NY 25 bicycle network.

3.3.2.3. Transit –
There will be no changes to transit access at any of the four intersections.

3.3.2.4. Airports, Railroad Stations, and Ports –
No changes are proposed; no conflicts are expected.

3.3.2.5. Access to Recreation Areas (Parks, Trails, Waterways, and State Lands) –
No changes are proposed.

3.3.3. Infrastructure

3.3.3.1. Proposed Highway Section

Refer to Appendix A for Typical Sections, Plans and Profile sheets.

3.3.3.1. (1) Right of Way

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

FEE takings are necessary at the intersection to accommodate pavement widenings required to construct exclusive left turn lanes on all approaches as well as the required westward shift in alignment of Edwards Avenue.

The cost (to the Department) of the proposed ROW acquisitions is $1,331,258.

Exhibit 3.3.3.1.1
Anticipated Right-of-Way Acquisitions for Location 1

Owner	Tax Map No.	Type of Acquisition	Estimated Acquisition Area	Parcel Size	Percentage of Acquisition
Gineric 88 LLC	099-1-6	Fee	0.250 acres*	28.481 acres	0.88%
3726 Middle Country LLC	099-2-8	Fee	0.135 acres*	2.709 acres	4.98%
30 Riley Avenue LLC	099-2-7	Fee	0.022 acres	6.430 acres	0.34%
Michael Delea Jr 2009 Revocable Trust	099-1-18	Fee	0.059 acres*	0.970 acres	6.08%
Terminal Logistics II Edwards Avenue SPE, LLC	117-1-4.1	Fee	0.422 acres*	10.508 acres	4.02%
EP Equity Holdings Three LLC	099-2-27	Fee	0.041 acres*	0.747 acres	5.49%
1998 Peconic LLC	099-2-30	Fee	0.058 acres	2.095 acres	2.77 %

*** Take is identified by the Regional Right of Way Group as non-de minimis.**

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:
FEE takings are necessary at the intersection to accommodate pavement widenings required to construct exclusive left turn lanes on all approaches.
Permanent Easements are suggested for sight lines on the southwest (eastbound Stephen Hands Path to southbound NYS Route 114) corner and the southeast (northbound NYS Route 114 to eastbound Stephen Hands Path) corner.

The cost (to the Department) of the proposed ROW acquisitions is $605,117.

Exhibit 3.3.3.1.2 Anticipated Right-of-Way Acquisitions for Location 2					
Owner	**Tax Map No.**	**Type of Acquisition**	**Estimated Acquisition Area**	**Parcel Size**	**Percentage of Acquisition**
Joan E. Schwenk	157-2-14.1	Fee	0.038 acres*	4.577 acres	0.83%
Joan E. Schwenk	157-2-14.1	Temporary Easement	0.001	4.577 acres	0.02%
Buckhout Family 2011 Irrevocable Trust	157-3-25.2	Fee	0.079 acres*	1.363 acres	5.80%
Buckhout Family 2011 Irrevocable Trust	157-3-25.2	Permanent Easement	0.036 acres*	1.363 acres	2.64%
Henry G. and Marion M. Schwenk	157-3-10.9	Fee	0.062 acres*	1.013 acres	6.12%
Geoffrey G. and Katherine Schwenk	157-3-10.2	Fee	0.027 acres	25.771 acres	0.10%
Town of East Hampton	184-1-2	Fee	0.155 acres	103.85 acres	0.15%
Walter Donway	157-3-15	Fee	0.048 acres	1.153 acres	4.16%
Town of East Hampton	157-3-21	Fee	0.007 acres	0.531 acres	1.32%

*** Take is identified by the Regional Right of Way Group as non-de minimis.**

There are no fee takings proposed for Location 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
FEE takings are necessary to accommodate pavement widenings and roadway realignments for the construction of the mini roundabout.

The cost (to the Department) of the proposed ROW acquisitions is $163,119.

Exhibit 3.3.3.1.4 Anticipated Right-of-Way Acquisitions for Location 4					
Owner	**Tax Map No.**	**Type of Acquisition**	**Estimated Acquisition Area**	**Parcel Size**	**Percentage of Acquisition**
Isodoros Kordas and Jennifer Kwon	035-1-4.2	Fee	0.014 acres	1.643 acres	0.85%
Tammi and Timothy Grattan	035-1-7	Fee	0.012 acres*	0.365 acres	3.29%
Roberta Eisenberg	035-1-8	Fee	0.016 acres*	0.484 acres	3.31%
5 Past 40 LLC	035-1-21	Fee	0.047 acres*	1.860 acres	2.53%
160 Route 25 LLC	034-2-1	Fee	0.100 acres	4.690 acres	2.13%

*** Take is identified by the Regional Right of Way Group as non-de minimis.**

3.3.3.1. (2) Curb

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

Along NYS Route 25 eastbound and westbound, six (6) inch mountable curbs (Type M150) will be provided. The curb will begin approximately 325' west of Edwards Avenue and extend to the eastern project limits. Six (6) inch mountable curbs (Type M150) will be provided along Edwards Avenue south of NYS Route 25. Along Edwards Avenue southbound curb will be provided from the intersection with NYS Route 25 to the southern project limits. Along Edwards Avenue northbound, curb will be provided from the intersection with NYS Route 25 to a point approximately 250' south of the intersection.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

No curb will be provided at Location 2. An asphalt concrete tip-up gutter will be provided along NYS Route 114 southbound from the intersection with Stephen Hands Path to the southern project limits.

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:

Six (6) inch mountable curbs (Type M150) will be provided at the curb returns only for the intersections of NYS Route 114 at Goodfriend Drive and NYS Route 114 at Coultes Lane.

No other curb will be provided at Location 3.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

Six (6) inch mountable curbs (Type M150) will be provided at the edges of pavement throughout the Location 4 project limits. Four (4) inch mountable curbs (Type M100) will be provided along all splitter islands of the mini roundabout.

3.3.3.1. (3) Grades

All proposed grades will not differ significantly from existing grades throughout each Location and no grades greater than 4% are anticipated.

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

The proposed maximum grade for NYS Route 25 will be 2.34%. The proposed maximum grades for Edwards Avenue will be 0.96% (south of NYS Route 25) and 3.54% (north of NYS Route 25). These grades do not warrant climbing lanes.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

The proposed maximum grade for NYS Route 114 will be 2.58%. The proposed maximum grade for Stephen Hands Path will be 1.54%. These grades do not warrant climbing lanes.

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:

The proposed maximum grade for NYS Route 114 will be 0.76%. This grade does not warrant a climbing lane.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

The proposed maximum grade for CR 48 (eastbound approach to roundabout) will be 2%. The proposed maximum grade for NYS Route 25 (westbound approach to roundabout) will be 2%. The proposed maximum grade of NYS Route 25 (northbound approach to roundabout) will be 2%. The proposed maximum grade for Sound Avenue will be 1.9%. These grades do not warrant climbing lanes.

3.3.3.1. (4) Intersection Geometry and Conditions

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

Under the Preferred Alternative, the NYS Route 25 at Edwards Avenue intersection will be modified as follows:

- Widened approaches to the intersection
- Horizontal alignment of Edwards Avenue north and south of NYS Route 25 shifted to the west
- One through/right turn lane in all directions
- An exclusive left turn lane in all directions

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

Under the Preferred Alternative, the NYS Route 114 at Stephen Hands Path intersection will be modified as follows:

- Widened approaches to the intersection
- One through/right turn lane northbound, southbound, and eastbound
- One through lane westbound
- An exclusive right turn lane westbound
- An exclusive left turn lane in all directions

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:

Under the Preferred Alternative, NYS Route 114 will be modified as follows:

- Widened approaches northbound and southbound
- One through/right turn lane northbound and southbound
- A two way left turn lane to access Goodfriend Drive and Coultes Lane
- Dedicated 5’ bike lanes northbound and southbound

The existing geometry of Goodfriend Drive and Coutles Way will remain unchanged.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

Under the Preferred Alternative, the CR 48 at NYS Route 25 intersection will be modified as follows:

- Unsignalized “T” intersection to be reconstructed to incorporate a mini roundabout
- Widened approaches and slight roadway realignments to accommodate construction of the mini roundabout

The existing geometry of Sound Avenue will remain unchanged.

3.3.3.1. (5) Roadside Elements:

(a) Snow Storage, Sidewalks, Utility Strips, Bikeways, Bus Stops

Where new sidewalks are proposed, they will be fully compliant with current NYSDOT and ADA design standards. Where sidewalk locations will be retained, they will be evaluated and improved as necessary to bring them in to compliance with the current ADA requirements wherever technically feasible.

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

Under the Preferred Alternative, sidewalks will be installed along NYS Route 25 eastbound from approximately 325’ west of Edwards Avenue to the west side of the first driveway east of the intersection (a distance of approximately 125’). The existing sidewalk located along NYS Route 25 eastbound (from the east side of the first driveway east of the intersection to the eastern project limits) will be retained.

Both NYS Route 25 and Edwards Avenue (south of NYS Route 25) are currently signed as bike routes and this will be maintained in the Preferred Alternative.

Currently, there are Suffolk County Transit bus stops located on the southeast corner (bus routes S58 andS62) and the northeast corner (bus route S58). These bus stops will be maintained as part of the Preferred Alternative.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

No sidewalks are proposed in the Preferred Alternative for either NYS Route 114 or Stephen Hands Path within the project limits.

NYS Route 114 is currently signed as a bike route and this will be maintained in the Preferred Alternative.

There is a Suffolk County Transit bus stop (bus route S92) located along NYS Route 114 northbound and southbound approximately 400' north of Stephen Hands Path. These bus stops will be maintained in the Preferred Alternative.

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:

No sidewalks are proposed in the Preferred Alternative for either NYS Route 114 or Goodfriend Drive within the project limits

Signed and striped bike lanes will be provided throughout the project limits along NYS Route 114.

There are no bus stops located within the project limits for Location 3.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

The Preferred Alternative includes the construction of a roadside shared-use path within the limits of the proposed mini roundabout. This shared-use path would connect with the proposed shoulders on the east, west, and south approach legs. The shared-use path would also transition to meet the existing sidewalks along both sides of NYS Route 25 both south and east of the roundabout.

There are no bus stops located within the project limits for Location 4.

(b) Driveways

Under the Preferred Alternatives for all four locations, driveways will be modified to comply with the current NYSDOT "Policy and Standards for Design of Entrances to State Highways."

(c) Clear Zone

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

Under the Preferred Alternative, the typical clear zone will be approximately 17 feet wide (minimum), except where utility poles, traffic signal poles, or trees where the caliper is anticipated to be greater than four (4") inches at maturity are existing or proposed. At these locations, the minimum clear zone is projected to be seven feet six inches (7' 6") minimum, which is the width of the 6' shoulder plus the 1'-6" clearance from face of curb/edge of pavement to the face of object. As there is no accident history of fixed object type crashes at this location, proposed shielding of utility poles, traffic signal poles, or mature trees is not anticipated.

The existing drainage culvert headwalls impacted by the proposed widening will be within the clear zone and will be protected by the appropriate guide railing system.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

Under the Preferred Alternative, the typical clear zone will be approximately 15 feet wide (minimum), except where utility poles, traffic signal poles, or trees where the caliper is anticipated to be greater than four (4") inches at maturity are existing or proposed. At these locations, the minimum clear zone is projected to be nine (9') feet, which is the width of the 6' shoulder plus the desired 3' clearance from face of curb/edge of pavement to the face of object.

The existing drainage swale on the southeast corner (northbound NYS Route 114 to eastbound Stephen Hands Path) and the existing stream/channel along the northside of Stephen Hands Path (west of NYS Route 114) impacted by the proposed widening will be within the clear zone and will be protected by the appropriate guide railing system.

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:

Under the Preferred Alternative, the typical clear zone will be approximately 15 feet wide (minimum), except where utility poles, traffic signal poles, or trees where the caliper is anticipated to be greater than four (4") inches at maturity are proposed. At these locations, the minimum clear zone is projected to be nine (9') feet, which is the width of the 5' striped bike lane plus additional shoulder width and the desired 3' clearance from face of curb/edge of pavement to the face of object.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

Under the Preferred Alternative, the typical clear zone will be approximately 13 feet wide (minimum), except where utility poles, traffic signal poles, or trees where the caliper is anticipated to be greater than four (4") inches at maturity are existing or proposed. At these locations, the minimum clear zone is projected to be nine (9') feet, which is the width of the 6' shoulder plus the desired 3' clearance from face of curb/edge of pavement to the face of object.

3.3.3.2. Special Geometric Design Elements

3.3.3.2. (1) Nonstandard Features

There will be a nonstandard feature introduced at one location as part of the Preferred Alternative.

Loc. No. 3 – NY 114 at Goodfriend Drive, Town of East Hampton

The proposed shoulder width is 5' a reduction from 10' within this uncurbed section of NY 114. The standard is 10'. This has been proposed to allow the installation of a center turning lane to safely accommodate left turns at Goodfriend Drive and Coultes Lane without taking property and relocating utilities. No change in the accident rate is anticipated from the change to the shoulder width. It is anticipated that the accident rate will be reduced by the addition of a bi-directional center left turn lane. Please see Appendix F for Nonstandard Feature Justification.

In addition, there is one existing nonstandard feature (horizontal curve radius at Location 2) that will be brought up to standard.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

There is an existing nonstandard horizontal curve radius along NYS Route 114 within the project limits. The minimum horizontal curve radius required is 833 feet. The existing alignment currently contains a horizontal curve with a radius of 600 feet. The Preferred Alternative will increase this horizontal curve radius to the minimum 833 feet.

3.3.3.2. (2) Non-Conforming Features

There are two existing nonconforming features (headlight sight distance) at Locations 1 and 2 that will be improved but not brought up to meet standards.

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

There is an existing nonconforming stopping sight distance (headlight) along NYS Route 25 within the project limits. The minimum stopping sight distance required is 495 feet. The existing stopping sight distance is currently 295 feet. The Preferred Alternative will slightly increase the stopping sight distance to 300 feet; however, this still is below the minimum 495 feet required.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

There is an existing nonconforming stopping sight distance (headlight) along NYS Route 114 within the project limits. The minimum stopping sight distance required is 425 feet. The existing stopping sight distance is currently 236 feet. The Preferred Alternative will slightly increase the stopping sight distance to 264 feet; however, this still is below the minimum 425 feet required.

3.3.3.3. Pavement and Shoulder

A *Pavement Evaluation and Treatment Selection Report* (PETSR) was prepared in November 2020. All proposed pavement treatments for all locations as noted below are based on the findings of the completed PETSR.

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

The existing composite pavement along NYS Route 25 and the existing full depth asphalt pavement along Edwards Avenue will be retained and repaired as necessary. The top 2” of the existing asphalt will be milled to allow for the placement of a new 2” asphalt riding surface. The existing asphalt shoulders should be removed to accommodate the necessary pavement widenings. Pavement widenings shall be a minimum of 4’-0” wide and shall be constructed of a full depth asphalt section consisting of a 2” top course, 2 ½” binder course, 3 ½” base course on a 12” subbase layer, or match the thickness of the existing adjacent pavement, whichever is greater.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton
Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:

The existing full depth asphalt pavement along NYS Route 114, Stephen Hands Path, and Goodfriend Drive will be retained and repaired as necessary. The top 2” of the existing asphalt will be milled to allow for the placement of a new 2” asphalt riding surface. The existing asphalt shoulders should be removed to accommodate the necessary pavement widenings. Pavement widenings shall be a minimum of 4’-0” wide and shall be constructed of a full depth asphalt section consisting of a 2” top course, 2 ½” binder course, 3 ½” base course on a 12” subbase layer, or match the thickness of the existing adjacent pavement, whichever is greater.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

The existing composite pavement along County Road 48/NYS Route 25 and the existing full depth asphalt pavement along Sound Road will be retained and repaired as necessary. The top 2" of the existing asphalt will be milled off to allow for the placement of a new 2" asphalt riding surface. The existing asphalt shoulders should be removed to accommodate the necessary pavement widenings. Pavement widenings shall be a minimum of 4'-0" wide and shall be constructed of a full depth asphalt section consisting of a 2" top course, 2 ½" binder course, 3 ½" base course on a 12" subbase layer, or match the thickness of the existing adjacent pavement, whichever is greater.

3.3.3.4. Drainage Systems

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead:

As the existing drainage structures currently installed at the intersection quadrants will be in conflict with the proposed travel lanes and will be within the wheel paths of vehicles, it is recommended that these basins be removed or abandoned in place. New leaching structures will be installed at the southwest and southeast curb returns as well as along the edge of pavement in the northeast and northwest quadrants along Edwards Avenue. Similar to the existing structures located at the intersection quadrants, the existing drainage basin at the low point just east of Edwards Avenue along with the two flanker basins will be in conflict with the proposed through lane of NYS Route 25 westbound and should be removed or abandoned in place. A new leaching basin will be installed at the edge of pavement at this low point and flanker leaching basins will be installed on either side. The two existing drainage structures along the south curb line east of Edwards Avenue will be maintained with an additional leaching basin proposed to the west of the driveways accessing 3705 and 3725 Middle Country Road. Additional leching basins will be installed along the north edge of pavement east of the driveway accessing 3726 Middle County Road. The existing low point on NYS Route 25 west of Edwards Avenue will be maintained in the Preferred Alternative. The existing headwalls that are located here will need to be removed and new headwalls installed (approximately 4' off the proposed edge of pavement on the north side and 14' off the edge of pavement on the south side). The existing 36" RCP that connects the headwalls will need to be extended to meet the proposed headwalls. Interconnected catch basins will also be installed at this low point along both the north and south edges of pavement with connections provided to the existing culvert.

Along Edwards Avenue south of NYS Route 25 the two drainage basins located along the driveway curb lines of the FED-EX shipping center will be maintained. A leaching basin will be installed along the west curb line just south of this driveway and a leaching basin will be installed along the eastbound curb line just south of the southern driveway to 3725 Middle Country Road. North of NYS Route 25, the existing catch basins and associated drainage pipes at the low point on Edwards Avenue will be retained.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path, Town of East Hampton:

Both NYSDOT and the Town of East Hampton have ongoing projects at this location in various stages of development that will impact the final proposed drainage layout to be constructed under this project. After coordination efforts between NYSDOT and the Town of East Hampton the following work will be completed under the Town of East Hampton's Drainage Project:

- The existing 24" CPP/RCP along the west side of Stephen Hands Path north of NYS 114 will be removed and replaced with a 36" RCP.
- The existing drainage structure along the west side of Stephen Hands Path just north of NYS 114 will be replaced with a new 6' diameter manhole. A short stub (one pipe length) of 36" RCP will be installed leading to the south.
- Along the west side of Stephen Hands Path south of NYS 114, the Town will install a 42" end section and a stub of 16 LF of 42" diameter pipe leading to the north.
- A 42' wide and varies open channel swale will be constructed at the terminus of the 42" end section.
- The existing 24" RCP that crosses under Stephen Hands Path will be extended and a 24" end section installed that will outfall into the new swale.

The drainage work to be completed by NYSDOT under this project includes the following:

- The existing frame and grate on the 8'x4'x10' deep leaching basin located on the northeast corner will be converted to a manhole cover.
- This structure will be connected to the existing leaching basins located along northbound NYS Route 114 just north of the intersection via a 15" RCP.
- A new 36" RCP will tie into the 36" stub installed by the Town and connect to the existing 8'x4'x10' leaching basin.
- A new 42" RCP will be installed under NYS Route 114 from the 8'x4' leaching structure to a new manhole located in the grass area along the west side of Stephen Hand Path. This structure will also connect to the 42" RCP stub installed by the Town.
- A new manhole will be installed at the junction point between the existing 2'x3' box culvert and the existing 24" HDPE pipe.

In conjunction with the coordinated drainage work to be completed by the Town of East Hampton and NYSDOT, the following drainage work specific to this project will be done. The existing drainage structures along NYS Route 114 north (west) of Stephen Hands Path (one along the northbound direction and one along the southbound direction) that are connected with a drainage pipe that crosses under NYS Route 114 will be maintained. The single leaching structure located along northbound NYS Route 114, approximately 300, north (west) of the intersection will also be maintained. South (east) of Stephen Hands Path, the roadway will be superelevated and pitch to the west (south). New tip-up gutter will be installed along southbound NYS Route 114. The existing frame and grate on the single leaching structure here will be converted to a manhole frame/grate. New drainage structures will be installed at the new tip-up gutter along southbound NYS Route 114 and will connect to the new manhole installed at the junction of the 2'x3' box culvert/24" HDPE pipe.

Due to the proposed pavement widenings at the intersection, the existing roadside drainage swales/ditches located along northbound NYS Route 114 (south/east of Stephen Hands Path) and along the north (west) and south (east) sides of Stephen Hands Path (north/east of NYS Route 114) will need to be regraded. The top of the existing drainage chamber located along the south side of Stephen Hands Path will be rebuilt.

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton:

The two existing drainage structures located within the project limits of Location 3 will be maintained. There are no new drainage structures proposed in the Preferred Alternative.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

Due to the realignment of NYS Route 25 (Main Road) as it approaches the proposed roundabout, the existing catch basins located along the north curb line just east of the intersection with NYS Route 25 (Main Street) and County Road 48 will be converted to manholes and their connecting 18" RCPs will be retained. Existing catch basins on the east and west sides of Sound Road and catch basins along the south curb line of NYS Route 25 (Main Road) will be maintained. The existing catch basin and 18" RCP located along the north curb line of NYS 25 (Main Road) just east of the intersection with Sound Road will be removed or abandoned. A new catch basin and 18" RCP will be installed at the new PC of the proposed curb line and connected to an existing structure that will be converted to a manhole. New structures will be installed upstream of the crosswalks of all three legs of the proposed roundabout. All proposed drainage structures and existing drainage structures retained will be tied together and connected to the existing closed drainage system that discharges through an existing head wall into a drainage reserve area located on the west side of Main Road, south of CR 48.

3.3.3.5. Geotechnical

There are no special geotechnical concerns with the soils or rock slopes within the project area.

3.3.3.6. Structures

There is no proposed bridge work within the project limits of any of the locations. An existing 36" concrete culvert is located near the western limit of project location 1, which flows from North to South under NY 25. Concrete headwalls on both the north and south side of the culvert will be removed and extended. Proposed interconnected drainage structures will connect to the existing culvert.

3.3.3.7. Hydraulics of Bridges and Culverts

There are no bridges within the project limits. At Location 1, there are existing headwalls for the drainage culvert located approximately 350 feet west of Edwards Avenue which allow sheet flow of stormwater through the natural swale/channel to pass under NYS Route 25. The Design Loading Structural Capacity of the existing referred culvert is unknown as neither available record plans or inspection reports provide that information. As part of the Preferred Alternative, the culvert will need to be extended and new headwalls provided to accommodate the proposed pavement widening. A hydraulic analysis of this culvert is not anticipated.

3.3.3.8. Guide Railing, Median Barriers and Impact Attenuators

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:

There are two runs of existing outdated HPBO corrugated beam guide railing located along NYS Route 25 west of Edwards Avenue that will be impacted by the proposed pavement widenings and will need to be replaced. These runs of guide railing will be replaced with new systems meeting the current standards.

There are no proposed median barriers or impact attenuators within the project limits for Location 1.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:

There are two runs of existing guide railing that will be impacted by the proposed pavement widenings and will need to be replaced within the Location 2 project limits. One run of railing is located along the southeast corner of the intersection (northbound NYS Route 114 to eastbound Stephen Hands Path). The entire run of this guide railing will be impacted and will be replaced with a new system meeting current standards. The other run of railing is located along the northwest corner of the intersection (southbound NYS Route 114 to westbound Stephen Hands Path, on westbound Stephen Hands Path). Approximately half of the length of this railing will be impacted by the proposed pavement widenings. However, due the existing railings non-compliance with current standards, it is recommended that the entirety of this run of guide railing be replaced. As part of the Town's drainage improvements, they will be installing new guide rail and will place it with this project's widening accounted for.

There are no proposed median barriers or impact attenuators within the project limits for Location 2.

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:
Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:

There are no proposed guide railings, median barriers, or impact attenuators within the project limits for Locations 3 and 4.

Exhibit 3.3.3.8
Proposed Location of Guide Railing, Median Barriers and Impact Attenuators

Type	Location	Side	Length (m)
HPBO Corrugated Beam Railing	Location 1 – NYS Route 25	EB	105±
HPBO Corrugated Beam Railing	Location 1 – NYS Route 25	WB	215±
HPBO Corrugated Beam Railing	Location 2 – NYS Route 114 to Stephen Hands Path	NB to EB	440±
HPBO Corrugated Beam Railing	Location 2 – Stephen Hands Path	WB	450±

3.3.3.9. Utilities

The construction of the Preferred Alternatives at each of the four locations will require the relocation of some of the public/private utilities described in Section 2.3.3.9. Utility poles, traffic signal poles, light poles, fire hydrants and other appurtenances that will interfere with the proposed pavement widenings, realignments, or roundabout will be relocated. Underground utilities such as water mains, gas, electrical conduits, and telephone/cable lines will be relocated when in conflict with the proposed drainage system and/or the new alignments. Valve boxes and manholes will be adjusted to meet proposed grades as necessary. Early coordination with the utility companies will be scheduled during the detailed design phase. The costs of relocating private utilities will be borne by the respective utility company. The relocation costs for water mains and related appurtenances will be included in the project cost.

In general, due to proposed roadway realignments and roadway widenings noted at Location No's. 1, 2 and 4, utility pole conflicts and required relocations will be required. Final relocations will be identified during Final design and separate utility agreements between NYS and the various utilities may be required and prepared by the NYS Regional Utility Engineer. The cost of these major utility improvements, if required in final design, have not been included in the preliminary estimated construction improvements provided within this design report.

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead:
Eight (8) existing utility poles along eastbound NYS Route 25 and nine (9) existing utility poles along southbound Edwards Avenue would be impacted by the proposed preferred alternative and would require relocation. Two (2) existing utility poles along westbound NYS Route 25 that provide service connections to properties on the north side of NYS Route 25 would be impacted by the proposed preferred alternative and would require relocation as well.

Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton:
Four (4) existing utility poles along NYS Route 114 and two (2) existing utility pole along Stephen Hands Path would be impacted by the proposed preferred alternative and would require relocation. Additionally, several new guys and guy poles are anticipated due to the impacted alignment of poles on Stephan Hands Path.

Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton:
As all proposed enhancements are contained within the existing pavement area at Location 3, no utility poles would be impacted by the proposed preferred alternative.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold:
Numerous poles within the R.O.W. of NY 25 (Main Road) and CR 48 (North Road) fall within the fill limits for the raised section of roadway at the proposed Roundabout. Two (2) poles may require replacement in kind due to direct conflicts with proposed improvements, four (4) poles may require secondary and communication cable height adjustments for vehicle clearance.

Exhibit - 3.3.3.9a Overhead Utilities for Location 1					Utilities Present			
Pole #/ Owner	Height (ft) Exist/Prop.	Location	Offset	Conflict/ Condition	Elect	Crown Castle	Altice	Ver.
Unknown		SW corner	>10’	Com only pole – possible elect abandoned		X	X	X
387-LIPA	50’ to 55’	s/s NY 25, 1st pole w/o Edwards	<10’	Road widening / Signal Rebuild	X	X	X	X
386.5-LIPA	45’ to 50’	s/s NY 25, 2nd pole w/o Edwards	<10’	Road widening / Signal Rebuild	X	X	X	X
386-Verizon	40’ to 45’	s/s NY 25, 3rd pole w/o Edwards	<10’	Road widening / Signal Rebuild	X	X	X	X
Unk		n/s NY 25, across from 386		No change	X			
385-	35’ to 40’	s/s NY 25, 4th pole w/o Edwards		Signal Rebuild – 5’ Step down	X	X	X	X
387.5-LIPA	50’ to 55’	s/s NY 25, 1st pole e/o Edwards	>10’	Longitudinal shift for new corner radius	X		X	X
388-LIPA	50’	s/s NY 25, 4th pole e/o Edwards			X		X	X
389-Verizon	45’	s/s NY 25, 4th pole e/o Edwards		Possible conflict with leaching basin	X		X	X
164-LIPA	45’	n/s NY 25, across from 389	<10’	Road widening	X		X	X
59- LIPA	45’ to 50’	w/s Edwards, 1st pole s/o NY25	>10’	Road widening / Signal Rebuild	X	X	X	X
58-Verizon	40’ to 45’	w/s Edwards, 2nd pole s/o NY25	>10’	Road widening / Signal Rebuild, poss. SW guy	X	X	X	X
57-Verizon	40’	w/s Edwards, 3rd pole s/o NY25	>10’	Road widening	X	X	X	X
56-Verizon	40’	w/s Edwards, 4th pole s/o NY 25	~10’	Road widening	X	X	X	X
55-Verizon	40’	w/s Edwards, 5th pole s/o NY 25	<5’	Road widening	X	X	X	X
60-Verizon	45’ to 50’	w/s Edwards, 1st pole n/o NY 25	~30’	Shift pole N&W- Road widening / Signal Rebuild, anticipated	X		X	X
60S-LIPA	35’	e/s Edwards, 1st pole n/o NY 25	~15’	Shift pole north, alignment/ conflict	X			
61-Verizon	40’ to 45’	w/s Edwards, 2nd pole n/o NY 25	>10’	Road widening / Signal Rebuild	X		X	X
62- LIPA	40’	w/s Edwards, 3rd	<10’	Road widening,	X		X	X

Exhibit - 3.3.3.9a Overhead Utilities for Location 1					Utilities Present			
Pole #/ Owner	Height (ft) Exist/Prop.	Location	Offset	Conflict/ Condition	Elect	Crown Castle	Altice	Ver.
		pole n/o NY25		possible guy pole				
Additional guy / guy poles anticipated due to change in pole alignment								

Exhibit - 3.3.3.9b Underground Utilities for Location 1				
Owner	**Type**	**Location/Side**	**Length**	**Condition/Conflict**
Crown Castle	Fiber Optic	NYS 25 WB, w/o Edwards Ave.	650’	Underground fiber lines – possible conflicts with drainage structures
National Grid	Gas Main	NYS 25 EB	715’	6” steel gas main – possible conflicts with drainage and extended culvert
LIPA (PSEG-LI as agent)	Underground Power Line	NB Edwards Ave., s/o NYS25	50’	Underground 13kv power line – possible conflict with drainage
Riverhead Water	Water Line	NYS 25 EB, w/o Edwards Ave.	150’	Water main – possible conflict with drainage and extended culvert.
	Water Line	NYS 25 WB, e/o Edwards Ave.	425’	Water main – possible conflict with drainage.
Verizon	Underground Telephone	NYS 25 WB, w/o Edwards Ave.	175’	Telephone duct bank – possible conflict with drainage.

Exhibit - 3.3.3.9c Overhead Utilities for Location 2					Utilities Present			
Pole #/ Owner	Height (ft) Exist/Prop.	Location	Offset	Conflict/ Condition	Elect	NYSDOT	Altice	Ver.
47- LIPA	45’	n/s NY114, 3rd pole w/o Stephen Hands Path(SHP)	<10’	Road widening, may impact pole	X	X	X	X
46- LIPA	35’ to 45’	n/s NY114, 2nd pole w/o (SHP)	<10’	Road widening / Signal Rebuild	X	X	X	X
45- LIPA	40’ to 45’	n/s NY114, 1st pole w/o SHP	<10’	Road widening / Signal Rebuild	X	X	X	X
44- Verizon	40’ to 45’	n/e/c NY114 and SHP	>10’	Road widening / Signal Rebuild	X	X	X	X
50- Verizon	40’	e/s SHP, 1st pole n/o corner	<10’	Road Widening	X		X	X
49.5- LIPA	40’	e/s SHP, 1st pole s/o NY114,	<10’	Transition change in n/s pole alignment due to pole	X		X	X
Additional guy / guy poles anticipated due to change in pole alignment								

Exhibit - 3.3.3.9d Underground Utilities for Location 2				
Owner	**Type**	**Location/Side**	**Length**	**Condition/Conflict**
LIPA	Underground Power Line	NYS 114 NB	170’	8” 69kv Oil Static Line – possible conflict with drainage
	Underground Power Line	Stephen Hands Path EB	200’	Underground 13kv power line – possible conflict with drainage
SCWA	Water Line	NYS 114 NB	165’	12” Water main – possible conflict with drainage
	Water Line	NYS 114 SB	180’	Water main – possible conflict with drainage
	Water Line	Stephen Hands Path EB	215’	16” Water main – possible conflict with drainage
Verizon	Underground Telephone	Stephen Hands Path EB	165’	Telephone conduit – possible conflict with drainage.

Exhibit - 3.3.3.9e Overhead Utilities for Location 4					Utilities Present			
Pole #/ Owner	Height (ft) Exist/Prop.	Location	Offset	Conflict/ Condition	Elect	UNK	Altice	Ver.
41- LIPA	55’	n/s North Main Road, 1st pole w/o NY25	<10’	Replace in kind Roadside cut, drainage pipe, minor widening	X	Service drop		
387- Verizon	45’	s/w/c North Main Rd and NY25,		See note 1 - below	X			X
386- Verizon	45’	s/s NY25, 1st pole e/o int.		See note 1 - below	X		X	X
385- Verizon	45’	s/s NY25, 2nd pole e/o int.		See note 1 - below	X		X	X
384- Verizon	45’	s/s NY25, 3rd pole e/o int.		Replace in kind if in SW	X		X	X
1-Verizon	40’	w/s Sound Road, 1st pole n/o NY25	<10’	See note 1 below	X		X	X
Notes: 1 - Raise Road 2’ at proposed Roundabout, possible adjust secondary & com for vehicle clearance								

Exhibit - 3.3.3.9f Underground Utilities for Location 4				
Owner	**Type**	**Location/Side**	**Length**	**Condition/Conflict**
National Grid	Gas Main	NYS 25 WB. w/o Roundabout		8” PE gas main – possible conflicts with drainage
	Gas Main	NYS 25 EB. w/o Roundabout	170’	6” steel gas main – possible conflicts with drainage
	Gas Main	Main Road s/o Roundabout	100’	4” steel/6” PE gas main – possible conflicts with drainage
SCWA	Water Line	NYS 25 WB, w/o Roundabout	160’	Water main – possible conflict with drainage

Exhibit - 3.3.3.9f Underground Utilities for Location 4				
Owner	**Type**	**Location/Side**	**Length**	**Condition/Conflict**
	Water Line	N/S through Roundabout	135’	Water main – possible conflict with drainage
Verizon	Underground Telephone	NYS 25 EB, to NYS 25 WB through Roundabout	300’	Telephone duct bank loops around proposed roundabout – possible conflict with drainage

3.3.3.10. Railroad Facilities

There are no railroads within the project limits at any of the four locations and no at-grade crossings within 0.5 miles that could impact traffic conditions.

3.3.4. Landscape and Environmental Enhancements –

Refer to Chapter 4 for complete discussion.

3.3.4.1. Landscape Development **and Other Aesthetics Improvements –**

The Department will provide/replace landscaping as a part of the overall enhancement and aesthetic improvement efforts for this project. Refer to Chapter 4 for a more detailed discussion.

3.3.4.2. Environmental Enhancements –

No environmental enhancements are proposed as part of this project

3.3.5. Miscellaneous

NYS Smart Growth Public Infrastructure Policy Act (SGPIPA)

Pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act (SGPIPA).

To the extent practicable this project has met the relevant criteria as described in ECL § 6-0107. The Smart Growth Screening Tool was used to assess the project’s consistency and alignment with relevant Smart Growth criteria; the tool was completed by the Region’s Planning and Program Management group on INSERT DATE and reflects the current project scope.

GreenLITES Project Design Certification Scorecard

The New York State Department of Transportation (NYSDOT) is committed to improving the quality of our transportation infrastructure in ways that minimize impacts to the environment, including the depletion of irreplaceable resources. To recognize transportation project designs that incorporate a high level of environmental sustainability, NYSDOT is implementing “GreenLITES (Leadership In Transportation and Environmental Sustainability),” a project rating program. GreenLITES is a self-certification program and a scorecard is available to rate a project.

A GreenLITES scorecard for the project is completed to the extent possible and information available at this stage, and is available in Appendix I.

CHAPTER 4 - SOCIAL, ECONOMIC & ENVIRONMENTAL CONDITIONS and CONSEQUENCES

4.1 Introduction

This chapter documents the assessment of social, economic and environmental effects of the Build Alternative. The No Build Alternative assumes no future improvements in the Study Area other than those planned by others and/or implemented as part of routine maintenance.

4.1.1 Environmental Classification

4.1.1.1 NEPA Classification -

This project is being progressed as a Class II action (Categorical Exclusion) because it does not individually or cumulatively have a significant environmental impact and is excluded from the requirement to prepare an Environmental Impact Statement (EIS) or an Environmental Assessment (EA).

Per the Federal Highway Administration's regulations in 23 CFR 771.117, this project qualifies as a Categorical Exclusion (CE). The project is primarily a modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (including parking, weaving, turning, and climbing lanes project (23 CFR 771.117(c) (26)) and does not significantly impact the environment. In accordance with the NYSDOT/FHWA Programmatic Agreement Regarding Categorical Exclusions, and as documented in the Federal Environmental Approvals Worksheet (FEAW) in Appendix B, the NYSDOT on behalf of the FHWA will make the NEPA environmental determination.

4.1.1.2 SEQR Classification -

In accordance with 17 NYCRR Part 15, "Procedures for Implementation of State Environmental Quality Review Act," (SEQRA), the Department is the lead agency under SEQRA and *the Department has determined that this project is a SEQR Non-Type II as per 17 NYCRR Part 15.14(d); (6), due to the presence of historic resources adjacent to one of the work locations. However, the NYSDOT anticipates a determination of no significant effect for the overall project.*

The Department has determined that this project is not exempt from SEQRA and does not qualify as a SEQRA Type II Action in accordance with 17 NYCRR Part 15 - Procedures for Implementation of State Environmental Quality Review Act for the reasons cited below. Therefore, under the Department's implementing regulations, the environmental impacts are not clearly established for this category of action and require an Environmental Assessment (EA). The project does not qualify as a Type II Action per 17 NYCRR Part 15.14(d); (6), due to the presence of historic resources adjacent to one of the work locations. However, the NYSDOT anticipates a determination of no significant effect for the overall project.

4.1.2 Coordination with Agencies

4.1.2.1 NEPA Cooperating and Participating Agencies -

The following agencies are Cooperating Agencies in accordance with 23 CFR 771.111(d):

- New York State Department of Environmental Conservation (NYSDEC)
- U.S. Fish and Wildlife Service (USFWS)

4.2 Social

The purpose of this section is to discuss the social environment in the vicinity of the project. This project involves safety enhancements at the following four intersections within Suffolk County - Loc. No. 1 - NY 25 at Edwards Avenue, Loc. No. 2 - NY 114 at Stephen Hands Path, Loc. No. 3 - NY 114 at Goodfriend Drive and Loc. No. 4 – NY 25 at CR 48. Considering the proximity of Loc. No.2 and 3, the socio-economic conditions for these two locations are discussed together in the sections ahead.

4.2.1 Land Use

4.2.1.1 Demographics and Affected Population -

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County

The land use around this intersection on the northern side is largely agricultural, with commercial and industrial uses on the southern side. The Riverhead Charter School is located approximately 800 feet east of the intersection. Splish Splash Amusement park, located approximately 0.6 miles east of the intersection, is one of biggest activity generators in the area, in addition to Tanger Outlet Mall.

The intersection is located within the Calverton Census Designated Place (CDP). The 2018 American Community Survey (ACS) 5-Year Estimates report that the CDP has a population of 7,154 persons. The median reported age was 50.5, compared to median age of 37.9 within United States. 31.8% of the population is reported at age 65 or older. In terms of race and ethnicity, 79.8% of the population was identified as White, 11.4% as African American and about 3.2% as Asian. 10.9% of the population was identified speaking language other than English at home. Out of which 7.4% spoke Indo-European language, and 2.5% spoke Spanish. Approximately 13.6% of the CDP's population identified as disabled. Based on 2018 ACS data, 11% of its population reported to be below the poverty level. This project is not located in a potential NYSDEC Environmental Justice Area.[8]

The 2018 American Community Survey (ACS) 5-Year Estimates report that 81.2% of the CDP's working population commuted individually by car or truck to work with an average travel time of 31.2 minutes. This is approximately five minutes longer than the national average and considered by many to be reasonable for a work commute or shopping.

Loc. No. 2 - NYS Route 114 at Stephen Hands Path and Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County

The land use around Loc. No. 2 is largely low density residential. There is a large green open space on the southwest corner side of Loc. No. 2. The Ross School is located west of Loc. No. 3.

Loc. No. 2. and Loc. No. 3 are both located within the Census Tract 2009.02. The 2018 American Community Survey (ACS) 5-Year Estimates report that the Census Tract has a population of 7,137 persons. The median reported age was 52.8, compared to median age of 37.9 within United States. 28.9% of the population is reported at age 65 or older. In terms of race and ethnicity, 93.1% of the population was identified as White, 1.9% as African American and about 0.8% as Asian. 27.5% of the population was identified speaking language other than English at home. Out of which 21.1% spoke Spanish, and 4.9% spoke other Indo-European language. Approximately 11.1% of the Census Tract's population identified as disabled. Based on 2018 ACS data, 10% of its population reported to be below the poverty level. This project is not located in a potential NYSDEC Environmental Justice Area.[9]

The 2018 American Community Survey (ACS) 5-Year Estimates report that 67.6% of the Census Tract's working population commuted individually by car or truck to work, 11.6% used public transportation, 8.1% carpooled and about 6.4% walked. The average travel time was 25.2 minutes. This is close to the national average and considered by many to be reasonable for a work commute or shopping.

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[8] *NYSDEC. Potential Environmental Justice Areas in Eastern Suffolk County, New York. Available at https://www.dec.ny.gov/docs/permits_ej_operations_pdf/suffolkejeast.pdf*

[9] *NYSDEC. Potential Environmental Justice Areas in Eastern Suffolk County, New York. Available at https://www.dec.ny.gov/docs/permits_ej_operations_pdf/suffolkejeast.pdf*

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold, Suffolk County
The land use around this intersection on the north side is largely residential, with commercial uses on northern corner.

The intersection is located within the Census Tract 1702.02. The 2018 American Community Survey (ACS) 5-Year Estimates report that the Census Tract has a population of 4164 persons. The median reported age was 60.4, compared to median age of 37.9 within United States. 40.3% of the population is reported at age 65 or older. In terms of race and ethnicity, 94.4% of the population was identified as White, and 2.2% as African American. 15.9% of the population was identified speaking language other than English at home. Out of which 7.8% spoke Indo-European language, and 7.4% spoke Spanish. Approximately 16.7% of the Census Tract's population identified as disabled. Based on 2018 ACS data, 5.9% of its population reported to be below the poverty level. This project is not located in a potential NYSDEC Environmental Justice Area.[6]

The 2018 American Community Survey (ACS) 5-Year Estimates report that 75.9% of the Census Tract's working population commuted individually by car or truck to work with an average travel time of 31.8 minutes. This is approximately six minutes longer than the national average and considered by many to be reasonable for a work commute or shopping.

Specific Information on Limited English Proficiency populations is presented in Appendix G "Public Involvement Plan (PIP) and Limited English Proficiency (LEP) Census Data"

4.2.1.2 Comprehensive Plans and Zoning

The safety enhancements proposed at Loc. No. 1 within the Town of Riverhead is consistent with the local planning goals. The Town of Riverhead in its Comprehensive Plan[10] completed in 2003 encouraged NYSDOT to conduct a study of the Route 25 corridor between the Brookhaven border and the LIE. The plan's goal included enhancing traffic safety as a priority and working on it as an ongoing work.

The safety enhancements proposed at Loc. No. 2 and Loc. No. 3, within the Town of East Hampton are consistent with the local planning goals. The Town of East Hampton in its Comprehensive Plan[11] completed in 2005 identified traffic safety as one of their objectives.

The safety enhancements proposed at Loc. No. 4 are consistent with the local planning goals. The Town of Southold recently had a Comprehensive Plan[12] completed in February 2020 which identified this intersection as a high-crash location.

4.2.2 Neighborhoods and Community Cohesion

4.2.2.1 Community Cohesion Topics may include, but are not limited to:

The project will not divide neighborhoods, isolate part of a neighborhood, generate new development or otherwise affect community cohesion. The proposed enhancements will make the intersections safer for the community.

4.2.2.2 Home and Business Relocations

Since this project involves safety enhancements at existing intersections on predominately the existing

[10] Town of Riverhead. Town of Riverhead Comprehensive Plan. November 2003. Available at https://www.townofriverheadny.gov/pview.aspx?id=18809
[11] Town of East Hampton. Town of East Hampton Comprehensive Plan. May 2005. Available at https://ehamptonny.gov/DocumentCenter/View/1319/2005-Town-Comprehensive-Plan-PDF
[12]Town of Southold. Southold Town Comprehensive Plan. February 2020. Available at http://www.southoldtownny.gov/DocumentCenter/View/7855/Southold-Town-Comprehensive-Plan-Vol-1.

alignment and does not require the acquisition of occupied dwellings/businesses, it will not cause adverse impacts upon neighborhood character and stability. The proposed alternative would require no displacement of residences or businesses and there would be no relocation impacts. Please note that there will be minor ROW takings at all intersections. There are no negative impacts to current usage of affected properties anticipated.

4.2.3 Social Groups Benefited or Harmed

4.2.3.1 Elderly and/or Disabled Persons or Groups

A review of US Census data in Section 4.2.1.1 indicates that there is significant concentration of elderly and disabled persons in the project area. Concentrations of person aged 65 and higher (Loc. No. 1 - 31.8%, Loc. No. 2&3 - 28.9% and Loc. No. 4 - 40.3%) are considerably higher versus the Suffolk County (17.3%) and NY State (16.9%) rates. Rates of disability are also higher (Loc. No. 1 - 13.6%, Loc. No. 2&3 - 11.1% and Loc. No. 4 - 16.7%) compared to the Suffolk County (9.6%) and NY State (11.6%) rates.

However, the Capital Projects Complete Streets Checklist (HDM 18A-2) found in Appendix I indicates that the existing locations lacks adequate infrastructure accommodations for pedestrians including the handicapped and elderly, due to the lack of existing sidewalks and crosswalks. This project proposes new sidewalks and crosswalks at Loc. No. 1 and Loc. No. 4 and will improve accessibility accommodations for these user groups.

4.2.3.2 Transit Dependent

Suffolk County Transit (SCT) operates fixed-route transit in proximity to two of the four study intersections. SCT Bus Route S58 and S62 operate along NY 25 at Loc. No.1 and has bus stops adjacent to that intersection. SCT Bus Route S92 operates along NY 114 at Loc. No. 2 and has bus stops north of that intersection. Route S92 also passes through Loc. No. 3 and Loc. No .4 but makes no stop at those intersections.

Currently, there are Suffolk County Transit bus stops located on the southeast corner (bus routes S58 andS62) and the northeast corner (bus route S58) at Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead. As noted in the Capital Projects Complete Streets Checklist, there are no pullout or bus shelters available at this location and the transit facility is limited to poles with bus sign. No crosswalks are available at this intersection.

There are Suffolk County Transit bus stop (bus route S92) located at Loc. No. 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton, along NYS Route 114 northbound and southbound approximately 400’ north of Stephen Hands Path. As noted in the Capital Projects Complete Streets Checklist, there are no pullout or bus shelters available at this location and the transit facility is limited to poles with bus sign. No crosswalks are available at this intersection.

4.2.3.3 Low Income, Minority and Ethnic Groups (Environmental Justice)

The project is not located in or near an environmental justice area, as per NYSDEC Potential Environmental Justice Areas[13] identified within in Eastern Suffolk County.

[13] *NYSDEC. Potential Environmental Justice Areas in Eastern Suffolk County, New York. Available at https://www.dec.ny.gov/docs/permits_ej_operations_pdf/suffolkejeast.pdf*

4.2.3.4 Limited English Proficiency

According to NYSDOT Policy Code 1.1.-8 “Title VI Policy Including Coordinator Roles and Responsibilities” explains how NYSDOT will comply with Federal Title VI/Non Discrimination requirements. That includes Executive Order No. 13166 which “requires each Federal agency to examine the services it provides and develop and implement a system by which LEP persons can meaningfully access those services consistent with, and without unduly burdening, the fundamental mission of the agency. NYSDOT will meet the conditions of LEP Policy Code 1.1-8 by providing language assistance services to the LEP populations within the land use around the project four locations.

4.2.4 School Districts, Recreational Areas, and Places of Worship

4.2.4.1 School Districts -

The Riverhead Charter School is located approximately 800 feet east of the Loc. No. 1, and the Ross School is located on Goodfriend Drive, just west of Loc. No. 3.

The Riverhead Charter school is served by school bus system located on the property. Sidewalks exist along the NY 25 corridor near the Riverhead Charter School and are used by students from the adjacent neighborhood.

The Ross School offers private bus transportation for all students. No sidewalks exist on Goodfriend Drive. It is not expected that there would be any long-term adverse impacts to the school. During construction there may be delays for some motorists traveling thru the corridor, and temporary on-site detour sidewalks will be used during construction. This would be a temporary and relatively minor impact. In the long-term, effects will be positive with improved road conditions and traffic flow.

4.2.4.2 Recreational Areas -

Splish Splash Amusement park, located approximately 0.6 miles east of Loc. No. 1, is one of biggest activity generators in the Calverton area, in addition to Tanger Outlet Mall. NYS DOT Capital Projects Complete Streets Checklist identified the amusement park as an existing active transportation activity generator within the project area that has potential to generate pedestrian or bicycle traffic or need for improved transit accommodations.

Loc. No. 4 is also in proximity to the Greenport downtown, which is a bustling historic downtown on the north fork.

4.2.4.3 Places of Worship

There are no places of worship located in close proximity to the four intersections.

4.3 Economic

Since this project involves safety enhancements at existing intersections on predominately the existing alignment, it does not require any acquisition of occupied businesses or elimination of parking spaces. The expected temporary work zone traffic control (WZTC) measures include lane width reductions, staged construction, and shifting of traffic within the limits of existing ROW, Temporary, and Permanent Easements. The impact is anticipated to be negligible to existing businesses.

4.3.1 Regional and Local Economies

This project will have no impact on the regional or local economies.

4.3.2 Business District Impacts

No business district impacts are anticipated as a result of the proposed safety enhancements.

4.3.3 Specific Business Impacts

No specific business impacts are anticipated as a result of the proposed safety enhancements.

4.4 Environmental

4.4.1 Wetlands

4.4.1.1 State Freshwater Wetlands -

There are no NYSDEC regulated freshwater wetlands or regulated adjacent areas (100ft) within 500 feet of the project area at Locations 1,2, and 3, as per the NYSDEC Freshwater Wetlands Maps for Suffolk County based on our review of the DEC Environmental Resource Mapper and confirmed by a site visit. No further investigation is required for these locations.

One of the project sites, Location 4: NYS Route 25 at County Road 48, Town of Southold is close to a State designated Freshwater Wetland (GP-16).

This wetland, although not federally regulated, does appear on the National Wetland Inventory as PSS1E, meaning palustrine, scrub shrub, broad leaf deciduous and seasonally saturated. This wetland has been delineated and mapped (see Appendix B). There will be no encroachment, dredging or filling of this wetland. Location 4 will require an Article 24 Freshwater wetland permit. A Freshwater Wetlands Permit application from NYSDEC is being prepared.

4.4.1.2 State Tidal Wetlands -

A review of the NYSDEC GIS wetland data files indicates that there are no NYSDEC jurisdictional tidal wetlands or regulated adjacent areas within or near the project limits, and ECL Article 25 does not apply.

4.4.1.3 Federal Jurisdiction Wetlands -

The project sites have been reviewed for wetlands in accordance with the criteria defined in the 1987 US Army Corps of Engineers Wetland Delineation Manual and the definition of Waters of the United States in 33 CFR 328. It has been determined the project will not impact areas that meet these criteria. One of the project sites, Rte. 114 and Stephen Hand Path, is close to a Federally mapped wetland. This wetland is not subject to jurisdiction by the NYSDEC. It is classified, on the National Wetlands Inventory, as PUBHx, meaning palustrine, unconsolidated bottom and excavated. The excavated designation probably indicates that this was an old farm pond, since much of this area was formerly utilized for farming. There will be no encroachment on this wetland, and no permit will be necessary. This wetland has been delineated and mapped (see Appendix B).

4.4.1.4 Executive Order 11990 -

Loc. No. 1 and Loc. No. 3:
Based on a site visit, there are no wetlands located within the project's area of potential effect. Executive Order 11990 does not apply to this project.

Loc. No. 2 and Loc. No. 4:
A site visit has determined that there are wetlands within the project area. However, the proposed project activities will not affect them. Executive Order (EO) 11990 does not apply.

4.4.1.5 Mitigation Summary -

No wetland mitigation/monitoring plan is required for this project since no wetlands are impacted.

4.4.2 Surface Waterbodies and Watercourses

4.4.2.1 Surface Waters -

The project activities do not involve excavation in or the discharge of dredged or fill material into, Waters of the U.S. No permits under this Section are anticipated.

4.4.2.2 Surface Water Classification and Standards – (NYSDEC)-

Based upon a review of the NYSDEC GIS data maps for regulated streams, there are no surface waterways within the proposed project limits.

4.4.2.3 Stream Bed and Bank Protection -

Based upon a review of the NYSDEC GIS database, and as verified by a site visit, there are no protected streams in the project area and there will be no disturbance to the banks of a protected stream in the project area.

4.4.2.4 Impacts to Waters of the United States

The project activities do not involve excavation in or the discharge of dredged or fill material into Waters of the U.S. No permits under this Section are anticipated.

4.4.2.5 Office of General Services Lands and Navigable Waters

There are no OGS underwater holdings located within the project's area of potential effect that will be impacted by the work

4.4.2.6 Mitigation Summary -

No mitigation measures are necessary, as the project has no impact to wetlands.

4.4.3 Wild, Scenic, and Recreational Rivers

4.4.3.1 State Wild, Scenic and Recreational Rivers -

There are no NYSDEC Designated, Study or Inventory State Wild, Scenic or Recreational Rivers within or adjacent to the proposed project site. No further review is required.

4.4.3.2 National Wild and Scenic Rivers -

The project does not involve a National Wild and Scenic River as shown by the Nationwide Rivers Inventory List of National Wild and Scenic Rivers. No further review is required.

4.4.4 Navigable Waters

4.4.4.1 State Regulated Waters -

There are no state regulated navigable waters located within the project's area of potential effect that will be impacted by the work.

4.4.4..2 Rivers and Harbors Act – Section 9 -

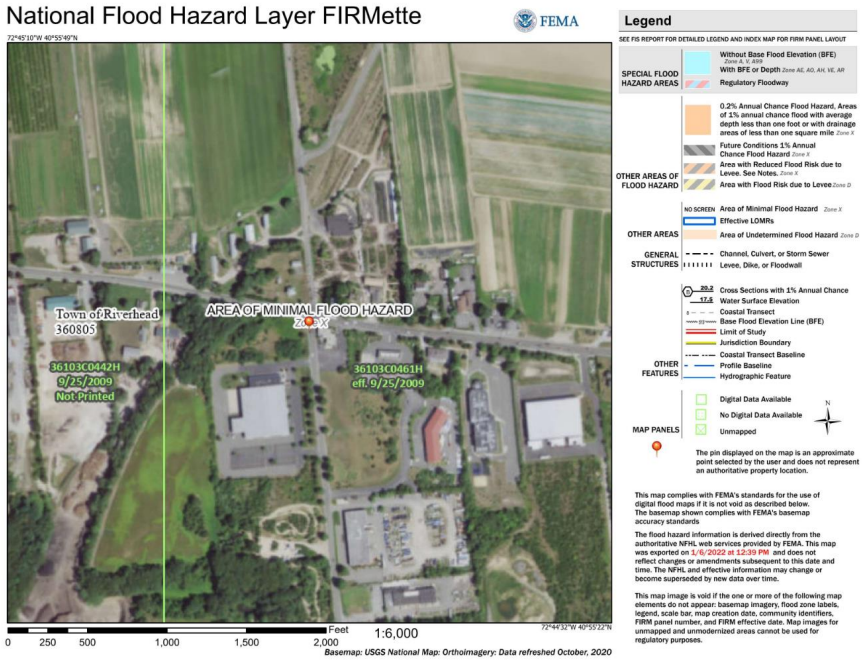
Since the project does not involve the construction or modification of any bridge, dam, dike, or causeway over any navigable water of the United States, a Bridge Permit is not required .

4.4.4.3 Rivers and Harbors Act – Section 10 -

Since the project does not involve the creation of any obstruction to the navigable capacity of any of the waters of the United States, or in any manner alter or modify the course, location, condition, or capacity of any navigable water of the United States, Section 10 is not applicable.

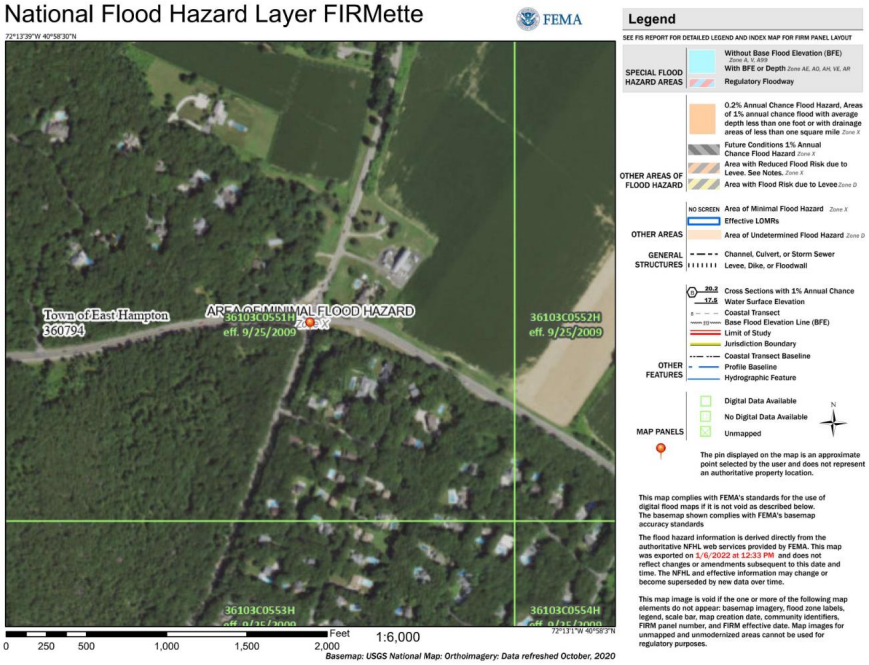
4.4.5 Floodplains

Loc. No. 1 – NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County
Floodplain mapping exists for the project area and the project is not located within the 1% annual chance floodplain (100-year floodplain) per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Suffolk County, New York, Panel 36103C0461H dated September 25, 2009. No additional Part 502 information is needed.



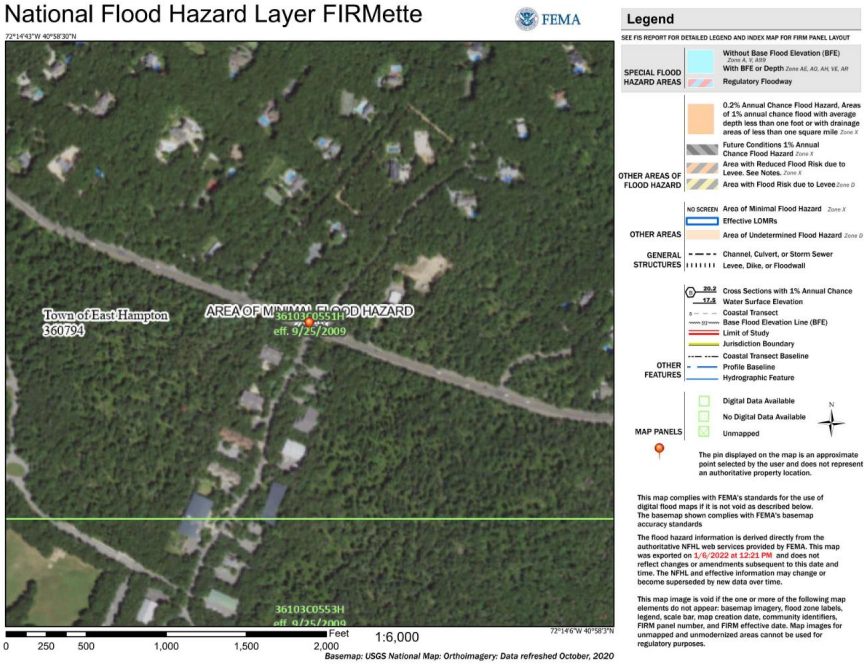
Loc. No. 2 – NYS Route 114 at Stephen Hands Path

Floodplain mapping exists for the project area and the project is not located within the 1% annual chance floodplain (100-year floodplain) per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Suffolk County, New York, Panel 36103C0551H dated September 25, 2009. No additional Part 502 information is needed.



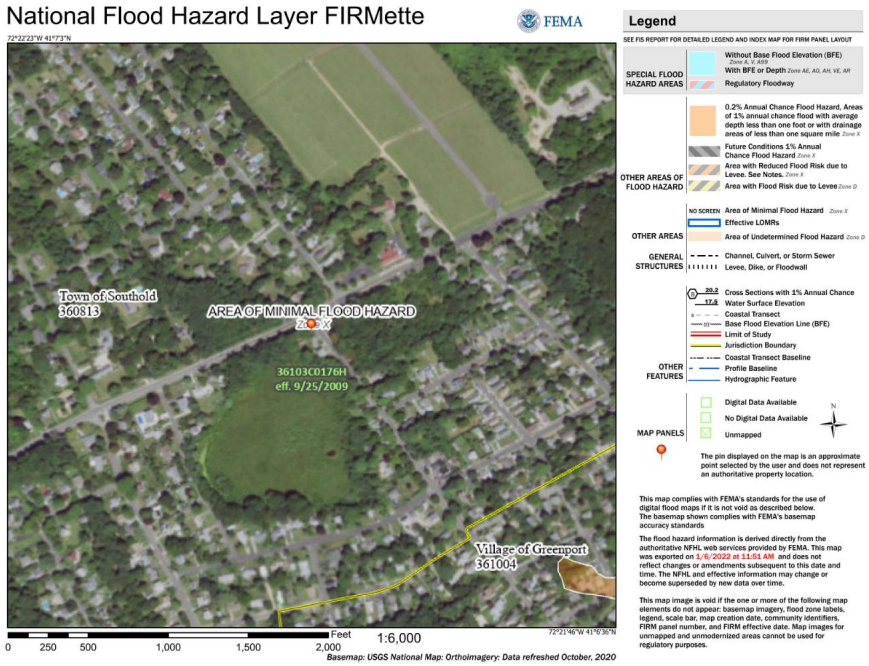
Loc. No. 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County

Floodplain mapping exists for the project area and the project is not located within the 1% annual chance floodplain (100-year floodplain) per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Suffolk County, New York, Panel 36103C0551H dated September 25, 2009. No additional Part 502 information is needed.



Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold, Suffolk County

Floodplain mapping exists for the project area and the project is not located within the 1% annual chance floodplain (100-year floodplain) per the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Suffolk County, New York, Panel 36103C0176H dated September 25, 2009. No additional Part 502 information is needed.



4.4.6 Coastal Zone

4.4.6.1 State Coastal Zone Management Program -

The proposed project is not located in a State Coastal Zone Management (CZM) area, according to the Coastal Zone Area Map from the NYS Department of State's Coastal Zone Management Unit.

4.4.6.2 State Coastal Erosion Hazard Area -

The proposed project is not located in or near a Coastal Erosion Hazard Area.

4.4.6.3 Waterfront Revitalization and Coastal Resources Program -

According to NYS DOS "List of Approved Coastal Local Waterfront Revitalization Programs (LWRPs)," dated March 2007, the proposed project is not located in a Local Waterfront Revitalization Area. No further action is required.

4.4.6.4 Federal Coastal Barrier Resources Act (CBRA) and Coastal Barrier Improvement Act (CBIA) -

The proposed project is not located in, or near a coastal area under the jurisdiction of the Coastal Barrier Resources Act (CBRA) or the Coastal Barrier Improvement Act (CBIA).

4.4.7 Groundwater Resources, Aquifers, and Reservoirs

4.4.7.1 Aquifers –

The project is located on both the north and south forks of Long Island. The island in general is underlain by three principal aquifers known as the Upper Glacial, the Magothy, and the Raritan, but further east, the Magothy and Raritan are largely not present, and only the Glacial Aquifer is available as a source of drinking water. Geologically, the area is considered a glacial outwash plain, and is characterized by stratified fine to coarse sand. Groundwater depth is 6 feet at Location 3, and ranges in depth from 40 to 54 feet at the other three locations. The general direction of groundwater flow is toward the north for the two north fork sites, and to the south at the two south fork sites.

A review of the EPA-designated Sole Source Aquifer Areas Federal Register Notices, Maps and Fact Sheets illustrates the projects are located within the Long Island Nassau Suffolk Sole Source Aquifer Boundary. Coordination with EPA and preparation of a Groundwater Assessment Report is not required, since the project scope of work consists of work that does not require a Federal Sole Source Aquifer 1424(e) review by FHWA and EPA pursuant to Executive Order 12372.

4.4.7.2 Drinking Water Supply Wells (Public and Private Wells) and Reservoirs -

Existing Groundwater Uses: The primary use of groundwater in this portion of Long Island is as a source of drinking water. In fact, the Long Island aquifer system is the only source of potable water for several million residents. For this reason, the USEPA has designated the aquifer as the principal source of drinking water under Section 1424 (e) of the Federal Safe Drinking Water Act (P.L. 93-523). This “sole source” designation protects the groundwater from contamination by any Federal action. In addition, the Nassau-Suffolk 208 Areawide Waste Treatment Management Plan (1978), has identified and mapped eight groundwater management zones on Long Island, based on hydrological characteristics and importance in protecting water supplies. The project sites are all located in zone IV, from which most of the, which is a relatively shallow Magothy zone from which water supply for the area is drawn. The Suffolk County Water Authority has one public water supply well field located within 2000 feet of the Goodfriend Drive project. Potential impacts on that well field will be discussed below.

In addition to the hydrological zones designated by the 208 plan, the Long Island Regional planning board prepared The Long Island Comprehensive Special Groundwater Protection Area Plan (1992) which designated certain areas as Special Groundwater Protection Areas (SGPAs). SGPAs are areas with special protection needs, due to existing or potential future contamination issues. Project location 1 is located within the Central Suffolk SGPA, while project locations 2 and 4 are within the South Fork SGPA. The major threat in the Central Suffolk SGPA is point and non-point source contamination associated primarily with residential, commercial, and agricultural uses. It is not anticipated that the project will have any impacts on this SGPA. The South Fork SGPA, which includes sites 2 and 4, is threatened by previous landfill activities, outdated residential sanitary systems, commercial and industrial uses and saltwater intrusion. None of the activities associated with the proposed safety enhancements will impact this SGPA.

Potential Groundwater Impacts: Because most of the project lies outside of deep flow recharge zones, as described above, a percentage of the precipitation falling on the project sites will leach into the Upper Glacial Formation. In order to assess the potential impact of the proposed project on groundwater, deicing salts are used as the parameter because they are representative of the overall impact of highway contaminants on water quality and are introduced to the aquifer be way of easily measurable quantities. Quantitative groundwater impacts from deicing salts were evaluated at NYS Route 25/Edwards Avenue and at NYS Routh 114/Goodfriend Drive. Data from SCWA indicates that one location, Rte. 114 and

Goodfriend Drive is within 2000 feet of a public water supply well field. However, even if no well is present, the SCWA is continuing to site new water supply wells in suitable locations, so for the Edwards Avenue location, a hypothetical well was placed within 2000 feet, and assigned a representative pumping rate of 2.5 million tons per year.

Methodology: Sodium and calcium chloride salts are commonly used as deicing chemicals in the northern United States. Runoff from highways on which these chemicals have been applied carries varying concentrations of the ions of these salts. The US Geological Survey has developed procedures for assessing this impact utilizing a mass balance methodology and published by Toler in the report "Effect of Deicing Chemicals in Surface and Groundwater". This analysis is based on the principle that wells drawing from the aquifer induce local changes in groundwater flow and produce gradients toward the well screen. Therefore, contaminants entering the aquifer within the radius of influence of the well are eventually pumped from the well. The drinking water standard for chloride is 250PPM. The Toler equation for chloride concentration in wells is:

C= (T x M/P) K X 1,000,000
Where:

C = Average annual concentration of sodium (MG/L (PPM)).

T = Tons of salt per lane mile.

M = Lane miles within influence of well.

P = Pumping rate (tons/Year)

K = 0.607 (constant for chloride component of salt)

Analysis: Under existing conditions, all runoff from the surface of (roads)is directed and discharged to leaching systems, consisting of various nearby recharge basins. All this runoff is either evapotranspirated or discharged to the groundwater.

The proposed project will maintain this hydrology, with the new roadway surfaces likewise discharging to groundwater leaching systems. The project includes the construction of various turning lanes and other safety features. The Suffolk County Water Authority maintains one active well field proximate to the

Goodfriend Drive location. This existing well field has reported chloride levels which are generally between 10 and 30 PPM, which is generally consistent with wells in the County. This data and information is presented in Appendix B.

Using the Toler equation presented above, the impact to the hypothetical supply wells at each of the two locations was calculated using the following input.

Location 1.

T = 7 tons per lane mile per year.

M = 1.215 lane miles existing

M = 1.517 lane miles proposed

P = 500GPM, which at 50% usage, = 2,425,946 tons/yr.

Using this formula, the chloride contribution from the highway within the project area will be 2.065 PPM, for existing and 2.573 for the proposed condition. Neither of these factors is significant, and the calculated increase of 0.508 PPM is inconsequential.

Location 3.

T = 7 tons per lane mile per year

M = 1.0263 lane miles existing

M = 1.0702 lane miles proposed

P = 500GPM, at 50% usage =2,425,946 tons/yr.

Using this formula, the chloride contribution from the highway within the project area will be 1.7443 PPM, for existing and 1.8189 for the proposed condition. Neither of these factors is significant, and the calculated increase of 0.0746 PPM is inconsequential.

4.4.8 Stormwater Management

Loc. No. 1 - Edwards Avenue and N Y25

A SPDES General Permit GP-0-10-001 will be required because the project has more than one acre of soil disturbance. A Stormwater Pollution Prevention Plan (SWPPP) with the appropriate sediment and erosion control measures will be developed. Based on the SWPPP, permanent stormwater management practices may be required depending on the total amount of disturbance and changes in total impervious area.

Soil erosion plans and details will also be developed during the advance detail design phases of the project in accordance with Section 209 Soil Erosion and Sediment Control of the NYSDOT Standard Specifications in order to satisfy the SWPPP. These plans and details will include both temporary and permanent measures to prevent soil erosion and provide fences, seeding, mulching, and stabilized construction access points.

Loc. No. 2 Stephen Hands Path and NY 114

A SPDES General Permit GP-0-10-001 will be required because the project has more than one acre of soil disturbance. A Stormwater Pollution Prevention Plan (SWPPP) with the appropriate sediment and erosion control measures will be developed. Based on the SWPPP, permanent stormwater management practices may be required depending on the total amount of disturbance and changes in total impervious area.

Soil erosion plans and details will also be developed during the advance detail design phases of the project in accordance with Section 209 Soil Erosion and Sediment Control of the NYSDOT Standard Specifications in order to satisfy the SWPPP. These plans and details will include both temporary and permanent measures to prevent soil erosion and provide fences, seeding, mulching, and stabilized construction access points.

Loc. No. 3 – Goodfriend Drive and NY 114
The work at this location will disturb less than one acre and stormwater from this site will not enter any surface waters, therefore, this project site will not require a SPDES permit. While this project is not required to assess the requirements for stormwater management practices, they will be considered where reasonable. However, erosion and sedimentation control plans will be developed and incorporated into the project. Erosion and sedimentation control measures may include temporary seeding, silt fence, and inlet protection.

Loc. No. 4 - CR48 and NY 25
A SPDES General Permit GP-0-10-001 will be required because the project has more than one acre of soil disturbance. A Stormwater Pollution Prevention Plan (SWPPP) with the appropriate sediment and erosion control measures will be developed. Based on the SWPPP, permanent stormwater management practices may be required depending on the total amount of disturbance and changes in total impervious area.
Soil erosion plans and details will also be developed during the advance detail design phases of the project in accordance with Section 209 Soil Erosion and Sediment Control of the NYSDOT Standard Specifications in order to satisfy the SWPPP. These plans and details will include both temporary and permanent measures to prevent soil erosion and provide fences, seeding, mulching, and stabilized construction access points.

4.4.9 General Ecology and Wildlife Resources

Fish, Wildlife, and Waterfowl -

A review of the project's area of potential effect indicates that there is not a special habitat or breeding area for certain species of plants or animals.

4.4.9.2 Habitat Areas, Wildlife Refuges, and Wildfowl Refuges -

The proposed project does not involve work in, or adjacent to, a wildlife or waterfowl refuge. No further consideration is required.

4.4.9.3 Endangered and Threatened Species -

Following NYSDOT screening protocols, an official species list was created from the US Fish and Wildlife Service's (USFWS) online Information for Planning and Consultation (IPaC) for this crossing and is included in Appendix B. The project area was also screened using the New York State Natural Heritage Program (NYS NHP) Database for known occurrences using the screening distances identified in TEM 4.4.9.3.

Their data search turned up six species as follows:

- Piping Plover (Threatened bird)
- Red Knot (Threatened bird)
- Roseate Tern (Endangered bird)
- Seabeach Amaranth (Threatened plant)
- Monarch Butterfly (Candidate Threatened insect)
- Sandplain Gerardia (Endangered plant)
- Northern Long-eared Bat (Threatened mammal)

The first four of these species are coastal specialists, occurring on sandy ocean beaches, tidal wetlands and estuaries. The nearest suitable habitat for those four species is most likely the Smith Point County Park, located within the boundaries of the Fire Island National Seashore, several miles, across Great South Bay, to the south of the projects. As such, the projects will have no possible impact on those four federally listed species.

The Monarch Butterfly is a candidate species for the endangered species list. They are located throughout Long Island. Since they are a candidate species, they have no legal protection.

The Sandplain Gerardia, an endangered species, is located on sandy grasslands, and is exceedingly rare on Long Island. The Sandy grassland habitat this species requires is not present within the project area. The nearest known existing population of this species is located in the Sayville Grasslands, a federally owned parcel located greater than 10 miles west of the of the projects. As such, this species will not be impacted.

The Northern Long-eared Bat (NLEB) is a State and Federally listed threatened species due to population decimation because of White Nose disease. The bats congregate in hibernacula during the winter months (where the disease is spread), and then disperse throughout the state during the summer months, where they roost in trees and old buildings. Historically, it had been thought that most, if not all, of these bats migrated to hibernacula in caves upstate, where temperatures hover around the freezing mark and humidity is high. However, in recent years, evidence has accumulated that some NLEBs overwinter on Long Island, particularly in culverts, under bridges, and, in the Montauk area, old WWII military bunkers. It is also thought that some individual might be able to overwinter in suitable tree cavities, particularly as the climate warms. The areas considered for construction contain various species of deciduous trees as well as mature Pitch Pines that are suitable habitat for summering Northern-Long Eared Bats.

The projects will require the clearing of various areas for construction of safety enhancements, such as turning lanes. These areas include mostly narrow and linear strips for the improvements. Those areas proposed for clearing on locations 2, 3, and 4 all appear suitable for use by NLEB. These areas are recommended for further study during the final stages of design. It is recommended that these sites be monitored for 30 minutes before sundown and thirty minutes after sundown for the presence of bats emerging from the trees to forage. This should be conducted on two evenings for each site. If bats are detected at any site(s), it will be necessary to perform an acoustic analysis of their chirps to determine species and the presence of NLEB. If they are determined to be present, mitigation measures will need to be implemented, including seasonal restrictions of clearing.

The project area may contain suitable summer roosting habitat for this species. The Contractor shall schedule all removals of trees (greater than 3” diameter) between November 1st and March 31st of each year to minimize the potential direct impact to the NLEB. In addition, the Contractor shall attach flags to each tree (> 3" dia.) or place orange fence at clearing limit and have the marked tree removals/limits confirmed by the Regional Environmental Contact prior to performing the removal.

The following note will be added to the plans:
The Northern Long-eared Bat (NLEB), *Myotis septentrionalis* is designated as a “threatened” species on the federal List of Endangered Species. The project area may contain suitable summer roosting habitat for this species. The Contractor shall schedule all removals of trees (greater than 3” diameter) between November 1st and March 31st of each year to minimize the potential direct impact to the NLEB. In addition, the Contractor shall attach flags to each tree (> 3" dia.) or place orange fence at clearing limit and have the marked tree removals/limits confirmed by the Regional Environmental Contact prior to performing the removal.

4.4.9.4 Invasive Species -

This project is located within an urbanized and suburbanized corridor with and vegetated areas within the Right-Of-Way. A preliminary survey of the project area determined that various invasive species were present, including Ailanthus and Norway Maple. During final design, the areas of invasive species should be identified on the plans and a plan to eradicate them included in the landscaping plans.

4.4.9.5 Roadside Vegetation Management -

Existing roadside vegetation consists primarily of maintained lawn areas, wooded areas. Efforts will be made to replace wildlife-supporting vegetation that is removed in the course of construction as well as the removal of invasive species that exist within the project area that will be disturbed by the work.

4.4.10 Critical Environmental Areas

4.4.10.1 State Critical Environmental Areas -

According to information obtained from NYSDEC, the proposed project does not involve work in or near a Critical Environmental Area.

4.4.10.2 State Forest Preserve Lands -

According to information obtained from NYSDEC, the proposed project does not involve work in or near state forest preserve lands.

4.4.11 Historic and Cultural Resources

4.4.11.1 National Heritage Areas Program –

The proposed project will not impact areas identified as National Heritage Areas.

4.4.11.2 National Historic Preservation Act – Section 106 / State Historic Preservation Act – Section 14.09 -

Loc No. 1 – Edwards Ave and NY25

A historic property eligible for inclusion in the National Register of Historic Places has been identified within the project's area of potential effect. The Zeh Family Farm, at 3768 Middle Country Road, is an operating sod farm that dates back to the early 20th century, and contains intact structures from that time period. These include a farmhouse, potato barns, and a weather vane, among other things, which are illustrative of Long Island's agricultural history. However, the project's activities do not have the potential to adversely affect the historic property. The undertaking will not alter, directly or indirectly, any of the characteristics that qualify the property for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The Department prepared a No Adverse Effect Finding Document and sent it to SHPO, with a copy to FHWA. SHPO and FHWA concurrence with the finding of No Adverse Effect can be found in Appendix B.

4.4.11.3 Architectural Resources -

A property listed on, or eligible for, inclusion in the National Register of Historic Places is located within the project's area of potential effect. The proposed project will have no adverse effect on the historic property. Please refer to the subsection above, National Historic Preservation Act – Section 106, for more detailed information.

A Cultural Resource Survey was completed over the summer of 2021 and a Determination of No Adverse Effect was sent to SHPO and FHWA. Correspondence with these agencies as well as final Concurrence is attached in the Appendix.

A Phase I archeological survey was conducted to determine the presence of archeological resources. No such resources were found in the project vicinity. A copy of this conclusion from the survey is included in Appendix B. A 4(f) evaluation will not be required for archaeological resources.

4.4.11.4 Archaeological Resources -

Loc No. 1 – Edwards Ave and NY25

A Phase I archeological survey was conducted to determine the presence of archeological resources. No such resources were found in the project vicinity. A copy of this conclusion from the survey is included in Appendix B. A 4(f) evaluation will not be required for archaeological resources.

4.4.11.5 Historic Bridges -

There are no bridges over 50 years old or listed on NYSDOT's Historic Bridge Inventory that are located within the project's area of potential effect.

4.4.11.6 Historic Parkways -

This project does not have to potential to impact any Historic Parkways.

4.4.11.7 Native American Involvement -

The proposed project does not lie within Federal, Tribal or Native-American-owned property. However, the project information was provided to the Shinnecock Nation and the Delaware Tribe. Neither of the Nations responded to the initial project notification (provided 3/30/2021) or the findings of the archeology survey (provided 11/18/2021).

4.4.12 Parks and Recreational Resources

4.4.12.1 State Heritage Area Program -

The proposed project is in the Long Island North Shore Heritage Area
The proposed project will not impact areas identified as State Heritage Areas.

4.4.12.2 National Heritage Areas Program -

The proposed project will not impact areas identified as National Heritage Areas.

4.4.12.3 National Registry of Natural Landmarks -

There are no listed nationally significant natural areas within, or adjacent to, the project area.

4.4.12.4 Section 6(f) Involvement -

The project does not impact parklands or facilities that have been partially or fully federally funded through the Land and Water Conservation Act. No further consideration under Section 6(f) is required.

4.4.12.5 Section 1010 Involvement -

This project does not involve the use of land from a park to which Urban Park and Recreation Recovery Program funds have been applied.

4.4.13 Section 4(f) of the USDOT Act of 1966

At Location 1, the proposed improvements require the use of a small strip of the adjacent property historically known as the Zeh Family Farm. This property has been determined to be eligible for the National Register of Historic Places by the NYS Historic Preservation Office (SHPO). The proposed

improvements will require the use of 0.28 acre of the 28.5 acre property (<1%). However, the project's proposed improvements do not have the potential to adversely affect the historic property. The undertaking will not alter, directly or indirectly, any of the characteristics that qualify the property for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. As mentioned above in Section 4.4.11.2, the NYS SHPO and FHWA have agreed with this determination. Therefore, NYSDOT anticipates that the project will only have *de minimis* impacts on the historic property relative to the Section 4(f) statute.

At Location 2, the proposed project improvements are located adjacent to Buckskill Nature Preserve, a significant publicly owned (Town of East Hampton) park – located in the southwest corner of the intersection. Environmental Information. However, the Department anticipates the project will have only de minimis impacts on the park. The proposed improvements require a small strip taking (approx. 0.118 acre) from the edge of the park in an area that is currently mostly disturbed roadside edge. The preserve is approximately 141 acres. The proposed project will therefore acquire only 0.15% of the preserve property. The fee taking of this strip is mostly for vegetation trimming to improve the vehicle sight distance issue at this intersection. Impacted trees will be replaced with new plantings. New pavement will be installed only on approximately 200 s.f. of the proposed 12,253 s.f. taking area (<2%). The Town of East Hampton agrees with this de minimis determination. Accordingly, NYSDOT has determined that the proposed improvements will not adversely affect the Preserve's activities, features, and attributes that make the property eligible for protection under the Section 4f statute.

Written concurrence of the official(s) with jurisdiction over the 4(f) properties has been obtained, along with a de minimis impact finding from FHWA on April 21, 2022, to satisfy Section 4(f) requirements. Public comment was also solicited during the preliminary design phase prior to the FHWA finding. All relevant correspondences are available in *Appendix B.*

4.4.14 Visual Resources

4.4.14.1 Introduction

A highway improvement project has the potential of affecting the visual experience of people traveling along the highway, and those living, working, or traveling nearby. To meaningfully assess the project's visual impacts, the stimulus and response aspects of the visual experience must be considered. The stimulus aspect of the visual experience is related to the appearance of all features that make up the visual landscape. The response aspect is related to the values viewers place on the appearance of the visual features in the landscape. Visual impacts caused by a project result from changes in the visual stimulus, and the viewers' response to change.

The methodology for the Visual Impact Assessment generally follows the format described in Visual Impact Assessment of Highway projects (US Department of Transportation, Federal Highway Administration, Office of Environmental Policy, March 1981), and conforms with NYSDOT's Visual Resource Analysis Procedure (Engineering Instruction 02-025)

The first step in the methodology is to analyze the existing visual environment, which consists of two attributes: visual resources and viewers of the resources. The view shed, or limits of the visual environment of the project area are established utilizing topographic mapping, site line projection and field investigation. Landscape units, areas with homogeneous visual characteristics, are established through field investigation to facilitate the assessment of visual impacts. Existing visual resources are identified and documented with photographs of typical views. Significant views or views of local importance are identified through the project scoping procedure and are photographed in detail.

After visual resources have been identified and documented, the visual characteristics and visual quality of the existing visual environment is assessed to establish baseline visual conditions. Visual character is presented in terms of visual patterns, and visual quality is presented in terms of three

attributes: vividness, intactness, and unity. A relative rating of visual quality is assigned for each visual district.

The second attribute of the existing visual environment, the viewers, are then identified and assessed. Viewers of and from the project are categorized into groups, to assess how they see the visual environment and the values they place on the views. These attributes of each viewer group, viewer exposure and viewer sensitivity, determine the viewer response to change in the visual environment

After the baseline condition has been established, the changes to the visual environment caused by the project and the viewer's response to the change are analyzed to predict visual impacts. Each visual impact is presented in detail and summarized in table format. In addition, typical visual impacts are illustrated with photo simulations. A photograph of an existing view is compared with the same photograph altered by computer to show the predicted view.

To present the magnitude of visual impacts and compare alternatives, relative ratings are assigned to each visual impact. The ratings range from low to high and are described as follows:

Low Visual Impact - Slight change in visual resources. No change to significant visual resources or key view. New visual elements are generally compatible with existing views. Little or no response to change in visual resources are expected.

Moderate Visual Impact - A slight change in visual resources resulting in a high level of viewer response, or an extensive change in visual resources resulting in little viewer response.

High Visual Impact - Extensive change to visual resources or change to a significant visual resource or key view. New views or new visual elements are not compatible with existing views. A high level of viewer response to the change in visual resources can be expected

4.4.14.2 Effects Assessment

This safety improvement project at four intersection locations will have negligible effects on the existing visual corridors. The proposed changes at Locations 1, 2, and 3, involve adding or realigning turning lanes to improve the level of service and to help reduce accidents. One intersection improvement site, Location 4, at NY25 proposes a roundabout to replace the uncontrolled T-intersection. This location contains a mix of developed and undeveloped land that define the visual environment. The project site is located in a historic area near to the Village of Greenport and has three apparent visual roadway characteristics: an undeveloped woodland area on the northeast corner of the intersection, residential development on the northwest and southwest corners and a commercial area on the northeast corner within the intersection.

The overall existing visual quality is moderate in the undeveloped area and low to moderate in the residential/commercial area. The commercial area on the northeast corner at the NY25/Main Street intersection contains an asphalt parking area and contain some planting at the edges that help to soften and breakup the view to them. The existing residential two-story building on the southwest corner dominates the view at the NY25 northbound approach to the intersection with NY25 from Main Street. The residential area on the northwest corner is setback from NY25 and is buffered by existing vegetation that screens the view to and from it.

The project area has moderate landscaping both naturalized woodland and well maintained, planting on private property and includes turf shoulder areas of varying widths along each road. Although the roadway asphalt dominates the horizontal plane, the existing turf greenery, edged by light colored, concrete curb helps direct and soften the viewer's perspective. Existing concrete sidewalk is offset from the road and travels through the turf areas along these roadways. The sidewalk doesn't stand out as a strong visual element.

Impacts to the visual environment include the introduction of new visual elements, such as the addition of the new roundabout lanes to replace the existing intersection, center median focal point, and associated re-striping, improved sidewalks, and curb ramps, and planting to restore or supplement existing vegetated areas. To enhance the visual corridor of the proposed highway alignment, trees, shrubs, and groundcover will be planted.

Additional consideration will be given during the final design to providing an aesthetic treatment that is fitting with the overall visual environment as this intersection can be considered a "gateway" to the Village of Greenport's downtown area as it is provides access to and from major shopping, employment, and residential communities within the larger area beyond the immediate project area as it is also gives visual cues to those seeking to travel on the Orient Point Ferry to the east of this project location.

The predominate viewer groups to the project will be motorists, pedestrians, and bicyclists and from their perspective, there will be a positive visual improvement. For addition discussion see Appendix B, Environmental Information / Visual Impact Assessment.

Also included as a result of this project is the relocation of LIPA and Verizon utility poles carrying aerial facilities belonging to LIPA, Verizon, Altice, Crown Castle and NYSDOT at locations 1, 2 and 4. Proposed poles are anticipated to follow the proposed roadway alignment with equivalent positioning and elevation changes to accommodate signal rebuilds, details of changes are listed under Section 3.3.3.9. Only negligible impacts are anticipated for the predominate viewer group of motorist, cyclists, and pedestrians at all locations. In the NW quadrant of Location 1, NY 25 at Edwards Avenue repositioning of poles will result in a low visual impact at the adjacent receptor.

4.4.15 Farmlands

4.4.15.1 State Farmland and Agricultural Districts -

Based on a review of the NYS Agricultural District Maps for Suffolk County, the proposed project is located adjacent to an Agricultural District. However, it will not affect any agricultural lands.

4.4.15.2 Federal Prime and Unique Farmland -

The proposed project activities will not convert any prime or unique farmland, or farmland of state or local importance, as defined by the USDA Natural Resources Conservation Service, to a nonagricultural use.

4.4.16 Air Quality

4.4.16.1 Regulatory Framework –

This safety project (PIN 0810.01) is proposed in the Towns of Riverhead, East Hampton, and Southold, Suffolk County. The project would install new left turn lanes in 3 locations: Location 1- NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County; Location 2 – NYS Route 114 at Stephen Hands Path, Town of East Hampton, Suffolk County; and Location 3 – NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County. The project would also install a mini-roundabout at a fourth location – NYS Route 25 at County Road 48, Town of Southold, Suffolk County.

This project is located in Suffolk County, which is a maintenance area under the National Ambient Air Quality Standards (NAAQS) for Fine Particulate Matter ($PM_{2.5}$), and a serious nonattainment area for the 2008 ozone NAAQS/moderate nonattainment area for the 2015 ozone NAAQS. Air quality screening is needed to determine compliance with Federal transportation conformity requirements under 40 CFR Part 93, and State conformity regulation requirements under 6 NYCRR Part 240.

Air quality screening is based on the requirements of the NYSDOT Environmental Procedures Manual (EPM/TEM) Air Quality Chapter 1.1.

4.4.16.2 Regional Transportation Conformity –

This project is exempt from the regional emissions analysis requirements of the Federal Transportation Conformity regulation at 40 CFR 93.127. It is listed in the 2020-2024 NYMTC Transportation Improvement Program (TIP) with air quality code A6 (Highway Safety Improvement Program implementation). The project comes from the current conforming TIP and Long-Range Transportation Plan. Conformity determinations for the current TIP and 2018-2045 Plan were most recently approved by NYMTC on November 21, 2019, and by FTA/FHWA on January 22, 2020. The estimated time of completion (ETC) for this project is 2023.

4.4.16.3 Carbon Monoxide Screening(CO) and Particulate Matter (PM) Microscale Analysis **–**

Four intersections would be affected by the project and therefore require carbon monoxide screenings. The NYSDOT EPM/TEM specifies the multi-step screening procedure to determine whether microscale carbon monoxide modeling is necessary. The first step is to identify any intersections affected by the project that will have Level of Service (LOS) D or worse in a Build Alternative if data are available.

Traffic counts were taken for the intersections in July and August 2020. The capacity analysis study applied a growth factor of 0.47% per year for all directions at all four intersections in this project. Analysis of future conditions indicated that the LOS would be better than LOS D through 2043 at Location 4, NY 25 at County Rd 48, for both alternative 1 and alternative 2. As a result, no further screening of this intersection is required.

LOS information is unavailable for ETC +20 for the intersections at Locations 1, 2, and 3. For these locations, the screening proceeded to the second step, which is to determine whether certain EPM/TEM capture criteria are met. One capture criterion (addition of one or more new traffic queue lanes) was met at all locations. However, location 3 will be controlled by a stop sign and, according to the EPM/TEM “it is not expected that intersections in a build alternative controlled by stop signs will require an air quality analysis.” As a result, no further screening of the intersection at Location 3 is required. However, for Locations 1 and 2, the screening proceeded to the third step, which is comparison of traffic approach volumes with threshold volumes listed in the NYSDOT EPM/TEM.

The traffic volume threshold screening was conducted for years 2023 (ETC), 2033 (ETC + 10), and 2043 (ETC + 20), as specified in the NYSDOT EPM/TEM. The Build Alternative’s average travel speed on all the approaches to these intersections was assumed to be 30 mph, based on default speeds suggested in the EPM/TEM. This speed of 30 mph was used to calculate CO free flow emission factors in all three years. Idling CO emission factors were also calculated assuming a zero-mph queuing speed at these intersections.

The volume threshold screening is based on the CO emission factors generated by the MOVES2014b emission factor model that is accepted by EPA and FHWA. Input data required for MOVES2014b analysis included meteorological data, vehicle age distributions, road type, fuel characteristics, roadway grades, and information on inspection and maintenance programs. NYSDOT obtained the required input data using Google Earth and determined the following roadway grades for the intersection of location 1, Edwards Ave and NY 25: 0% eastbound, -1% westbound, -2% northbound, and 1% southbound. NYSDOT also determined the following roadway grades for the intersection of location 2, NY 114 and Stephen Hands Path, in the same manner as location 1: 1% eastbound, -3% westbound, 2% northbound, and -1% southbound.

The following table lists the MOVES2014b emission factors calculated for both a free flow speed of 30 mph and for idle conditions, as well as the peak hour approach volumes for each direction and year for comparison with EPM/TEM thresholds for location 1.

Direction	Year	Idle Emission Factor (g/hr)	Free Flow Emission Factor (g/mi)	AM Traffic Volume (vph)	Midday Traffic Volume (vph)	PM Traffic Volume (vph)
Northbound	2023 (ETC)	8.309	1.747	211	241	363
	2033 (ETC+10)	2.233	0.839	221	253	380
	2043 (ETC+20)	1.139	0.515	230	264	397
Southbound	2023 (ETC)	8.309	2.726	246	198	206
	2033 (ETC+10)	2.233	1.355	258	207	215
	2043 (ETC+20)	1.139	0.862	269	216	225
Eastbound	2023 (ETC)	8.309	2.356	780	715	604
	2033 (ETC+10)	2.233	1.161	816	748	632
	2043 (ETC+20)	1.139	0.732	852	781	660
Westbound	2023 (ETC)	8.309	2.015	302	581	727
	2033 (ETC+10)	2.233	0.982	316	608	761
	2043 (ETC+20)	1.139	0.611	330	635	795

The following table lists the MOVES2014b emission factors calculated for both a free flow speed of 30 mph and for idle conditions, as well as the peak hour approach volumes for each direction and year for comparison with EPM/TEM thresholds for location 2.

Direction	Year	Idle Emission Factor (g/hr)	Free Flow Emission Factor (g/mi)	AM Traffic Volume (vph)	Midday Traffic Volume (vph)	PM Traffic Volume (vph)
Northbound	2023 (ETC)	8.309	3.232	331	398	565
	2033 (ETC+10)	2.233	1.627	346	416	591
	2043 (ETC+20)	1.139	1.050	361	434	617
Southbound	2023 (ETC)	8.309	2.015	746	578	492
	2033 (ETC+10)	2.233	0.982	781	605	515
	2043 (ETC+20)	1.139	0.611	816	632	537
Eastbound	2023 (ETC)	8.309	2.726	208	277	349
	2033 (ETC+10)	2.233	1.355	218	290	365
	2043 (ETC+20)	1.139	0.862	227	303	381
Westbound	2023 (ETC)	8.309	1.527	609	515	588
	2033 (ETC+10)	2.233	0.721	638	539	615
	2043 (ETC+20)	1.139	0.437	666	563	643

Based on Table 3C of the EPM/TEM Chapter 1.1, the emission factors in these tables correspond to a traffic volume approach threshold of 4000 vph for microscale analysis.

Because the peak approach traffic volumes will be less than 4000 vph through year 2043, the screenings are successful, and no microscale CO analysis is required for locations 1 and 2.

Conclusion

The foregoing screening demonstrates that a CO air quality analysis is not necessary since this project will not increase traffic volumes or change other existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards.

4.4.16.4 Mesoscale Analysis

No mesoscale air quality analysis is required because this project does not meet EPM/TEM Chapter 1.1 criteria for conducting a mesoscale analysis.

Because no construction-related detours or diversions lasting more than one CO season (winter) are anticipated, no construction air quality screening is required.

4.4.16.5 Mobile Source Air Toxics (MSATs) Analysis

The purpose of this project is to address the capacity and safety issues associated with the high volume left turning traffic in four intersections within the towns of Riverhead, East Hampton, and Southold, Suffolk County. This project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the no-build alternative, as described in the most recent October 2016 FHWA Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA. This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns.

4.4.17 Energy

No energy or greenhouse gas analysis is required because the project does not meet cost or other criteria listed in the Draft 2003 NYSDOT ESB Energy and Greenhouse Gas Analysis guidance that would trigger such analysis.

4.4.18 Noise

The project will not significantly change either the horizontal or vertical alignment or increase the number of through traffic lanes. Therefore, this project is not a Type I project and does not require a traffic noise analysis as per 23 CFR 772.

4.4.19 Asbestos

4.4.19.1 Screening -

If any of the utilities at the four sites are to be impacted by this project, an Asbestos Screening Assessment which entails a review available as-built drawings, record plans, and other construction drawings of all structures and facilities in the project area followed by an on-site visual inspection of items identified during the record plan review should be conducted. Also, all suspect ACM encountered during project construction should be sampled and tested by a NYSDOL qualified asbestos inspector.

A walkover of the project site and vicinity, which was conducted on November 12, 2020. Concrete headwalls, electrical conduits, drainage pipes, and utility lines were observed near the intersection at all four locations. Utilities installed prior to the 1980s have the potential for asbestos containing materials (ACM) to be present.

If asbestos is determined to be present on the project, an Asbestos Special Note and Specifications will need to be prepared by NYSDOT personnel or a consultant with an Asbestos Designer License.

4.4.19.2 Assessment and Quantification -

Utilities that are to be impacted by this project will require an Asbestos Screening Assessment which entails a review available as-built drawings, record plans, and other construction drawings of all structures and facilities in the project area followed by an on-site visual inspection of items identified during the record plan review should be conducted. Also, all suspect ACM

encountered during project construction should be sampled and tested by a NYSDOL qualified asbestos inspector.

4.4.19.3 Mitigation Summary -

Determination has not been made on the need for mitigation, if any it will be based on Asbestos Screening Assessment.

4.4.20 Hazardous Waste and Contaminated Materials

4.4.20.1 Screening

A Hazardous Waste/Contaminated Materials (HW/CM) Screening was conducted for each project site and vicinity. This screening involved site walkovers of each of the project sites and a review of available records to provide information concerning historical ownership and use of the sites as well as local, state, and federal record sources. The historical records reviewed included aerial photographs, Sanborn fire insurance maps, local property tax files and land use records to help identify potential environmental concerns. The government record sources reviewed relate to the presence or occurrence of facilities or spills involving solid or hazardous waste and petroleum products within each of the current project corridors as well as in the general vicinity of each of the current project corridors. An environmental database service company, Environmental Data Resources, Inc. (EDR), was contracted to provide an environmental database search report for the review of government record sources as well as historical aerial photographs and Sanborn fire insurance maps (i.e., mapping produced for commercial, industrial, and residential properties that would have been underwritten by insurance companies) for each project site and vicinity. For purposes of these screenings the project sites which consisted of the following intersections and approaches; NYS Route 25 (Middle Country Road) at Edwards Avenue located in the Hamlet of Calverton; NYS Route 114 (Sag Harbor East Hampton Turnpike) at Stephen Hands Path located the Town of East Hampton, NY; NYS Route 25 (Main Street) at County Road 48 (North Road) and Sound Road located in the Town of Southhold, NY; and NYS Route 114 (Sag Harbor East Hampton Turnpike) at Goodfriend Drive located in the Town of East Hampton, NY; were evaluated separately.

The database search report ordered from EDR provides a comprehensive review of Federal, State and locally listed data on sites of potential concern within the project vicinity. This data search was performed in general accordance with ASTM E-1527-13 standards. The use of the EDR resource allows for a comprehensive listing of sites of potential concern. Searched federal government records included: United States Environmental Protection Agency (USEPA), National Priority List (NPL), Comprehensive Environmental Response and Compensation, and Liability Information System (CERCLIS), USEPA Resource Conservation and Resource Conservation Recovery Act (RCRA) list of hazardous waste generators. Searched state and other government records included New York State Department of Environmental Conservation (NYSDEC) inactive hazardous waste sites, New York State Solid Waste Facilities/Landfill (SWF/LF) sites and state registered recycling facilities (SWRCY), Petroleum Bulk Storage database (PBS), Chemical Bulk Storage database (CBS), Major Oil Storage Facility database (MOSF), and New York Spills information (Spills). These databases identify known or suspected inactive and other hazardous waste sites; registered petroleum and chemical bulk storage tank sites; reported spills, including leaking underground storage tanks; hazardous waste generators; and treatment, storage, and disposal facilities. Additionally, local records reviewed on the Suffolk County GIS website included tax parcel information regarding current land use in the vicinity of each project site.

A review of standard local, state and federal record sources relating to the presence or occurrence of facilities or spill sites involving solid and/or hazardous wastes and petroleum products indicated that a minimum number of sites occur within the general vicinity of each project site. Most of these sites are not expected to have environmental impacts on the project sites based upon the current remedial status, separation distance and/or hydrogeological position relative to the sites. The full Hazardous Waste/Contaminated Materials Screening Reports are available upon request. Sites with the potential to have environmental impacts on the project sites are described below in the following subsections.

4.4.20.2 Screening and Site Assessment

NYS Route 25 at Edwards Avenue

Federal, State and Local Record Review

The EDR report identified one NYSDEC spill site that, based on its proximity, represents a potential environmental concern for the project site. The spill site at Edwards Avenue (NYSDEC Spill No.9908339) is located approximately 140-feet southwest of the project site; was not cleaned to NYSDEC standards. According the EDR report this site consisted of a fuel company (P&G Fuel) on Edwards Avenue, where three trailer loads of contaminated soil were buried in 1999. A FOIL request was submitted to NYSDEC on November 30, 2020 to request further information. The response received December 9, 2020 did not provide further clarification on the status or location of the spill. Due to the proximity to the project site and absent additional information on the exact location, type of contamination, quantity of material spilled, and extents of the spill, this site may pose environmental concerns for the project.

Historical Records Review

Aerial photos of the project site and vicinity were reviewed from the following years: 2017, 2013, 2009, 2006, 1994, 1985, 1980, 1976, 1970, 1966, 1962, 1959, 1957, 1947, 1940, and 1938. The 1938 photo identified the project site and surrounding area consisting mainly of farmland with buildings adjoining the project site on the northeast, southeast, and northwest corner. No notable changes were observed on the project site or adjoining properties between 1938 and 1985. Comparing aerial photos from years 1994 and 2006 indicates that a large commercial building was constructed adjoining the project site to the southwest. Lastly, comparing the aerial photos from years 2006 and 2009 indicates that a gas station adjoining the eastern side of the project site was constructed. No items of environmental concern were identified on the aerial photographs within the project area.

Sanborn map coverage was not available for the project site or vicinity.

Project Site Walkover

The HW/CM Screening included a walkover of the project site and vicinity, which was conducted on November 12, 2020. The presence of a gas station adjacent to the southeast portion of the project site, located at 3705 Middle Country Road was identified as a potential environmental concern. Though no stained soil or indication of hazardous waste disposal was identified, impacts to the subsurface of this site could not be evaluated during the site visit.

Additionally, concrete headwalls, electrical conduits, drainage pipes, and utility lines were observed near the intersection. Utilities installed prior to the 1980s have the potential for asbestos containing materials (ACM) to be present.

NYS Route 114 at Stephen Hands Path

Federal, State and Local Record Review

The EDR report did not identify any sites of potential environmental concern within the minimum required search distances of the proposed project site.

Historical Records Review

Aerial photos of the project location were reviewed from the following years: 2017, 2013, 2009, 2006, 1994, 1985, 1980, 1976, 1970, 1962, 1960, 1957, 1954, 1947, 1940, and 1938. The 1938 photo identified the project site and surrounding area consisting mainly of wooded areas to the west and south of the project site and farmland with buildings to the northeast. Comparing the aerial photos from years 1947 and 1954 indicates that a small clearing was created in the southwest corner and driveways and buildings were constructed adjacent to the northwest corner of the project site. Comparing aerial photos from years 1962 and 1970 indicates that Squires Path

was constructed to the south of the project site; additionally, a pond and residential structure were constructed adjacent to the southeast corner of the project site. No items of environmental concern were identified on the aerial photographs within the project area.

Sanborn map coverage was not available for the project site or vicinity.

Project Site Walkover

The HW/CM Screening included a walkover of the project corridor which was conducted on November 18, 2020. The site walkover did not reveal any HW/CM related environmental concerns at the project site.

However, concrete headwalls, electrical conduits, drainage pipes, and utility lines were observed near the intersection. Utilities installed prior to the 1980s have the potential for asbestos containing materials (ACM) to be present.

NYS Route 114 at Goodfriend Drive

Federal, State and Local Record Review

The EDR report did not identify any sites of potential environmental concern within the minimum required search distances of the proposed project site.

Historical Records Review

Aerial photos of the project location were reviewed from the following years: 2017, 2013, 2009, 2006, 1985, 1980, 1976, 1970, 1962, 1960, 1957, 1954, 1947, 1940, 1938. The 1938 photo identified the project site and surrounding area consisting of forests with only Route 114 present. Comparing the aerial photos from years 1947 and 1954 indicates that a clearing was created in the southwest corner of the project site. Additional clearings were identified in the 1957 photo. Comparing aerial photos from years 1980 and 1985 indicates the construction of Goodfriend Drive and Coultes Lane as well as the presence of structures along both these roads. Comparing aerial photos from years 1985 and 2006 indicates that structures were depicted adjacent to the northeast and south of the project site. No items of environmental concern were identified on the aerial photographs within the project area.

Sanborn map coverage was not available for the project site or vicinity.

Project Site Walkover

The HW/CM Screening included a walkover of the project corridor which was conducted on November 18, 2020. The site walkover did not reveal any HW/CM related environmental concerns at the project site.

However, drainage pipes and utility lines were observed near the intersection. Utilities installed prior to the 1980s have the potential for asbestos containing materials (ACM) to be present.

NYS Route 25 at County Road 48

Federal, State and Local Record Review

The EDR report did not identify any sites of potential environmental concern within the minimum required search distances of the proposed project site.

Historical Records Review

Aerial photos of the project location were reviewed from the following years: 2017, 2013, 2009, 2006, 1994, 1985, 1980, 1976, 1970, 1962, 1960, 1957, 1954, 1947, 1940, and 1938. The 1938 photo identified the project site and surrounding area consisting mainly of agriculture and residential structures. No notable changes were observed on the project site or adjoining properties between 1938 and 1962. Comparing the aerial photos from years 1970 and 1976 indicates that the parcel adjacent to the southeast side of the project site was converted from farmland to forested. Comparing aerial photos from years 1985 and 1994 indicates that the intersection of Route 25 and CR 48 was repaved and the vegetated circle within the center of the intersection was removed. No items of environmental concern were identified on the aerial photographs within the project area.

Sanborn fire insurance maps for the project site and vicinity were reviewed for the years 1917, 1928, 1940, and 1964. Over this time period the Sanborn maps depicted primarily residential development on the adjoining properties. However, the 1928 and 1940 Sanborn maps depicted at least three gasoline tanks and an oil house on the adjoining property located northwest of North and Sound Roads. The Suffolk County Health Department was contacted on December 16, 2020 and a FOIL request was submitted December 23, 2020 to determine if there is removal documentation on file for these tanks. To date a response has not been received from this office. Also, the 1964 Sanborn map depicted a restaurant adjoining the northeast portion of the project site. Based on the absence of removal documentation for the gasoline tanks on the adjoining property to the northwest it is possible that this site may have had environmental impacts on the project site.

Project Site Walkover

The HW/CM Screening included a walkover of the project site and vicinity which was conducted on November 12, 2020. An earthen berm comprised of unknown fill materials was identified within the southeast portion of the proposed project site.

Additionally, concrete headwalls, electrical conduits, drainage pipes, and utility lines were observed near the intersection. Utilities installed prior to the 1980s have the potential for asbestos containing materials (ACM) to be present.

4.4.20.3 HW / CM Screening Conclusions

Based on the findings of the Hazardous Waste/Contaminated Materials screening, the following items of environmental concern were identified, and should be further investigated to better understand their potential effects as related to the project:

1. NYS Route 25 at Edwards Avenue:

    a. NYSDEC Spill Site – NYSDEC Spill No. 9908339, identified in the EDR report at a location approximately 140-feet southwest of the project site, was identified as a site where three trailer loads of contaminated soil were dumped. A Freedom of Information Letter request was sent to NYSDEC on the specifics of this spill site; however, the information provided by NYSDEC did not contain any new information on this spill. Due to the proximity to the project site, this site may pose environmental concerns for the project.
    b.

2. NYS Route 114 at Stephen Hands Path:
   No site-specific concerns were identified through the site reconnaissance, EDR review, or historical records review.

3. NYS Route 114 at Goodfriend Drive:
   No site-specific concerns were identified through the site reconnaissance, EDR review, or historical records review.

4. NYS Route 25 at County Road 48:

    a. Fill Importation – The southeast portion of the proposed project site has an earthen berm which will likely have to be excavated and/or removed under the proposed enhancements for this intersection. The origin of these fill materials comprising this berm is unknown, indicating that potentially contaminated fill materials do exist at this site.

    b. Historical Petroleum Bulk Storage - Three gasoline tanks and an oil house were depicted on the adjoining property to the northwest on the 1928 and 1940 Sanborn maps. Removal documentation for these tanks was not identified. The Suffolk County Health Department was contacted on December 16, 2020 and a FOIL request was submitted December 23, 2020 to determine if there is removal documentation on file for these three gasoline tanks. To date a response has not been received from this office. Based on the absence of removal documentation it is possible that this site may have had environmental impacts on the project site. There is the potential to encounter subsurface contamination in the vicinity of this site during excavation activities.

4.4.20.4 Mitigation Summary

Two of the project sites (i.e., NYS Route 25 and Edwards Avenue and NYS Route 25 at County Road 48) with the potential to contain hazardous waste/contaminated materials in the subsurface, were identified as a result of the Hazardous Waste/Contaminated Materials Site Screening. As a mitigation measure, a Hazardous Waste/Contaminated Materials Site Assessment is recommended at these two sites, in order to assess potential impacts to the project. If necessary, a remediation plan will need to be developed after review of the Hazardous Waste/Contaminated Materials Site Assessment.

As an alternative to pre-construction Hazardous Waste/Contaminated Materials Site Assessments, the potential to encounter subsurface contamination at these two sites could be identified in the Contract Documents for project construction. This would include a summary in the General Notes of the project plans that indicates the potential to encounter subsurface contamination at these sites as well as including a depiction on the plans the areas at these sites where suspected hazardous waste/contaminated materials could be encountered. During construction, should signs of contamination be encountered soil and fill materials excavated from these two project sites it may need to be segregated into appropriate waste streams, chemically analyzed to facilitate disposal profiling, and disposed of off-site in accordance with applicable regulations.

4.5 Construction Effects

4.5.1 Construction Impacts

There will be no impacts due to the construction work on this project, on any of the above social, economic or environmental conditions.

4.5.2 Mitigation Measures

No mitigation will be needed.

CHAPTER 5 - SUMMARY AND ANALYSIS OF COMMENTS RECEIVED

Pursuant to the provisions of Title 23, U.S. Code, Section 128 and Title 40, Code of Federal Regulations, Parts 1500 to 1508, and in accordance with the provisions of Article 8 of the Environmental Conservation Law, the New York State Department of Transportation (NYSDOT), being the agency having principal responsibility for carrying out or approving the proposed project, and acting as the lead agency pursuant to Part 15 of Title 17 of the Official Compilation of Codes, Rules and Regulations of New York State (17 NYCRR Part 15), published a "Notice of EDPL Public Hearing and Availability of Draft Design Report" for the proposed safety enhancements project.

The legal advertisement for the "Notice of EDPL Public Hearing and Availability of Draft Design Report" was published locally in the January 26, 2022 through January 30, 2022 editions of *Newsday* as well as in the January 27, 2022 issue of *Noticia.*

Flyers advertising the Public Hearing were posted at the Riverhead Free Library, the East Hampton Library, and the Floyd Memorial Library. Flyers were also sent to churches, school districts, hospitals, Town Planning Departments, police, and fire departments. In addition, notifications were mailed to all affected property owners where the need for property taking was identified. Furthermore, notifications were sent to adjacent property owners, not directly impacted by the project; elected officials; town officials; and other interested parties.

The advertisements and mailed notifications announced the public hearing date and time as well as project website information and other instructions to access the Draft Design Report. In response to the COVID-19 pandemic, NYSDOT conducted the public hearing using virtual methods to comply with social distancing guidelines. The public hearing was held in a live videoconference format, and all necessary access information for interested participants was included in the advertisements as well as on the project website, www.dot.ny.gov/EastEndSafety.

In addition, NYSDOT published a "Public Notice and Opportunity for Comment" for the proposed de minimis takings from the Section 4(f) protected properties at two locations. This notice was published locally in the February 6, 2022 edition of *Newsday.*

Copies of all legal advertisements are available for review at NYSDOT Region 10 offices in Hauppauge, NY.

A. SUMMARY AND ANALYSIS OF PUBLIC HEARING COMMENTS

An EDPL Public Hearing for the Proposed Safety Enhancements at Various Locations in the Towns of Riverhead, East Hampton and Southold Project was held on February 9, 2022. The hearing was held in a live videoconference format and consisted of an informal question and answer period from 6:00 P.M. to 6:30 P.M., followed by a formal presentation and hearing beginning at 6:30 P.M. to solicit comments, both oral and via the "chat" function in the videoconference.

During the informal portion of the hearing, Department representatives were on hand to answer questions. A PowerPoint slideshow describing the project and its impacts was then presented during the formal portion of the hearing, followed by a formal comment period during which comments were received and recorded. The comments received during the formal comment period were not addressed at the hearing but are shown below along with NYSDOT's subsequent responses. Copies of the PowerPoint presentation given at the Public Hearing as well as the preliminary plans and Draft Design Report are available for review on the project website and in the Design Unit located at NYSDOT Region 10 Offices in Hauppauge, New York.

Participants in the public hearing were invited to present verbal comments and/or submit written comments to be read into the record via the “chat” function in the videoconference. Approximately 65 people participated in the public hearing. During the formal comment session, seven (7) written comments were submitted via the “chat” function and six (6) people spoke. Following the meeting, four (4) comments were mailed, 18 comments were emailed, and two (2) telephone calls were received during the commenting period. Questions and comments varied from location to location but were mainly concerned with bicycle and pedestrian safety, the installation of the roundabout, turning movements at the intersections, and impacts to property access and parking. Most of the comments received were not opposed to the project but requested additional improvements.

A summary of all comments received is included in Appendix G. Rather than respond to each comment individually, the comments have been grouped by location and summarized by topics as follows:

Comments in Support of the Project

- *I would like to say that improvements at the intersection of Route 25 and Edwards Avenue have been needed ever since the LIE came to Riverhead (1972).*
- *I want to thank you all for your work on this. I know it's been a few years that we've been asking -- many years actually that we've been asking for these intersections to be repaired at least on the North Fork, and so I want to thank you for your attention to this.*
- *I live in the immediate neighborhood of the roundabout project and have high hopes for the project's impact on the traffic issues at this dangerous intersection.*
- *We are very encouraged that the roundabout solution will have a positive impact on the significant congestion at this problematic intersection.*
- *We are confident that the DOT’s planned roundabout will be a good solution to keep traffic safely flowing at NY Route 25@CR48 (North Road) and Route 25/Main Street.*

General Comments – All Locations

1. ***Requested additional improvements including designated/buffered bike lanes, bike boxes, bike detectors, crosswalks, etc.***

   As part of all NYSDOT projects, the need for pedestrian and bicycle improvements are evaluated. This project addresses the necessary intersection improvements at four intersections and their adjacent roadways. The proposed improvements include the widening of these intersections as well as the required transitions from/to the widened intersections. It is important to note that the surrounding land uses generate little pedestrian activity; however, where appropriate, sidewalk and sidewalk ramps will be upgraded or provided to meet current ADA standards and crosswalks will be installed to improve pedestrian accessibility.

   Within the project limits, NY 25 is designated as a bicycle route and NY 114 is designated as a bicycle lane and is marked and signed, accordingly. For clarification purposes, a bicycle route does not always include a bicycle lane but when it does, appropriate pavement markings and signs are installed to indicate a bicycle lane. Since this is an intersection improvement project, the project does not evaluate enhancements to these two bicycle routes. Suggested enhancements such as bicycle lanes with associated pavement markings, bicycle detectors and bike boxes were not considered for this project. Such enhancements are beyond the scope of this project and require study under a separate project to fully evaluate the implications of providing bicycle lanes and other changes for a full corridor and not a single intersection. This project will, however, continue to accommodate bicyclists through the intersections with NY 25 and NY 114. The project is in keeping with Suffolk County's Hike and Bike Master Plan and is being coordinated with the County and Towns.

2. Requested additional information on traffic data collected for East Hampton locations

NYSDOT transmitted Attachment T-1 containing the requested traffic data to the consultant representing residents of the Town of East Hampton for his review.

3. Questioned when this study and property owner information was last updated, when project will go out to bid, funding for the project, utility relocation and schedule, and questioned whether rights-of-way are sufficient to allow emergency vehicles to pass traffic queues.

The project plans and report have been and will continue to be regularly updated as new information becomes available. Regarding property owners, the information was gathered through various sources including Real Property Maps, deeds of record and the Assessors' tax rolls within the last six (6) to eight (8) months. An updated review will be conducted to ensure NYSDOT has the latest property owner information.

Regarding construction, it is anticipated that bid solicitations will go out in late 2023 with construction to begin in 2024 and be completed in 2025. Funding has been allocated for these projects based on the estimated construction costs listed in the design report and the PowerPoint Presentation; however, these only account for construction-related expenses and do not include right-of-way acquisition costs. This project is PIN 0810.01 on the State Capital program 2023-2024 and is also on the STIP Project List.

Utility pole relocations will be coordinated with the utility companies during the final design and construction phases.

Regarding emergency vehicles, the addition of left turn lanes will provide additional roadway width to allow vehicles to move to the right so emergency vehicles can proceed. Furthermore, this project will reduce traffic congestion which will help emergency response times.

The appraisal process will begin once NYSDOT has received Design Approval for the proposed improvements.

Location 1: NY 25 at Edwards Avenue

4. Concerned with speeds and safety near the Riverhead Charter School and impacts to the school operation during construction

NYSDOT recently completed an investigation of a request from the Superintendent of the Riverhead Charter School to lower the speed limit and create a school zone in the vicinity of the school. The review included a crash analysis, vehicular and pedestrian counts, field observations and a review of previous studies at this location. In a letter to the Superintendent from the Regional Traffic Engineer dated Feb. 7, 2020, NYSDOT noted their investigation indicated the criteria for reducing the posted speed limit or establishing a school speed zone at this location had not been met and so these requests could not be accommodated. During the final design of this project, NYSDOT will assess the appropriate work hours for the construction contractor and take into consideration the public's concerns regarding the Riverhead Charter School.

5. Concerned about right-of-way taking on the southeast corner

The Town of Riverhead Planning Department questioned the proximity of the proposed right-of-way taking to the existing building in the southeast corner of the intersection and asked if any guide rail was proposed at this location. NYSDOT has verified the building will be approximately 24 feet from the edge of the proposed travel lane. This is outside of the 17-foot clear zone for this location and therefore will not require any shielding, i.e., guide rail.

6. Concerned with congestion and turning lanes

The lack of left turn lanes on each approach and the offset alignment of the Edwards Avenue approaches are the main causes of congestion at this intersection. For this project, the intersection was modeled and analyzed with proposed left turn lanes on all approaches, and the results showed the overall delays would be greatly reduced. The proposed improvements include adding a left turn arrow for the northbound approach to further reduce delays. In particular, the northbound Edwards Avenue approach delay will be reduced from over 2 minutes to only 35 seconds in the design year of 2033. Furthermore, by providing an exclusive left turn lane on each approach, the delays will be reduced enough for the through and right turning traffic so that an exclusive right turn lane will not be warranted for any of the approaches.

7. Concerned with access/egress from business

The final curb-cut/driveway widths for all affected properties will be addressed during final design; however, no impacts to access/egress are anticipated.

8. Asked if a roundabout was considered at this location

A roundabout was not considered at this location since a traffic signal already exists and a roundabout would require significantly more right-of-way impacts including the taking of the building on the southeast corner.

Location 2: NY 114 at Stephen Hands Path

9. Concerned with flooding and light pollution; requests right turn lane on Stephen Hands Path

Regarding flooding at the intersection, it should be noted that the Town of East Hampton is currently designing a comprehensive drainage enhancement project for Stephen Hands Path between NY 114 and Long Lane. Their project, along with the additional drainage modifications included in this project, will address the current flooding issue.

Regarding light pollution, the proposed enhancements require the replacement of the existing traffic signal; however, no additional traffic signals or street lighting are proposed at this location.

Regarding turn lanes on Stephen Hands Path, left turn lanes are recommended because of significant delays to through traffic on Stephen Hands Path. As left turning vehicles yield to oncoming through traffic, substantial queues were observed on both eastbound and westbound Stephen Hands Path resulting in significant delays. Exclusive left turn lanes will eliminate those delays and provide a safety enhancement by removing vehicles from the through-traffic stream, substantially reducing the potential for rear-end crashes. In addition, the right turn lane from westbound Stephen Hands Path will be extended to about 200 feet long to address the sizeable right-turning queue.

10. Concerned with impacts to business, parking, access/egress

The proposed right-of-way takings at this intersection will be less than 8.5% of each parcel. NYSDOT does not anticipate that this will have a significant effect on any businesses, parking or access/egress; however, the impacts will be fully assessed during the property acquisition process and property owners will be able to further discuss their concerns regarding any potential impacts.

11. Requested clarification on impacts to property

NYSDOT followed all required procedures to advise residents, local municipalities and elected officials of the project and the Public Hearing. Prior to the Public Hearing, NYSDOT also mailed notifications to all affected property owners as well as adjacent property owners not necessarily directly impacted by the project. Some of those original notification letters were returned to NYSDOT as “undeliverable” by the United States Postal Service. In those cases, NYSDOT sent a second notification letter to the same address. Although some of those property owners apparently missed the Public Hearing, NYSDOT advertised the project website information and other instructions to access the PowerPoint presentation given at the Public Hearing as well as the preliminary plans and Draft Design Report. Those items were also available for review in the Design Unit located at NYSDOT Region 10 Offices in Hauppauge, New York or interested parties could contact NYSDOT staff by phone or email to discuss any additional concerns they had. Several property owners did reach out directly to NYSDOT requesting clarifications or other information, and NYSDOT staff responded to each individual contact with the requested information or clarification.

12. Suggests consideration of a roundabout at this location

A roundabout was not considered at this location since a traffic signal already exists and a roundabout would result in impacts to the 4(f) property in the southwest quadrant and the existing farmstand in the northwest quadrant.

Location 3: NY 114 at Goodfriend Drive

13. Concerned with turning movements from Goodfriend Drive and Coultes Lane

A center two-way left turn lane is proposed on NY 114 to provide for safe left turns into and out of Goodfriend Drive and Coultes Lane. The proposed center turn lane will allow a motorist on NY 114 to safely exit the through-traffic stream and wait for a gap in oncoming traffic, thereby reducing the potential for rear-end collisions. For vehicles exiting Goodfriend Drive and Coultes Lane, the proposed center turn lane can be used to cross NY 114 in two stages. Vehicles will first cross northbound/southbound traffic to access the turn lane, and then wait for an adequate gap in northbound/southbound traffic to proceed. The current condition requires that there be a gap in both directions before turning.

Location 4: NY 25 at CR 48

14. Concerned with pedestrian and bicycle safety at proposed roundabout

Signal-controlled pedestrian crossings are not included in the proposed design. Instead, along each approach to the intersection there will be a crosswalk located approximately 25 feet back from the intersection that is broken up into two stages by providing a splitter island between the two directions of traffic. This will provide pedestrians an area to wait to cross a single direction of traffic at a time rather than having to wait for both directions of traffic to yield, improving pedestrian safety. The two-stage crossing also allows for a shorter crossing distance (the width of a single travel lane). In addition, pedestrian crosswalk warning signs will accompany the crosswalks. The traffic calming that the roundabout creates will also make the crossing experience more comfortable since vehicles will be traveling slowly.

Regarding bicycle safety, a shared-use path is proposed within the mini-roundabout to allow bicyclists who are not comfortable riding in the travel lane with motor vehicles to move from the shoulder to the shared-use path. Appropriate signing and markings will be provided to guide bicyclists.

15. Concerned with proposed installation of roundabout vs. traffic signals, turning movements into Sound Road, and driveway access

Reference was made to the traffic circle that existed at this location previously, which was removed in 1985. It should be noted this traffic circle was offset almost entirely south of the existing edge of pavement along CR 48 / NY 25 and, therefore, did not impact or slow down traffic eastbound or westbound along CR 48 / NY 25 (see Appendix G). In addition, as a traffic circle, it did not have the physical features of a modern roundabout that make this type of facility safer than other types. The following are some of the key differences between modern roundabouts and traffic circles:

i. Roundabouts have yield control on all entering roadways, while the circulatory roadway has no control. Some traffic circles use stop-sign control, or no control on one or more entering roadways.
ii. The circulating vehicles have the right-of-way in roundabouts, and entering vehicles must yield. In some traffic circles, circulating traffic yields to entering traffic.
iii. In roundabouts, all vehicles circulate counterclockwise and pass to the right of the central island; however, for some traffic circles, traffic may pass on the left of the central island.
iv. Modern roundabouts implement traffic calming, resulting in slower and similar speeds for entering and circulating vehicles. Some traffic circles are large or have little deflection, allowing for high speeds within the intersection.

The proposed roundabout will address crashes, reduce vehicle speeds, provide crossing opportunities for pedestrians, and provide for safer and more orderly traffic flow. It will have an inner circle diameter of 60 feet and a total diameter (including the travel lanes) of 90 feet. It should be noted the proposed roundabout will not impact access to the existing driveways in the vicinity of the intersection.

Regarding traffic signals, the two separate traffic signal studies that were previously prepared by NYSDOT and referenced in this report were conducted to determine if a traffic signal was warranted at the intersection of NY 25 and CR 48. These investigations were conducted during morning, mid-day and evening peak hours on summer weekends and included traffic volume counts, pedestrian counts, field observations, accident analyses, and delay studies. In both cases, it was determined that a traffic signal was not warranted.

Regarding turning movements into Sound Road, during the preliminary design process, realigning Main Street with Sound Road was considered; however, it required significantly more property acquisition and a higher construction cost and, therefore, was eliminated from consideration. As a result, vehicles traveling from town to Sound Road will still have to

perform the "zig-zag" movement. This movement can be performed safely for the following reasons:

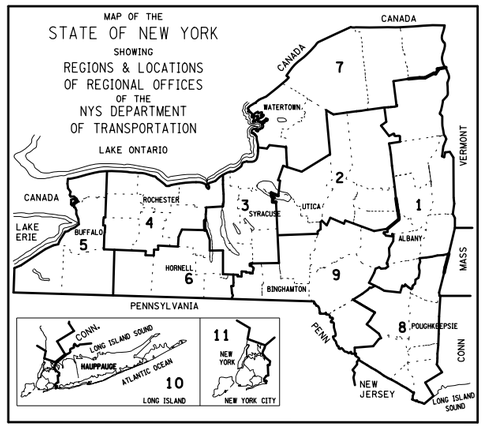
i. The traffic operations model indicates that backups on the NY 25 westbound approach generally do not extend beyond the Sound Road intersection.
ii. Vehicle speeds near the intersection will be slower due to the roundabout, allowing turning vehicles to utilize smaller gaps in the opposing traffic flow to perform the turning maneuver and giving opposing drivers more time to make decisions and react to traffic.
iii. The volume of traffic turning to and from Sound Road is generally low and not anticipated to create an excessive delay for NY 25 traffic.

Please note that some modifications will be made to allow more storage for left turning vehicles to Sound Road.

16. Concerned with impacts of proposed development on southeast corner

NYSDOT's traffic analyses for this project accounted for future growth by projecting the traffic volumes out to the year 2033. This proposed development is in the very early stages and was only recently presented to the Town of Southold. It has not been presented to NYSDOT for comments to date. The Town is responsible for land use development. It is possible the developer may not obtain Town approval, modifies their plans for development of the lot, or simply drops the project. If and when the developer applies for a highway work permit, NYSDOT will be able to consider any impacts that the proposed project would have on traffic operations and the NYSDOT's planned roundabout. As part of the NYSDOT highway work permit application process, the developer would be required to submit a traffic impact study for review to identify impacts to NY Route 25. NYSDOT may impose restrictions on the developer as to the number of driveways, their locations, size of the driveway(s) and vehicular movements through the driveway(s) (ingress/egress). It will be the developer's responsibility to mitigate any impacts from trips generated by their development.

Appendix A
Maps, Plans, Profiles & Typical Sections

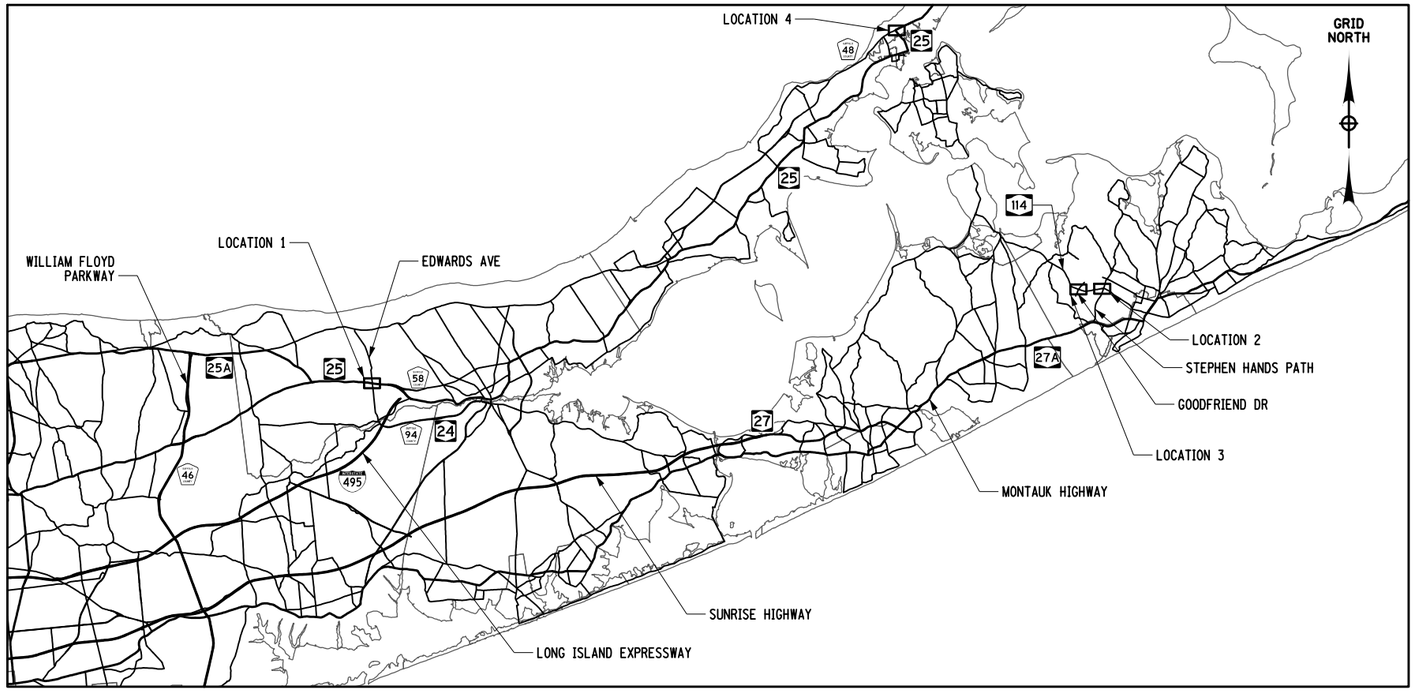


NEW YORK STATE OF OPPORTUNITY. Department of Transportation

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

CONTRACT

SUFFOLK COUNTY



PROJECT LOCATION

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS		
TOWNS OF RIVERHEAD, EAST HAMPTON,		
SOUTHOLD, AND BROOKHAVEN		
COUNTY: SUFFOLK		
FED. ROAD REG. NO.	STATE	SHEET NO.
1	N.Y.	1
CAPITAL PROJECT IDENTIFICATION NO. 0810.01		

INDEX ON SHEET NO. 2

PROJECT MANAGER
CHECK
DRAFTING
DESIGN
CHECK
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = 0810010I_CPH_CVR_CVR-01.DGN
DATE/TIME = 16-DEC-2021 09:10
USER = gbdabino

ALIGNMENT	
ABBR.	DESCRIPTION
AH	AHEAD
AZ	AZIMUTH
BK	BACK
℄	BASELINE
BRG	BEARING
℄	CENTERLINE
CS	CURVE TO SPIRAL
e	SUPERELEVATION RATE (CROSS SLOPE)
EQ	EQUALITY
EXT	EXTERNAL
HCL	HORIZONTAL CONTROL LINE
HSD	HEADLIGHT SIGHT DISTANCE
L	LENGTH OF CIRCULAR CURVE
LS	LENGTH OF SPIRAL
LVC	LENGTH OF VERTICAL CURVE
E	CENTER CORRECTION OF VERTICAL CURVE
ℳ	MAIN LINE
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
POL	POINT ON LINE
PSD	PASSING SIGHT DISTANCE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS
SC	SPIRAL TO CURVE
SSD	STOPPING SIGHT DISTANCE
ST	SPIRAL TO TANGENT
STA	STATION
T	TANGENT LENGTH
TGL	THEORETICAL GRADE LINE
TS	TANGENT TO SPIRAL
VC	VERTICAL CURVE

TOPOGRAPHY (DRAINAGE)	
ABBR.	DESCRIPTION
BB	BOTTOM OF BANK (STREAM)
BC	BOTTOM OF CURB
BO	BOTTOM OF OPENING
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CIP	CAST IRON PIPE
℄ STRM	CENTERLINE OF STREAM
CMP	CORRUGATED METAL PIPE
CP	CONCRETE PIPE
CSP	CORRUGATED STEEL PIPE
CULV	CULVERT
DIA	DIAMETER
DMH	DRAINAGE MANHOLE
DS	DRAINAGE STRUCTURE PIPE
D'XING	DITCH CROSSING
EHW	EXTREME HIGH WATER
EL	ELEVATION
ELEV	ELEVATION
ELW	EXTREME LOW WATER
ES	END SECTION
HW	HEADWALL
INV	INVERT
MH	MANHOLE
MHW	MEAN HIGH WATER
OHW	ORDINARY HIGH WATER
OLW	ORDINARY LOW WATER
RCP	REINFORCED CONCRETE PIPE
SICPP	SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE
TB	TOP OF BANK (STREAM)
TC	TOP OF CURB
TG	TOP OF GRATE
VCP	VITRIFIED CLAY PIPE

TOPOGRAPHY (MISCELLANEOUS)	
ABBR.	DESCRIPTION
ABUT	ABUTMENT
AOBE	AS ORDERED BY ENGINEER
ASPH	ASPHALT
BDY	BOUNDARY
BLDG	BUILDING
BM	BENCH MARK
CC	CENTER TO CENTER
CONC	CONCRETE
CONST	CONSTRUCTION
CR	COUNTY ROAD
D	DEED DISTANCE
DM	DIRECT MEASUREMENT
DWY	DRIVEWAY
EP	EDGE OF PAVEMENT
ES	EDGE OF SHOULDER
FEE	FEE ACQUISITION
FEE WO/A	FEE ACQUISITION WITHOUT ACCESS
FP	FENCE POST
FD	FOUNDATION
FL	FENCE LINE
GAR	GARAGE
GR	GRAVEL
HO	HOUSE
HWY	HIGHWAY
IP	IRON PIN OR IRON PIPE
MB	MAILBOX
MON	MONUMENT
N&W	NAIL AND WASHER
OG	ORIGINAL GROUND
O/H	OVERHEAD
P	PARCEL
PAV'T	PAVEMENT
PE	PERMANENT EASEMENT
PED POLE	PEDESTRIAN POLE
ℙ	PROPERTY LINE
POR	PORCH
RR	RAILROAD
RTE	ROUTE
ROW	RIGHT OF WAY
RW	RETAINING WALL
SH	STATE HIGHWAY
SHLDR	SHOULDER
SPK	SPIKE
ST	STREET
STK	STAKE
STY	STORY
SW	SIDEWALK
TE	TEMPORARY EASEMENT
TO	TEMPORARY OCCUPANCY
U/G	UNDERGROUND
WW	WING WALL

UTILITIES	
ABBR.	DESCRIPTION
E	ELECTRIC
EMH	ELECTRIC MANHOLE
G	GAS
GP	GUY POLE
GSB	GAS SERVICE BOX (HOUSE LINE)
GV	GAS VALVE (MAIN LINE)
HYD	HYDRANT
LP	LIGHT POLE
LPG	LOW PRESSURE GAS
PP	POWER POLE
SA	SANITARY SEWER
SMH	SANITARY MANHOLE
ST	STORM SEWER
T	TELEPHONE
TCB	TRAFFIC CONTROL BOX
TELBOX	TELEPHONE BOX
TEL P	TELEPHONE POLE
TMH	TELEPHONE MANHOLE
CTV	CABLE TELEVISION
W	WATER
WSB	WATER SERVICE BOX (HOUSE LINE)
WV	WATER VALVE (MAIN LINE)

SUBSURFACE EXPLORATION	
ABBR.	DESCRIPTION
REPLACE ABBREVIATION "AB" WITH:	
AH	HAND AUGER
CP	CONE PENTROMETER
DA	2¼ INCHES CASED DRILL HOLE
DM	DRILLING MUD
DN	4 INCHES CASED DRILL HOLE
FH	HOLLOW FLIGHT AUGER
PA	POWER AUGER
PH	PROBE
PT	PERCOLATION TEST HOLE
RP	1 INCH SAMPLER (RETRACTABLE PLUG)
	TO BE DEFINED AT THE TIME OF EXPLORATION
SP	SEISMIC POINT
TP	TEST PIT
ABBREVIATION "C" IN CATEGORIES: DA, DM, DN, AND FH WITH:	
B	BRIDGE
C	CUT
D	DAM
F	FILL
K	CULVERT
W	WALL
X	TO BE USED IF ONE OF THE ABOVE CANNOT BE DEFINED AT THE TIME THE EXPLORATION IS MADE

STANDARD SYMBOL (PLANS)	ITEM PAYMENT UNIT: ESTIMATE OF QUANTITIES SHEET	EQUIVALENT NOMENCLATURE: (SPECS/PROPOSAL)
"	-	INCHES
'	LF	LINEAR FEET
mi	MI	MILES
ft^2	SF	SQUARE FEET
YD^2	SY	SQUARE YARD
AC	AC	ACRES
YD^3	CY	CUBIC YARD
GAL	GAL	GALLON
lb	LB	POUND
TON	TON	TON

INDEX		TOTAL NUMBER OF SHEETS
SHEET NUMBER	DESCRIPTION	DRAWING NUMBER
VOLUME 1		
	TITLE SHEET	COVER
	INDEX AND ABBREVIATIONS	IND-01 TO IND-02
	LEGEND, LINE AND POINT SYMBOLOGY	LEG-01 TO LEG-02
	TYPICAL SECTIONS	TYP-01 TO TYP-06
	KEY PLANS	KP-01 TO KP-04
	GENERAL PLANS - LOC 1	GNP01-01 TO GNP01-05
	GENERAL PLANS - LOC 2	GNP02-01 TO GNP02-05
	GENERAL PLANS - LOC 3	GNP03-01
	GENERAL PLANS - LOC 4	GNP04-01 TO GNP04-04
	PROFILES	PRO01-01 TO PRO04-03

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

COUNTY: SUFFOLK REGION: 10

PIN 0810.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

INDEX AND ABBREVIATIONS

CONTRACT NUMBER

DRAWING NO. IND-01

SHEET NO.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

PROJECT MANAGER
CHECK
DRAFTING
CHECK
DESIGN
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = 0810010I_CPH_IND_IND-01.DGN
DATE/TIME = 16-DEC-2021 09:10
USER = gobbino

PROJECT MANAGER
CHECK
DRAFTING
CHECK
DESIGN
JOB MANAGER
DESIGN SUPERVISOR

ALIGNMENT

STYLE	NAME	DESCRIPTION
	AC	CONTROL (CENTERLINE)
	AD_P	DETOUR
	AT_P	TRANSITION CONTROL

BRIDGE

STYLE	NAME	DESCRIPTION
	BR	RAIL
	BSHT	SHEET PILING

CONTROL

STYLE	NAME	DESCRIPTION
℄	CB	BASELINE
	CBPR	BASELINE, PROJECTION

DRAINAGE

STYLE	NAME	DESCRIPTION
ST	DCP	CULVERT PIPE
ST→	DCP_P	CULVERT PIPE (DIR)
	DDG_P	DITCH, GRASS LINED
	DDP_P	DITCH, PAVED INVERT
	DDS_P	DITCH, STONE LINED
→|	DFL_P	FLOW LINE
	DSSD	SLOTTED DRAIN
UD→	DUD_P	UNDERDRAIN

ENVIRONMENTAL

STYLE	NAME	DESCRIPTION
	ECT	CURTAIN, TURBIDITY
	EDMC	DAM, COFFER
	EDMEC_P	DAM, EARTHEN CHECK
	EDMGSC_P	DAM, GRAVEL BAG/SAND BAG CHECK
	EDMPC_P	DAM, PREFABRICATED CHECK
	EDMSC_P	DAM, STONE CHECK
	EFNS	FENCE, SILT
	EFNSV	FENCE, SILT & VEGETATION
	EFNV	FENCE, VEGETATION
	ESFL	FILTER, SEDIMENT LOG
AA	EWAA_P	WETLAND, ADJACENT AREA
FW	EWF	WETLAND, FEDERAL
FW SW	EWFS	WETLAND, FEDERAL AND STATE
SW	EWM	WETLAND, MITIGATION AREA
SW	EWS	WETLAND, STATE

LANDSCAPE

STYLE	NAME	DESCRIPTION
	LABL	AREA, BRUSH LINE
	LAHR	AREA, HEDGE ROW
	LAPB	AREA, PLANTING BED
	LAWA	AREA, WOODED AREA OUTLINE
	LAWE	AREA, WATERS EDGE
	LCUT_P	CUT LIMIT
	LFILL_P	FILL LIMIT
	LFNC	FENCE
	LTRC	TREE ROW, CONIFEROUS
	LTRD	TREE ROW, DECIDUOUS
	LWH	WALL, H PILE
	LWR	WALL, RETAINING
	LWS	WALL, STONE

ROW MAPPING

STYLE	NAME	DESCRIPTION
	MDL	DEED LINE
PE	MEE	EASEMENT, EXISTING
PE	MEP_P	EASEMENT, PERMANENT
APE	MEPA_P	EASEMENT, PERMANENT, APPROX.
TE	MET_P	EASEMENT, TEMPORARY
ATE	META_P	EASEMENT. TEMPORARY, APPROX.
FEE	MF_P	FEE ACQUISITION, W/ ACCESS
AFEE	MFA_P	FEE ACQUISITION, APPROXIMATE
	MFS_P	FEE ACQUISITION, SHAPE
FEE W/OA	MFWOA_P	FEE ACQUISITION, W/O ACCESS
	MHA	HISTORICAL, ACQUISITION
HB	MHB	HIGHWAY BOUNDARY
AHB	MHBA	HIGHWAY BOUNDARY, APPROX.
	MHBW	HWY BOUNDARY, FACE OF WALL
HB W/OA	MHBWOA	HIGHWAY BOUNDARY, W/O ACCESS
	MJC	JURISDICTION, CITY
	MJCY	JURISDICTION, COUNTY
	MJHD	JURISDICTION, HISTORIC DISTRICT
	MJLL	JURIS., (GREAT, MILITARY) LOT LINE
	MJN	JURISDICTION, NATION
	MJPB	JURISDICTION, PUBLIC LANDS
	MJS	JURISDICTION, STATE
	MJT	JURISDICTION, TOWN
	MJV	JURISDICTION, VILLAGE
	MPL	PROPERTY LOT LINE
	MPLA	PROPERTY LOT LINE, APPROXIMATE
	MSL	SUB LOT LINE

ROADWAY

STYLE	NAME	DESCRIPTION
CZ	RCZ_P	CLEAR ZONE
	RG	GUIDE RAIL, MISCELLANEOUS
	RGB	GUIDE RAIL, BOX BEAM
	RGBM	GUIDE RAIL, BOX BEAM, MEDIAN
	RGC	GUIDE RAIL, CABLE
	RGCB	GUIDE RAIL, CONCRETE BARRIER
	RGP_P	GUIDE POST
	RGW	GUIDE RAIL, W BEAM
	RGWM	GUIDE RAIL, W BEAM, MEDIAN
	RPB	PARKING BUMPER
	RRC	RAIL ROAD, CATENARY
3R	RRER	RAIL ROAD, 3RD RAIL
	RRPLS_P	RAIL, PHOTO, LARGE SCALE
	RRPSS	RAIL, PHOTO, SMALL SCALE
	RRS	RUMBLE STRIP
	RRSLS_P	RAIL, SURVEY, LARGE SCALE
	RRSSS	RAIL, SURVEY, SMALL SCALE

SIGNS

STYLE	NAME	DESCRIPTION
	SBLB	BILLBOARDS
	SM	MULTIPLE POST
	SSO	STRUCTURE, OVERHEAD
	SSOC	STRUCTURE, OVHD. CANTILEVER

STRIPING

STYLE	NAME	DESCRIPTION
	STB•	BROKEN LINE
	STDB•	DOUBLE BROKEN LINE
	STDL•	DOTTED LINE LONG
	STDS•	DOTTED LINE SHORT
	STFB•	FULL BARRIER LINE
	STH•	HATCH LINE
	STPB•	PARTIAL BARRIER LINE
	STRCT	ROUNDABOUT, CAT TRACKS
	STRYL	ROUNDABOUT, YIELD LINE
	STSB	STOP BAR
	STSE•	SOLID, EDGE
	STXL	X WALK, LADDER LINE
	STXLB	X WALK, LADDER BAR LINE

• = W (WHITE) OR Y (YELLOW)

TRAFFIC CONTROL

STYLE	NAME	DESCRIPTION
	TCSW	SIGNAL, SPAN WIRE

TRAFFIC WORK ZONE

	NAME	DESCRIPTION
	TWZBT_P	BARRIER, TEMPORARY
	TWZBTWL_P	BARRIER, TEMPORARY, W/ WARNING LIGHTS
	TWZCD_P	CHANNELIZING DEVICE
	TWZPMRC_P	PAVEMENT MARKING REMOVAL OR COVERING

UTILITIES

STYLE	NAME	DESCRIPTION
C	UC	CONDUIT, UNDERGROUND
]C[	UCH	CONDUIT, HANGING
OC	UCO	CONDUIT, OVERHEAD
E	UE	ELECTRIC LINE, UNDERGROUND
]E[	UEH	ELECTRIC LINE, HANGING
OE	UEO	ELECTRIC LINE, OVERHEAD
OET	UETO	ELECTRIC TRANSMISSION, OVERHEAD
	UESS	ELECTRIC, SUBSTATIONS
FO	UFO	FIBER OPTIC, UNDERGROUND
]FO[	UFOH	FIBER OPTIC, HANGING
OFO	UFOO	FIBER OPTIC, OVERHEAD
G	UG	GAS, UNDERGROUND
]G[	UGH	GAS, HANGING
OG	UGO	GAS, OVERHEAD
IC	UIC	INFORM CABLE, UNDERGROUND
]IC[	UICH	INFORM CABLE, HANGING
O	UO	OIL LINE, UNDERGROUND
]O[	UOH	OIL LINE, HANGING
	UPBP	POLE, BRACE, PUSH BRACE
	UPGW	POLE, GUY WIRE
SA	USA	SANITARY SEWER, UNDERGROUND
]SA[	USAH	SANITARY SEWER, HANGING
SAF	USAF	SANITARY SEWER, FORCE MAIN, UGND
]SAF[	USAFH	SANITARY SEWER, FORCE MAIN, HANG
T	UT	TELEPHONE, UNDERGROUND
]T[	UTH	TELEPHONE, HANGING
OT	UTO	TELEPHONE, OVERHEAD
CTV	UTV	CABLE TV, UNDERGROUND
]CTV[	UTVH	CABLE TV, HANGING
OCTV	UTVO	CABLE TV, OVERHEAD
UU	UUU	UNKNOWN, UNDERGROUND
]UU[	UUH	UNKNOWN, HANGING
OUU	UUO	UNKNOWN, OVERHEAD
W	UW	WATER LINE, UNDERGROUND
]W[	UWH	WATER LINE, HANGING
OW	UWO	WATER LINE, OVERHEAD

1. THE LEGEND ILLUSTRATES MAPPING FEATURES (EXISTING AND PROPOSED).
2. FEATURES ARE SHOWN AS EITHER LINEAR (ROADWAY GUIDERAIL, ROADWAY SIDEWALK, UTILITY LINES, ETC.) OR POINT (SIGN, UTILITY POLE, ETC.).
3. FEATURES SHOWN ON THE LEGEND AS EXISTING FEATURES ALSO HAVE CORRESPONDING PROPOSED FEATURES.
4. PROPOSED FEATURE SYMBOLOGY IS IDENTICAL TO EXISTING FEATURE SYMBOLOGY EXCLUDING LINE WEIGHT. LINE WEIGHT FOR PROPOSED FEATURES IS THICKER (0.015 in ON B SIZE DRAWINGS).
5. MAPPING FEATURES NOT INCLUDED ON THE LEGEND SHEET DO NOT HAVE A UNIQUE SYMBOLOGY (SUCH AS THE PAVEMENT EDGE, PAVEMENT EDGE OF TRAVEL WAY) AND SHOULD BE LABELED ON THE PLANS.
6. FEATURES SHOWN AT THE HEAVIER WEIGHT ARE PROPOSED ONLY AND DO NOT HAVE CORRESPONDING EXISTING FEATURES.

FILE NAME = 0810001O1_CPH_LEG_LEG-01.DGN
DATE/TIME = 16-DEC-2021 09:10
USER = gbobmo

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN	PIN 0810.01	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED LEGEND LINES	CONTRACT NUMBER DRAWING NO. LEG-01 SHEET NO.
COUNTY: SUFFOLK REGION: 10					NEW YORK STATE OF OPPORTUNITY Department of Transportation

PROJECT MANAGER
CHECK
DRAFTING
CHECK
DESIGN
JOB MANAGER
DESIGN SUPERVISOR

ALIGNMENT

CELL	NAME	DESCRIPTION
	ACC	CENTER OF CURVATURE
	ACOGO	COGO
	ACS	CURVE TO SPIRAL
	ADPI_P	DETOUR, POINT OF INTERSECT.
	ADPL_P	DETOUR, POINT ON LINE
	AEQN	EQUATION
A	AEQNAHD	EQUATION AHEAD
B	AEQNBK	EQUATION BACK
	AEVT	EVENT STATION
	APC	POINT OF CURVATURE
	APCC	POINT OF COMPOUND CURVATURE
	API	POINT OF INTERSECTION
	APOB	POINT OF BEGINNING
	APOC	POINT OF CURVATURE
	APOE	POINT OF END
	APOL	POINT ON LINE
	APOS	POINT ON SPIRAL
	APOT	POINT ON TANGENT
	APOVC	POINT ON VERTICAL CURVE
	APOVT	POINT ON VERTICAL TANGENT
	APORC	POINT ON REVERSE CURVE
	APT	POINT OF TANGENCY
	APVC	POINT OF VERTICAL CURVATURE
	APVCC	POINT OF VERT. CMPND CURVE
	APVI	POINT OF VERT. INTERSECTION
	APVRC	POINT OF VERT. REVERSE CURVE
	APVT	POINT OF VERTICAL TANGENCY
	ASC	SPIRAL TO CURVE
	ASPI	SPIRAL POINT OF INTERSECTION
	ASTS	SPIRAL TO SPIRAL
	AST	SPIRAL TO TANGENT
	ATS	TANGENT TO SPIRAL
	AVEVT	VERTICAL EVENT POINT
	AVHIGH	VERTICAL HIGH POINT
	AVLOW	VERTICAL LOW POINT

BRIDGE

	BSC	BRIDGE, SCUPPER

CONTROL

	CBP	BASELINE, POINT
	CBPOL	BASELINE, POINT ON LINE
	CBSP	BASELINE, SPUR POINT
	CBTP	BASELINE, TIE POINT
	CPBM	BENCHMARK
	CPH	POINT, HORIZ. PHOTOGRAMMETRY
	CPSM	POINT, SURVEY MARKER, PERM.
	CPSV	POINT, VERT., PHOTOGRAMMETRY

DRAINAGE

CELL	NAME	DESCRIPTION
	DINV	INVERT
	DS	STRUCTURE, RECTANGULAR
	DSI	STRUCTURE, INVERT
	DSM	STRUCTURE, MANHOLE
	DSMTXX_P	STRUCTURE, MANHOLE, TYPE "XX" "XX" = 48, 60, 72, 96
	DSR	STRUCTURE, ROUND
	DST"X"CB P	STRUCTURE, RECT., WITH CURB TYPE "X" "X" = F, G, N, O, P, R
	DST"X" P	STRUCTURE, RECT., TYPE "X" "X" = I, K, L, M, O, P, U

ENVIRONMENTAL

CULV	EIOP_P	STR., INLET, OUTLET PROT.
GB	EIPGB_P	STR., INLET PROT., GRAVEL BAG
FL	EIPEFL_P	STR., INLET PROT., FILTER LOG
PREFB	EIPP_P	STR., INLET PROT., PREFAB.
SF	EIPSF_P	STR., INLET PROT., SILT FENCE
	ERCB	RISER, CONCRETE BOX
	ETRS_P	TRAP, SEDIMENT
	EWFG	WETLAND FLAG

GEOTECHNICAL

	GDH	DRILL HOLE

LANDSCAPE

	LELS	ELEVATION, SPOT
	LFP	FLAG POLE
	LMB	MAILBOX
	LPB	PAPER BOX
	LPST	POST, SINGLE
	LRB	ROCK, BOULDER
	LSHC	SHRUB, CONIFEROUS
	LSHD	SHRUB, DECIDUOUS
	LTC	TREE, CONIFEROUS
	LTD	TREE, DECIDUOUS
	LTS	TREE, STUMP
	LTW P	TREE, WELL OR WALL
	LUKP	UNKNOWN POINT

ITS

CELL	NAME	DESCRIPTION
A	IANT P	ANTENNAS
A	IASCTS	ACCOU. SPEED/COUNT SNSR.S
P	ICABPAD	CABINET & PAD
	ICCTV	CCTV SITE
CDPD	ICDPD	CDPD TRANSCEIVER
	ICELLT	CELL PHONE TOWER
	ICJB	CONDUIT JACK OR BORING
	ICNTLCAB	CONTROLLER CABINET
	ICPB	COMMUNICATION PULL BOX
	ICTD	CONDUIT TURNING DOWN
	ICTU	CONDUIT TURNING UP
	ICVTRT	COMM. VEH. ROAD TRANSCEIVER
	IDEFAULT	DEFAULT
EZ	IEZR	E-ZPASS READER
EZ-T	IEZTR	TRANSMITTAL READER
XC	IFOXCAB	FIBER OPTIC X-CONNECT CABINET
	IFUSSPL	FUSION SPLICE
	IHARADV	HAR ADVISORY SIGN
	IHARST	HAR SITE
LC	ILC	LOAD CENTER
	IMECSPL	MECHANICAL SPLICE
PM	IMSCS	PORT. SPEED & COUNT SENSOR
M	IMSCTS	MICRO SPEED & COUNT SENSOR
M	IMT	MICROWAVE TRANSCEIVER
VMS	IOVHVMS	PERM. OVERHEAD VMS
PA	IPASCS	PORT. ACCOU. SPD & CNT. SENSOR
	IPEDS	PEDESTRIAN SIGNAL HEAD
	IPSS	PAVEMENT SURFACE SENSOR
PVMS	IPVMS	PERM. VMS
RM	IRM	RAMP METER
RWIS	IRWIS	RDWY WEATHER INFO. SENSOR
	ISP	SOLAR PANEL
SS	ISST	SPREAD SPECT. TRANSCEIVER
TC	ITDB	TELEPHONE DEMARCATION BLK
TP	ITP	SUBSURFACE TEMP. PROBE
	IVTRT	VEHICLE TO RDWY TRANSCEIVER
WIM	IWIMD	WEIGHT IN MOTION DETECTOR
WVR	IWVR	WIRELESS VIDEO REPEATER
V	IWVRC	WIRELESS VIDEO RECEIVER
V	IWVTT	WIRELESS VIDEO TRANSMITTER

ROW MAPPING

CELL	NAME	DESCRIPTION
	MDL1P	DEED LINE, TYPE 1
	MDL2P	DEED LINE, TYPE 2
	MDL3P	DEED LINE, TYPE 3
	MDL4P	DEED LINE, TYPE 4
	MDL5P	DEED LINE, TYPE 5
	MEEP	EASEMENT, EXISTING
A	MEPAP_P	EASEMENT, PERM., APPROX.
	MEPP_P	EASEMENT, PERM., BACK LINE
	MEPSP_P	EASEMENT, PERM., SHAPE
	MFAP_P	FEE ACQUISITION, APPROX.
	MFP_P	FEE ACQUISITION, BACK LINE
	MFSP_P	FEE ACQUISITION, SHAPE
	MHBAP	HIGHWAY BNDRY., APPROX.
	MHBCP	HISTORICAL, BLDG. CORNERS
	MHBP	HIGHWAY BNDRY, PT.
	MJCP	PT., JURIS. CITY
	MPBC	PT., BUILDING CORNER
	MPCC	PT., CROSS CUT
	MPDH	PT., DRILL HOLE
	MPF	PT., FENCE LOCATION
	MPIP	PT., IRON PIPE
	MPIR	PT., IRON ROD
	MPM	PT., MONUMENT
	MPMM	PT., MONUMENT, MISC.
	MPN	PT., NAIL
	MPRS	PT., RAILROAD SPIKE
	MPSP	PT., SPIKE
	MPST	PT., STAKE
	MPTW	PT., TREE W/ WIRE
	MPWL	PT., WALL LOCATION

ROW ACQUISITION

MI PI FEE	MFS_P_T	FEE ACQUISITION
MI PI PE	MEPS_P_T	EASEMENT, PERMANENT
MI PI TE	METS_P_T	EASEMENT, TEMPORARY
MI PI TO	METS_P_T	OCCUPANCY, TEMPORARY
MI PI FEE WO/A	MFS_P_T	FEE ACQUISITION W/O ACCESS

ROADWAY

	RES P	ELEVATION, SPOT
	RGA	GUIDE RAIL, ANCHOR
	RGP	GUIDE POST, SINGLE

SIGNS

CELL	NAME	DESCRIPTION
	S	SINGLE POST
	S_P	SINGLE POST, PROPOSED
	SB_P	BACK TO BACK, PROPOSED
	SDEL	DELINEATORS
	SPM	PARKING METER
RFM	SRM	REFERENCE MARKERS
	SRSC3	SHLD, CTY, 123 DIG.
	SRSC4	SHLD, CTY, 4 DIG.
	SRSCT2	SHLD, CTY TOUR, 1-2 DIG.
	SRSCT4	SHLD, CTY TOUR, 3-4 DIG.
	SRSI	SHLD, INTERSTATE
	SRSN2	SHLD, NATIONAL, 2 DIG.
	SRSN3	SHLD, NATIONAL, 3 DIG.
	SRSS2	SHLD, STATE, 2 DIG.
	SRSS3	SHLD, STATE, 3 DIG.
	SRSS4	SHLD, STATE, 4 DIG.

TRAFFIC CONTROL

	TCBJ	BOX, JUNCTION
	TCBP	BOX, PULL BOX
	TCBS	BOX, SPLICE
	TCMC	MICROCOMPUTER CABINET
	TCPP	PED POLE
	TCSH	SIGNAL HEADS
	TCSP	SIGNAL POLE

TRAFFIC WORK ZONE

	TWZAP_P	ARROW PANEL
	TWZAPC_P	ARROW PANEL, CAUTION MODE
	TWZAPT_P	ARROW PANEL, TRAILER OR SUPPORT
	TWZBCD_P	BARRICADE (TYPE III)
	TWZCMS_P	CHANGEABLE MESSAGE SIGN (PVMS)
	TWZFLG_P	FLAGGER
	TWZFT_P	FLAG TREE
	TWZIA_P	IMPACT ATTENUATOR / CRASH CUSHION (TEMPORARY)
	TWZLUM_P	LUMINAIRE (TEMPORARY)
	TWZSDT_P	SYMBOL, DIRECTION OF TRAFFIC
	TWZSDTD_P	SYMBOL, DIRECTION OF TEMPORARY TRAFFIC DETOUR
	TWZSGN_P	SIGN (TEMPORARY)
	TWZSIG_P	SIGNAL, TRAFFIC OR PEDESTRIAN (TEMPORARY)
	TWZWL_P	WARNING LIGHT
	TWZWV_P	WORK VEHICLE
	TWZWVA_P	WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

UTILITIES

CELL	NAME	DESCRIPTION
E	UEB	ELECTRIC, BOX
E	UEM	ELECTRIC, METER
E	UEMH	ELECTRIC, MANHOLE
	UEPT	ELECTRIC, POLE, TRANS.
G	UGM	GAS, METER
G	UGMH	GAS, MANHOLE
	UGLM	GAS, LINE MARKER
FP	UGP	GAS/FUEL PUMP
	UGV	GAS, VALVE
	UGVT	GAS, VENT
	ULP	LIGHTING, POLE
	ULPM	LIGHTING, POLE, MEDIAN
	ULPP	LIGHTING, POLE, PED.
	UMFC	MISC. FILLER CAP
	UOLM	OIL, LINE MARKER
	UP	POLE, WITH UTILITY
	UPD	POLE, DEAD (NO UTILITY)
	UPL	POLE, WITH LIGHT
S	USMH	SANITARY SEWER MANHOLE
P	UTB	TELEPHONE, BOOTH
	UTLM	TELEPHONE, LINE MARKER
T	UTMH	TELEPHONE, MANHOLE
	UTVLM	CABLE TV, LINE MARKER
C	UTVPB	CABLE TV, PULL BOX
	UUB	UNKNOWN, BOX
	UUJB	UNKNOWN, JUNCTION BOX
	UUMH	UNKNOWN, MANHOLE
	UUPB	UNKNOWN, PULL BOX
	UUVL	UNKNOWN, VALVE
	UUVT	UNKNOWN, VENT
W	UUW	UNKNOWN, WELL
	UWFH	WATER, FIRE HYDRANT
W	UWM	WATER, METER
W	UWMH	WATER, MANHOLE
	UWV	WATER, VALVE
W	UWW	WATER, WELL

1. THE LEGEND ILLUSTRATES MAPPING FEATURES (EXISTING AND PROPOSED).
2. FEATURES ARE SHOWN AS EITHER LINEAR (ROADWAY GUIDERAIL, ROADWAY SIDEWALK, UTILITY LINES, ETC.) OR POINT (SIGN, UTILITY POLE, ETC.).
3. FEATURES SHOWN ON THE LEGEND AS EXISTING FEATURES ALSO HAVE CORRESPONDING PROPOSED FEATURES.
4. PROPOSED FEATURE SYMBOLOGY IS IDENTICAL TO EXISTING FEATURE SYMBOLOGY EXCLUDING LINE WEIGHT. LINE WEIGHT FOR PROPOSED FEATURES IS THICKER (0.015 in ON B SIZE DRAWINGS).
5. MAPPING FEATURES NOT INCLUDED ON THE LEGEND SHEET DO NOT HAVE A UNIQUE SYMBOLOGY (SUCH AS THE PAVEMENT EDGE, PAVEMENT EDGE OF TRAVEL WAY) AND SHOULD BE LABELED ON THE PLANS.
6. FEATURES SHOWN AT THE HEAVIER WEIGHT ARE PROPOSED ONLY AND DO NOT HAVE CORRESPONDING EXISTING FEATURES.

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

COUNTY: SUFFOLK REGION: 10

PIN 0810.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

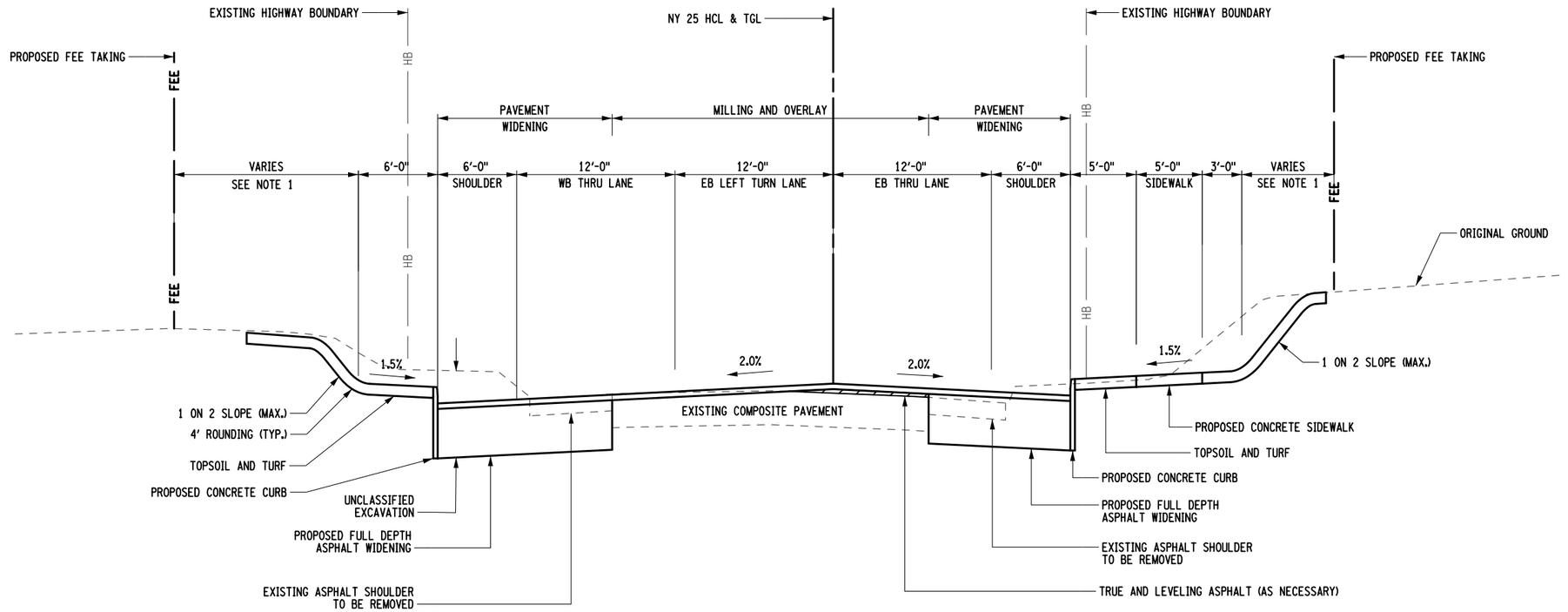
LEGEND POINTS

CONTRACT NUMBER

DRAWING NO. LEG-02
SHEET NO.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

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DATE/TIME = 16-DEC-2021 09:10
USER = gbabino



LOCATION 1 - NY 25 AT EDWARDS AVENUE
NY 25 TYPICAL SECTION
NOT TO SCALE

AFFIX SEAL: ON:	ALTERED BY: ON:

NOTES:

1. FOR ADDITIONAL INFORMATION AND LOCATIONS OF PROPOSED ACQUISITIONS, REFER TO THE GENERAL PLANS, APPENDIX A, AND THE ABSTRACT REQUEST MAP PLANS AND TABLES IN APPENDIX H.

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Babylon, NY 11702

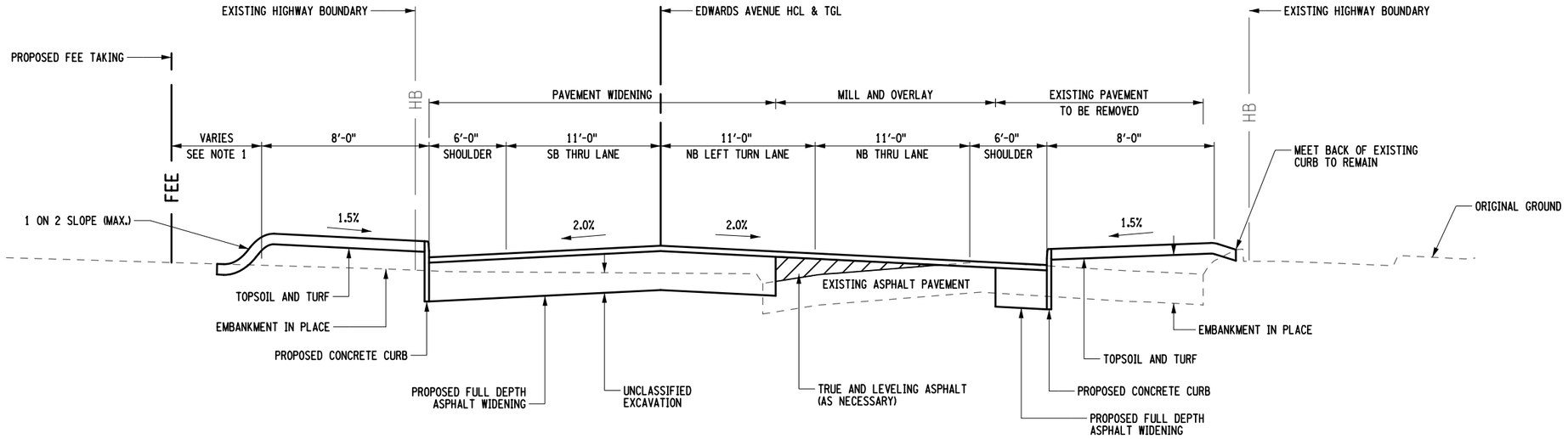
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SAFETY IMPROVEMENTS - VARIOUS LOCATIONS TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN COUNTY: SUFFOLK REGION: 10	PIN 0810.01	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED TYPICAL SECTIONS LOC 1 - NY 25 AND EDWARDS AVENUE NY 25 ALTERNATIVE 1	CONTRACT NUMBER DRAWING NO. TYP-01 SHEET NO.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

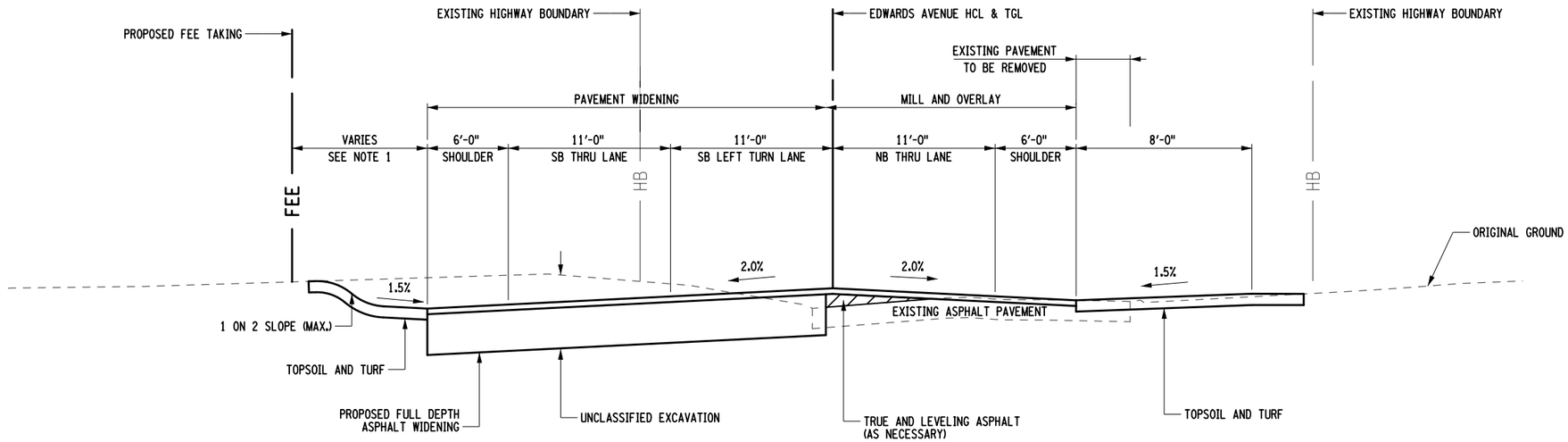
NEW YORK STATE OF OPPORTUNITY. Department of Transportation

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LOCATION 1 - NY 25 AT EDWARDS AVENUE
EDWARDS AVENUE (SOUTH OF NY 25) TYPICAL SECTION
NOT TO SCALE



AFFIX SEAL: ON:	ALTERED BY: ON:

NOTES:

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LOCATION 1 - NY 25 AT EDWARDS AVENUE
EDWARDS AVENUE (NORTH OF NY 25) TYPICAL SECTION
NOT TO SCALE

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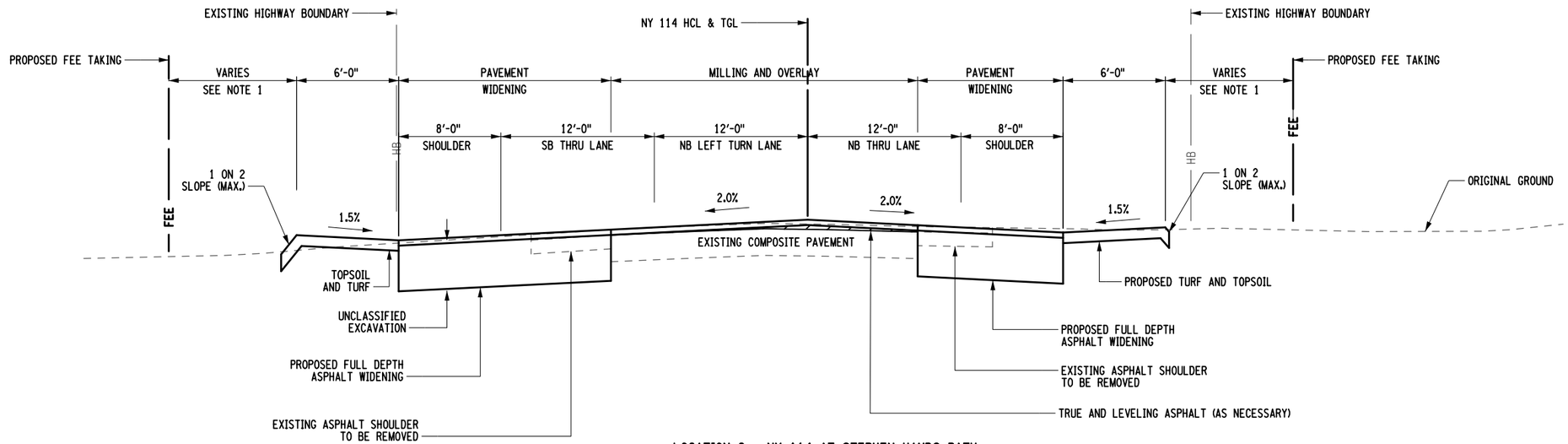
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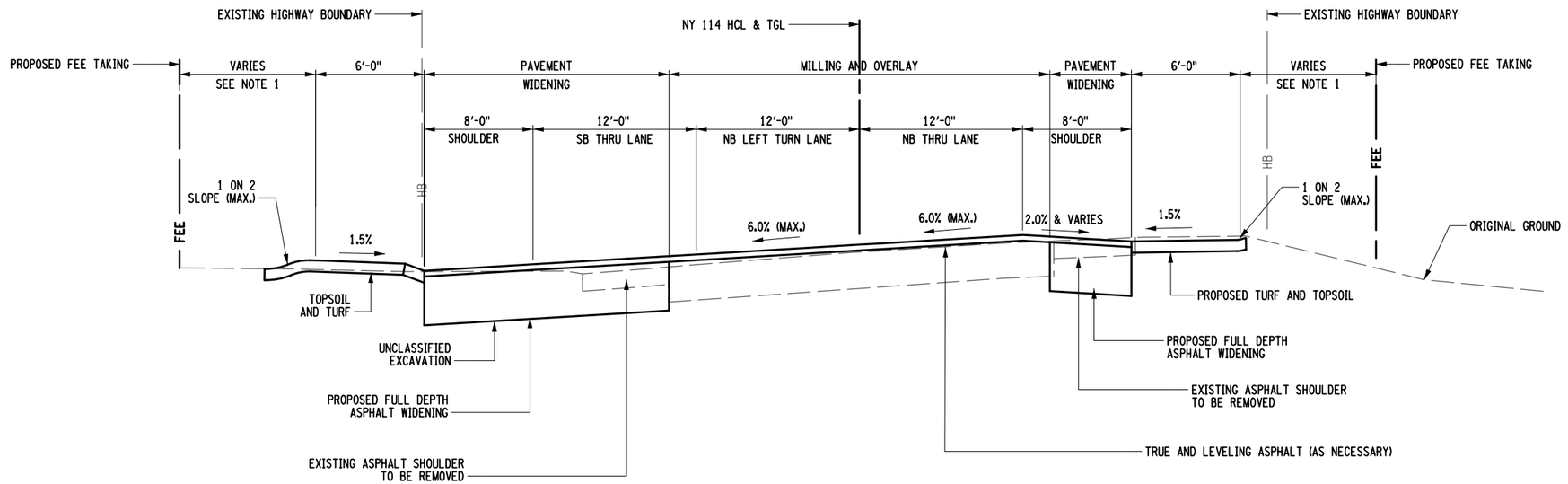
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LOCATION 2 - NY 114 AT STEPHEN HANDS PATH
NY 114 TYPICAL SECTION - NORMAL CROWN
NOT TO SCALE



LOCATION 2 - NY 114 AT STEPHEN HANDS PATH
NY 114 TYPICAL SECTION - SUPERELEVATED
NOT TO SCALE

AFFIX SEAL: ON:	ALTERED BY: ON:

NOTES:

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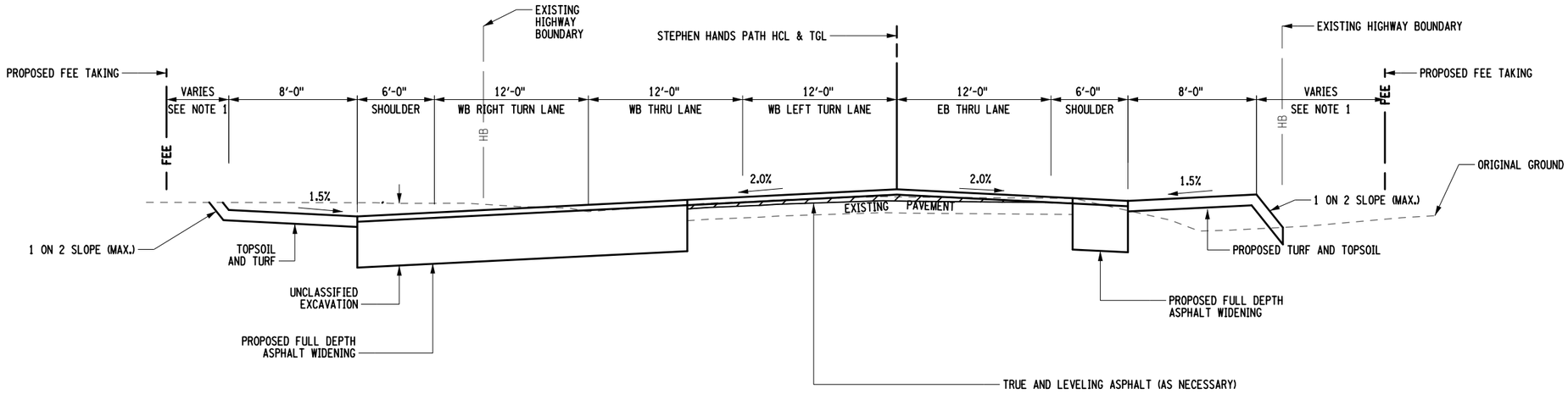
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SAFETY IMPROVEMENTS - VARIOUS LOCATIONS TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN COUNTY: SUFFOLK REGION: 10	PIN 0810.01	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED TYPICAL SECTIONS LOC 2 - NY 114 AND STEPHEN HANDS PATH NY 114 ALTERNATIVE 1	CONTRACT NUMBER DRAWING NO. TYP-03 SHEET NO.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

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LOCATION 2 - NY 114 AT STEPHEN HANDS PATH
STEPHEN HANDS PATH (NORTH OF NY 114) TYPICAL SECTION
NOT TO SCALE

LOCATION 2 - NY 114 AT STEPHEN HANDS PATH
STEPHEN HANDS PATH (SOUTH OF NY 114) TYPICAL SECTION
NOT TO SCALE

AFFIX SEAL: ON:	ALTERED BY: ON:

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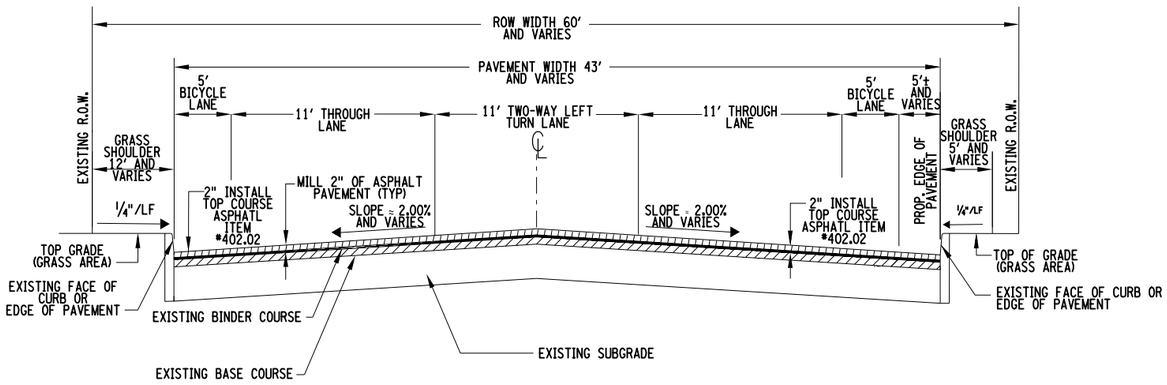
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IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

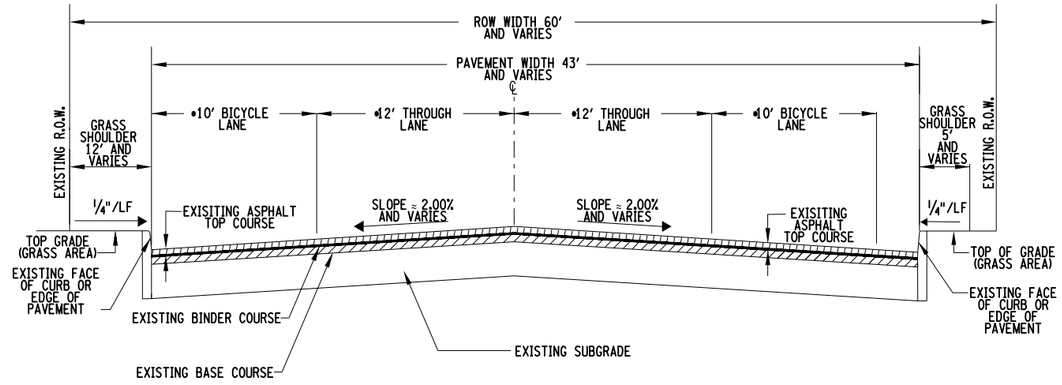
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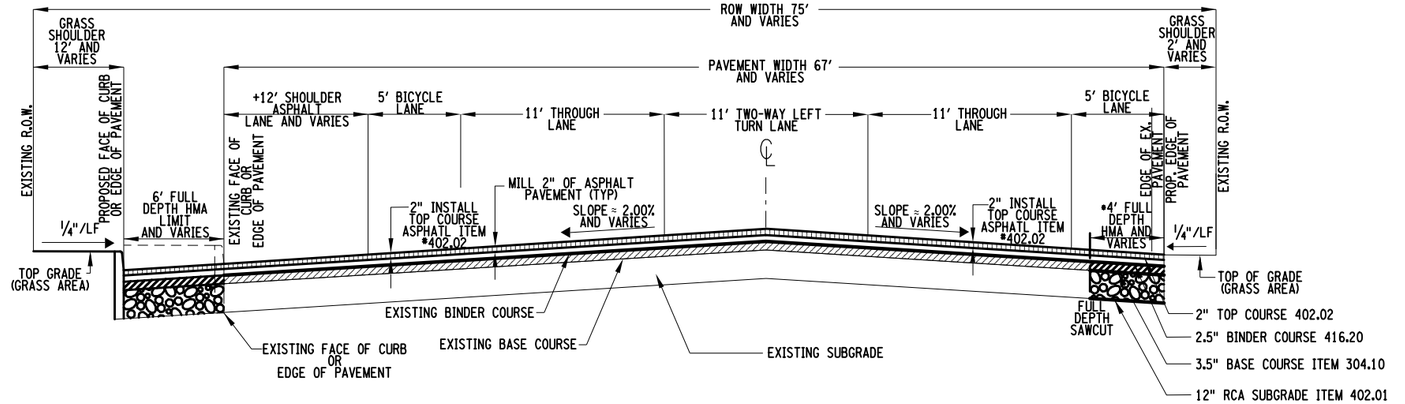
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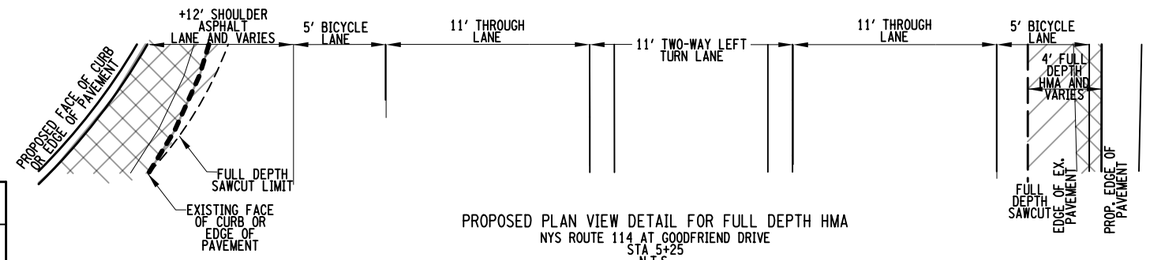
PREFERRED TYPICAL SECTION
NYS ROUTE 114 AT GOODFRIEND DRIVE
STA 6+50
N.T.S.
(LOOKING NORTH)



EXISTING TYPICAL SECTION
NYS ROUTE 114 AT GOODFRIEND DRIVE
STA 6+50
N.T.S.
(LOOKING NORTH)



PROPOSED TYPICAL SECTION
NYS ROUTE 114 AT GOODFRIEND DRIVE
STA 5+25
N.T.S.
(LOOKING NORTH)
*SEE NOTE



PROPOSED PLAN VIEW DETAIL FOR FULL DEPTH HMA
NYS ROUTE 114 AT GOODFRIEND DRIVE
STA 5+25
N.T.S.

NOTE:
PROPOSED FULL DEPTH HMA PAVEMENT SHALL HAVE A MINIMUM WIDTH OF 4 FEET. IF NECESSARY, THIS WIDTH CAN INCLUDE EXISTING PAVEMENT.

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FILE NAME = 23-AUG-2021 16:24
DATE/TIME = NadgeeGonzalezGarcia
USER =

AFFIX SEAL: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN
COUNTY: SUFFOLK REGION: 10

PIN 0810.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

TYPICAL SECTIONS
LOC 3 - NY 114 AT GOODFRIEND DRIVE
NY 114

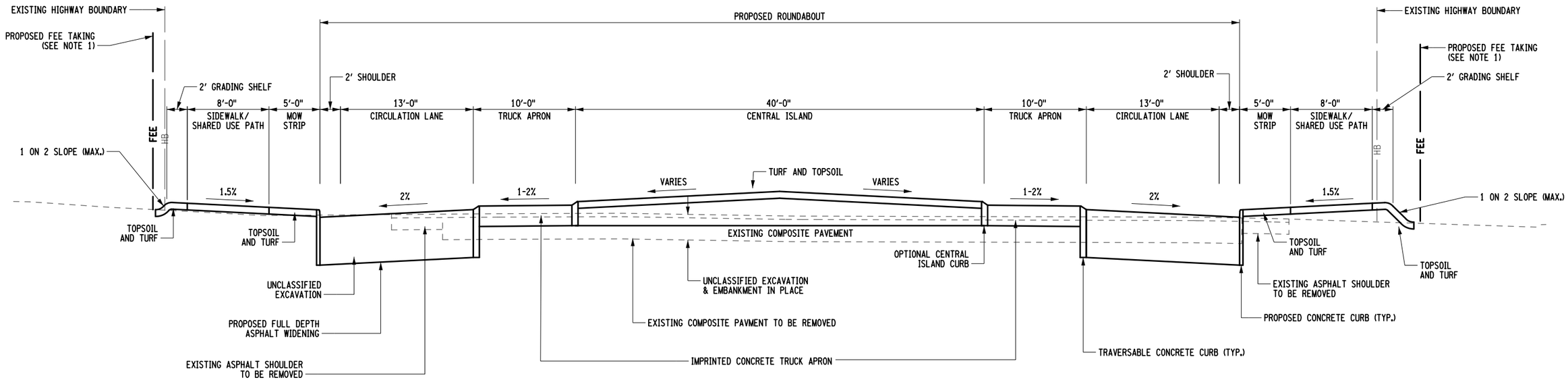
CONTRACT NUMBER

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SHEET NO.

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Hayduk Engineering, LLC
consulting engineers
1010 Route 112, Suite 200, Port Jefferson Station, NY 11776
Tel: (631)-476-0600 | Fax: (631)-476-0606

NEW YORK STATE OF OPPORTUNITY. Department of Transportation



LOCATION 4 - NY 25 AT CR 48
ROUNDABOUT TYPICAL SECTION - LOOKING WEST
NOT TO SCALE

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DATE/TIME = 16-DEC-2021 09:10
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AFFIX SEAL: ON:	ALTERED BY: ON:

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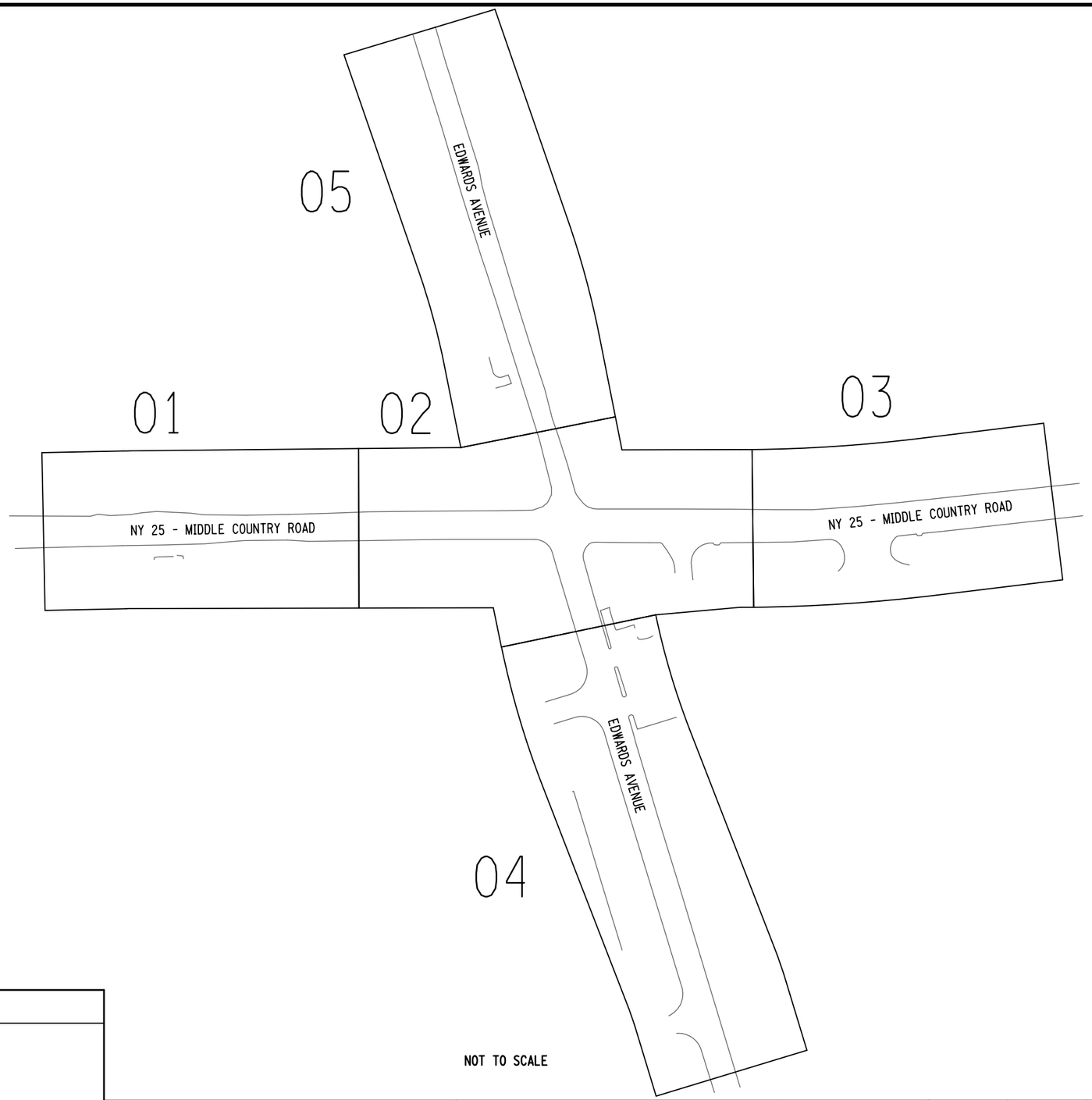
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Greenman-Pedersen, Inc.
325 W Main Street
Babylon, NY 11702

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SAFETY IMPROVEMENTS - VARIOUS LOCATIONS TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN COUNTY: SUFFOLK REGION: 10	PIN 0810.01	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED TYPICAL SECTIONS LOC 4 - NY 25 AND CR 48 PROPOSED ROUNDABOUT ALTERNATIVE 1	CONTRACT NUMBER DRAWING NO. TYP-06 SHEET NO.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

NEW YORK STATE OF OPPORTUNITY. Department of Transportation



GRID NORTH

NOT TO SCALE

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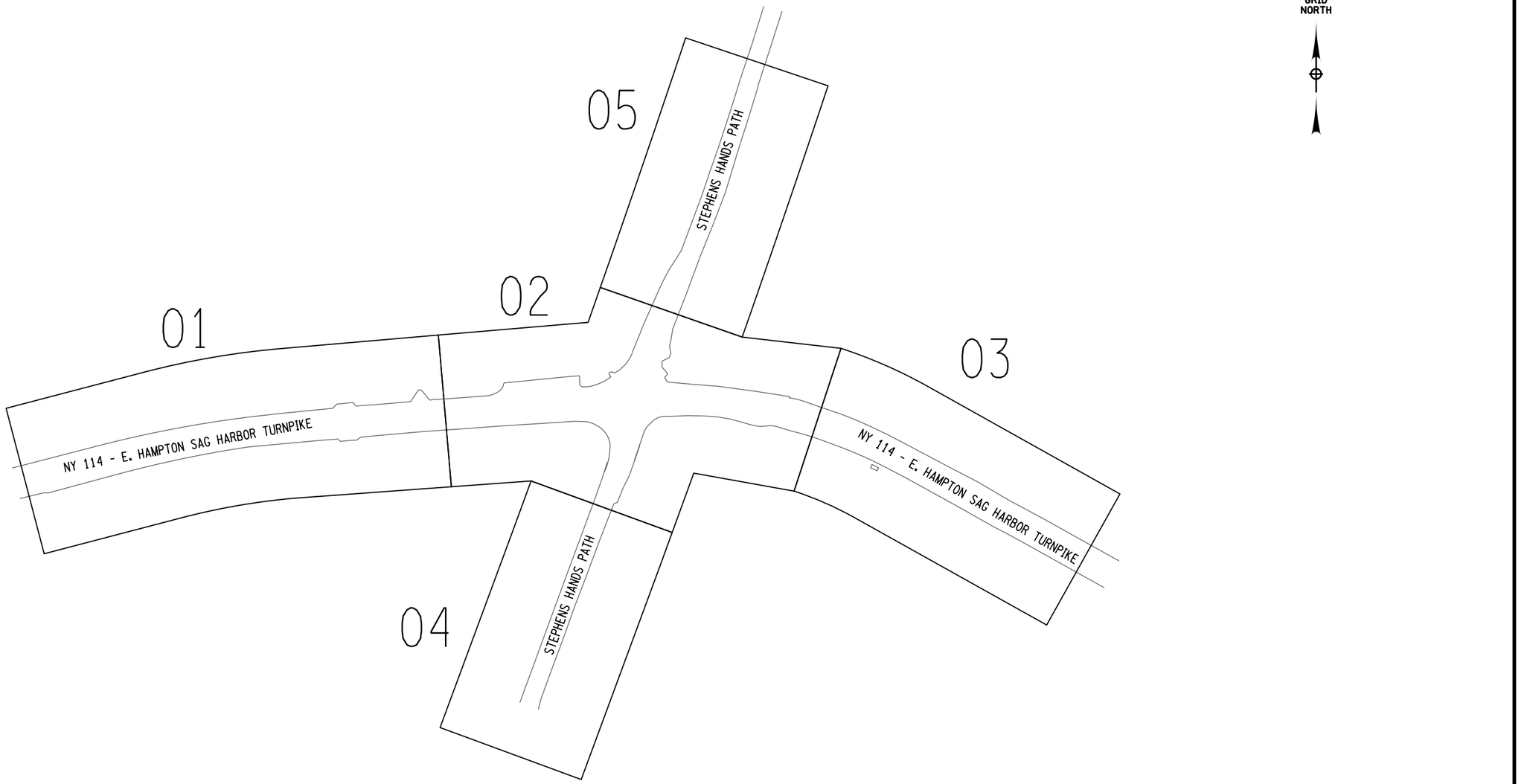
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NEW YORK STATE OF OPPORTUNITY. Department of Transportation



NOT TO SCALE

AFFIX SEAL: ON:	ALTERED BY: ON:

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325 W Main Street
Babylon, NY 11702

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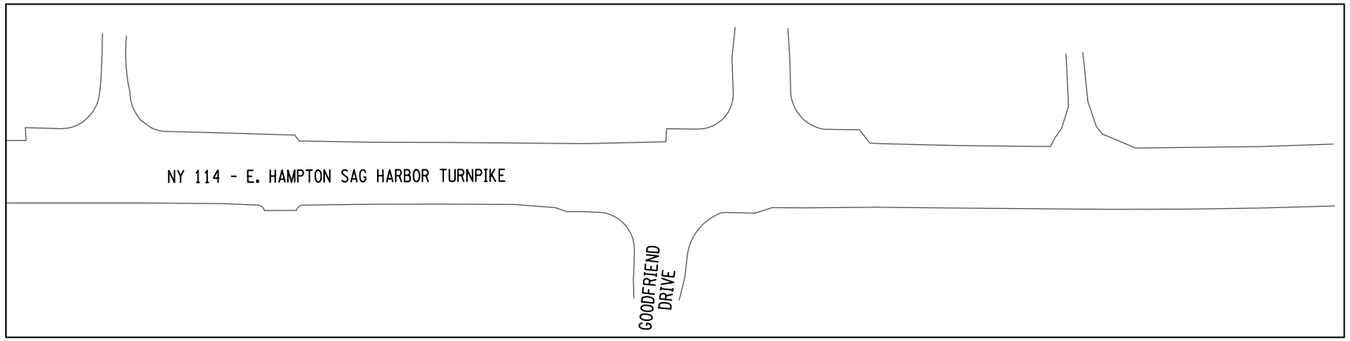
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GRID NORTH

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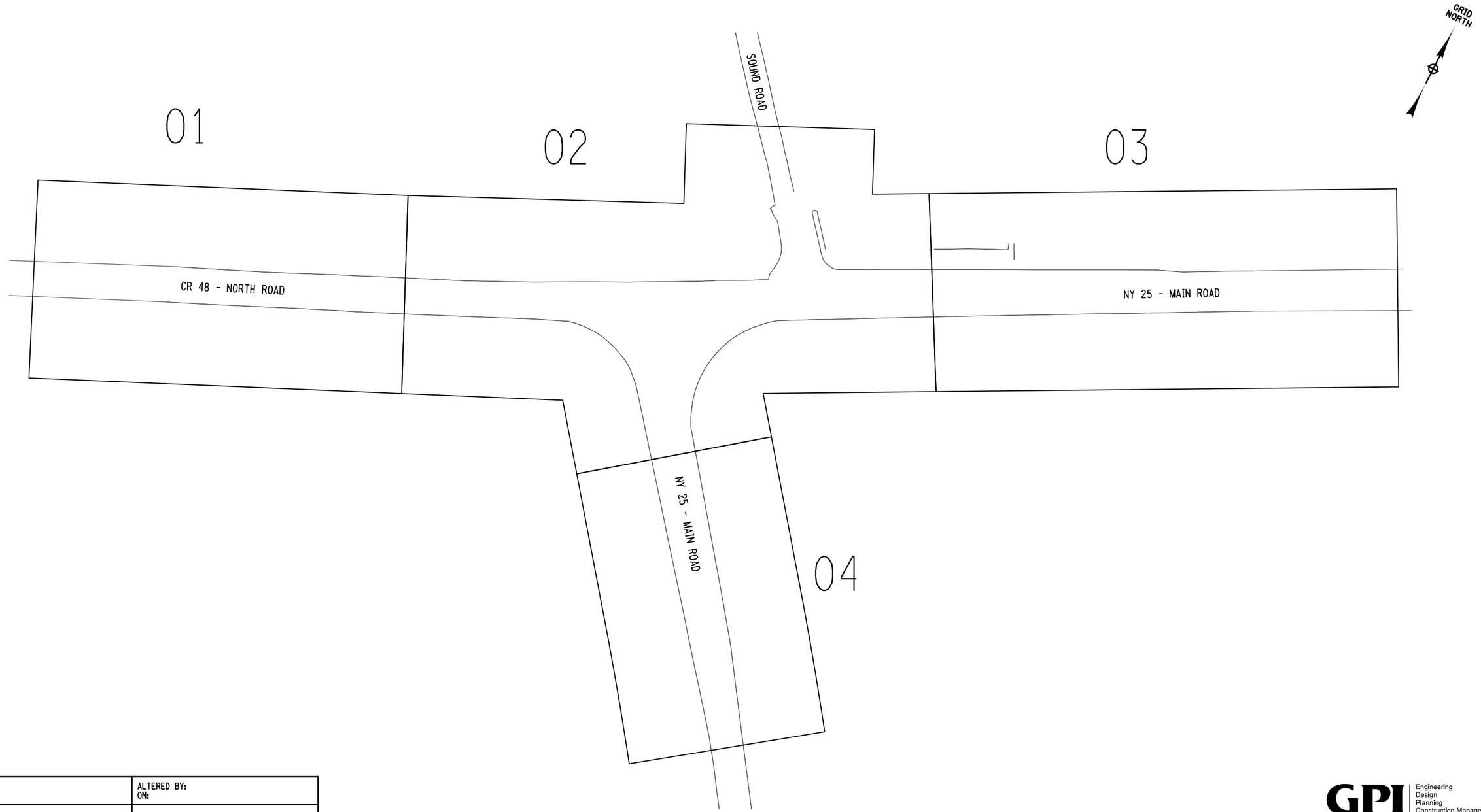
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AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SAFETY IMPROVEMENTS - VARIOUS LOCATIONS TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN COUNTY: SUFFOLK REGION: 10	PIN 0810.01	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED KEY PLAN LOC 3 - NY 114 AND GOODFRIEND DRIVE ALTERNATIVE 1	CONTRACT NUMBER DRAWING NO. KP-03 SHEET NO.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

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DATE/TIME = 16-DEC-2021 04:10
USER = gbabino



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FILE NAME = 08100101_CPH_GNP_KP-04.DGN
DATE/TIME = 16-DEC-2021 09:10
USER = gbabino

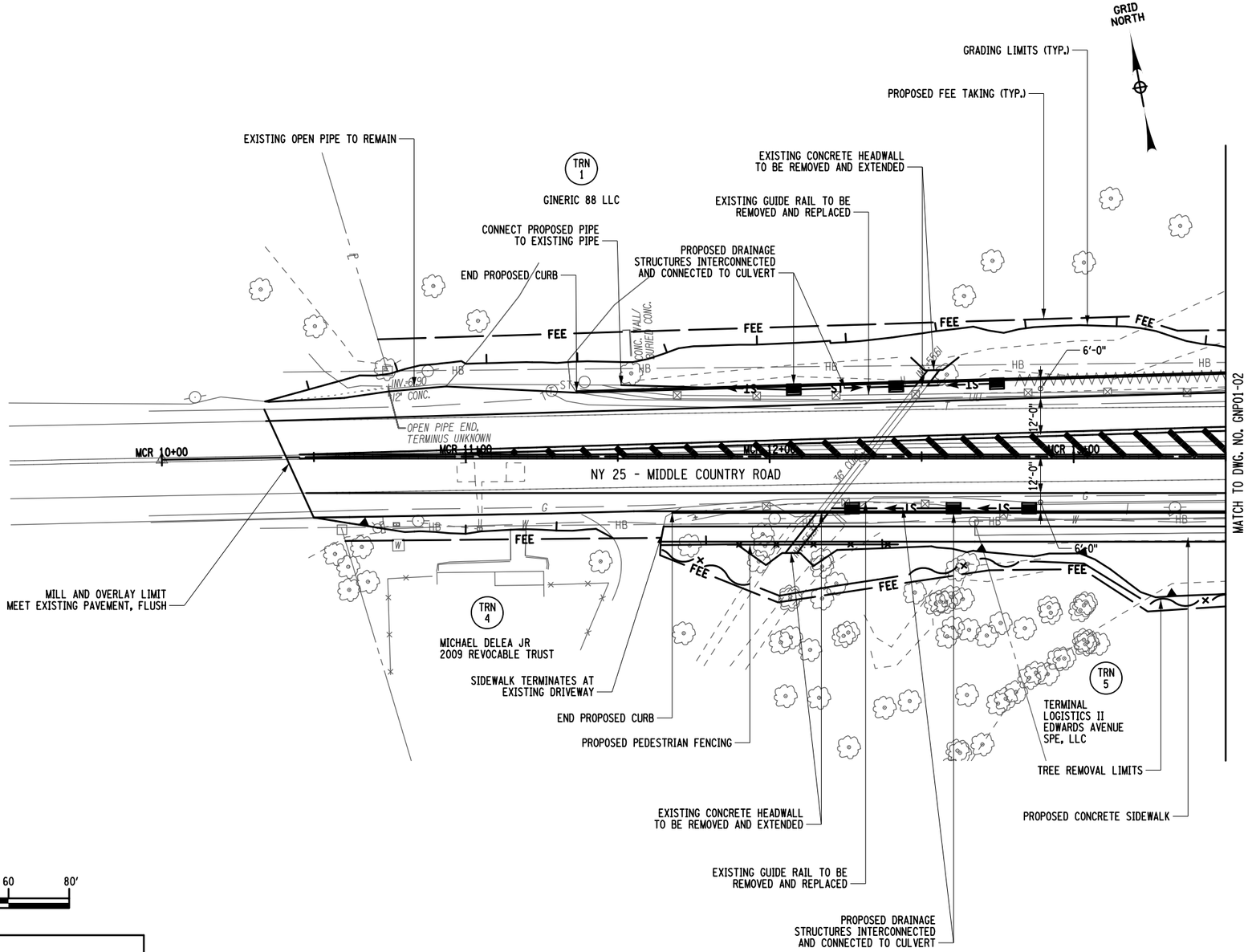
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GPI Engineering Design Planning Construction Management
631.587.5060 GPINET.COM
Greenman-Pedersen, Inc.
325 W Main Street
Babylon, NY 11702

AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SAFETY IMPROVEMENTS - VARIOUS LOCATIONS TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN COUNTY: SUFFOLK REGION: 10	PIN 0810.01	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED KEY PLAN LOC 4 - NY 25 AND CR 48 ALTERNATIVE 1	CONTRACT NUMBER DRAWING NO. KP-04 SHEET NO.

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1" = 40′

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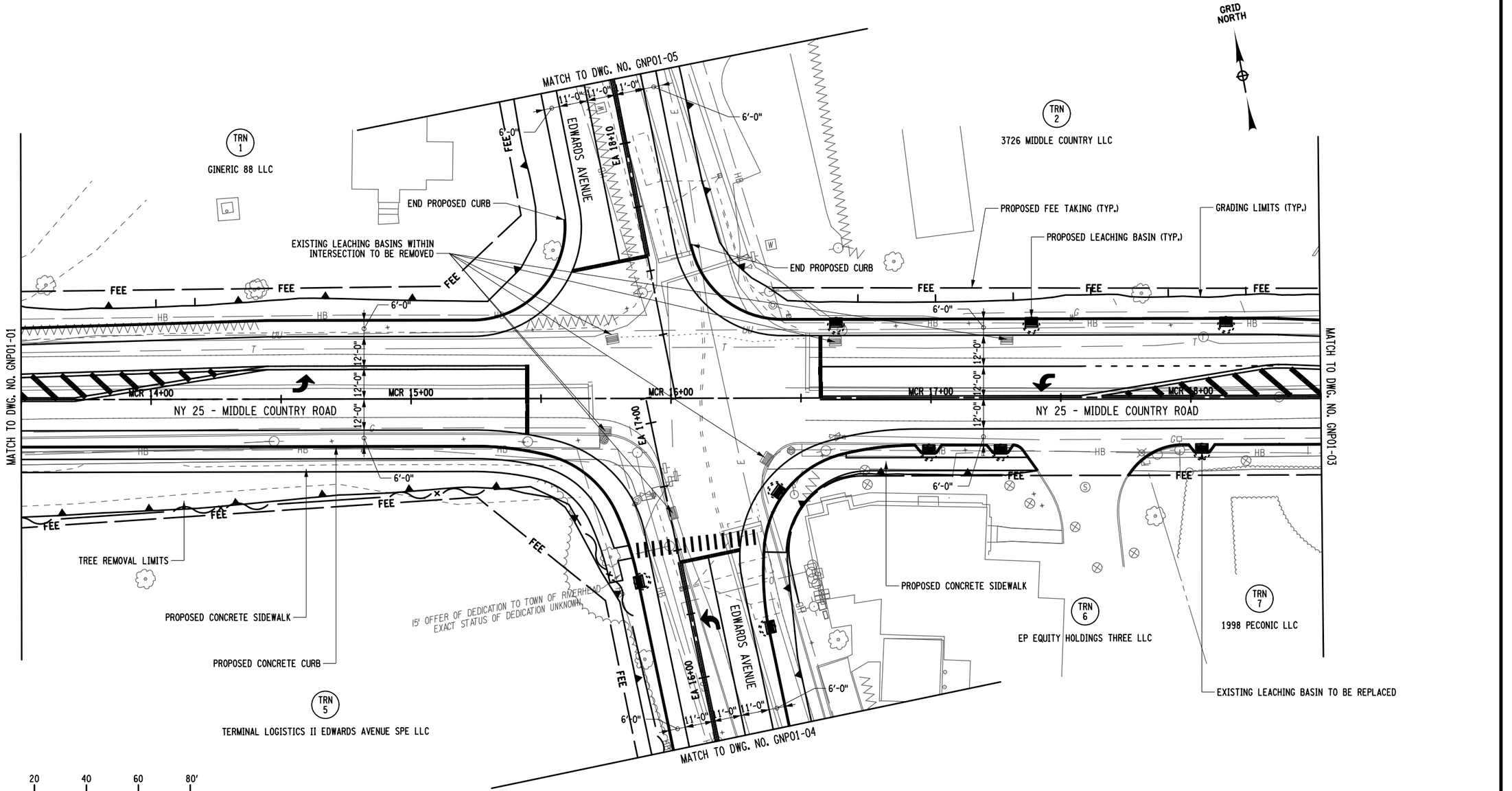
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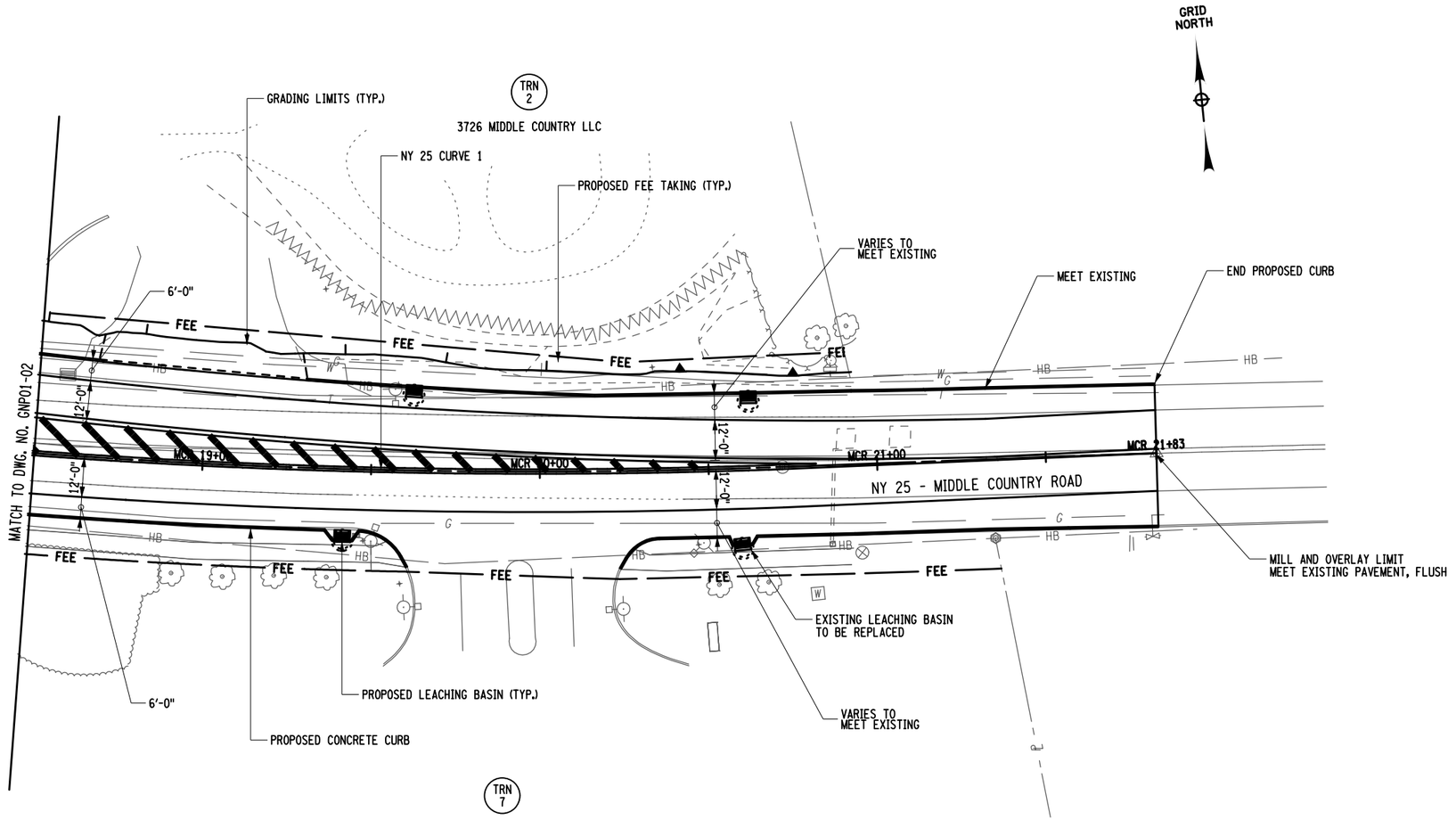
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FILE NAME = 08100101_CPH_GNP_GNP01-02.DGN
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20 0 20 40 60 80'

1" = 40'

NY 25 CURVE 1	
PC	STA. NY 25 18+83.93
	N - 279324.3172
	E - 1330578.1656
CC	N - 281291.4534
	E - 1330939.2409
PT	STA. NY 25 20+71.90
	N - 279295.3644
	E - 1330814.2262
R	2000.00'
Δ	06°49'02.4005" LEFT
L	237.97'

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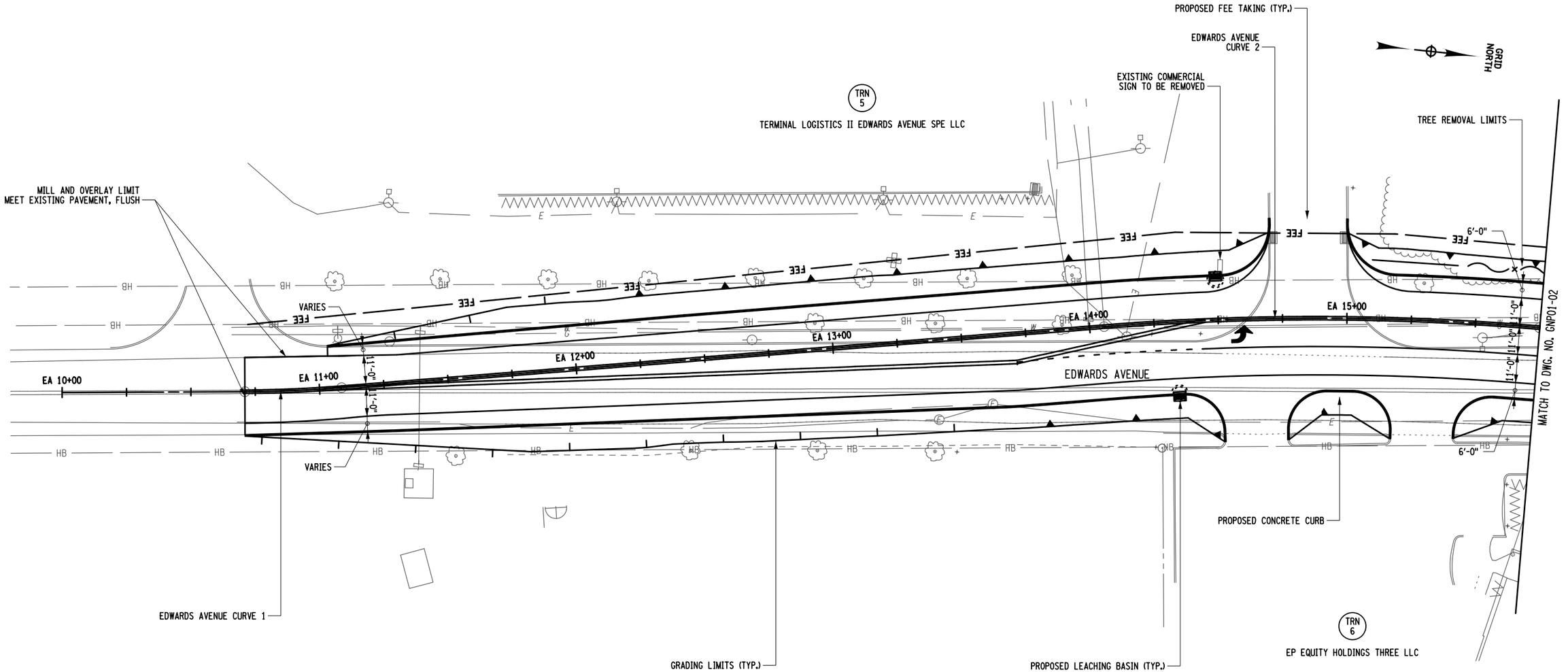
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DATE/TIME = 16-DEC-2021 09:10
USER = gbabino

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JOB MANAGER
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20 0 20 40 60 80′
1" = 40′

EDWARDS AVENUE CURVE 1	
PC	STA. EA 10+70.96
	N - 278736.3326
	E - 1330419.7268
CC	N - 278680.8760
	E - 1329922.8117
PT	STA. EA 11+08.57
	N - 278773.5201
	E - 1330414.1538
R	500.00′
Δ	04°18′35.9" LEFT
L	37.61′

EDWARDS AVENUE CURVE 2	
PC	STA. EA 14+05.62
	N - 279065.4283
	E - 1330359.1135
CC	N - 279256.2754
	E - 1331371.2783
PT	STA. EA 15+74.86
	N - 279233.5569
	E - 1330341.5288
R	1030.00′
Δ	09°24′50.7" RIGHT
L	169.24′

AFFIX SEAL: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

COUNTY: SUFFOLK REGION: 10

PIN 0810.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN
LOC 1 - NY 25 AND EDWARDS AVENUE

ALTERNATIVE 1

CONTRACT NUMBER

DRAWING NO. GNP01-04

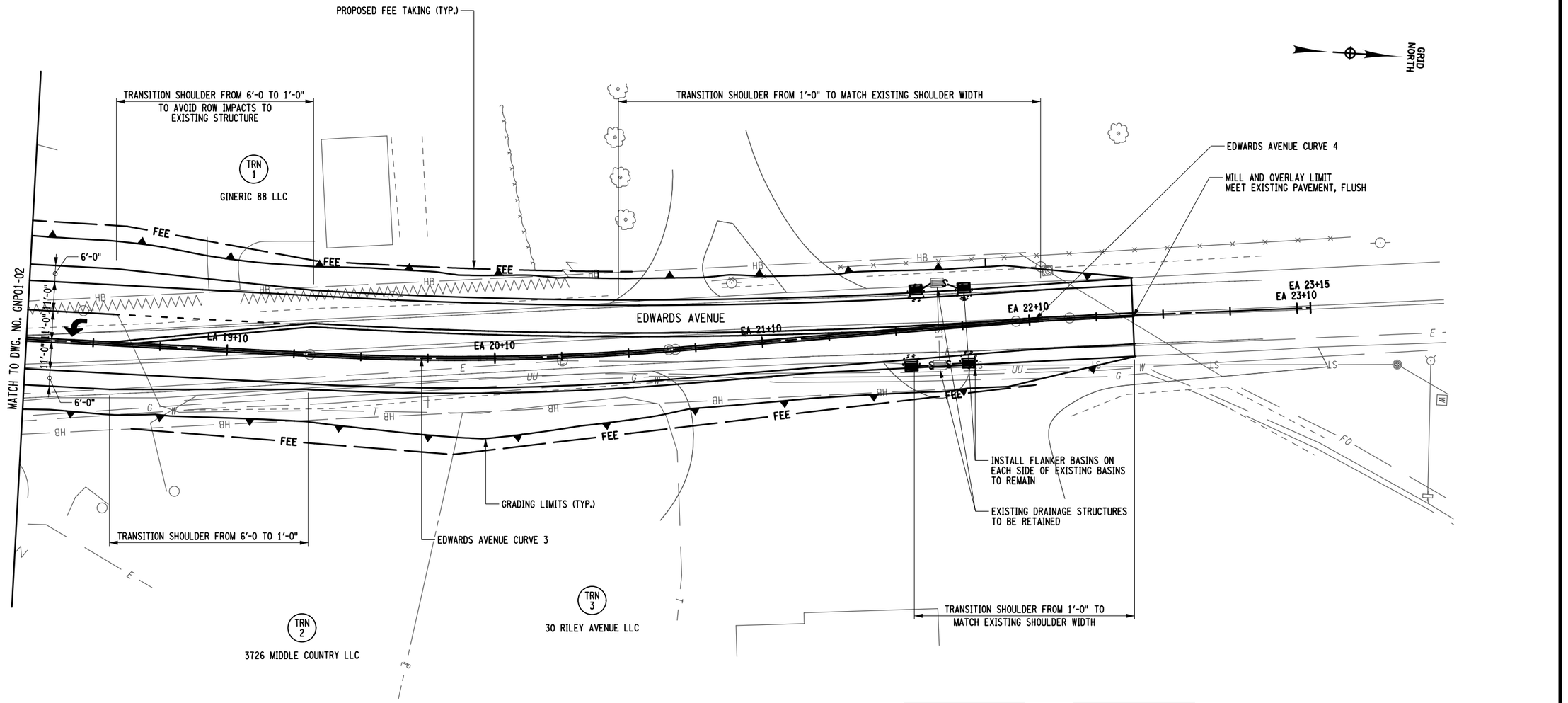
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FILE NAME = 08100101_CPH_GNP_GNP01-04.DGN
DATE/TIME = 16-DEC-2021 09:10
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EDWARDS AVENUE CURVE 3	
PC	STA. EA 19+40.66
	N - 279597.2225
	E - 1330346.9498
CC	N - 279584.4140
	E - 1329347.0318
PT	STA. EA 20+77.11
	N - 279733.1200
	E - 1330335.9133
R	1000.00'
Δ	07°49'05.0" LEFT
L	136.45'

EDWARDS AVENUE CURVE 4	
PC	STA. EA 22+04.61
	N - 279859.2030
	E - 1330316.9532
CC	N - 279933.5560
	E - 1330811.3939
PT	STA. EA 22+24.67
	N - 279879.0998
	E - 1330314.3682
R	500.00'
Δ	02°17'57.6" RIGHT
L	20.07'

AFFIX SEAL: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

COUNTY: SUFFOLK REGION: 10

PIN 0810.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN
LOC 1 - NY 25 AND EDWARDS AVENUE
ALTERNATIVE 1

CONTRACT NUMBER

DRAWING NO. GNP01-05

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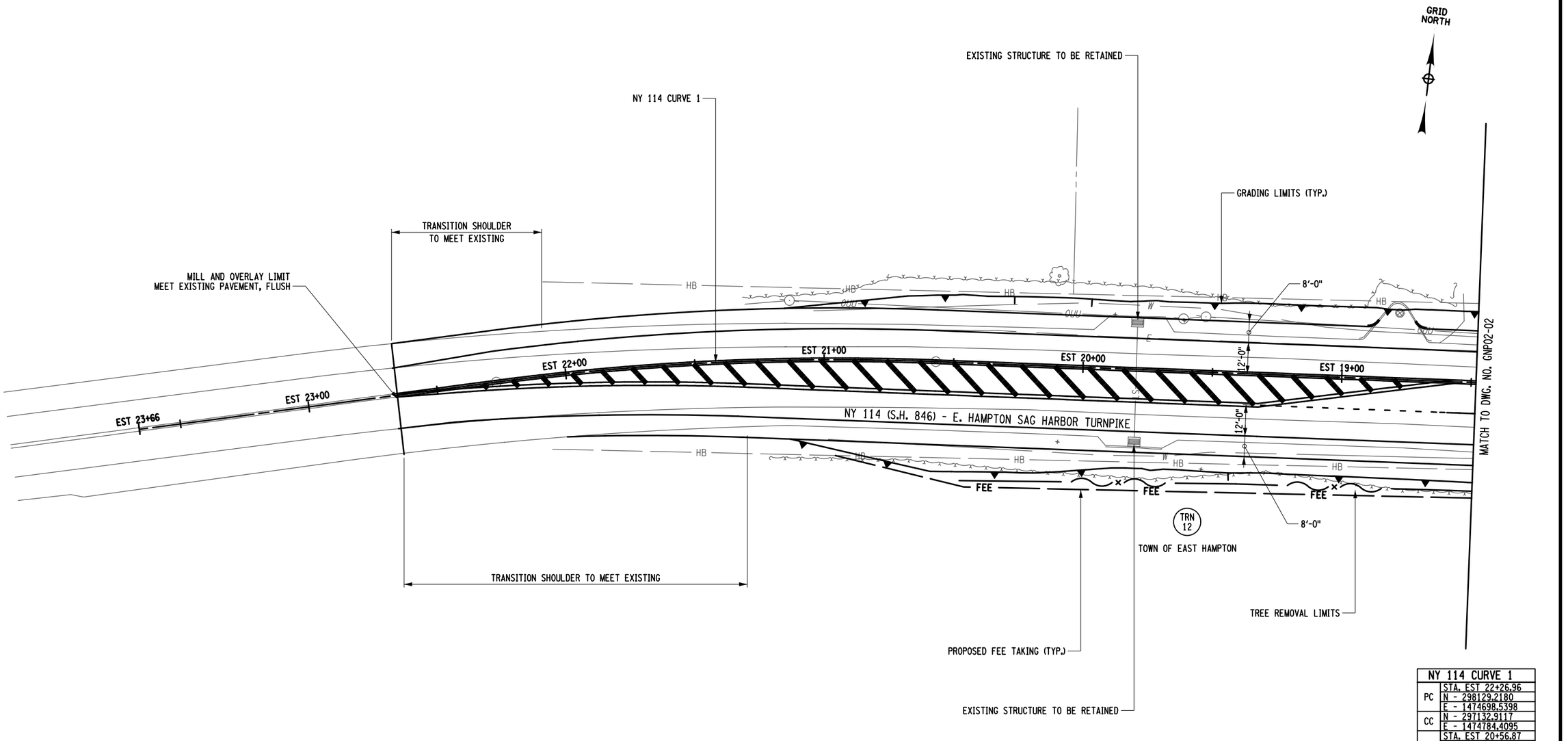
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DATE/TIME = 16-DEC-2021 09:10
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NY 114 CURVE 1	
PC	STA. EST 22+26.96
	N - 298129.2180
	E - 1474698.5398
CC	N - 297132.9117
	E - 1474784.4095
PT	STA. EST 20+56.87
	N - 298100.3042
	E - 1474531.1278
R	1000.00'
Δ	09°44'44.7" LEFT
L	170.0954'

20 0 20 40 60 80'

1" = 40'

AFFIX SEAL: ON:	ALTERED BY: ON:

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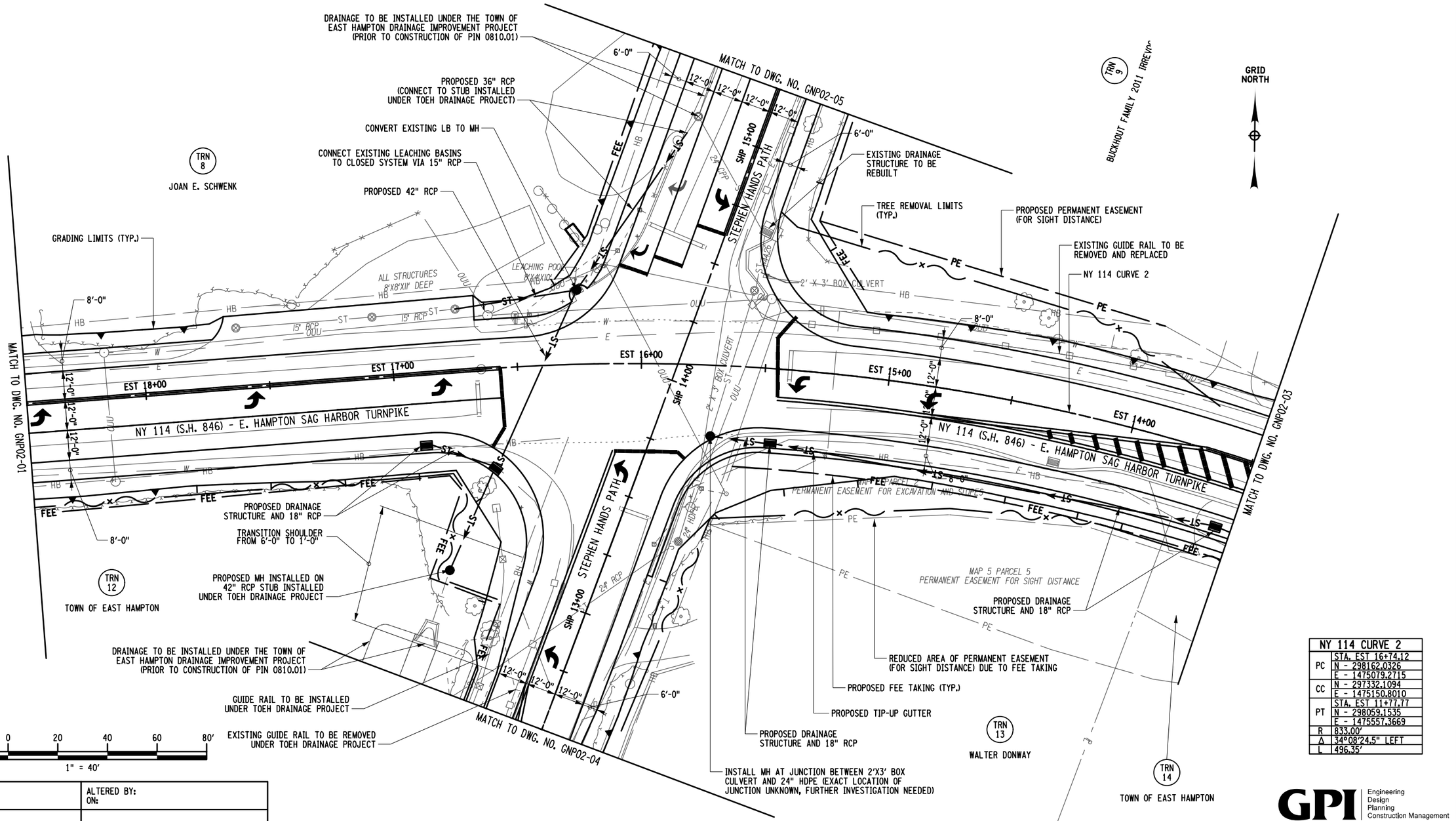
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DATE/TIME = 22-JUN-2022 13:58
USER = bheeslip



NY 114 CURVE 2	
PC	STA. EST 16+74.12
	N - 298162.0326
	E - 1475079.2715
CC	N - 297332.1094
	E - 1475150.8010
PT	STA. EST 11+77.77
	N - 298059.1535
	E - 1475557.3669
R	833.00'
Δ	34°08'24.5" LEFT
L	496.35'

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SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

COUNTY: SUFFOLK REGION: 10

PIN 0810.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN
LOC 2 - NY 114 AND STEPHEN HANDS PATH
ALTERNATIVE 1

CONTRACT NUMBER

DRAWING NO. GNP02-02

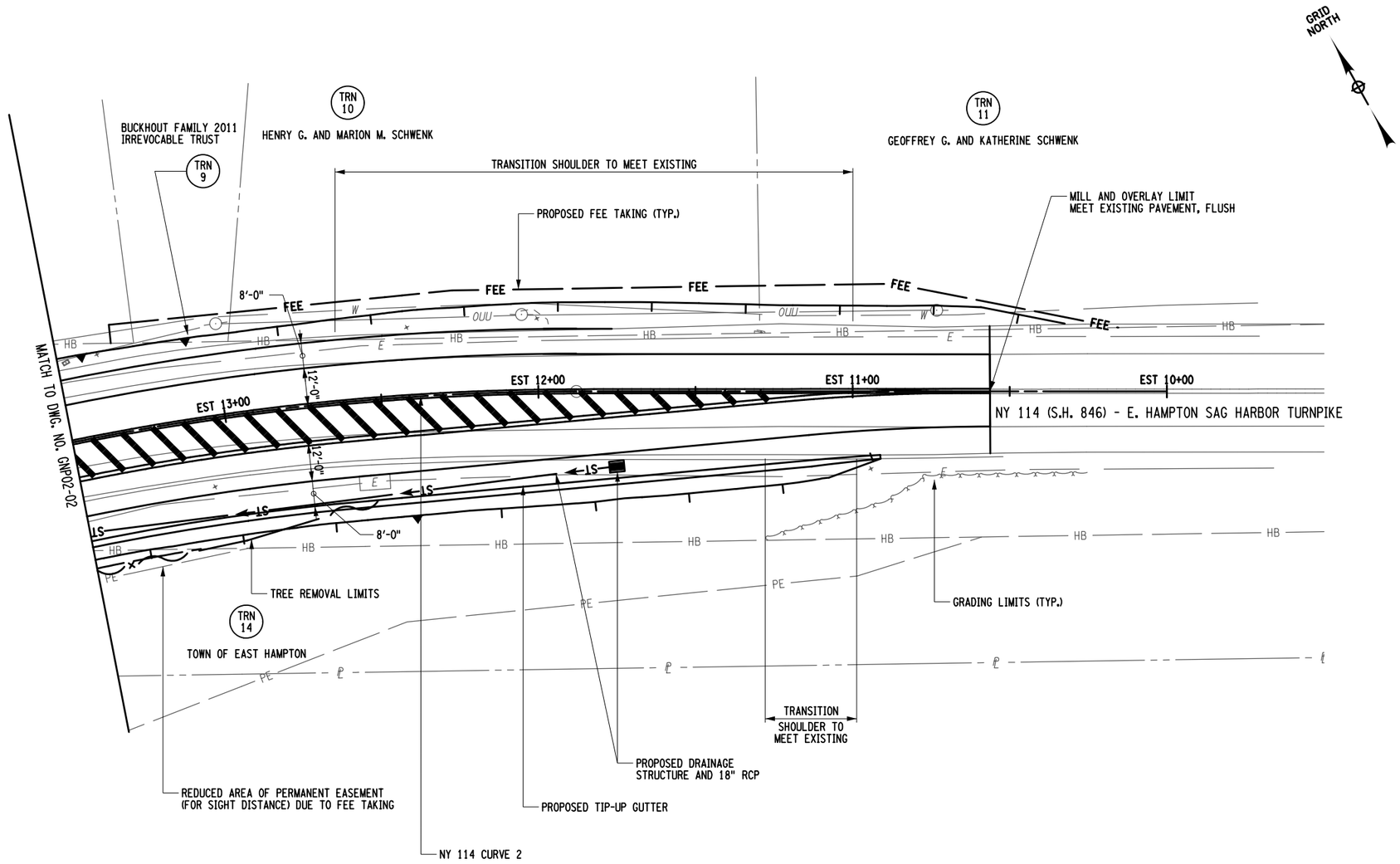
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1" = 40'

NY 114 CURVE 2	
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	N - 298162.0326
	E - 1475079.2715
CC	N - 297332.1094
	E - 1475150.8010
PT	STA. EST 11+77.77
	N - 298059.1535
	E - 1475557.3669
R	833.00'
Δ	34°08'24.5" LEFT
L	496.35'

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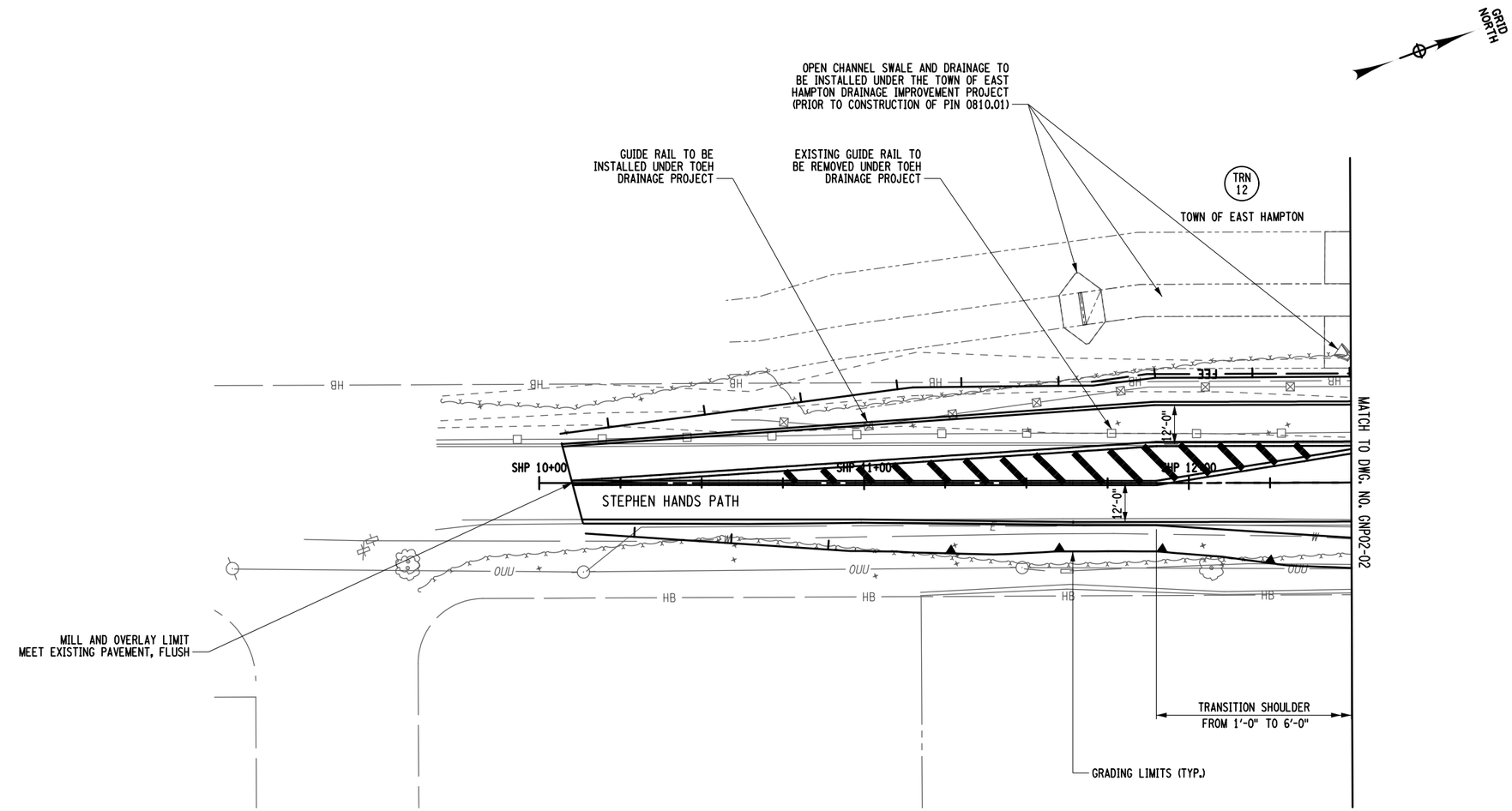
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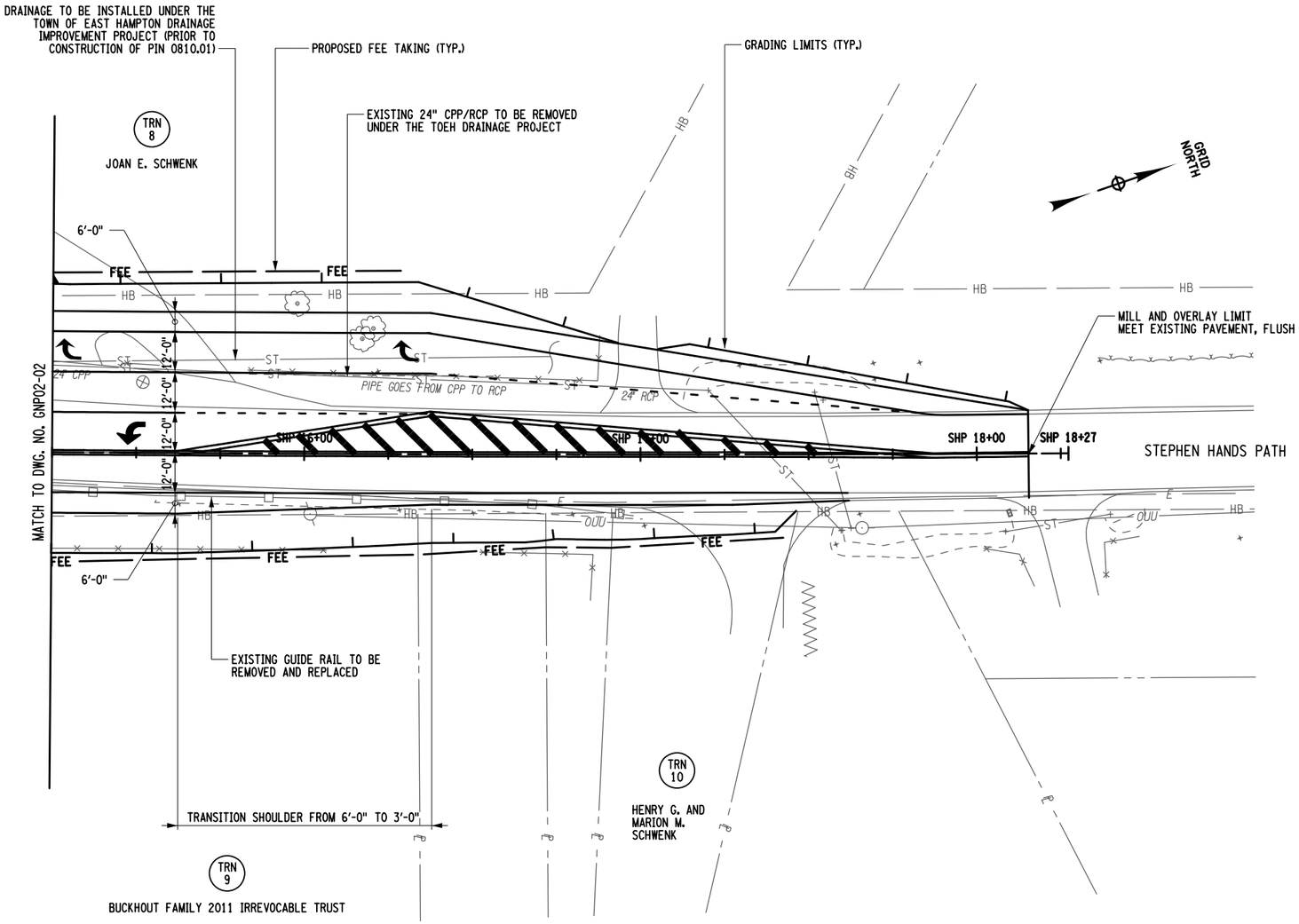
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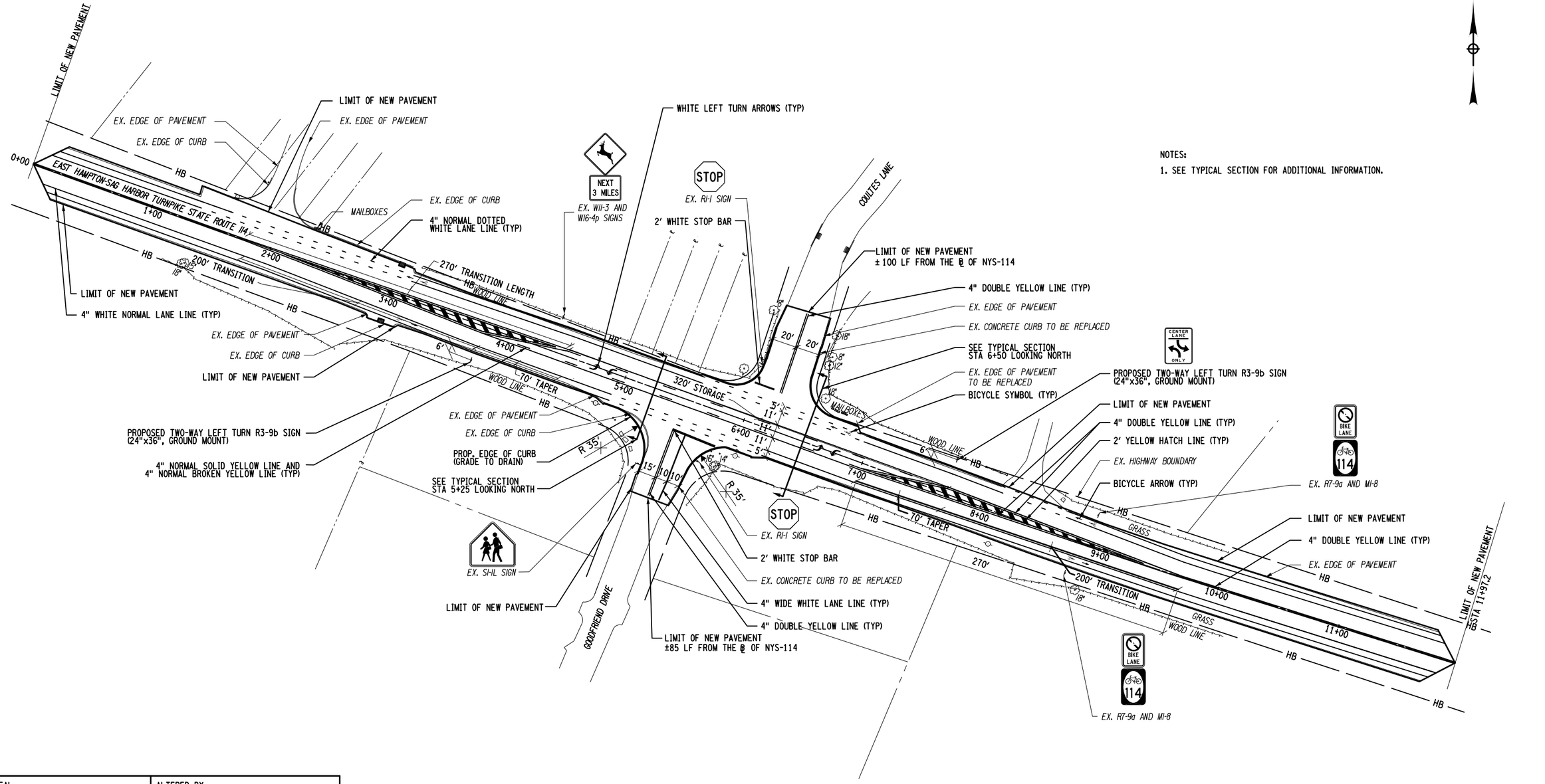
AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SAFETY IMPROVEMENTS - VARIOUS LOCATIONS TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN COUNTY: SUFFOLK REGION: 10	PIN 0810.01	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED GENERAL PLAN LOC 2 - NY 114 AND STEPHEN HANDS PATH ALTERNATIVE 1	CONTRACT NUMBER DRAWING NO. GNP02-05 SHEET NO.

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USER = bheaslip



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AS-BUILT REVISIONS DESCRIPTION OF ALTERATIONS:	SAFETY IMPROVEMENTS - VARIOUS LOCATIONS TOWNS OF RIVERHEAD, EAST HAMPTON, SOUTHOLD, AND BROOKHAVEN COUNTY: SUFFOLK REGION: 10	PIN 0810.01	BRIDGES	CULVERTS	ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED GENERAL PLAN LOC 3 - NY 114 AT GOODFRIEND DRIVE ALTERNATIVE 1	CONTRACT NUMBER DRAWING NO. GNP03-01 SHEET NO.

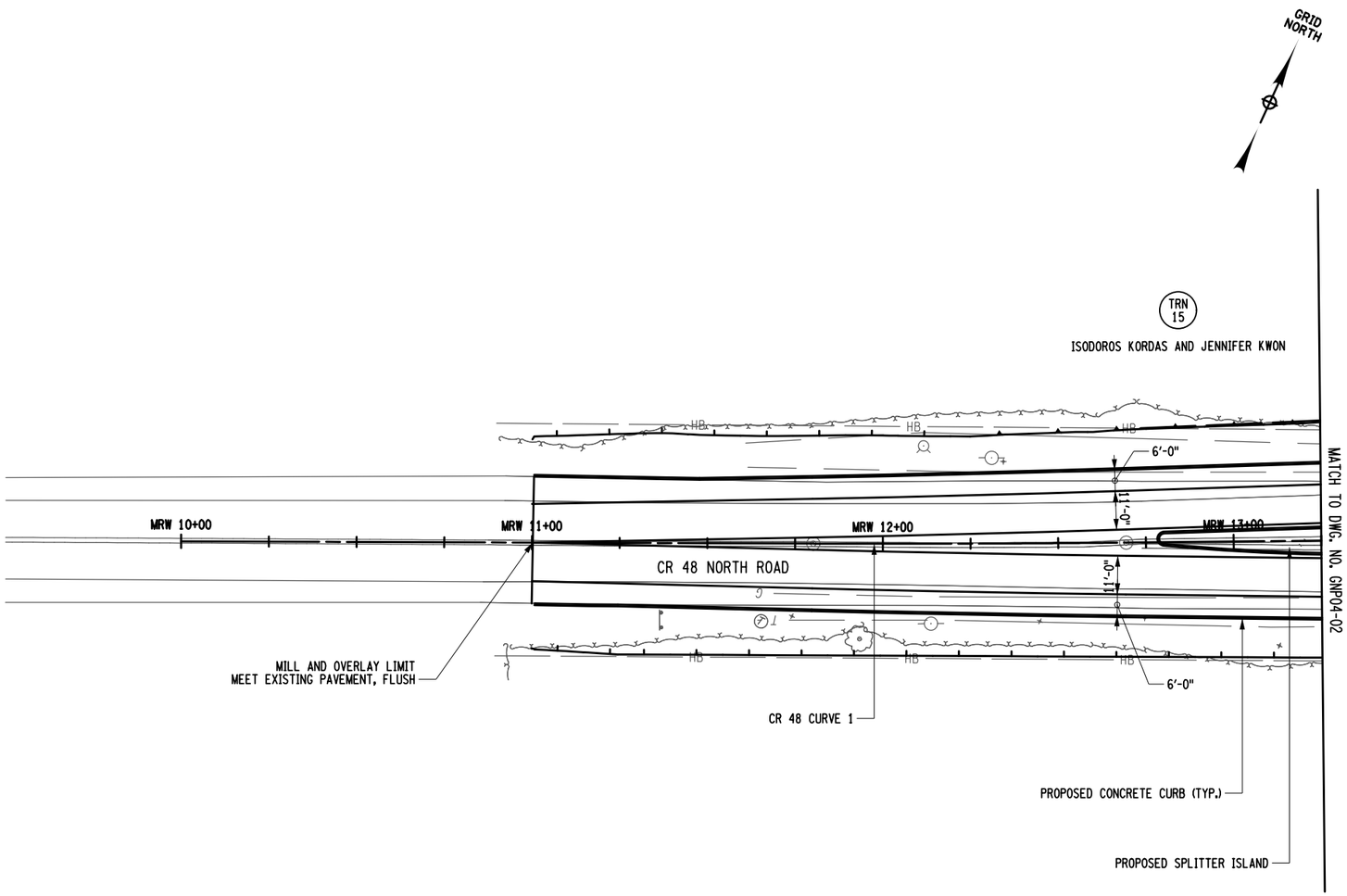
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Hayduk Engineering, LLC
1010 Route 112, Suite 200, Port Jefferson Station, NY 11776
Tel: (631)-476-0600 | Fax: (631)-476-0606

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FILE NAME = 0810.01_BRIDGES
DATE/TIME = 18-AUG-2021 17:32
USER = NadgeeGonzalezGarcia



CR 48 CURVE 1	
PC	STA. MRW 11+80.19
	N - 349145.3734
	E - 1433594.2785
CC	N - 355065.6057
	E - 1430910.8386
PT	STA. MRW 12+69.39
	N - 349182.7588
	E - 1433675.2756
R	6500.00'
Δ	00°47'10.9" LEFT
L	89.21'

20 0 20 40 60 80'

1" = 40'

AFFIX SEAL: ON:	ALTERED BY: ON:

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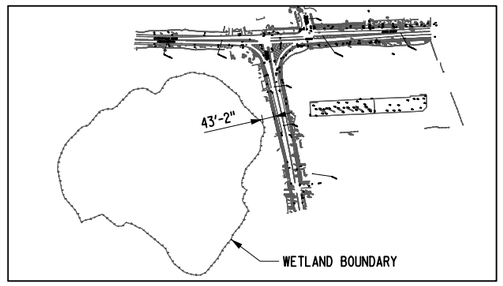
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DATE/TIME = 26-APR-2022 15:47
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INSET MAP WETLANDS BOUNDARY

PROPOSED SPLITTER ISLAND (TYP.)

PROPOSED FEE TAKING (TYP.)

PROPOSED CONCRETE SIDEWALK (TYP.)

TRN 15 — ISODOROS KORDAS AND JENNIFER KWON

TRN 16 — TAMMI & TIMOTHY GRATTAN

TRN 17 — ROBERTA EISENBERG

TRN 18 — 5 PAST 40 LLC

TRN 19 — 160 ROUTE 25 LLC

EXISTING CATCH BASIN TO BE RETAINED

PROPOSED CATCH BASINS AND 18" RCP

RETAIN EXISTING 18" RCP

CONVERT CATCH BASIN TO MANHOLE

RETAIN EXISTING 18" RCP

CONVERT CATCH BASIN TO MANHOLE

MILL AND OVERLAY LIMIT MEET EXISTING PAVEMENT, FLUSH

PROPOSED MANHOLE ON EXISTING 18" RCP

PROPOSED CATCH BASINS AND 18" RCP

EXISTING 18" RCP TO BE RETAINED

PROPOSED CONCRETE CURB (TYP.)

CONVERT EXISTING BASIN TO MANHOLE

EXISTING DRAINAGE STRUCTURES/PIPES TO BE REMOVED/ABANDONED

SOUND ROAD

CR 48 - NORTH ROAD

NY 25 - MAIN STREET

MATCH TO DWG. NO. GNP04-01

MATCH TO DWG. NO. GNP04-03

MATCH TO DWG. NO. GNP02-04

PROPOSED DRAINAGE STRUCTURES AND 18" RCP (TYP.)

PROPOSED MOUNTABLE CONCRETE CURB

R 30'-0"

MEET EXISTING SIDEWALK

EXISTING CATCH BASINS AND 24" RCP TO BE RETAINED

PROPOSED CATCH BASIN INSTALLED ON EXISTING 24" RCP

NY 25 MAIN STREET CURVE 1

CONVERT EXISTING BASIN TO MANHOLE

GRID NORTH

FOR LOCATION OF WETLANDS, SEE INSET MAP THIS DRAWING

20 0 20 40 60 80'
1" = 40'

NY 25 - MAIN STREET CURVE 1	
PC	STA. MRE 10+39.92
	N - 349322.6345
	E - 1434001.8069
CC	N - 347840.1528
	E - 1435091.6912
PT	STA. MRE 13+21.03
	N - 349471.2285
	E - 1434240.1092
R	1840.00'
Δ	08°45'12.3" RIGHT
L	281.11'

AFFIX SEAL:	ALTERED BY:
ON:	ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

COUNTY: SUFFOLK REGION: 10

PIN 0810.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN
LOC 4 - NY 25 AND CR 48

ALTERNATIVE 1

CONTRACT NUMBER

DRAWING NO. GNP04-02

SHEET NO.

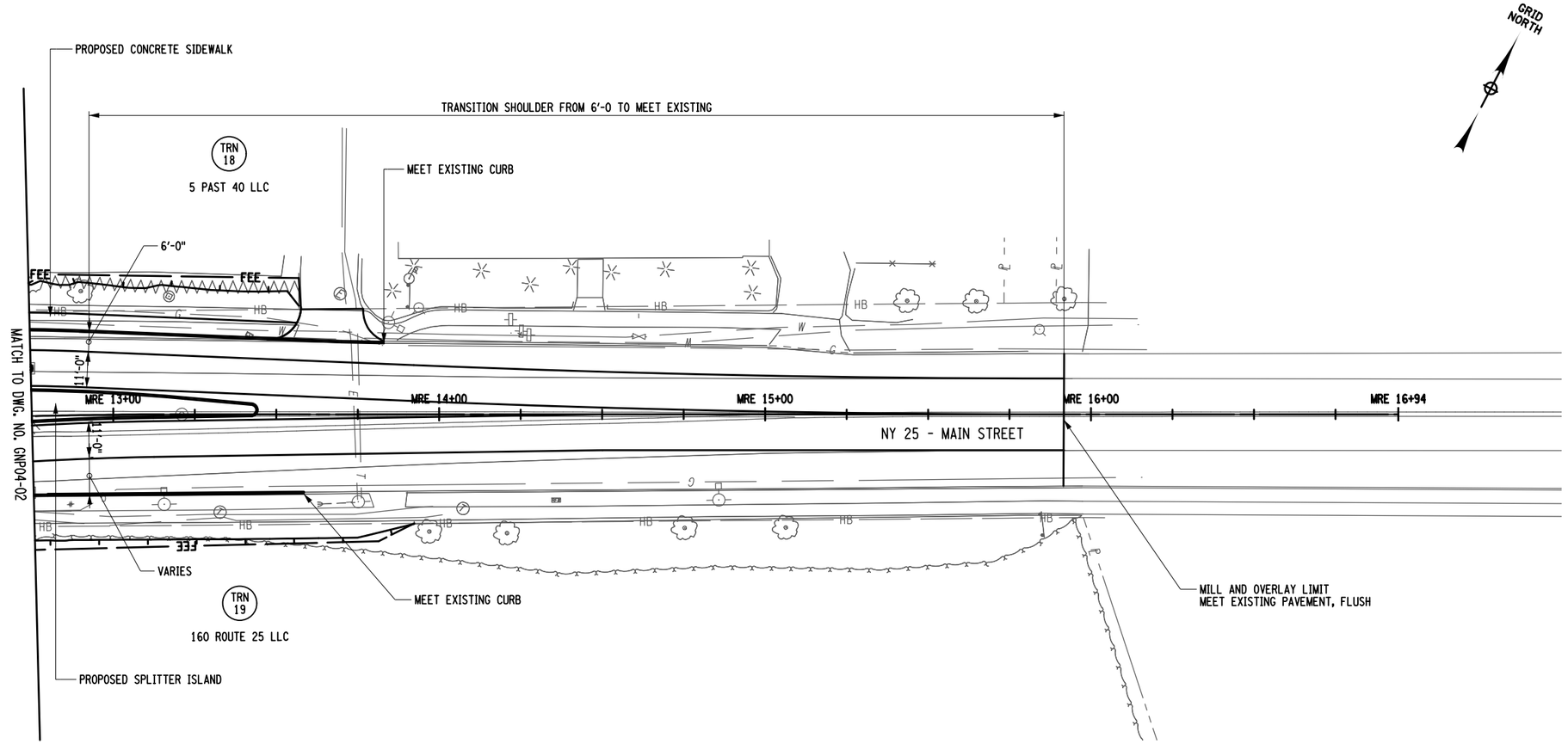
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20 0 20 40 60 80'

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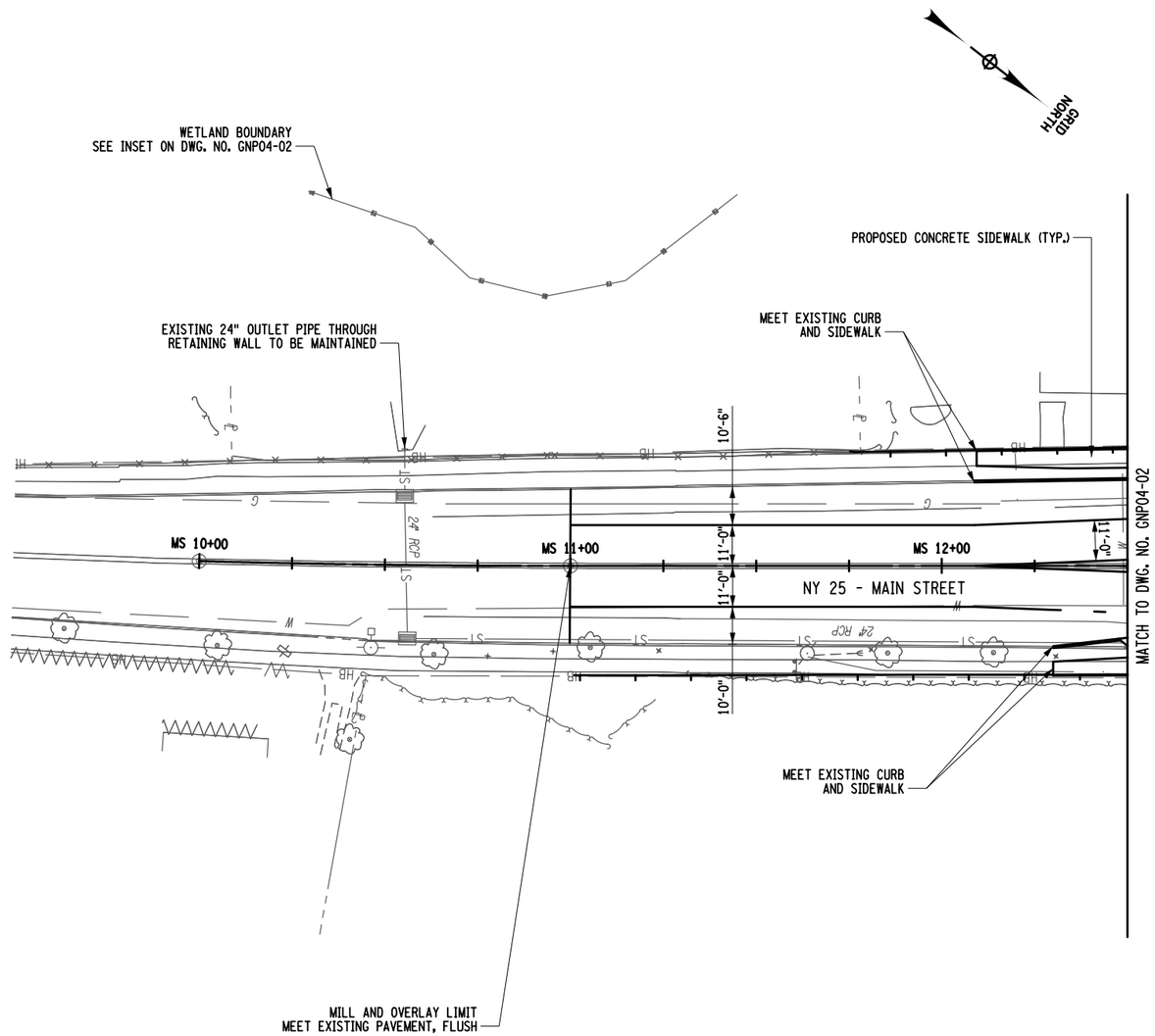
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1" = 40'

AFFIX SEAL: ON:	ALTERED BY: ON:

AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

COUNTY: SUFFOLK REGION: 10

PIN 0810.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

GENERAL PLAN
LOC 4 - NY 25 AND CR 48

ALTERNATIVE 1

CONTRACT NUMBER

DRAWING NO. GNP04-04

SHEET NO.

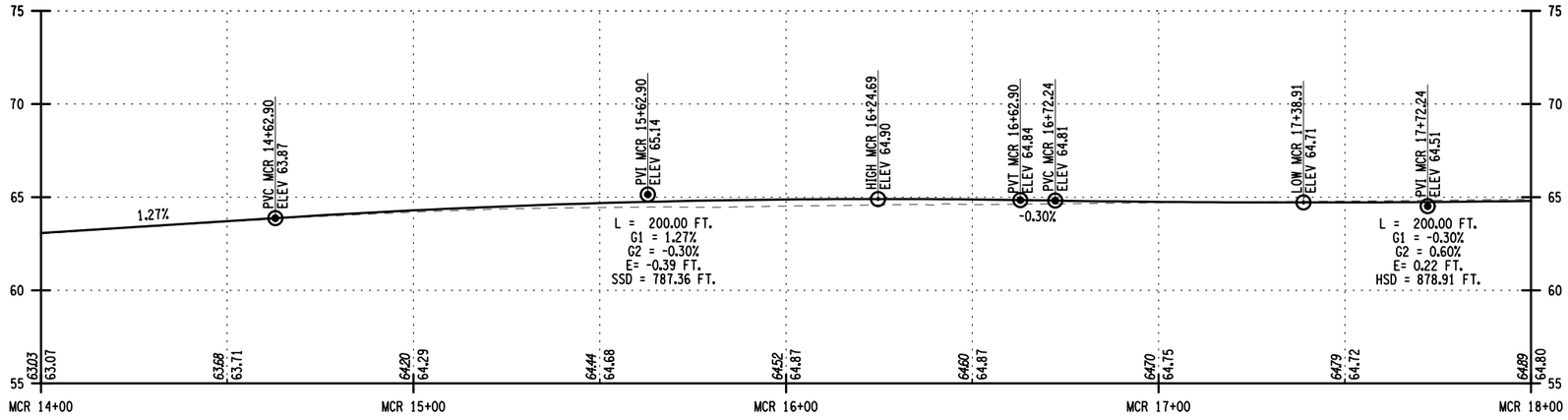
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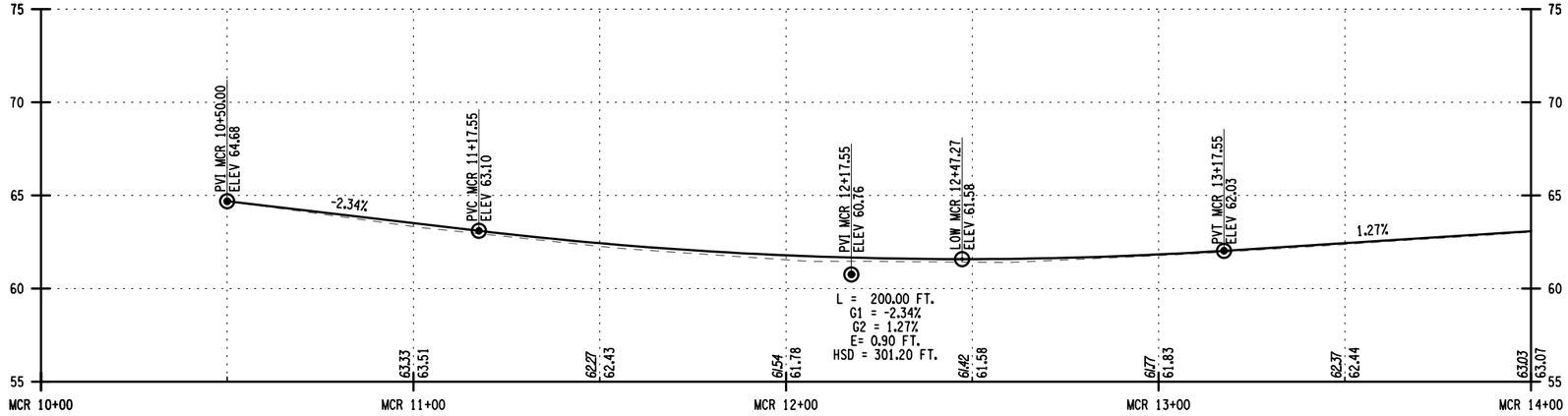
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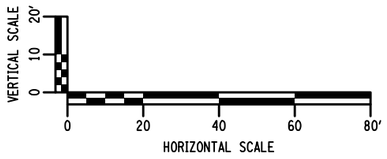
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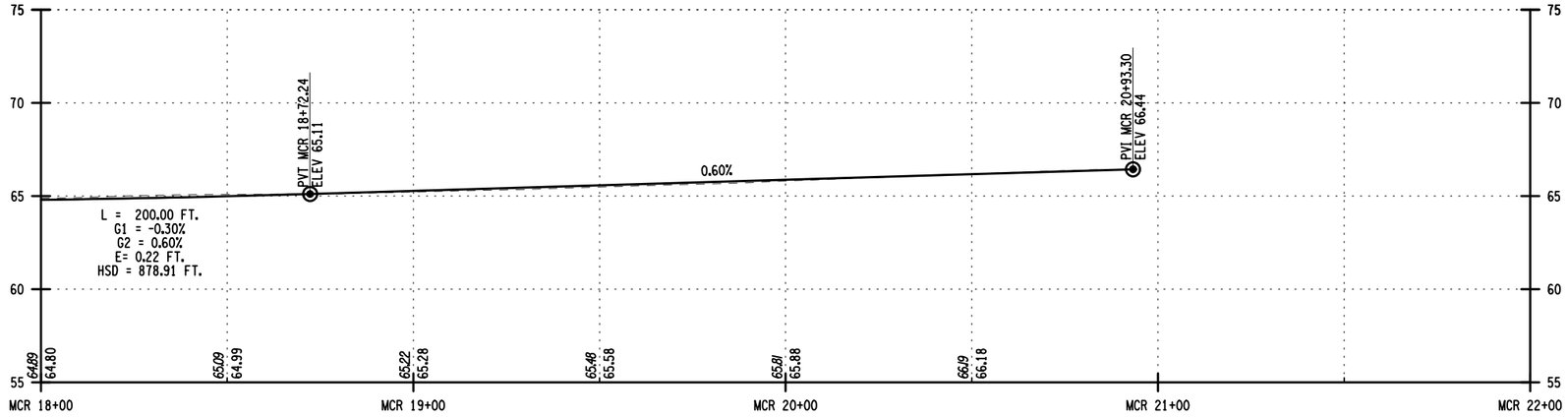
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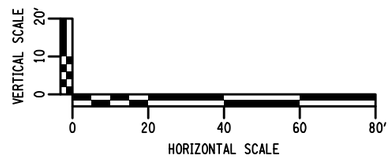
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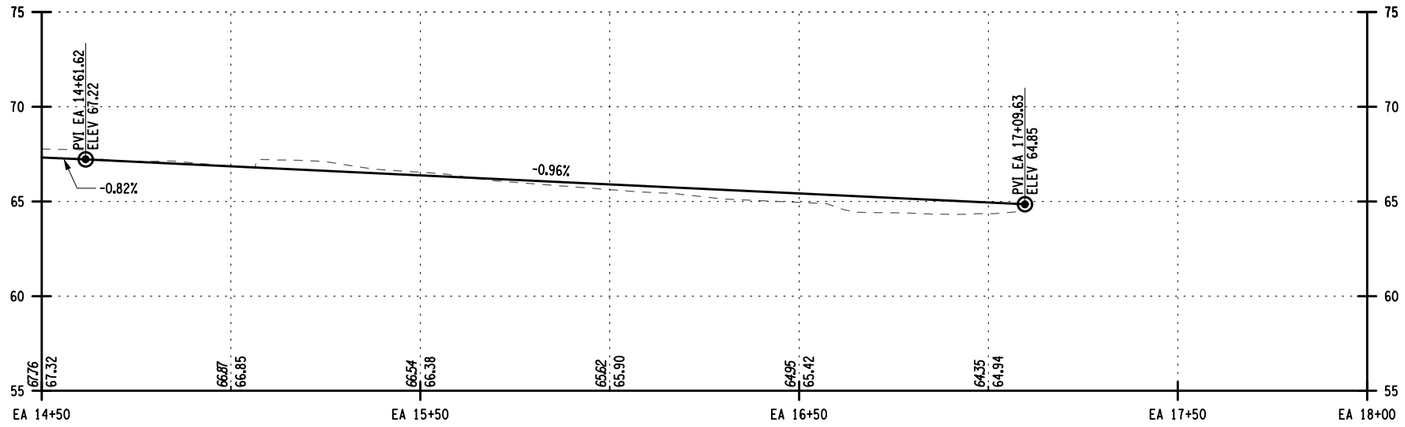
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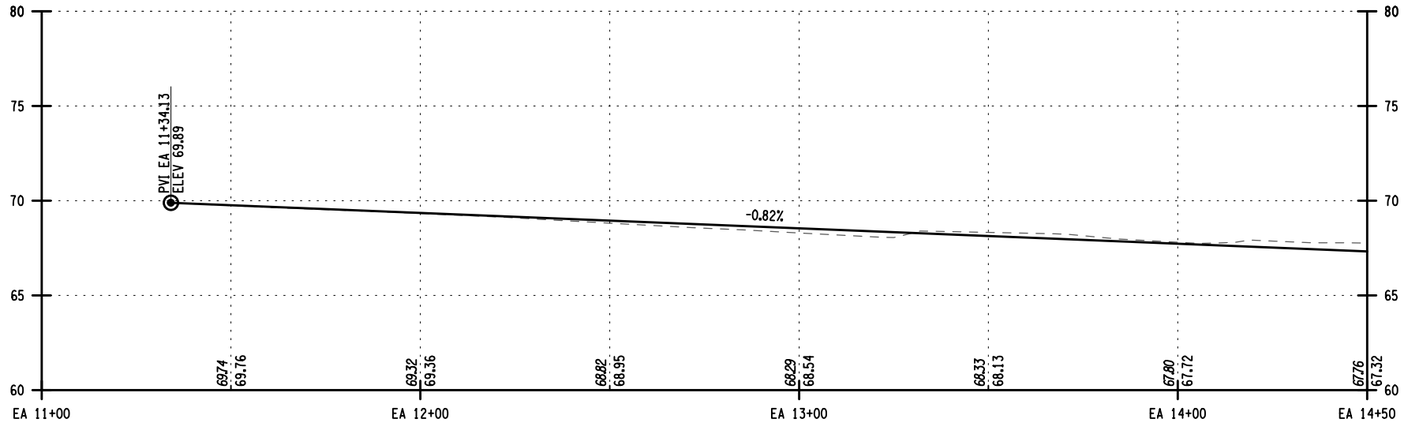
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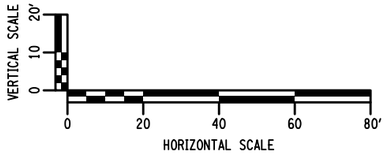
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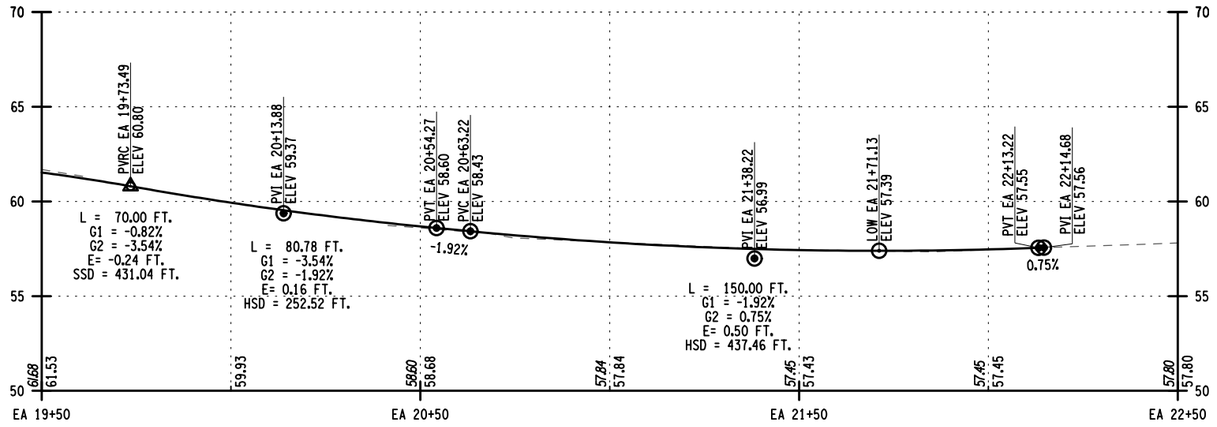
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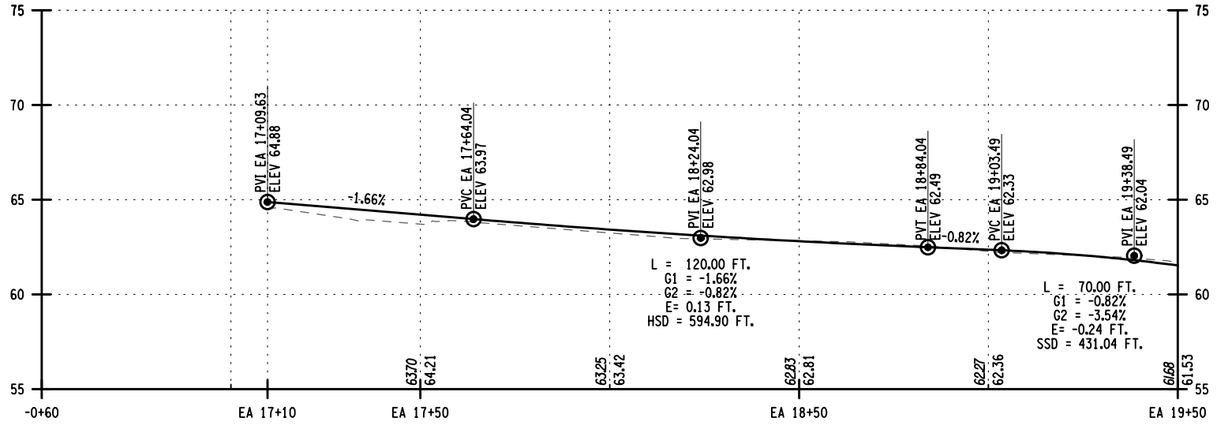
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VERTICAL SCALE 0 10 20′

HORIZONTAL SCALE 0 20 40 60 80′

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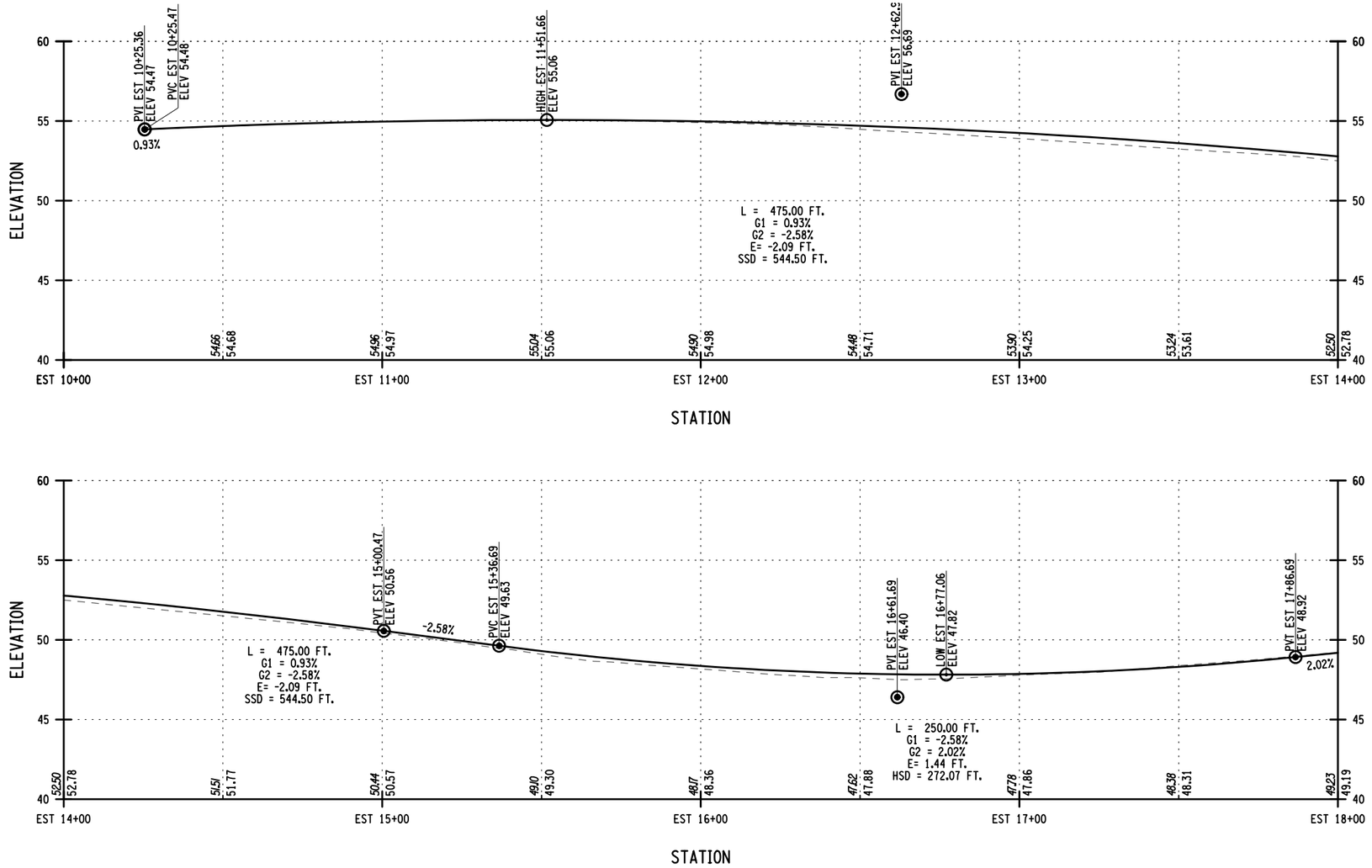
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VERTICAL SCALE 20' 10 0

0 20 40 60 80'

HORIZONTAL SCALE

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LEGEND:

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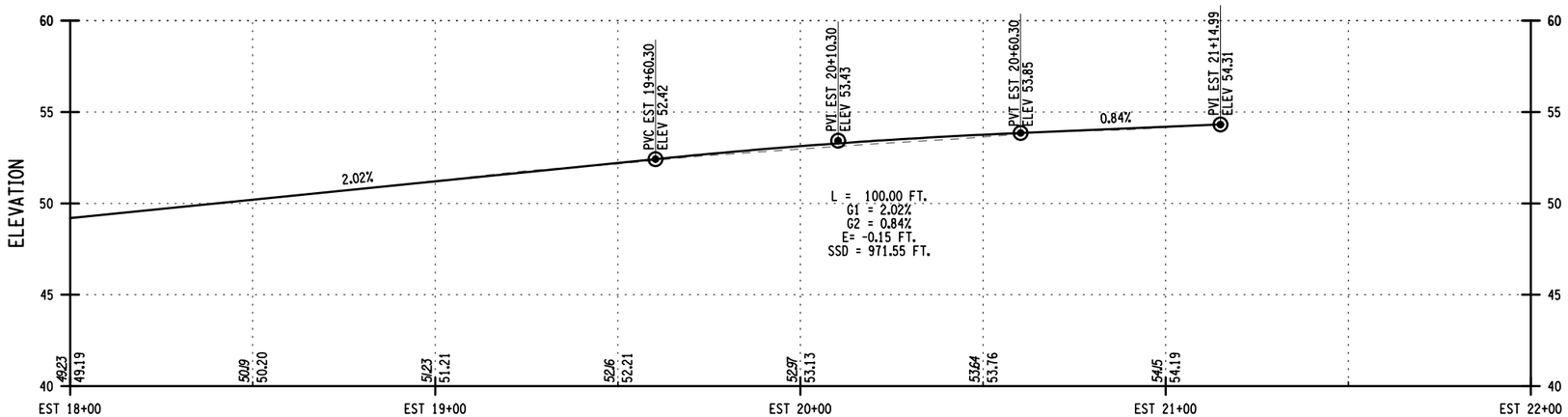
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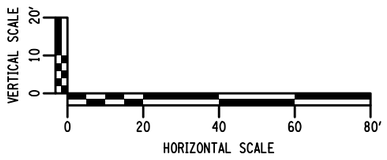
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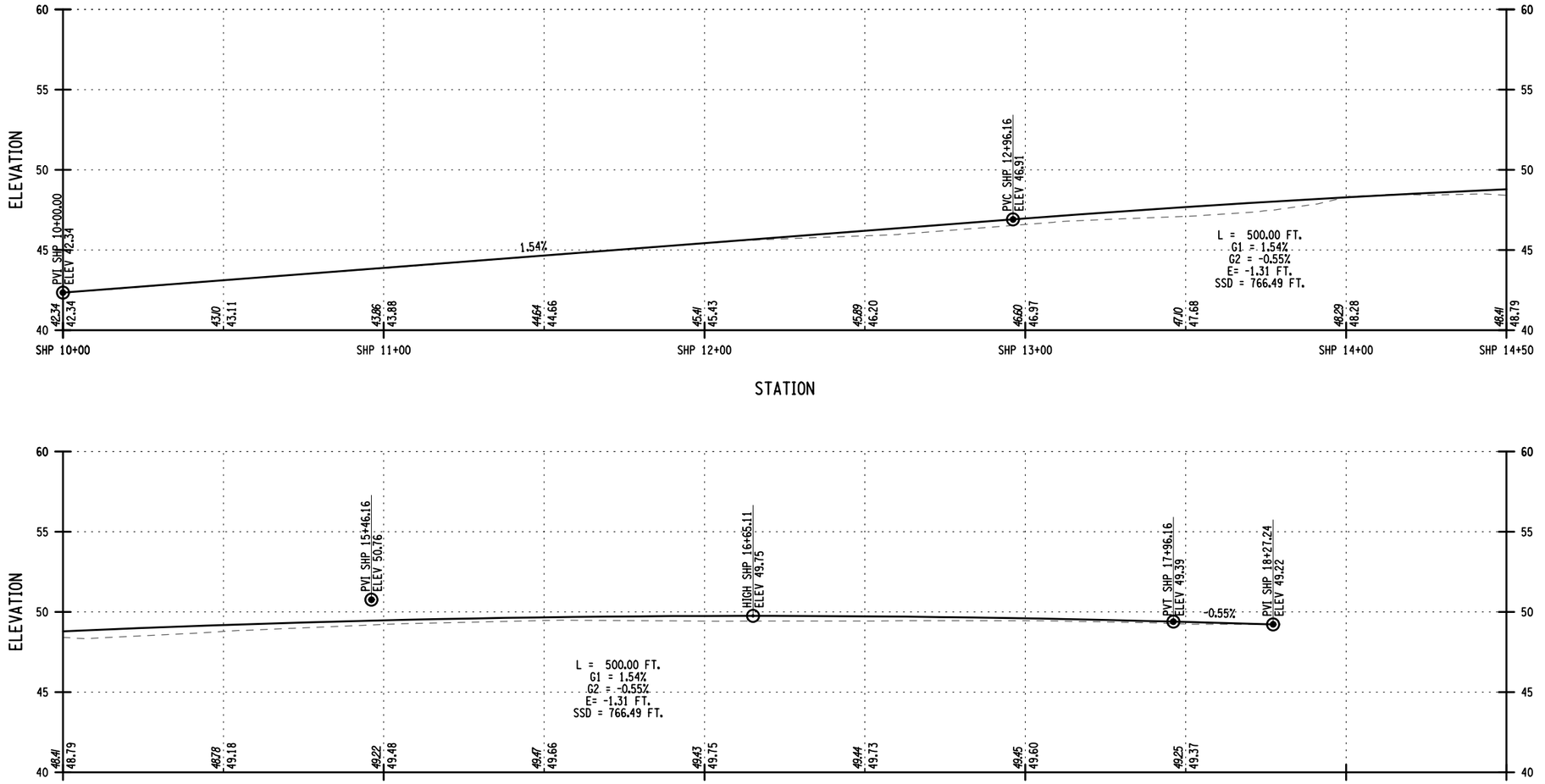
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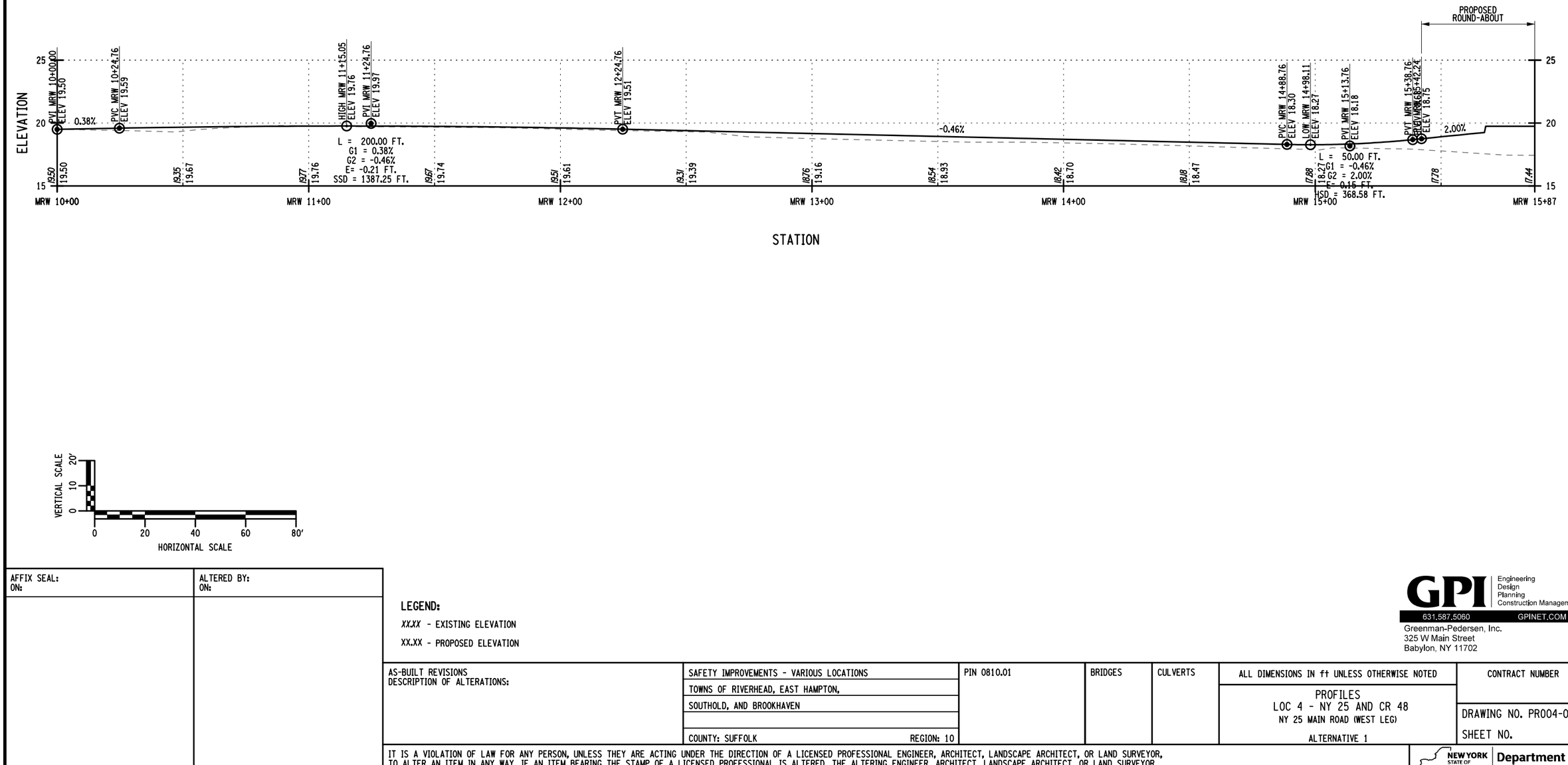
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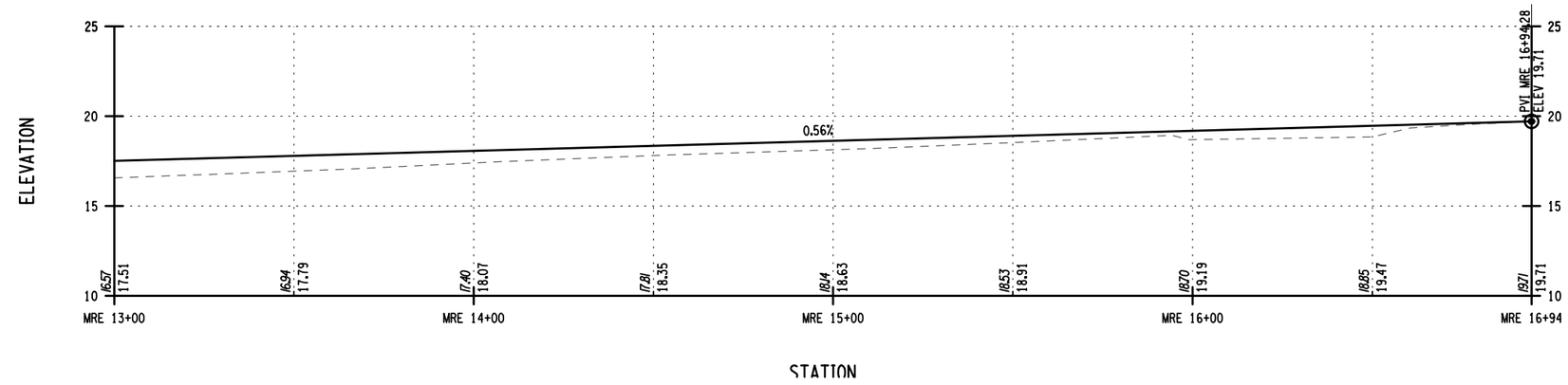
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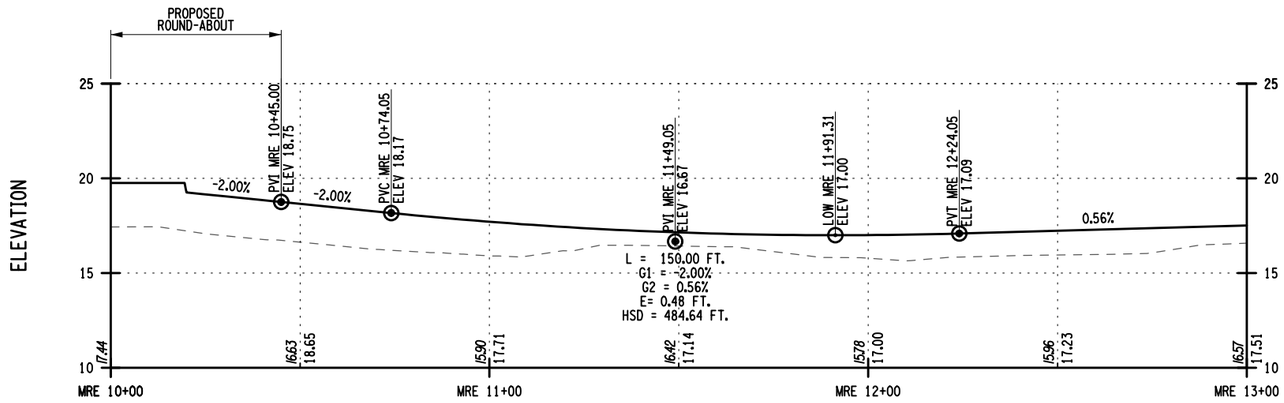
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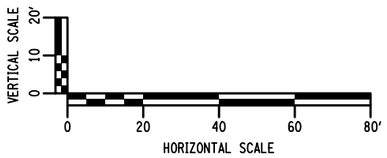
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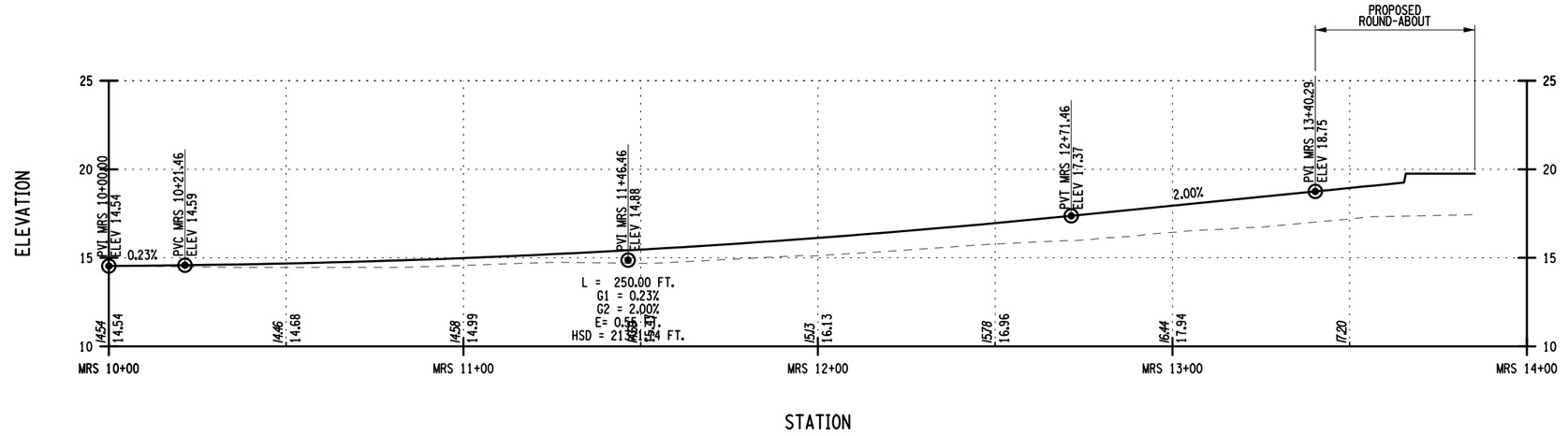
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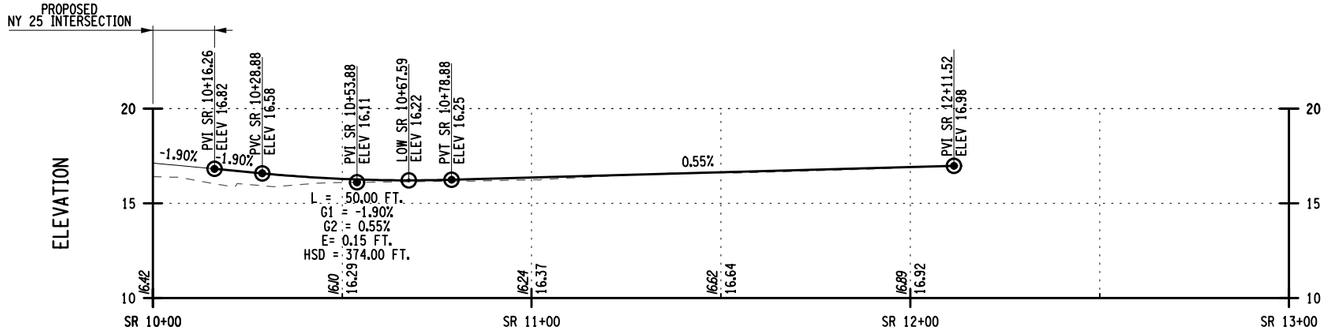
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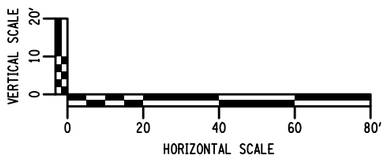
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Appendix B
Environmental Information

Federal Environmental Approval Worksheet

PIN: 081001	Completed by: GPI	Date Completed: 6/9/22	FUNDING TYPE: Federal
TITLE/PUBLIC DESCRIPTION: Safety Improvements at the following intersections; NY 25 at Edwards Ave, Riverhead; NY 114 at Stephen Hands Path, East Hampton; NY 114 at Goodfriend Drive, East Hampton; NY 25 at CR 48, Southold			NEPA CLASS: Class II: CE SEQR TYPE: non- Type II
LOCALITY (Village, Town, City): Riverhead, East Hampton, Southold		COUNTY: Suffolk	Is this a Reevaluation? **N--**

Purpose of this Worksheet:

- Implement the ***P****rogrammatic* ***A****greement Between the Federal Highway Administration, New York Division (FHWA), and the New York State Department of Transportation (NYSDOT)* ***R****egarding the Processing of Actions Classified as* ***C****ategorical* ***E****xclusions (CEs) for Federal-Aid Highway Projects* (PARCE), executed September 2017.
- Communicate the project National Environmental Policy Act (NEPA) classification and identify whether the FHWA or the NYSDOT (titles identified per Project Development Manual (PDM) Chapter 4, Exhibit 4-2) is making the CE determination.-
- Identify any FHWA independent determinations, approvals and/or concurrences required before the CE determination can be made.
- To be included within the Design Approval Document (DAD[1]) in accordance with the documentation requirements in the PARCE.

Categorical Exclusion (CE) - a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency (40 CFR 1508.4). Actions that do not individually or cumulatively have a significant environmental effect are excluded from the requirement to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS) (23 CFR 771.115(b)).

Instructions:
Initial review of the Federal Environmental Approval Worksheet (FEAW) should occur in scoping or early in Design Phase I to identify potential risks. Complete new review of the FEAW periodically, particularly if project parameters or site condition changes result in potential resource impacts. Completion of the FEAW with signature in Step 4 is required prior to Design Approval. See PDM Chapter 4 for additional details.

Step 1A: Unusual Circumstances Threshold Determination – 23 CFR 771.117(b)
Do any, or the potential for any, unusual circumstances exist[2]?

- Significant environmental impacts **YES☐ NO☒**
- Substantial controversy on environmental grounds **YES☐ NO☒**
- Significant impact on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act **YES☐ NO☒**
- Inconsistencies with any Federal, State, or local law, requirement or administrative determination relating to the environmental aspects of the project **YES☐ NO☒**

If yes to any of the above, contact the Main Office Project Liaison (MOPL) (see PDM Exhibit 4-1). Any project which would normally be classified as a CE but could involve unusual circumstances (or even uncertainty) will require consultation with the Office of Environment (OOE) and subsequently with the FHWA to determine if CE classification is still warranted. If, after consultation with the FHWA, it is determined that the project cannot be progressed as a CE, **skip to step 4** and see PDM Chapter 4 for NEPA Class I (EIS) or Class III (EA) processing. If, after consultation with the FHWA, it is determined that the project can be progressed as a CE, **proceed to step 1B.**

If no to all the above, then this project qualifies as a CE; **proceed to step 1B**.

Step 1B: Identification of CE action
Is the project an action listed in 23 CFR 771.117 (c) - (d) (or as identified in FHWA's additional flexibilities memo)?
YES☒ NO☐

If Yes, proceed to step 2.

If No, contact the MOPL (see PDM Exhibit 4-1). If, after consultation with the OOE and the FHWA, it is determined that the project cannot be progressed as a CE, **skip to step 4** and see PDM Chapter 4 for NEPA Class I (EIS) or Class III

[1] For FHWA Actions/Approvals not associated with a project, references to DAD refer to the documentation for that action.
[2] See definitions and examples of unusual circumstances *in FEAW_Instructions.doc*

(EA) processing. If, after consultation with the FHWA, it is determined that the project can continue as a CE, **proceed to step 2.**

Federal Environmental Approval Worksheet

Project ID Number: 081001

Step 2: FHWA environmental actions required prior to CE determination[3]
The Step 2 table identifies certain issues that require: the FHWA to make the CE determination (Column A and 2.4); independent FHWA determinations (2.1); FHWA approvals, compliance or concurrence (2.2); or notification to the FHWA (2.3). Review ***the FEAW Thresholds document*** to determine how to fill out each column of Step 2.

2.1	Required FHWA Independent environmental determinations	PARCE threshold exceeded[4]	FHWA independent determination/ concurrence required	Date Federal determination/ concurrence issued	Resource not present, or present but threshold not exceeded
		A	B	B1	C
Executive Order (EO) 11990 Protection of Wetlands Individual Finding			☐	Date Issued	☒
ESA Section 7 Threatened and Endangered Species		☐	☒	4/2/2021	☐
Section 106 of National Historic Preservation Act		☐	☒	2/22/2022	☐
Section 4(f) (Park, Wildlife Refuge, Historic Sites, and National Wild and Scenic Rivers)		☐	☒	4/21/2022	☐
2.2	**Other FHWA environmental approvals, compliance and/or concurrence required**	**PARCE threshold exceeded[3]**	**Threshold exceeded; FHWA approval, compliance or concurrence required**		**Resource not present, or present but threshold not exceeded**
EO 11988 Floodplains		☐	☐		☒
EO 13112 Invasive Species			☐		☒
EO 12898 Environmental Justice			☐		☒
Safe Drinking Water Act Section 1424(e)			☐		☒
US Army Corps of Engineers, Section 404/10 NWP #23			☐		☒
Section 6(f) Land and Water Conservation Funds			☐		☒
Migratory Bird Treaty Act			☐		☒
23CFR772 Type I Noise abatement			☐		☒
2.3	**Other Environmental Issues requiring FHWA notification**	**PARCE threshold exceeded[3]**	**FHWA notification threshold exceeded**		**Resource not present, or present but threshold not exceeded**
US Army Corps of Engineers, Section 404/10 Individual Permit		☐	☐		☒
National Wild and Scenic Rivers		☐	☐		☒
US Coast Guard Bridge Permit		☐	☐		☒
Known hazardous waste site (only EPA National Priority list)			☐		☒
Project on or affecting Native American Lands			☐		☒
2.4	**Other Issues Triggering FHWA Approval of Categorical Exclusion**	**PARCE threshold exceeded[3]**			**Resource not present, or present but threshold not exceeded**
Property Acquisition		☐			☒
Major Traffic Disruptions		☐			☒
Changes in Access Control		☐			☒

[3] **This table does not represent all environmental issues and actions that a project is subject to**. Classification as a CE does not exempt the project from further environmental review. Refer to the PDM and The Environmental Manual (TEM) to determine review requirements.
[4] When PARCE threshold is exceeded, the NYSDOT recommends that the project qualifies as a CE and requests the FHWA make the CE determination. Information on PARCE specific thresholds are contained within ***the FEAW Thresholds document.***

Federal Environmental Approval Worksheet

Project ID Number: 081001

Step 3: Who makes the NEPA CE Determination?

To identify which party, either the FHWA or the NYSDOT, makes the CE determination in accordance with the PARCE, follow the instructions found in the table below, beginning in Step 3A. This step also identifies which correspondence shell to use to distribute the FEAW and other environmental notifications or approvals.

3	**Determine whether the FHWA or the NYSDOT makes the CE determination and whether additional notifications or approvals are required.**
3A	**Is the project an action listed in 23 CFR 771.117 (c) - (d)** (Answered yes in Step 1B)**?** **YES** ☒ If Yes, **proceed to 3B.** **NO** ☐ If No, the FHWA makes the CE determination. • For **Locally Administered Federal Aid Projects only**, the DAD, the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent from the Regional Planning and Program Manager (RPPM) to the FHWA directly using **Shell 4.** • For all other projects, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent to the MOPL for review using **Shell 3**. **Proceed to Step 4.**
3B	**Are any of the CE Thresholds from the PARCE exceeded** (Are there any checks in Column A of Step 2)**?** **YES** ☐ If Yes, the FHWA makes the CE determination. • For **Locally Administered Federal Aid Projects only**, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent from the RPPM to the FHWA directly using **Shell 4.** • For all other projects, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent to the MOPL for review using **Shell 3**. **Proceed to Step 4.** **NO** ☒ If No, **proceed to 3C.**
3C	**Are there outstanding independent environmental approvals or concurrences?** (Are there checks in column B of Step 2.1 without dates in column B1)**?** **YES** ☐ If Yes, then the FHWA makes the CE determination. • For **Locally Administered Federal Aid Projects only**, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent from the RPPM to the FHWA directly using **Shell 4.** • For all other projects, the DAD and the NYSDOT recommendation and request (that the FHWA determines the project qualifies as a CE) are sent to the MOPL for review using **Shell 3**. **Proceed to Step 4.** **NO** ☒ If No, the NYSDOT makes the NEPA CE determination. **Proceed to 3D.**
3D	**Are there** ☐ any circumstances requiring demonstration of applicable EO compliance (any checks in column B of Table 2.2); or ☐ any issues requiring the FHWA environmental notification (any checks in column B of Table 2.3)? **YES** ☐ If **either** box is checked, **once all required approvals and concurrences have been secured,** the NYSDOT makes the CE determination but the information must be forwarded to FHWA for notification or action prior to Design Approval using **Shell 1. Proceed to step 4.** **NO** ☒ If **neither** box is checked, **once all required approvals and concurrences have been secured** the NYSDOT makes the CE determination without notification to the FHWA. The project will use **Shell 2**. **Proceed to step 4.**

Federal Environmental Approval Worksheet

Project ID Number: 081001

Step 4: Summary and Recommendation

- The project **is not** located within an area subject to transportation air quality conformity.
  - **If the project is within such areas, the NEPA process may not be completed until all transportation conformity requirements are met[4].** Transportation conformity requirements **have** been met at the time of this signature.
- This project **Select** qualify to be progressed as a Categorical Exclusion.
- The NEPA Determination will be made by **Select.**
- Project is c(26) "Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (including parking, weaving, turning, and climbing lanes), if the action meets the constraints in paragraph (e)..." [5]
- All outstanding FHWA environmental approvals will be obtained and are listed here:
- All the conditions of the PARCE are addressed herein (or within the DAD or attachments).

I certify that the information provided above is true and accurate and recommend the project be processed as described above.

Project Manager/Designer (or Responsible Local Official) X Valbrun Date 6/9/22

Print Name and Title: Carole Valbrun PE-1

Regional Environmental Unit Supervisor X S Ruhe Date 6/9/22

Print Name and Title: SHEREE RUTH ES-3

Regional Local Project Liaison (Locally Administered Projects Only) X _____ Date _____

Print Name and Title: _____

Changes that may have occurred since the preparation of the FEAW which would create the need to go through the FEAW again include, but are not limited to: a change in the scope of the proposed project; a change in the social, economic or environmental circumstances or the setting of the project study area (i.e. the affected environment); a change in the federal statutory environmental standards: discovering new information not considered in the original process; and a significant amount of time has passed (equal or greater than three years).

[5] See additional information on identifying (c)26, (c)27 & (c)28 versus d (13) *in FEAW_Instructions.doc*

PIN 0810.01
Highway Safety Improvements – Various Locations -- Suffolk County

Section 4(f) – De minimis Documentation[1]

The NYS Department of Transportation (NYSDOT) is proposing a federally-aided Highway Safety Improvement Project at several locations in Suffolk County. There are two locations in this project that include small acquisitions from Section 4(f) protected properties:

- Location 1 – NY 25 at Edwards Avenue, Town of Riverhead; and
- Location 2 – NY 114 at Stephen Hand's Path, Town of East Hampton.

See attached **FIG. 1** for location of these two sites.

Project Description and Use of 4(f) Resource Property

At Location 1, the proposed improvements require the use of a small strip of the adjacent property historically known as the Zeh Family Farm. This property has been determined to be eligible for the National Register of Historic Places by the NYS Historic Preservation Office (SHPO). The proposed improvements will require the use of 0.28 acre of the 28.5-acre property (<1%) – see attached **FIG. 2 and photos**. However, the project's proposed improvements do not have the potential to adversely affect the historic property. The undertaking will not alter, directly or indirectly, any of the characteristics that qualify the property for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The NYS SHPO has agreed with this determination – see below and attached letter. Therefore, NYSDOT believes the project will only have *de minimis* impacts on the historic property relative to the Section 4(f) statute. herewith

At Location 2, the proposed project improvements are located adjacent to Buckskill Nature Preserve, a significant publicly owned (Town of East Hampton) park – located in the southwest corner of the intersection. Environmental Information. However, the Department anticipates the project will have only de minimis impacts on the park. The proposed improvements require a small strip taking (approx. 0.15 acre) from the border of the park in an area that is currently mostly disturbed roadside edge – see attached **FIG. 3**. The preserve is approximately 141 acres. The proposed project will therefore acquire only 0.11% of the preserve property. The fee taking of this strip is mostly for vegetation trimming to improve the vehicle sight distance issue at this intersection **– see attached photos**. Impacted trees will be replaced with new plantings. New pavement will be installed only on approximately 200 s.f. of the proposed 12,253 s.f. taking area. The Town of East Hampton agrees with this de minimis determination – see below and

[1] Documentation herewith is required pursuant to federal regulations found at 23 CFR Part 774.5.

attached letter. Accordingly, NYSDOT has determined that the proposed improvements will not adversely affect the Preserve's activities, features, and attributes that make the property eligible for protection under the Section 4f statute.

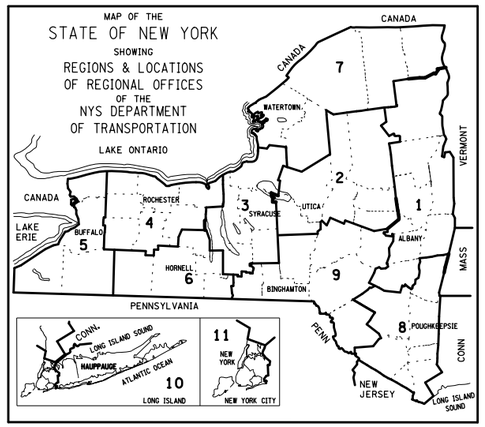
Agency Coordination and Public Comment

NYSDOT contacted the Town of East Hampton and the NY SHPO and requested their review of the project and a determination whether the proposed action would have any adverse impacts to the activities, features or attributes of the historic site (Location 1) and the preserve (Location 2). See attached Appendix A **letters from the NY SHPO and Town of East Hampton** opinion that the project will have no adverse effects on the 4(f) property at Location 1. Also attached is a copy of **FHWA's Section 106 determination** for the project.

Furthermore, as per Section 4(f) requirements, we invited public comment on the proposed use of the parkland and the historic site by publishing notice of the 4(f) action in the local newspaper -- see attached Appendix B **public notice and affidavit of publication**. As a result of this consultation, neither the officials having jurisdiction over the subject historic site and park land nor the public had any objection to the proposed work.

Summary

Therefore, NYSDOT requests FHWA concurrence that the proposed impacts to the subject properties are *de minimis* pursuant to Section 4(f) regulations in consideration of the overall minor physical impacts, agreement with the proposed project by the NY SHPO and Preserve operator and no negative public comments on the proposed action.



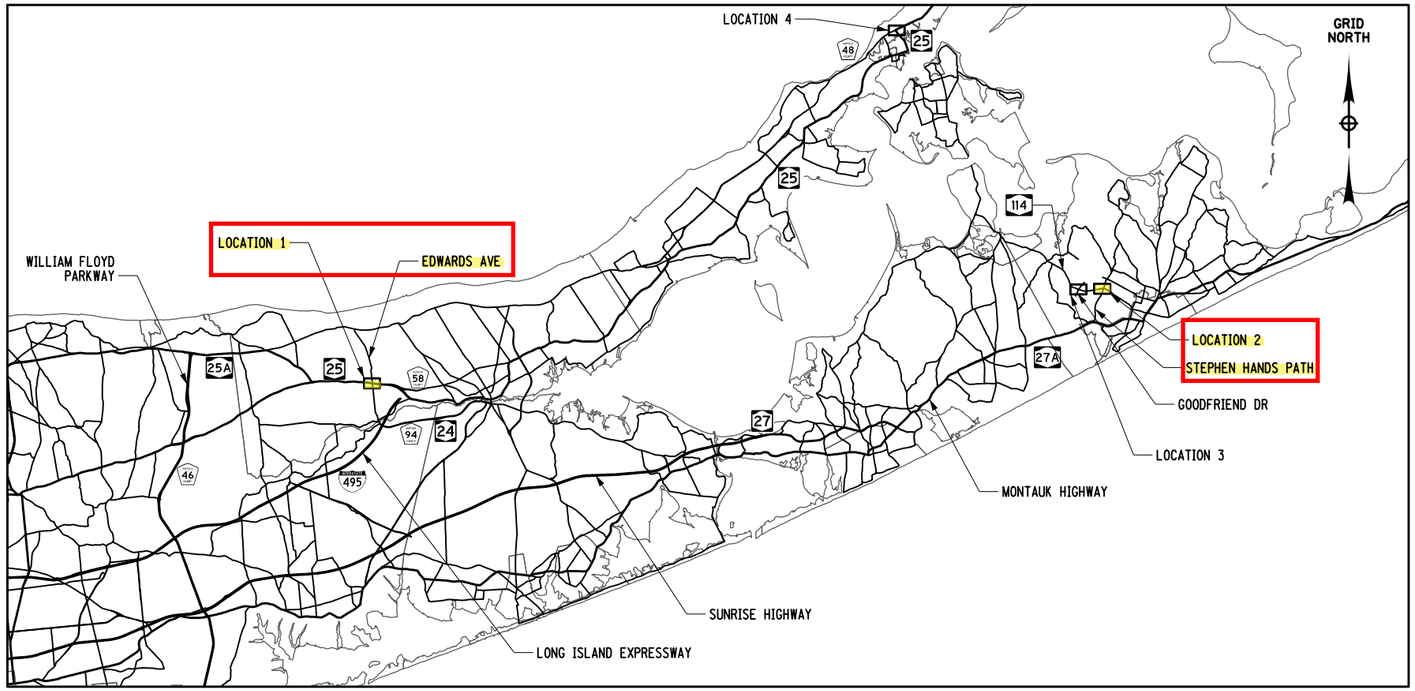
NEW YORK STATE OF OPPORTUNITY.

Department of Transportation

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
SOUTHOLD, AND BROOKHAVEN

CONTRACT

SUFFOLK COUNTY



PROJECT LOCATION

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS		
TOWNS OF RIVERHEAD, EAST HAMPTON,		
SOUTHOLD, AND BROOKHAVEN		
COUNTY: SUFFOLK		
FED. ROAD REG. NO.	STATE	SHEET NO.
1	N.Y.	1
CAPITAL PROJECT IDENTIFICATION NO. 0810.01		

INDEX ON SHEET NO. 2

FIGURE 1

PROJECT MANAGER
CHECK
DRAFTING
DESIGN
CHECK
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = 0810010I_CPH_CVR_CVR-01.DGN
DATE/TIME = 16-DEC-2021 09:10
USER = gbabino



1 inch = 300 feet

0 150 300 600 900 1,200 1,500 Feet

FIGURE 2

Location 1 -- NY 25 at Edwards Avenue



1 inch = 417 feet

0 208.5 417 834 1,251 1,668 Feet

FIGURE 3

Location 2 -- NY 114 at Stephen Hand's Path and Buckskill Preserve

SITE PHOTOS



Location 1 -- Photo 1 -- Looking Southwest



Location 1 -- Photo 2 -- Looking Northwest


Stephen Hands Path
Edge of proposed disturbance and acquisition
NY Route 114
Location 2 -- Photo 1 -- Looking West


NY Route 114
Stephen Hands Path
Edge of proposed disturbance/acquisition
Location 2 -- Photo 2 -- Looking North

Agency Coordination/Approval Letters

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

January 14, 2022

Julia Alderson
Regional Cultural Resource Coordinator
NYSDOT
250 Veterans Memorial Highway
Hauppauge, NY 11788

Re: FHWA
PIN 0810.01 Safety Improvements
Riverhead, Suffolk County
21PR02050

Dear Julie Alderson,

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

The project consists of safety improvements at three locations. These include road widening, adding turning lanes, and creating a roundabout. SHPO concurs with DOT's recommendation that Zeh Farm is eligible and that other properties identified nearby project areas are not within the project area / close enough to warrant evaluation of eligibility.

It is the opinion of SHPO that the project will have No Adverse Effect on the historic house.

If you have any questions, I can be reached at sloane.bullough@parks.ny.

Sincerely,

Sloane Bullough

Sloane Bullough
Historic Sites Restoration Coordinator by email only

U.S. Department of Transportation
Federal Highway Administration

New York Division

Leo W. O'Brien Federal Bldg.
Suite 719
Albany, NY 12207
518-431-4127
518-431-4121 (fax)
NewYork.fhwa@dot.gov

February 22, 2022

In Reply Refer To:
HPD-NY

Julia Alderson
Cultural Resource Coordinator
Department of Transportation
Region 10 Landscape/ Environment Group
250 Veterans Memorial Highway,
Hauppauge, NY 11788

Subject: PIN 0810.01 Safety Improvements, Routes NY-25 and NY-114
Town of Riverhead, Southold, and East Hampton, Suffolk County

Dear Ms. Alderson:

We have received and reviewed the material provided with your January 18 letter requesting FHWA's concurrence that the project will have *No Adverse Effect* on historic properties. SHPO reviewed the archeological report of the Phase I archaeological survey (21SR67628) and has provided a finding in their letter dated November 29, 2021, "*No archaeological sites were identified and it is the SHPO's opinion that no additional archaeological work is necessary*." SHPO also reviewed the project for potential architectural impacts and in their letter dated January 14, concurred with NYSDOT's recommendation that "*Zeh Farm is [NR] eligible and that other properties identified nearby project areas are not within the project area / close enough to warrant evaluation of eligibility… It is the opinion of SHPO that the project will have* ***No Adverse Effect*** *on the historic house*."

NYSDOT also provided the project information to the Shinnecock Nation and to the Delaware Tribe. Neither of the Nations responded to the initial project notification (provided 3/30/2021) or the findings of the archeological survey (provided 11/18/2021).

We have reviewed the information you have provided and concur with NYSDOT and SHPO's determination that the project will have ***No Adverse Effect*** on historic properties and that the requirements of 36 CFR Part 800 have been met for this project.

Should you have any questions, please feel free to contact me at (401) 528-4551.

Sincerely,

JOHN D NICKELSON

Digitally signed by JOHN D NICKELSON
Date: 2022.02.22 14:25:48 -05'00'

John D. Nickelson, PE
Area Engineer

cc: Robert Davies, FHWA, HPD-NY
Patricia Millington, FHWA, HEA-NY
Kaylie Kramer, FHWA, HEA-NY
Lori Blair, DOT
Sheref Fathi, DOT
Victoria Rose, DOT
Anthony Becker, DOT
Gregg Williams, DOT

TOWN OF EAST HAMPTON

159 Pantigo Road
East Hampton, New York 11937

PETER VAN SCOYOC
Supervisor

(631) 324-4140
pvanscoyoc@ehamptonny.gov

April 7, 2022

Mr. Garole Valbrun, P.E., Project Manager
New York State Department of Transportation

RE: NYSDOT PIN 0810.01 -- Improvements to the NYS Route 114 and Stephen Hands Path Intersection at Buckskill Nature Preserve.

The Town is the owner of property on the north-west intersection of Stephen Hands Path, and Route 114, East Hampton, New York (SCTM #0300-184.00-01.00-002.000). NYSDOT is considering improvements to this intersection, to improve drainage, as well as improve the safety of the intersection and requires the acquisition of approximately 0.28 acre of this parcel.

I have reviewed the proposed drainage and traffic improvements as outlined by the New York State Department of Transportation drawing GNPO-02 with the Town Board.

The Town Board is supportive of the proposed improvements, including the new drainage improvements and the small widening for the proposed turn lane on Stephen Hands Path. Once installed, the Town will assume maintenance of the pipe and trench to the extent they are located on Town property.

The parcel is designated as a Town Nature Preserve and is therefore subject to the federal Section 4(f) statute. As a Nature Preserve, the property is undeveloped, and primarily passive, and there is currently a considerable amount of run-off onto this Town property. The proposed improvements will help manage run-off and contain it to a small portion of the property adjacent to existing highway rights of way. The drainage system will provide storm water drainage service for the Town road and is a critical element for ensuring the structural integrity of the adjacent roadway and will enhance safety for the traveling public. In addition, public notice was given to notify the public of the proposed use of the Section 4(f) resource. NYSDOT's draft Design Report includes an assessment of the proposed use of this Section 4(f) resource and concludes that the proposed use will not adversely affect the preserves' activities, features or attributes.

Therefore, in consideration of the above information, *the Town, as the agency responsible for the management of the preserve agrees with NYSDOT's determination that the proposed*

improvements will not adversely affect the activities, features or attributes that make the property eligible for protection under the Section 4(f) statute.

I hope this proves helpful to you in moving this project forward. Please feel free to contact me if you have any questions, or require any additional information.

Sincerely,

Peter Van Scoyoc
Supervisor, Town of East Hampton

Public Notice and Affidavit of Publication

PUBLIC NOTICE and OPPORTUNITY FOR COMMENT

The NYS Department of Transportation (NYSDOT) proposes to perform highway safety and drainage improvements at (1) the intersection of NY Route 25 and Edward's Avenue in the Town of Riverhead; and (2) NY Route 114 and Stephen Hands Path in the Town of East Hampton, Suffolk County. The action includes new turning lanes and improved drainage collection systems at these locations.

In accordance with 23 CFR Part 774.5 (Use of Public Park Land and Historic Sites under Section 4(f) of the US Department of Transportation Act of 1966), NYSDOT is soliciting comments on the effects this project may have on the adjacent Section 4f – protected properties discussed below.

At Location 1, the proposed improvements require the use of a small strip of the adjacent property historically known as the Zeh Family Farm. This property has been determined to be eligible for the National Register of Historic Places by the NYS Historic Preservation Office (SHPO). The proposed improvements will require the use of 0.28 acre of the 28.5 acre property (<1%). However, the project's proposed improvements do not have the potential to adversely affect the historic property. The undertaking will not alter, directly or indirectly, any of the characteristics that qualify the property for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The NYS SHPO has agreed with this determination. Therefore, NYSDOT anticipates that the project will only have *de minimis* impacts on the historic property relative to the Section 4(f) statute.

At Location 2, the project will impact approximately 0.15 acre of edge along the north and east limit of the Buckskill Preserve property. This impact comprises approximately 0.11 of 1% of the total Preserve acreage (141 acres). The proposed pavement and drainage improvements will replace compacted soil on the shoulder of the road, some trees and common weedy roadside vegetation. The buffer to park users and their activities (hiking, nature appreciation, wildlife observation) will not be substantially diminished (a variable 1 to 20'-wide strip of vegetation clearing is required). New trees will be planted to replace all impacted trees. It is anticipated that NYSDOT will request the Federal Highway Administration (FHWA) to determine that the proposed action at the Buckskill Town Preserve is a Section 4(f) de minimis action in accordance with 23 CFR Part 774.7.

A *de minimis* finding may be made when the use of Section 4(f) land will have no adverse effect on the protected activities, features, and attributes.

Additional information on this project (NYSDOT PIN 0810.01) including the Design Report and preliminary design mapping is available at the following location:

NYS Department of Transportation
250 Veterans Highway
Hauppauge, New York 11788

Comments must be submitted on or before **February 21st, 2022** to

Mr. Garole Valbrun, P.E., Project Manager

at the NYSDOT office address presented above or by email to:
Garole.Valbrun@dot.ny.gov

Comments will become part of the official record and will be considered when making future project-related decisions.

Note: Publish all text between "dashed" lines above.

NEWSDAY
AFFIDAVIT OF PUBLICATION

GPI
325 WEST MAIN STREET
BABYLON, NY 11702

STATE OF NEW YORK) Legal Notice No. 0021704218
:SS.:
COUNTY OF ERIE)

The undersigned, being duly sworn, says that such person is a duly authorized custodian of records of Newsday LLC, the publisher of Newsday, a daily newspaper published in Melville, County of Suffolk, State of New York, and circulated in Nassau, Suffolk, and Queens Counties, and that the Legal Notice of which the annexed is a true copy, was published in the following editions/counties of said newspaper on the following dates:

Sunday February 06, 2022 Suffolk

By: _____

Print Name: Valencia Williams
Authorized Designee of Newsday LLC, Publisher of Newsday

SWORN to before me this
7 Day of February, 2022.

_____
Notary Public

Sarah Perez
Notary Public - State of New York
No. 01PE6397402
Qualified in Erie County
Commission Expires 09/03/2023

Ad Content

Legal Notice # 21704218
PUBLIC NOTICE and OPPORTUNITY FOR COMMENT
The NYS Department of Transportation (NYSDOT) proposes to perform highway safety and drainage improvements at (1) the intersection of NY Route 25 and Edward's Avenue in the Town of Riverhead; and (2) NY Route 114 and Stephen Hands Path in the Town of East Hampton, Suffolk County. The action includes new turning lanes and improved drainage collection systems at these locations.
In accordance with 23 CFR Part 774.5 (Use of Public Park Land and Historic Sites under Section 4(f) of the US Department of Transportation Act of 1966), NYSDOT is soliciting comments on the effects this project may have on the adjacent Section 4f – protected properties discussed below.
At Location 1, the proposed improvements require the use of a small strip of the adjacent property historically known as the Zeh Family Farm. This property has been determined to be eligible for the National Register of Historic Places by the NYS Historic Preservation Office (SHPO). The proposed improvements will require the use of 0.28 acre of the 28.5 acre property (<1%). However, the project's proposed improvements do not have the potential to adversely affect the historic property. The undertaking will not alter, directly or indirectly, any of the characteristics that qualify the property for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The NYS SHPO has agreed with this determination. Therefore, NYSDOT anticipates that the project will only have de minimis impacts on the historic property relative to the Section 4(f) statute.
At Location 2, the project will impact approximately 0.15 acre of edge along the north and east limit of the Buckskill Preserve property. This impact comprises approximately 0.11 of 1% of the total Preserve acreage (141 acres). The proposed pavement and drainage improvements will replace compacted soil on the shoulder of the road, some trees and common weedy roadside vegetation. The buffer to park users and their activities (hiking, nature appreciation, wildlife observation) will not be substantially diminished (a variable 1 to 20'-wide strip of vegetation clearing is required). New trees will be planted to replace all impacted trees. It is anticipated that NYSDOT will request the Federal Highway Administration (FHWA) to determine that the proposed action at the Buckskill Town Preserve is a Section 4(f) de minimis action in accordance with 23 CFR Part 774.7.
A de minimis finding may be made when the use of Section 4(f) land will have no adverse effect on the protected activities, features, and attributes.
Additional information on this project (NYSDOT PIN 0810.01) including the Design Report and preliminary design mapping is available at the following location:
NYS Department of Transportation
250 Veterans Highway
Hauppauge, New York 11788
Comments must be submitted on or before February 21st, 2022 to
Mr. Garole Valbrun, P.E., Project Manager
at the NYSDOT office address presented above or by email to:
Garole.Valbrun@dot.ny.gov
Comments will become part of the official record and will be considered when making future project-related decisions.

NEWSDAY PROOF

Ad Number: 0021704218

Advertiser: GPI

U.S. Department of Transportation
Federal Highway Administration

New York Division

Leo W. O'Brien Federal Building
11A Clinton Avenue, Suite 719
Albany, NY 12207
518-431-4127
Fax: 518-431-4121
NewYork.FHWA@dot.gov

April 21, 2022

In Reply Refer To:
HPD-NY

Mr. Gregg Williams
Environmental Specialist 2
New York State Department of Transportation
Region 10
Hauppauge, NY 11788

Subject: PIN 0810.01 - Safety Enhancements at Various Locations
Town of Riverhead, East Hampton, and Southold; Suffolk County
Section 4(f) *de minimis* Finding

Dear Mr. Williams:

In response to your e-mail of April 19, Federal Highway Administration (FHWA) has reviewed material submitted by NYSDOT requesting concurrence with a Section 4(f) *de minimis* finding for two properties in an upcoming Safety Improvements project. The submittal included maps showing each of the effected locations along with photographs of the sites, and concurrence letters from SHPO and the Town of East Hampton. The project will impact 4(f) properties at:

- NYS Route 25 at Edwards Avenue, Town of Riverhead – Widening the intersection and adding turn lanes on all approaches
- NYS Route 114 at Stephens Hands Path, Town of East Hampton – Widening the intersection and adding turn lanes on all approaches

At the Riverhead site, the proposed improvements require the use of a small strip of the adjacent property historically known as the Zeh Family Farm. This property has been determined to be eligible for the National Register of Historic Places by the NYS Historic Preservation Office (SHPO). The proposed improvements will require the use of 0.28 acre of the 28.5-acre property (<1%). The proposed improvements will not adversely affect the historic property. The undertaking will not alter, directly or indirectly, any of the characteristics that qualify the property for inclusion in the National Register, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The NYS SHPO has agreed with this determination (documentation provided) and NYSDOT believes the project will only have *de minimis* impacts on the historic property relative to the Section 4(f) statute.

At the East Hampton site, the proposed improvements are located adjacent to Buckskill Nature Preserve, a significant publicly owned (Town of East Hampton) park – located in the southwest corner of the intersection. NYSDOT has offered that the project will have only *de minimis* impacts on the park. The proposed improvements require a small strip taking (approx. 0.15 acre)

from the border of the park in an area that is currently mostly disturbed roadside edge. The preserve is approximately 141 acres. The proposed project will acquire only 0.11% of the preserve property. The fee taking of this strip is mostly for vegetation trimming to improve the vehicle sight distance issue at this intersection. Impacted trees will be replaced with new plantings. New pavement will be installed only on approximately 200 square feet (SF) of the proposed 12,253 SF taking. The Town of East Hampton agrees with this *de minimis* determination (documentation provided). NYSDOT has proposed that the improvements will not adversely affect the Preserve's activities, features, or attributes that make the property eligible for protection under the Section 4(f) statute.

The proposed takings and improvements have been advertised in a generally distributed local newspaper to advise the public and provide an opportunity for public comment,

We concur that the proposed takings and associated improvements will have no adverse effect on the involved 4(f) properties. We concur with NYSDOT's Section 4(f) *de minimis* finding.

If you have any questions or concerns, please contact me at 401-528-4551.

Sincerely,

JOHN D NICKELSON

Digitally signed by JOHN D NICKELSON
Date: 2022.04.21 06:38:15 -04'00'

John D. Nickelson, P.E.
Area Engineer

LOCATION 1
NY 25 AT EDWARDS AVE
SUPPORTING ENVIRONMENTAL INFORMATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

October 7, 2020

Keith Holley
Greenman-Pedersen, Inc.
325 West Main Street
Babylon, NY 11702-341

Re: Intersection of NY Route 25 (Middle Country Road) and Edwards Avenue
County: Suffolk Town/City: Riverhead

Dear Mr. Holley:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, at dep.r1@dec.ny.gov.

Sincerely,

Andrea Chaloux

Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program

1009

U.S. Fish and Wildlife Service

National Wetlands Inventory

Edwards Avenue



July 24, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To: April 21, 2022
Project Code: 2022-0034701
Project Name: Intersection of NYS Route 25 Middle Country Road and Edwards Avenue Realignment

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
(631) 286-0485

Project Summary

Project Code: 2022-0034701
Event Code: None
Project Name: Intersection of NYS Route 25 Middle Country Road and Edwards Avenue Realignment
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Widening the intersection and adding turn lanes on all approaches
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.92642294069331,-72.74568148530528,14z



Counties: Suffolk County, New York

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Seabeach Amaranth *Amaranthus pumilus*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/8549

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Greenman-Pedersen, Inc
Name: Keith Holley
Address: 325 West Main Street
City: Babylon
State: NY
Zip: 11702
Email kholley@gpinet.com
Phone: 6317617353

LOCATION 2
NY 114 AT STEPHEN HANDS PATH

SUPPORTING ENVIRONMENTAL INFORMATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

October 9, 2020

Keith Holley
Greenman-Pedersen, Inc.
325 West Main Street
Babylon, NY 11702-341

Re: Intersection NYS Route 114 and Stephen Hands Path
County: Suffolk Town/City: East Hampton

Dear Mr. Holley:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants at the project site.

The stretch of NYS Route 114 west of Stephen Hands Path runs through a very high-quality occurrence of **Coastal Oak-heath Forest**, an uncommon natural community in New York. The Coastal Oak-heath Forest extending across the Long Pond Greenbelt is very large and mature with several large intact central areas lacking exotic plants and well recovered from historical cutting, and adjacent to other forest communities. This community supports **Coastal Barrens Buckmoth** (*Hemileuca maia* ssp. 5), a rare moth listed by NYS as a Species of Special Concern. Given the nature of the proposed project, if the project work is confined to areas immediately along roads, we would not expect any significant impacts to this significant natural community nor to any rare species.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the Permits staff at the NYSDEC Region 1 Office, Division of Environmental Permits, at dep.r1@dec.ny.gov.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

1011

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

U.S. Fish and Wildlife Service
National Wetlands Inventory

114 and Stephan's hands Path



October 14, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To: April 21, 2022
Project Code: 2022-0034645
Project Name: Intersection of NYS RT 114 and Stephen Hands Path

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
(631) 286-0485

Project Summary

Project Code: 2022-0034645
Event Code: None
Project Name: Intersection of NYS RT 114 and Stephen Hands Path
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Widening the intersection and adding turn lanes on all approaches
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.97139089058004,-72.22241774940107,14z



Counties: Suffolk County, New York

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Seabeach Amaranth *Amaranthus pumilus*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/8549

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Greenman-Pedersen, Inc
Name: Keith Holley
Address: 325 West Main Street
City: Babylon
State: NY
Zip: 11702
Email kholley@gpinet.com
Phone: 6317617353

LOCATION 3
NY 114 AT GOODFRIEND DRIVE

SUPPORTING ENVIRONMENTAL INFORMATION

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

October 9, 2020

Keith Holley
Greenman-Pedersen, Inc.
325 West Main Street
Babylon, NY 11702-341

Re: Intersection of NYS Route 114 and Goodfriend Drive
County: Suffolk Town/City: East Hampton

Dear Mr. Holley:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants at the project site.

East and west from Goodfriend Drive, NYS Route 114 runs through high-quality occurrences of **Coastal Oak-Heath Forest** and **Pitch Pine-Oak Forest**, uncommon natural communities in New York. The Coastal Oak-Heath Forest extending across the Long Pond Greenbelt is very large and mature with several large intact central areas lacking exotic plants and well recovered from historical cutting, and adjacent to other forest communities. The Pitch Pine-Oak Heath community covers areas in the vicinity of East Hampton Airport. These communities support **Coastal Barrens Buckmoth** (Hemileuca maia ssp. 5), a rare moth listed by NYS as a Species of Special Concern. Given the nature of the proposed project, if the project work is confined to areas immediately along roads, we would not expect any significant impacts to the significant natural communities nor to any rare species.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the Permits staff at the NYSDEC Region 1 Office as described above.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

1013

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

U.S. Fish and Wildlife Service

National Wetlands Inventory

Goodfriend



July 24, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To:
Project Code: 2022-0034684
Project Name: Intersection of NYS RT 114 and GoodFriend

April 21, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
(631) 286-0485

Project Summary

Project Code: 2022-0034684
Event Code: None
Project Name: Intersection of NYS RT 114 and GoodFriend
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Widening the intersection and adding turn lane on northbound approach
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.97124305319736,-72.24005491572501,14z



Counties: Suffolk County, New York

Endangered Species Act Species

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Seabeach Amaranth *Amaranthus pumilus*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/8549

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Greenman-Pedersen, Inc
Name: Keith Holley
Address: 325 West Main Street
City: Babylon
State: NY
Zip: 11702
Email kholley@gpinet.com
Phone: 6317617353

LOCATION 4
NY 25 AT CR 48

SUPPORTING ENVIRONMENTAL INFORMATION

U.S. Fish and Wildlife Service

National Wetlands Inventory

North Road and Main Street Southold



August 31, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To: April 21, 2022
Project Code: 2022-0034633
Project Name: intersection of CR 48 North Road NYS Route 25 and Main Street, Southold

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
(631) 286-0485

Project Summary

Project Code: 2022-0034633
Event Code: None
Project Name: intersection of CR 48 North Road NYS Route 25 and Main Street, Southold
Project Type: Road/Hwy - Maintenance/Modification
Project Description: Project is the Construction of a Roundabout on southeast corner of the intersection of CR48 North Road NYS RT 25 and Main Street
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.11397024921996,-72.36674243537196,14z



Counties: Suffolk County, New York

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern *Sterna dougallii dougallii* Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

Flowering Plants

NAME	STATUS
Seabeach Amaranth *Amaranthus pumilus*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/8549

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Greenman-Pedersen, Inc
Name: Keith Holley
Address: 325 West Main Street
City: Babylon
State: NY
Zip: 11702
Email kholley@gpinet.com
Phone: 6317617353

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

October 8, 2020

Keith Holley
Greenman-Pedersen, Inc.
325 West Main Street
Babylon, NY 11702-341

Re: Intersection CR48 North Road (NY25) and Main Street
County: Suffolk Town/City: Southold

Dear Mr. Holley:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

Enclosed is a report of historical rare or state-listed animals and plants, and significant natural communities that our database indicates occured in the vicinity of the project site.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 1 Office, Division of Environmental Permits, at dep.r1@dec.ny.gov.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

1010

The following rare plants and rare animals have historical records at your project site, or in its vicinity.

The following rare plants and animals were documented in the vicinity of the project site at one time, but have not been documented there since 1979 or earlier, and/or there is uncertainty regarding their continued presence. There is no recent information on these plants and animals in the vicinity of the project site and their current status there is unknown. In most cases the precise location of the plant or animal in this vicinity at the time it was last documented is also unknown.

If suitable habitat for these plants or animals is present in the vicinity of the project site, it is possible that they may still occur there. We recommend that any field surveys to the site include a search for these species, particularly at sites that are currently undeveloped and may still contain suitable habitat.

COMMON NAME	*SCIENTIFIC NAME*	*NYS LISTING*	*HERITAGE CONSERVATION STATUS*
Dragonflies and Damselflies			
Mantled Baskettail	*Epitheca semiaquea*	Unlisted	Imperiled in NYS
1953 or 1954?: Greenport. The dragonfly was caught in the vicinity of a town.			12605
Southern Sprite	*Nehalennia integricollis*	Special Concern	Critically Imperiled in NYS
1953 or 1954?: Greenport. The damselfly was captured in the vicinity of a town.			12595
Vascular Plants			
Smooth Tick Trefoil	*Desmodium laevigatum*	Endangered	Historical Records Only in NYS
1962-09-09: Greenport. Moist ground.			9499

This report only includes records from the NY Natural Heritage database. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at www.natureserve.org/explorer, and from USDA's Plants Database at http://plants.usda.gov/index.html (for plants).

VISUAL IMPACT ASSESSMENT

PIN 0810.01

SAFETY ENHANCEMENTS

VARIOUS LOCATIONS

TOWNS OF RIVERHEAD, EAST HAMPTON, AND SOUTHOLD

SUFFOLK COUNTY, NY

FEBRUARY 2021

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

ANDREW M. CUOMO
Governor

MARIE THERESE DOMINGUEZ
Acting Commissioner

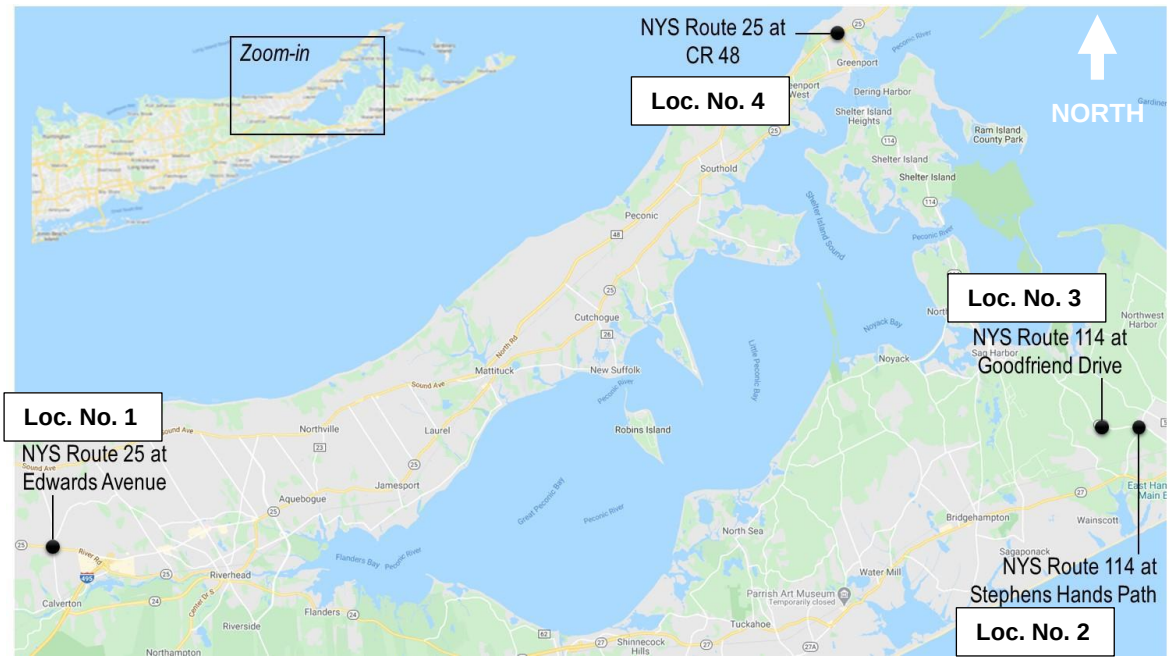
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PROJECT LOCATION

This project is located at the following four (4) intersections within Suffolk County, as identified below, and depicted in the regional location map below.

- Loc. No. 1 - NY 25 at Edwards Avenue, Town of Riverhead, Suffolk County
- Loc. No. 2 - NY 114 at Stephens Hands Path, Town of East Hampton, Suffolk County
- Loc. No. 3 - NY 114 at Goodfriend Drive, Town of East Hampton, Suffolk County
- Loc. No. 4 – NY 25 at CR 48, Town of Southold, Suffolk County



I. INTRODUCTION AND METHODOLOGY

A highway improvement project has the potential of affecting the visual experience of people traveling along the highway, along the shared-use path, and those living, working, or traveling nearby. To meaningfully assess the project's visual impacts, the stimulus and response aspects of the visual experience must be considered. The stimulus aspect of the visual experience is related to the appearance of all features that make up the visual landscape. The response aspect is related to the values viewers place on the appearance of the visual features in the landscape. Visual impacts caused by a project result from changes in the visual stimulus, and the viewers' response to change.

The methodology for the Visual Impact Assessment generally follows the format described in Visual Impact Assessment of Highway projects (US Department of Transportation, Federal Highway Administration, Office of Environmental Policy, March 1981), and conforms with NYSDOT's Visual Resource Analysis Procedure (Engineering Instruction 02-025)

The first step in the methodology is to analyze the existing visual environment, which consists of two attributes: visual resources and viewers of the resources. The view shed, or limits of the visual environment of the project area are established utilizing topographic mapping, site line projection and field investigation. Landscape units, areas with homogeneous visual characteristics, are established through field investigation to facilitate the assessment of visual impacts. Existing visual resources are identified and documented with photographs of typical views. Significant views or views of local importance are identified through the project scoping procedure and are photographed in detail.

After visual resources have been identified and documented, the visual characteristics and visual quality of the existing visual environment is assessed to establish baseline visual conditions. Visual character is presented in terms of visual patterns, and visual quality is presented in terms of three attributes: vividness, intactness, and unity. A relative rating of visual quality is assigned for each visual district.

The second attribute of the existing visual environment, the viewers, are then identified and assessed. Viewers of and from the project are categorized into groups, to assess how they see the visual environment and the values they place on the views. These attributes of each viewer group, viewer exposure and viewer sensitivity, determine the viewer response to change in the visual environment

After the baseline condition has been established, the changes to the visual environment caused by the project and the viewer's response to the change are analyzed to predict visual impacts. Each visual impact is presented in detail and summarized in table format. In addition, typical visual impacts are illustrated with photo simulations. A photograph of an existing view is compared with the same photograph altered by computer to show the predicted view.

To present the magnitude of visual impacts and compare alternatives, relative ratings are assigned to each visual impact. The ratings range from low to high and are described as follows:

Low Visual Impact - Slight change in visual resources. No change to significant visual resources or key view. New visual elements are generally compatible with existing views. Little or no response to change in visual resources are expected.

Moderate Visual Impact - A slight change in visual resources resulting in a high level of viewer response, or an extensive change in visual resources resulting in little viewer response.

High Visual Impact - Extensive change to visual resources or change to a significant visual resource or key view. New views or new visual elements are not compatible with existing views. A high level of viewer response to the change in visual resources can be expected

Details are presented in the introduction to each respective section in the assessment. In addition, a glossary of terms can be found in the appendix.

II. PROJECT DESCRIPTION

The purpose of this project is to provide safety and operational enhancements at the four (4) intersections, to improve traffic flow and decrease the potential for crashes.

The following alternatives were considered:

No Build Alternative

Under the No-Build Alternative, no improvements would be built, and only routine preventative maintenance and corrective action would be undertaken.



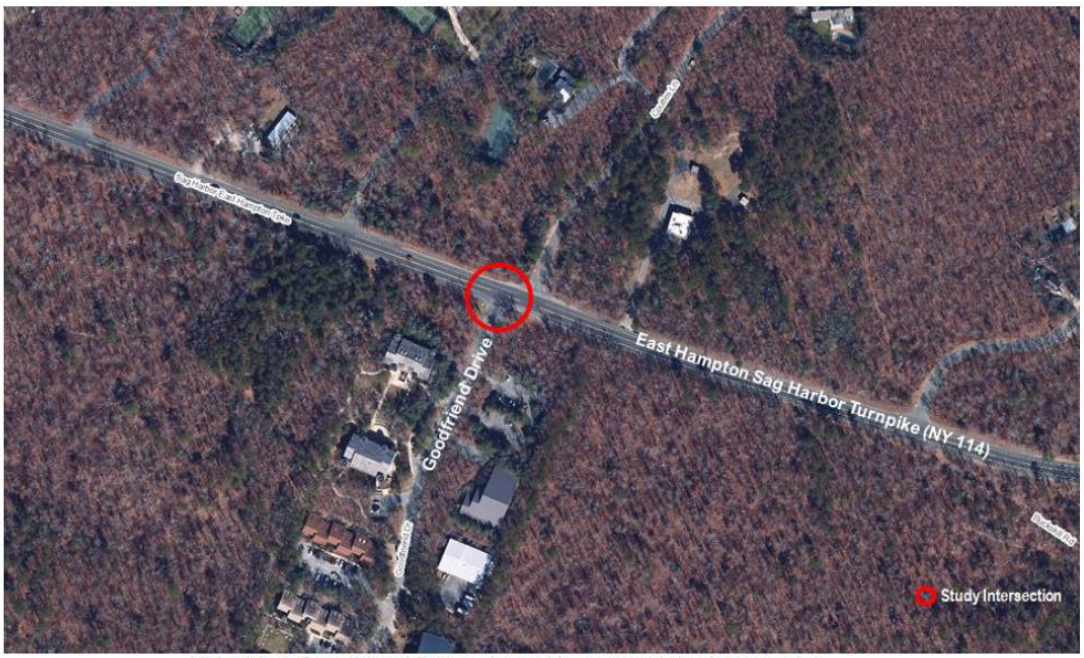
NY 25 at Edwards Avenue - Land Use around the Intersection

No Build: Loc. No. 1



NY 114 at Stephen Hands Path - Land Use around the Intersection

No Build: Loc. No. 2



NY 114 at Goodfriend Drive - Land Use around the Intersection

No Build: Loc. No. 3



NY 25 at CR 48 - Land Use around the Intersection

No Build: Loc. No. 4

Preferred Alternative

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, there is only one build alternative: widen each approach to provide left turn bays and realign Edwards Avenue to eliminate offset between the northbound and southbound approaches.

Loc. No. 2 - NYS Route 114 at Stephens Hands Path, Town of East Hampton, there is only one build alternative: widen each approach to provide left turn bays.

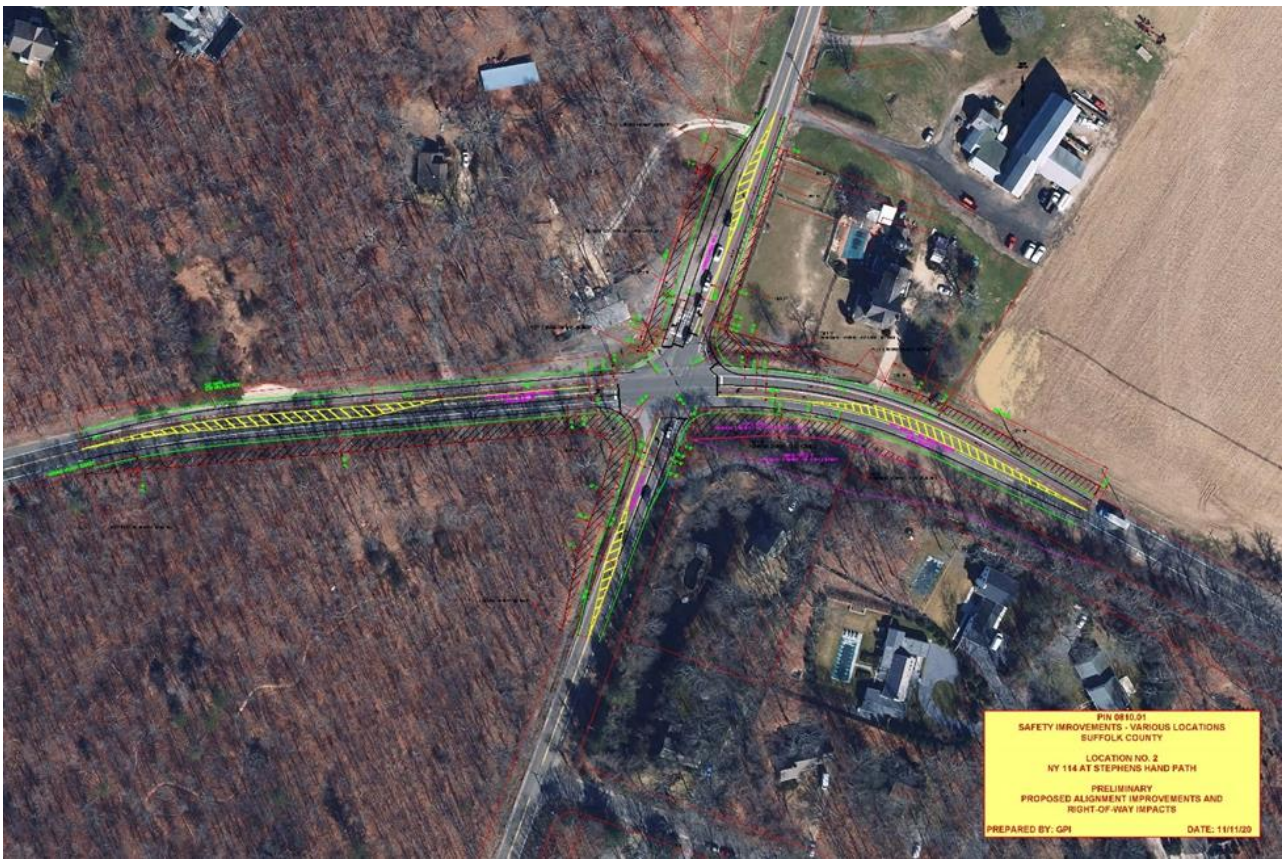
Loc No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, there is only one build alternative: widen NY 114 to provide a two-way left turn lane for access to Goodfriend Drive and Coultes Lane.

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold, has (2) build alternatives under consideration. At this early stage, it appears that the alternative that best meets the project objectives is Choice #1 which is to build a roundabout at the existing intersection of NY25 and CR48 in the Town of Southold. Choice #2, installing a traffic signal.

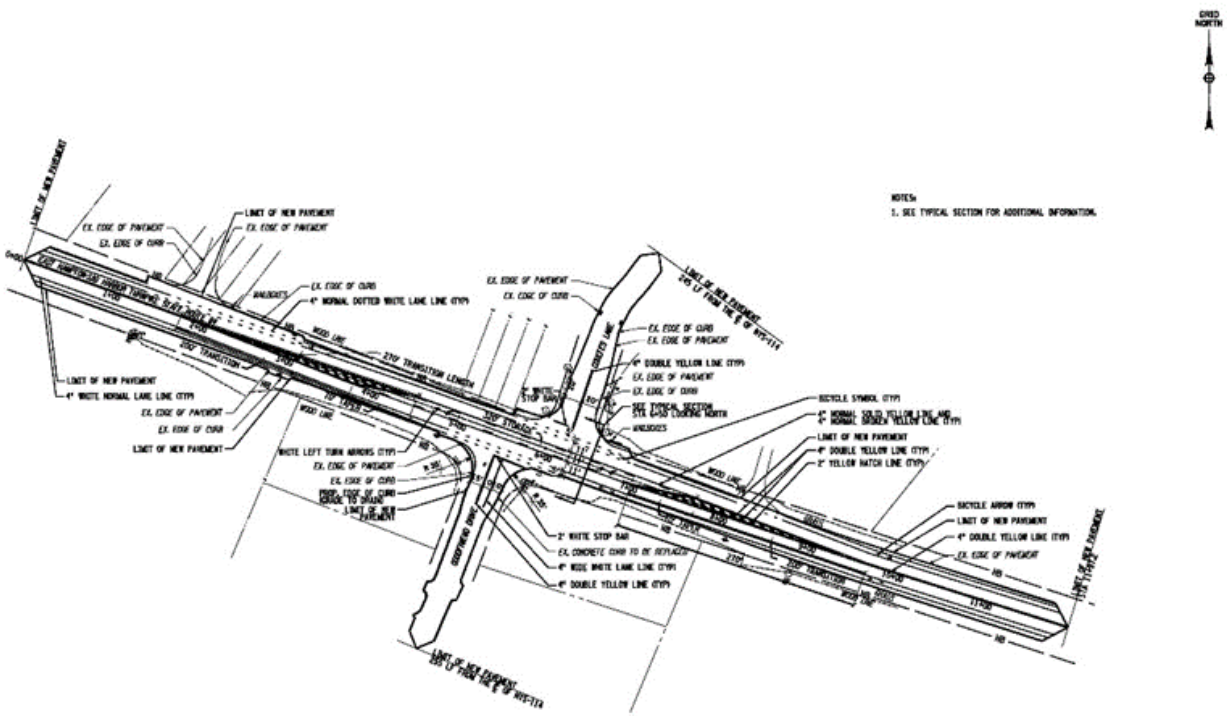
While significant environmental impacts are not anticipated, these safety enhancements will require ROW acquisition and construction. Of the four locations, only Location 4 meets the criteria for Visual Assessment at this time to evaluate the level of change anticipated at this location. Further discussion of project alternatives and impact will refer to Location 4 only.



Build Alternative Aerial Overlay: Loc. No. 1 - NYS Route 25 at Edwards Avenue



Build Alternative Aerial Overlay: Loc. No. 2 - NYS Route 114 at Stephens Hands Path



Build Alternative Preliminary Plan: Loc No. 3 - NYS Route 114 at Goodfriend Drive



Build Alternative Aerial Overlay – Choice #1: Loc. No. 4 – NYS Route 25 at County Road 48



NY 25 at CR 48 - Land Use around the Intersection

Build Alternative Aerial Overlay – Choice #2: Loc. No. 4 - NYS Route 25 at County Road 48
(Signalization of the Existing Intersection – Existing Conditions Shown Above)

ALTERNATIVES DISMISSED FROM FURTHER CONSIDERATION

A Modern Roundabout

For Loc. No. 4 - NYS Route 25 at County Road 48, Town of Southold, the alternative to install a modern roundabout was dismissed based on its ROW impact.

III. EXISTING VISUAL ENVIRONMENT

A. GENERAL

The visual environment is the appearance of all visual features that make up the visual landscape, and the values attached to visual features by the viewers of the visual landscape. The two attributes of the existing visual environment that provide the framework for the Visual Resource Assessment are visual resources and viewers of the visual environment.

B. EXISTING VISUAL RESOURCES

1. Viewshed

The viewshed defines the boundary of the visual environment. A viewshed is described as all visible surfaces within view from the project area. Conversely, the viewshed contains viewpoints from which the project area can be viewed.

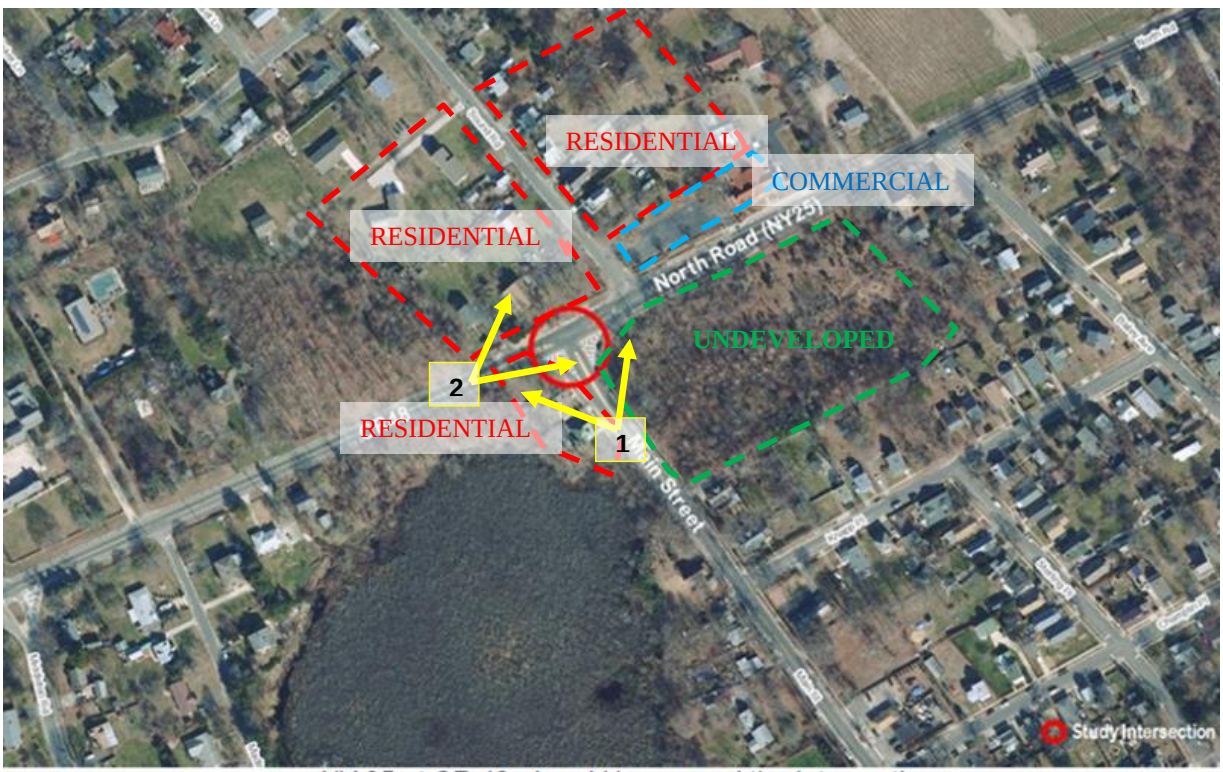
Loc. No. 4 – NYS Route 25 at County Road 48, the viewshed is bounded by turf shoulders, residential homes, and mature deciduous trees.



Location 4 – View #1 - North from NYS Route 25



Location 4 – View #2 - East from NYS Route 25



NY 25 at CR 48 - Land Use around the Intersection

Figure 2 - Viewshed and Landscape Units

2. Landscape Units

A landscape unit is an area with visual boundaries that has relatively homogeneous visual characteristics. The separation of the project area into landscape units allows a convenient and effective means of assessing visual impacts.

For purposes of this visual resource assessment, two types of landscape units have been identified. The limits of the landscape units are shown in Figure 2 and each Landscape Unit is described in detail in the following discussion.

Landscape Unit 1: Undeveloped State Highway

The first landscape unit is the undeveloped state highway that exists in its natural state.

NYS Route 25: The terrain of NYS Route 25 is flat. A dense and mature woodland area and residential homes flanks NYS Route 25's (Main Street), creating a narrowed visual corridor for the viewer. The view between lanes is open and uninterrupted.

The terrain of NYS Route 25's adjacent area consists of a narrowed, flat, turf shoulder separating the with existing sidewalk from the roadway. From the roadway's pavement edge, the shoulder transitions from mowed grass to a varied width vegetated undeveloped woodland buffer zone containing a mix of groundcover, shrub, and tree species on the east side of the intersection and residential development on the other surrounding corners of the intersection .

Landscape Unit 2: Residential Development

The second type of landscape unit is residential development along NYS Route 25

Residential development surrounds the intersection on the northwest and southwest corners. The terrain of NYS Route 25's adjacent area consists of a narrowed, flat, turf shoulder separating the with existing sidewalk from the roadway. From the roadway's pavement edge, the shoulder transitions from mowed grass to mixed residential plantings. On the southwest corner an existing two-story residential building frames the intersections viewshed as shown in View 1. The residential areas on the remaining two corners are set back from the intersection and do not have an influence on the viewshed as they are buffered by mixed buffer vegetation.

There is a signed bike route and shoulder available for bicyclists and sidewalks for pedestrians along NYS Route 25. Additionally, wayfinding signage is present along NYS Route 25, directing travelers to the Orient Point Ferry located just east of the intersection.

Landscape Unit 3: Commercial Development

The third type of landscape unit is commercial development along NYS Route 25.

Commercial development is located on the northeast corner of the intersection. The terrain of NYS Route 25's adjacent area consists of a narrowed, flat, turf shoulder with a few deciduous shad trees, separating the existing sidewalk from the roadway. On the northeast corner contains an asphalt parking lot. There is a residential area to the north of the commercial parking lot, but this development is setback from NYS Route 25. The commercial development does not have a strong influence on the viewshed.

There is a signed bike route and shoulder available for bicyclists and sidewalks for pedestrians along NYS Route 25. Additionally, wayfinding signage is present along NYS Route 25, directing travelers to the Orient Point Ferry located just east of the intersection.

3. Visual Information and Significant Visual Resources

The basic data in the visual environment, or what is seen in the view, is visual information. The visual environment consists of an extensive amount of visual information. Only the information that contributes to our understanding and enjoyment of the view are considered visual resources.

Most of the visual information within the project viewshed consists of the existing undeveloped highway buffer area, residential and commercial areas buffered by existing vegetation. The strongest elements contained within the intersection are the vertical elements such as the existing two-story home on the southwest corner and mature woodland on the southeast corner which together create a sense of enclosure along NYS Route 25 (Main Street).

4. Existing Visual Character and Visual Quality

Each Landscape Unit is described in terms of its existing visual character and visual quality as follows:

Visual Character - A viewer's understanding or cognition of the view is based on the visual character, or the relationship of the objects in the view. The attributes of visual character include pattern elements (line, form, color, and texture) and pattern character (dominance, scale, diversity, and continuity). Visual character is a measure of how a view is seen and does not relate to the viewer's preferences. These attributes are used to assess the project's compatibility with the existing visual setting.

Visual Quality – The viewer's enjoyment of a view, or the interpretation of the visual experience, is based on the visual quality of the view. Attributes used to rate visual quality of a visual setting are vividness, intactness, and unity. Explanations of these attributes can be found in the glossary attached as Appendix A.

The visual character and visual quality of the existing visual environment are assessed to have a baseline from which to measure change in the visual resources.

Landscape Unit 1: Undeveloped State Highway

Visual Character - This area is comprised of undulating woodland edge and maintained grass shoulders with a sidewalk.

The natural buffer on the northeast corner of NYS Route 25 is predominantly comprised of native tree plant species. The buffer contains mature trees and undergrowth contrasting with the grass highway shoulder, providing a vegetated corridor like quality. The overall visual quality of the unit is considered "moderate to high".

Visual Quality - The vividness of this landscape unit measures in the moderate to high range because of its naturalized screening in comparison to other landscapes found along the NYS Route 25.

The overall visual quality of the unit is considered "moderate to high".

Landscape Unit 2: Residential Development

Visual Character- The dominant component of the landscape within the scope of the site is the residential home on the southwest corner of the NYS Route 25 intersection. The other residential units are setback from the roadway and do not have a strong influence on the landscape.

Visual Quality - The woodland buffer on NYS Route 25 is mostly consistent with other the areas of Route 25. The vividness or memorability of this area is "moderate".

Based on the following information this unit has been evaluated to have a **"moderate"** level of visual quality.

Landscape Unit 3: Commercial Development

Visual Character- The dominant component of the landscape within the scope of the site is the commercial area from the NYS Route 25 right-of-way is the asphalt parking area.

Visual Quality - The vividness or memorability of this area is "low".

Based on the following information this unit has been evaluated to have a **"low"** level of visual quality.

Visual quality for each of the landscape units is summarized below in Table No 1:

Table 1 - Existing Visual Quality

Landscape Unit	Vividness	Intactness	Unity	Visual Quality
Undeveloped State Highway	Moderate to High	Moderate	Moderate to High	Moderate to High
Residential Development	Moderate	Moderate	Moderate	Moderate
Commercial Development	Low	Moderate	Moderate	Low

C. VIEWERS

Who sees the visual environment and how it is seen is as important as what is seen. The type and number of viewers, the viewers' position or viewpoint, and the values that viewers place on the appearance of visual resources is the basis for predicting viewer response.

1. Visual Issues

Local values or cultural aspects often influence the visual experience.

Viewer Groups, Sensitivity and Exposure

Viewers within the visual environment can be categorized into viewer groups that have similar reactions to the appearance of visual resources.

To assess viewer groups response to the change caused by the project, two attributes of viewers, sensitivity, and exposure, must be considered. Viewer sensitivity is the receptivity of the view by viewer groups. Viewer sensitivity is related to the values placed on the appearance of visual resources by the viewers. It can be considered as a qualitative measure of the response to the view.

Viewer exposure defines the physical parameters of how viewers see and perceive visual resources. It can be considered a quantitative measure of the view. Aspects of viewer exposure include number of viewers, distance, viewer position, traveling speed and duration of view.

Viewer groups are represented in the project area: motorists and residents and travelers along the NYS Route 25. These observer groups are differentiated by their visual response to the project and its setting. Viewer activity, awareness and values affect the visual response.

Motorists along NYS Route 25

Each viewer may interpret the environment differently and ultimately gain a personalized experience. Within this audience we are looking at the average impact on the viewing group.

Viewer Sensitivity - These travelers along NYS Route 25 have a moderate sensitivity to visual change. Travelers include commuters and residents. These travelers generally are traveling at a low rate of speed and mobility is their greatest concern. Within this viewing group there are individual groups that may experience different levels of sensitivity. An example of this is the commuter versus the leisurely driver. The commuter has a lower rate of sensitivity and less likely to be affected by the surroundings, whereas the leisurely driver's main objective may be to take in the sights of the area and maintain a high level of sensitivity. For this reason, we have designated this group as having a **moderate** level of sensitivity.

Viewer Exposure **-** Viewer Exposure is high.
There exist two peak periods of travel, one during the morning hours and the second during evening travel.

Viewer Response to Change in Visual Environment - Viewer response to visual change is dependent on the proximity of the change in relationship to the highway. Viewer sensitivity is moderate and viewer exposure is high within the area of NYS Route 25. Sensitivity will increase as the visual change encroaches on the highway or enters the travelers' cone of vision. As the distance of visual change increases off the highway, the viewers' response decreases, as typically the travelers become focused on the road surface ahead of them.

For purposes of evaluating visual impacts, the viewers' response of this group is considered as moderate.

Residents and travelers along NYS Route 25

Viewer Sensitivity - This viewer group will have a moderate sensitivity to change in the visual setting. The boundaries and limits of the project area are limited to the right-of-way zone and are adjacent to a very small number of residents.

Viewer Exposure - This area maintains a low level of exposure, as traffic along NYS Route 25 is moderate and the area within the scope of the project is largely screened by vegetation. Although the residential community predicted to be most directly impacted is small, there may be great concern from these viewers as their exposure to the changes would be permanent.

Viewer Response to Change in Visual Environment - Both viewer sensitivity and viewer exposure are moderate to light among the residents, providing a group who will be moderately involved and concerned with any changes or planning of their environment. A small number of residents on the northwest and southwest side of NYS Route 25 will be most affected and may become directly influenced by any change. They may fear any change may result in a negative impact on their community and their lifestyle that they have established here. The viewer response to change will be **moderate**.

Table 2 summarizes the sensitivity, exposure, and response of each of the Viewer Groups:

Table 2- **Viewer Groups**

Viewer Group	Viewer Sensitivity	Viewer Exposure	Viewer Response
Motorists	Moderate	High	Moderate to High
Residents and Travelers (including sidewalk users and bicyclists)	Moderate	Light to Moderate	Moderate

IV. IMPACTS ON VISUAL RESOURCES

After analyzing and establishing a baseline for the existing visual environment, the changes to the visual environment caused by the project are assessed. Visual impacts are predicted based on the change in visual resources, and the viewer response to the change. Viewer response is strongly related to values attached to the viewing experience by viewer groups. Viewer response is the reaction to the change in the visual environment by viewer groups.

The view of the road and from the road are described and assessed.

Following is a description of the change to the visual environment caused by the project, and the predicted visual impact for each visual district for each viewer group. Change in visual resources is measured in terms of change in visual character and visual quality. Viewer response is measured in terms of change in viewer exposure and viewer sensitivity. The magnitude of visual impacts is described as "low," "moderate," or "high."

Photo simulations of typical key views are presented to illustrate visual impacts.

A. Landscape Unit 1: Undeveloped Highway

1. Changes to the Visual Environment **and Visual** Resources as a Result of the Project

The overall highway's vegetation is mature and varied, providing a relatively opaque and softening of the view from the highway to the residential and commercial zones in the area on the northeast corner of the intersection. This vegetation supports the visual context of the state highway system as seen by motorists traveling along the NYS Route 25 by screening the view to the suburban community from the highway to maintain the Main Street feel for motorists.

The considered alternative has the potential to result in removal of existing vegetation at the edge of the undeveloped highway however the overall undeveloped woodland will be unaffected by the proposed roundabout.

2. Potential Visual Impacts (Changes in Visual Character and Quality)

Views of this area from NYS Route 25 will change moderately. As a result, there will be minor breaks in the vegetative corridor with the introduction of the new roundabout lanes.

By maintaining the existing vegetated buffer and the addition of supplemental new planting, unity and intactness will remain relatively unchanged.

The overall level of visual quality will remain "moderate".

B. Landscape Unit 2: Residential Area

1. Changes to the Visual Environment and Visual Resources as a Result of the Project

The preferred alternative will not relocate NYS Route 25 and the intersection closer to the residential area. New sidewalks and restored vegetated buffers will be added.

2. Potential Visual impacts (Changes in Visual Character and Quality)

These changes will likely not have a significant impact on the overall visual character of for residents living within the scope of the project. However, a small number of residents may be highly impacted where the roundabout will be visible from their properties. Maintaining a vegetated buffer at these points will lessen any impact of the added intersections.

The overall level of visual quality will remain "moderate".

C. Landscape Unit 3: Commercial Area

1. Changes to the Visual Environment and Visual Resources as a Result of the Project

The preferred alternative will not relocate NYS Route 25 and the intersection closer to the commercial area. New sidewalks and restored vegetated buffers will be added along this site.

2. Potential Visual impacts (Changes in Visual Character and Quality)

These changes will likely not have a significant impact on the overall visual character of the commercial area within the scope of the project.

The overall level of visual quality will remain "moderate".

Table 3 summarizes the change in visual character and visual quality of each of the landscape units:

Table 3 - Change in the Visual Environment and Potential Visual impacts

Landscape Unit	Change in Visual Character	Existing Visual Quality	Predicted Visual Quality	Potential Visual Impact
Undeveloped Highway	Low to Moderate	Moderate	Moderate	Low Negative
Residential Area	Low	Moderate	Moderate	Positive
Commercial Area	Low	Moderate	Moderate	Positive

V. PREDICTED VISUAL IMPACTS:

Based on changes to the visual environment and the response to the change, the following visual impacts are predicted for each of the viewer groups:

Travelers along NYS Route 25

A low negative visual impact is predicted for travelers along NYS Route 25 in Landscape Unit 1 - Undeveloped Highway. The degree of impact results from the removal of woodland edge vegetation from the proposed changes to the highway. The proposed roundabout may have a slight negative impact if visible from the road due to the potential removal of mature trees close to the intersection.

New plantings throughout the project area will help to offset any negative visual impacts in these areas.

Residents and Travelers (including sidewalk users and bicyclists)

A low negative visual impact will occur on the view of the road from the adjacent residential areas and for travelers. The greatest impact will affect residents with home adjacent to NYS Route 25 at the southwest corner where the residential building is close to the intersection. New planting reconstructed concrete sidewalk, and new, smooth surfaced, asphalt paving will help to offset any negative visual impacts.

Table 4 summarizes the visual impact of the shared-use path project on each viewer group in each landscape unit:

Table 4 - Summary **of Predicted** Visual Impacts

Landscape Unit	Travelers on Sunrise Highway	Adjacent Residents
Undeveloped Highway	Low Negative	Low Negative
Residents and Travelers	Low negative	Low Negative

VI. RECOMMENDED MEASURES TO MITIGATE ADVERSE VISUAL IMPACTS

The following measures can be applied to the shared-use path design to reduce the impact and improve the visual environment:

Landscape Unit 1· Undeveloped Highway

Sensitivity to surrounding Landform - Landform and grading a should be sensitive to the gradual natural grades. This will help achieve a visual harmony between the proposed roundabout and the existing landscape.

Vegetative Highway buffers- These areas may be supplemented with native with an increase in percentage of deciduous trees to help provide visual enclosure at the intersection.

Limit Distance from NYS Route 25 – The roundabout should be aligned along NYS Route 25 in such a manner that it minimizes the visual encroachment on the adjacent communities and landscape units. Alignment of the roundabout as close as possible to the highway and include restoration and improvement of the landscaped buffers in these areas will help minimize the visual impact.

Landscape Unit 2: Residential Area

Sensitivity to surrounding Landform - Landform and grading a should be sensitive to the gradual natural grades. This will help achieve a visual harmony between the proposed roundabout and the existing landscape.

Vegetative Highway buffers- These areas may be supplemented with native with an increase in percentage of deciduous trees to help provide visual enclosure at the intersection.

Limit Distance from NYS Route 25 – The roundabout should be aligned along NYS Route 25 in such a manner that it minimizes the visual encroachment on the adjacent communities and landscape units. Alignment of the roundabout as close as possible to the highway and include restoration and improvement of the landscaped buffers in these areas will help minimize the visual impact.

Improvements for Pedestrians and Bicyclists - The project opens the possibility of improving visual and physical improvements for pedestrians and bicyclists using NYS Route 25. Providing new sidewalk and potentially upgrading the bike route to a marked bike lane may help minimize visual impacts.

Landscape Unit 3: Commercial Area

Vegetative Highway buffers- These areas may be supplemented with street trees and shrubs trees to help provide visual enclosure at the intersection and maintain the buffer between the commercial parking area and intersection.

VII. UNAVOIDABLE VISUAL IMPACTS

Regardless of which alternative is implemented, some unavoidable visual impacts will occur within these areas along NYS Route 25. These negative impacts are generally associated with any development or man-made construction within a naturalistic setting. Highway system and community, sensitive design and construction will help minimize these negative outcomes. Re-planting of street trees along the edges of the intersection and approaches to the intersection will have the greatest overall impact of the vertical plane in the viewshed and the addition of the new roundabout features such as new pavement, sidewalks, and the roundabout's center focal point will improve the overall appearance of the intersection on the horizontal plane.

APPENDIX A
GLOSSARY OF TERMS

BACKGROUND - A distance zone used to describe the approximate distance of visual resources from an observer. The background includes visual resources from approximately 5 miles to the horizon. Only the line and form of visual objects in the background view perceptible.

COLOR - The third of the four basic elements of visual pattern; the hue (e.g. red or blue) and the value (e.g. light or dark) of the light reflected or emitted by an object.

DISTANCE ZONES - Three conventional terms in painting --foreground, middle ground, background --which can be helpful in describing distance relationships between observer and visual resources (See Foreground, Middle Ground and Background for description).

DIVERSITY - The number of pattern elements as well as the variety among them, and edge relationships between them.

DOMINANCE - Dominance of components or specific features in a scene may be dominant because of prominent positioning, contrast, extent, or importance of pattern elements.

FOREGROUND - A distance zone used to describe the approximate distance of visual resources from an observer. The foreground includes visual resources immediately in front of the viewer to approximately 1/4 mile. All visual patterns in the foreground view (line, form, color, and texture) are easily seen and perceived.

FORM - One of the four basic elements of visual pattern (usually the strongest); the mass or shape of an object.

INTACTNESS - The integrity of visual order in the nature and man-built landscape, and the extent to which the landscape is free from visual encroachment.

LANDSCAPE FORM (LANDSCAPE SUBUNIT)- A landform or landcover mass composed of heterogeneous visual elements, but distinguished from surrounding areas by overall [form, pattern, and edge. Landscape forms have physical dimensions and a specific location.

LANDSCAPE UNIT (LANDSCAPE DISTRICT) - (a) An area or volume of distinct landscape character which forms a spatially enclosed unit at ground level; it may include more than one landscape type; (b) The extent of a single landscape type which is not spatially enclosed at ground level.

LINE - Geometrically, a point that has been extended, or the intersection of two planes, e.g. a silhouette, or a boundary between patterns in the landscape. The second strongest of the four basic visual pattern elements.

LOCAL VALVES AND GOALS - The landscape setting and its visual resources may be valued by local view groups for reasons not evident in an assessment based strictly on visual resources and not widely known outside the community.

MIDDLE GROUND - A distance zone used to describe the approximate distance of visual resources from an observer. The middle ground includes visual resources from approximately 1/4 mile to 3 miles away. Line, form, and color are easily seen and perceived, but the texture of visual objects is not perceptible.

OBSERVER POSITION - A term employed to describe the observer's elevational relationship between himself and the landscape he sees. It is used to indicate if he is essentially below, essentially at the same level, or essentially above the visual objective. Three specific terms are used: 1) observer inferior, view below object; 2) observer normal, view on level of object; 3) observer superior, viewer above object.

OBSERVER VIEWPOINT - A point from which a select view is analyzed and/or evaluated.

PATTERN CHARACTER COMPATIBILITY - The degree to which the visual character of the highway blends with that of the surrounding landscape, in terms of dominance, scale, diversity and continuity; related to intactness and lack of encroachment.

PATTERN ELEMENT COMPATIBILITY (DISCORDANCE) - The degree to which the line, form, color, and texture of the highway and related facilities conform, rather than contrast, to the basic visual pattern of the landscape setting; related to the vividness of highway in its setting.

SCALE - Visual scale is the apparent size relationships between landscape components or features and their surroundings.

SIGHTLINE - The unobstructed line of sight between an observer and viewed object.

TEXTURE - The visual or tactile surface characteristic of various elements in the landscape; often the least dominant of the four visual pattern elements.

UNIQUENESS - A resource-oriented criterion: a visual resource, visual character, or visual quality which is rare or uncommonly found at a regional or national scale.

UNITY - The degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony or intercompatibility between landscape elements.

VIEW - A scene observed from a given vantage point.

VIEW CORRIDOR - A narrow, distant view of a visual resource confined and framed by visual objects. An example would be the distant view of a mountain from a street lined with tall buildings.

VIEWER RESPONSE - Measures of viewer response to change in visual resources include view exposure, viewer sensitivity, cultural significance and local values.

VIEWER EXPOSURE - The degree to which viewers are exposed to a view by their physical location, numbers viewing and duration of the view.

VIEWER GROUPS - Classes of viewers differentiated by their visual response to the highway and its setting; response is affected by viewer activity, awareness and values.

VIEWER SENSITIVITY - The viewer's variable receptivity to the elements within the environment that he/she is viewing, affected by viewer activity and awareness. A person cannot readily notice every object and all the attributes of the objects that compose the total visual environment.

VIEWSHED - I) All the surface areas visible from an observer's viewpoint; 2) Surface areas from which a critical object or viewpoint is seen.

VISUAL CHARACTER - The visual character of a landscape is formed...by the order of the patterns composing it. The elements of these patterns are the form, line, color and texture of the landscape's visual resources. Their interrelationships can be objectively described in terms of dominance, diversity, continuity and so on.

(VISUAL) COGNITION - The process of recognizing visual relationships among objects and between objects and their setting.

VISUAL COMPATIBILITY (DISCORDANCE) - The degree to which development with specific visual characteristics is visually unified with its setting. Visual compatibility can be elevated with reference to Pattern Elements and Pattern Character.

VISUAL IMPACT - The degree of change in visual resources and viewer responses to those resources caused by highway development and operations.

VISUAL INFORMATION - Visual information in a landscape is: a) The identity of landscape components or features such as mountains, valleys, rivers, forests, towns or highways; b) The message conveyed by signs and symbols in verbal or graphic form.

VISUAL PATTERN ELEMENTS - Form, line, color, texture.

VISUAL QUALITY - While many factors contribute to a landscape's visual quality, they can ultimately be grouped under three headings: Vividness, Intactness and Unity.

VISUAL RESOURCES - The appearance of the features that make up the visible landscape. This includes: land, water, vegetative, animal, and other features that are visible on all national resource lands.

VIVIDNESS (DISTINCTIVENESS) - The memorability of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern.

Appendix C
Traffic Information

APPENDIX C – TRANSPORTATION APPENDIX (***TABLE OF CONTENTS***)

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- **Turning Movement Counts & Pedestrian Counts**
- **Transportation Classification Counts**
- **Spot Speed Data**
- **Signal Timing Plan**

Attachment T-2 - EXISTING CONDITION TRAFFIC ANALYSES

Attachment T-3 - ETC CONDITION TRAFFIC ANALYSES

Attachment T-4 - ETC+5 CONDITION TRAFFIC ANALYSES

Attachment T-5 - ETC+10 CONDITION TRAFFIC ANALYSES

Attachment T-6 - ETC+10 CONDITION MITIGATION TRAFFIC ANALYSES

Attachment T-7 - ETC+15 CONDITION TRAFFIC ANALYSES

Attachment T-8 - ETC+20 CONDITION TRAFFIC ANALYSES

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Attachment T-10 - CAPACITY ANALYSES SUMMARIES

Attachment T-11 - CRASH ANALYSES - NY25 & EDWARDS AVENUE

Attachment T-12 - CRASH ANALYSES – NY114 & STEPHEN HANDS PATH

Attachment T-13 - CRASH ANALYSES – NY114 & GOOD FRIEND DRIVE

Attachment T-14 - CRASH ANALYSES – NY25 & CR 48

Attachment T-15 – Alternate 1 – ROUNDABOUT at EXITING INTERSECTION

Note: Attachments T-1 to T-9 are available upon request.

APPENDIX C - TRANSPORTATION

Attachment T-10 Capacity Analyses Summaries

SIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY

Edwards Ave at Route 25 Level of Service and Delays (sec)

INTERSECTION NAME	LANE GROUP MOVEMENT		Turnbay Length	AM PEAK				MIDDAY PEAK				PM PEAK			
				Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS
Existing	EB	LTR	-	573	0.86	25.5	C	416	0.69	16.4	B	351	0.64	15.1	B
	WB	LTR	-	140	0.36	9.7	A	295	0.58	13.4	B	510	0.78	20.4	C
	NB	LTR	-	**#273**	**0.90**	**73.5**	**E**	**#314**	**0.96**	**83.4**	**F**	**#453**	**1.11**	**115.6**	**F**
	SB	LTR	-	**#276**	**0.90**	**67.5**	**E**	198	0.75	50.5	D	197	0.57	40.4	D
	OVERALL*				0.90	35.7	D		0.96	30.1	C		1.11	40.0	D
ETC	EB	LTR	-	589	0.88	26.9	C	426	0.70	16.9	B	358	0.65	15.3	B
	WB	LTR	-	143	0.36	9.8	A	303	0.59	13.7	B	526	0.80	21.1	C
	NB	LTR	-	**#277**	**0.90**	**74.6**	**E**	**#324**	**0.98**	**87.0**	**F**	**#461**	**1.12**	**118.9**	**F**
	SB	LTR	-	**#282**	**0.91**	**68.9**	**E**	201	0.76	51.4	D	199	0.57	40.5	D
	OVERALL*				0.91	36.8	D		0.98	31.1	C		1.12	41.0	D
ETC+5	EB	LTR	-	#637	0.90	29.3	C	446	0.72	17.5	B	373	0.66	15.8	B
	WB	LTR	-	147	0.37	10.0	A	315	0.61	14.1	B	560	0.82	22.6	C
	NB	LTR	-	**#286**	**0.92**	**77.1**	**E**	**#334**	**1.01**	**95.2**	**F**	**#476**	**1.15**	**129.8**	**F**
	SB	LTR	-	**#295**	**0.93**	**72.5**	**E**	207	0.79	53.7	D	203	0.59	41.1	D
	OVERALL*				0.93	39.0	D		1.01	33.0	C		1.15	44.0	D
ETC+10	EB	LTR	-	#736	0.92	32.4	C	468	0.74	18.2	B	391	0.68	16.3	B
	WB	LTR	-	151	0.39	10.2	B	328	0.62	14.5	B	592	0.84	24.0	C
	NB	LTR	-	**#297**	**0.94**	**81.7**	**F**	**#344**	**1.04**	**102.4**	**F**	**#490**	**1.18**	**140.1**	**F**
	SB	LTR	-	**#303**	**0.94**	**74.3**	**E**	**213**	**0.81**	**55.9**	**E**	209	0.60	41.7	D
	OVERALL*				0.94	41.5	D		1.04	34.7	C		1.18	46.9	D
ETC+10 Mitigation	EB	L	100	21	0.06	7.3	A	19	0.07	6.8	A	36	0.23	17.2	B
	EB	TR	-	#693	0.85	23.1	C	406	0.64	12.7	B	460	0.69	21.5	C
	WB	L	100	30	0.20	11.1	B	27	0.13	7.7	A	42	0.20	14.7	B
	WB	TR	-	132	0.28	8.1	A	263	0.50	9.7	A	#694	0.85	29.3	C
	NB	L	150	85	0.53	45.3	D	96	0.62	50.2	D	149	0.75	43.7	D
	NB	TR	-	138	0.46	35.3	D	160	0.63	41.9	D	165	0.43	27.8	C
	SB	L	100	58	0.28	32.8	C	52	0.33	35.7	D	40	0.16	34.8	C
	SB	LTR	-	188	0.73	45.6	D	151	0.69	44.7	D	183	0.68	49.1	D
	OVERALL*				0.85	25.3	C		0.69	20.5	C		0.85	29.5	C

Notes:

1. The capacity analysis is conducted by SYNCHRO, version 10, which utilizes the Highway Capacity Manual.
2. For LOS definition, see Appendix C-3. Constrained traffic operations are presented in "Bold" letter font on this table.
3. WB = Westbound, EB = Eastbound, NB = Northbound, SB = Southbound, NEB = Northeastbound, SWB = Southwestbound, NWB = Northwestbound, SEB = Southeastbound
4. L = Left turn movement, R = Right turn movement, T = Thru movement, LT = Shared left and thru movement, TR = Shared thru and right movement, LTR =Shared left, thru and right, LR =Shared left and right.
5. * Overall v/c ratio is actually max v/c ratio of an approach within the intersection. However, delay and LOS values are based on the weighted average of all signalized intersection approaches.
6. Queue (ft) shows 95th Percentile queue length in feet. # - 95th percentile volume exceeds capacity, queue may be longer. m - Volume for 95th percentile queue is metered by upstream signal.

SIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY

Stephen Hands Path at Route 114 Level of Service and Delays (sec)

INTERSECTION NAME	LANE GROUP MOVEMENT		Turnbay Length	AM PEAK				MIDDAY PEAK				PM PEAK			
				Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS
Existing	SB	LTR	-	**#757**	**1.07**	**71.1**	**E**	#342	0.90	30.1	C	#241	0.95	40.0	D
	NB	LTR	-	198	0.50	16.0	B	237	0.52	15.8	B	420	0.70	21.9	C
	EB	LTR	-	**#296**	**1.10**	**127.5**	**F**	**#368**	**1.10**	**121.0**	**F**	**#435**	**1.09**	**112.0**	**F**
	WB	LT	-	**#375**	**1.11**	**118.8**	**F**	#256	0.76	51.5	D	#222	0.75	54.8	D
	WB	R	70	105	0.55	13.2	B	73	0.52	7.6	A	169	0.69	16.7	B
	OVERALL*				**1.11**	**66.9**	**E**		1.10	40.4	D		1.09	44.2	D
ETC	SB	LTR	-	**#776**	**1.09**	**78.8**	**E**	#362	0.91	32.2	C	#255	0.97	44.5	D
	NB	LTR	-	203	0.51	16.2	B	240	0.52	16.0	B	437	0.71	22.5	C
	EB	LTR	-	**#298**	**1.10**	**128.7**	**F**	**#375**	**1.12**	**126.6**	**F**	**#440**	**1.10**	**114.6**	**F**
	WB	LT	-	**#386**	**1.14**	**128.5**	**F**	#264	0.78	53.3	D	**#226**	**0.76**	**55.8**	**E**
	WB	R	70	109	0.56	13.6	B	77	0.52	8.0	A	175	0.70	17.6	B
	OVERALL*				**1.14**	**71.8**	**E**		1.12	42.4	D		1.10	46.3	D
ETC+5	SB	LTR	-	**#801**	**1.12**	**89.5**	**F**	#403	0.94	37.2	D	#275	1.00	52.1	D
	NB	LTR	-	209	0.52	16.5	B	249	0.54	16.3	B	#515	0.74	24.1	C
	EB	LTR	-	**#307**	**1.13**	**137.5**	**F**	**#385**	**1.14**	**133.6**	**F**	**#455**	**1.13**	**123.9**	**F**
	WB	LT	-	**#398**	**1.17**	**137.2**	**F**	#272	0.79	54.7	D	**#236**	**0.80**	**59.4**	**E**
	WB	R	70	115	0.57	14.0	B	81	0.54	8.4	A	185	0.72	19.1	B
	OVERALL*				**1.17**	**78.5**	**E**		1.14	45.4	D		1.13	51.0	D
ETC+10	SB	LTR	-	**#829**	**1.16**	**103.1**	**F**	#444	0.97	43.2	D	**#296**	**1.03**	**61.0**	**E**
	NB	LTR	-	222	0.54	17.2	B	258	0.55	16.7	B	#550	0.76	25.7	C
	EB	LTR	-	**#316**	**1.16**	**145.8**	**F**	**#394**	**1.17**	**142.1**	**F**	**#465**	**1.15**	**130.8**	**F**
	WB	LT	-	**#409**	**1.20**	**148.9**	**F**	**#284**	**0.82**	**57.6**	**E**	**#245**	**0.82**	**63.0**	**E**
	WB	R	70	118	0.58	14.5	B	87	0.55	8.8	A	193	0.74	20.5	C
	OVERALL*				**1.20**	**86.8**	**F**		1.17	49.2	D		**1.15**	**55.6**	**E**
ETC+10 Mitigation	SB	L	200	159	0.62	14.4	B	115	0.52	10.1	B	99	0.68	16.4	B
	SB	TR	-	270	0.53	13.4	B	160	0.36	8.5	A	119	0.30	8.5	A
	NB	L	100	56	0.19	22.7	C	46	0.13	17.8	B	45	0.12	18.0	B
	NB	TR	-	235	0.50	24.8	C	287	0.54	21.7	C	#508	0.75	30.1	C
	EB	L	100	52	0.39	37.5	D	60	0.36	33.8	C	65	0.25	31.5	C
	EB	TR	-	145	0.42	28.0	C	199	0.70	40.0	D	277	0.81	48.7	D
	WB	L	100	30	0.11	25.2	C	33	0.18	29.3	C	51	0.35	38.9	D
	WB	T	-	263	0.82	44.8	D	185	0.64	37.6	D	144	0.41	33.2	C
	WB	R	200	35	0.42	3.7	A	57	0.47	5.2	A	191	0.67	16.2	B
	OVERALL*				0.82	21.0	C		0.70	19.5	B		0.81	25.4	C

Notes:

1. The capacity analysis is conducted by SYNCHRO, version 10, which utilizes the Highway Capacity Manual.
2. For LOS definition, see Appendix C-3. Constrained traffic operations are presented in "Bold" letter font on this table.
3. WB = Westbound, EB = Eastbound, NB = Northbound, SB = Southbound, NEB = Northeastbound, SWB = Southwestbound, NWB = Northwestbound, SEB = Southeastbound
4. L = Left turn movement, R = Right turn movement, T = Thru movement, LT = Shared left and thru movement, TR = Shared thru and right movement, LTR =Shared left, thru and right, LR =Shared left and right.
5. * Overall v/c ratio is actually max v/c ratio of an approach within the intersection. However, delay and LOS values are based on the weighted average of all signalized intersection approaches.
6. Queue (ft) shows 95th Percentile queue length in feet. # - 95th percentile volume exceeds capacity, queue may be longer. m - Volume for 95th percentile queue is metered by upstream signal.

UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY

Goodfriend Drive/Coultes Lane at Route 114 Level of Service and Delays (sec) - Unsignalized Intersection

INTERSECTION NAME	LANE GROUP MOVEMENT		Turnbay Length	AM PEAK				MIDDAY PEAK				PM PEAK			
				Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS
Existing	EB	LT	-	1	0.28	26.7	D	0	0.08	17.8	C	2	0.43	34.7	D
	EB	R	-	1	0.14	12.1	B	0	0.06	10.2	B	1	0.14	10.7	B
	SB	LTR	-	0	0.00	7.8	A	0	0.00	8.0	A	0	0.00	8.3	A
	NB	LTR	-	0	0.08	8.7	A	0	0.03	8.0	A	0	0.08	8.2	A
	WB	LTR	-	0	0.02	15.7	C	0	0.01	12.9	B	0	0.01	16.4	C
	OVERALL*				0.28	3.5	A		0.08	1.5	A		0.43	4.6	A
ETC	EB	LT	-	1	0.30	27.6	D	0	0.08	18.1	C	**2**	**0.44**	**36.2**	**E**
	EB	R	-	1	0.14	12.2	B	0	0.06	10.3	B	1	0.14	10.7	B
	SB	LTR	-	0	0.00	7.8	A	0	0.00	8.1	A	0	0.00	8.3	A
	NB	LTR	-	0	0.08	8.7	A	0	0.03	8.0	A	0	0.09	8.3	A
	WB	LTR	-	0	0.02	16.0	C	0	0.01	13.0	B	0	0.01	16.7	C
	OVERALL*				0.30	3.5	A		0.08	1.6	A		0.44	4.7	A
ETC+5	EB	LT	-	1	0.31	28.9	D	0	0.09	18.5	C	**2**	**0.47**	**39.0**	**E**
	EB	R	-	1	0.15	12.4	B	0	0.06	10.3	B	1	0.15	10.8	B
	SB	LTR	-	0	0.00	7.8	A	0	0.00	8.1	A	0	0.00	8.4	A
	NB	LTR	-	0	0.08	8.8	A	0	0.04	8.1	A	0	0.09	8.3	A
	WB	LTR	-	0	0.02	16.4	C	0	0.01	13.2	B	0	0.01	17.1	C
	OVERALL*				0.31	3.6	A		0.09	1.6	A		0.47	4.9	A
ETC+10	EB	LT	-	1	0.33	30.6	D	0	0.09	19.0	C	**3**	**0.50**	**42.4**	**E**
	EB	R	-	1	0.16	12.5	B	0	0.06	10.4	B	1	0.15	10.9	B
	SB	LTR	-	0	0.00	7.9	A	0	0.00	8.1	A	0	0.00	8.4	A
	NB	LTR	-	0	0.09	8.8	A	0	0.04	8.1	A	0	0.09	8.3	A
	WB	LTR	-	0	0.02	16.8	C	0	0.01	13.4	B	0	0.01	17.6	C
	OVERALL*				0.33	3.8	A		0.09	1.6	A		0.50	5.2	A
ETC+10 Mitigation	EB	LT	-	1	0.33	30.1	D	0	0.09	18.9	C	**2**	**0.49**	**40.7**	**E**
	EB	R	-	1	0.16	12.5	B	0	0.06	10.4	B	1	0.15	10.9	B
	SB	L	100	0	0.00	7.9	A	0	0.00	8.1	A	0	0.00	8.4	A
	SB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	NB	L	150	0	0.09	8.8	A	0	0.04	8.1	A	0	0.09	8.3	A
	NB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	WB	LTR	-	0	0.02	16.7	C	0	0.01	13.4	B	0	0.01	17.3	C
	OVERALL*				0.33	3.7	A		0.09	1.6	A		0.49	5.1	A

Notes:

1. The capacity analysis is conducted by SYNCHRO, version 10, which utilizes the Highway Capacity Manual.
2. For LOS definition, see Appendix C-3. Constrained traffic operations are presented in "Bold" letter font on this table.
3. WB = Westbound, EB = Eastbound, NB = Northbound, SB = Southbound, NEB = Northeastbound, SWB = Southwestbound, NWB = Northwestbound, SEB = Southeastbound
4. L = Left turn movement, R = Right turn movement, T = Thru movement, LT = Shared left and thru movement, TR = Shared thru and right movement, LTR =Shared left, thru and right, LR =Shared left and right.
5. * Overall v/c ratio is actually max v/c ratio of an approach within the intersection. However, delay and LOS values are based on the weighted average of all signalized intersection approaches.
6. Queue (ft) shows 95th Percentile queue length in feet. # - 95th percentile volume exceeds capacity, queue may be longer. m - Volume for 95th percentile queue is metered by upstream signal.

UNSIGNALIZED INTERSECTION AND ROUNDABOUT CAPACITY ANALYSIS SUMMARY

NYS Route 25 at CR 48/Sound Road Level of Service and Delays (sec)

INTERSECTION NAME	LANE GROUP MOVEMENT		Turnbay Length	AM PEAK				MIDDAY PEAK				PM PEAK				SAT PEAK			
				Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS	Queue (ft)	v/c ratio	Delay (sec)	LOS
Existing West Intersection	NB	LR	-	1	0.23	11.2	B	3	0.50	16.4	C	4	0.58	21.5	C	**8**	**0.86**	**49.0**	**E**
	EB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	WB	L	-	0	0.12	8.5	A	1	0.17	8.5	A	1	0.16	8.4	A	1	0.18	8.6	A
	WB	T	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	OVERALL*				0.23	3.1	A		0.50	5.4	A		0.58	6.2	A		0.86	12.9	B
Existing East Intersection	EB	LT	-	0	0.01	8.1	A	0	0.01	8.5	A	0	0.02	9.0	A	0	0.03	9.5	A
	WB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	SB	LR	-	0	0.04	12.4	B	0	0.08	15.4	C	0	0.06	15.1	C	0	0.09	17.4	C
	OVERALL*				0.04	0.4	A		0.08	0.5	A		0.06	0.5	A		0.09	0.5	A
ETC West Intersection	NB	LR	-	1	0.24	11.4	B	3	0.52	17.1	C	4	0.60	22.4	C	**9**	**0.87**	**51.3**	**F**
	EB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	WB	L	-	0	0.12	8.6	A	1	0.18	8.6	A	1	0.16	8.4	A	1	0.19	8.6	A
	WB	T	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	OVERALL*				0.24	3.1	A		0.52	5.6	A		0.60	6.4	A		0.87	13.4	B
ETC East Intersection	EB	LT	-	0	0.01	8.1	A	0	0.01	8.5	A	0	0.02	9.0	A	0	0.03	9.5	A
	WB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	SB	LR	-	0	0.04	12.5	B	0	0.08	15.6	C	0	0.06	15.3	C	0	0.09	17.6	C
	OVERALL*				0.04	0.4	A		0.08	0.5	A		0.06	0.5	A		0.09	0.5	A
ETC+5 West Intersection	NB	LR	-	1	0.25	11.6	B	3	0.54	18.1	C	4	0.64	24.8	C	**11**	**0.96**	**71.5**	**F**
	EB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	WB	L	-	0	0.13	8.6	A	1	0.18	8.6	A	1	0.17	8.4	A	1	0.19	8.7	A
	WB	T	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	OVERALL*				0.25	3.2	A		0.54	5.8	A		0.64	7.0	A		0.96	18.1	C
ETC+5 East Intersection	EB	LT	-	0	0.01	8.1	A	0	0.01	8.5	A	0	0.02	9.1	A	0	0.03	9.6	A
	WB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	SB	LR	-	0	0.04	12.7	B	0	0.08	15.7	C	0	0.06	15.5	C	0	0.09	18.0	C
	OVERALL*				0.04	0.4	A		0.08	0.5	A		0.06	0.5	A		0.09	0.5	A
ETC+10 West Intersection	NB	LR	-	1	0.27	12.1	B	4	0.59	20.2	C	5	0.68	27.8	D	**13**	**1.05**	**99.0**	**F**
	EB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	WB	L	-	1	0.13	8.7	A	1	0.19	8.7	A	1	0.17	8.5	A	1	0.20	8.7	A
	WB	T	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	OVERALL*				0.27	3.2	A		0.59	6.4	A		0.68	7.7	A		1.05	24.6	C
ETC+10 East Intersection	EB	LT	-	0	0.01	8.2	A	0	0.01	8.6	A	0	0.02	9.2	A	0	0.03	9.7	A
	WB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	SB	LR	-	0	0.05	12.8	B	0	0.09	16.4	C	0	0.07	15.8	C	0	0.08	18.4	C
	OVERALL*				0.05	0.4	A		0.09	0.5	A		0.07	0.5	A		0.08	0.5	A
ETC+15 West Intersection	NB	LR	-	1	0.28	12.3	B	4	0.63	22.0	C	6	0.73	32.1	D	**15**	**1.13**	**127.7**	**F**
	EB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	WB	L	-	1	0.14	8.7	A	1	0.19	8.7	A	1	0.18	8.5	A	1	0.20	8.7	A
	WB	T	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	OVERALL*				0.28	3.3	A		0.63	6.8	A		0.73	8.6	A		1.13	31.3	D
ETC+15 East Intersection	EB	LT	-	0	0.01	8.2	A	0	0.01	8.6	A	0	0.02	9.2	A	0	0.03	9.7	A
	WB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	SB	LR	-	0	0.05	13.2	B	0	0.09	16.8	C	0	0.07	16.1	C	0	0.10	18.9	C
	OVERALL*				0.05	0.4	A		0.09	0.5	A		0.07	0.5	A		0.10	0.5	A
ETC+20 West Intersection	NB	LR	-	1	0.29	12.8	B	5	0.66	24.1	C	**8**	**0.82**	**44.5**	**E**	**17**	**1.22**	**160.1**	**F**
	EB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	WB	L	-	1	0.14	8.7	A	1	0.20	8.8	A	1	0.18	8.6	A	1	0.21	8.8	A
	WB	T	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	OVERALL*				0.29	3.4	A		0.66	7.3	A		0.82	11.5	B		**1.22**	**38.9**	**E**
ETC+20 East Intersection	EB	LT	-	0	0.01	8.2	A	0	0.01	8.7	A	0	0.02	9.3	A	0	0.03	9.8	A
	WB	TR	-	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A
	SB	LR	-	0	0.05	13.3	B	0	0.10	16.9	C	0	0.07	16.4	C	0	0.11	19.4	C
	OVERALL*				0.05	0.4	A		0.10	0.6	A		0.07	0.5	A		0.11	0.5	A
ETC+20 Mitigation 1 (Roundabout)	EB	LTR	-	3	0.53	9.5	A	3	0.49	9.2	A	2	0.44	8.4	A	3	0.49	9.4	A
	WB	LTR	-	2	0.41	6.9	A	4	0.61	10.8	B	6	0.69	13.1	B	9	0.79	18.3	C
	NB	LTR	-	1	0.23	6.6	A	2	0.38	8.2	A	2	0.34	7.4	A	2	0.40	8.4	A
	OVERALL*				0.53	8.1	A		0.61	9.7	A		0.69	10.5	B		0.79	13.6	B

Notes:

1. The capacity analysis is conducted by SYNCHRO, version 10, which utilizes the Highway Capacity Manual.
2. For LOS definition, see Appendix C-3. Constrained traffic operations are presented in "Bold" letter font on this table.
3. WB = Westbound, EB = Eastbound, NB = Northbound, SB = Southbound, NEB = Northeastbound, SWB = Southwestbound, NWB = Northwestbound, SEB = Southeastbound
4. L = Left turn movement, R = Right turn movement, T = Thru movement, LT = Shared left and thru movement, TR = Shared thru and right movement, LTR =Shared left, thru and right, LR =Shared left and right.
5. * Overall v/c ratio is actually max v/c ratio of an approach within the intersection. However, delay and LOS values are based on the weighted average of all signalized intersection approaches.
6. Queue (ft) shows 95th Percentile queue length in feet. # - 95th percentile volume exceeds capacity, queue may be longer. m - Volume for 95th percentile queue is metered by upstream signal.

APPENDIX C - TRANSPORTATION

Attachment T-11 Crash Analyses - NY25 & Edwards Avenue

ACCIDENT SUMMARY SHEET

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

MUNICIPALITY: *TOWN OF GREENPORT WEST* **COUNTY:** *SUFFOLK*

TIME PERIOD COVERED: *4/1/2016 - 12/31/2016* **REFERENCE MARKERS / NODES:** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

TIME OF DAY	# ACC	%
6 AM - 10 AM	0	0.0%
10 AM - 4 PM	5	55.6%
4 PM - 7 PM	2	22.2%
7 PM - 12 AM	2	22.2%
12 AM - 6 AM	0	0.0%
Unspecified	0	0.0%
Total	**9**	

DIRECTION	# ACC	%
North	2	11.1%
South	1	5.6%
East	6	33.3%
West	9	50.0%
Total	**18**	

DIRECTION	# ACC	%
Northeast	0	0.0%
Northwest	0	0.0%
Southeast	0	0.0%
Southwest	0	0.0%
Unspecified	0	0.0%

WEATHER	# ACC	%
Clear	8	88.9%
Cloudy	0	0.0%
Rain	1	11.1%
Snow	0	0.0%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unspecified	0	0.0%
Total	**9**	

ACCIDENT TYPE	# ACC	%
Rear End	5	55.6%
Overtake	1	11.1%
Right Angle	2	22.2%
Left Turn	1	11.1%
Right Turn	0	0.0%
Fixed Object	0	0.0%
Head On	0	0.0%
Sideswipe	0	0.0%

ACCIDENT TYPE	# ACC	%
Pedestrian	0	0.0%
Bicycle	0	0.0%
Parked Vehicle	0	0.0%
Backing	0	0.0%
Run Off The Road	0	0.0%
Animal	0	0.0%
Other	0	0.0%
Unspecified	0	0.0%

Total **9**

SURFACE	# ACC	%
Dry	8	88.9%
Wet	1	11.1%
Mud/Slush	0	0.0%
Snow/Ice	0	0.0%
Unspecified	0	0.0%
Total	**9**	

ACCIDENT SEVERITY	# ACC	%
Fatal	0	0.0%
Injury	4	44.4%
Property Damage	5	55.6%
Non-Reportable	0	0.0%
Total	**9**	

TIME OF YEAR	# ACC	%
Winter (Dec-Feb)	0	0.0%
Spring (Mar-May)	0	0.0%
Summer (Jun-Aug)	2	22.2%
Fall (Sep-Nov)	7	77.8%
Total	**9**	

TYPE OF VEHICLE	# ACC	%
Passenger Cars	18	100.0%
Commercial Vehicles	0	0.0%
Total	**18**	

DAY OF WEEK	# ACC	%
Sunday	1	11.1%
Monday	2	22.2%
Tuesday	1	11.1%
Wednesday	0	0.0%
Thursday	3	33.3%
Friday	2	22.2%
Saturday	0	0.0%
Total	**9**	

LIGHT CONDITION	# ACC	%
Daylight	6	66.7%
Dawn/Dusk	1	11.1%
Night	2	22.2%
Unspecified	0	0.0%
Total	**9**	

SUMMARY OF ACCIDENT SEVERITY BY YEAR:

	2016
Fatal Accidents	0
Injury Accidents	4
Property Damage Accidents	5
Non-Reportable Accidents	0
Total Accidents	**9**

DETAILS OF ACCIDENT HISTORY

PERIOD STUDIED:
FROM: 4/1/2016
TO: 12/31/2016
9 MONTHS

ROUTE NUMBER/STREET NAME: NY25 / NORTH ROAD
LOCATION: NY25 / NORTH ROAD & MAIN STREET / CR48
MUNICIPALITY: TOWN OF GREENPORT WEST COUNTY: SUFFOLK
REFERENCE MARKERS / NODES: -

CASE No.
FILE: ny25EdwardsAve
BY: GPI
DATE: 9/23/2020

No.	DATE	TIME	# VEHICLES	SEVERITY	LIGHT COND	ROAD CHAR	SURFACE	WEATHER	CONTRIB. FACTORS	ACC. TYPE	ACCIDENT DESCRIPTION	KEY #
6	10/4/2016	21:16	2	INJ	4	1	1	1	7	Ltrn	W2 made LT and was struck by E1	4
7	10/13/2016	17:59	2	PDO	1	1	1	1	13 4	Ovtk	W1 changed lanes and hit W2 in heavy traffic	4
3	8/4/2016	15:04	2	PDO	1	1	1	1	17	Rang	W1 disregarded traffic signal and was struck by S2	4
32	8/22/2016	12:48	2	INJ	1	1	1	1	7	Rang	W1 made (WB) LT and was struck by E2 (EB)	4
4	9/2/2016	14:33	2	PDO	1	1	1	1	4	Rend	E1 was distracted and rear ended E2 while moving in traffic	4
5	9/15/2016	23:02	2	INJ	4	1	1	1	4	Rend	W2 rear ended W1 while stopping in traffic	4
8	11/25/2016	16:46	2	PDO	3	1	2	3	9	Rend	N2 rear ended N1 while slowing down for a yellow traffic light	4
19	10/10/2016	11:45	2	INJ	1	1	1	1	4	Rend	E1 rear ended E2 while stopping in traffic	4
33	9/11/2016	15:33	2	PDO	1	1	1	1	9	Rend	W2 rear ended by W1 while stopping in traffic	4

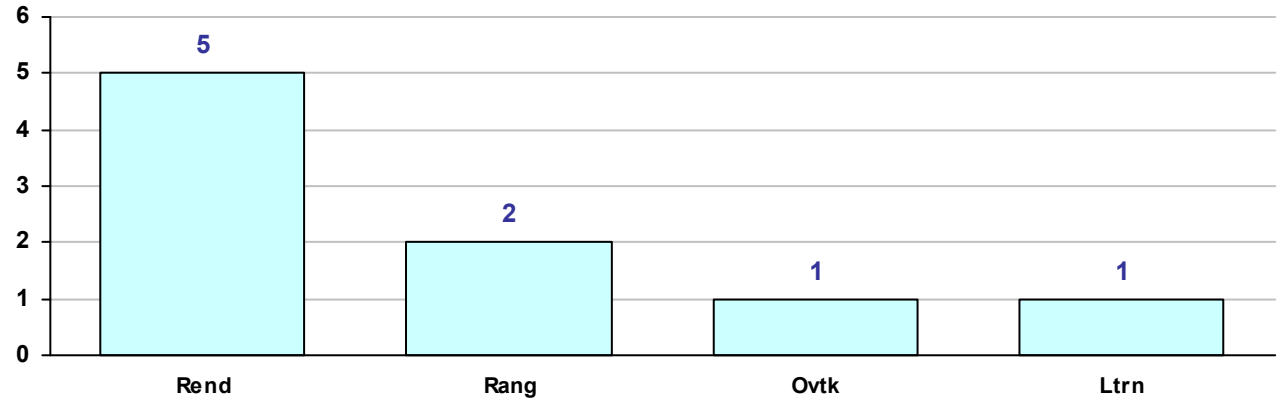
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

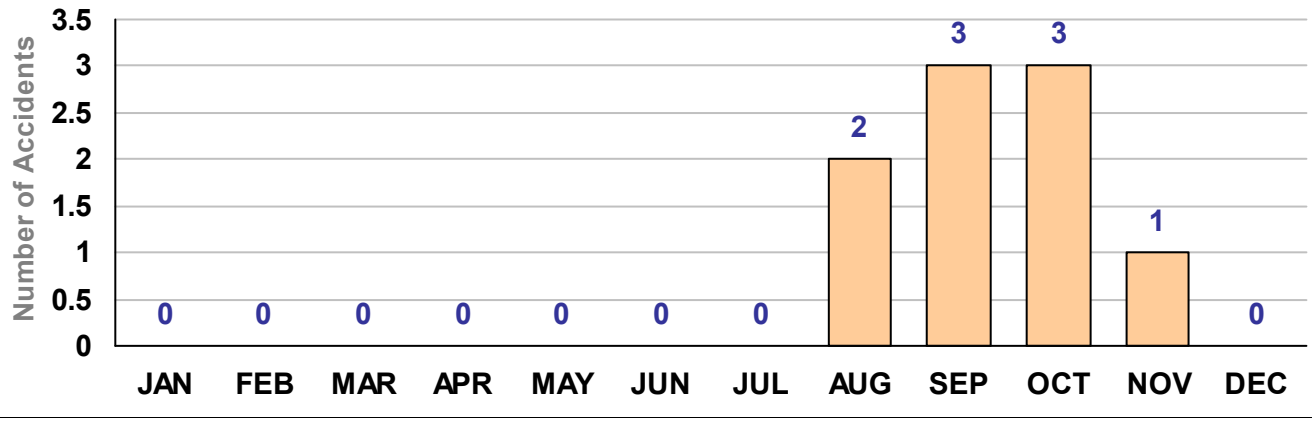
TIME PERIOD COVERED: *4/1/2016 - 12/31/2016* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

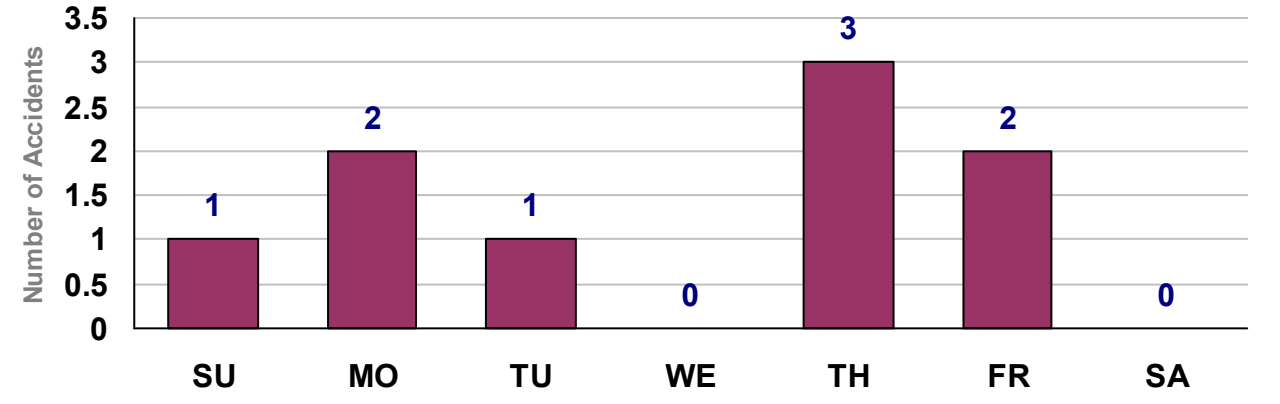
NUMBER OF ACCIDENTS BY TYPE



ACCIDENTS BY MONTH



ACCIDENTS BY DAY OF WEEK

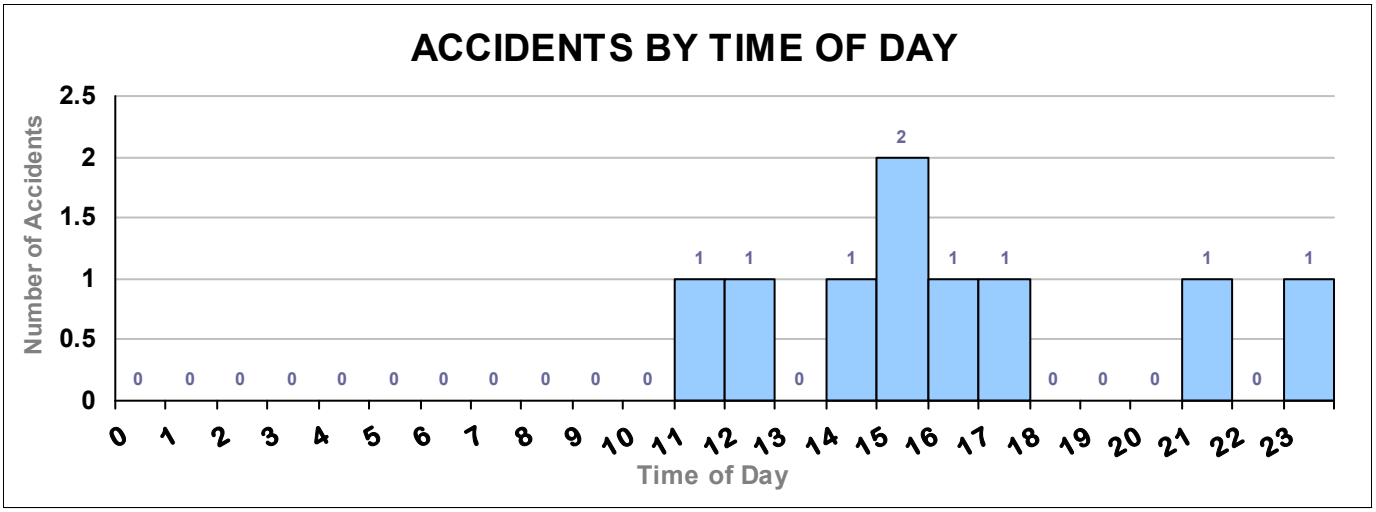


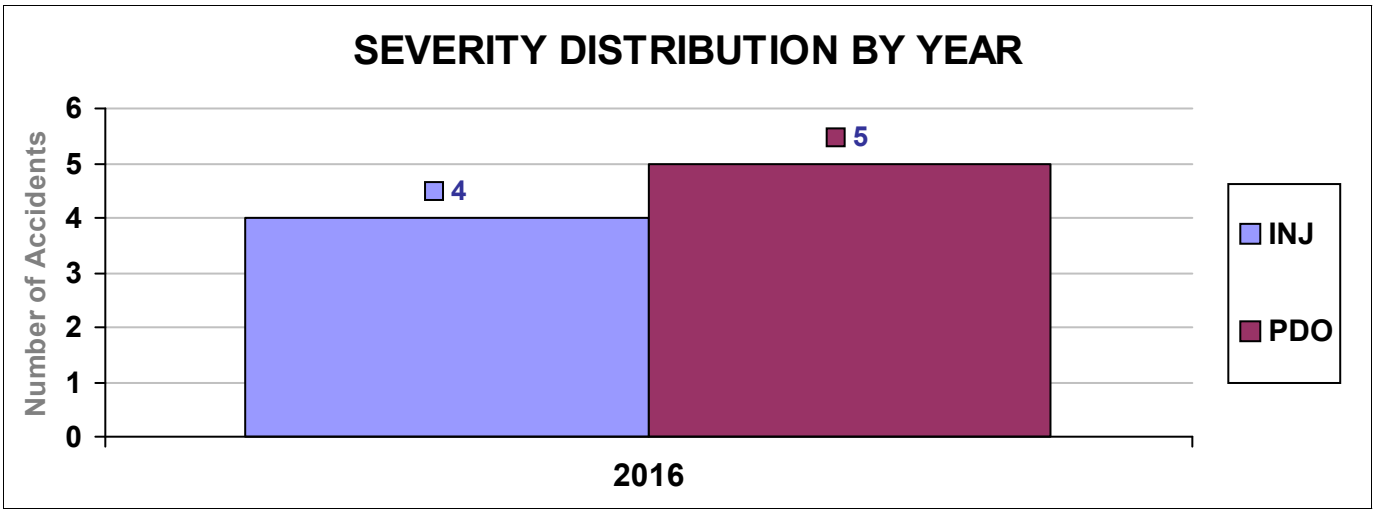
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

TIME PERIOD COVERED: *4/1/2016 - 12/31/2016* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*





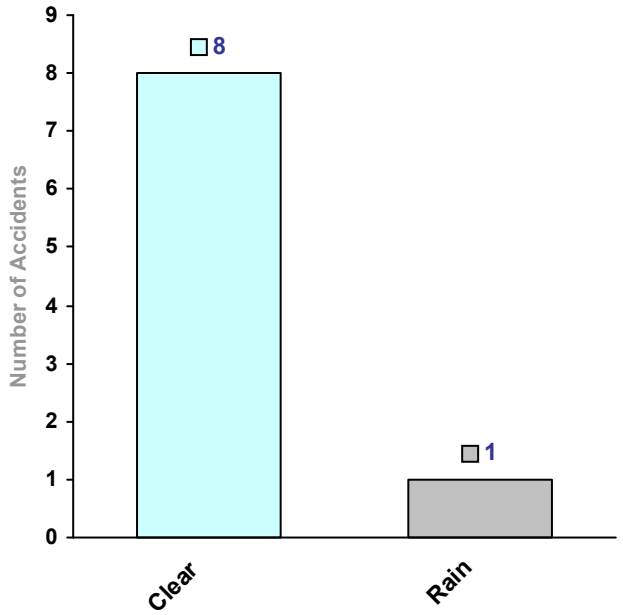
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

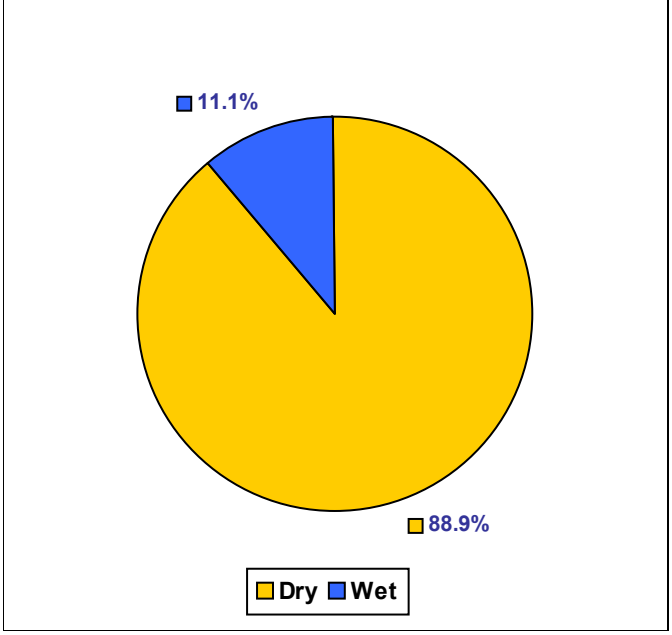
TIME PERIOD COVERED: *4/1/2016 - 12/31/2016* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

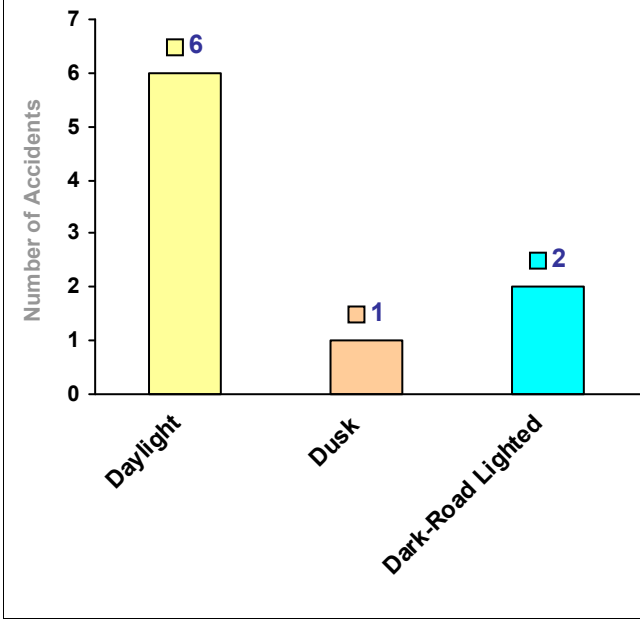
ACCIDENTS BY WEATHER



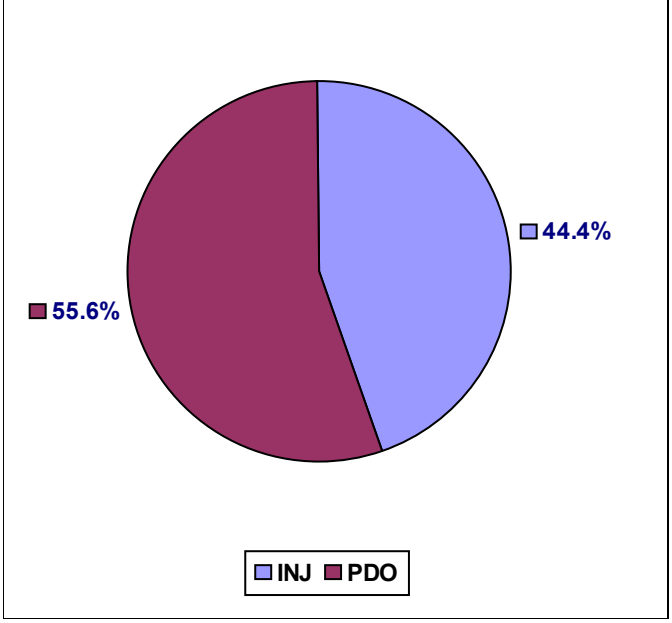
ROAD SURFACE



LIGHT CONDITION



ACCIDENT SEVERITY



COLLISION DIAGRAM

Key Number = 4

MUNICIPALITY: TOWN OF GREENPORT W COUNTY: SUFFOLK

INTERSECTION: NY25 / NORTH ROAD

PERIOD: 0 YEARS 9 MONTHS FROM 4/1/2016 TO 12/31/2016

FILE: ny25EdwardsAve

CASE # :

BY: GPI DATE: 9/23/2020



32

SYMBOLS

- MOVING VEHICLE
- TURNING VEHICLE
- BACKING VEHICLE
- PARKED VEHICLE
- 999 RECORD NUMBER
- P PEDESTRIAN
- B BICYCLIST
- A ANIMAL
- FIXED OBJECT
- Fatal

MANNER OF COLLISION

- REAR END
- LEFT TURN
- LEFT TURN
- OVERTAKE
- OUT OF CONTROL
- HEAD ON
- RIGHT TURN
- RIGHT TURN
- RIGHT ANGLE
- SIDE SWIPE

ACCIDENT SUMMARY SHEET

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

MUNICIPALITY: *TOWN OF GREENPORT WEST* **COUNTY:** *SUFFOLK*

TIME PERIOD COVERED: *1/1/2017 - 12/31/2017* **REFERENCE MARKERS / NODES:** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

TIME OF DAY	# ACC	%
6 AM - 10 AM	2	15.4%
10 AM - 4 PM	7	53.8%
4 PM - 7 PM	0	0.0%
7 PM - 12 AM	4	30.8%
12 AM - 6 AM	0	0.0%
Unspecified	0	0.0%
Total	**13**	

DIRECTION	# ACC	%
North	1	3.7%
South	4	14.8%
East	16	59.3%
West	6	22.2%
Total	**27**	

DIRECTION	# ACC	%
Northeast	0	0.0%
Northwest	0	0.0%
Southeast	0	0.0%
Southwest	0	0.0%
Unspecified	0	0.0%

WEATHER	# ACC	%
Clear	9	69.2%
Cloudy	4	30.8%
Rain	0	0.0%
Snow	0	0.0%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unspecified	0	0.0%
Total	**13**	

ACCIDENT TYPE	# ACC	%
Rear End	7	53.8%
Overtake	1	7.7%
Right Angle	2	15.4%
Left Turn	3	23.1%
Right Turn	0	0.0%
Fixed Object	0	0.0%
Head On	0	0.0%
Sideswipe	0	0.0%
Total	**13**	

ACCIDENT TYPE	# ACC	%
Pedestrian	0	0.0%
Bicycle	0	0.0%
Parked Vehicle	0	0.0%
Backing	0	0.0%
Run Off The Road	0	0.0%
Animal	0	0.0%
Other	0	0.0%
Unspecified	0	0.0%

SURFACE	# ACC	%
Dry	11	84.6%
Wet	1	7.7%
Mud/Slush	0	0.0%
Snow/Ice	1	7.7%
Unspecified	0	0.0%
Total	**13**	

ACCIDENT SEVERITY	# ACC	%
Fatal	0	0.0%
Injury	6	46.2%
Property Damage	7	53.8%
Non-Reportable	0	0.0%
Total	**13**	

TIME OF YEAR	# ACC	%
Winter (Dec-Feb)	4	30.8%
Spring (Mar-May)	3	23.1%
Summer (Jun-Aug)	2	15.4%
Fall (Sep-Nov)	4	30.8%
Total	**13**	

TYPE OF VEHICLE	# ACC	%
Passenger Cars	27	100.0%
Commercial Vehicles	0	0.0%
Total	**27**	

DAY OF WEEK	# ACC	%
Sunday	2	15.4%
Monday	1	7.7%
Tuesday	2	15.4%
Wednesday	3	23.1%
Thursday	1	7.7%
Friday	3	23.1%
Saturday	1	7.7%
Total	**13**	

LIGHT CONDITION	# ACC	%
Daylight	10	76.9%
Dawn/Dusk	1	7.7%
Night	2	15.4%
Unspecified	0	0.0%
Total	**13**	

SUMMARY OF ACCIDENT SEVERITY BY YEAR:

	2017
Fatal Accidents	0
Injury Accidents	6
Property Damage Accidents	7
Non-Reportable Accidents	0
Total Accidents	**13**

DETAILS OF ACCIDENT HISTORY

PERIOD STUDIED:
FROM: 1/1/2017
TO: 12/31/2017
12 MONTHS

ROUTE NUMBER/STREET NAME: NY25 / NORTH ROAD
LOCATION: NY25 / NORTH ROAD & MAIN STREET / CR48
MUNICIPALITY: TOWN OF GREENPORT WEST COUNTY: SUFFOLK
REFERENCE MARKERS / NODES: -

CASE No.
FILE: ny25EdwardsAve
BY: GPI
DATE: 9/23/2020

No.	DATE	TIME	# VEHICLES	SEVERITY	LIGHT COND	ROAD CHAR	SURFACE	WEATHER	CONTRIB. FACTORS	ACC. TYPE	ACCIDENT DESCRIPTION	KEY #
10	2/10/2017	13:45	2	PDO	1	1	4	1	7 18	Ltrn	E2 made LT and struck by W1	5
21	12/26/2017	13:04	2	INJ	1	1	1	1	7 18	Ltrn	N2 made LT and was struck by W1	5
34	9/20/2017	21:19	2	PDO	4	1	1	1	7	Ltrn	S1 made LT and was struck by E2	5
20	12/3/2017	22:27	2	INJ	5	1	1	2	9 18	Ovtk	E1 changed lanes by overtaking & hit E2 in heavy traffic	5
13	5/20/2017	20:09	2	INJ	2	1	1	1	17	Rang	N2 disregarded the traffic red signal and struck W1	5
16	8/2/2017	19:22	2	PDO	1	1	1	1	7 13	Rang	E1 made LT was struck by W2	5
9	1/13/2017	13:43	2	INJ	1	2	1	1	4	Rend	E1 rear ended E2 while stopping in traffic	5
11	5/2/2017	10:47	3	INJ	1	1	2	2	4	Rend	E1 rear ended E2 while stopping in traffic, which struck E3	5
12	5/15/2017	9:59	2	PDO	1	2	1	1	7 9	Rend	E2 rear ended E1 which was slowing down in traffic	5
14	11/23/2017	8:40	2	INJ	1	1	1	1	4	Rend	S2 rear ended BY S1 while stopping in traffic	5
15	7/28/2017	13:16	2	PDO	1	1	1	1	9 42	Rend	E1 rear ended E2 while slowing down in traffic	5
17	9/27/2017	12:15	2	PDO	1	1	1	2	9	Rend	E1 rear ended E2 while moving in traffic	5
18	11/19/2017	11:11	2	PDO	1	1	1	2	4	Rend	W1 rear ended W2 which was stopped in red traffic light	5

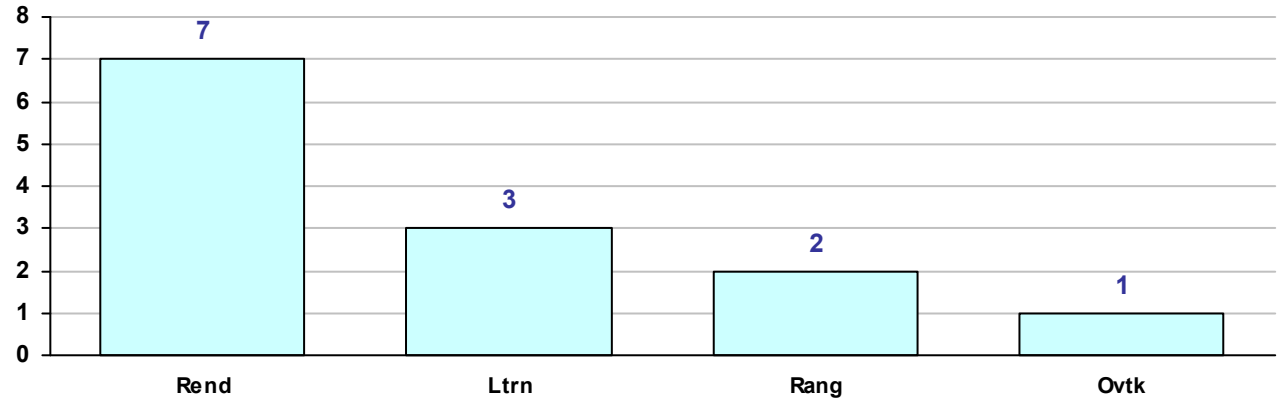
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

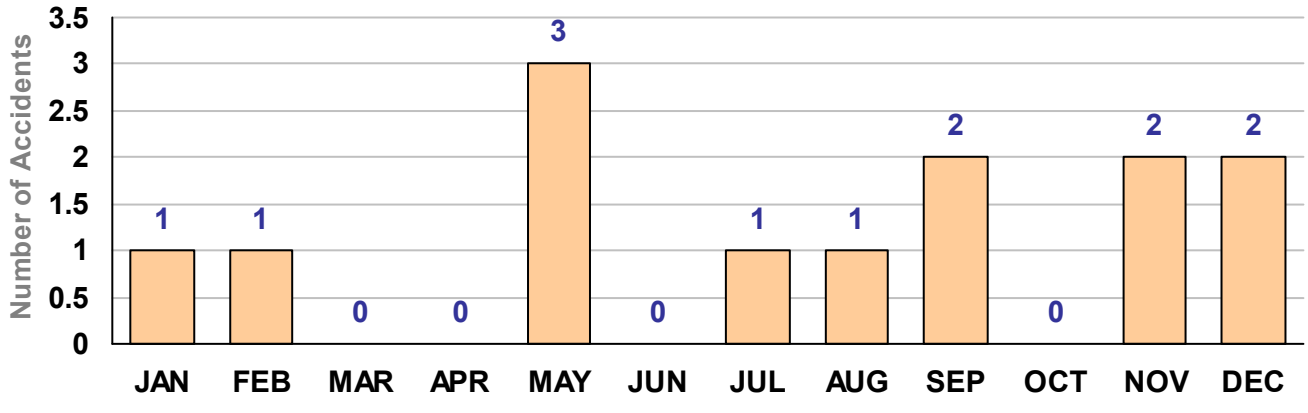
TIME PERIOD COVERED: *1/1/2017 - 12/31/2017* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

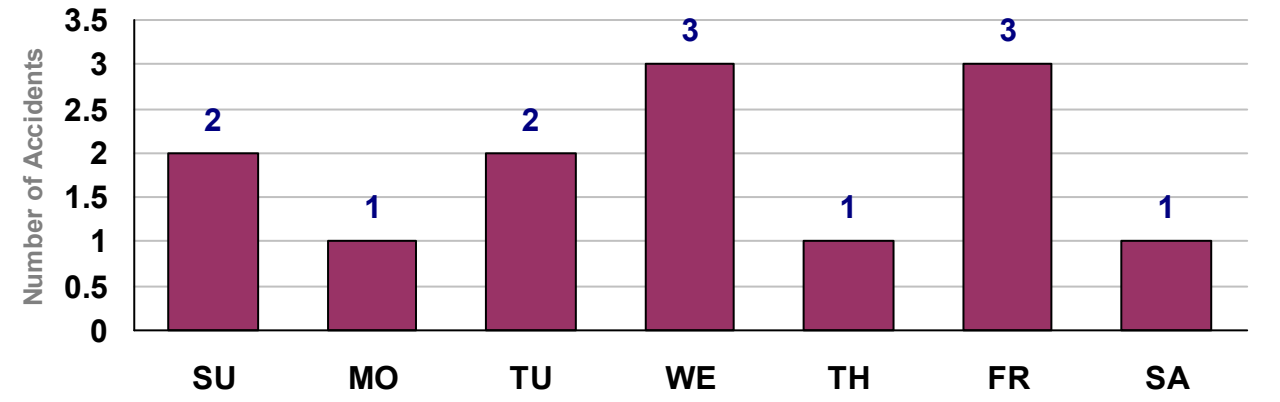
NUMBER OF ACCIDENTS BY TYPE



ACCIDENTS BY MONTH



ACCIDENTS BY DAY OF WEEK

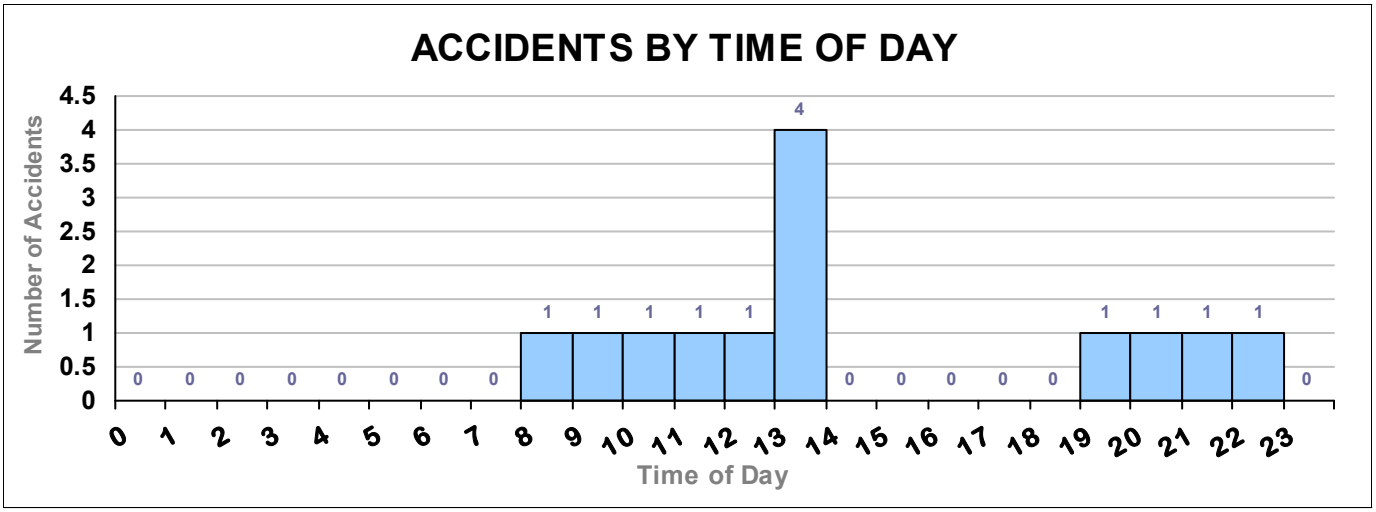


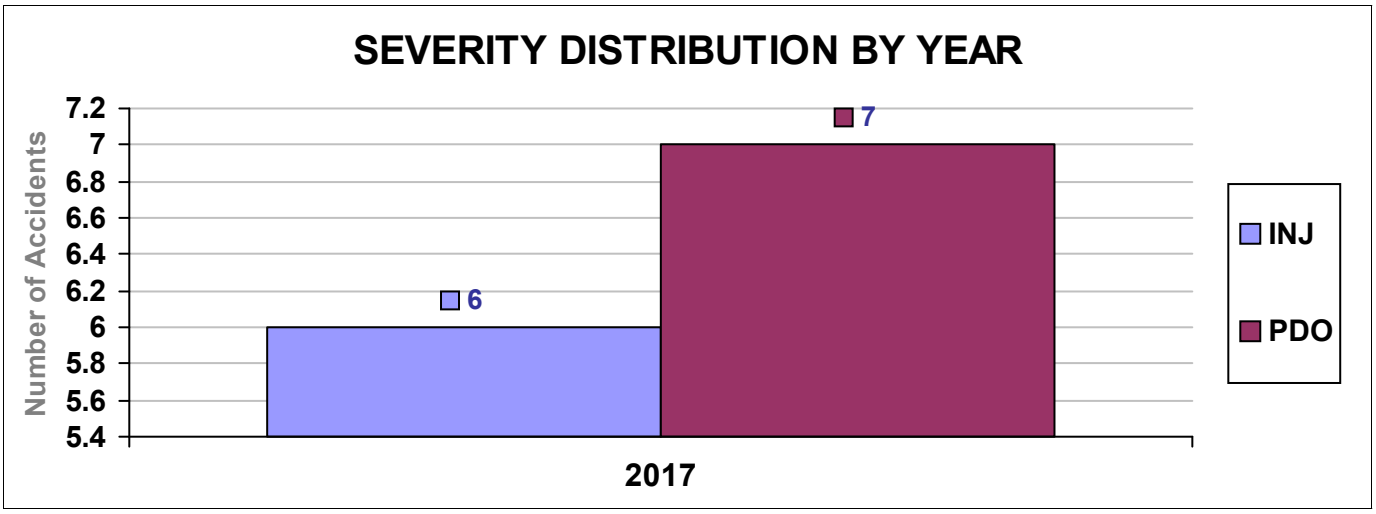
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

TIME PERIOD COVERED: *1/1/2017 - 12/31/2017* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*





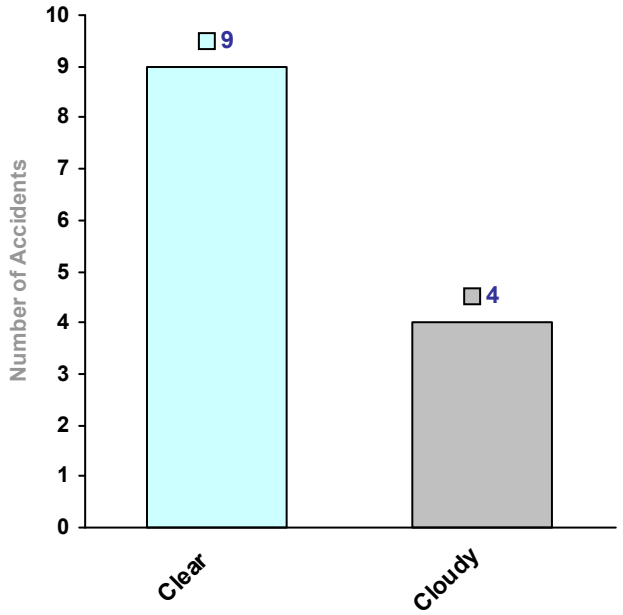
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

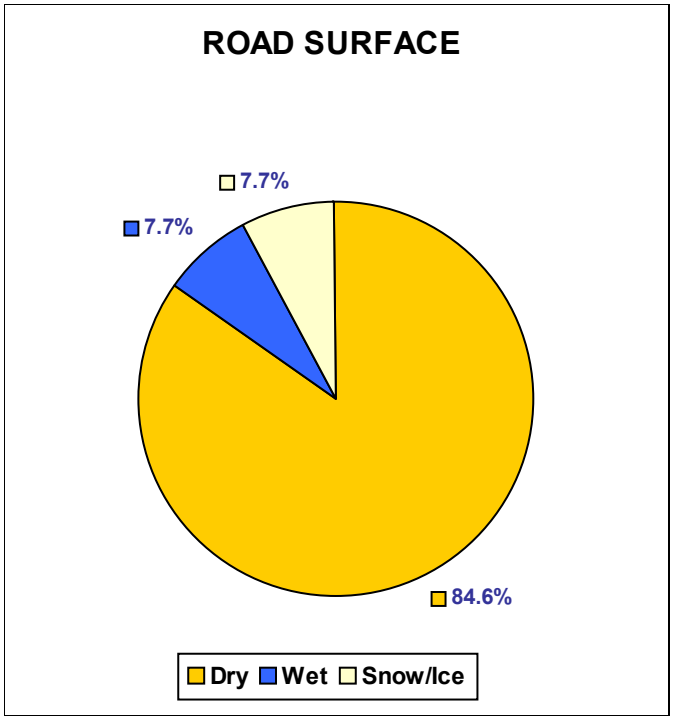
TIME PERIOD COVERED: *1/1/2017 - 12/31/2017* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

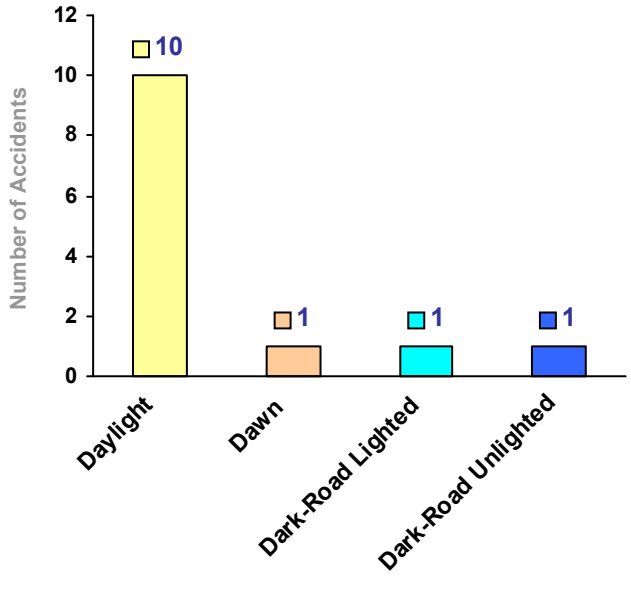
ACCIDENTS BY WEATHER



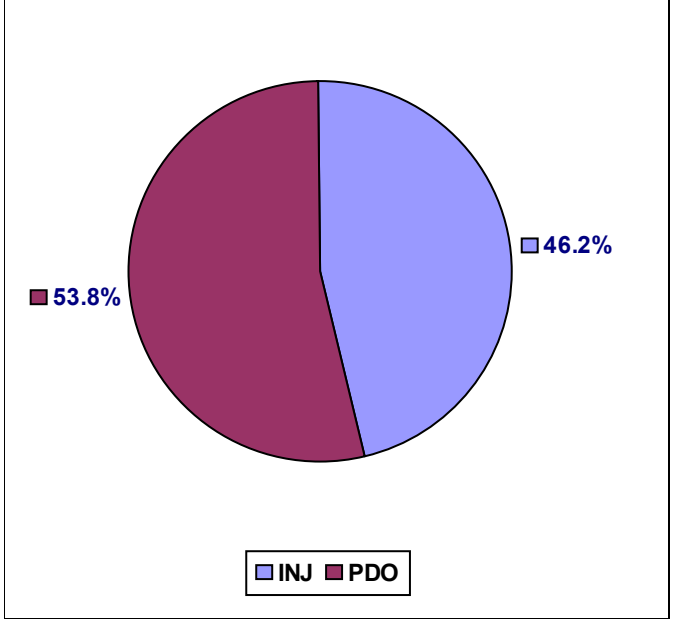
ROAD SURFACE



LIGHT CONDITION



ACCIDENT SEVERITY



COLLISION DIAGRAM

Key Number = 5

MUNICIPALITY: TOWN OF GREENPORT W COUNTY: SUFFOLK

INTERSECTION: NY25 / NORTH ROAD

PERIOD: 1 YEARS 0 MONTHS FROM 1/1/2017 TO 12/31/2017

FILE: ny25EdwardsAve

CASE # :

BY: GPI DATE: 9/23/2020



SYMBOLS			MANNER OF COLLISION	
MOVING VEHICLE	P	PEDESTRIAN	REAR END	HEAD ON
TURNING VEHICLE	B	BICYCLIST	LEFT TURN	RIGHT TURN
BACKING VEHICLE	A	ANIMAL	LEFT TURN	RIGHT TURN
PARKED VEHICLE		FIXED OBJECT	OVERTAKE	RIGHT ANGLE
999 RECORD NUMBER		Fatal	OUT OF CONTROL	SIDE SWIPE

ACCIDENT SUMMARY SHEET

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

MUNICIPALITY: *TOWN OF GREENPORT WEST* **COUNTY:** *SUFFOLK*

TIME PERIOD COVERED: *1/1/2018 - 12/31/2018* **REFERENCE MARKERS / NODES:** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

TIME OF DAY	# ACC	%
6 AM - 10 AM	1	10.0%
10 AM - 4 PM	3	30.0%
4 PM - 7 PM	5	50.0%
7 PM - 12 AM	1	10.0%
12 AM - 6 AM	0	0.0%
Unspecified	0	0.0%
Total	**10**	

DIRECTION	# ACC	%
North	1	5.3%
South	3	15.8%
East	7	36.8%
West	8	42.1%
Total	**19**	

DIRECTION	# ACC	%
Northeast	0	0.0%
Northwest	0	0.0%
Southeast	0	0.0%
Southwest	0	0.0%
Unspecified	0	0.0%

WEATHER	# ACC	%
Clear	6	60.0%
Cloudy	3	30.0%
Rain	0	0.0%
Snow	1	10.0%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unspecified	0	0.0%
Total	**10**	

ACCIDENT TYPE	# ACC	%
Rear End	3	30.0%
Overtake	1	10.0%
Right Angle	1	10.0%
Left Turn	2	20.0%
Right Turn	0	0.0%
Fixed Object	1	10.0%
Head On	0	0.0%
Sideswipe	1	10.0%
Total	**10**	

ACCIDENT TYPE	# ACC	%
Pedestrian	0	0.0%
Bicycle	0	0.0%
Parked Vehicle	0	0.0%
Backing	1	10.0%
Run Off The Road	0	0.0%
Animal	0	0.0%
Other	0	0.0%
Unspecified	0	0.0%

SURFACE	# ACC	%
Dry	8	80.0%
Wet	0	0.0%
Mud/Slush	0	0.0%
Snow/Ice	2	20.0%
Unspecified	0	0.0%
Total	**10**	

ACCIDENT SEVERITY	# ACC	%
Fatal	0	0.0%
Injury	1	10.0%
Property Damage	8	80.0%
Non-Reportable	0	0.0%
Total	**10**	

TIME OF YEAR	# ACC	%
Winter (Dec-Feb)	2	20.0%
Spring (Mar-May)	3	30.0%
Summer (Jun-Aug)	3	30.0%
Fall (Sep-Nov)	2	20.0%
Total	**10**	

TYPE OF VEHICLE	# ACC	%
Passenger Cars	19	100.0%
Commercial Vehicles	0	0.0%
Total	**19**	

DAY OF WEEK	# ACC	%
Sunday	1	10.0%
Monday	2	20.0%
Tuesday	4	40.0%
Wednesday	0	0.0%
Thursday	2	20.0%
Friday	0	0.0%
Saturday	1	10.0%
Total	**10**	

LIGHT CONDITION	# ACC	%
Daylight	7	70.0%
Dawn/Dusk	1	10.0%
Night	2	20.0%
Unspecified	0	0.0%
Total	**10**	

SUMMARY OF ACCIDENT SEVERITY BY YEAR:

	2018
Fatal Accidents	0
Injury Accidents	1
Property Damage Accidents	8
Non-Reportable Accidents	0
Total Accidents	**10**

DETAILS OF ACCIDENT HISTORY

PERIOD STUDIED:
FROM: 1/1/2018
TO: 12/31/2018
12 MONTHS

ROUTE NUMBER/STREET NAME: NY25 / NORTH ROAD
LOCATION: NY25 / NORTH ROAD & MAIN STREET / CR48
MUNICIPALITY: TOWN OF GREENPORT WEST COUNTY: SUFFOLK
REFERENCE MARKERS / NODES: -

CASE No.
FILE: ny25EdwardsAve
BY: GPI
DATE: 9/23/2020

No.	DATE	TIME	# VEHICLES	SEVERITY	LIGHT COND	ROAD CHAR	SURFACE	WEATHER	CONTRIB. FACTORS	ACC. TYPE	ACCIDENT DESCRIPTION	KEY #
25	7/30/2018	11:19	2	PDO	1	1	1	2	3	Back	N1 backed up and struck N2 at red light	6
1	3/24/2018	20:30	1	PDO	4	1	1	1	4	FixO	E1 (EB) operator distracted, went off road and struck a tree	6
36	4/5/2018	17:42	2		1	1	1	1	7 62	Ltrn	W1 (WB) made LT out of parking lot and was struck by E2 (EB).	6
38	11/15/2018	16:30	2	PDO	4	1	4	4	66	Ltrn	E1 slipped on the icy pavement and struck S2 making LT	6
22	1/9/2018	8:24	2	PDO	1	1	4	1	13 9	Ovtk	W1 changed lanes attempting a RT and hit W2 in the traffic	6
26	10/9/2018	17:38	2	PDO	1	1	1	1	18 45	Rang	E1 with attached trailer made LT and was struck by S2	6
24	6/17/2018	11:04	2	PDO	1	1	1	1	9	Rend	E1 rear ended E2 while stopping in traffic	6
35	1/15/2018	16:59	2	INJ	3	1	1	2	9	Rend	W1 rear ended W2 while stopping in traffic	6
37	6/5/2018	16:35	2	PDO	1	1	1	2	9 62	Rend	W2 was attempting to make LT & was struck by W1	6
23	5/1/2018	15:03	2	PDO	1	1	1	1	13	Side	E1 while attempting LT was sideswiped by W2	6

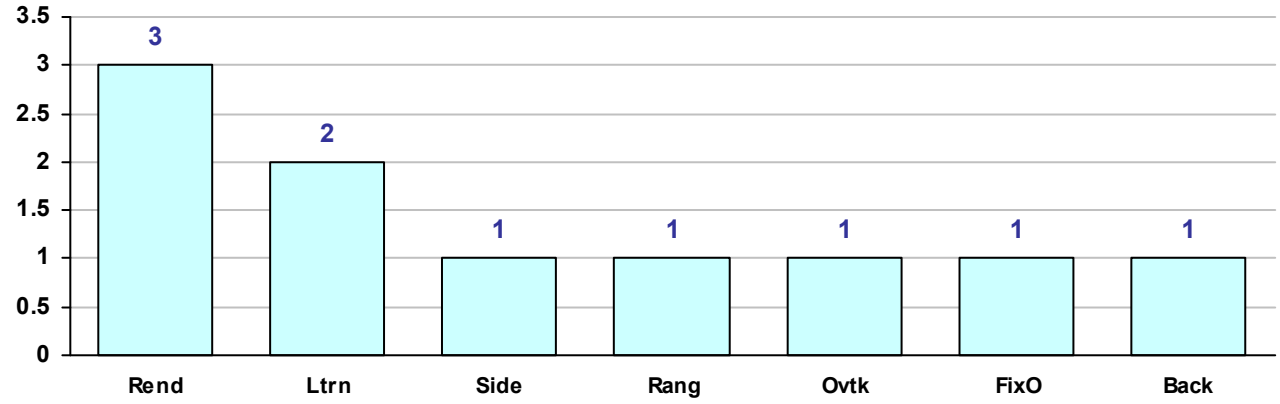
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY 25 / NORTH ROAD & MAIN STREET / CR48*

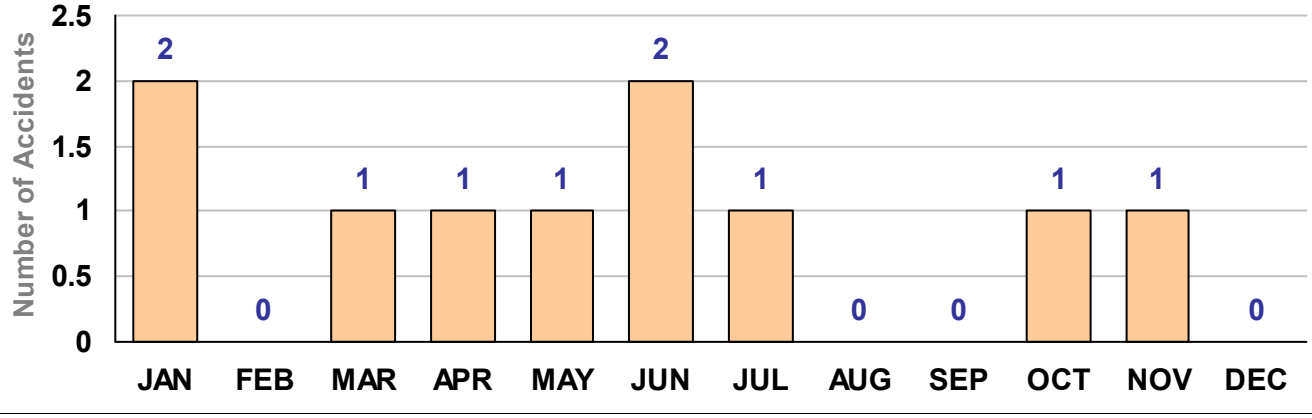
TIME PERIOD COVERED: *1/1/2018 - 12/31/2018* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

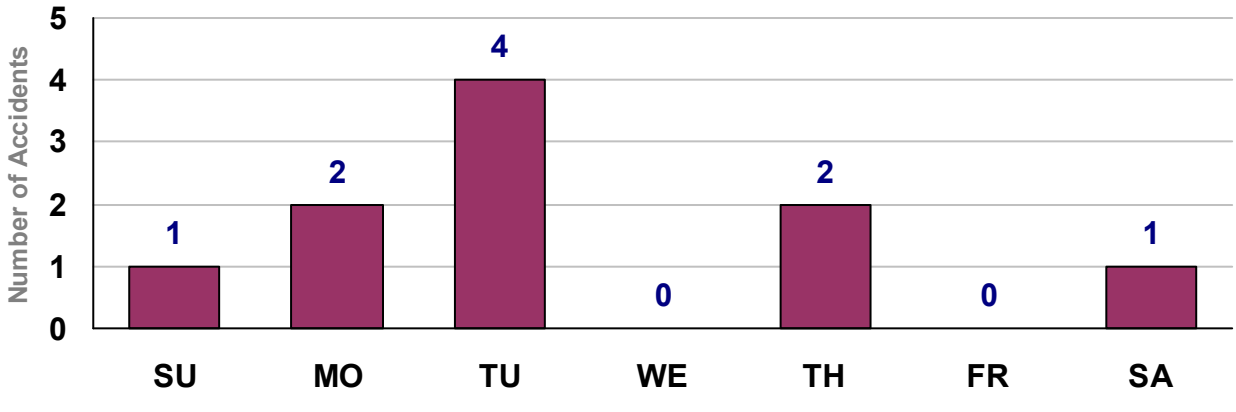
NUMBER OF ACCIDENTS BY TYPE



ACCIDENTS BY MONTH



ACCIDENTS BY DAY OF WEEK

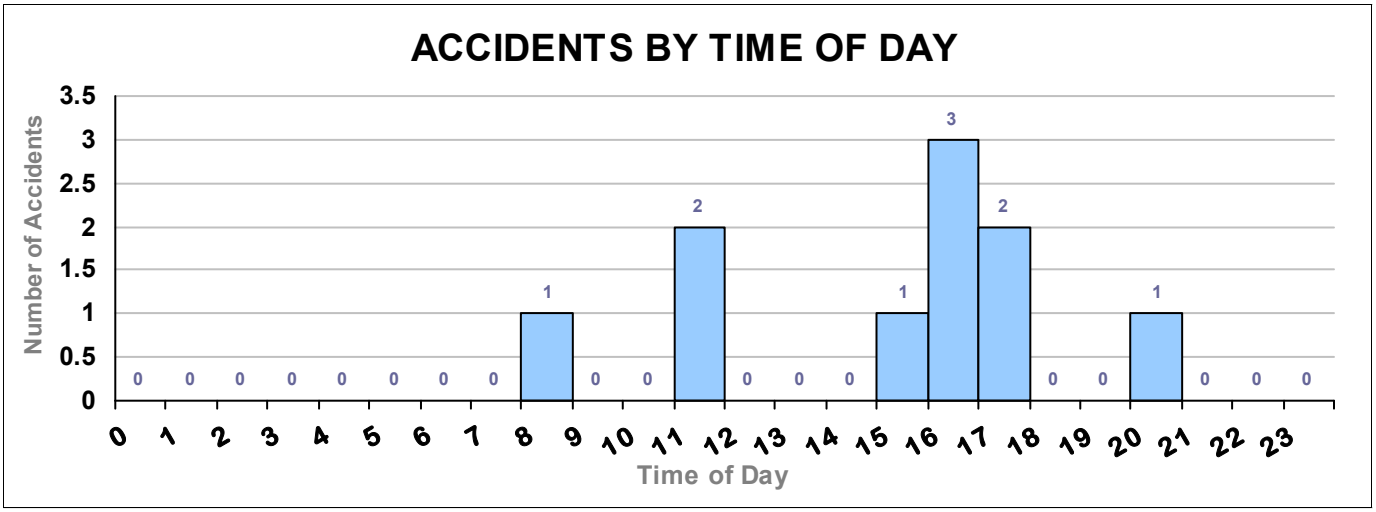


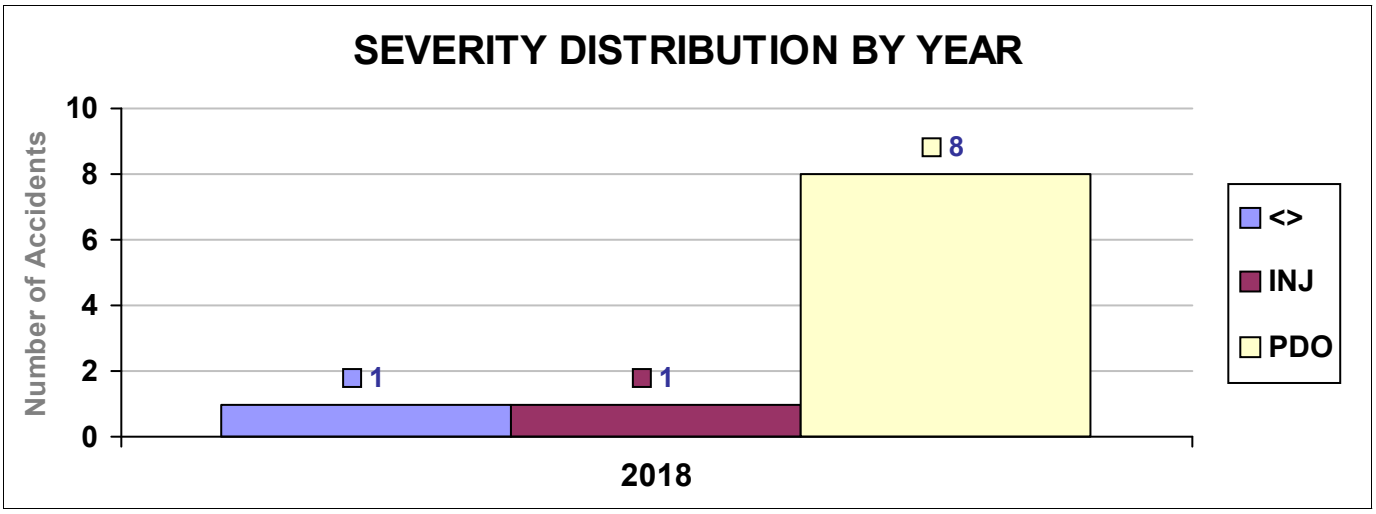
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY 25 / NORTH ROAD & MAIN STREET / CR48*

TIME PERIOD COVERED: *1/1/2018 - 12/31/2018* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*





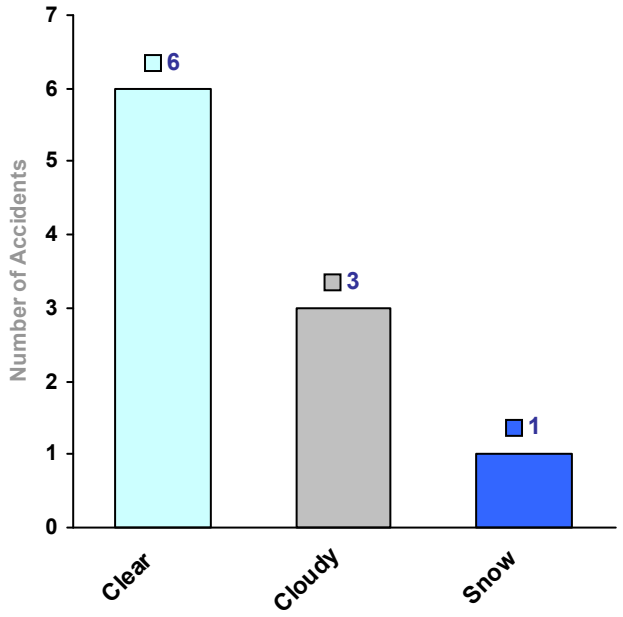
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY 25 / NORTH ROAD & MAIN STREET / CR48*

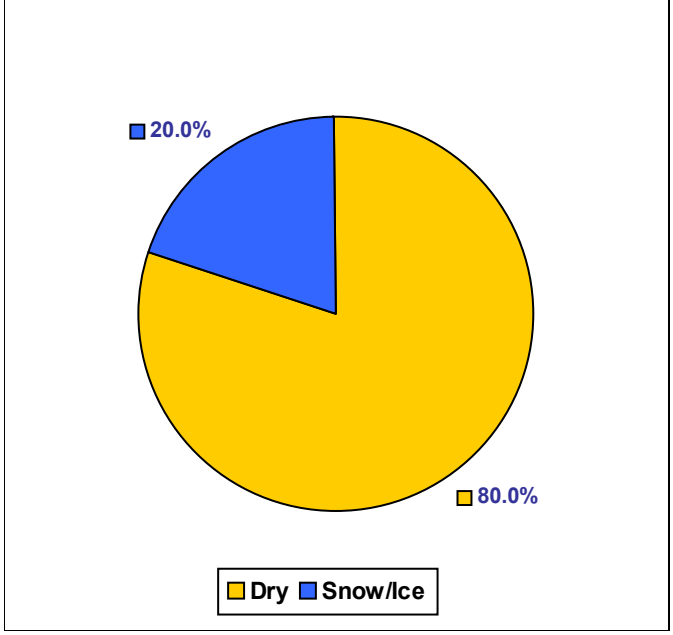
TIME PERIOD COVERED: *1/1/2018 - 12/31/2018* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

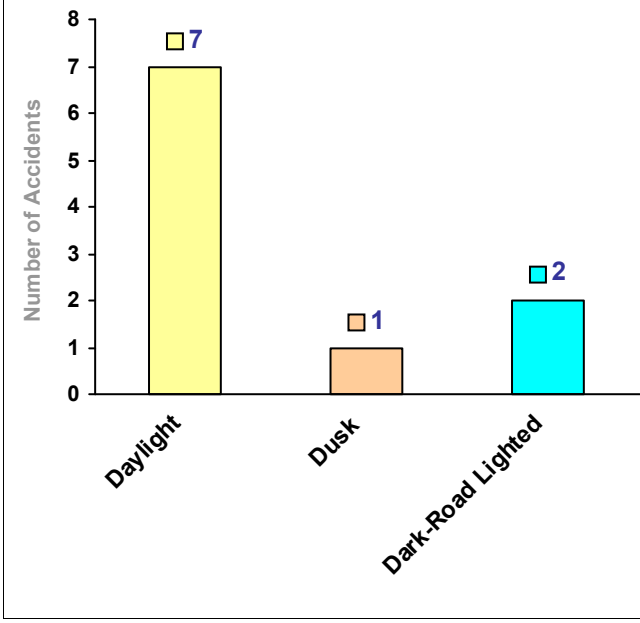
ACCIDENTS BY WEATHER



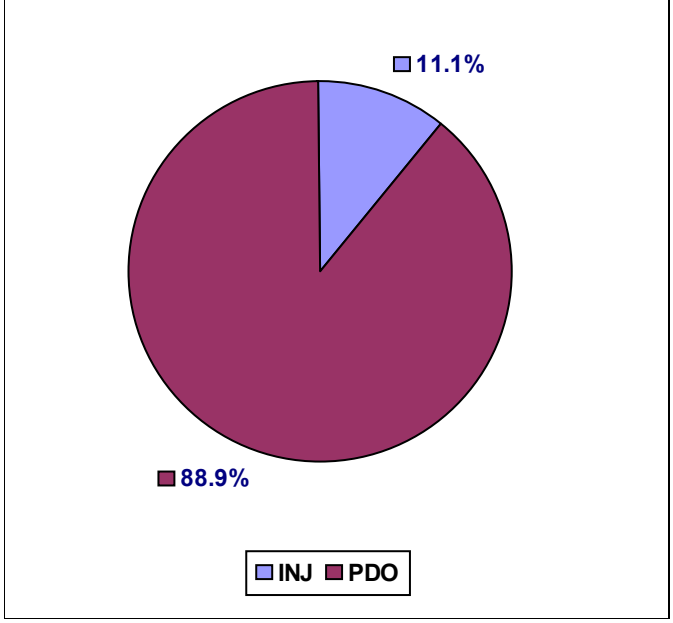
ROAD SURFACE



LIGHT CONDITION



ACCIDENT SEVERITY



COLLISION DIAGRAM

Key Number = 6

MUNICIPALITY: TOWN OF GREENPORT W COUNTY: SUFFOLK

INTERSECTION: NY25 / NORTH ROAD

PERIOD: 1 YEARS 0 MONTHS FROM 1/1/2018 TO 12/31/2018

FILE: ny25EdwardsAve

CASE # :

BY: GPI DATE: 9/23/2020



38

SYMBOLS			MANNER OF COLLISION	
MOVING VEHICLE	P	PEDESTRIAN	REAR END	HEAD ON
TURNING VEHICLE	B	BICYCLIST	LEFT TURN	RIGHT TURN
BACKING VEHICLE	A	ANIMAL	LEFT TURN	RIGHT TURN
PARKED VEHICLE		FIXED OBJECT	OVERTAKE	RIGHT ANGLE
999 RECORD NUMBER		Fatal	OUT OF CONTROL	SIDE SWIPE

ACCIDENT SUMMARY SHEET

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY 25 / NORTH ROAD & MAIN STREET / CR48*

MUNICIPALITY: *TOWN OF GREENPORT WEST* **COUNTY:** *SUFFOLK*

TIME PERIOD COVERED: *1/1/2019 - 6/30/2019* **REFERENCE MARKERS / NODES:** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

TIME OF DAY	# ACC	%
6 AM - 10 AM	1	12.5%
10 AM - 4 PM	3	37.5%
4 PM - 7 PM	2	25.0%
7 PM - 12 AM	2	25.0%
12 AM - 6 AM	0	0.0%
Unspecified	0	0.0%
Total	**8**	

WEATHER	# ACC	%
Clear	8	100.0%
Cloudy	0	0.0%
Rain	0	0.0%
Snow	0	0.0%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unspecified	0	0.0%
Total	**8**	

DIRECTION	# ACC	%
North	3	20.0%
South	0	0.0%
East	6	40.0%
West	6	40.0%
Total	**15**	

DIRECTION	# ACC	%
Northeast	0	0.0%
Northwest	0	0.0%
Southeast	0	0.0%
Southwest	0	0.0%
Unspecified	0	0.0%

ACCIDENT TYPE	# ACC	%
Rear End	1	12.5%
Overtake	0	0.0%
Right Angle	1	12.5%
Left Turn	1	12.5%
Right Turn	3	37.5%
Fixed Object	0	0.0%
Head On	1	12.5%
Sideswipe	0	0.0%

ACCIDENT TYPE	# ACC	%
Pedestrian	0	0.0%
Bicycle	0	0.0%
Parked Vehicle	0	0.0%
Backing	0	0.0%
Run Off The Road	0	0.0%
Animal	1	12.5%
Other	0	0.0%
Unspecified	0	0.0%

Total **8**

SURFACE	# ACC	%
Dry	8	100.0%
Wet	0	0.0%
Mud/Slush	0	0.0%
Snow/Ice	0	0.0%
Unspecified	0	0.0%
Total	**8**	

ACCIDENT SEVERITY	# ACC	%
Fatal	0	0.0%
Injury	1	12.5%
Property Damage	6	75.0%
Non-Reportable	0	0.0%
Total	**8**	

TIME OF YEAR	# ACC	%
Winter (Dec-Feb)	2	25.0%
Spring (Mar-May)	5	62.5%
Summer (Jun-Aug)	1	12.5%
Fall (Sep-Nov)	0	0.0%
Total	**8**	

TYPE OF VEHICLE	# ACC	%
Passenger Cars	15	100.0%
Commercial Vehicles	0	0.0%
Total	**15**	

DAY OF WEEK	# ACC	%
Sunday	0	0.0%
Monday	1	12.5%
Tuesday	1	12.5%
Wednesday	0	0.0%
Thursday	3	37.5%
Friday	2	25.0%
Saturday	1	12.5%
Total	**8**	

LIGHT CONDITION	# ACC	%
Daylight	5	62.5%
Dawn/Dusk	2	25.0%
Night	1	12.5%
Unspecified	0	0.0%
Total	**8**	

SUMMARY OF ACCIDENT SEVERITY BY YEAR:

	2019
Fatal Accidents	0
Injury Accidents	1
Property Damage Accidents	6
Non-Reportable Accidents	0
Total Accidents	**8**

DETAILS OF ACCIDENT HISTORY

PERIOD STUDIED:
FROM: 1/1/2019
TO: 6/30/2019
6 MONTHS

ROUTE NUMBER/STREET NAME: NY25 / NORTH ROAD
LOCATION: NY 25 / NORTH ROAD & MAIN STREET / CR48
MUNICIPALITY: TOWN OF GREENPORT WEST COUNTY: SUFFOLK
REFERENCE MARKERS / NODES: -

CASE No.
FILE: ny25EdwardsAve
BY: GPI
DATE: 9/23/2020

No.	DATE	TIME	# VEHICLES	SEVERITY	LIGHT COND	ROAD CHAR	SURFACE	WEATHER	CONTRIB. FACTORS	ACC. TYPE	ACCIDENT DESCRIPTION	KEY #
2	1/31/2019	19:39	1	PDO	4	1	1	1	61	Anml	W1 (WB) on NY25, when a deer ran in & collided with the vehicle	7
31	6/14/2019	20:26	2	PDO	3	1	1	1	20 6	HdOn	W1 in L/L lost control and struck E2 head on, also struck UP	7
29	3/30/2019	14:34	2		1	1	1	1	7	Ltrn	W1 failed to yield pncpming traffic, made LT and struck E2	7
28	3/8/2019	18:14	2	INJ	3	1	1	1	7 17	Rang	E2 (EB) while existing the intersection was struck by N1 (NB)	7
41	4/4/2019	9:34	2	PDO	1	1	1	1	9	Rend	E1 rear ended E2 while stopping in traffic	7
27	3/5/2019	13:45	2	PDO	1	1	1	1	18 19	Rtrn	E1 made a RT on NY25 at unsafe speed struck N2 & a tree	7
30	5/16/2019	18:51	2	PDO	1	1	1	1	18 20	Rtrn	W1 made abrupt (WB) RT and was struck by W2 (WB)	7
40	1/7/2019	14:46	2	PDO	1	1	1	1	7	Rtrn	N1 made a RT from Farmer's Dan's Farm and was struck by W2	7

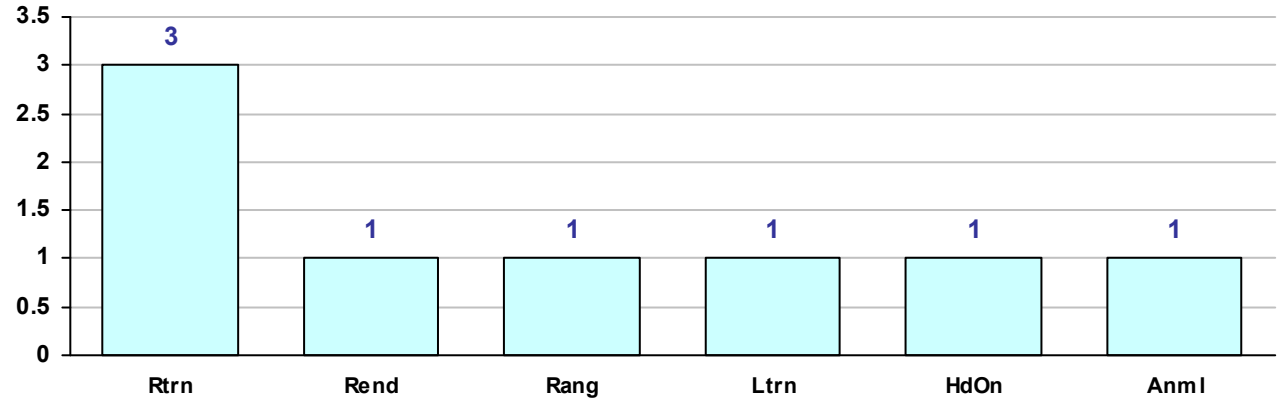
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY 25 / NORTH ROAD & MAIN STREET / CR48*

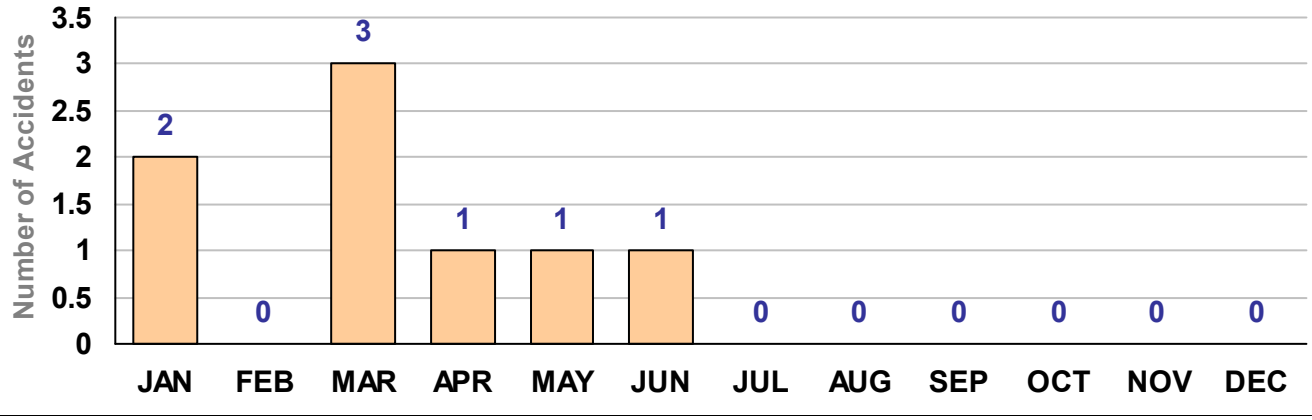
TIME PERIOD COVERED: *1/1/2019 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

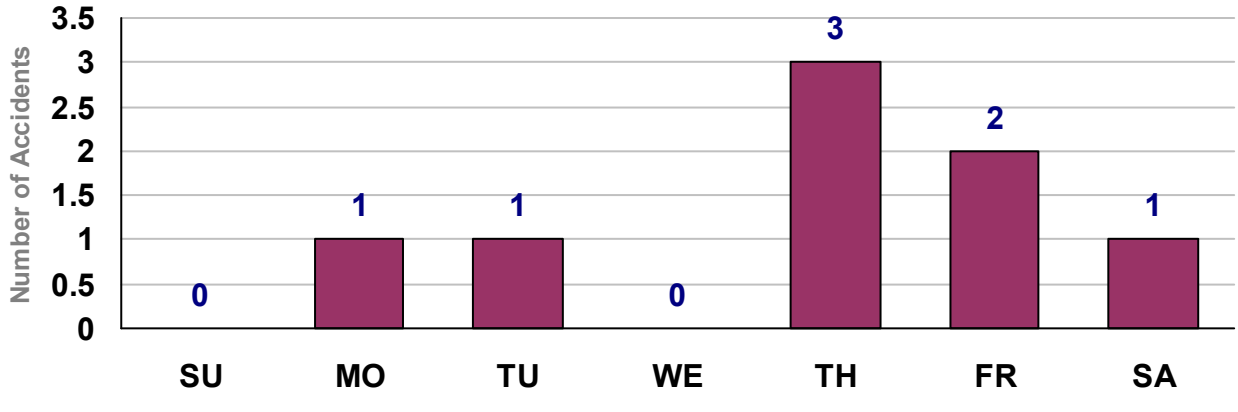
NUMBER OF ACCIDENTS BY TYPE



ACCIDENTS BY MONTH



ACCIDENTS BY DAY OF WEEK

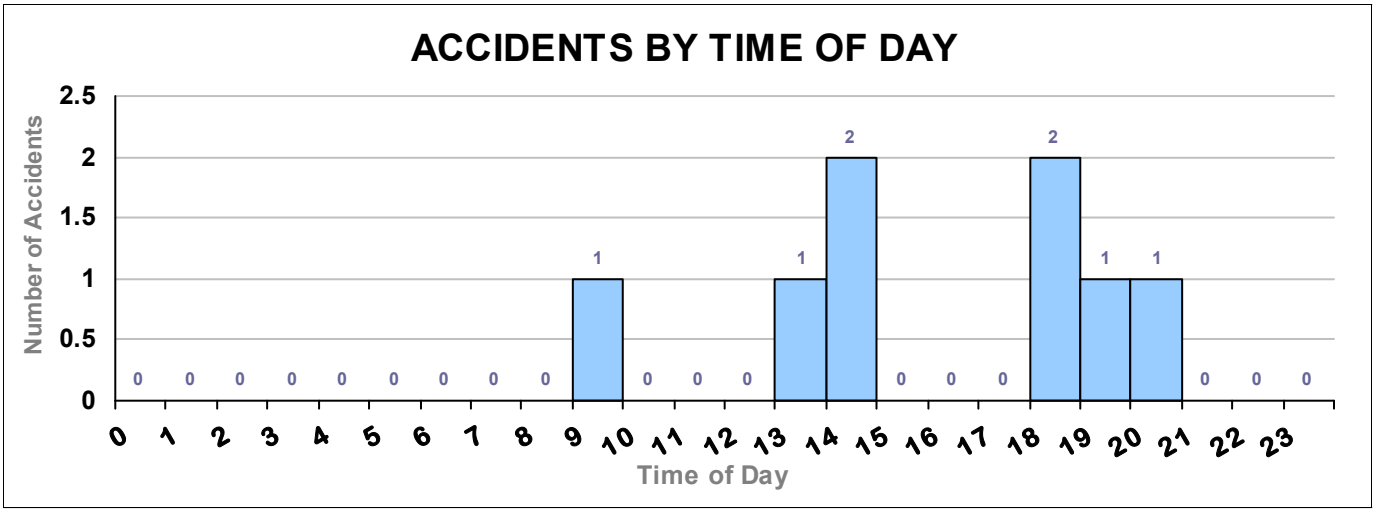


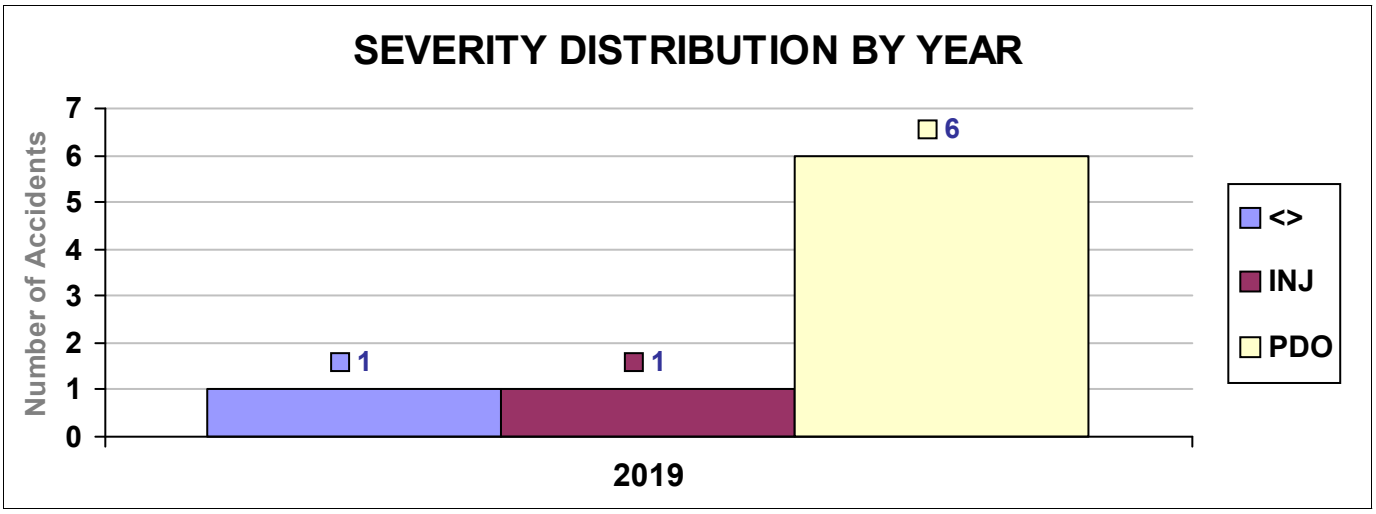
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY 25 / NORTH ROAD & MAIN STREET / CR48*

TIME PERIOD COVERED: *1/1/2019 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*





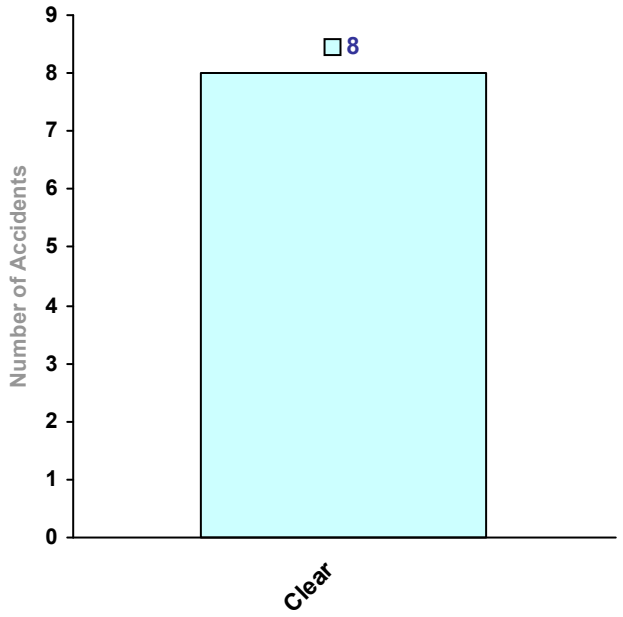
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY 25 / NORTH ROAD & MAIN STREET / CR48*

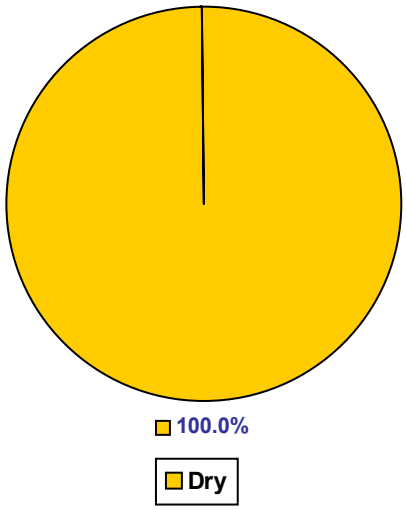
TIME PERIOD COVERED: *1/1/2019 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *9/23/2020*

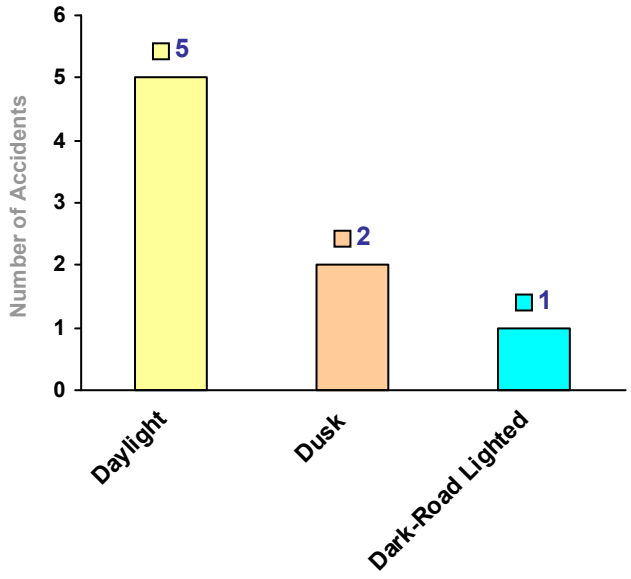
ACCIDENTS BY WEATHER



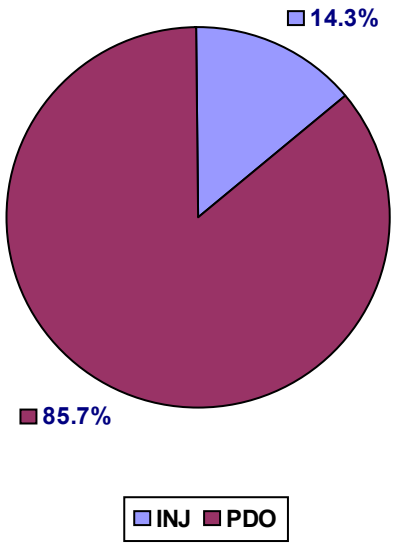
ROAD SURFACE



LIGHT CONDITION



ACCIDENT SEVERITY



COLLISION DIAGRAM

Key Number = 7

MUNICIPALITY: TOWN OF GREENPORT W COUNTY: SUFFOLK

INTERSECTION: NY25 / NORTH ROAD

PERIOD: 0 YEARS 6 MONTHS FROM 1/1/2019 TO 6/30/2019

FILE: ny25EdwardsAve

CASE # :

BY: GPI DATE: 9/23/2020



30

SYMBOLS

- MOVING VEHICLE
- TURNING VEHICLE
- BACKING VEHICLE
- PARKED VEHICLE
- 999 RECORD NUMBER
- P PEDESTRIAN
- B BICYCLIST
- A ANIMAL
- FIXED OBJECT
- Fatal

MANNER OF COLLISION

- REAR END
- LEFT TURN
- LEFT TURN
- OVERTAKE
- OUT OF CONTROL
- HEAD ON
- RIGHT TURN
- RIGHT TURN
- RIGHT ANGLE
- SIDE SWIPE

APPENDIX C - TRANSPORTATION

Attachment T-12 Crash Analyses – NY114 & Stephen Hands Path

ACCIDENT SUMMARY SHEET

ROUTE: *NY114 / SAG HARBOR TPKE* **LOCATION:** *NY114 & STEPHEN HANDS PATH*

MUNICIPALITY: *EAST HAMPTON* **COUNTY:** *SUFFOLK*

TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES:** -

REMARKS: *Selected Accidents* **DATE:** *8/26/2020*

TIME OF DAY	# ACC	%
6 AM - 10 AM	1	7.7%
10 AM - 4 PM	4	30.8%
4 PM - 7 PM	3	23.1%
7 PM - 12 AM	1	7.7%
12 AM - 6 AM	1	7.7%
Unspecified	3	23.1%
Total	**13**	

WEATHER	# ACC	%
Clear	10	76.9%
Cloudy	0	0.0%
Rain	2	15.4%
Snow	1	7.7%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unspecified	0	0.0%
Total	**13**	

DIRECTION	# ACC	%
North	8	33.3%
South	8	33.3%
East	2	8.3%
West	6	25.0%
Total	**24**	

DIRECTION	# ACC	%
Northeast	0	0.0%
Northwest	0	0.0%
Southeast	0	0.0%
Southwest	0	0.0%
Unspecified	0	0.0%

ACCIDENT TYPE	# ACC	%
Rear End	8	61.5%
Overtake	0	0.0%
Right Angle	0	0.0%
Left Turn	1	7.7%
Right Turn	0	0.0%
Fixed Object	1	7.7%
Head On	0	0.0%
Sideswipe	1	7.7%

ACCIDENT TYPE	# ACC	%
Pedestrian	0	0.0%
Bicycle	0	0.0%
Parked Vehicle	0	0.0%
Backing	0	0.0%
Run Off The Road	0	0.0%
Animal	2	15.4%
Other	0	0.0%
Unspecified	0	0.0%

Total **13**

SURFACE	# ACC	%
Dry	10	76.9%
Wet	2	15.4%
Mud/Slush	0	0.0%
Snow/Ice	1	7.7%
Unspecified	0	0.0%
Total	**13**	

ACCIDENT SEVERITY	# ACC	%
Fatal	0	0.0%
Injury	2	15.4%
Property Damage	11	84.6%
Non-Reportable	0	0.0%
Total	**13**	

TIME OF YEAR	# ACC	%
Winter (Dec-Feb)	4	30.8%
Spring (Mar-May)	4	30.8%
Summer (Jun-Aug)	2	15.4%
Fall (Sep-Nov)	3	23.1%
Total	**13**	

TYPE OF VEHICLE	# ACC	%
Passenger Cars	24	100.0%
Commercial Vehicles	0	0.0%
Total	**24**	

DAY OF WEEK	# ACC	%
Sunday	2	15.4%
Monday	3	23.1%
Tuesday	0	0.0%
Wednesday	2	15.4%
Thursday	3	23.1%
Friday	3	23.1%
Saturday	0	0.0%
Total	**13**	

LIGHT CONDITION	# ACC	%
Daylight	8	61.5%
Dawn/Dusk	2	15.4%
Night	3	23.1%
Unspecified	0	0.0%
Total	**13**	

SUMMARY OF ACCIDENT SEVERITY BY YEAR:

	2016	2017	2018	2019
Fatal Accidents	0	0	0	0
Injury Accidents	0	1	0	1
Property Damage Accidents	0	3	5	3
Non-Reportable Accidents	0	0	0	0
Total Accidents	**0**	**4**	**5**	**4**

DETAILS OF ACCIDENT HISTORY

PERIOD STUDIED:
FROM: 4/1/2016
TO: 6/30/2019
39 MONTHS

ROUTE NUMBER/STREET NAME: NY114 / SAG HARBOR TPKE
LOCATION: NY114 & STEPHEN HANDS PATH
MUNICIPALITY: EAST HAMPTON COUNTY: SUFFOLK
REFERENCE MARKERS / NODES: -

CASE No.
FILE: ıy114StephenHanc
BY: GPI
DATE: 8/26/2020

No.	DATE	TIME	# VEHICLES	SEVERITY	LIGHT COND	ROAD CHAR	SURFACE	WEATHER	CONTRIB. FACTORS	ACC. TYPE	ACCIDENT DESCRIPTION	KEY #
2	4/14/2017	7:30	1	PDO	1	1	1	1	61	Anml	N1 (NB) struck a deer that shot across the street	2
14	3/14/2019	19:35	1	PDO	5	1	1	1	61	Anml	N1 (NB) on NY114, when a deer ran into it and collided	2
3	2/12/2017	17:22	1	INJ	3	4	2	3	64 66	FixO	S1 SB, lost control, drifted off snowy roadway, collided a tree	2
12	1/25/2019	17:29	2	PDO	5	1	1	1	7	Ltrn	N1 NB, failed to see oncoming traffic made LT struck by S2 (SB)	2
4	7/17/2017		3	PDO	1	1	1	1	4	Rend	S2 (SB) rear ended S1, which then rear ended S3 (SB)	2
5	7/17/2017		2	PDO	1	5	1	1	4	Rend	E1 (EB) stopped at the traffic light rear-ended by E2 (EB)	2
6	4/4/2018		2	PDO	1	1	2	3	9	Rend	N1 (NB) stopped at the traffic light rear-ended by N2 (NB)	2
7	5/3/2018	15:41	2	PDO	1	1	1	1	9	Rend	W2 (WB) stopped at the traffic light rear-ended by W1 (WB)	2
8	9/6/2018	11:18	2	PDO	1	1	1	1	9	Rend	W1 (WB) rear-ended W2 (WB)	2
9	10/3/2018	14:58	2	PDO	1	1	1	1	4	Rend	S1 (SB) stopped at the traffic light rear-ended by S2 (SB)	2
10	10/22/2018	14:14	2	PDO	1	1	1	1	4	Rend	W1 (WB) stopped at the traffic light rear-ended by W2	2
13	2/10/2019	17:52	2	PDO	3	1	1	1	13	Rend	N1 (NB) waiting to make LT was rear ended by N2 (NB)	2
11	1/18/2019	5:50	2	INJ	5	4	4	4	27 19	Side	S2 (SB) over speeding on snowy road sideswiped N1 (NB)	2

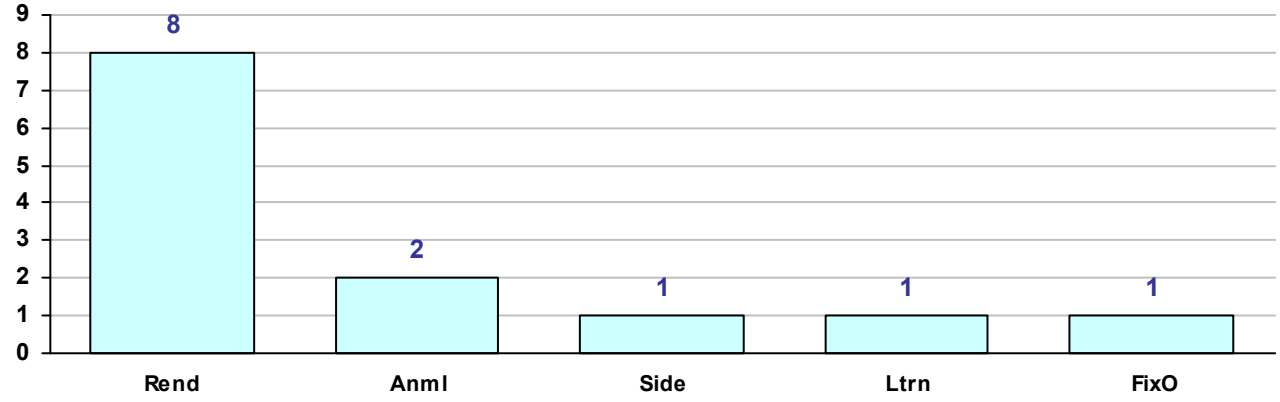
HSA CHARTS

ROUTE: *NY114 / SAG HARBOR TPKE* **LOCATION:** *NY114 & STEPHEN HANDS PATH*

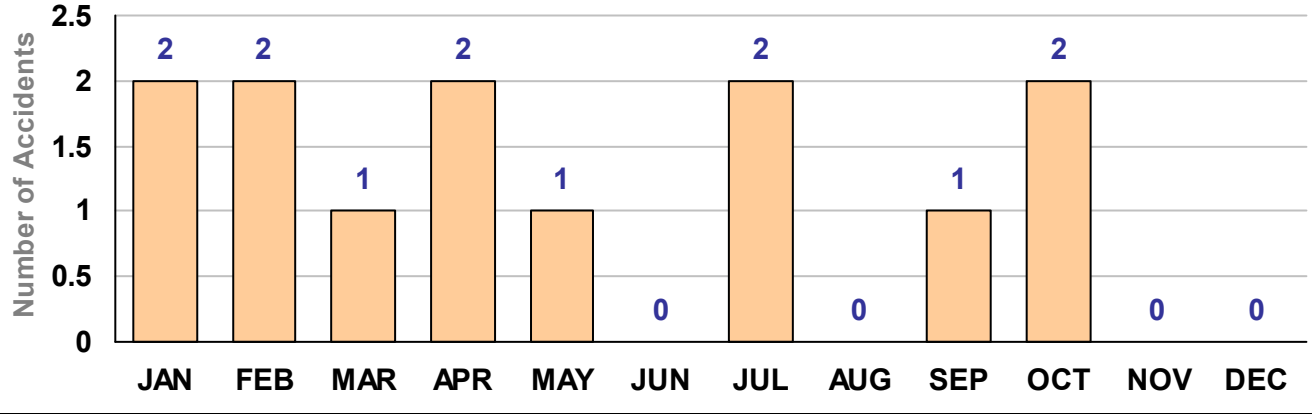
TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/26/2020*

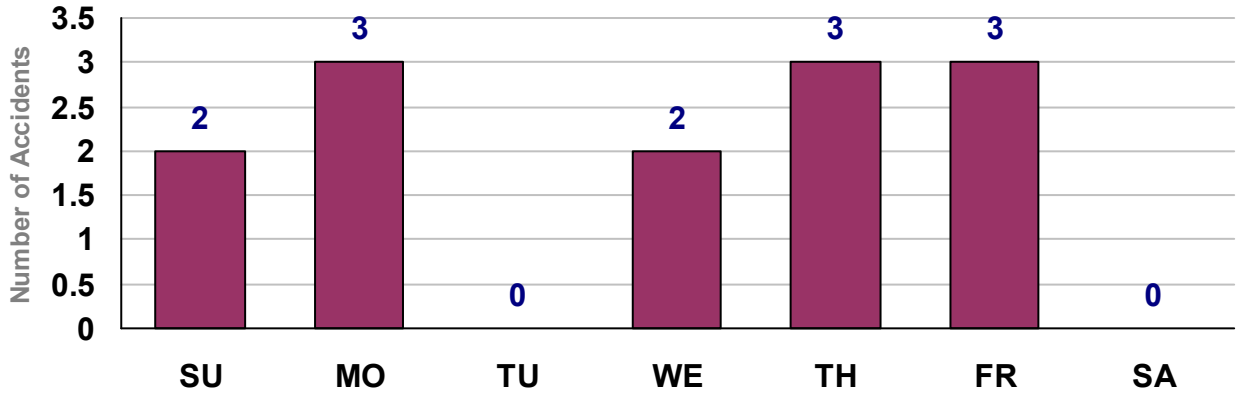
NUMBER OF ACCIDENTS BY TYPE



ACCIDENTS BY MONTH



ACCIDENTS BY DAY OF WEEK

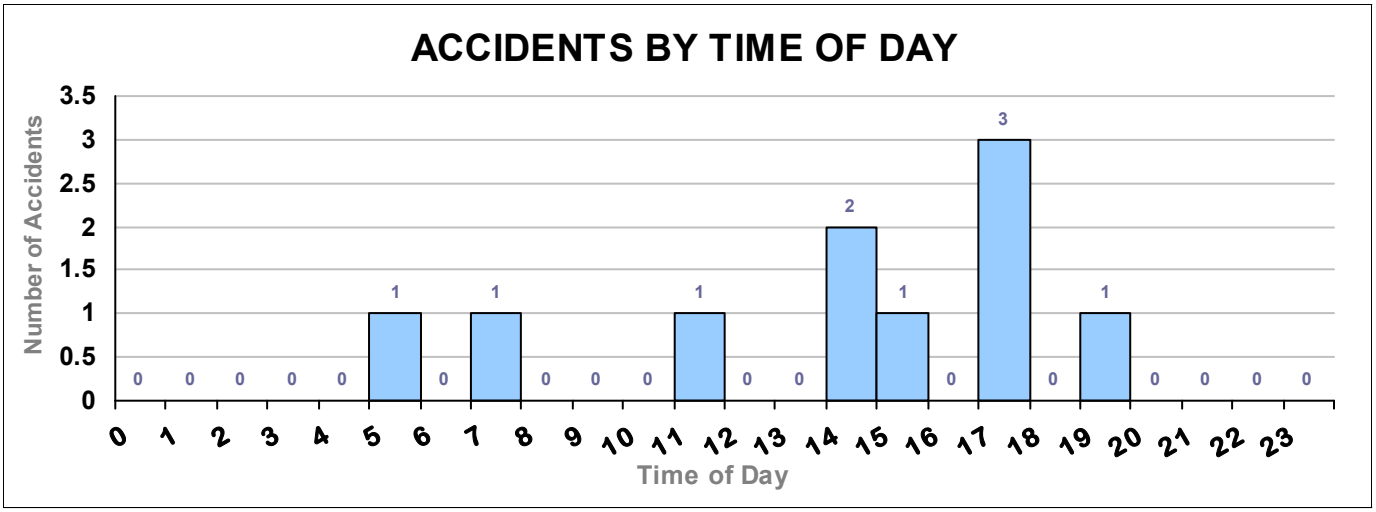


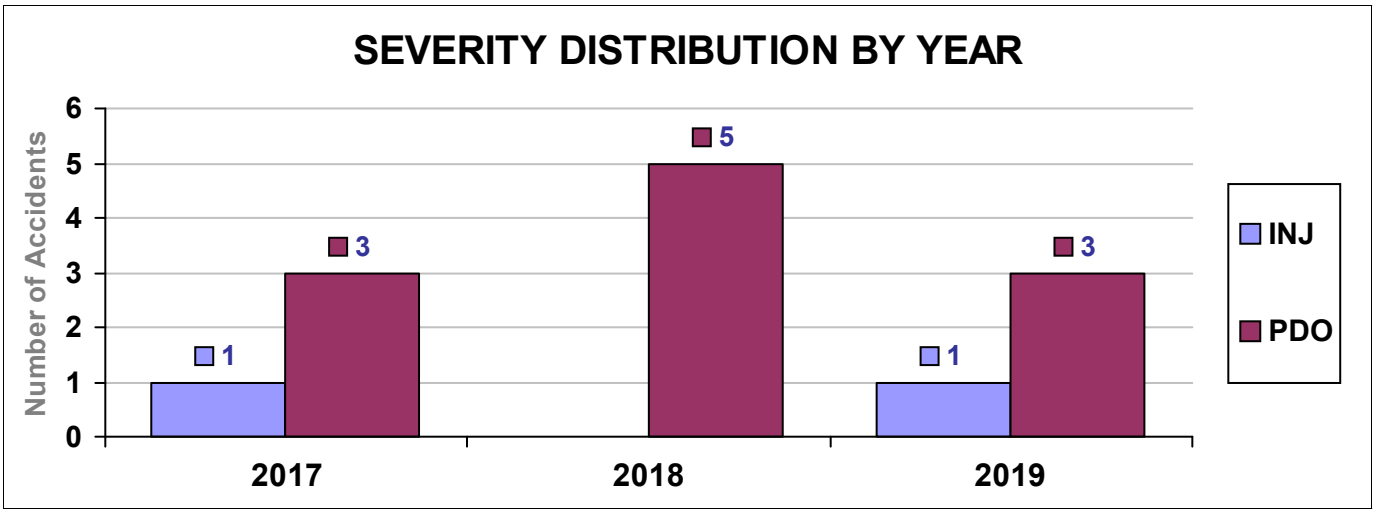
HSA CHARTS

ROUTE: *NY114 / SAG HARBOR TPKE* **LOCATION:** *NY114 & STEPHEN HANDS PATH*

TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/26/2020*





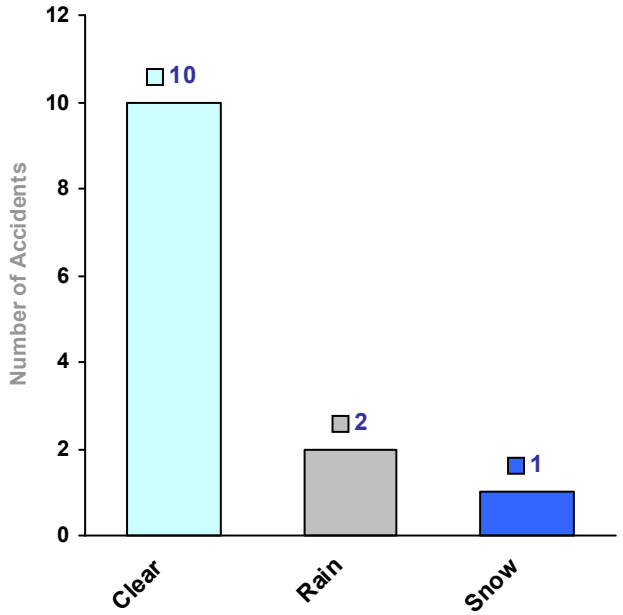
HSA CHARTS

ROUTE: *NY114 / SAG HARBOR TPKE* **LOCATION:** *NY114 & STEPHEN HANDS PATH*

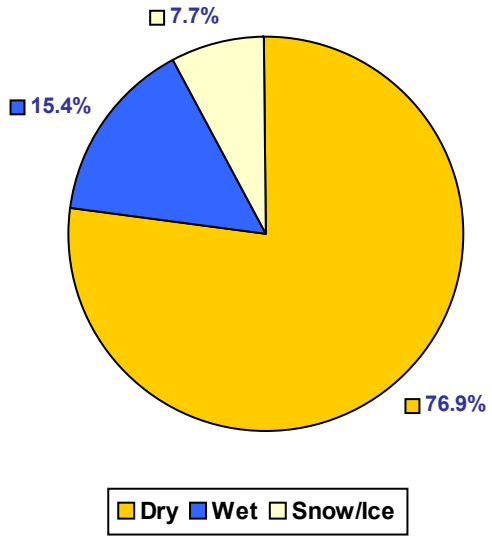
TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/26/2020*

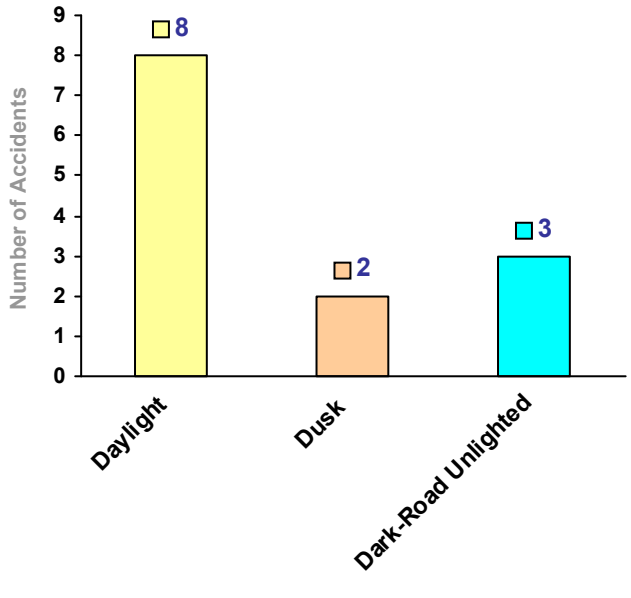
ACCIDENTS BY WEATHER



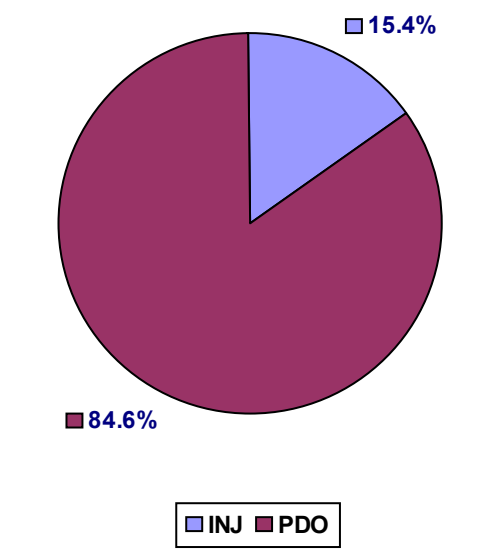
ROAD SURFACE



LIGHT CONDITION



ACCIDENT SEVERITY



COLLISION DIAGRAM

Key Number = 2

MUNICIPALITY: EAST HAMPTON COUNTY: SUFFOLK

INTERSECTION: NY-114 / SAG HARBOR TPKE

PERIOD: 3 YEARS 3 MONTHS FROM 4/1/2016 TO 6/30/2019

FILE: ny114StephenHand

CASE # :

BY: GPI DATE: 9/4/2020



SYMBOLS

- MOVING VEHICLE
- TURNING VEHICLE
- BACKING VEHICLE
- PARKED VEHICLE
- 999 RECORD NUMBER
- P PEDESTRIAN
- B BICYCLIST
- A ANIMAL
- FIXED OBJECT
- Fatal

MANNER OF COLLISION

- REAR END
- LEFT TURN
- LEFT TURN
- OVERTAKE
- OUT OF CONTROL
- HEAD ON
- RIGHT TURN
- RIGHT TURN
- RIGHT ANGLE
- SIDE SWIPE

APPENDIX C - TRANSPORTATION

Attachment T-13 Crash Analyses – NY114 & Good Friend Drive

ACCIDENT SUMMARY SHEET

ROUTE: *NY114/E HAMPTON-SAG HRBR* **LOCATION:** *NY-114 HAMPTON-SAG HARBOR TPKE & GOOD FRIEND DR*

MUNICIPALITY: *NORTHWEST HARBOR* **COUNTY:** *SUFFOLK*

TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES:** -

REMARKS: *Selected Accidents* **DATE:** *8/25/2020*

TIME OF DAY	# ACC	%
6 AM - 10 AM	0	0.0%
10 AM - 4 PM	1	33.3%
4 PM - 7 PM	2	66.7%
7 PM - 12 AM	0	0.0%
12 AM - 6 AM	0	0.0%
Unspecified	0	0.0%
Total	**3**	

WEATHER	# ACC	%
Clear	2	66.7%
Cloudy	0	0.0%
Rain	1	33.3%
Snow	0	0.0%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unspecified	0	0.0%
Total	**3**	

DIRECTION	# ACC	%
North	1	20.0%
South	3	60.0%
East	1	20.0%
West	0	0.0%
Total	**5**	

DIRECTION	# ACC	%
Northeast	0	0.0%
Northwest	0	0.0%
Southeast	0	0.0%
Southwest	0	0.0%
Unspecified	0	0.0%

ACCIDENT TYPE	# ACC	%
Rear End	0	0.0%
Overtake	0	0.0%
Right Angle	0	0.0%
Left Turn	0	0.0%
Right Turn	1	33.3%
Fixed Object	1	33.3%
Head On	1	33.3%
Sideswipe	0	0.0%

ACCIDENT TYPE	# ACC	%
Pedestrian	0	0.0%
Bicycle	0	0.0%
Parked Vehicle	0	0.0%
Backing	0	0.0%
Run Off The Road	0	0.0%
Animal	0	0.0%
Other	0	0.0%
Unspecified	0	0.0%

Total **3**

SURFACE	# ACC	%
Dry	2	66.7%
Wet	1	33.3%
Mud/Slush	0	0.0%
Snow/Ice	0	0.0%
Unspecified	0	0.0%
Total	**3**	

ACCIDENT SEVERITY	# ACC	%
Fatal	0	0.0%
Injury	1	33.3%
Property Damage	2	66.7%
Non-Reportable	0	0.0%
Total	**3**	

TIME OF YEAR	# ACC	%
Winter (Dec-Feb)	2	66.7%
Spring (Mar-May)	0	0.0%
Summer (Jun-Aug)	1	33.3%
Fall (Sep-Nov)	0	0.0%
Total	**3**	

TYPE OF VEHICLE	# ACC	%
Passenger Cars	5	100.0%
Commercial Vehicles	0	0.0%
Total	**5**	

DAY OF WEEK	# ACC	%
Sunday	1	33.3%
Monday	1	33.3%
Tuesday	0	0.0%
Wednesday	0	0.0%
Thursday	1	33.3%
Friday	0	0.0%
Saturday	0	0.0%
Total	**3**	

LIGHT CONDITION	# ACC	%
Daylight	3	100.0%
Dawn/Dusk	0	0.0%
Night	0	0.0%
Unspecified	0	0.0%
Total	**3**	

SUMMARY OF ACCIDENT SEVERITY BY YEAR:

	2016	2017	2018	2019
Fatal Accidents	0	0	0	0
Injury Accidents	0	0	1	0
Property Damage Accidents	0	0	0	2
Non-Reportable Accidents	0	0	0	0
Total Accidents	**0**	**0**	**1**	**2**

DETAILS OF ACCIDENT HISTORY

PERIOD STUDIED:
FROM: *4/1/2016*
TO: *6/30/2019*
39 MONTHS

ROUTE NUMBER/STREET NAME: *NY114/E HAMPTON-SAG HRBR*
LOCATION: *NY-114 HAMPTON-SAG HARBOR TPKE & GOOD FRIEND DR*
MUNICIPALITY: *NORTHWEST HARBOR* COUNTY: *SUFFOLK*
REFERENCE MARKERS / NODES: -

CASE No.
FILE: *ny114GoodFrd*
BY: *GPI*
DATE: *8/25/2020*

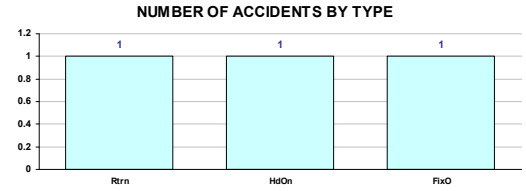
No.	DATE	TIME	# VEHICLES	SEVERITY	LIGHT COND	ROADCHAR	SURFACE	WEATHER	CONTRIB. FACTORS	ACC. TYPE	ACCIDENT DESCRIPTION	KEY #
4	2/24/2019	15:48	1	PDO	1	1	2	3	18 66	FixO	S1 in C/L lost control on wet road & struck a tree on the RS	1
2	8/30/2018	16:04	2	INJ	1	1	1	1	27 8	HdOn	N2 fell asleep crossed double yellow line struck S1 head on	1
3	2/4/2019	16:04	2	PDO	1	1	1	1	69 7	Rtrn	E1 made a RT from driveway and was struck by S2	1

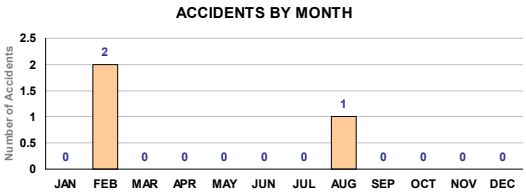
HSA CHARTS

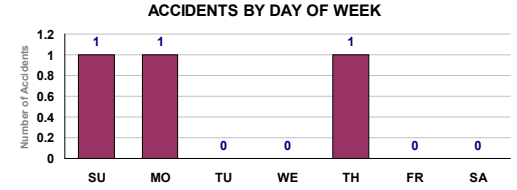
ROUTE: *NY114/E HAMPTON-SAG HRBR* **LOCATION:** *NY-114 HAMPTON-SAG HARBOR TPKE & GOOD FRIEND DR*

TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/25/2020*





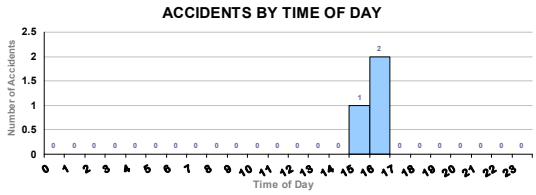


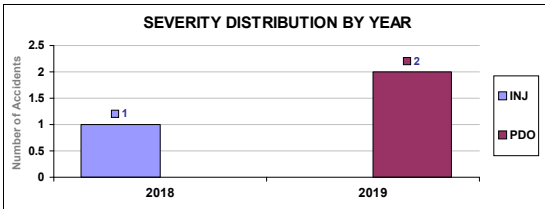
HSA CHARTS

ROUTE: *NY114/E HAMPTON-SAG HRBR* **LOCATION:** *NY-114 HAMPTON-SAG HARBOR TPKE & GOOD FRIEND DR*

TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/25/2020*



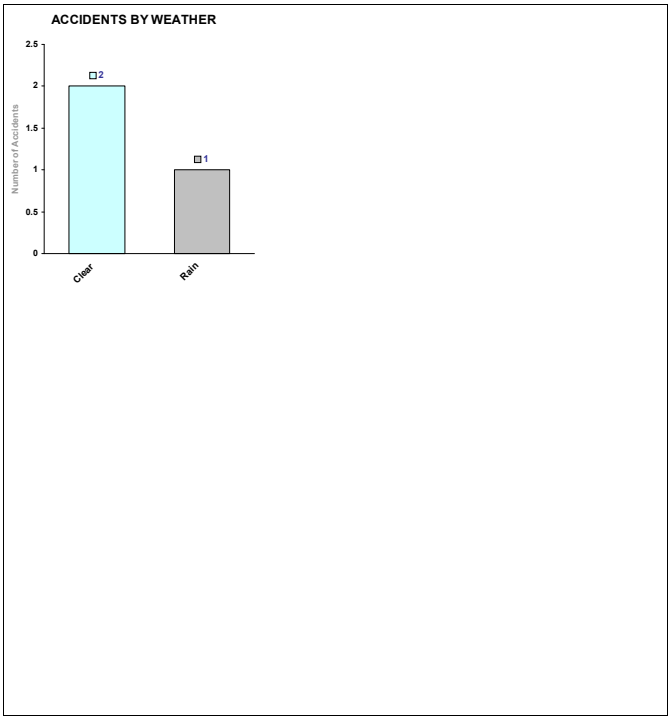


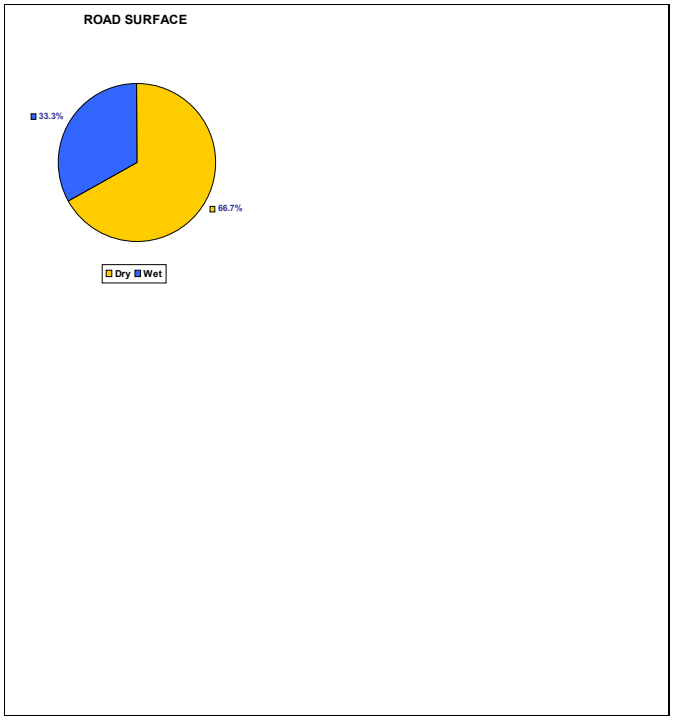
HSA CHARTS

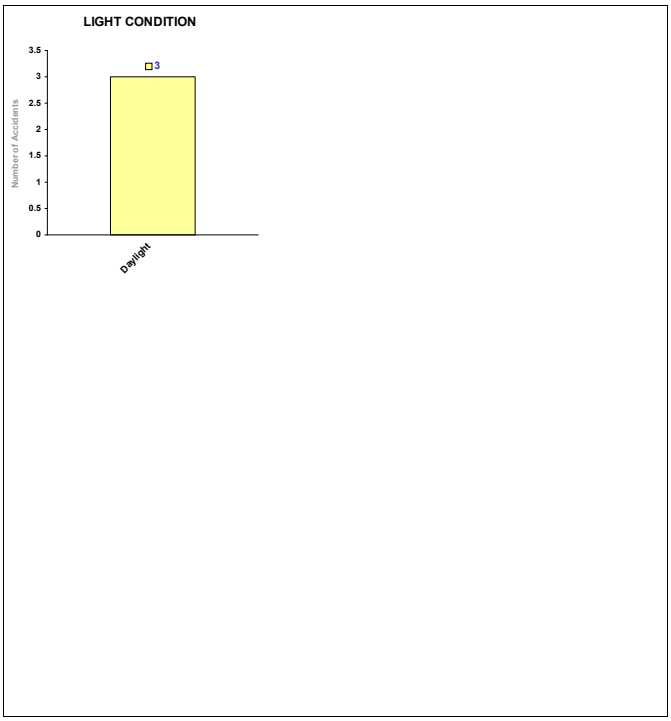
ROUTE: *NY114/E HAMPTON-SAG HRBR* **LOCATION:** *NY-114 HAMPTON-SAG HARBOR TPKE & GOOD FRIEND DR*

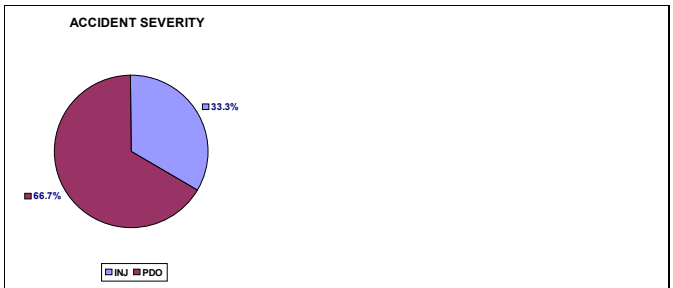
TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/25/2020*









COLLISION DIAGRAM

Key Number = 1

MUNICIPALITY: NORTHWEST HARBOR COUNTY: SUFFOLK

INTERSECTION: NY114/E HAMPTON-SAG HRBR

PERIOD: 3 YEARS 3 MONTHS FROM 4/1/2016 TO 6/30/2019

FILE: ny114GoodFrd

CASE # :

BY: GPI DATE: 8/25/2020



SYMBOLS			MANNER OF COLLISION	
MOVING VEHICLE	P	PEDESTRIAN	REAR END	HEAD ON
TURNING VEHICLE	B	BICYCLIST	LEFT TURN	RIGHT TURN
BACKING VEHICLE	A	ANIMAL	LEFT TURN	RIGHT TURN
PARKED VEHICLE		FIXED OBJECT	OVERTAKE	RIGHT ANGLE
999 RECORD NUMBER		Fatal	OUT OF CONTROL	SIDE SWIPE

APPENDIX D - TRANSPORTATION

Attachment T-14 Crash Analyses – NY 25 & CR 48

ACCIDENT SUMMARY SHEET

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

MUNICIPALITY: *TOWN OF GREENPORT WEST* **COUNTY:** *SUFFOLK*

TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES:** -

REMARKS: *Selected Accidents* **DATE:** *8/26/2020*

TIME OF DAY	# ACC	%
6 AM - 10 AM	3	18.8%
10 AM - 4 PM	6	37.5%
4 PM - 7 PM	3	18.8%
7 PM - 12 AM	3	18.8%
12 AM - 6 AM	0	0.0%
Unspecified	1	6.3%
Total	**16**	

DIRECTION	# ACC	%
North	17	56.7%
South	1	3.3%
East	6	20.0%
West	6	20.0%
Total	**30**	

DIRECTION	# ACC	%
Northeast	0	0.0%
Northwest	0	0.0%
Southeast	0	0.0%
Southwest	0	0.0%
Unspecified	0	0.0%

WEATHER	# ACC	%
Clear	16	100.0%
Cloudy	0	0.0%
Rain	0	0.0%
Snow	0	0.0%
Sleet/Hail/Freezing Rain	0	0.0%
Fog/Smog/Smoke	0	0.0%
Unspecified	0	0.0%
Total	**16**	

ACCIDENT TYPE	# ACC	%
Rear End	10	62.5%
Overtake	0	0.0%
Right Angle	1	6.3%
Left Turn	3	18.8%
Right Turn	0	0.0%
Fixed Object	1	6.3%
Head On	0	0.0%
Sideswipe	0	0.0%

ACCIDENT TYPE	# ACC	%
Pedestrian	0	0.0%
Bicycle	0	0.0%
Parked Vehicle	0	0.0%
Backing	0	0.0%
Run Off The Road	0	0.0%
Animal	1	6.3%
Other	0	0.0%
Unspecified	0	0.0%

Total **16**

SURFACE	# ACC	%
Dry	16	100.0%
Wet	0	0.0%
Mud/Slush	0	0.0%
Snow/Ice	0	0.0%
Unspecified	0	0.0%
Total	**16**	

ACCIDENT SEVERITY	# ACC	%
Fatal	0	0.0%
Injury	2	12.5%
Property Damage	14	87.5%
Non-Reportable	0	0.0%
Total	**16**	

TIME OF YEAR	# ACC	%
Winter (Dec-Feb)	0	0.0%
Spring (Mar-May)	3	18.8%
Summer (Jun-Aug)	10	62.5%
Fall (Sep-Nov)	3	18.8%
Total	**16**	

TYPE OF VEHICLE	# ACC	%
Passenger Cars	30	100.0%
Commercial Vehicles	0	0.0%
Total	**30**	

DAY OF WEEK	# ACC	%
Sunday	1	6.3%
Monday	2	12.5%
Tuesday	4	25.0%
Wednesday	0	0.0%
Thursday	2	12.5%
Friday	4	25.0%
Saturday	3	18.8%
Total	**16**	

LIGHT CONDITION	# ACC	%
Daylight	14	87.5%
Dawn/Dusk	1	6.3%
Night	1	6.3%
Unspecified	0	0.0%
Total	**16**	

SUMMARY OF ACCIDENT SEVERITY BY YEAR:

	2016	2017	2018	2019
Fatal Accidents	0	0	0	0
Injury Accidents	1	1	0	0
Property Damage Accidents	2	9	2	1
Non-Reportable Accidents	0	0	0	0
Total Accidents	**3**	**10**	**2**	**1**

DETAILS OF ACCIDENT HISTORY

PERIOD STUDIED:
FROM: 4/1/2016
TO: 6/30/2019
39 MONTHS

ROUTE NUMBER/STREET NAME: NY25 / NORTH ROAD
LOCATION: NY25 / NORTH ROAD & MAIN STREET / CR48
MUNICIPALITY: TOWN OF GREENPORT WEST COUNTY: SUFFOLK
REFERENCE MARKERS / NODES: -

CASE No.
FILE: ny25Cr48
BY: GPI
DATE: 8/26/2020

No.	DATE	TIME	# VEHICLES	SEVERITY	LIGHT COND	ROAD CHAR	SURFACE	WEATHER	CONTRIB. FACTORS	ACC. TYPE	ACCIDENT DESCRIPTION	KEY #
16	8/11/2017	20:00	1	PDO	4	1	1	1	61	Anml	Deer ran into the driver side of E1 causing damage to the veh	3
8	6/29/2018	20:02	1	PDO	3	1	1	1	6	FixO	S1 after making RT to head SB Main St loss control struck tree	3
1	9/12/2016	11:21	2	INJ	1	1	1	1	7 18	Ltrn	W1 while making WB LT was struck by E2 going straight EB	3
2	4/18/2017	8:12	2	PDO	1	1	1	1	7 18	Ltrn	W1 while making WB LT was struck by E2 going straight EB	3
15	7/20/2017	16:19	2	PDO	1	1	1	1	18 7	Ltrn	W2 (WB) made LT struck was by E1	3
13	7/1/2017	18:54	2	PDO	1	1	1	1	7	Rang	E1 was struck by N2 attempting to make LT on Main Street	3
3	5/19/2017	7:45	2	PDO	1	4	1	1	4	Rend	N2 was stopped at the yield sign, which was rear ended by N1	3
4	7/3/2017	15:23	2	PDO	1	1	1	1	9	Rend	N2 was stopped at the yield sign, which was rear ended by N1	3
5	7/18/2017	19:03	2	INJ	1	1	1	1	9	Rend	N2 was stopped at the yield sign, which was rear ended by N1	3
6	8/3/2017	15:18	2	PDO	1	1	1	1	9	Rend	N2 was stopped at the yield sign, which was rear ended by N1	3
7	10/28/2017		2	PDO	1	1	1	1	9	Rend	N2 was stopped at the yield sign, which was rear ended by N1	3
9	11/25/2018	10:43	2	PDO	1	1	1	1	9	Rend	N2 was yielding bicyclist, which then was rear ended by N1	3
10	5/28/2019	8:09	2	PDO	1	1	1	1	9 26	Rend	E2 was rear ended by E1	3
11	7/23/2016	15:25	2	PDO	1	1	1	1	9	Rend	N2 was stopped at the yield sign, which was rear ended by N1	3
12	8/19/2016	12:39	2	PDO	1	4	1	1	9	Rend	N2 was stopped at the yield sign, which was rear ended by N1	3
14	7/4/2017	16:49	2	PDO	1	1	1	1	18	Rend	W1 (WB) waiting at to make LT was rear-ended by W2	3

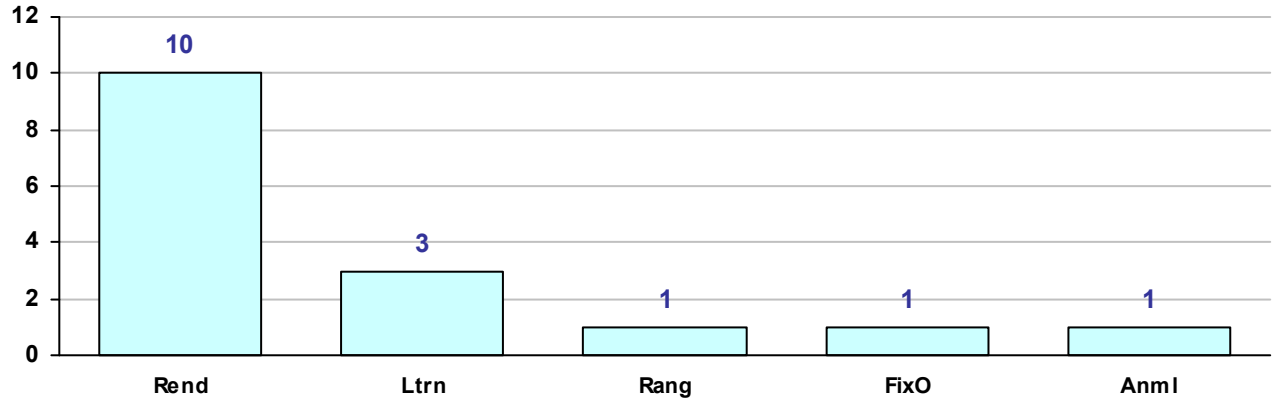
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

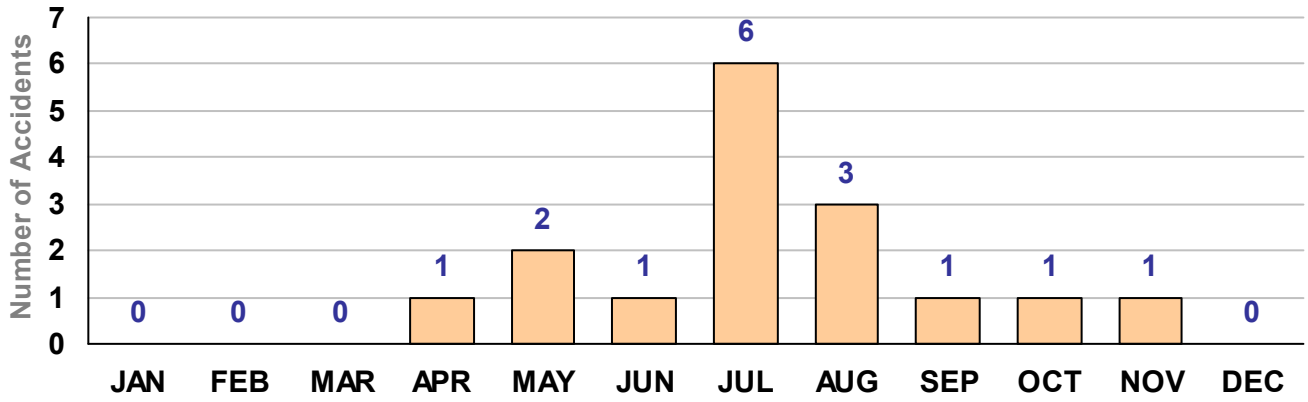
TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/26/2020*

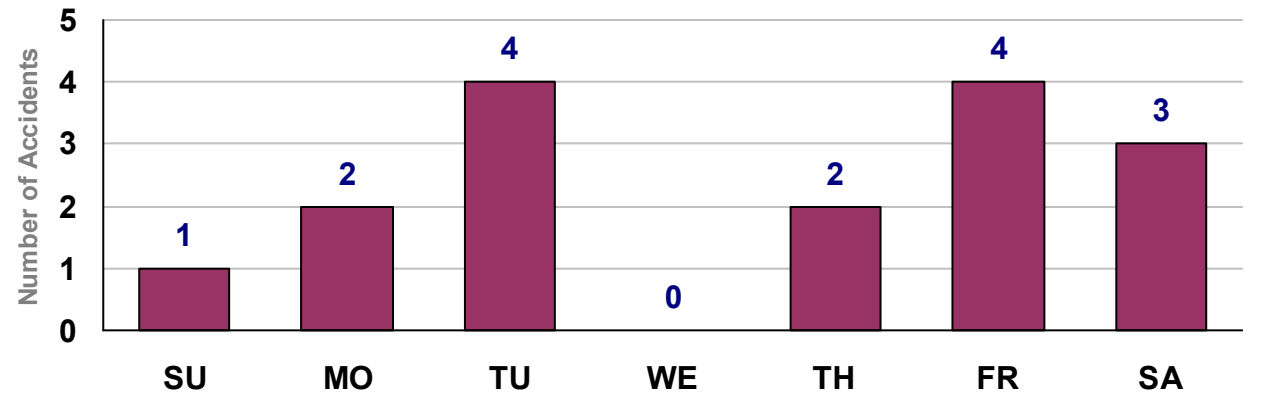
NUMBER OF ACCIDENTS BY TYPE



ACCIDENTS BY MONTH



ACCIDENTS BY DAY OF WEEK

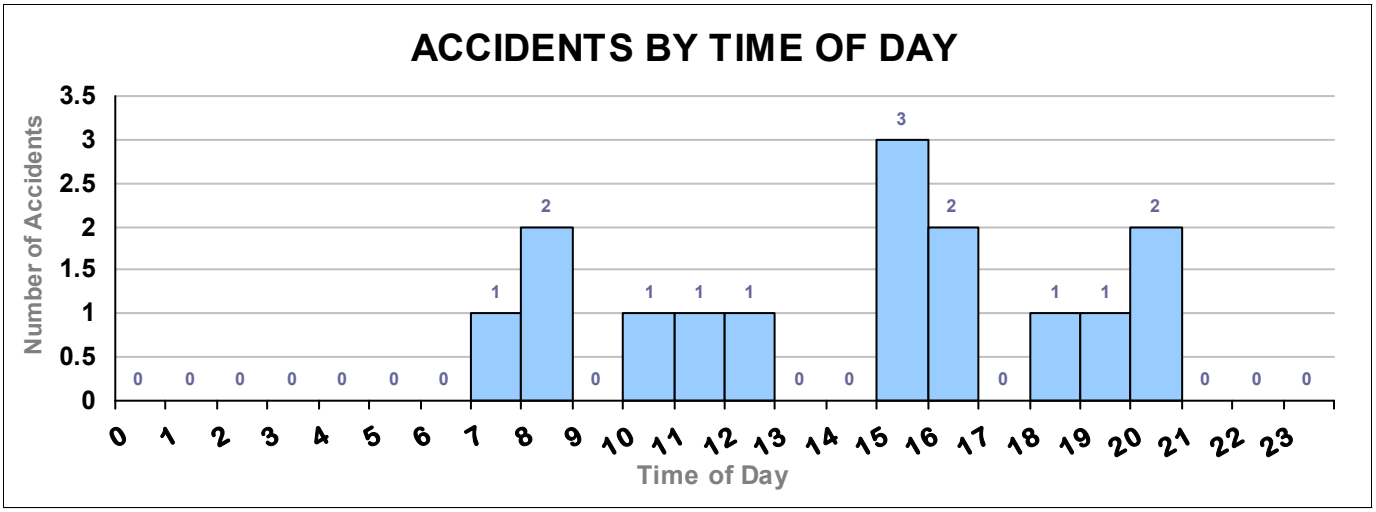


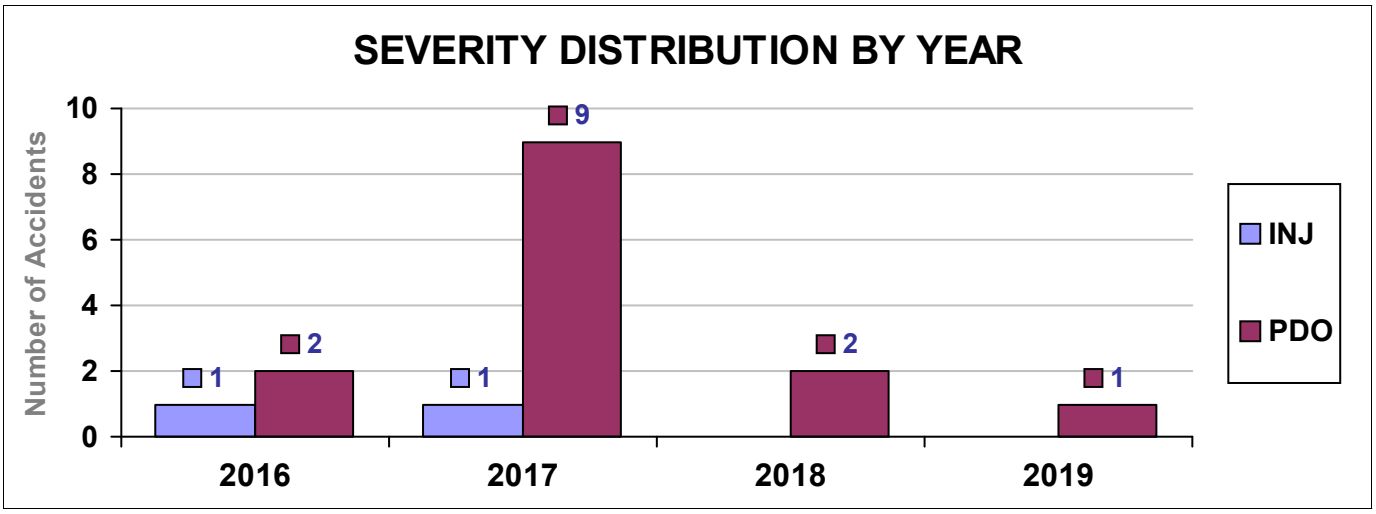
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/26/2020*





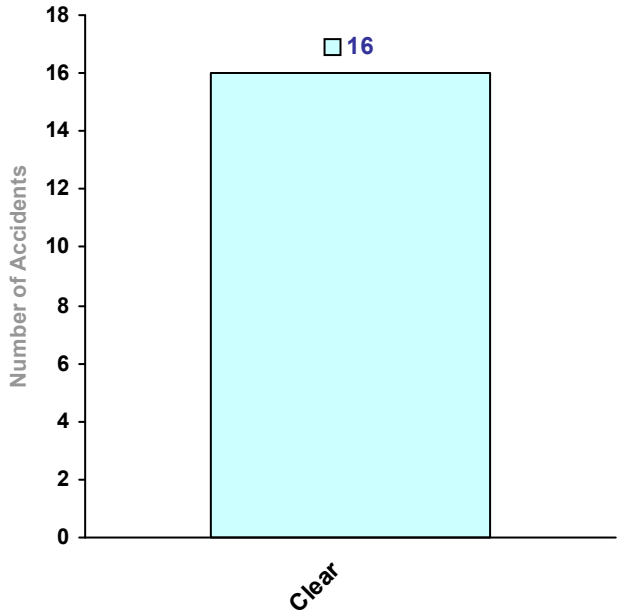
HSA CHARTS

ROUTE: *NY25 / NORTH ROAD* **LOCATION:** *NY25 / NORTH ROAD & MAIN STREET / CR48*

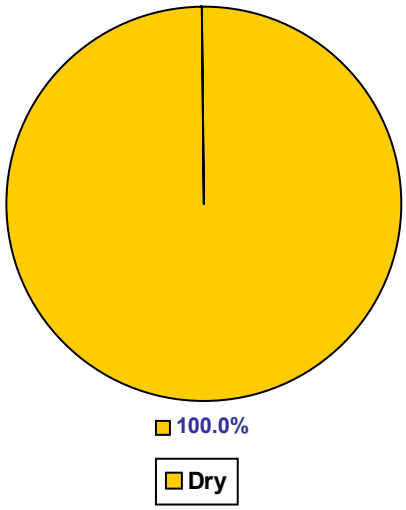
TIME PERIOD COVERED: *4/1/2016 - 6/30/2019* **REFERENCE MARKERS / NODES** -

REMARKS: *Selected Accidents* **DATE:** *8/26/2020*

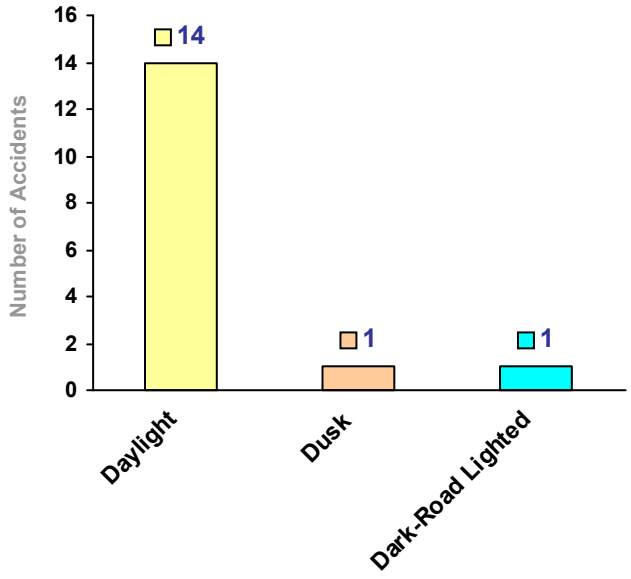
ACCIDENTS BY WEATHER



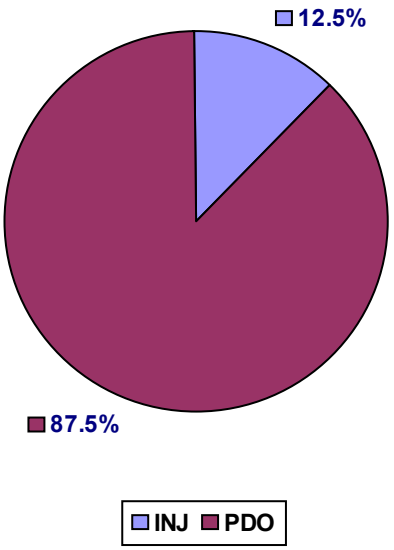
ROAD SURFACE



LIGHT CONDITION



ACCIDENT SEVERITY



COLLISION DIAGRAM

Key Number = 3

MUNICIPALITY: TOWN OF GREENPORT W COUNTY: SUFFOLK

INTERSECTION: NY25 / NORTH ROAD

PERIOD: 3 YEARS 3 MONTHS FROM 4/1/2016 TO 6/30/2019

FILE: ny25Cr48

CASE # :

BY: GPI DATE: 8/26/2020



SYMBOLS

- MOVING VEHICLE
- TURNING VEHICLE
- BACKING VEHICLE
- PARKED VEHICLE
- 999 RECORD NUMBER
- P PEDESTRIAN
- B BICYCLIST
- A ANIMAL
- FIXED OBJECT
- Fatal

MANNER OF COLLISION

- REAR END
- LEFT TURN
- LEFT TURN
- OVERTAKE
- OUT OF CONTROL
- HEAD ON
- RIGHT TURN
- RIGHT TURN
- RIGHT ANGLE
- SIDE SWIPE

APPENDIX C - TRANSPORTATION

Attachment T-15 Alternate 1 - Roundabout at Existing Condition

MOVEMENT SUMMARY

Site: 101 [AM Peak Hour - Alt 2]

Alt 2 - Roundabout at existing intersection

Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Rte 25												
3	L2	79	2.0	0.227	6.6	LOS A	1.0	25.7	0.56	0.50	0.56	33.2
18	R2	113	2.0	0.227	6.6	LOS A	1.0	25.7	0.56	0.50	0.56	32.2
Approach		192	2.0	0.227	6.6	LOS A	1.0	25.7	0.56	0.50	0.56	32.6
East: Rte 25												
1	L2	156	3.0	0.405	6.9	LOS A	2.6	65.5	0.30	0.15	0.30	33.4
6	T1	344	3.0	0.405	6.9	LOS A	2.6	65.5	0.30	0.15	0.30	33.4
Approach		500	3.0	0.405	6.9	LOS A	2.6	65.5	0.30	0.15	0.30	33.4
West: CR 48												
2	T1	439	5.0	0.530	9.4	LOS A	3.6	94.0	0.50	0.33	0.50	32.9
12	R2	152	5.0	0.530	9.4	LOS A	3.6	94.0	0.50	0.33	0.50	32.0
Approach		591	5.0	0.530	9.4	LOS A	3.6	94.0	0.50	0.33	0.50	32.7
All Vehicles		1283	3.8	0.530	8.0	LOS A	3.6	94.0	0.43	0.29	0.43	32.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 101 [MD Peak Hour - Alt 2]

Alt 2 - Roundabout at existing intersection
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Rte 25												
3	L2	130	2.0	0.377	8.2	LOS A	2.0	49.7	0.59	0.52	0.59	32.6
18	R2	216	2.0	0.377	8.2	LOS A	2.0	49.7	0.59	0.52	0.59	31.6
Approach		347	2.0	0.377	8.2	LOS A	2.0	49.7	0.59	0.52	0.59	32.0
East: Rte 25												
1	L2	235	3.0	0.608	10.8	LOS B	5.0	128.2	0.53	0.33	0.53	31.6
6	T1	476	3.0	0.608	10.8	LOS B	5.0	128.2	0.53	0.33	0.53	31.5
Approach		711	3.0	0.608	10.8	LOS B	5.0	128.2	0.53	0.33	0.53	31.6
West: CR 48												
2	T1	361	5.0	0.486	9.2	LOS A	2.9	76.2	0.55	0.43	0.55	33.0
12	R2	138	5.0	0.486	9.2	LOS A	2.9	76.2	0.55	0.43	0.55	32.1
Approach		499	5.0	0.486	9.2	LOS A	2.9	76.2	0.55	0.43	0.55	32.8
All Vehicles		1556	3.4	0.608	9.7	LOS A	5.0	128.2	0.55	0.41	0.55	32.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [PM Peak Hour - Alt 2]

Alt 2 - Roundabout at existing intersection
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Rte 25												
3	L2	149	2.0	0.343	7.4	LOS A	1.8	44.7	0.55	0.46	0.55	32.7
18	R2	179	2.0	0.343	7.4	LOS A	1.8	44.7	0.55	0.46	0.55	31.8
Approach		329	2.0	0.343	7.4	LOS A	1.8	44.7	0.55	0.46	0.55	32.2
East: Rte 25												
1	L2	224	3.0	0.683	13.0	LOS B	6.3	161.0	0.64	0.43	0.64	30.7
6	T1	560	3.0	0.683	13.0	LOS B	6.3	161.0	0.64	0.43	0.64	30.7
Approach		783	3.0	0.683	13.0	LOS B	6.3	161.0	0.64	0.43	0.64	30.7
West: CR 48												
2	T1	323	5.0	0.442	8.4	LOS A	2.6	66.5	0.52	0.39	0.52	33.4
12	R2	136	5.0	0.442	8.4	LOS A	2.6	66.5	0.52	0.39	0.52	32.5
Approach		459	5.0	0.442	8.4	LOS A	2.6	66.5	0.52	0.39	0.52	33.1
All Vehicles		1571	3.4	0.683	10.5	LOS B	6.3	161.0	0.59	0.42	0.59	31.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [SAT Peak Hour - Alt 2]

Alt 2 - Roundabout at existing intersection
Site Category: (None)
Roundabout

Movement Performance - Vehicles

Mov ID	Turn	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Rte 25												
3	L2	170	2.0	0.399	8.4	LOS A	2.1	54.1	0.59	0.52	0.59	32.3
18	R2	203	2.0	0.399	8.4	LOS A	2.1	54.1	0.59	0.52	0.59	31.3
Approach		373	2.0	0.399	8.4	LOS A	2.1	54.1	0.59	0.52	0.59	31.7
East: Rte 25												
1	L2	249	5.0	0.790	18.2	LOS C	18.1	470.9	0.80	0.83	1.25	28.7
6	T1	622	5.0	0.790	18.2	LOS C	18.1	470.9	0.80	0.83	1.25	28.7
Approach		871	5.0	0.790	18.2	LOS C	18.1	470.9	0.80	0.83	1.25	28.7
West: CR 48												
2	T1	347	5.0	0.489	9.4	LOS A	2.9	76.0	0.57	0.45	0.57	32.9
12	R2	146	5.0	0.489	9.4	LOS A	2.9	76.0	0.57	0.45	0.57	32.0
Approach		492	5.0	0.489	9.4	LOS A	2.9	76.0	0.57	0.45	0.57	32.6
All Vehicles		1736	4.4	0.790	13.6	LOS B	18.1	470.9	0.69	0.66	0.92	30.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SYSTEM ENGINEERING REVIEW FORM

PIN 0810.01
Safety Enhancements – Various Location
TOWNS OF RIVERHEAD, EAST HAMPTON, AND SOUTHOLD
SUFFOLK COUNTY

Part 1 – General Project Information

The System Engineering Review Form (SERF) is normally submitted to the FHWA Division Office ITS Engineer/Specialist prior to obligation of initial funding for any project with ITS elements. Any project for which the SERF is not completed in full at this time will be considered as "High Risk", or requiring full oversight by FHWA, unless approved by FHWA as "Exempt". A full discussion of risk categories is available in the most recent Federal-aid Highway Program Partnership Agreement between FHWA and NYSDOT.

A. Project Contact –

Michael Ufko, P.E.
Regional ITS Coordinator
NYSDOT Region 10
140 Nicon Court
Hauppauge, NY 11788
(631) 904-3002

B. Project Objectives –

- *Improve overall traffic flow conditions using proven cost-effective methods to reduce delay and to provide an acceptable level of service, for a design period of 10 years. (20 years for a roundabout)*
- *Upgrade roadway geometry to improve traffic flow and facilitate traffic operations.*
- *Improve safety by using proven cost-effective accident reduction measures to address the identified safety issues and concerns at each location.*
- *Improve existing facilities and services using cost effective measures to eliminate the degradation of mainline level of service and improve level of service or reduce the hours of delay at LOS E for the design year.*

C. Project Summary –

The purpose of this project is to provide safety and operational enhancements at the four (4) intersections noted below:

- *Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County*
  Widening the intersection and adding turn lanes on all approaches and rebuilding existing traffic signal
- *Loc. No. 2 - NYS Route 114 at Stephens Hands Path, Town of East Hampton, Suffolk County*
  Widening the intersection and adding turn lanes on all approaches and rebuilding existing traffic signal
- *Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County*
  Widening the intersection and adding turn lane on northbound approach. This intersection doesn't have a traffic signal nor is one proposed
- *Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold, Suffolk County*
  Construction of a mini-roundabout and removing the existing flashing traffic signal.

D. Work to Date –

- ***The Initial Project Proposal has been approved by Regional Director in July 2018.***
- ***Design Approval is scheduled for Spring 2022***
- ***Construction is scheduled to start in Winter 2024.***

E. Is this project considered "Exempt"? **Yes** ☑ **No** ☐

If this project is determined to be Exempt, as defined in the Partnership Agreement, you may stop completing the SERF at this point. With FHWA concurrence, a Systems Engineering Analysis will not be required.

F. Risk Assessment Guidance –

For each question, check Yes or No or Not Sure.

Question:	Yes	No	Not Sure
1. Will the project depend on *only your agency* to implement and operate?	☑	☐	☐
2. Will the project use only software proven elsewhere, with *no* new software writing?	☑	☐	☐
3. Will the project use only hardware and communications *proven* elsewhere?	☑	☐	☐
4. Will the project use only *existing interfaces* (no new interfaces to other systems)?	☑	☐	☐
5. Will the project use only *existing system requirements* that are defined in writing?	☑	☐	☐
6. Will the project use only *existing operating procedures* that are defined in writing?	☑	☐	☐
7. Will the project use only technologies with service life *longer* than 2-4 years?	☑	☐	☐

If all of the above are Yes, that is a preliminary indication that your project is **Low-Risk**.

Part 2 – Regulatory Compliance Information

SYSTEMS ANALYSIS FOR ITS MEASURES -
1. **Identification of portions of the Regional Architecture being implemented:** TM03: NYSDOT Traffic Signal Control
2. **Identification of participating agencies roles and responsibilities**: NYSDOT will be solely responsible for final design, implementation, operations and maintenance.
3. **Procedures and resources necessary for operations and management of the system:** The traffic signals being rebuilt will continue to be operated and maintained out of the INFORM Traffic Management Center. No additional resources are required for these efforts.
4. **Requirements definitions**: The system requirements are well defined in the NYSDOT Standard Specifications, Standard Sheets and Regional Traffic Signal Guide Sheets, procedures and protocols
5. **Identification of applicable ITS standards and testing procedures:** The two traffic signals being rebuilt are isolated "standalone" signals. The standard NYSDOT 2070 controllers and firmware are NTCIP compliant. Specific testing will only be with regards to ensuring proper operation as per plans. Compliance testing is not required given the use of standard equipment and firmware which has been previously tested and approved.
6. **Analysis of alternative system configurations and technology options to meet requirements:** Alternative designs will not be considered. All system requirements will be consistent with current Region 10 practice.
7. **Procurement options**: Standard procurement practices will be followed through a NYSDOT let capital project utilizing Standard Specifications.
Comments or Additional Information (if needed):

FHWA SERF Approval _____ (Exempt) **Date** 6/09/2022

Arthur T. O'Connor, Ph.D., P.E.
Program Delivery & Stewardship Team
USDOT|FHWA - NYC Metropolitan Office
arthur.oconnor@dot.gov

Appendix D
Pavement Information

Pavement Evaluation And Treatment Selection Report

PIN 0810.01

Suffolk County Safety Improvement Project at 4 Intersections

November 2020 - Original
February 2021 - Revised

Pavement Evaluation and Treatment Selection Report

A Pavement Evaluation and Treatment Selection Report (PETSR) has been completed for the Intersection Improvement Project at (4) intersections on the north and south forks of eastern Suffolk County. Following the guidelines set forth in the NYSDOT Comprehensive Pavement Design Manual and utilizing Volume I & II of CPDM, a field assessment of the existing pavement condition was conducted and proposed pavement treatment recommendations are provided.

GENERAL INFORMATION AND EVALUATION PROCEDURES

Locations 1 & 4 are located on NY 25 in Calverton and Greenport and Locations 2 & 3 are located on NY 114 in East Hampton. All locations are undivided two lane roadways with right side shoulders and/or turn lanes throughout the proposed project lengths. The existing roadway pavement for both NY 25 locations is an asphalt overlay on original base concrete composite pavement. On NY 114, both existing roadway pavements consist of a full depth asphalt pavement section. Various construction contracts completed over the years placed multi course asphalt overlays either on the existing riding surface or utilizing an asphalt mill and fill project. Various preventative maintenance contracts provided necessary asphalt overlay crack sealing in order to preserve the pavement riding surface and extend its useful service life. In mid-2020, a field pavement distress survey was conducted on the exposed asphalt pavement riding surfaces and the major form of distress and surface deterioration encountered was minor transverse and longitudinal cracking of the asphalt riding surface. The overall pavement condition sufficiency rating was found to be fair to good (Ratings 6-8) for the four roadway sections slated for intersection improvements and pavement rehabilitation work within this project.

Each location of proposed pavement work is approximately 1200'-2400' in project length, which included the State Highway portion and intersecting cross street work. Therefore it was evaluated as a project length less than 1.0 miles of total treatment length, Table 3-2 of Chapter 3 of the NYSDOT Comprehensive Pavement Design Manual - *Pavement Evaluation and Treatment Selection Process* (Revision 5-Nov. 2013) was utilized and each of the four roadway sections were evaluated individually in a simplified format.

3-4 **COMPREHESIVE PAVEMENT DESIGN MANUAL**

Table 3-2 State System and All Federal Aid Project Requirements

Project Type[1]	Functional Class[2]	Length of Treatment[3]	Min Service Life[4]	Pavement Evaluation[5]	Treatment Selection Report[6]	Number of Feasible Treatments[7]	LCCA[8]
1R and below	All	All	5 years	Simplified	Simplified	N/A	N/A
2R/3R	Arterial (incl. Interstates and other freeways)	1 mile (1.5 km) or more	8 years for 2R/3R,	Full or simplified based on Pavement Designer recommendation	Full	1	N/A
						2 minimum	Yes
		<1 mile (1.5 km)		Simplified	Simplified	N/A	N/A
4R/New Const.	Arterial (incl. Interstates and other freeways)	1 mile (1.5 km) or more	20 years for new or 4R	Full or simplified based on Pavement Designer recommendation	Full	2 minimum	Yes
		<1 mile (1.5 km)		Simplified	Simplified	N/A	N/A
2R/3R/4R and New Const.	Collector, Local and Ramps	1 mile (1.5 km) or more	8 years for 2R/3R, 20 years for new or 4R	Full or simplified based on Pavement Designer recommendation	Full	N/A	N/A
		<1 mile (1.5 km)		Simplified	Simplified	N/A	N/A

New pavement design projects less than 1.0 mile in length may be exempted by the Regional Design Engineer and may be designed in accordance with the conventional design procedures in CPDM Section 4.4 “CONVENTIONAL PAVEMENT DESIGN”. Conventional pavement design is based on both the amount of traffic volume and the percentage of trucks. Table 4-1 gives the pavement thicknesses that should be used for given traffic volumes.

Table 4-1 Conventional Pavement Thickness Guide

Annual Average Daily Traffic AADT[1]	Percent Trucks	Subbase Course (all Pavements)	Portland Cement Concrete Pavement	Hot Mix Asphalt Pavement	
				Base Course	Top & Binder Courses Combined[2]
Over 10,000 Vehicles	10 % or more	300 mm	250 mm	150 mm	90 mm
	less than 10 %			125 mm	
6,000 to 10,000	10 % or more	300 mm	225 mm	125 mm	90 mm
	less than 10 %			100 mm	
4,000 to 5,999	All	300 mm	Not Applicable	75 mm	90 mm
Under 4,000 Vehicles	All	300 mm	Not Applicable	75 mm	80 mm

Intersection	AADT	%HV	%HV (east)/(north)	%HV (west)/(south)
1 NYS Rt 25 at Edwards Ave (ETC+10)	18,379	6.85%	7.16%	6.54%
2 NYS Rt 114 at Stephen Hands Path (ETC+10)	7,216	8.69%	8.18%	9.27%
3 NYS Rt 114 at Goodfriend Dr (ETC+10)	7,216	8.69%	8.15%	9.27%
4 NYS Rt 25 at County Rd 48 (ETC+10)	4,976	3.98%	4.51%	3.43%
4 NYS Rt 25 at County Rd 48 (ETC+20)	5,196	3.98%	4.51%	3.43%
1 NYS Rt 25 at Edwards Ave (ETC)	17,569	6.85%	7.16%	6.54%
2 NYS Rt 114 at Stephen Hands Path (ETC)	6,900	8.69%	8.18%	9.27%
3 NYS Rt 114 at Goodfriend Dr (ETC)	6,900	8.69%	8.15%	9.27%
4 NYS Rt 25 at County Rd 48 (ETC)	4,757	3.98%	4.51%	3.43%

Growth Rate of 0.47%/year, linear growth.

4.5.3.3 HMA Pavement Thickness

The pavement thickness for all lanes is dependent on the subgrade resilient modulus, M_r, and the amount of traffic in the driving lane (ESALs) and is given in Table 4-5 below. Contact the Regional Geotechnical Engineer to obtain the M_r design value, and also when site conditions would make it difficult to provide the required subbase course and/or select granular subgrade layer thicknesses.

Table 4-5 HMA Thickness Table

M_r = 28 MPa		
80 kN ESALs over Design Life	Total HMA Thickness	Select Granular Subgrade Thickness
millions	mm	mm
ESALs ≤ 2	165	0
2 < ESALs ≤ 4	175	0
4 < ESALs ≤ 8	200	0
8 < ESALs ≤ 13	225	0
13 < ESALs ≤ 23	250	0
23 < ESALs ≤ 45	250	150
45 < ESALs ≤ 80	250	300
80 < ESALs ≤ 140	250	450
140 < ESALs ≤ 300	250	600

M_r = 34 MPa		
80 kN ESALs over Design Life	Total HMA Thickness	Select Granular Subgrade Thickness
millions	mm	mm
ESALs ≤ 4	165	0
4 < ESALs ≤ 7	175	0
7 < ESALs ≤ 13	200	0
13 < ESALs ≤ 23	225	0
23 < ESALs ≤ 40	250	0
40 < ESALs ≤ 70	250	150
70 < ESALs ≤ 130	250	300
130 < ESALs ≤ 235	250	450
235 < ESALs ≤ 300	250	600

M_r = 41 MPa		
80 kN ESALs over Design Life	Total HMA Thickness	Select Granular Subgrade Thickness
millions	mm	mm
ESALs ≤ 6	165	0
6 < ESALs ≤ 11	175	0
11 < ESALs ≤ 20	200	0
20 < ESALs ≤ 35	225	0
35 < ESALs ≤ 60	250	0
60 < ESALs ≤ 110	250	150
110 < ESALs ≤ 200	250	300
200 < ESALs ≤ 300	250	450

M_r = 48 MPa		
80 kN ESALs over Design Life	Total HMA Thickness	Select Granular Subgrade Thickness
millions	mm	mm
ESALs ≤ 8	165	0
8 < ESALs ≤ 16	175	0
16 < ESALs ≤ 30	200	0
30 < ESALs ≤ 50	225	0
50 < ESALs ≤ 85	250	0
85 < ESALs ≤ 160	250	150
160 < ESALs ≤ 300	250	300

M_r = 55 MPa		
80 kN ESALs over Design Life	Total HMA Thickness	Select Granular Subgrade Thickness
millions	mm	mm
ESALs ≤ 12	165	0
12 < ESALs ≤ 20	175	0
20 < ESALs ≤ 40	200	0
40 < ESALs ≤ 65	225	0
65 < ESALs ≤ 115	250	0
115 < ESALs ≤ 215	250	150
215 < ESALs ≤ 300	250	300

M_r = 62 MPa		
80 kN ESALs over Design Life	Total HMA Thickness	Select Granular Subgrade Thickness
millions	mm	mm
ESALs ≤ 15	165	0
15 < ESALs ≤ 30	175	0
30 < ESALs ≤ 50	200	0
50 < ESALs ≤ 90	225	0
90 < ESALs ≤ 150	250	0
150 < ESALs ≤ 300	250	150

Location #1 NY 25 at Edwards Avenue

This location encompasses approximately 1200 feet along NY 25 and 1200 feet on Edwards Avenue at this four legged intersection:

EXISTING PAVEMENT CONDITION:

Segment #1 NY 25 (600 feet east and 600 feet west of Edwards Avenue intersection)

- Existing composite pavement is in fair to good condition (Rated 6) with the asphalt riding surface exhibiting transverse and longitudinal joint reflective cracking as the major form of distress. Partial depth overall pavement repair appear to be minimal at deteriorated transverse cracks caused by the underlying concrete pavement movement and environmental effects to the riding surface from harsh weather water and temperature changes. NY 25 was crack sealed in 2007 through this area and that helped preserve the riding surface.
- Right shoulder pavement appears to be good with little to no drop off along the longitudinal travel lane joint. Some random cracking exists where ponding water accumulates.

Segment #2 Edwards Avenue (600 feet north and 600 feet south of NY 25 intersection)

- Existing full depth asphalt pavement is in fair condition with the asphalt riding surface exhibiting random cracking as the major form of distress. Full depth pavement replacement was previously placed in some areas due to the effects of utility work within the travel lane riding surface.

EXISTING PAVEMENT REHABILITATION RECOMMENDATIONS:

- No full depth pavement repairs appear necessary at this time.
- Utilize a 2” asphalt pavement milling operation to remove the existing asphalt top course material
- All minor transverse and longitudinal cracking in underlying asphalt courses should be cleaned and sealed prior to the placement of the new asphalt riding surface.
- In a few areas where multiple cracking exists, a partial depth asphalt overlay repair can be utilized after surface milling and prior to the placement of a new asphalt riding surface.
- Existing soil conditions are good with drainable sands and gravel material with good support characteristics.
- An asphalt Truing and Leveling course can be used to level out low spots and adjust grades and cross slope where needed when widening for lane additions or lane re-alignment.
- All milled surfaces should be tack coated prior to the placement of the new 2” asphalt top course.
- Place a new 2” asphalt riding surface top course on existing pavement where asphalt milling took place.

PROPOSED PAVEMENT RECOMMENDATIONS:

- With the proposed new pavement sections being relatively short in length, pavement widenings should be constructed adjacent to the existing travel lane in full depth asphalt pavement with the removal of all shoulder pavement sections. No pavement coring for depth determination is necessary since all existing shoulder pavement will be removed. Proposed pavement widenings should be constructed in full strength, full depth asphalt at a minimum width of 4.0 feet.
- Using Table 4-1 Conventional Pavement Thickness Design, for ETC (2023) AADT of 17600 and truck percentage of 7% the 8.5” HMA pavement section would consist of 1.5” Top, 2” Binder, 5” Base asphalt on 12” subbase.
- An ESAL calculation design for this intersection utilizes a 20 year design life for the pavement widenings which is consistent with the Super Pave service life. A minimum pavement depth of 7” HMA on 12” RCA subbase material was calculated using ETC (2023) AADT volume projected out 20 years with a growth rate of 0.5% and a heavy truck percentage of 7% and a sand / gravel Mr value=41MPa (see attached work sheet calculations)
- Therefore the recommended full depth HMA pavement section that matches closely to the existing pavement structure and is typical for travel lane pavement depths should be an 8” HMA Super Pave section being:

2.0” Top, 2.5” Binder, 3.5” Base asphalt on a 12” RCA subbase layer.

FEASIBLE TREATMENTS:

- Mill & Fill existing pavement surface.
- ESAL designed proposed pavement sections

LIFE CYCLE COST ANALYSIS:

- Not Applicable

LOCATION/IDENTIFICATION								PHYSICAL CHARACTERISTICS								TRAFFIC			CONDITION INFORMATION							WORK		
Route																			Rating									
No.	Qualifier	Cnty Name	Reg./Cnty	Primary EMP	Reverse BMP	End Reference Marker	SH No.	Segment Lgth.	Total Lanes	Roadways	Paved Shldr Width	Roadside Type	Pvmnt Width	Pvmnt Type	Subbase	Funct Class	AADT	%Trucks	V/C Ratio	2013 2014 2015 2016 **2017**	IRI (in/mi)	Rut (in)	Avg. Bump Height (in)	No. Bumps	Dominant Distress	PCI	Yr Last Crack Seal	Yr Last Work	Work Type
NY 25	1	SUF	07	24.89	49.82		8291	0.09	4	2	0	1	60	O	2	14	29800	05	0.41	7 7 7 7 **7**	*200*	0.3	0.3	4	Ag	40		09	4
NY 25	1	SUF	07	25.10	49.61	25 07041248	8291	0.21	4	2	0	1	60	O	2	14	29800	05	0.41	7 7 7 7 **7**	113	0.3	0.3	14	Ag	63		09	4
NY 25	1	SUF	07	25.10	49.61	**MT SINAI-CORAM RD**																						
NY 25	1	SUF	07	25.36	49.35		8291	0.26	2	1	8	4	36	O	2	14	21298	05	0.60	7 7 7 7 **7**	142	0.5	0.4	13	AgWh	50	07	02	4
NY 25	1	SUF	07	26.20	48.51		8291	0.84	2	2	8	4	36	O	2	14	21298	05	0.60	7 7 7 6 **5**	190	0.7	0.5	82	AgWh	14	07	02	4
NY 25	1	SUF	07	26.35	48.36		8291	0.15	2	1	8	4	36	O	2	14	21298	05	0.60	7 7 7 7 **7**	151	0.4	0.4	7	AgWh	50	07	02	4
NY 25	1	SUF	07	26.35	48.36	**SWEZEY LA**																						
NY 25	1	SUF	07	26.91	47.80		8291	0.56	2	1	20	0	24	O	2	14	21298	05	0.60	6 6 5 4 **4**	159	0.8	0.4	32	AgWh	15	07	02	4
NY 25	1	SUF	07	28.06	46.65	25 07041281	8291	1.15	2	1	20	0	24	O	2	14	21298	05	0.60	6 6 5 K **9**	*148*	0.4	0.1	3		75		16	4
NY 25	1	SUF	07	28.06	46.65	**CR 21 MIDDLE ISLAND RD ROCKY PT RD**																						
NY 25	1	SUF	07	28.99	45.72		8291	0.93	2	2	6	0	24	O	2	14	14214	05	0.50	7 7 7 7 **7**	146	0.7	0.3	22	Ag	44	07	04	4
NY 25	1	SUF	07	29.21	45.50		8291	0.22	2	2	6	4	36	O	2	14	14214	05	0.50	7 7 7 7 **7**	136	0.4	0.5	7	AgWh	54	07	04	4
NY 25	1	SUF	07	29.39	45.32		8291	0.18	2	2	6	4	36	O	2	14	14214	05	0.50	7 7 7 7 **7**	192	0.5	0.5	11	AgWh	36	07	04	4
NY 25	1	SUF	07	30.06	44.65		8291	0.67	2	1	6	4	36	O	2	14	14214	05	0.50	7 7 7 6 **5**	173	0.6	0.5	41	AgWh	20	07	04	4
NY 25	1	SUF	07	30.20	44.51		8291	0.14	2	2	6	4	36	O	2	14	14214	05	0.50	7 7 7 6 **5**	241	0.4	0.4	10	AgWh	18	07	04	4
NY 25	1	SUF	07	30.62	44.09	25 07041307	8291	0.42	2	2	6	4	36	O	2	14	14214	05	0.50	7 7 7 6 **5**	166	0.4	0.4	17	AgWh	29	07	04	4
NY 25	1	SUF	07	30.62	44.09	**RIDGE RD**																						
NY 25	1	SUF	07	30.89	43.82		8291	0.27	2	1	8	4	24	O	2	14	14214	05	0.50	7 7 7 7 **6**	157	0.4	0.5	16	Ag	42	07	04	4
NY 25	1	SUF	07	31.01	43.70		8291	0.12	4	2	10	0	48	O	2	14	14214	05	0.19	7 7 7 7 **7**	305	0.7	0.4	13	Ag	25	07	04	4
NY 25	1	SUF	07	31.30	43.41	25 07041314	8291	0.29	4	2	10	0	48	C	2	14	14214	05	0.19	7 7 7 7 **7**	233	0.4	0.6	32	SiF	35	07	08	12
NY 25	1	SUF	07	31.30	43.41	**CR 46 W FLOYD PKWY**																						
NY 25	1	SUF	07	31.77	42.94		8291	0.47	4	2	10	0	48	C	2	14	13780	05	0.18	7 7 7 7 **7**	260	0.3	0.5	62	SiF	35	07	08	12
NY 25	1	SUF	07	33.71	41.00		8291	1.94	2	2	10	4	24	O	2	14	13780	05	0.48	7 7 7 7 **6**	137	0.4	0.4	80	Ag	47	07	90	2
NY 25	1	SUF	07	34.22	40.49		8291	0.51	2	1	10	4	24	O	2	14	13780	05	0.48	6 6 6 6 **6**	141	0.4	0.3	25	Ag	43	07	90	2
NY 25	1	SUF	07	34.22	40.49	**WADING RIVER RD**																						
NY 25	1	SUF	07	36.03	38.68		8291	1.81	2	1	10	4	24	O	2	14	8361	05	0.31	7 7 7 7 **9**	85	0.4	0.1	11		88		16	4
NY 25	1	SUF	07	36.22	38.49		8291	0.19	2	1	10	4	24	O	2	14	8361	05	0.31	K 9 9 8 **8**	98	0.4	0.2	1		82		13	4
NY 25	1	SUF	07	36.71	38.00	25 07041369	8291	0.49	2	1	10	4	24	O	2	14	8361	05	0.31	7 7 7 7 **9**	91	0.2	0.1	2		93		16	4
NY 25	1	SUF	07	36.71	38.00	**RT 25A**																						
NY 25	1	SUF	07	38.97	35.74		8066	2.26	2	1	8	4	24	O	2	14	16434	05	0.59	7 7 7 7 **6**	130	0.4	0.3	58	Ag	49	07	03	4
NY 25	1	SUF	07	38.97	35.74	**EDWARDS AVE**																						
NY 25	1	SUF	07	39.59	35.12	25 07041396	8066	0.62	2	1	6	4	24	O	2	14	15057	05	0.52	7 7 7 6 **6**	140	0.5	0.3	32	Ag	40	07	03	4
NY 25	1	SUF	07	39.94	34.77		8066	0.35	4	2	10	0	48	C	2	14	15057	05	0.21	7 7 7 7 **7**	174	0.4	0.5	34	Si	43		07	12
NY 25	1	SUF	07	39.94	34.77	**CR 58 OLD COUNTRY RD**																						
NY 25	1	SUF	07	40.15	34.56		8066	0.21	4	2	10	0	48	C	2	14	5884	05	0.08	7 7 7 7 **7**	208	0.2	0.5	34	Si	37		07	12
NY 25	1	SUF	07	40.34	34.37	25 07041404	8066	0.19	4	2	10	0	48	C	2	14	5884	05	0.08	7 7 7 7 **7**	218	0.3	0.5	39	Si	37		07	12
NY 25	1	SUF	07	40.34	34.37	**I-495 L.I.E UNDER**																						
NY 25	1	SUF	07	40.36	34.35	25 07041408	8066	0.02	4	2	0	1	48	C	2	16	9157	04	0.13	7 7 7 7 **7**	294	0.2	0.4	6	Si	36		07	12
NY 25	1	SUF	07	40.37	34.34		8066	0.01	4	2	12	0	48	C	2	16	9157	04	0.13	7 7 7 7 **7**	214	0.2	0.0	3	Si	52		07	12
NY 25	1	SUF	07	40.59	34.12		8066	0.22	4	2	12	0	48	C	2	16	9157	04	0.13	7 7 7 7 **7**	197	0.4	0.6	54	Si	38		07	12
NY 25	1	SUF	07	40.70	34.01		8066	0.11	2	1	6	4	22	C	2	16	9157	04	0.35	7 7 7 7 **7**	211	0.6	0.5	15	Si	34		08	12
NY 25	1	SUF	07	40.98	33.73		8066	0.28	2	1	6	4	22	O	2	16	9157	04	0.35	9 8 8 7 **7**	115	0.5	0.4	26		71		11	4
NY 25	1	SUF	07	42.25	32.46	25 07041424	8066	1.27	2	1	6	4	22	O	2	16	9157	04	0.35	9 8 8 7 **7**	137	0.5	0.3	51	WI	58		11	4

80 kN ESAL calculation Work Sheet

Version 3 8/04/2000

This work sheet is used for the purpose of calculating the 80 kN ESAL using the "simple" method. These calculations were taken from Table A-7 of the NYS Thickness Design Manual for New and Reconstructed pavements, Revision 1 (10/94). Enter the parameters for items 1 through 8 below ir the white blocks. The 80 kN ESAL count is calculated based on a compound traffic growth rate anc should be used for SUPERPAVE item selection.

P.IN. #:	PIN 0810.01
Project Desc.:	NY 25 @ EDWARDS AVE
Date:	25-Nov-20

INPUT PARAMETERS: **Item Descrip**

1. Design Life (use 20 years for SUPERPAVE)	20
2. Projected Construction Year AADT	17600
3. Percent Heavy Trucks Class 5 or greater	7
4. Percent Trucks in Design Direction	50
5. Percent Trucks in Design Lane	100
6. Truck Equivalency Factor (avg. ESAL per truck)	1.35
7. Truck Volume Growth Rate	0.5
8. Annual Truck Weight Growth Rate	0.5

- The Functional Classification of the highway is 14 Urban Principal Arterial – Other
- This road does not have full or partial access control.
- There is no possibility of damaging homes, historic sites, etc., due to excessive vibration during compaction.
- There will be more than 2000 MT of each course placed.
- The highway is not located in either Dutchess, Orange, Rockland, Putnam, Westchester, Nassau, Suffolk, Sullivan County or the City of New York.
- There are less than 4 lanes on this road.

RESULTS for new and reconstructed HMA pavement:

AADT for Design Year 2,020 **19,349**

- *Use 'F' series high friction asphalt.*

Total 80 kN ESAL Count for 20 Year Design Life **6,689,092**

- *The 'Estimated Traffic' level should be < 10.0 million 80 kN ESALs.*

#N/A #N/A

Recommended Min. Pavement Thickness (for Mr = 41 MPa & 50 year design life)

- *Minimum AC (Top, Binder, Base) Thickness = 175 mm*
- *Permeable Base Course = 100 mm*
- *Subbase Course = 300 mm*
- *Minimum Select Granular Subgrade Thickness = 0 mm*

Recommended SUPERPAVE Item numbers

- #N/A
- #N/A
- #N/A
- *Confirm with the Regional Materials Engineer*

Soil Resilient Modulus (Mr) =	41	MPa
80 kN ESAL =	6.689	Million
Minimum AC Thickness =	175	mm
Minimum Select Granular Subgrade Thickness =	0	mm

41

Mr
28
34
41
48
55
62

#VALUE! #VALUE!

Mr = 28 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 2	150	0
2 - 4	175	0
4 - 8	200	0
8 - 13	225	0
13 - 23	250	0
23 - 45	250	150
45 - 80	250	300
80 - 140	250	450
140 - 240	250	600
240 - 400	250	750
400 - 500	250	900

#VALUE! #VALUE!

Mr = 34 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 4	150	0
4 - 7	175	0
7 - 13	200	0
13 - 23	225	0
23 - 40	250	0
40 - 70	250	150
70 - 130	250	300
130 - 235	250	450
235 - 400	250	600
400 - 500	250	750

175 0

Mr = 41 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 6	150	0
6 - 11	175	0
11 - 20	200	0
20 - 35	225	0
35 - 60	250	0
60 - 110	250	150
110 - 200	250	300
200 - 360	250	450
360 - 500	250	600

0

Mr = 48 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 8	150	0
8 - 16	175	0
16 - 30	200	0
30 - 50	225	0

0

Mr = 55 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 12	150	0
12 - 20	175	0
20 - 40	200	0
40 - 65	225	0

0

Mr = 62 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 15	150	0
15 - 30	175	0
30 - 50	200	0
50 - 90	225	0




25
25







Location #2 NY 114 to Stephen Hand Path

This location encompasses approximately 1100 feet along NY 114 and 600 feet on Stephen Hands Path at this four legged intersection:

EXISTING PAVEMENT CONDITION:

Segment #1 NY 114 (500 feet east and 600 feet west of Stephen Hands Path intersection)

- Existing full depth asphalt pavement is in good condition (Rated 8) with the asphalt riding surface exhibiting minor random transverse and longitudinal cracking as the major form of distress. This area was resurfaced in 2016 and some environmental effects are beginning to effect the riding surface.
- Right shoulder pavement is good with little to no drop off along the longitudinal travel lane joint and some random cracking where ponding water accumulates.

Segment #2 Stephen Hands Path (300 feet north and 300 feet south of NY 114 intersection)

- Existing full depth asphalt pavement is in fair to good condition with the asphalt riding surface exhibiting minor random cracking as the major form of distress. Full depth pavement replacement was previously placed in some areas due to the effects of utility work within the travel lane riding surface.

EXISTING PAVEMENT REHABILITATION RECOMMENDATIONS:

- No full depth pavement repairs appear necessary at this time.
- Utilize a 2” asphalt pavement milling operation to remove the existing asphalt top course material
- All minor transverse and longitudinal cracking in underlying asphalt courses should be cleaned and sealed prior to the placement of the new asphalt riding surface.
- In a few areas where multiple cracking exists, a partial depth asphalt overlay repair can be utilized after surface milling and prior to the placement of a new asphalt riding surface.
- Existing soil conditions are good with drainable sands and gravel material with good support characteristics.
- An asphalt Truing and Leveling course can be used to level out low spots and adjust grades and cross slope where needed when widening for lane additions or lane re-alignment.
- All milled surfaces should be tack coated prior to the placement of the new 2” asphalt top course.
- Place a new 2” asphalt riding surface top course on existing pavement where asphalt milling took place.

PROPOSED PAVEMENT RECOMMENDATIONS:

- With the proposed new pavement sections being relatively short in length, pavement widenings should be constructed adjacent to the existing travel lane in full depth asphalt pavement with the removal of all shoulder pavement sections. No pavement coring for depth determination is necessary since all existing shoulder pavement will be removed. Proposed pavement widenings should be constructed in full strength, full depth asphalt at a minimum width of 4.0 feet.
- Using Table 4-1 Conventional Pavement Thickness Design, for ETC (2023) AADT of 6900 and truck percentage of 9% the 7.5” HMA pavement section would consist of 1.5” Top, 2” Binder, 4” Base asphalt on 12” subbase.
- An ESAL calculation design for this intersection utilizes a 20 year design life for the pavement widenings which is consistent with the Super Pave service life. A minimum pavement depth of 6” HMA on 12” RCA subbase material was calculated using ETC (2023) AADT volume projected out 20 years with a growth rate of 0.5% and a heavy truck percentage of 9% and a sand / gravel Mr value=41MPa (see attached work sheet calculations)
- Therefore the recommended full depth HMA pavement section that matches closely to the existing pavement structure and is typical for travel lane pavement depths should be an 8” HMA Super Pave section being:

2.0” Top, 2.5” Binder, 3.5” Base asphalt on a 12” RCA subbase layer.

FEASIBLE TREATMENTS:

- Mill & Fill existing pavement surface.
- ESAL designed proposed pavement sections

LIFE CYCLE COST ANALYSIS:

- Not Applicable

LOCATION/IDENTIFICATION								PHYSICAL CHARACTERISTICS								TRAFFIC			CONDITION INFORMATION							WORK		
Route																			Rating									
No.	Qualifier	Cnty Name	Reg./Cnty	Primary EMP	Reverse BMP	End Reference Marker	SH No.	Segment Lgth.	Total Lanes	Roadways	Paved Shldr Width	Roadside Type	Pvmnt Width	Pvmnt Type	Subbase	Funct Class	AADT	%Trucks	V/C Ratio	2013 2014 2015 2016 **2017**	IRI (in/mi)	Rut (in)	Avg. Bump Height (in)	No. Bumps	Dominant Distress	PCI	Yr Last Crack Seal	Yr Last Work	Work Type
NY 112	1	SUF	07	04.61	07.93		1018	0.13	2	1	10	4	22	C	2	14	22301	05	0.87	6 5 5 4 **4**	214	0.4	0.6	24	SgF	6		06	12
NY 112	1	SUF	07	05.12	07.42		1018	0.51	2	1	10	4	22	C	2	14	22301	05	0.87	6 5 5 4 **4**	205	0.6	0.5	87	SgF	5		06	12
NY 112	1	SUF	07	05.32	07.22		1018	0.20	2	1	10	4	22	C	2	14	22301	05	0.87	6 5 5 4 **4**	294	0.4	0.5	78	SgF	4		06	12
NY 112	1	SUF	07	05.71	06.83		1018	0.39	2	1	10	4	22	A	2	14	22301	05	0.87	6 5 5 K **9**	166	0.7	0.1	16		62		16	10
NY 112	1	SUF	07	05.71	06.83	**GRANNY RD**																						
NY 112	1	SUF	07	06.82	05.72	112 07011069	1018	1.11	2	1	10	4	22	A	2	14	18615	05	0.65	6 5 5 K **U**	174	0.5	0.1	23		65		16	10
NY 112	1	SUF	07	07.27	05.27	112 07011072	1018	0.45	2	1	4	0	36	O	2	14	18615	05	0.64	6 6 6 5 **K**	170	0.9	0.1	17		61		16	10
NY 112	1	SUF	07	07.27	05.27	**RT 25 CORAM**																						
NY 112	1	SUF	07	07.49	05.05		912	0.22	2	1	10	0	24	O	2	14	14298	05	0.42	6 6 6 5 **5**	235	0.7	0.4	22	Ag	7		10	2
NY 112	1	SUF	07	08.54	04.00	112 07011119	912	1.05	2	2	5	0	34	O	2	14	14298	05	0.42	9 9 8 7 **7**	164	0.4	0.2	31	Ai	53		10	2
NY 112	1	SUF	07	08.54	04.00	**CR 83**																						
NY 112	1	SUF	07	08.63	03.91		912	0.09	2	1	5	0	46	O	2	14	18082	05	0.55	9 9 8 7 **7**	142	0.3	0.2	2	Ai	63		10	2
NY 112	1	SUF	07	08.92	03.62		912	0.29	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	125	0.5	0.2	4	Ai	61		10	2
NY 112	1	SUF	07	09.04	03.50		912	0.12	2	1	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	112	0.2	0.7	2	Ai	72		10	2
NY 112	1	SUF	07	09.17	03.37		912	0.13	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	104	0.3	0.1	1	Ai	71		10	2
NY 112	1	SUF	07	09.81	02.73		912	0.64	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	102	0.3	0.2	8	Ai	72		10	2
NY 112	1	SUF	07	10.24	02.30		912	0.43	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	102	0.3	0.4	7	Ai	72		10	2
NY 112	1	SUF	07	10.42	02.12		912	0.18	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	93	0.3	0.3	7	Ai	73		10	2
NY 112	1	SUF	07	10.62	01.92		912	0.20	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	91	0.2	0.4	6	Ai	75		10	2
NY 112	1	SUF	07	10.82	01.72		912	0.20	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	107	0.4	0.3	6	Ai	68		10	2
NY 112	1	SUF	07	10.98	01.56		912	0.16	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	106	0.3	0.3	6	Ai	71		10	2
NY 112	1	SUF	07	11.50	01.04		912	0.52	2	2	5	1	38	O	2	14	18082	05	0.94	9 9 8 7 **7**	115	0.5	0.4	17	Ai	63		10	2
NY 112	1	SUF	07	11.70	00.84		912	0.20	2	1	4	1	20	O	2	14	18082	05	0.58	9 9 8 7 **7**	120	0.2	0.1	1	Ai	70		13	10
NY 112	1	SUF	07	11.85	00.69		912	0.15	4	2	5	1	60	O	5	14	18082	05	0.26	9 9 8 7 **7**	152	0.2	0.5	8	Ai	62		10	2
NY 112	1	SUF	07	11.97	00.57	112 07011120	912	0.12	4	1	5	1	60	O	5	14	18082	05	0.27	9 9 8 7 **7**	*205*	0.4	0.3	14	Ai	44		10	2
NY 112	1	SUF	07	11.97	00.57	**RT 347**																						
NY 112	1	SUF	07	12.54	00.00	112 07011124	912	0.57	4	2	5	0	60	O	5	14	28780	05	0.69	9 9 8 7 **7**	185	0.5	0.3	39	Ai	44		10	2
NY 112	1	SUF	07	12.54	00.00	**RT 25A - PORT JEFFERSON END RT 112**																						
NY 114	1	SUF	07	00.00	15.64	**RT 27 W OF E HAMPTON**											**County Order = 01**											
NY 114	1	SUF	07	00.59	15.05	114 07011006	846	0.59	2	1	0	0	34	A	2	14	3797	05	0.30	7 7 5 K **9**	209	0.7	0.1	13		52		16	4
NY 114	1	SUF	07	00.59	15.05	**TOILSOME LANE**																						
NY 114	1	SUF	07	00.86	14.78	114 07011008	846	0.27	2	1	0	4	24	A	2	14	8340	05	0.60	7 7 6 K **9**	182	0.5	0.1	2		62		16	4
NY 114	1	SUF	07	00.86	14.78	**RR BRIDGE OVER**																						
NY 114	1	SUF	07	01.88	13.76	114 07011052	846	1.02	2	1	8	4	24	A	2	14	8340	05	0.34	6 6 5 K **9**	159	0.9	0.1	7		64		16	4
NY 114	1	SUF	07	01.94	13.70		846	0.06	2	1	8	4	24	A	2	14	8340	05	0.34	7 7 6 K **9**	60	0.2	0.1	0		97		16	4
NY 114	1	SUF	07	05.30	10.34	114 07011052	846	3.36	2	1	8	4	24	A	2	14	8340	05	0.34	7 7 6 6 **6**	105	0.3	0.3	50	Ag	54	06	05	4
NY 114	1	SUF	07	05.30	10.34	**TOWN OF EASTHAMPTON & VILLAGE OF SAG HARBOR**																						
NY 114	1	SUF	07	05.96	09.68	114 07011059	1206	0.66	2	1	8	1	30	A	2	14	8340	05	0.34	7 7 6 6 **5**	143	0.3	0.2	6	Ag	38		05	4
NY 114	1	SUF	07	05.96	09.68	**EASTVILLE AVE**																						
NY 114	1	SUF	07	06.38	09.26	114 07011063	1206	0.42	2	1	8	0	24	A	2	14	8465	05	0.46	7 7 7 7 **6**	151	0.3	0.3	9	Ag	46		05	4
NY 114	1	SUF	07	06.65	08.99	114 07011067	1206	0.27	2	1	3	1	24	A	2	14	8465	05	0.46	7 7 7 7 **7**	210	0.2	0.4	8	Ag	41		05	4
NY 114	1	SUF	07	06.74	08.90	114 07011067	1206	0.09	2	1	0	1	30	A	2	14	8465	05	0.46	7 7 7 7 **7**	*0*	0.4	0.5	8	Ag	68		05	4
NY 114	1	SUF	07	06.74	08.90	**MAIN ST**																						

















80 kN ESAL calculation Work Sheet

Version 3 8/04/2000

This work sheet is used for the purpose of calculating the 80 kN ESAL using the "simple" method. These calculations were taken from Table A-7 of the NYS Thickness Design Manual for New and Reconstructed pavements, Revision 1 (10/94). Enter the parameters for items 1 through 8 below ir the white blocks. The 80 kN ESAL count is calculated based on a compound traffic growth rate anc should be used for SUPERPAVE item selection.

P.IN. #:	PIN 0810.01
Project Desc.:	NY 114 @ STEPHEN HANDS PATH
Date:	25-Nov-20

INPUT PARAMETERS:

		Item Descrip
1. Design Life (use 20 years for SUPERPAVE)	20	
2. Projected Construction Year AADT	6900	
3. Percent Heavy Trucks Class 5 or greater	9	
4. Percent Trucks in Design Direction	50	
5. Percent Trucks in Design Lane	100	
6. Truck Equivalency Factor (avg. ESAL per truck)	1.35	
7. Truck Volume Growth Rate	0.5	
8. Annual Truck Weight Growth Rate	0.5	

- The Functional Classification of the highway is 14 Urban Principal Arterial – Other
- This road does not have full or partial access control.
- There is no possibility of damaging homes, historic sites, etc., due to excessive vibration during compaction.
- There will be more than 2000 MT of each course placed.
- The highway is not located in either Dutchess, Orange, Rockland, Putnam, Westchester, Nassau, Suffolk, Sullivan County or the City of New York.
- There are less than 4 lanes on this road.

RESULTS for new and reconstructed HMA pavement:

AADT for Design Year 2,020 7,586

- *Use asphalt series for low volume roads.*

Total 80 kN ESAL Count for 20 Year Design Life 3,371,693

- *The 'Estimated Traffic' level should be < 10.0 million 80 kN ESALs.*

#N/A #N/A

Recommended Min. Pavement Thickness (for Mr = 41 MPa & 50 year design life)

- *Minimum AC (Top, Binder, Base) Thickness = 150 mm*
- *Permeable Base Course = 100 mm*
- *Subbase Course = 300 mm*
- *Minimum Select Granular Subgrade Thickness = 0 mm*

Recommended SUPERPAVE Item numbers

- *#N/A*
- *#N/A*
- *#N/A*
- *Confirm with the Regional Materials Engineer*

Soil Resilient Modulus (Mr) = 41 MPa

80 kN ESAL = 3.372 Million

Minimum AC Thickness = 150 mm

Minimum Select Granular Subgrade Thickness = 0 mm

41

Mr
28
34
41
48
55
62

#VALUE! #VALUE!

Mr = 28 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 2	150	0
2 - 4	175	0
4 - 8	200	0
8 - 13	225	0
13 - 23	250	0
23 - 45	250	150
45 - 80	250	300
80 - 140	250	450
140 - 240	250	600
240 - 400	250	750
400 - 500	250	900

#VALUE! #VALUE!

Mr = 34 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 4	150	0
4 - 7	175	0
7 - 13	200	0
13 - 23	225	0
23 - 40	250	0
40 - 70	250	150
70 - 130	250	300
130 - 235	250	450
235 - 400	250	600
400 - 500	250	750

150 0

Mr = 41 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 6	150	0
6 - 11	175	0
11 - 20	200	0
20 - 35	225	0
35 - 60	250	0
60 - 110	250	150
110 - 200	250	300
200 - 360	250	450
360 - 500	250	600

0

Mr = 48 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 8	150	0
8 - 16	175	0
16 - 30	200	0
30 - 50	225	0

0

Mr = 55 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 12	150	0
12 - 20	175	0
20 - 40	200	0
40 - 65	225	0

0

Mr = 62 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 15	150	0
15 - 30	175	0
30 - 50	200	0
50 - 90	225	0

Location #3 NY 114 at Goodfellow Drive

This location encompasses approximately 1200 feet along NY 114 and minimal proposed work at each of the intersecting street approaches (250 feet) for Goodfriend Drive and Coultes Lane.

EXISTING PAVEMENT CONDITION:

Segment #1 NY 114 (600 feet east and 600 feet west of Goodfriend Drive intersection

- Existing full depth asphalt pavement is in fair condition (Rated 6) with the asphalt riding surface exhibiting random transverse and longitudinal cracking as the major form of distress. This cracking is due to environmental effects of weather and sun light which has resulted in old brittle asphalt exhibiting random surface cracking especially in the area of the wheel paths. Pavement settlement and major asphalt pop outs do not exist.
- This section of NY 114 was cracked sealed in 2006 with transverse and longitudinal line cracks sealed.
- Right shoulder pavement is in similar condition with areas of random cracking and no major drop off along the longitudinal travel lane joint. Some random cracking and pop outs exists at the flowline of the intersecting streets where ponding water accumulates and deteriorates the asphalt riding surface.

Segment #2 Goodfriend Drive and Coultes Lane (250 feet north and south of NY 114 intersection)

- Existing full depth asphalt pavement is in fair condition with the asphalt riding surface exhibiting random cracking as the major form of distress which was previously cracked sealed. The flowline of these intersecting streets with NY 114 exhibits deterioration of the asphalt riding surface where ponding water accumulates.

EXISTING PAVEMENT REHABILITATION RECOMMENDATIONS:

- No full depth pavement repairs appear necessary at this time.
- Utilize a 2” asphalt pavement milling operation to remove the existing asphalt top course material
- All minor transverse and longitudinal cracking in underlying asphalt courses should be cleaned and sealed prior to the placement of the new asphalt riding surface.
- In a few areas where multiple cracking exists, a partial depth asphalt overlay repair can be utilized after surface milling and prior to the placement of a new asphalt riding surface.
- Existing soil conditions are good with drainable sands and gravel material with good support characteristics.
- An asphalt Truing and Leveling course can be used to level out low spots and adjust grades and cross slope where needed when widening for lane additions or lane re-alignment.
- All milled surfaces should be tack coated prior to the placement of the new 2” asphalt top course.
- Place a new 2” asphalt riding surface top course on existing pavement where asphalt milling took place.

PROPOSED PAVEMENT RECOMMENDATIONS:

- With the proposed new pavement sections being relatively short in length, pavement widenings should be constructed adjacent to the existing travel lane in full depth asphalt pavement with the removal of all shoulder pavement sections. No pavement coring for depth determination is necessary since all existing shoulder pavement will be removed. Proposed pavement widenings should be constructed in full strength, full depth asphalt at a minimum width of 4.0 feet.
- Using Table 4-1 Conventional Pavement Thickness Design, for ETC (2023) AADT of 6900 and truck percentage of 9% the 7.5” HMA pavement section would consist of 1.5” Top, 2” Binder, 4” Base asphalt on 12” subbase.
- An ESAL calculation design for this intersection utilizes a 20 year design life for the pavement widenings which is consistent with the Super Pave service life. A minimum pavement depth of 6” HMA on 12” RCA subbase material was calculated using ETC (2023) AADT volume projected out 20 years with a growth rate of 0.5% and a heavy truck percentage of 9% and a sand / gravel Mr value=41MPa (see attached work sheet calculations)
- Therefore the recommended full depth HMA pavement section that matches closely to the existing pavement structure and is typical for travel lane pavement depths should be an 8” HMA Super Pave section being:

2.0” Top, 2.5” Binder, 3.5” Base asphalt on a 12” RCA subbase layer.

FEASIBLE TREATMENTS:

- Mill & Fill existing pavement surface.
- ESAL designed proposed pavement sections

LIFE CYCLE COST ANALYSIS:

- Not Applicable

LOCATION/IDENTIFICATION								PHYSICAL CHARACTERISTICS								TRAFFIC			CONDITION INFORMATION						WORK		
Route																			Rating								
No.	Qualifier	Cnty Name	Reg./Cnty	Primary EMP	Reverse BMP	End Reference Marker	SH No.	Segment Lgth.	Total Lanes	Roadways	Paved Shldr Width	Roadside Type	Pvmnt Width	Pvmnt Type	Subbase	Funct Class	AADT	%Trucks	V/C Ratio	2013 2014 2015 2016 **2017**	IRI (in/mi)	Rut (in)	Avg. Bump Height (in)	No. Bumps	Dominant Distress	PCI	Yr Last Crack Seal	Yr Last Work	Work Type
NY 112	1	SUF	07	04.61	07.93		1018	0.13	2	1	10	4	22	C	2	14	22301	05	0.87	6 5 5 4 **4**	214	0.4	0.6	24	SgF	6		06	12
NY 112	1	SUF	07	05.12	07.42		1018	0.51	2	1	10	4	22	C	2	14	22301	05	0.87	6 5 5 4 **4**	205	0.6	0.5	87	SgF	5		06	12
NY 112	1	SUF	07	05.32	07.22		1018	0.20	2	1	10	4	22	C	2	14	22301	05	0.87	6 5 5 4 **4**	294	0.4	0.5	78	SgF	4		06	12
NY 112	1	SUF	07	05.71	06.83		1018	0.39	2	1	10	4	22	A	2	14	22301	05	0.87	6 5 5 K **9**	166	0.7	0.1	16		62		16	10
NY 112	1	SUF	07	05.71	06.83	**GRANNY RD**																						
NY 112	1	SUF	07	06.82	05.72	112 07011069	1018	1.11	2	1	10	4	22	A	2	14	18615	05	0.65	6 5 5 K **U**	174	0.5	0.1	23		65		16	10
NY 112	1	SUF	07	07.27	05.27	112 07011072	1018	0.45	2	1	4	0	36	O	2	14	18615	05	0.64	6 6 6 5 **K**	170	0.9	0.1	17		61		16	10
NY 112	1	SUF	07	07.27	05.27	**RT 25 CORAM**																						
NY 112	1	SUF	07	07.49	05.05		912	0.22	2	1	10	0	24	O	2	14	14298	05	0.42	6 6 6 5 **5**	235	0.7	0.4	22	Ag	7		10	2
NY 112	1	SUF	07	08.54	04.00	112 07011119	912	1.05	2	2	5	0	34	O	2	14	14298	05	0.42	9 9 8 7 **7**	164	0.4	0.2	31	Ai	53		10	2
NY 112	1	SUF	07	08.54	04.00	**CR 83**																						
NY 112	1	SUF	07	08.63	03.91		912	0.09	2	1	5	0	46	O	2	14	18082	05	0.55	9 9 8 7 **7**	142	0.3	0.2	2	Ai	63		10	2
NY 112	1	SUF	07	08.92	03.62		912	0.29	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	125	0.5	0.2	4	Ai	61		10	2
NY 112	1	SUF	07	09.04	03.50		912	0.12	2	1	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	112	0.2	0.7	2	Ai	72		10	2
NY 112	1	SUF	07	09.17	03.37		912	0.13	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	104	0.3	0.1	1	Ai	71		10	2
NY 112	1	SUF	07	09.81	02.73		912	0.64	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	102	0.3	0.2	8	Ai	72		10	2
NY 112	1	SUF	07	10.24	02.30		912	0.43	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	102	0.3	0.4	7	Ai	72		10	2
NY 112	1	SUF	07	10.42	02.12		912	0.18	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	93	0.3	0.3	7	Ai	73		10	2
NY 112	1	SUF	07	10.62	01.92		912	0.20	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	91	0.2	0.4	6	Ai	75		10	2
NY 112	1	SUF	07	10.82	01.72		912	0.20	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	107	0.4	0.3	6	Ai	68		10	2
NY 112	1	SUF	07	10.98	01.56		912	0.16	2	2	5	0	46	O	2	14	18082	05	0.94	9 9 8 7 **7**	106	0.3	0.3	6	Ai	71		10	2
NY 112	1	SUF	07	11.50	01.04		912	0.52	2	2	5	1	38	O	2	14	18082	05	0.94	9 9 8 7 **7**	115	0.5	0.4	17	Ai	63		10	2
NY 112	1	SUF	07	11.70	00.84		912	0.20	2	1	4	1	20	O	2	14	18082	05	0.58	9 9 8 7 **7**	120	0.2	0.1	1	Ai	70		13	10
NY 112	1	SUF	07	11.85	00.69		912	0.15	4	2	5	1	60	O	5	14	18082	05	0.26	9 9 8 7 **7**	152	0.2	0.5	8	Ai	62		10	2
NY 112	1	SUF	07	11.97	00.57	112 07011120	912	0.12	4	1	5	1	60	O	5	14	18082	05	0.27	9 9 8 7 **7**	*205*	0.4	0.3	14	Ai	44		10	2
NY 112	1	SUF	07	11.97	00.57	**RT 347**																						
NY 112	1	SUF	07	12.54	00.00	112 07011124	912	0.57	4	2	5	0	60	O	5	14	28780	05	0.69	9 9 8 7 **7**	185	0.5	0.3	39	Ai	44		10	2
NY 112	1	SUF	07	12.54	00.00	**RT 25A - PORT JEFFERSON END RT 112**											**County Order = 01**											
NY 114	1	SUF	07	00.00	15.64	**RT 27 W OF E HAMPTON**																						
NY 114	1	SUF	07	00.59	15.05	114 07011006	846	0.59	2	1	0	0	34	A	2	14	3797	05	0.30	7 7 5 K **9**	209	0.7	0.1	13		52		16	4
NY 114	1	SUF	07	00.59	15.05	**TOILSOME LANE**																						
NY 114	1	SUF	07	00.86	14.78	114 07011008	846	0.27	2	1	0	4	24	A	2	14	8340	05	0.60	7 7 6 K **9**	182	0.5	0.1	2		62		16	4
NY 114	1	SUF	07	00.86	14.78	**RR BRIDGE OVER**																						
NY 114	1	SUF	07	01.88	13.76	114 07011052	846	1.02	2	1	8	4	24	A	2	14	8340	05	0.34	6 6 5 K **9**	159	0.9	0.1	7		64		16	4
NY 114	1	SUF	07	01.94	13.70		846	0.06	2	1	8	4	24	A	2	14	8340	05	0.34	7 7 6 K **9**	60	0.2	0.1	0		97		16	4
NY 114	1	SUF	07	05.30	10.34	114 07011052	846	3.36	2	1	8	4	24	A	2	14	8340	05	0.34	7 7 6 6 **6**	105	0.3	0.3	50	Ag	54	06	05	4
NY 114	1	SUF	07	05.30	10.34	**TOWN OF EASTHAMPTON & VILLAGE OF SAG HARBOR**																						
NY 114	1	SUF	07	05.96	09.68	114 07011059	1206	0.66	2	1	8	1	30	A	2	14	8340	05	0.34	7 7 6 6 **5**	143	0.3	0.2	6	Ag	38		05	4
NY 114	1	SUF	07	05.96	09.68	**EASTVILLE AVE**																						
NY 114	1	SUF	07	06.38	09.26	114 07011063	1206	0.42	2	1	8	0	24	A	2	14	8465	05	0.46	7 7 7 7 **6**	151	0.3	0.3	9	Ag	46		05	4
NY 114	1	SUF	07	06.65	08.99	114 07011067	1206	0.27	2	1	3	1	24	A	2	14	8465	05	0.46	7 7 7 7 **7**	210	0.2	0.4	8	Ag	41		05	4
NY 114	1	SUF	07	06.74	08.90	114 07011067	1206	0.09	2	1	0	1	30	A	2	14	8465	05	0.46	7 7 7 7 **7**	*0*	0.4	0.5	8	Ag	68		05	4
NY 114	1	SUF	07	06.74	08.90	**MAIN ST**																						



















80 kN ESAL calculation Work Sheet

Version 3 8/04/2000

This work sheet is used for the purpose of calculating the 80 kN ESAL using the "simple" method. These calculations were taken from Table A-7 of the NYS Thickness Design Manual for New and Reconstructed pavements, Revision 1 (10/94). Enter the parameters for items 1 through 8 below in the white blocks. The 80 kN ESAL count is calculated based on a compound traffic growth rate and should be used for SUPERPAVE item selection.

P.IN. #:	PIN 0810.01
Project Desc.:	NY 114 @ GOODFRIEND DR
Date:	25-Nov-20

STEP

INPUT PARAMETERS:

	Item Description
1. Design Life (use 20 years for SUPERPAVE)	20
2. Projected Construction Year AADT	6900
3. Percent Heavy Trucks Class 5 or greater	9
4. Percent Trucks in Design Direction	50
5. Percent Trucks in Design Lane	100
6. Truck Equivalency Factor (avg. ESAL per truck)	1.35
7. Truck Volume Growth Rate	0.5
8. Annual Truck Weight Growth Rate	0.5

STEP

- The Functional Classification of the highway is 14 Urban Principal Arterial – Other
- This road does not have full or partial access control.
- There is no possibility of damaging homes, historic sites, etc., due to excessive vibration during compaction.
- There will be more than 2000 MT of each course placed.
- The highway is not located in either Dutchess, Orange, Rockland, Putnam, Westchester, Nassau, Suffolk, Sullivan County or the City of New York.
- There are less than 4 lanes on this road.

STEP

RESULTS for new and reconstructed HMA pavement:

STEP

AADT for Design Year 2,020 7,586

- *Use asphalt series for low volume roads.*

Total 80 kN ESAL Count for 20 Year Design Life 3,371,693

- *The 'Estimated Traffic' level should be < 10.0 million 80 kN ESALs.*

#N/A #N/A

Recommended Min. Pavement Thickness (for Mr = 41 MPa & 50 year design life)

- *Minimum AC (Top, Binder, Base) Thickness = 150 mm*
- *Permeable Base Course = 100 mm*
- *Subbase Course = 300 mm*
- *Minimum Select Granular Subgrade Thickness = 0 mm*

Recommended SUPERPAVE Item numbers

- #N/A
- #N/A
- #N/A
- *Confirm with the Regional Materials Engineer*

Soil Resilient Modulus (Mr) = 41 MPa

80 kN ESAL = 3.372 Million

Minimum AC Thickness = 150 mm

Minimum Select Granular Subgrade Thickness = 0 mm

41

Mr
28
34
41
48
55
62

#VALUE! #VALUE!

Mr = 28 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 2	150	0
2 - 4	175	0
4 - 8	200	0
8 - 13	225	0
13 - 23	250	0
23 - 45	250	150
45 - 80	250	300
80 - 140	250	450
140 - 240	250	600
240 - 400	250	750
400 - 500	250	900

#VALUE! #VALUE!

Mr = 34 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 4	150	0
4 - 7	175	0
7 - 13	200	0
13 - 23	225	0
23 - 40	250	0
40 - 70	250	150
70 - 130	250	300
130 - 235	250	450
235 - 400	250	600
400 - 500	250	750

150 0

Mr = 41 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 6	150	0
6 - 11	175	0
11 - 20	200	0
20 - 35	225	0
35 - 60	250	0
60 - 110	250	150
110 - 200	250	300
200 - 360	250	450
360 - 500	250	600

0

Mr = 48 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 8	150	0
8 - 16	175	0
16 - 30	200	0
30 - 50	225	0

0

Mr = 55 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 12	150	0
12 - 20	175	0
20 - 40	200	0
40 - 65	225	0

0

Mr = 62 MPa

80 kN ESALs Over Design Life	AC Layer Thickness	Select Subgrade Thickness
< 15	150	0
15 - 30	175	0
30 - 50	200	0
50 - 90	225	0

Location #4 NY 25 at County Road 48

This location encompasses approximately 1300 feet along CR 48 / NY 25 and 400 feet on NY 25-Main Street at this three legged intersection. Two roundabout alternatives are being considered at this location with each one fitting into the boundary dimensions stated above.

EXISTING PAVEMENT CONDITION:

Segment #1 NY 25 (700 feet east and 600 feet west of NY 25-Main Street intersection)
- Existing composite pavement is in good condition (Rated 8) with the asphalt riding surface exhibiting minor transverse and longitudinal joint reflective cracking as the major form of distress.
- This area was resurfaced in 2015.
- Right shoulder pavement is good with little to no drop off along the longitudinal travel lane joint and some random cracking exists in some isolated areas.

Segment #2 NY 25-Main Street (400 feet south of NY 25 / CR 48 intersection)
- Existing composite pavement is in fair condition with the asphalt riding surface exhibiting minor transverse and longitudinal joint reflective cracking as the major form of distress.

Segment #3 Sound Road (100 feet north of NY 25 intersection)
- Existing full depth asphalt pavement on this local street is in fair condition with the asphalt riding surface exhibiting minor transverse and longitudinal cracking as the major form of distress.

EXISTING PAVEMENT REHABILITATION RECOMMENDATIONS:
- No full depth pavement repairs appear necessary at this time.
- Utilize a 2" asphalt pavement milling operation to remove the existing asphalt top course material
- All minor transverse and longitudinal cracking in underlying asphalt courses should be cleaned and sealed prior to the placement of the new asphalt riding surface.
- In a few areas where multiple cracking exists, a partial depth asphalt overlay repair can be utilized after surface milling and prior to the placement of a new asphalt riding surface.
- Existing soil conditions are good with drainable sands and gravel material with good support characteristics.
- An asphalt Truing and Leveling course can be used to level out low spots and adjust grades and cross slope where needed when widening for lane additions or lane re-alignment.
- All milled surfaces should be tack coated prior to the placement of the new 2" asphalt top course.
- Place a new 2" asphalt riding surface top course on existing pavement where asphalt milling took place.

PROPOSED PAVEMENT RECOMMENDATIONS:
- With the proposed new pavement sections being relatively short in length, pavement widenings should be constructed adjacent to the existing travel lane in full depth asphalt pavement with the removal of all shoulder pavement sections. No pavement coring for depth determination is necessary since all existing shoulder pavement will be removed. Proposed pavement widenings should be constructed in full strength, full depth asphalt at a minimum width of 4.0 feet.
- Using Table 4-1 Conventional Pavement Thickness Design, for ETC (2023) AADT of 4800 and truck percentage of 4% the 6.5" HMA pavement section would consist of 1.5" Top, 2" Binder, 3" Base asphalt on 12" subbase.
- An ESAL calculation design for this intersection utilizes a 50 year design life for the new pavement and widenings which is consistent with the pavement reconstruction service life. A minimum pavement depth of 7" HMA on 12" RCA subbase material was calculated using ETC (2023) AADT volume projected out 50 years with a growth rate of 0.5% and a heavy truck percentage of 4% and a sand / gravel Mr value=41MPa (see attached work sheet calculations)
- Therefore the recommended full depth HMA pavement section that matches closely to the existing pavement structure and is typical for travel lane pavement depths should be an 8" HMA Super Pave section being:

  2.0" Top, 2.5" Binder, 3.5" Base asphalt on a 12" RCA subbase layer.

FEASIBLE TREATMENTS:
- Mill & Fill existing pavement surface.
- ESAL designed proposed pavement sections

LIFE CYCLE COST ANALYSIS:
- Not Applicable

LOCATION/IDENTIFICATION								PHYSICAL CHARACTERISTICS								TRAFFIC			CONDITION INFORMATION								WORK		
Route																			Rating										
No.	Qualifier	Cnty Name	Reg./Cnty	Primary EMP	Reverse BMP	End Reference Marker	SH No.	Segment Lgth.	Total Lanes	Roadways	Paved Shldr Width	Roadside Type	Pvmnt Width	Pvmnt Type	Subbase	Funct Class	AADT	%Trucks	V/C Ratio	2013 2014 2015 2016 **2017**	IRI (in/mi)	Rut (in)	Avg. Bump Height (in)	No. Bumps	Dominant Distress	PCI	Yr Last Crack Seal	Yr Last Work	Work Type
NY 25	1	SUF	07	63.28	11.43		8229	0.03	2	1	6	4	24	O	2	16	8005	04	0.27	7 7 K 9 **9**	143	0.1	0.0	0		82		15	4
NY 25	1	SUF	07	63.80	10.91	25 07041640	8229	0.52	2	1	6	4	24	A	2	16	8005	04	0.27	9 8 7 7 **7**	144	0.3	0.3	4	Ai	62		10	10
NY 25	1	SUF	07	63.80	10.91	**ALBERTSON LANE**																							
NY 25	1	SUF	07	63.83	10.88		8229	0.03	2	1	6	4	24	A	2	16	8005	04	0.27	9 8 8 7 **7**	124	0.3	0.3	1	Ai	70		10	10
NY 25	1	SUF	07	63.91	10.80		8229	0.08	2	1	6	4	24	O	2	16	8005	04	0.27	9 8 8 7 **7**	128	0.3	0.3	1	Wl	66		10	10
NY 25	1	SUF	07	63.94	10.77		8229	0.03	2	1	6	4	24	O	2	16	8005	04	0.27	7 7 K 9 **7**	100	0.2	0.0	0	Wl	79		10	10
NY 25	1	SUF	07	65.47	09.24		8229	1.53	2	1	6	4	24	O	2	16	8005	04	0.27	7 7 K 9 **9**	108	0.3	0.0	0		86		15	4
NY 25	1	SUF	07	65.50	09.21		8229	0.03	2	1	6	4	24	O	2	16	8005	04	0.48	7 7 K 9 **9**	114	0.1	0.0	0		89		15	4
NY 25	1	SUF	07	65.64	09.07		8229	0.14	2	1	6	0	24	O	2	16	8005	04	0.48	7 7 K 9 **9**	208	0.2	0.1	0		64		15	4
NY 25	1	SUF	07	65.64	09.07	**RT 114**																							
NY 25	1	SUF	07	65.84	08.87		1719	0.20	2	1	0	1	30	O	2	16	3365	04	0.17	7 7 K 9 **9**	182	0.1	0.1	1		71		15	4
NY 25	1	SUF	07	65.84	08.87	**FRONT ST**																							
NY 25	1	SUF	07	66.25	08.46		VILST	0.41	2	1	3	1	30	O	2	16	3365	04	0.17	7 7 6 6 **5**	210	0.6	0.3	40	Ag	13		02	4
NY 25	1	SUF	07	66.25	08.46	**BROAD ST**																							
NY 25	1	SUF	07	66.39	08.32		VILST	0.14	2	1	7	0	20	O	2	16	3365	04	0.17	6 6 6 6 **5**	290	0.4	0.5	11	Ag	17		88	99
NY 25	1	SUF	07	66.53	08.18	25 07041671	VILST	0.14	2	1	7	0	20	O	2	16	3365	04	0.17	6 6 K 9 **8**	175	0.3	0.1	1		68		15	4
NY 25	1	SUF	07	66.53	08.18	**BRIDGE ST**																							
NY 25	1	SUF	07	66.73	07.98		8380	0.20	2	1	7	0	20	O	2	16	3365	04	0.17	6 6 K 9 **8**	209	0.2	0.0	0		63		15	4
NY 25	1	SUF	07	66.77	07.94		8380	0.04	2	1	7	4	20	O	2	16	3147	05	0.14	6 6 K 9 **8**	300	0.7	0.2	1		47		15	4
NY 25	1	SUF	07	69.28	05.43		8380	2.51	2	1	7	4	20	O	2	14	3147	05	0.14	7 7 K 9 **9**	120	0.6	0.1	2		75		15	4
NY 25	1	SUF	07	72.32	02.39		8380	3.04	2	1	7	4	20	O	2	14	3147	05	0.14	7 7 K 9 **9**	103	0.3	0.1	1		87		15	4
NY 25	1	SUF	07	72.32	02.39	**NARROW RIVER RD**																							
NY 25	1	SUF	07	74.71	00.00	25 07041750	8380	2.39	2	1	7	4	20	O	2	14	3051	05	0.14	7 7 K 9 **9**	99	0.3	0.1	1		88		15	4
NY 25	1	SUF	07	74.71	00.00	**ORIENT PT END RT 25**																							
NY 25A	1	NAS	03	00.00	15.90	**Queens/Nassau Co Line**											**County Order = 02**												
NY 25A	1	NAS	03	00.15	15.75	25A03021000	9018	0.15	4	1	0	1	48	O	2	14	26200	05	0.71	7 7 6 6 **6**	347	0.7	0.0	9	Ag	15	06	04	4
NY 25A	1	NAS	03	00.15	15.75	**BUTTONWOOD RD**																							
NY 25A	1	NAS	03	00.21	15.69		9018	0.06	4	2	10	1	48	O	2	14	26200	05	0.71	7 7 6 6 **6**	360	0.5	0.4	3	Ag	20	06	04	4
NY 25A	1	NAS	03	00.42	15.48		9018	0.21	4	2	10	1	48	O	2	14	26200	05	0.71	7 7 6 6 **6**	241	0.3	0.5	10	Ag	28	06	04	4
NY 25A	1	NAS	03	00.44	15.46	25A03021004	9018	0.02	4	2	10	1	48	O	2	14	26200	05	0.71	7 7 6 6 **6**	185	0.3	0.5	1	Ag	33	06	04	4
NY 25A	1	NAS	03	00.44	15.46	**ASTER LANE**																							
NY 25A	1	NAS	03	00.88	15.02	25A03021008	9018	0.44	4	2	10	1	48	O	2	14	26200	05	0.40	7 7 6 6 **6**	234	0.4	0.5	22	Ag	25	06	04	4
NY 25A	1	NAS	03	00.92	14.98		9018	0.04	4	2	10	1	48	O	2	14	33891	05	0.59	7 7 6 6 **6**	220	0.2	0.6	2	Ag	30	06	04	4
NY 25A	1	NAS	03	01.03	14.87	25A03021011	9018	0.11	4	2	10	1	48	O	2	14	33891	05	0.59	7 7 6 6 **6**	256	0.3	0.5	6	Ag	27	06	04	4
NY 25A	1	NAS	03	01.12	14.78		9018	0.09	4	2	10	1	48	O	2	14	33891	05	0.59	7 7 7 7 **7**	*0*	0.3	0.0	3	Ag	71	06	04	4
NY 25A	1	NAS	03	01.12	14.78	**LAKEVILLE RD**																							
NY 25A	1	NAS	03	01.20	14.70		9018	0.08	4	2	10	1	48	O	2	14	33891	05	0.59	7 7 6 6 **6**	197	0.4	0.0	2	Ag	28	06	04	4
NY 25A	1	NAS	03	01.92	13.98	25A03021019	9018	0.72	4	2	10	1	48	O	2	14	33891	05	0.59	7 7 6 6 **6**	215	0.7	0.4	26	Ag	18	06	04	4
NY 25A	1	NAS	03	01.92	13.98	**EAST SHORE RD / COMMUNITY DR**																							
NY 25A	1	NAS	03	02.06	13.84	25A03021020	9018	0.14	4	2	0	1	48	O	2	14	27348	05	0.42	7 7 7 7 **6**	232	0.4	0.4	4	Ag	28	06	04	4
NY 25A	1	NAS	03	02.06	13.84	**MAPLE ST**																							
NY 25A	1	NAS	03	02.49	13.41	25A03021024	9018	0.43	4	2	0	1	48	O	2	14	27348	05	0.42	7 7 7 7 **6**	279	1.3	0.4	15	Ag	19	06	04	4
NY 25A	1	NAS	03	02.49	13.41	**JCT PLANDOME RD**																							


NORTH FO
WINE TR


SPEED LIMIT
45




SPEED LIMIT
45
NEXT
2½ MILES


STOP


MATTITUCK 11
GREENPORT VILLAGE

80 kN ESAL calculation Work Sheet
Version 3.1 4-18-03

This work sheet is used for the purpose of calculating the 80 kN ESAL using the "simple" method. These calculations were taken from Figure 4-1 of the NYS Comprehensive Pavement Design Manual (June 2000). Enter the parameters for items 1 through 8 below in the blue blocks. The 80 kN ESAL count is calculated based on a compound traffic growth rate and should be used for SUPERPAVE.
Enter data also in pavt. thickness sheet. Print this sheet + pavt thickness + item numbers + special note.

P.IN. #:	O810.01
Project Desc.:	4 Intersection Improvements-NY 25/CR 48
(cont'd.)	Suffolk County
Date:	11/25/20

Mainline and Ramp Reconstruction

INPUT PARAMETERS:

	Construction Year	2023
1.	Design Life (use 50 years for determining pavement thickness)	50
2.	Projected Construction Year AADT	4800
3.	Percent Heavy Trucks Class 4 or greater	4.0
4.	Percent Trucks in Design Direction	50
5.	Percent Trucks in Design Lane	100
6.	Truck Equivalency Factor (avg. ESAL per truck)	1.35
7.	Truck Volume Growth Rate	0.50%
8.	Annual Truck Weight Growth Rate	0.50%
	Mr Value	41

14	Enter the Functional Classification Code of the highway	
YES	Does this road have full or partial access control?	*Partial*
NO	Is there a possibility of damaging homes, historic sites, etc., due to excessive vibration during compaction.	
NO	Will there will be less than 2000 MT of each course placed?	
YES	Is the highway located in either Dutchess, Orange, Rockland, Putnam, Westchester, Nassau, Suffolk, Sullivan County or the City of New York?	*Suffolk County*
YES	Is the highway located in either Orange, Rockland, Putnam, Westchester, Nassau, Suffolk Countles or the City of New York?	
NO	Are there are more than 3 lanes on this road?	

RESULTS:

AADT for Design Year 2073	6,129
• Use asphalt series for low volume roads	
Total 80 kN ESAL Count for the Design Life	3,065,304
• The 'Estimated Traffic' level should be < 10.0 million 80 Kn ESALs.	

***** Don't forget the SPECIAL NOTE required in the Proposal *****

PAVEMENT THICKNESS TABLE

enter blue numbers

TOTAL ESAL VALUE	3,065,304	
Total HMA Thickness	165 mm	enter number from table at right

SELECT GRANULAR SUBGRADE (enter # from table at right)	GRAVEL	BASE	BINDER	TOP
mm	mm	mm	mm	mm
0	300	75	50	40

ACTUAL PAVEMENT THICKNESSES TO USE

	THICKNESS	
SELECT GRANULAR SUBGRADE	0	mm
GRAVEL	300	mm
BASE	75	mm
BINDER	50	mm
TOP	40	mm

80 Kn ESALs over Design Life	Total HMA Thickness	Select Granular Subgrade Thickness
millions	mm	mm
< 6	165	0
6 - 11	175	0
> 11 - 20	200	0
> 20 - 35	225	0
> 35 - 60	250	0
> 60 - 110	250	150
> 110 - 200	250	300
> 200 - 300	250	450
0	0	0

Appendix F
Non-Standard Features Justification

Justification Number

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

Exhibit 2-15
Nonstandard Feature Justification

Rev. 04/15/21

PIN: 0810.01	**Route No. and Name:** NYS Route 114 at Goodfriend Drive		
Project Type: Minor Intersection Reconstruction		☑ **National Network/Qualifying Highway**	☐ **Access Highway**
Functional Class: Urban Principal Arterial - Other		**Design Classification:** Arterial	**Context Class:** Urban
AADT: 7,216	**% Trucks:** 9%	◉ **NHS** ○ **Non-NHS**	**Terrain:** Level

1. Description of Nonstandard Feature

Type of Feature: Shoulder Width - Right **Other:** Identify feature type if "Other" was selected

Location: NYS Route 114 at Goodfriend Drive

Latitude and Longitude (Linear Feature) **FROM** Lat: 40.9715 Long: -72.2413 **TO** Lat: 40.9708 Long: -72.2386

Latitude and Longitude (Point Feature) Lat: Long:

Standard Value: 8 feet	**Design Speed:** 50 mph
Existing Value: ±10 ft used as a bicycle lane	**Recommended Speed - Existing:** 45 mph
Proposed Value: 5 ft bike lane with a variable shoulder width	**Recommended Speed - Proposed:** 45 mph

2. Accident Analysis

Current Accident Rate[1]**:** 1.4 ◉ acc/mvm ○ acc/mev	**Statewide Accident Rate:** 3.73 ◉ acc/mvm ○ acc/mev
From 114 07011025 **to** 114 07011035	**Is the Nonstandard Feature a contributing factor?** ○ Yes ◉ No

Anticipated accident rates, severity, and costs:

No change in the accident rates are anticipated from the change to the shoulder width. It is anticipated that the accident rate will be reduced by the addition of a bi-directional center left turn lane.

3. Cost Estimates

Cost to fully meet standards: $275,000	**Cost(s) for incremental improvements:** $50,000

4. Mitigation

e.g., increased superelevation and speed change lane length for a non-standard ramp radius

Lane widths will be narrowed which will result in slower speeds. The addition of the left turn lane at the intersection of Goodfriend Drive will also prevent thru vehicles from passing left turning vehicles by using the shoulders and improve safety for bicyclists.

5. Compatibility with Adjacent Segments and Future Plans

The bike lanes proposed for this location will enhance the existing bike route that currently exists along NYS Route 114.

6. Other Factors

e.g., social, economic, and environmental

Widening of the roadway to provide standard shoulder width is impractical. Right-of-way acquisition or relocation of utility poles that carry electric transmission lines and communication lines would be required. Approximately 0.55 acres of additional right-of-way would be required at a cost of $200,000. The municipal costs to follow the "eminent domain" procedures can exceed 10% of the acquisition costs. Moving the utility poles cost $4000 for a line pole and $30,000 per pole where there are risers present. Where the riser pole needs to be replaced, there would be an additional cost to replace the electric and communication service lines that cross NYS114. This cost is an additional $20,000. There will be additional construction cost for the drainage modifications and associated infrastructure improvements, such as additional full depth asphalt.

7. Proposed Treatment (i.e., recommendation)

Reduce travel lanes to 11'
Add a center left turn lane for left turns onto Goodfriend Drive/Coultes Lane
Provide a 5' dedicated bike lane

[1] *Use accidents per million vehicle miles (acc/mvm) for linear highway segments; use accidents per million entering vehicles (acc/meh) for intersections.*

Appendix G
Public Involvement Plan (PIP)

Public Involvement Plan

Region 10 Safety Enhancements
PIN: 0810.01
Various Locations – Town of Riverhead, East Hampton and Southold
Suffolk County

Name of Preparer: Ankita Rathi, AICP_____
Date Prepared: __12.06.2021___updated April 2022___
Preparer's Functional Area: Planning / Consulting_

This report presents the Public Involvement Plan (PIP) for involving agency and public stakeholders in the Safety Enhancements Project, P.I.N. 0810.01("Project"). Enhanced public involvement was and continues to be a key element at every step of that process, and this PIP summarizes the methods and schedule for public involvement that took place for this Project.

Current Phase (check one): Scoping ☐Phase I-IV ☒Phase V-VI ☐Construction ☐Other

Project Schedule as of Date Prepared

IPP Approved ----------July 27, 2018
Scoping Approval ----------May 31, 2022
Design Approval ----------May 31, 2022
PS&E ----------August 10, 2023
Construction Begins ----------Early 2024
Construction Completion ---------- Early 2025

1. IPP update – Only four locations are now being considered for this project. NYS Route 25A at Stony Brook Road is eliminated from the study locations. The project schedule including obligation dates for Design Approval and all succeeding activities have been revised. The construction estimate is expected to be updated as the project progresses through the design process. (Please see Appendix J for the approved IPP**)**

2. Project Data

Funding __X__Fed-Aid NHS ____Fed-Aid Non-NHS ____100% State

Check Project Type (s). ____NEPA Class I __X__NEPA Class II ____NEPA Class III
____SEQR Non-Type II ___X_ SEQR Type II

Brief Description of Project Work___ The purpose of this project is to provide safety improvements at the four (4) intersections to improve traffic flow and decrease the potential for crashes. These four intersections include:

- Loc. No. 1 - NY 25 at Edwards Avenue, Town of Riverhead, Suffolk County
- Loc. No. 2 - NY 114 at Stephens Hands Path, Town of East Hampton, Suffolk County

- Loc. No. 3 - NY 114 at Goodfriend Drive, Town of East Hampton, Suffolk County
- Loc. No. 4 - NY 25 at CR 48, Town of Southold, Suffolk County



Regional Project Location Map

NYSDOT person designated as community contact Stephen Canzoneri, NYS Region 10 Public Information Officer.

Public Involvement prior to IPP (y/n) No
If yes, describe
Attach relevant correspondence and/or meeting minutes.

3. Project Scoping

PI Objectives in Scoping:

1. Identify Stakeholders.
2. Inform stakeholders of project and proposed project scope/needs.
3. Gather information on the project context.

3.1 Identify Stakeholders

List Internal Stakeholders: Regional Planning; Regional Design Group; Regional Traffic and Safety Group; Regional Construction Group; Regional Maintenance Group.

List External Stakeholders: NYS Senator and Assemblyman/woman, Governor's Traffic Safety Committee, New York Metropolitan Transportation Council (NYMTC), Federal Highway Administration (FHWA), Suffolk County Transit, Suffolk County Office for People with Disabilities, Suffolk County Legislature, Town of Riverhead, Riverhead Police Department, Riverhead Fire Department Station#3, Riverhead Charter School, Greater Calverton Civic

Association, Town of East Hampton, East Hampton Fire Department, East Hampton Police Department, The Ross School, Veterinary Clinic-East Hampton, East Hampton Chamber of Commerce, Town of Southold, Southold Police Department, Greenport Fire Department, Stony Brook Eastern Long Island Hospital, North Fork Chamber of Commerce, local businesses, and local community residents.

3.2 Potential community concerns: narrower travel lanes/shoulders near the intersection for bicyclists, temporary access impacts to local businesses, emergency services during construction, Sidewalks for pedestrians,

3.3 Communication Methods to be used to inform Stakeholders:

Meetings with public officials: The scoping and design phases were combined for this project. Please see section 4.2 below.

Public information meeting / hearing: The scoping and design phases were combined for this project. Please see section 4.2 below.

Is a citizen's advisory committee necessary? No
If yes, attach description of how it will be organized, list committee make-up and affiliation, and committee objectives.

Other public involvement techniques:
Letters were sent to local stakeholders to introduce the project and receive feedback from them. Project webpage was hosted on NYSDOT Website: https://www.dot.ny.gov/EastEndSafety to disseminate project information and project status to the local stakeholders and the community.

.

4. Design

PI Objectives during Design:

Preliminary Design: Summarize information gained from Scoping. Seek consensus on preferred alternative**.**

Detailed Design: Update stakeholders on progress, discuss any changes.

4.1 Information

List Internal Stakeholders: Regional Planning; Regional Design Group; Regional Traffic and Safety Group; Regional Construction Group; Regional Maintenance Group.

List External Stakeholders: NYS Senator and Assemblyman/woman, Governor's Traffic Safety Committee, New York Metropolitan Transportation Council (NYMTC), Federal Highway Administration (FHWA), Suffolk County Transit, Suffolk County Office for People with Disabilities, Suffolk County Legislature, Town of Riverhead, Riverhead Police Department, Riverhead Fire Department Station#3, Riverhead Charter School, Greater Calverton Civic

Association, Town of East Hampton, East Hampton Fire Department, East Hampton Police Department, The Ross School, Veterinary Clinic-East Hampton, East Hampton Chamber of Commerce, Town of Southold, Southold Police Department, Greenport Fire Department, Stony Brook Eastern Long Island Hospital, North Fork Chamber of Commerce, local businesses, and local community residents.

4.2 Communication Methods to be Used:

Meetings with public officials: A virtual meeting was held with elected officials prior to the EDPL Hearing on January 26, 2022, to introduce the project and receive feedback from them. They were also invited formally to the Public Information Meeting / Public Hearing.

Public information meeting/ hearing:

Meeting formats: Due to the Covid-19 circumstances and applicable restrictions, the EDPL Hearing / Public Meeting was held on February 9, 2022 in a remote setting with an online meeting and presentation, with opportunity for questions and feedback. The presentation will cover the purpose of the project, proposed locations, ROW acquisition details, proposed alternatives, and other pertinent information.

The virtual EDPL public hearing was held in a live videoconference format. Participants who wished to join online 4 used the following link https://publichearing.webex.com/meet/PublicHearing. Participants who wished to join by phone called 1 (844) 621-3956 and used the access code 26319050736# when prompted and then entered the meeting code 45298333#.

An off-record question and answer session was held preceding the formal hearing, and the official hearing included a designated time for participants to provide oral or written comments to the project team, on the record. Information on how participants can provide written comments up to 10 days after the hearing was also be provided during the Virtual Public Hearing. A recording of the Virtual Public Hearing and all submitted written statements, as well as a publication synopsizing the determinations and findings based on the statements provided, are available for public viewing and inspection after the conclusion of the comment period. Finally, all project information is be made available online at the project's website - https://www.dot.ny.gov/EastEndSafety and/or was sent to individuals by mail or email upon request.

The Virtual Public Hearing met the Limited English Proficiency (LEP) requirements in accordance with the NYSDOT Policy Code 1.1-8 dated 7/19/2019, and in accordance with Title VI of the Civil Rights Act of 1964 and subsequent statutes, regulations, and executive orders that state a commitment to preventing and eliminating unlawful discrimination on the basis of race, color, national origin, sex, age, disability, or low income or LEP in the operation, implementation, access, and use of NYSDOT programs, activities and facilities. Specifically, LEP refers to those persons who do not speak English as their primary language and have limited ability to read, speak, write, or understand English. Based on U.S. Census Bureau research findings with regards to LEP populations in the communities adjacent to the Project locations, Spanish was found to be the most commonly spoken language at home for the Project community with the highest

LEP population. Within the flyer, requests for interpreter services or translations were requested to be made at least 10 days in advance of the hearing either through calling in or email.

Flyer: An EDPL Public Hearing flyer was developed with brief project information, including project locations, Virtual Public Hearing/Meeting and comment period details, information on where the public could access project information online and/or request project information via mail or email. The flyer was developed in two languages: English and Spanish.

Visualizations: Graphics showcasing the existing and proposed improvements were displayed virtually for public viewing and comments.

Other public involvement techniques:

Direct mailings to property owners
Notification letters to elected and appointed officials, local Town Planning departments, local stakeholders including hospitals, libraries, school districts, churches, fire and police stations.
News releases - published legal and display ads in local community newspapers to announce the Virtual Public Hearing.
Project Webpage on the NYSDOT Website: https://www.dot.ny.gov/EastEndSafety

4.3 Schedule for Public Involvement Activities: One EDPL Hearing / Public Information Meeting was held on February 9, 2022 to solicit feedback from the stakeholders and the community. The public meeting was advertised by advance notices through direct mailings and newspaper ads. This notice included the purpose and time of the Virtual Public Hearing, details on project locations, instructions for how to attend the Virtual Public Hearing, instructions for hearing participation, notification to the public that written statements will be accepted for at least 10-days after the Virtual Public Hearing date, and information on where the public could access project information online and/or request project information via mail or email.

In addition, the project webpage on the NYSDOT website will continue to provide updated project information.

Webinar Name	Name	Attendee Email	Connection Type
PUBLIC HEARING: PIN 081001 EAST END SAFETY	fpearson@gpinet.com	fpearson@gpinet.com	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Vinicio Lora, NYSDOT	vinicio.lora@dot.ny.gov	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Consultant	aplotas@gpinet.com	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Consultant 2	bblanco@gpinet.com	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	crystal peritz	crystal.peritz@dot.ny.gov	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	James Fonda	james.fonda@dot.ny.gov	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Garole Valbrun	garole.valbrun@dot.ny.gov	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	gregg williams	gregg.williams@dot.ny.gov	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Moni John	monij327@gmail.com	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_3		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	tim grattan	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	sheref	sheref.fathi@dot.ny.gov	Mobile app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Alexa Sheng	alexandra.sheng@dot.ny.gov	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Jodi Giglio	giglioj2@nyassembly.gov	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Nicola Graham	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Gwynn Schroeder Office of Leg. Al	gwynn.schroeder@suffolkcountyny.gov	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_4		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Martin Buchman	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Paul Loeb	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Gregory Jo	gregory.jo@dot.ny.gov	Mobile app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	smk	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Joe Aufiero	joseph.aufiero@dot.ny.gov	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_5		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Dawn Robinson	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Hal Tarry	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Jurgen Riehle	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Margot Perman	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	cathy strand	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	jennifer hartnagel	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_6		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	David Mendelsohn	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	steve greer	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_7		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	David S. Desmond, Esq.	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_9		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Douglas Das	douglas.das@dot.ny.gov	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	diane	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Michael Collins	michael.collins@town.southold.ny.us	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	alan daters	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	thomas houghton	[redacted]	Mobile app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Francis Mott	[redacted]	Mobile app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	scott McIntire	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	joan schwenk	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Tim Gannon	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_10		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Raymond Ankrum	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_11		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	carol	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_12		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Greg Bergman	bergman@townofriverheadny.gov	Mobile app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Denise Civiletti	denise@riverheadlocal.com	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Louisa Evans	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Diana Ruvolo	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Stephen Canzoneri	stephen.canzoneri@dot.ny.gov	Mobile app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Susannah Leete	[redacted]	Mobile app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Stephen	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Chief Martin Flatley	mflatley@town.southold.ny.us	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Diana	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Yajayara Perdomo	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_13		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Call-in User_14		Other app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Josephine	[redacted]	Desktop app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	Michael Nardy	[redacted]	Web app
PUBLIC HEARING: PIN 081001 EAST END SAFETY	deane fabrizio	dfabrizio@gpinet.com	Web app

PIN 0810.01 EAST END SAFETY ENHANCEMENTS
02/09/2022 EDPL Public Hearing Comments
Suffolk County
PIN 0810.01

City	State	Zip	Interest					Support			Source						Comment Summary	Response (Refer to Chapter 5, pages 5-2 thru 5-7)
			Home Owner	Business	Tenant	Motorist	Other	YES	NO	?	Written Comment @ Public Meeting	Verbal Statement to Stenographer	Formal Session	US Mail	Email	Phone		
LOCATION 1: NY 25 @ EDWARDS AVENUE																		
Baiting Hollow	NY	11933				✓		✓							✓		Concerned with congestion, trucks and commercial vehicles. Wants turning lanes or split signal phasing.	6
Wading River	NY	11792				✓		✓			✓				✓		Indicated he supports the improvements and would like construction done by 2025. Asked if a roundabout was considered for this location.	8
Greenlawn	NY	11740					✓	✓							✓		Concerned with pedestrian/bicyclist safety. Supports additional improvements including reduced travel lane widths, additional crosswalk, designated bike lanes/buffered bike lanes, bike boxes, warning signs.	1
	NY						✓	✓							✓		Concerned with pedestrian/bicyclist safety. Supports additional improvements including reduced travel lane widths, additional crosswalk, designated bike lanes/buffered bike lanes, bike boxes, warning signs.	1
	NY						✓	✓							✓		Concerned with pedestrian/bicyclist safety. Supports additional improvements including reduced travel lane widths, additional crosswalk, designated bike lanes/buffered bike lanes, bike boxes, warning signs.	1
	NY						✓	✓							✓		Concerned with pedestrian/bicyclist safety. Supports additional improvements including reduced travel lane widths, additional crosswalk, designated bike lanes/buffered bike lanes, bike boxes, warning signs.	1
	NY						✓	✓							✓		Concerned with pedestrian/bicyclist safety. Supports additional improvements including reduced travel lane widths, additional crosswalk, designated bike lanes/buffered bike lanes, bike boxes, warning signs.	1
	NY						✓	✓							✓		Concerned with pedestrian/bicyclist safety. Supports additional improvements including reduced travel lane widths, additional crosswalk, designated bike lanes/buffered bike lanes, bike boxes, warning signs.	1
	NY						✓	✓							✓		Concerned with pedestrian/bicyclist safety. Supports additional improvements including reduced travel lane widths, additional crosswalk, designated bike lanes/buffered bike lanes, bike boxes, warning signs as well as bike detectors and property acquisition for bike lane extension north of Intersection.	1
Calverton	NY	11933		✓				✓							✓		Concerned with tractor trailer access/egress from his business. Requested widening curb cut width.	7
	NY						✓			✓				✓			Wants to improve walkability and biking. Suggests plan revisions including a bike lane along Edwards Avenue, an east-west buffered bike lane along NY 25, and increased buffer widths. Suggests consideration of a roundabout, installation of slip ramps through the intersection to separate bicyclists from vehicles, and a north-south crosswalk across the east leg of the intersection with a sidewalk to the bus stop on the northeast corner.	1, 8
	NY						✓	✓							✓		Supports additional improvements including designated bike lane/buffered bike lane.	1
Riverhead	NY	11901					✓	✓				✓					Concerned with disruption to traffic flow through the intersection and impacts on Riverhead Charter School as well as property taking on southeast corner. Suggests safety features such as guiderail on southeast corner.	4, 5
	NY						✓	✓				✓					Would like the speed limit reduced from 55mph to 35mph near the Riverhead Charter School.	4
	NY						✓	✓				✓					Concerned with bicyclist safety. Supports additional improvements including reduced travel lane widths, designated bike lanes/buffered bike lanes, bike boxes, bike detectors.	1
Calverton	NY	11933					✓			✓	✓						Would like a speed zone in front of the Riverhead Charter School and a traffic signal at the school driveway to let buses out.	4

City	State	Zip	Interest					Support			Source						Comment Summary	Response
			Home Owner	Business	Tenant	Motorist	Other	YES	NO	?	Written Comment @ Public Meeting	Verbal Statement to Stenographer	Formal Session	US Mail	Email	Phone		(Refer to Chapter 5, pages 5-2 thru 5-7)
LOCATION 2: NY 114 @ STEPHEN HANDS PATH																		
East Hampton	NY	11937		✓						✓						✓	Concerned about economic impact on her farm, impacts on parking and access/egress.	10
	NY						✓			✓				✓			Wants to improve walkability and biking. Suggests including signalized crosswalks, and buffered or protected bike lanes through the intersection along NY 114. Based on the reduced traffic volumes observed at this intersection, suggests consideration of a roundabout with slip ramps for bicyclists.	1, 12
East Hampton	NY	11937	✓							✓					✓		Concerned with flooding issues and potential light pollution from new traffic signals. Feels dedicated left turn lanes on all approaches (esp. on Stephen Hands Path) are unnecessary; wants dedicated right turn lane on Stephen Hands Path.	9
Southold	NY	11971	✓							✓					✓		Unsure if her property will be impacted by the project; requested more information regarding potential impacts.	11
LOCATION 3: NY 114 @ GOODFRIEND DRIVE																		
East Hampton	NY	11937				✓				✓		✓					Concerned with potential difficulty of making both left and right turns out of Coultes Lane.	13
	NY						✓			✓				✓			Suggests realigning Goodfriend Drive and Coultes Lane to create a four-legged intersection. This would eliminate the need for the center turn lane.	13
LOCATION 4: NY 25 @ CR 48																		
Greenport	NY	11944	✓						✓			✓				✓	Wanted to protest sliver taking from his property; asked about access to the Design Report/plans and purpose of the Public Hearing. Also asked if utility poles on north side will be moved, the rationale behind the construction of the roundabout, and if he will retain both driveways accessing his property.	3, 15
	NY						✓	✓							✓		Wants clear cycle paths to be provided at the proposed roundabout.	14
Greenport	NY	11944				✓				✓				✓			Concerned about traffic studies conducted including previous traffic circle, traffic signals vs. roundabout, pedestrian/bicycle safety, dedicated bike lanes, left turns into Sound Road, and the impact of the proposed development on the southeast corner. Felt there was insufficient advance notice given to the public regarding the hearing and questioned whether community input will be considered.	14, 15, 16
Greenport	NY	11944				✓				✓	✓			✓			Concerned about traffic studies conducted, traffic signals vs. roundabout, pedestrian safety, left turns into Sound Road, ability of trucks/buses/emergency vehicles to navigate the traffic circle, and the impact of the proposed development on the southeast corner. Said they were not given advance notice of some meetings.	14, 15, 16
	NY						✓			✓				✓			Consider connections to future bike lanes along NY 25 and CR 48, as proposed in Suffolk County's Hike and Bike Master Plan.	1
	NY						✓	✓				✓					Concerned with bicycle access/safety. Wanted to know why the north side of the roundabout is not straight across from the west side to the east side (i.e., why the westbound approach to the roundabout curves slightly to the south).	14,15
	NY					✓				✓	✓						Asked the rationale behind constructing roundabouts vs. traffic signals.	15
	NY					✓				✓	✓						Asked the diameter of the proposed roundabout and if that included the travel lanes and shoulder.	15
Greenport	NY	11944				✓		✓			✓						Has high hopes for the project's impact on traffic issues, and asked how NYSDOT would address the impacts of the proposed development for the southeast corner on the roundabout and the overall environmental and visual quality of the site.	16
Greenport	NY	11944				✓		✓			✓				✓		Very encouraged that the roundabout will have a positive impact on the congestion at this intersection, but is concerned the proposed development on the southeast corner will significantly increase the traffic beyond what NYSDOT has studied.	16

PIN 0810.01 EAST END SAFETY ENHANCEMENTS
02/09/2022 EDPL Public Hearing Comments
Suffolk County
PIN 0810.01

City	State	Zip	Interest					Support			Source						Comment Summary	Response
			Home Owner	Business	Tenant	Motorist	Other	YES	NO	?	Written Comment @ Public Meeting	Verbal Statement to Stenographer	Formal Session	US Mail	Email	Phone		(Refer to Chapter 5, pages 5-2 thru 5-7)
GENERAL COMMENTS - ALL LOCATIONS																		
	NY						✓	✓							✓		Wants additional improvements including crosswalks, designated bike lanes/buffered bike lanes, bike boxes, and bike detectors.	1
	NY						✓	✓							✓		Wants additional improvements including designated bike lanes and bike detectors.	1
	NY						✓			✓				✓			Stated in general, NYSDOT should use this opportunity to enhance bicycle facilities along the existing NYS-designated bike routes on NY 25 and NY 114 to at least a buffered bike lane.	1
Elmsford	NY	10523					✓			✓					✓		Reviewed plans on behalf of Town of East Hampton residents. Requested Attachment T-1 Traffic Data.	2
	NY						✓			✓		✓		✓			Suggested including designated bike lanes with signing, as well as bike boxes and bike detectors.	1
	NY						✓	✓				✓					Asked when this study and the names of property owners on the maps were last updated. Asked when the project will go out to bid, and if money had already been allocated for these improvements. Also asked when the utility poles would be moved and if that work was aligned with the construction schedule to minimize delays. Questioned whether the rights-of-way are sufficient to allow for emergency vehicles to pass traffic if the intersections are congested. Said she will reach out to NYSDOT Real Estate Acquisitions manager for this project to find out when the appraisal process will start.	3

5. Construction Phase

PI Objective During Construction:

Inform and maintain contact with affected residents/businesses/other stakeholders concerning construction activity schedule and impacts.

5.1 Issues requiring continued public outreach:

Maintenance and protection of traffic (MPT): To be determined
Public education for operational features (e. g., roundabout): To be determined
Minimizing community economic impacts during construction: Work closely with local businesses.
Post-construction community feedback
Other issues

5.2 Communication Methods to be Used:

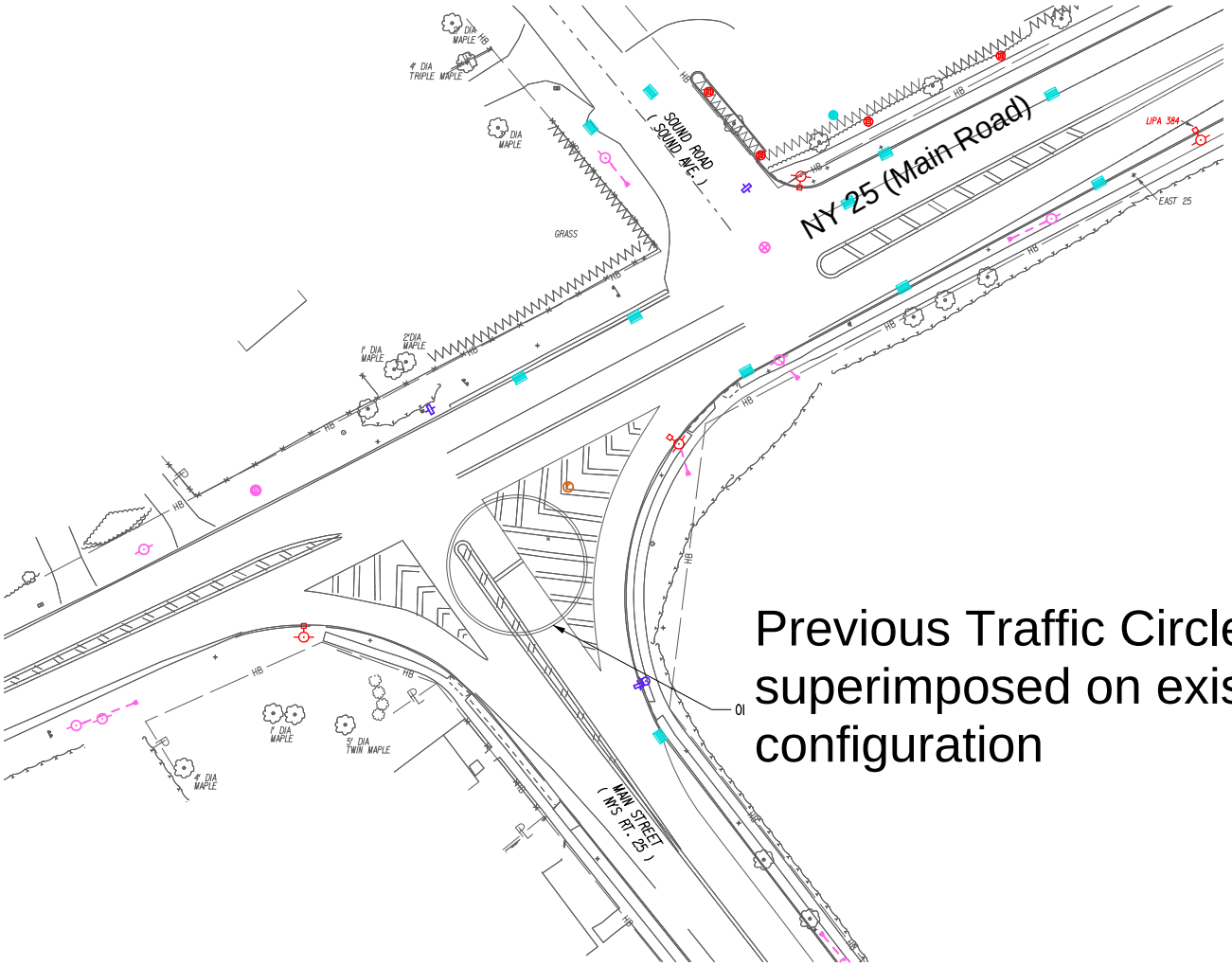
Media advertising
Highway message signs
Project Webpage on the NYSDOT Website

5.3 Schedule for Public Involvement Activities: Keep the public informed on the proposed construction schedule and impacts through the media, use of highway message signs, and project webpage on the NYSDOT website.

NYS Route 25 @ CR 48 - Previous Traffic Circle



Aerial Photograph circa 1984 (Before Removal)



Previous Traffic Circle superimposed on existing configuration

Appendix H
Right-of-Way Information

PROJECT MANAGER
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TABLE OF AFFECTED PROPERTIES FOR LOCATION 1 - NY 25 AND EDWARDS AVENUE PIN 08101.01

TRN	DISTRICT	SECTION	BLOCK	LOT	LIBER	PAGE	CONFIRMED REPUTED OWNER (DEED)	EXISTING PROPERTY AREA			FEE TAKING				TEMPORARY EASEMENT AREAS				PERMANENT EASEMENT AREAS			
								SF	ACRES	HECTARES	SF	ACRES	HECTARES	PERCENTAGE OF TOTAL	SF	ACRES	HECTARES	PERCENTAGE OF TOTAL	SF	ACRES	HECTARES	PERCENTAGE OF TOTAL
1	0600	099.00	01.00	006.000	D00012710	804	GINERIC 88 LLC	1,240,653	28.481	11.526	11,992	0.275	0.111	0.97%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
2	0600	099.00	02.00	008.000	D00012518	187	3726 MIDDLE COUNTRY LLC	118,012	2.709	1.096	6,462	0.148	0.060	5.46%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
3	0600	099.00	02.00	007.000	D00012518	185	30 RILEY AVENUE LLC	280,091	6.430	2.602	1,644	0.038	0.015	0.59%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
4	0600	099.00	01.00	018.000	D00013043	429	MICHAEL DELEA JR 2009 REVOCABLE TRUST	42,262	0.970	0.393	2,589	0.059	0.024	6.08%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
5	0600	117.00	01.00	004.001	D00013091	751	TERMINAL LOGISTICS II EDWARDS AVENUE SPE, LLC	457,727	10.508	4.252	20,784	0.477	0.193	4.54%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
6	0600	099.00	02.00	027.000	D00012829	445	EP EQUITY HOLDINGS THREE LLC	32,561	0.747	0.302	1,770	0.041	0.017	5.49%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
7	0600	099.00	02.00	030.000	D00013088	998	1998 PECONIC LLC	91,263	2.095	0.848	2,513	0.058	0.023	2.77%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%

TABLE OF AFFECTED PROPERTIES FOR LOCATION 2 - NY 114 AND STEPHEN HANDS PATH PIN 08101.01

TRN	DISTRICT	SECTION	BLOCK	LOT	LIBER	PAGE	CONFIRMED REPUTED OWNER (DEED)	EXISTING PROPERTY AREA			FEE TAKING				TEMPORARY EASEMENT AREAS				PERMANENT EASEMENT AREAS			
								SF	ACRES	HECTARES	SF	ACRES	HECTARES	PERCENTAGE OF TOTAL	SF	ACRES	HECTARES	PERCENTAGE OF TOTAL	SF	ACRES	HECTARES	PERCENTAGE OF TOTAL
8	0300	157.00	02.00	014.001	D00012733	265	JOAN E. SCHWENK	199,378	4.577	1.852	1,738	0.040	0.016	0.87%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
9	0300	157.00	03.00	025.002	D00012672	098	BUCKHOUT FAMILY 2011 IRREVOCABLE TRUST	59,357	1.363	0.552	3,450	0.079	0.032	5.80%	0	0.000	0.000	0.00%	1,551	0.036	0.015	2.64%
10	0300	157.00	03.00	010.009	D00009959	182	HENRY G. AND MARION M. SCHWENK	44,132	1.013	0.410	2,680	0.062	0.025	6.12%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
11	0300	157.00	03.00	010.002	D00012733	267	GEOFFREY G. AND KATHERINE SCHWENK	1,122,585	25.771	10.429	1,181	0.027	0.011	0.10%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
12	0300	184.00	01.00	002.000	D00011961	700	TOWN OF EAST HAMPTON	4,523,706	103.850	42.027	6,760	0.155	0.063	0.15%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
13	0300	157.00	03.00	015.000	D00011711	436	WALTER DONWAY	50,228	1.153	0.467	2,084	0.048	0.019	4.16%	0	0.000	0.000	0.00%	2,009	0.046	0.019	3.99%
14	0300	157.00	03.00	021.000	D00007306	312	TOWN OF EAST HAMPTON	23,120	0.531	0.215	292	0.007	0.003	1.32%	0	0.000	0.000	0.00%	229	0.005	0.002	0.94%

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AS-BUILT REVISIONS
DESCRIPTION OF ALTERATIONS:

SAFETY IMPROVEMENTS - VARIOUS LOCATIONS
TOWNS OF RIVERHEAD, EAST HAMPTON,
AND SOUTHOLD

COUNTY: SUFFOLK REGION: 10

PIN 081001.01

BRIDGES

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED

ABSTRACT REQUEST TABLES
LOCATION 1 - NY 25 & EDWARDS AVENUE
LOCATION 2 - NY 114 & STEPHEN HANDS PATH

CONTRACT NUMBER

DRAWING NO. TBL_01_02

SHEET NO.

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

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TABLE OF AFFECTED PROPERTIES FOR LOCATION 4 - NY 25 AND CR 48 PIN 08101.01																				
TRN	DISTRICT	SECTION	BLOCK	LOT	LIBER	PAGE	CONFIRMED REPUTED OWNER (DEED)	EXISTING PROPERTY AREA			FEE TAKING				TEMPORARY EASEMENT AREAS				PERMANENT EASEMENT AREAS			
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15	1000	035.00	01.00	004.002	D00012803	343	ISODOROS KORDAS & JENNIFER KWON	71,569	1.643	0.665	617	0.014	0.006	0.85%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
16	1000	035.00	01.00	007.000	D00012349	52	TAMMI & TIMOTHY GRATTAN	15,899	0.365	0.148	526	0.012	0.005	3.29%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
17	1000	035.00	01.00	008.000	D00012668	833	ROBERTA EISENBERG	21,083	0.484	0.196	690	0.016	0.007	3.31%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
18	1000	035.00	01.00	021.000	D00013018	713	5 PAST 40 LLC	81,022	1.860	0.753	2,029	0.047	0.019	2.53%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%
19	1000	034.00	02.00	001.000	D00010814	149	160 ROUTE 25 LLC	204,296	4.690	1.898	4,343	0.100	0.041	2.13%	0	0.000	0.000	0.00%	0	0.000	0.000	0.00%

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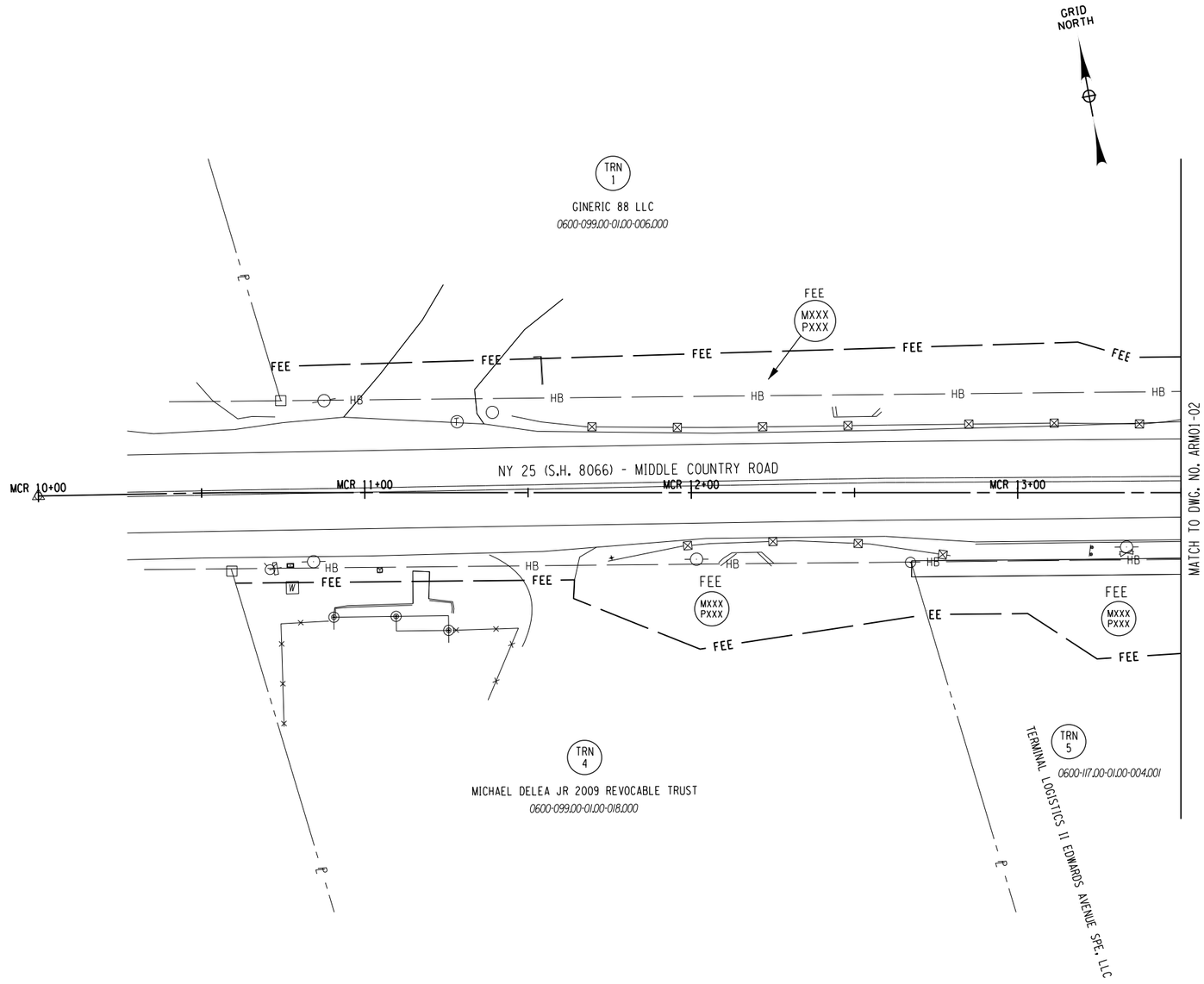
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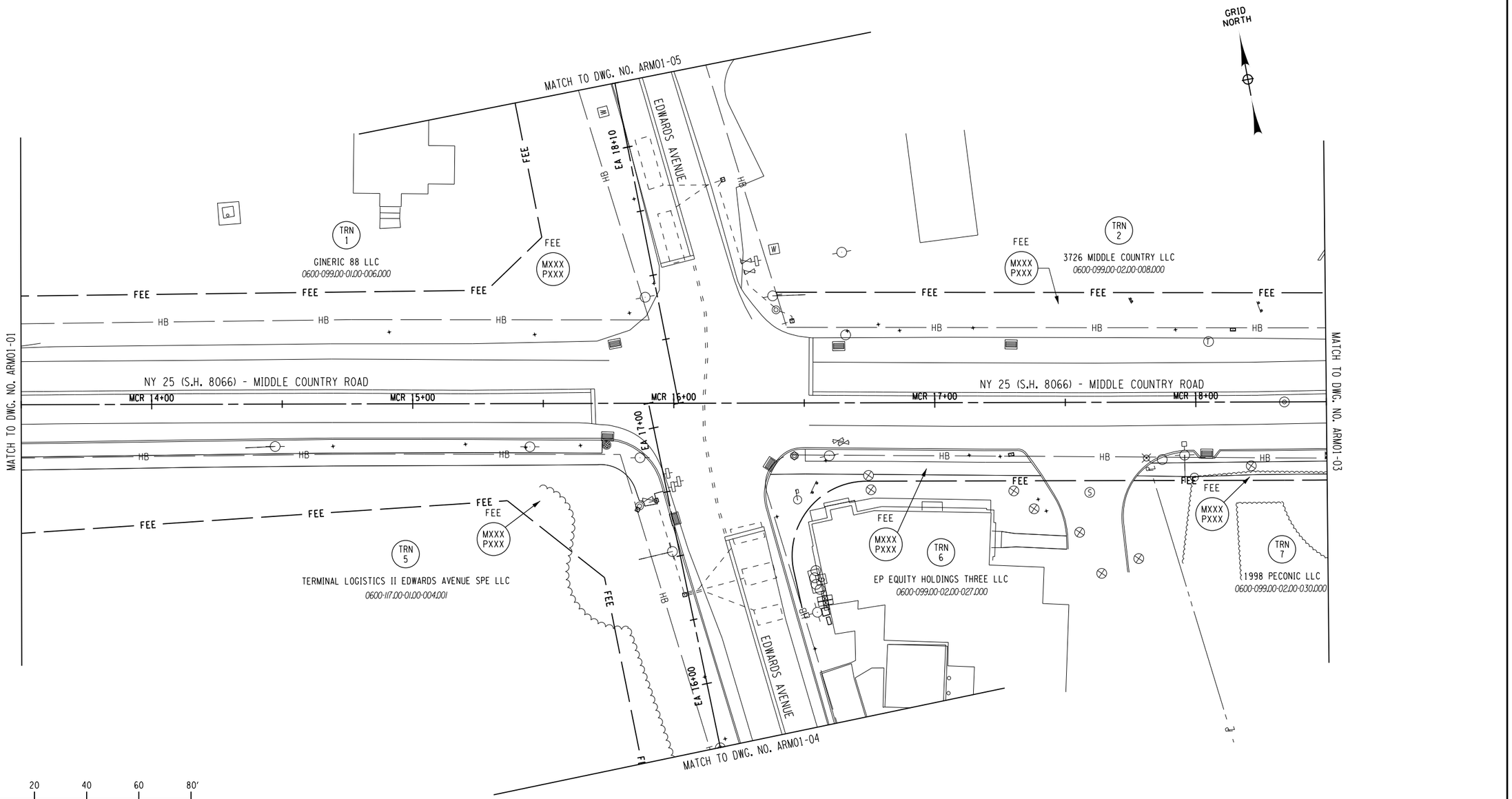
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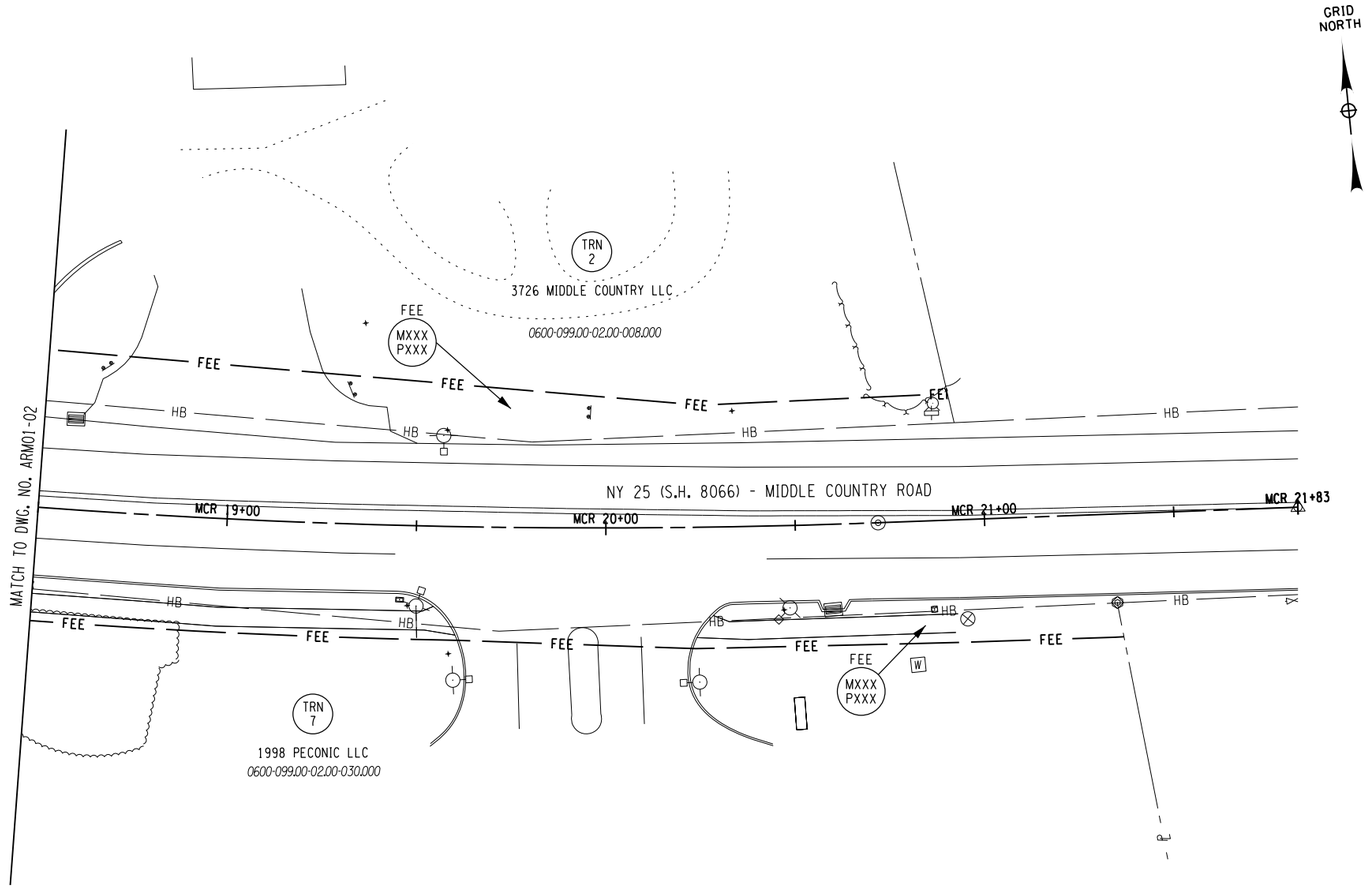
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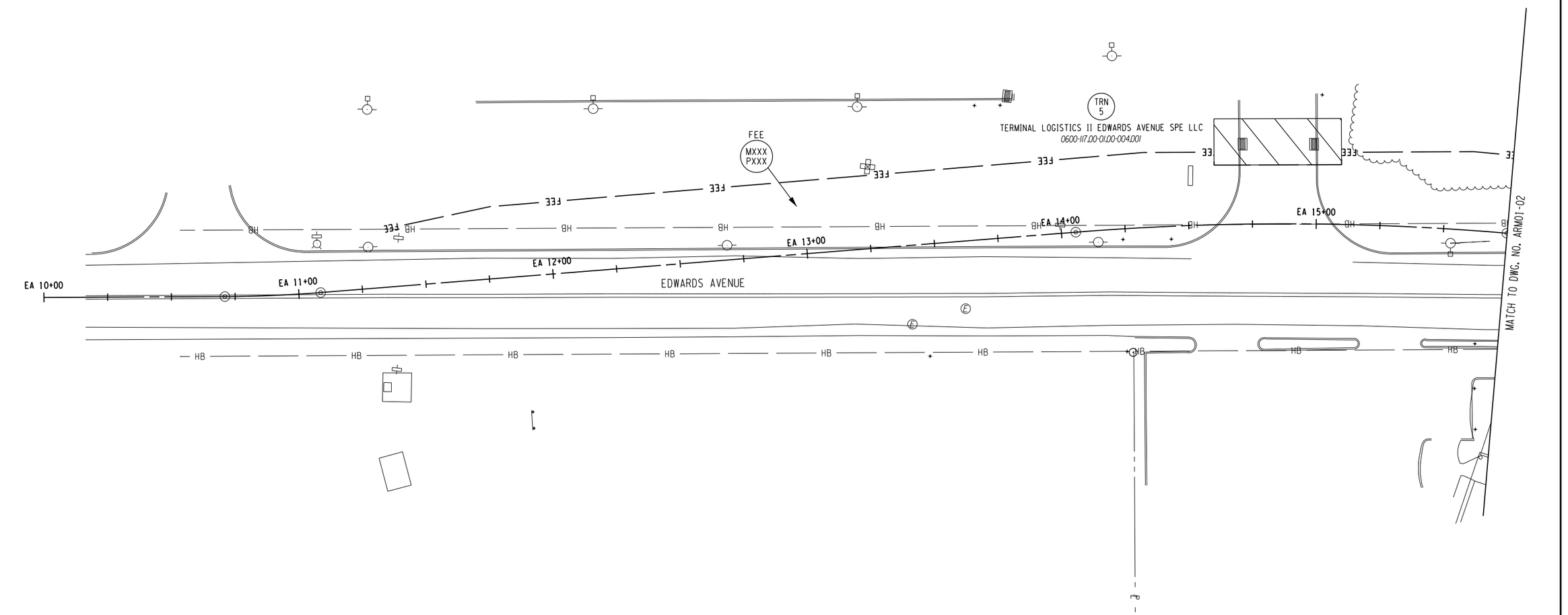
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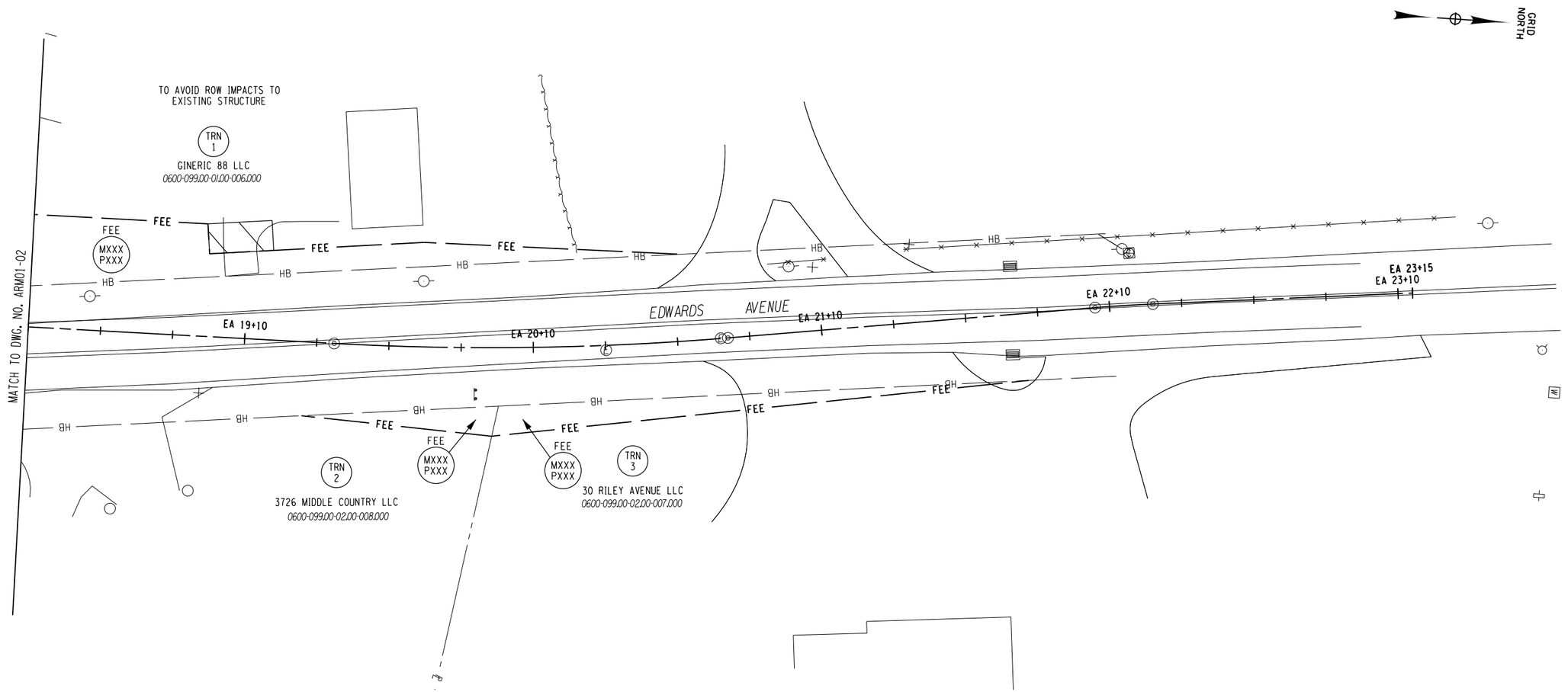
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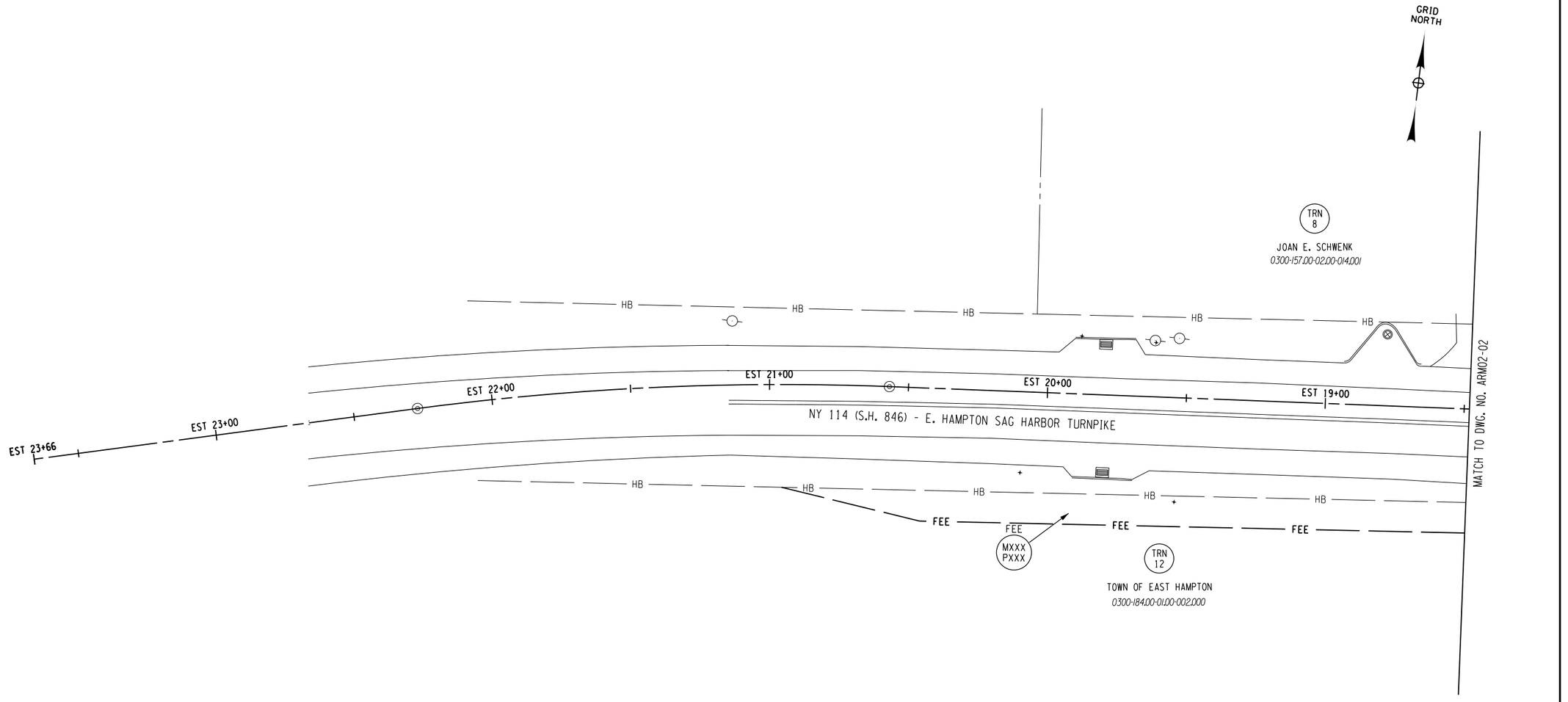
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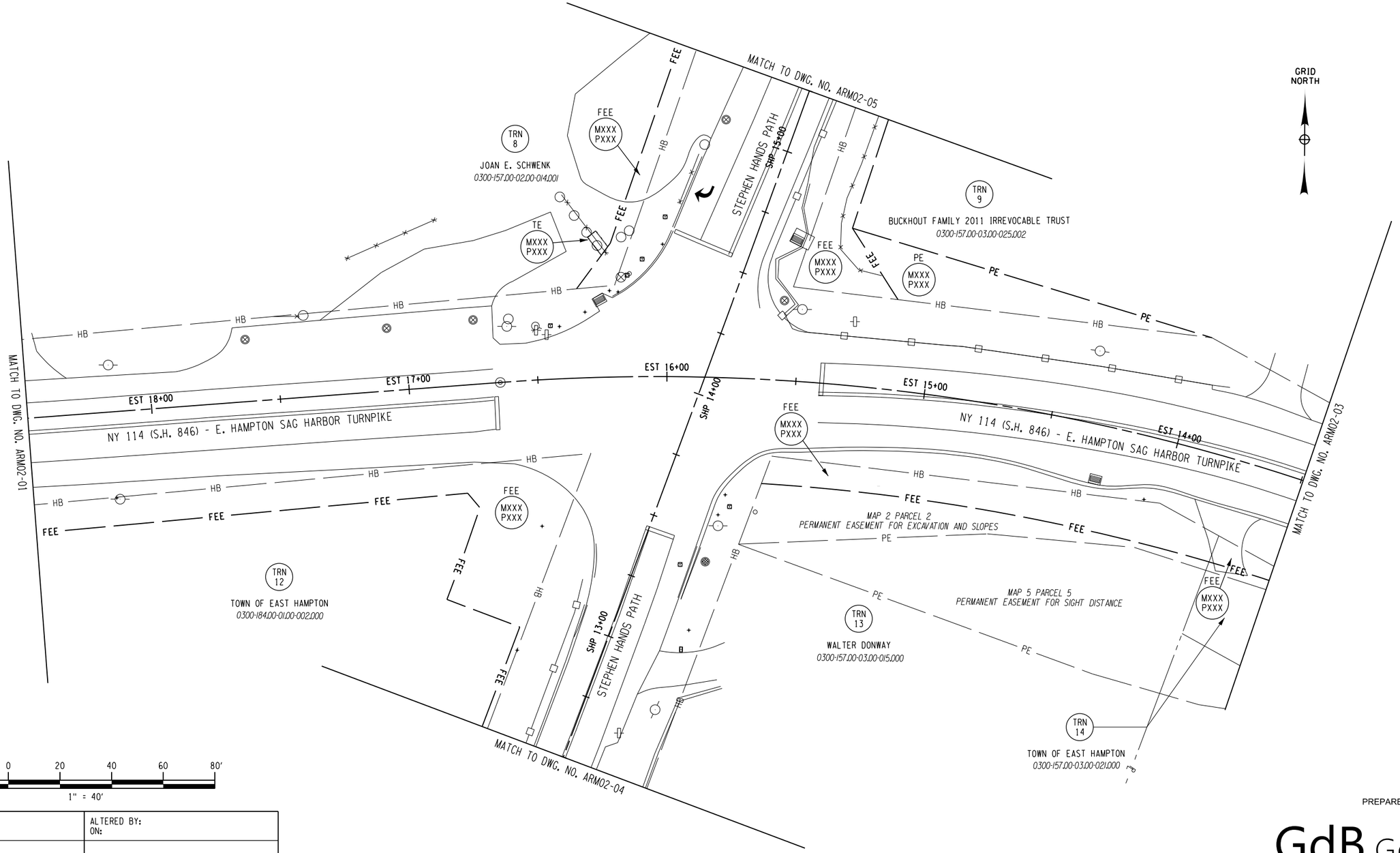
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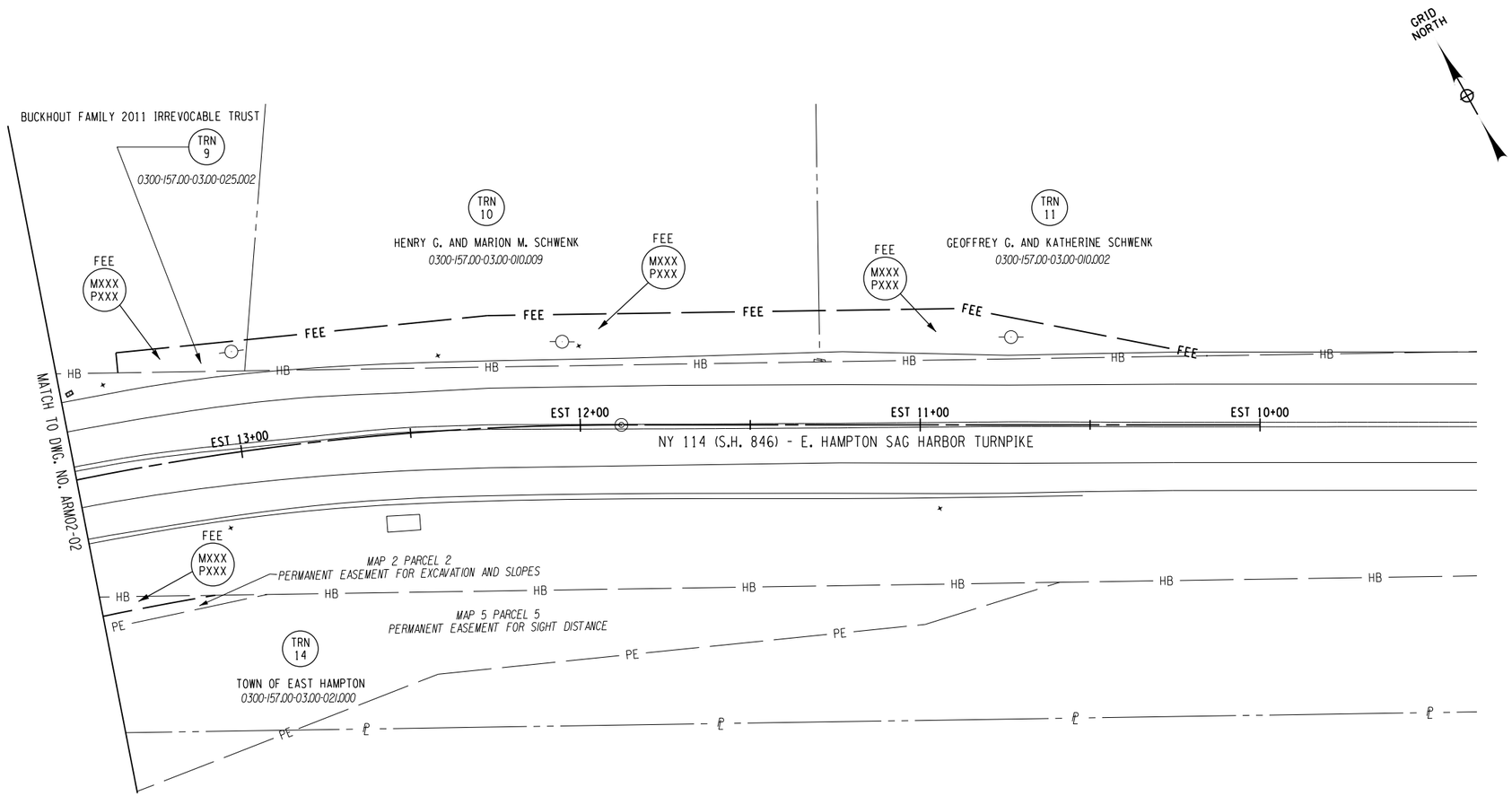
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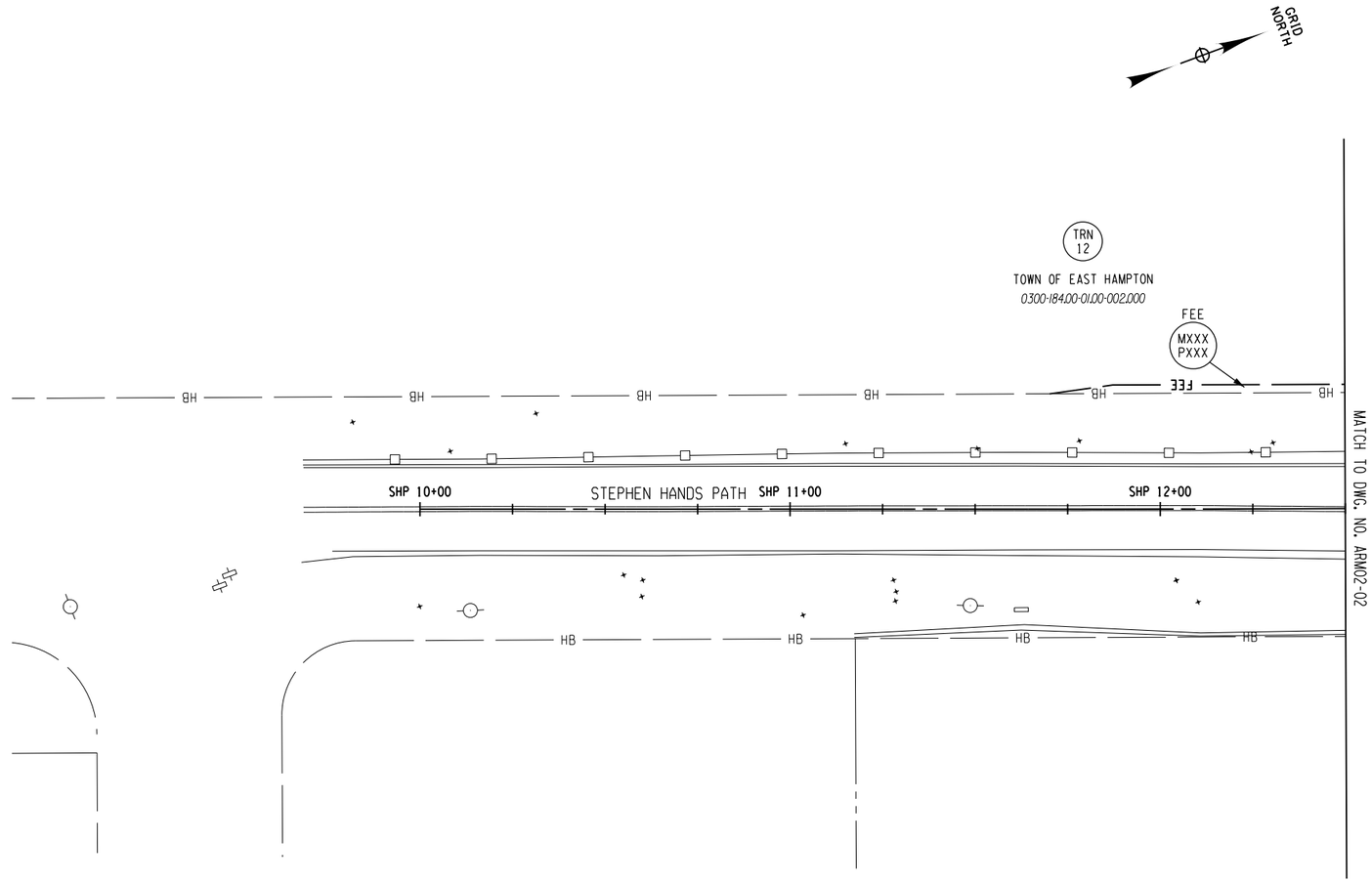
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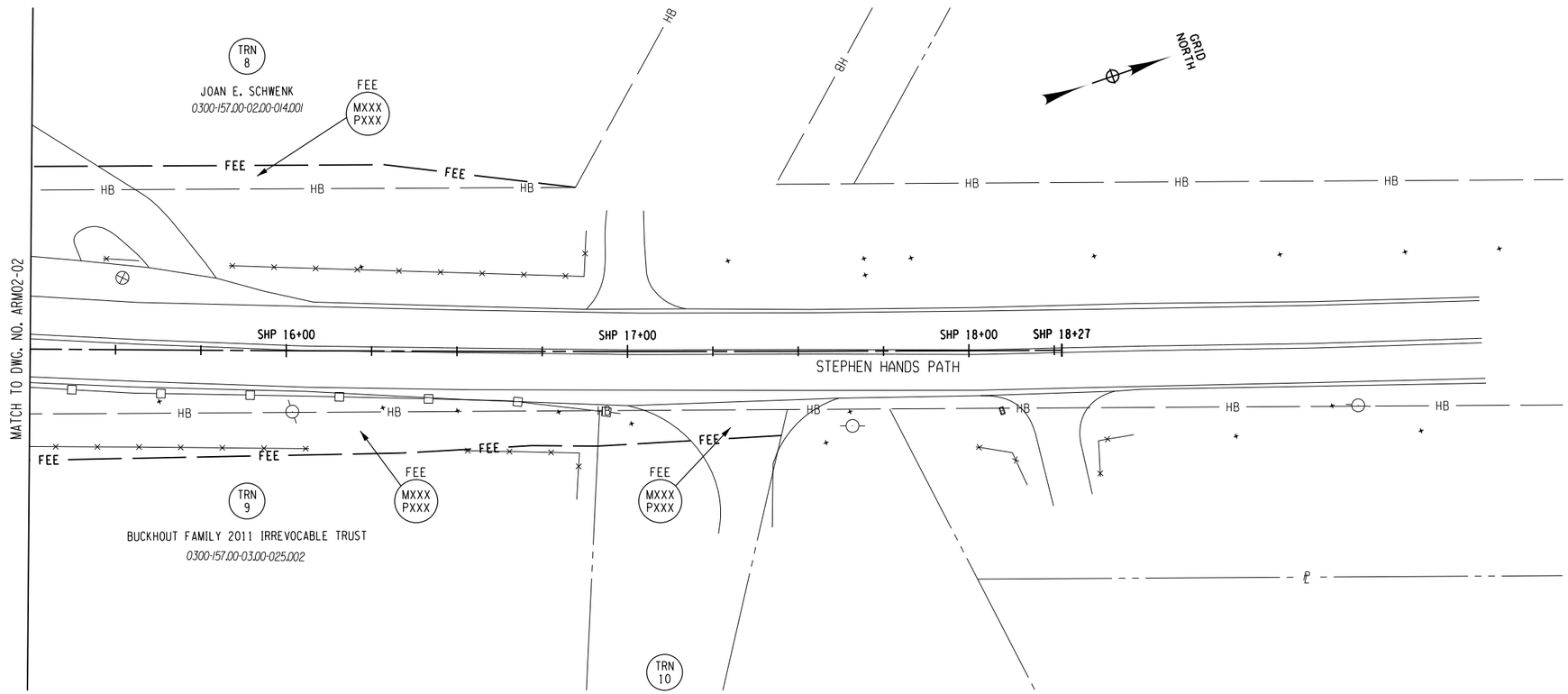
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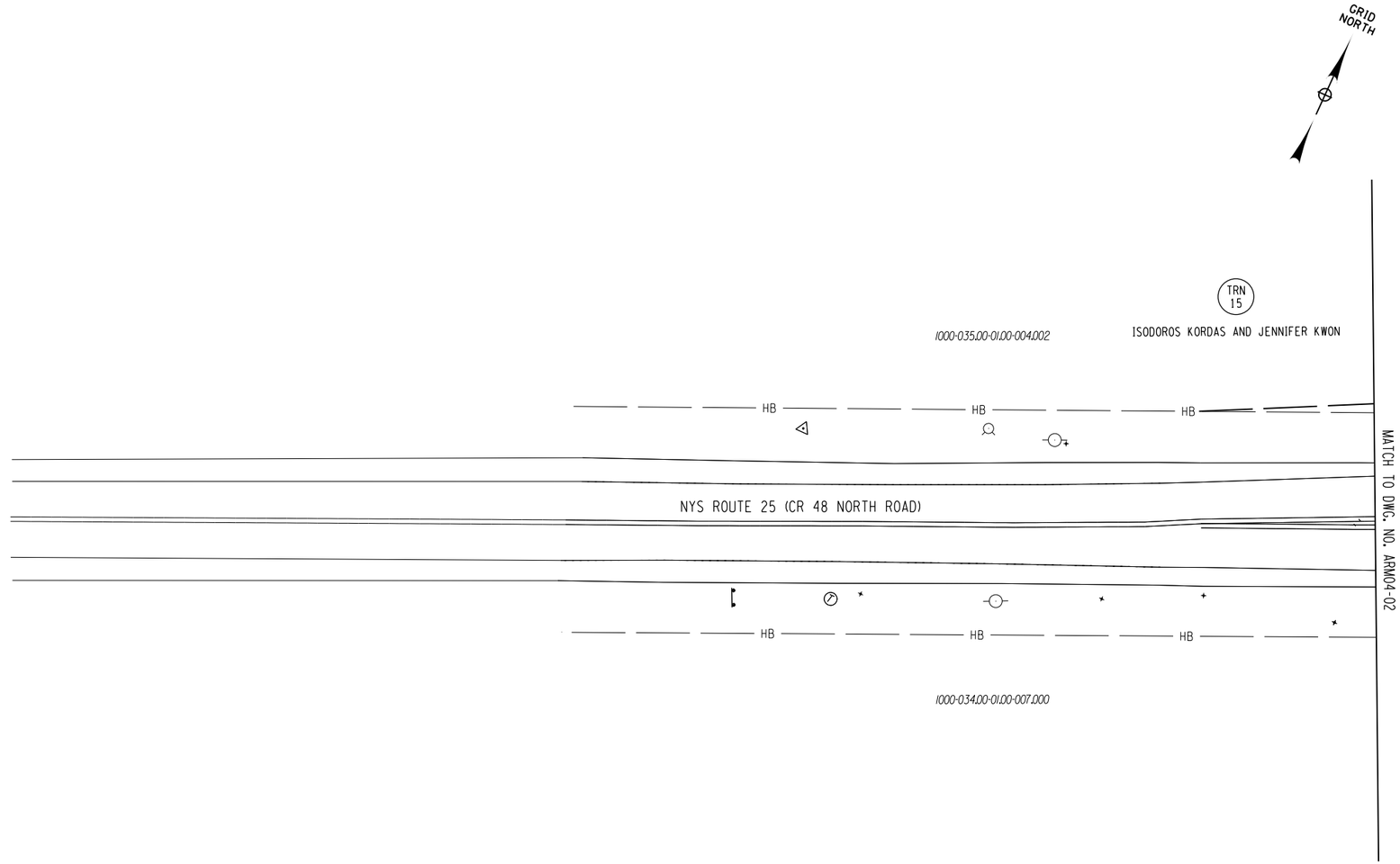
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ABSTRACT REQUEST MAPS
LOC 4 - NY 25 AND CR 48

CONTRACT NUMBER

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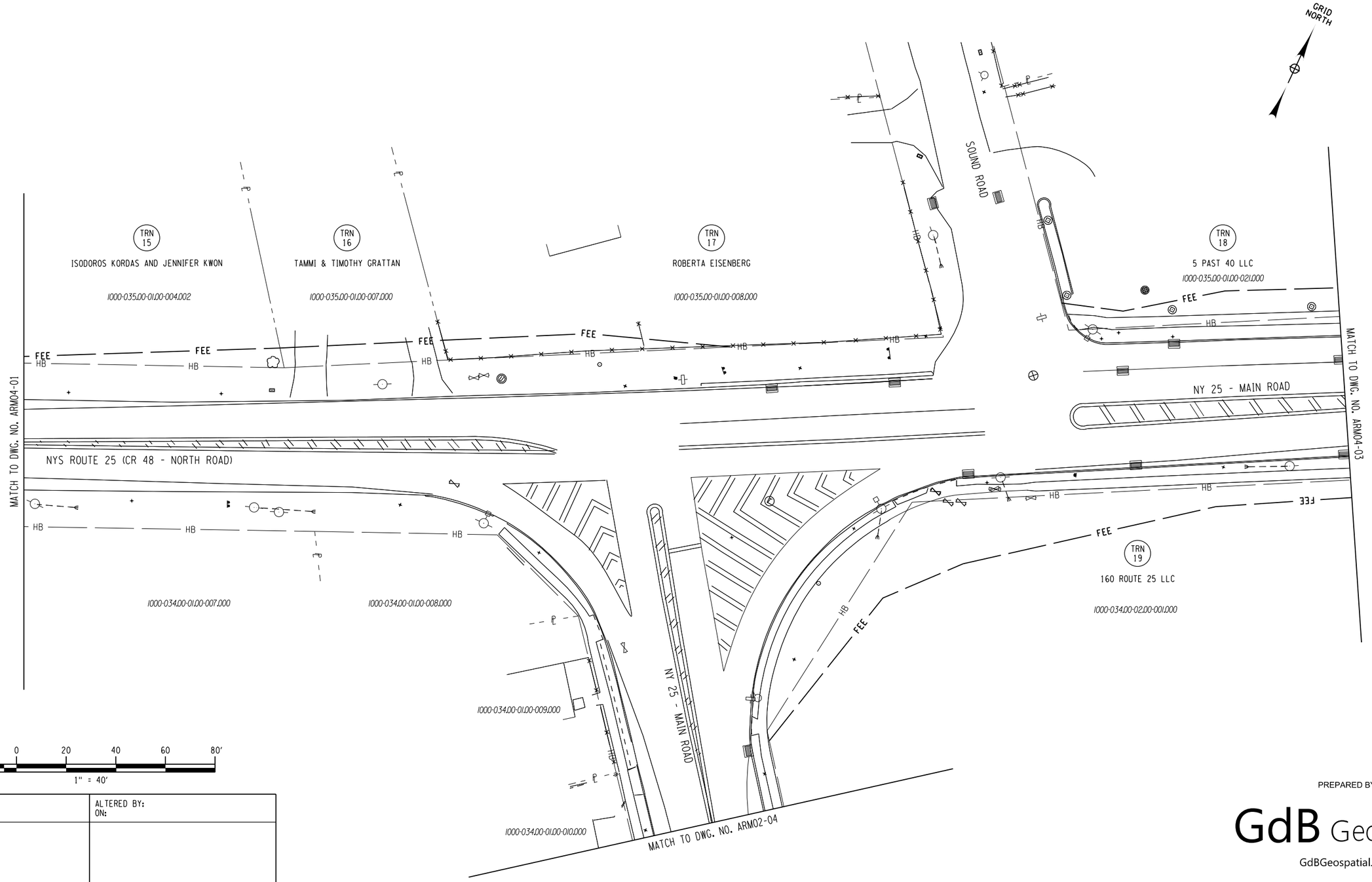
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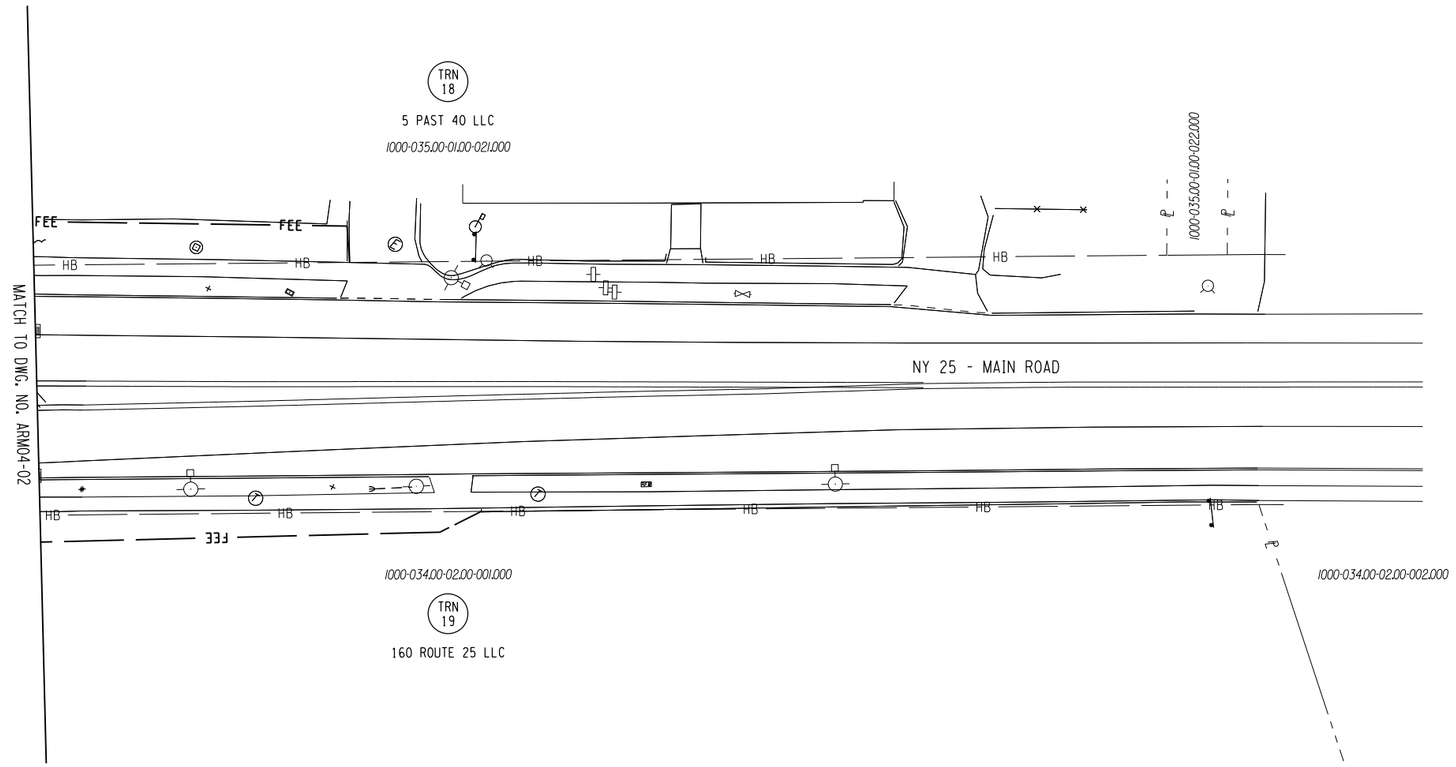
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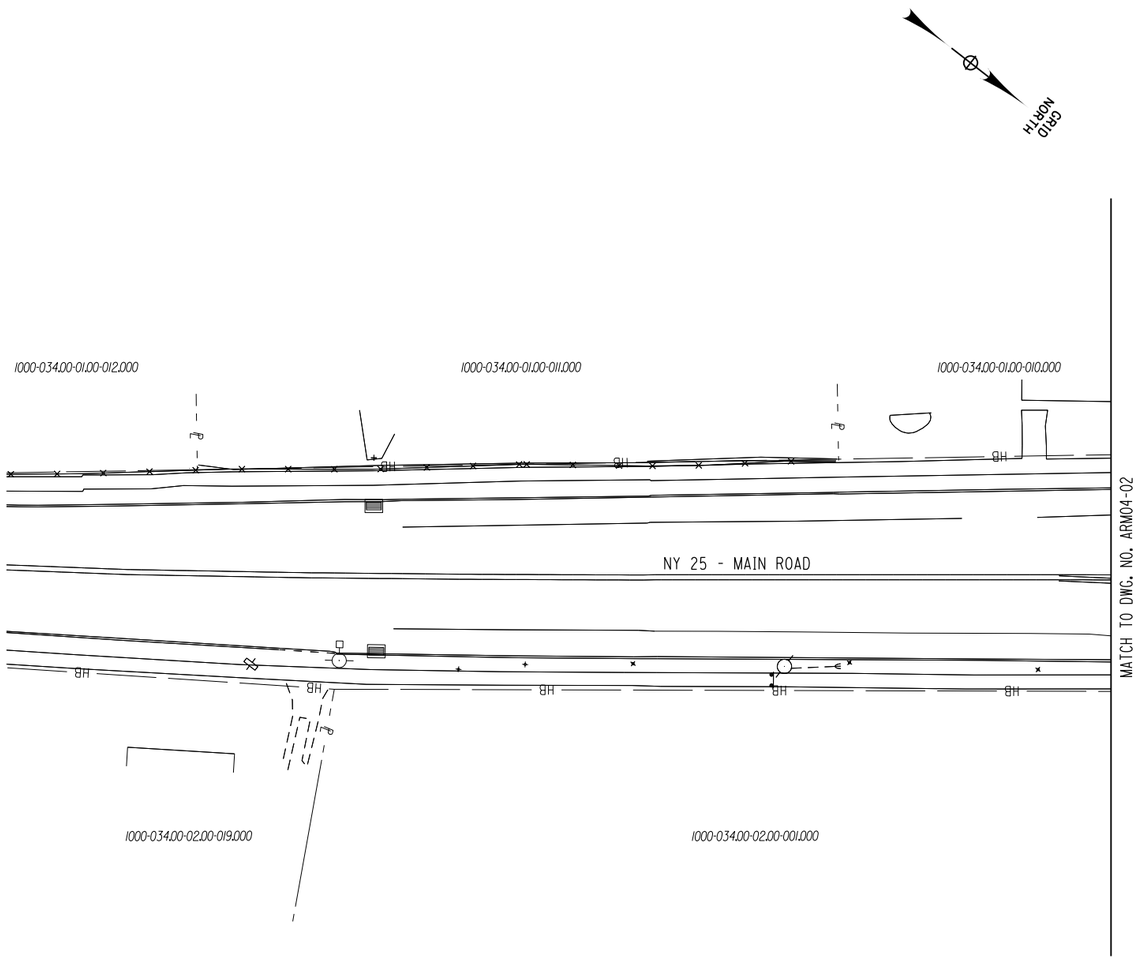
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LOC 4 - NY 25 AND CR 48

CONTRACT NUMBER

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Appendix I
Miscellaneous

Chapter 18, Appendix A - CAPITAL PROJECTS **COMPLETE STREETS CHECKLIST** (18A-4)

PIN:	0810.01	**Project Location:**	NY25 @ Edwards Avenue, Riverhead, Suffolk County
Context:	◉ **Urban / Village** ○ **Suburban** ○ **Rural**		
Project Title:	Safety Enhancements - Various Locations Towns of Riverhead, East Hampton, and Southold Suffolk County		

STEP 1- APPLICABILITY OF CHECKLIST

1.1	Is the project located entirely on a facility where bicyclists and pedestrians are prohibited by law and the project does not involve a shared use path or pedestrian/bicycle structure? *If **no**, continue to question 1.2. If **yes**, stop here.*	○ **Yes** ◉ **No**
1.2	a. Is this project a 1R* Maintenance project? *If **no**, continue to question 1.3. If **yes**, go to part b of this question.*	○ **Yes** ◉ **No**
1.2	b. Are there opportunities on the 1R project to improve safety for bicyclists and pedestrians with the following Complete Street features? • Sidewalk curb ramps and crosswalks • Shoulder condition and width • Pavement markings • Signing *Document opportunities or deficiencies in the IPP and **stop here.*** ** Refer to Highway Design Manual (HDM) Chapter 7, Exhibit 7-1 "Resurfacing ADA and Safety Assessment Form" under ADA, Pavement Markings and Shoulder Resurfacing for guidance.*	○ **Yes** ○ **No**
1.3	Is this project a Cyclical Pavement Marking project? *If **no**, continue to question 1.4. If **yes**, review EI 13-021* and identify opportunities to improve safety for bicyclists and pedestrians with the following Complete Streets features:* • Travel lane width • Shoulder width • Markings for pedestrians and bicyclists *Document opportunities or deficiencies in the IPP and **stop here.*** ** EI 13-021, "Requirements and Guidance for Pavement Marking Operations - Required Installation of CARDS and Travel Lane and Shoulder Width Adjustments".*	○ **Yes** ◉ **No**
1.4	Is this a Maintenance project *(as described in the "Definitions" section of this checklist)* and different from 1.2 and 1.3 projects? *If **no**, continue to Step 2. If **yes,** the Project Development Team should continue to look for opportunities during the Design Approval process to improve existing bicycle and pedestrian facilities within the scope of project. Identify the project type in the space below and **stop here.***	○ **Yes** ◉ **No**

STEP 1 prepared by: Lanny Wexler (7.6.18), Updated by GPI Date: 11.23.2020

STEP 2 - IPP LEVEL QUESTIONS (At Initiation)	**Comment / Action**

2.1	Are there public policies or approved known development plans (e.g., community Complete Streets policy, Comprehensive Plan, MPO Long Range and/or Bike/Ped plan, Corridor Study, etc.) that call for consideration of pedestrian, bicycle or transit facilities in, or linking to, the project area? *Contact municipal planning office, Regional Planning Group and Regional Bicycle/Pedestrian Coordinator.*	(•) **Yes** ( ) **No**	Suffolk County Complete Streets Policy
2.2	Is there an existing or planned sidewalk, shared use path, bicycle facility, pedestrian-crossing facility or transit stop in the project area?	(•) **Yes** ( ) **No**	Bike Route 25, S62 and S58 Bus Stops
2.3	a. Is the highway part of an existing or planned State, regional or local bicycle route? *If **no**, proceed to question 2.4. If **yes**, go to part b of this question.* b. Do the existing bicycle accommodations meet the minimum standard guidelines of HDM Chapter 17 or the AASHTO "Guide for the Development of Bicycle Facilities"? * *Contact Regional Bicycle/Pedestrian Coordinator* ** Per HDM Chapter 17- Section 17.4.3, Minimum Standards and Guidelines.*	(•) **Yes** ( ) **No** (•) **Yes** ( ) **No**	
2.4	Is the highway considered important to bicycle tourism by the municipality or region?	(•) **Yes** ( ) **No**	Bike Route 25
2.5	Is the highway affected by special events (e.g., fairs, triathlons, festivals) that might influence bicycle, pedestrian or transit users? *Contact Regional Traffic and Safety*	( ) **Yes** (•) **No**	
2.6	Are there existing or proposed generators within the project area (*refer to the "Guidance" section*) that have the potential to generate pedestrian or bicycle traffic or improved transit accommodations? *Contact the municipal planning office, Regional Planning Group, and refer to the CAMCI Viewer, described in the "Definitions" section.*	(•) **Yes** ( ) **No**	Splish Splash Amusement Park
2.7	Is the highway an undivided 4 lane section in an urban or suburban setting, with narrow shoulders, no center turn lanes, and existing Annual Average Daily Traffic (AADT) < 15,000 vehicles per day? *If **yes**, consider a road diet evaluation for the scoping/design phase. Refer to the "Definitions" section for more information on road diets.*	( ) **Yes** (•) **No**	

2.8	Is there evidence of pedestrian activity (e.g., a worn path) and no or limited pedestrian infrastructure?	○ **Yes** ◉ **No**	

STEP 2 prepared by: Lanny Wexler (7.6.18), updated by GPI Date: 11.23.2020

Bicycle/Pedestrian Coordinator has been provided an opportunity to comment: ◉ **Yes** ○ **No**

ATTACH TO IPP AND INCLUDE RECOMMENDATIONS FOR SCOPING/DESIGN.

STEP 3 - PROJECT DEVELOPMENT LEVEL QUESTIONS (Scoping/Design Stage)			**Comment / Action**
3.1	Is there an identified need for bicycle/pedestrian/ transit or "way finding" signs that could be incorporated into the project?	○ **Yes** ◉ **No**	
3.2	Is there history of bicycle or pedestrian crashes in the project area for which improvements have not yet been made?	○ **Yes** ◉ **No**	0 pedestrian / bike crashes in 2016-2019
3.3	Are there existing curb ramps, crosswalks, pedestrian traffic signal features, or sidewalks that don't meet ADA standards per HDM Chapter 18?	◉ **Yes** ○ **No**	Curb ramps and detectable warnings are not available at all corners, sidewalk is only available on south side.
3.4	Is the posted speed limit is 40 mph or more and the paved shoulder width less than 4' (1.2 m) (6' in the Adirondack or other State Park)? *Refer to EI 13-021.*	○ **Yes** ◉ **No**	50mph, shoulder width - approx 6 feet
3.5	Is there a perceived pedestrian safety or access concern that could be addressed by the use of traffic calming tools (e.g., bulb outs, raised pedestrian refuge medians, corner islands, raised crosswalks, mid-block crossings)?	○ **Yes** ◉ **No**	
3.6	Are there conflicts among vehicles (moving or parked) and bike, pedestrian or transit users which could be addressed by the project?	○ **Yes** ◉ **No**	
3.7	Are there opportunities (or has the community expressed a desire) for new/improved pedestrian-level lighting, to create a more inviting or safer environment?	○ **Yes** ◉ **No**	
3.8	Does the community have an existing street furniture program or a desire for street appurtenances (e.g., bike racks, benches)?	○ **Yes** ○ **No**	Not Applicable

3.9	Are there gaps in the bike/pedestrian connections between existing/planned generators? *Consider locations within and in close proximity of the project area. (Within 0.5 mi (800 m) for pedestrian facilities and within 1.0 mi (1600 m) for bicycle facilities.)*	○ **Yes** ◉ **No**	Splish Splash - 0.6 miles east of intersection, Bike Route 25 provides bike connectivity.
3.10	Are existing transit route facilities (bus stops, shelters, pullouts) inadequate or in inconvenient locations? (e.g., not near crosswalks) *Consult with Traffic and Safety and transit operator, as appropriate*	◉ **Yes** ○ **No**	No pullout or bus shelter available. Only a pole with the bus sign. No crosswalks.
3.11	Are there opportunities to improve vehicle parking patterns or to consolidate driveways, (which would benefit transit, pedestrians and bicyclists) as part of this project?	○ **Yes** ◉ **No**	
3.12	Is the project on a “local delivery” route and/or do area businesses rely upon truck deliveries that need to be considered in design?	◉ **Yes** ○ **No**	
3.13	Are there opportunities to include green infrastructure which may help reduce stormwater runoff and/or create a more inviting pedestrian environment?	○ **Yes** ◉ **No**	
3.14	Are there opportunities to improve bicyclist operation through intersections and interchanges such as with the use of bicycle lane width and/or signing?	○ **Yes** ◉ **No**	

STEP 3 prepared by: GPI Date: 11.23.2020

Additional comments, supporting documentation and clarifications for answers in step 1, 2 or 3:

Chapter 18, Appendix A - CAPITAL PROJECTS **COMPLETE STREETS CHECKLIST** (18A-4)

PIN:	0810.01	**Project Location:**	NY114 @ Stephens Path, East Hampton,Suffolk
Context:	◉ **Urban / Village** ○ **Suburban** ○ **Rural**		
Project Title:	Safety Enhancements - Various Locations Towns of Riverhead, East Hampton, and Southold Suffolk County		

STEP 1- APPLICABILITY OF CHECKLIST

1.1	Is the project located entirely on a facility where bicyclists and pedestrians are prohibited by law and the project does not involve a shared use path or pedestrian/bicycle structure? *If **no**, continue to question 1.2. If **yes**, stop here.*	○ **Yes** ◉ **No**
1.2	a. Is this project a 1R* Maintenance project? *If **no**, continue to question 1.3. If **yes**, go to part b of this question.*	○ **Yes** ◉ **No**
1.2	b. Are there opportunities on the 1R project to improve safety for bicyclists and pedestrians with the following Complete Street features? • Sidewalk curb ramps and crosswalks • Shoulder condition and width • Pavement markings • Signing *Document opportunities or deficiencies in the IPP and **stop here.*** ** Refer to Highway Design Manual (HDM) Chapter 7, Exhibit 7-1 "Resurfacing ADA and Safety Assessment Form" under ADA, Pavement Markings and Shoulder Resurfacing for guidance.*	○ **Yes** ○ **No**
1.3	Is this project a Cyclical Pavement Marking project? *If **no**, continue to question 1.4. If **yes**, review EI 13-021* and identify opportunities to improve safety for bicyclists and pedestrians with the following Complete Streets features:* • Travel lane width • Shoulder width • Markings for pedestrians and bicyclists *Document opportunities or deficiencies in the IPP and **stop here.*** ** EI 13-021, "Requirements and Guidance for Pavement Marking Operations - Required Installation of CARDS and Travel Lane and Shoulder Width Adjustments".*	○ **Yes** ◉ **No**
1.4	Is this a Maintenance project *(as described in the "Definitions" section of this checklist)* and different from 1.2 and 1.3 projects? *If **no**, continue to Step 2. If **yes,** the Project Development Team should continue to look for opportunities during the Design Approval process to improve existing bicycle and pedestrian facilities within the scope of project. Identify the project type in the space below and **stop here.***	○ **Yes** ◉ **No**

STEP 1 prepared by: Lanny Wexler (7.6.18), Updated by GPI Date: 11.23.2020

STEP 2 - IPP LEVEL QUESTIONS (At Initiation)	**Comment / Action**

2.1	Are there public policies or approved known development plans (e.g., community Complete Streets policy, Comprehensive Plan, MPO Long Range and/or Bike/Ped plan, Corridor Study, etc.) that call for consideration of pedestrian, bicycle or transit facilities in, or linking to, the project area? *Contact municipal planning office, Regional Planning Group and Regional Bicycle/Pedestrian Coordinator.*	(●) **Yes** ( ) **No**	Suffolk County Complete Streets Policy
2.2	Is there an existing or planned sidewalk, shared use path, bicycle facility, pedestrian-crossing facility or transit stop in the project area?	(●) **Yes** ( ) **No**	Bike Route 114, S92 Bus Stops
2.3	a. Is the highway part of an existing or planned State, regional or local bicycle route? *If **no**, proceed to question 2.4. If **yes**, go to part b of this question.* b. Do the existing bicycle accommodations meet the minimum standard guidelines of HDM Chapter 17 or the AASHTO "Guide for the Development of Bicycle Facilities"? * *Contact Regional Bicycle/Pedestrian Coordinator* ** Per HDM Chapter 17- Section 17.4.3, Minimum Standards and Guidelines.*	(●) **Yes** ( ) **No** (●) **Yes** ( ) **No**	
2.4	Is the highway considered important to bicycle tourism by the municipality or region?	(●) **Yes** ( ) **No**	Bike Route 114
2.5	Is the highway affected by special events (e.g., fairs, triathlons, festivals) that might influence bicycle, pedestrian or transit users? *Contact Regional Traffic and Safety*	( ) **Yes** (●) **No**	
2.6	Are there existing or proposed generators within the project area (*refer to the "Guidance" section*) that have the potential to generate pedestrian or bicycle traffic or improved transit accommodations? *Contact the municipal planning office, Regional Planning Group, and refer to the CAMCI Viewer, described in the "Definitions" section.*	( ) **Yes** (●) **No**	
2.7	Is the highway an undivided 4 lane section in an urban or suburban setting, with narrow shoulders, no center turn lanes, and existing Annual Average Daily Traffic (AADT) < 15,000 vehicles per day? *If **yes**, consider a road diet evaluation for the scoping/design phase. Refer to the "Definitions" section for more information on road diets.*	(●) **Yes** ( ) **No**	

2.8	Is there evidence of pedestrian activity (e.g., a worn path) and no or limited pedestrian infrastructure?	○ **Yes** ◉ **No**	

STEP 2 prepared by: Lanny Wexler Date: 07.06.18

Bicycle/Pedestrian Coordinator has been provided an opportunity to comment: ◉ **Yes** ○ **No**

ATTACH TO IPP AND INCLUDE RECOMMENDATIONS FOR SCOPING/DESIGN.

STEP 3 - PROJECT DEVELOPMENT LEVEL QUESTIONS (Scoping/Design Stage)			**Comment / Action**
3.1	Is there an identified need for bicycle/pedestrian/ transit or "way finding" signs that could be incorporated into the project?	○ **Yes** ◉ **No**	
3.2	Is there history of bicycle or pedestrian crashes in the project area for which improvements have not yet been made?	○ **Yes** ◉ **No**	0 pedestrian / bike crashes in 2016-2019
3.3	Are there existing curb ramps, crosswalks, pedestrian traffic signal features, or sidewalks that don't meet ADA standards per HDM Chapter 18?	◉ **Yes** ○ **No**	Curb ramps and detectable warnings are not available, sidewalk is not available.
3.4	Is the posted speed limit is 40 mph or more and the paved shoulder width less than 4' (1.2 m) (6' in the Adirondack or other State Park)? *Refer to EI 13-021.*	○ **Yes** ◉ **No**	45mph, shoulder width - approx 8-10 feet
3.5	Is there a perceived pedestrian safety or access concern that could be addressed by the use of traffic calming tools (e.g., bulb outs, raised pedestrian refuge medians, corner islands, raised crosswalks, mid-block crossings)?	○ **Yes** ◉ **No**	
3.6	Are there conflicts among vehicles (moving or parked) and bike, pedestrian or transit users which could be addressed by the project?	○ **Yes** ◉ **No**	
3.7	Are there opportunities (or has the community expressed a desire) for new/improved pedestrian-level lighting, to create a more inviting or safer environment?	○ **Yes** ◉ **No**	
3.8	Does the community have an existing street furniture program or a desire for street appurtenances (e.g., bike racks, benches)?	○ **Yes** ○ **No**	Not Applicable

3.9	Are there gaps in the bike/pedestrian connections between existing/planned generators? *Consider locations within and in close proximity of the project area. (Within 0.5 mi (800 m) for pedestrian facilities and within 1.0 mi (1600 m) for bicycle facilities.)*	○ **Yes** ◉ **No**	.
3.10	Are existing transit route facilities (bus stops, shelters, pullouts) inadequate or in inconvenient locations? (e.g., not near crosswalks) *Consult with Traffic and Safety and transit operator, as appropriate*	◉ **Yes** ○ **No**	No pullout or bus shelter available. Only a pole with the bus sign. No crosswalks.
3.11	Are there opportunities to improve vehicle parking patterns or to consolidate driveways, (which would benefit transit, pedestrians and bicyclists) as part of this project?	○ **Yes** ◉ **No**	
3.12	Is the project on a “local delivery” route and/or do area businesses rely upon truck deliveries that need to be considered in design?	◉ **Yes** ○ **No**	
3.13	Are there opportunities to include green infrastructure which may help reduce stormwater runoff and/or create a more inviting pedestrian environment?	○ **Yes** ◉ **No**	
3.14	Are there opportunities to improve bicyclist operation through intersections and interchanges such as with the use of bicycle lane width and/or signing?	○ **Yes** ◉ **No**	

STEP 3 prepared by: GPI Date: 11.23.2020

Additional comments, supporting documentation and clarifications for answers in step 1, 2 or 3:

Chapter 18, Appendix A - CAPITAL PROJECTS **COMPLETE STREETS CHECKLIST** (18A-4)

PIN:	0810.01	**Project Location:**	NY114@Goodfriend Drive,East Hampton,Suffolk
Context:	◉ **Urban / Village** ○ **Suburban** ○ **Rural**		
Project Title:	Safety Enhancements - Various Locations Towns of Riverhead, East Hampton, and Southold Suffolk County		

STEP 1- APPLICABILITY OF CHECKLIST

1.1	Is the project located entirely on a facility where bicyclists and pedestrians are prohibited by law and the project does not involve a shared use path or pedestrian/bicycle structure? *If **no**, continue to question 1.2. If **yes**, stop here.*	○ **Yes** ◉ **No**
1.2	a. Is this project a 1R* Maintenance project? *If **no**, continue to question 1.3. If **yes**, go to part b of this question.*	○ **Yes** ◉ **No**
1.2	b. Are there opportunities on the 1R project to improve safety for bicyclists and pedestrians with the following Complete Street features? • Sidewalk curb ramps and crosswalks • Shoulder condition and width • Pavement markings • Signing *Document opportunities or deficiencies in the IPP and **stop here.*** ** Refer to Highway Design Manual (HDM) Chapter 7, Exhibit 7-1 "Resurfacing ADA and Safety Assessment Form" under ADA, Pavement Markings and Shoulder Resurfacing for guidance.*	○ **Yes** ○ **No**
1.3	Is this project a Cyclical Pavement Marking project? *If **no**, continue to question 1.4. If **yes**, review EI 13-021* and identify opportunities to improve safety for bicyclists and pedestrians with the following Complete Streets features:* • Travel lane width • Shoulder width • Markings for pedestrians and bicyclists *Document opportunities or deficiencies in the IPP and **stop here.*** ** EI 13-021, "Requirements and Guidance for Pavement Marking Operations - Required Installation of CARDS and Travel Lane and Shoulder Width Adjustments".*	○ **Yes** ◉ **No**
1.4	Is this a Maintenance project *(as described in the "Definitions" section of this checklist)* and different from 1.2 and 1.3 projects? *If **no**, continue to Step 2. If **yes,** the Project Development Team should continue to look for opportunities during the Design Approval process to improve existing bicycle and pedestrian facilities within the scope of project. Identify the project type in the space below and **stop here.***	○ **Yes** ◉ **No**

STEP 1 prepared by: Lanny Wexler (7.6.18), Updated by GPI Date: 11.23.2020

STEP 2 - IPP LEVEL QUESTIONS (At Initiation)	**Comment / Action**

2.1	Are there public policies or approved known development plans (e.g., community Complete Streets policy, Comprehensive Plan, MPO Long Range and/or Bike/Ped plan, Corridor Study, etc.) that call for consideration of pedestrian, bicycle or transit facilities in, or linking to, the project area? *Contact municipal planning office, Regional Planning Group and Regional Bicycle/Pedestrian Coordinator.*	(•) **Yes** ( ) **No**	Suffolk County Complete Streets Policy
2.2	Is there an existing or planned sidewalk, shared use path, bicycle facility, pedestrian-crossing facility or transit stop in the project area?	(•) **Yes** ( ) **No**	Bike Route 114
2.3	a. Is the highway part of an existing or planned State, regional or local bicycle route? *If **no**, proceed to question 2.4. If **yes**, go to part b of this question.* b. Do the existing bicycle accommodations meet the minimum standard guidelines of HDM Chapter 17 or the AASHTO "Guide for the Development of Bicycle Facilities"? * *Contact Regional Bicycle/Pedestrian Coordinator* ** Per HDM Chapter 17- Section 17.4.3, Minimum Standards and Guidelines.*	(•) **Yes** ( ) **No** (•) **Yes** ( ) **No**	
2.4	Is the highway considered important to bicycle tourism by the municipality or region?	(•) **Yes** ( ) **No**	Bike Route 114
2.5	Is the highway affected by special events (e.g., fairs, triathlons, festivals) that might influence bicycle, pedestrian or transit users? *Contact Regional Traffic and Safety*	( ) **Yes** (•) **No**	
2.6	Are there existing or proposed generators within the project area (*refer to the "Guidance" section*) that have the potential to generate pedestrian or bicycle traffic or improved transit accommodations? *Contact the municipal planning office, Regional Planning Group, and refer to the CAMCI Viewer, described in the "Definitions" section.*	( ) **Yes** (•) **No**	
2.7	Is the highway an undivided 4 lane section in an urban or suburban setting, with narrow shoulders, no center turn lanes, and existing Annual Average Daily Traffic (AADT) < 15,000 vehicles per day? *If **yes**, consider a road diet evaluation for the scoping/design phase. Refer to the "Definitions" section for more information on road diets.*	(•) **Yes** ( ) **No**	

2.8	Is there evidence of pedestrian activity (e.g., a worn path) and no or limited pedestrian infrastructure?	○ **Yes** ◉ **No**	

STEP 2 prepared by: Lanny Wexler Date: 7.6.18

Bicycle/Pedestrian Coordinator has been provided an opportunity to comment: ◉ **Yes** ○ **No**

ATTACH TO IPP AND INCLUDE RECOMMENDATIONS FOR SCOPING/DESIGN.

STEP 3 - PROJECT DEVELOPMENT LEVEL QUESTIONS (Scoping/Design Stage)			**Comment / Action**
3.1	Is there an identified need for bicycle/pedestrian/ transit or "way finding" signs that could be incorporated into the project?	○ **Yes** ◉ **No**	
3.2	Is there history of bicycle or pedestrian crashes in the project area for which improvements have not yet been made?	○ **Yes** ◉ **No**	0 pedestrian / bike crashes in 2016-2019
3.3	Are there existing curb ramps, crosswalks, pedestrian traffic signal features, or sidewalks that don't meet ADA standards per HDM Chapter 18?	◉ **Yes** ○ **No**	Curb ramps and detectable warnings are not available. Sidewalk is not available.
3.4	Is the posted speed limit is 40 mph or more and the paved shoulder width less than 4' (1.2 m) (6' in the Adirondack or other State Park)? *Refer to EI 13-021.*	○ **Yes** ◉ **No**	45mph, shoulder width - approx 13 feet
3.5	Is there a perceived pedestrian safety or access concern that could be addressed by the use of traffic calming tools (e.g., bulb outs, raised pedestrian refuge medians, corner islands, raised crosswalks, mid-block crossings)?	○ **Yes** ◉ **No**	
3.6	Are there conflicts among vehicles (moving or parked) and bike, pedestrian or transit users which could be addressed by the project?	○ **Yes** ◉ **No**	
3.7	Are there opportunities (or has the community expressed a desire) for new/improved pedestrian-level lighting, to create a more inviting or safer environment?	○ **Yes** ◉ **No**	
3.8	Does the community have an existing street furniture program or a desire for street appurtenances (e.g., bike racks, benches)?	○ **Yes** ○ **No**	Not Applicable

3.9	Are there gaps in the bike/pedestrian connections between existing/planned generators? *Consider locations within and in close proximity of the project area. (Within 0.5 mi (800 m) for pedestrian facilities and within 1.0 mi (1600 m) for bicycle facilities.)*	○ **Yes** ◉ **No**	
3.10	Are existing transit route facilities (bus stops, shelters, pullouts) inadequate or in inconvenient locations? (e.g., not near crosswalks) *Consult with Traffic and Safety and transit operator, as appropriate*	○ **Yes** ◉ **No**	Not applicable. No bus stop is located at this location.
3.11	Are there opportunities to improve vehicle parking patterns or to consolidate driveways, (which would benefit transit, pedestrians and bicyclists) as part of this project?	○ **Yes** ◉ **No**	
3.12	Is the project on a “local delivery” route and/or do area businesses rely upon truck deliveries that need to be considered in design?	◉ **Yes** ○ **No**	
3.13	Are there opportunities to include green infrastructure which may help reduce stormwater runoff and/or create a more inviting pedestrian environment?	○ **Yes** ◉ **No**	
3.14	Are there opportunities to improve bicyclist operation through intersections and interchanges such as with the use of bicycle lane width and/or signing?	○ **Yes** ◉ **No**	

STEP 3 prepared by: GPI Date: 11.23.2020

Additional comments, supporting documentation and clarifications for answers in step 1, 2 or 3:

Chapter 18, Appendix A - CAPITAL PROJECTS **COMPLETE STREETS CHECKLIST** (18A-4)

PIN:	0810.01	**Project Location:**	NY25 @ CR48, Southold, Suffolk County
Context:	◉ **Urban / Village** ○ **Suburban** ○ **Rural**		
Project Title:	Safety Enhancements - Various Locations Towns of Riverhead, East Hampton, and Southold Suffolk County		

STEP 1- APPLICABILITY OF CHECKLIST

1.1	Is the project located entirely on a facility where bicyclists and pedestrians are prohibited by law and the project does not involve a shared use path or pedestrian/bicycle structure? *If **no**, continue to question 1.2. If **yes**, stop here.*	○ **Yes** ◉ **No**
1.2	a. Is this project a 1R* Maintenance project? *If **no**, continue to question 1.3. If **yes**, go to part b of this question.*	○ **Yes** ◉ **No**
1.2	b. Are there opportunities on the 1R project to improve safety for bicyclists and pedestrians with the following Complete Street features? • Sidewalk curb ramps and crosswalks • Shoulder condition and width • Pavement markings • Signing *Document opportunities or deficiencies in the IPP and **stop here.*** ** Refer to Highway Design Manual (HDM) Chapter 7, Exhibit 7-1 "Resurfacing ADA and Safety Assessment Form" under ADA, Pavement Markings and Shoulder Resurfacing for guidance.*	○ **Yes** ○ **No**
1.3	Is this project a Cyclical Pavement Marking project? *If **no**, continue to question 1.4. If **yes**, review EI 13-021* and identify opportunities to improve safety for bicyclists and pedestrians with the following Complete Streets features:* • Travel lane width • Shoulder width • Markings for pedestrians and bicyclists *Document opportunities or deficiencies in the IPP and **stop here.*** ** EI 13-021, "Requirements and Guidance for Pavement Marking Operations - Required Installation of CARDS and Travel Lane and Shoulder Width Adjustments".*	○ **Yes** ◉ **No**
1.4	Is this a Maintenance project *(as described in the "Definitions" section of this checklist)* and different from 1.2 and 1.3 projects? *If **no**, continue to Step 2. If **yes,** the Project Development Team should continue to look for opportunities during the Design Approval process to improve existing bicycle and pedestrian facilities within the scope of project. Identify the project type in the space below and **stop here.***	○ **Yes** ◉ **No**

STEP 1 prepared by: Lanny Wexler (7.6.18), Updated by GPI Date: 11.23.2020

STEP 2 - IPP LEVEL QUESTIONS (At Initiation)	**Comment / Action**

2.1	Are there public policies or approved known development plans (e.g., community Complete Streets policy, Comprehensive Plan, MPO Long Range and/or Bike/Ped plan, Corridor Study, etc.) that call for consideration of pedestrian, bicycle or transit facilities in, or linking to, the project area? *Contact municipal planning office, Regional Planning Group and Regional Bicycle/Pedestrian Coordinator.*	(•) **Yes** ( ) **No**	Suffolk County Complete Streets Policy
2.2	Is there an existing or planned sidewalk, shared use path, bicycle facility, pedestrian-crossing facility or transit stop in the project area?	(•) **Yes** ( ) **No**	Bike Route 25
2.3	a. Is the highway part of an existing or planned State, regional or local bicycle route? *If **no**, proceed to question 2.4. If **yes**, go to part b of this question.* b. Do the existing bicycle accommodations meet the minimum standard guidelines of HDM Chapter 17 or the AASHTO "Guide for the Development of Bicycle Facilities"? * *Contact Regional Bicycle/Pedestrian Coordinator* ** Per HDM Chapter 17- Section 17.4.3, Minimum Standards and Guidelines.*	(•) **Yes** ( ) **No** (•) **Yes** ( ) **No**	
2.4	Is the highway considered important to bicycle tourism by the municipality or region?	(•) **Yes** ( ) **No**	Bike Route 25
2.5	Is the highway affected by special events (e.g., fairs, triathlons, festivals) that might influence bicycle, pedestrian or transit users? *Contact Regional Traffic and Safety*	( ) **Yes** (•) **No**	
2.6	Are there existing or proposed generators within the project area (*refer to the "Guidance" section*) that have the potential to generate pedestrian or bicycle traffic or improved transit accommodations? *Contact the municipal planning office, Regional Planning Group, and refer to the CAMCI Viewer, described in the "Definitions" section.*	( ) **Yes** (•) **No**	
2.7	Is the highway an undivided 4 lane section in an urban or suburban setting, with narrow shoulders, no center turn lanes, and existing Annual Average Daily Traffic (AADT) < 15,000 vehicles per day? *If **yes**, consider a road diet evaluation for the scoping/design phase. Refer to the "Definitions" section for more information on road diets.*	(•) **Yes** ( ) **No**	

2.8	Is there evidence of pedestrian activity (e.g., a worn path) and no or limited pedestrian infrastructure?	○ **Yes** ◉ **No**	

STEP 2 prepared by: Lanny Wexler Date: 7.6.18

Bicycle/Pedestrian Coordinator has been provided an opportunity to comment: ◉ **Yes** ○ **No**

ATTACH TO IPP AND INCLUDE RECOMMENDATIONS FOR SCOPING/DESIGN.

STEP 3 - PROJECT DEVELOPMENT LEVEL QUESTIONS (Scoping/Design Stage)			**Comment / Action**
3.1	Is there an identified need for bicycle/pedestrian/ transit or "way finding" signs that could be incorporated into the project?	○ **Yes** ◉ **No**	
3.2	Is there history of bicycle or pedestrian crashes in the project area for which improvements have not yet been made?	○ **Yes** ◉ **No**	0 pedestrian / bike crashes in 2016-2019
3.3	Are there existing curb ramps, crosswalks, pedestrian traffic signal features, or sidewalks that don't meet ADA standards per HDM Chapter 18?	◉ **Yes** ○ **No**	Curb ramps and detectable warnings are not available at all corners, sidewalk is only available on south side.
3.4	Is the posted speed limit is 40 mph or more and the paved shoulder width less than 4' (1.2 m) (6' in the Adirondack or other State Park)? *Refer to EI 13-021.*	○ **Yes** ◉ **No**	45mph, shoulder width - approx 8-10 feet
3.5	Is there a perceived pedestrian safety or access concern that could be addressed by the use of traffic calming tools (e.g., bulb outs, raised pedestrian refuge medians, corner islands, raised crosswalks, mid-block crossings)?	○ **Yes** ◉ **No**	
3.6	Are there conflicts among vehicles (moving or parked) and bike, pedestrian or transit users which could be addressed by the project?	○ **Yes** ◉ **No**	
3.7	Are there opportunities (or has the community expressed a desire) for new/improved pedestrian-level lighting, to create a more inviting or safer environment?	○ **Yes** ◉ **No**	
3.8	Does the community have an existing street furniture program or a desire for street appurtenances (e.g., bike racks, benches)?	○ **Yes** ○ **No**	Not Applicable

3.9	Are there gaps in the bike/pedestrian connections between existing/planned generators? *Consider locations within and in close proximity of the project area. (Within 0.5 mi (800 m) for pedestrian facilities and within 1.0 mi (1600 m) for bicycle facilities.)*	○ **Yes** ◉ **No**	
3.10	Are existing transit route facilities (bus stops, shelters, pullouts) inadequate or in inconvenient locations? (e.g., not near crosswalks) *Consult with Traffic and Safety and transit operator, as appropriate*	○ **Yes** ◉ **No**	Not Applicable. There are no bus stops at this intersection.
3.11	Are there opportunities to improve vehicle parking patterns or to consolidate driveways, (which would benefit transit, pedestrians and bicyclists) as part of this project?	○ **Yes** ◉ **No**	
3.12	Is the project on a “local delivery” route and/or do area businesses rely upon truck deliveries that need to be considered in design?	◉ **Yes** ○ **No**	
3.13	Are there opportunities to include green infrastructure which may help reduce stormwater runoff and/or create a more inviting pedestrian environment?	○ **Yes** ◉ **No**	
3.14	Are there opportunities to improve bicyclist operation through intersections and interchanges such as with the use of bicycle lane width and/or signing?	○ **Yes** ◉ **No**	

STEP 3 prepared by: GPI Date: 11.23.2020

Additional comments, supporting documentation and clarifications for answers in step 1, 2 or 3:

Smart Growth Screening Tool

PIN **0810.01**

Prepared By: GPI | Ankita Rathi, AICP

Smart Growth Screening Tool (STEP 1)

NYSDOT & Local Sponsors – Fill out the Smart Growth Screening Tool until the directions indicate to **STOP** for the project type under consideration. For all other projects, complete answering the questions. For any questions, refer to Smart Growth Guidance document.

Title of Proposed Project: Safety Enhancements

Location of Project: Various Locations - Towns of Riverhead, East Hampton, and Southold

Brief Description: The purpose of this project is to provide safety improvements at the four (4) intersections, to improve traffic flow and decrease the potential for crashes.

A. Infrastructure:

Addresses SG Law criterion a. –
(To advance projects for the use, maintenance or improvement of existing infrastructure)

1. Does this project use, maintain, or improve existing infrastructure?

Yes ☒ **No** ☐ **N/A** ☐

Explain: (use this space to expand on your answers above – the form has no limitations on the length of your narrative)

Loc. No. 1 - NYS Route 25 at Edwards Avenue, Town of Riverhead, Suffolk County - Widening the intersection and adding turn lanes on all approaches

Loc. No. 2 - NYS Route 114 at Stephens Hands Path, Town of East Hampton, Suffolk County - Widening the intersection and adding turn lanes on all approaches

Loc. No. 3 - NYS Route 114 at Goodfriend Drive, Town of East Hampton, Suffolk County - Widening the intersection and adding turn lane on northbound approach

Loc. No. 4 – NYS Route 25 at County Road 48, Town of Southold, Suffolk County - Construction of a Roundabout OR Traffic Signal Installation.

Maintenance Projects Only

a. Continue with screening tool for the four (4) types of maintenance projects listed below, as defined in **NYSDOT PDM Exhibit 7-1 and described in 7-4:** https://www.dot.ny.gov/divisions/engineering/design/dqab/pdm

- Shoulder rehabilitation and/or repair;
- Upgrade sign(s) and/or traffic signals;
- Park & ride lot rehabilitation;
- 1R projects that include single course surfacing (inlay or overlay), per Chapter 7 of the NYSDOT Highway Design Manual.

b. For all other maintenance projects, **STOP here.** Attach this document to the programmatic Smart Growth Impact Statement and signed Attestation for Maintenance projects.

For all other projects (other than maintenance), continue with screening tool.

B. Sustainability:

NYSDOT defines Sustainability as follows: A sustainable society manages resources in a way that fulfills the community/social, economic and environmental needs of the present without compromising the needs and opportunities of future generations. A transportation system that supports a sustainable society is one that:

- Allows individual and societal transportation needs to be met in a manner consistent with human and ecosystem health and with equity within and between generations.
- Is safe, affordable, and accessible, operates efficiently, offers choice of transport mode, and supports a vibrant economy.
- Protects and preserves the environment by limiting transportation emissions and wastes, minimizes the consumption of resources and enhances the existing environment as practicable.

For more information on the Department's Sustainability strategy, refer to Appendix 1 of the Smart Growth Guidance and the NYSDOT web site, www.dot.ny.gov/programs/greenlites/sustainability

(Addresses SG Law criterion j **:** to promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain and implement.)

1. Will this project promote sustainability by strengthening existing communities?

   Yes ☒ **No** ☐ **N/A** ☐

2. Will the project reduce greenhouse gas emissions?

   Yes ☐ **No** ☒ **N/A** ☐

   Explain: (use this space to expand on your answers above)

This project will improve traffic flow and decrease the potential for crashes at the 4 intersections listed in A1. It will offer safer vehicular access at all locations and safer accessible pedestrian access at Loc. No. 1 and Loc. No. 4.

C. Smart Growth Location:

Plans and investments should preserve our communities by promoting its distinct identity through a local vision created by its citizens.

(Addresses SG Law criteria b and c**:** to advance projects located in municipal centers; to advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan.)

1. Is this project located in a developed area?

   Yes ☒ **No** ☐ **N/A** ☐

2. Is the project located in a municipal center?

   Yes ☐ **No** ☒ **N/A** ☐

3. Will this project foster downtown revitalization?

   Yes ☐ **No** ☒ **N/A** ☐

4. Is this project located in an area designated for concentrated infill development in a municipally approved comprehensive land use plan, waterfront revitalization plan, or Brownfield Opportunity Area plan?

   Yes ☐ **No** ☒ **N/A** ☐

Explain: (use this space to expand on your answers above)

D. Mixed Use Compact Development:

Future planning and development should assure the availability of a range of choices in housing and affordability, employment, education transportation and other essential services to encourage a jobs/housing balance and vibrant community-based workforce**.**

(Addresses SG Law criteria e and i: to foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, the diversity and affordability of housing in proximity to places of employment, recreation and commercial development and the integration of all income groups; to ensure predictability in building and land use codes.)

1. Will this project foster mixed land uses?

   Yes ☐ **No** ☒ **N/A** ☐

2. Will the project foster brownfield redevelopment?

   Yes ☐ **No** ☒ **N/A** ☐

3. Will this project foster enhancement of beauty in public spaces?

   Yes ☐ **No** ☒ **N/A** ☐

4. Will the project foster a diversity of housing in proximity to places of employment and/or recreation?

   Yes ☐ **No** ☒ **N/A** ☐

5. Will the project foster a diversity of housing in proximity to places of commercial development and/or compact development?

   Yes ☐ **No** ☒ **N/A** ☐

6. Will this project foster integration of all income groups and/or age groups?

   Yes ☐ **No** ☐ **N/A** ☒

7. Will the project ensure predictability in land use codes?

   Yes ☐ **No** ☐ **N/A** ☒

8. Will the project ensure predictability in building codes?

   Yes ☐ **No** ☐ **N/A** ☒

Explain: (use this space to expand on your answers above)

E. Transportation and Access:

NYSDOT recognizes that Smart Growth encourages communities to offer a wide range of transportation options, from walking and biking to transit and automobiles, which increase people's access to jobs, goods, services, and recreation.

(Addresses SG Law criterion f: to provide mobility through transportation choices including improved public transportation and reduced automobile dependency.)

1. Will this project provide public transit?

   Yes ☐ **No** ☒ **N/A** ☐

2. Will this project enable reduced automobile dependency?

   Yes ☐ **No** ☒ **N/A** ☐

3. Will this project improve bicycle and pedestrian facilities (such as shoulder widening to provide for on-road bike lanes, lane striping, crosswalks, new or expanded sidewalks or new/improved pedestrian signals)?

   Yes ☒ **No** ☐ **N/A** ☐

   (Note: Question 3 is an expansion on question 2. The recently passed Complete Streets legislation requires that consideration be given to complete street design features in the planning, design, construction, reconstruction and rehabilitation, but not including resurfacing, maintenance, or pavement recycling of such projects.)

   Explain: (use this space to expand on your answers above)

   This project proposes new sidewalks and crosswalks at Loc. No. 1 and Loc. No. 4.

F. Coordinated, Community-Based Planning:

Past experience has shown that early and continuing input in the transportation planning process leads to better decisions and more effective use of limited resources. For information on community based planning efforts, the MPO may be a good resource if the project is located within the MPO planning area.

(Addresses SG Law criteria g and h: to coordinate between state and local government and inter-municipal and regional planning; to participate in community based planning and collaboration.)

1. Has there been participation in community-based planning and collaboration on the project?

Yes ☐ No ☒ N/A ☐

2. Is the project consistent with local plans?

Yes ☒ No ☐ N/A ☐

3. Is the project consistent with county, regional, and state plans?

Yes ☒ No ☐ N/A ☐

4. Has there been coordination between inter-municipal/regional planning and state planning on the project?

Yes ☐ No ☒ N/A ☐

Explain: (use this space to expand on your answers above)

The safety enhancements proposed at Loc. No. 1 within the Town of Riverhead is consistent with the town's local planning goals. The Town of Riverhead in its Comprehensive Plan completed in 2003 encouraged NYSDOT to conduct a study of the Route 25 corridor between the Brookhaven border and the LIE. The plan's goal included enhancing traffic safety as a priority and working on it as an ongoing work.

The safety enhancements proposed at Loc. No. 2 and Loc. No. 3, within the Town of East Hampton are consistent with the local planning goals. The Town of East Hampton in its Comprehensive Plan completed in 2005 identified traffic safety as one of their objectives.

The safety enhancements proposed at Loc. No. 4 are consistent with the local planning goals. The Town of Southold recently had a Comprehensive Plan completed in February 2020 which identified this intersection as a high-crash location.

G. Stewardship of Natural and Cultural Resources:

Clean water, clean air and natural open land are essential elements of public health and quality of life for New York State residents, visitors, and future generations. Restoring and protecting natural assets, and open space, promoting energy efficiency, and green building, should be incorporated into all land use and infrastructure planning decisions.

(Addresses SG Law criterion d :To protect, preserve and enhance the State's resources, including agricultural land, forests surface and ground water, air quality, recreation and open space, scenic areas and significant historic and archeological resources.)

1. Will the project protect, preserve, and/or enhance agricultural land and/or forests?

Yes ☐ No ☐ N/A ☒

2. Will the project protect, preserve, and/or enhance surface water and/or groundwater?

Yes ☐ No ☐ N/A ☒

3. Will the project protect, preserve, and/or enhance air quality?

Yes ☐ **No** ☐ **N/A** ☒

4. Will the project protect, preserve, and/or enhance recreation and/or open space?

Yes ☐ **No** ☐ **N/A** ☒

5. Will the project protect, preserve, and/or enhance scenic areas?

Yes ☐ **No** ☐ **N/A** ☒

6. Will the project protect, preserve, and/or enhance historic and/or archeological resources?

Yes ☐ **No** ☐ **N/A** ☒

Explain: (use this space to expand on your answers above)

Smart Growth Impact Statement (STEP 2)

NYSDOT: Complete a Smart Growth Impact Statement (SGIS) below using the information from the Screening Tool.

Local Sponsors: The local sponsors are **not** responsible for completing a Smart Growth Impact Statement. Proceed to **Step 3**.

Smart Growth Impact Statement

PIN: 0810.01

Project Name: Safety Enhancements - Various Locations - Towns of Riverhead, East Hampton, and Southold, Suffolk County

Pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act. This project has been determined to meet the relevant criteria, to the extent practicable, described in ECL Sec. 6-0107. Specifically, the project:

- Improves overall traffic conditions using cost effective methods
- Addresses geometric deficiencies to improve traffic flow and facilitate traffic operations.
- Decreases the potential for crashes
- proposes all enhancements on predominately the existing alignment, and doesnot required acquisition or relocation of any occupied uses.
-
-

This publically supported infrastructure project complies with the state policy of maximizing the social, economic and environmental benefits from public infrastructure development. The project will not contribute to the unnecessary costs of sprawl development, including environmental degradation, disinvestment in urban and suburban communities, or loss of open space induced by sprawl.

Review & Attestation Instructions (STEP 3)

Local Sponsors: Once the Smart Growth Screening Tool is completed, the next step is to submit the project certification statement **(Section A)** to Responsible Local Official for signature. After signing the document, the completed Screening Tool and Certification statement should be sent to NYSDOT for review as noted below.

NYSDOT: For state-let projects, the Screening Tool and SGIS is forwarded to Regional Director/ RPPM/Main Office Program Director or designee for review, and upon approval, the attestation is signed **(Section B.2).** For locally administered projects, the sponsor's submission and certification statement is reviewed by NYSDOT staff, the appropriate box **(Section B.1)** is checked, and the attestation is signed (Section B.2).

A. CERTIFICATION (LOCAL PROJECT)

I HEREBY CERTIFY, *to the best of my knowledge, all of the above to be true and correct.*

Preparer of this document:

Frank Pearson — Signature

6/9/2022 — Date

Director of Transportation Safety — Title

FRANK PEARSON — Printed Name

Responsible Local Official (for local projects):

Signature

Date

Title

Printed Name

B. ATTESTATION (NYSDOT)

1. ***I HEREBY:***

☑ *Concur with the above certification, thereby attesting that this project is in compliance with the State Smart Growth Public Infrastructure Policy Act*

☐ *Concur with the above certification, with the following conditions (information requests, confirming studies, project modifications, etc.):*

(Attach additional sheets as needed)

☐ do not concur with the above certification, thereby deeming this project ineligible to be a recipient of State funding or a subrecipient of Federal funding in accordance with the State Smart Growth Public Infrastructure Policy Act.

2. ***NOW THEREFORE,*** pursuant to ECL Article 6, this project is compliant with the New York State Smart Growth Public Infrastructure Policy Act, to the extent practicable, as described in the attached Smart Growth Impact Statement.

NYSDOT Commissioner, Regional Director, MO Program Director,
Regional Planning & Programming Manager (or official designee):

Glenn R. Murrell

Signature

6-10-22

Date

Regional Planning & Program Manager

Title

Glenn R. Murrell

Printed Name

GreenLITES Project Environmental Sustainability Rating System Scorecard v 2.1.0

Please fill in all yellow highlighted cells *and follow all instructions in* red text.

Project: **EAST HAMPTON, AND SOUTHOLD, SUFFOLK COUNTY** *Element Specific?*

PIN: **810.01** *Type:* **8 - Intersection Improvement**

Contact Name: *Ph #:*

	CATEGORY	ID	DESCRIPTION	POINTS Available	POINTS Scored	INSTRUCTIONS	EXPLANATION OR COMMENTS *(optional)*
Sustainable Sites (S)	S-1 *Alignment Selection*	S-1a	Avoidance of previously undeveloped lands (open spaces or "greenfields").	2	0		
		S-1b	Selecting an alignment that establishes a minimum 100-foot buffer zone between the edge of pavement and a natural watercourse or significantly sized natural wetland to serve the purpose of stormwater filtration.	2	0		
		S-1c	Alignments which minimize overall construction "footprint." Examples: use of retaining walls, selecting design option with minimal footprint.	2	0		
		S-1d	Design vertical alignments which minimize total earthwork. (Applicable only for projects modifying existing vertical alignments.)	1	0		
		S-1e	Adjust alignment to avoid or minimize impacts to social/environmental resources (avoidance of parklands, wetlands, historic sites, farmlands, residential and commercial buildings, etc.).	1	0		
		S-1f	Alignments that optimize benefits among competing constraints. (The goal is not always the minimum-length alignment, but the one with the best benefit overall.)	1	0		
		S-1g	Micro-adjustments that do not compromise safety or operation but make the difference in providing sufficient clear area for tree planting.	1	0		
		S-1h	Clear zones seeded with seed mixtures that help to reduce maintenance needs and increase carbon sequestration.	1	0		
		S-1i	Provide a depressed roadway alignment.	1	0		
		S-1j	Use of launched soil nails as a more cost effective option to stabilize a slope rather than, for example, closing a road to construct a retaining wall which may negatively affect traffic flow and neighboring properties.	1	0		
	S-2 *Context Sensitive Solutions*	S-2a	Adjust or incorporate highway features to respond to the unique character or sense of place (both natural and built) of the area ("Unique character" means whatever identifiable elements make a place distinctive, memorable, important to the community, etc. - landmarks, views, historic bridges & buildings, parkways, characteristic use of materials, a notable stand of trees, etc.).	2	0		
		S-2b	Incorporate local or natural materials for substantial visual elements (e.g., bridge fascia, retaining walls).	2	0		
		S-2c	Visual enhancements (screening objectionable views, strategic placement of vegetation, enhancing scenic views, burying utilities, etc.).	2	0		
		S-2d	Period street furniture/lighting/appurtenances.	1	0		
		S-2e	Inclusion of visually-contrasting (colored and/or textured) pedestrian crosswalk treatments.	1	1	*Please enter comments (or <spacebar> for none) =>*	
		S-2g	Incorporates guidance from *Section 23 - Aesthetics* of the NYS Bridge Manual.	1	0		
		S-2h	Site materials selection & detailing to reduce overall urban "heat island" effect.	1	0		
		S-2i	Permanently protect viewsheds via environmental or conservation easements.	1	0		
		S-2j	Color anodizing of aluminum elements (ITS cabinets, non-decorative light poles, etc.)	1	0		
		S-2k	Decorative bridge fencing (in lieu of standard chain link).	1	0		
		S-2l	Use of concrete form liners (for bridge approach barriers, parapet walls, retaining walls, noise walls, bridge piers & abutments, etc.)	1	0		

GreenLITES Project Environmental Sustainability Rating System Scorecard v 2.1.0

Please fill in all yellow highlighted cells *and follow all instructions in* red text.

Project: **EAST HAMPTON, AND SOUTHOLI**

PIN: **810.01** Type: **8 - Intersection Im**

Contact Name:

CATEGORY	ID	DESCRIPTION	POINTS Available	POINTS Scored	INSTRUCTIONS	EXPLAN
Sustainable Sites (S)	S-2m	Imprinted concrete/asphalt mow strips, gores and/or snow storage areas.	1	**0**		
S-3 *Land Use/ Community Planning*	S-3a	Use of more engaging public participation techniques (e.g. charette, task force).	2	**0**		
	S-3b	Enhanced outreach efforts (e.g. newsletters, project-specific Web page, communications issued in multiple languages).	2	**2**		Project specific web two languages - eng
	S-3c	Projects better enabling use of public transit (e.g. bus shelters, 'Park &Ride').	2	**0**		
	S-3d	Projects applying “Walkable Communities” and/or “Complete Streets” concepts.	2	**2**		Proposed enhancem No. 1 and 4, and wil
	S-3e	Projects that increase transportation efficiencies for moving freight through features such as dedicated rail or intermodal facilities or the use of unit trains to remove trucks from highways and conserve fuel.	2	**0**		
	S-3f	Project-specific formal agreement with public or private entities enabling environmental betterment, technological advancement, or financial assistance or relief to the Department.	2	**0**		
	S-3g	Project is consistent with local and regional plans beyond those generated by the MPO; (e.g., waterfront revitalization plans, greenway plans, the Scenic Byway program, and other statewide non-transportation plans with regional components) and/or local Smart Growth-based master/comprehensive plans.	2	**2**		Proposed safety enh planning goals.
	S-3h	Project reports and community outreach materials available online other than the standard project specific web page.	1	**0**		
	S-3j	Establishment of a new recreational access facility (trailhead parking, car top boat launch, info/map kiosk).	2	**0**		
	S-3k	Establishment of a new recreational facility (pocket park, roadside overlook, roadside picnic rest area, etc.).	2	**0**		
	S-3l	Enhancement of an existing recreational facility or enhancement of an existing recreational facility access.	1	**0**		
S-4 *Protect, Enhance or Restore Wildlife Habitat*	S-4a	Mitigation of habitat fragmentation through use of significant techniques such as consolidated stream, wetland or ecological mitigation areas, or creation of dedicated “eco viaducts.” (Raised roadways that serve to avoid impacts to ecologically important areas such as rare plant communities, diminishing habitats and wildlife migration corridors.).	3	**0**		
	S-4b	Providing for enhancements to existing wildlife habitat (e.g. bird & bat houses, nesting boxes, osprey poles, turtle nesting areas, avoiding piping plover habitat).	2	**0**		
	S-4c	Partial mitigation of habitat fragmentation through techniques (United States Army Corp of Engineers (USACE) regional conditions) such as over-sizing culverts to	2	**0**		

GreenLITES Project Environmental Sustainability Rating System Scorecard v 2.1.0

Please fill in all yellow highlighted cells *and follow all instructions in* red text.

Project: EAST HAMPTON, AND SOUTHOLI

PIN: 810.01 Type: 8 - Intersection Im

Contact Name:

CATEGORY		ID	DESCRIPTION	POINTS Available	POINTS Scored	INSTRUCTIONS	EXPLAN
Sustainable Sites (S)		S-4h	Use of wildlife mortality reduction measures such as right-of -way fence, moose signs, etc.	1	0		
		S-4k	Stream restoration/enhancement.	1	0		
		S-4l	Installation of mowing markers to protect natural areas and wetlands.	1	1		Mowing Markers ar
		S-4m	Inclusion of scheduling and logistic requirements to avoid disrupting wildlife nesting or breeding activities.	1	1		Construction Plans v requirements as nee
		S-4n	Permanently protects the new or expanded habitat through an environmental or conservation easement.	1	0		
	S-5 *Protect, Plant or Mitigate for Removal of Trees & Plant Communities*	S-5a	Avoidance/protection of significant contiguous stands of established, desirable trees/veg communities, especially those showing signs of self-regeneration.	2	0		
		S-5b	Designs which demonstrate, through a combination of preservation and new planting, an anticipated ultimate (new trees at projected maturity) net increase in tree canopy cover within the project limits.	2	0		
		S-5c	Re-establishment or expansion of native vegetation into reclaimed work areas or abandoned roadway alignments. (e.g. native seed mixes, “re-forestation” approach w/ multiple seedlings rather than traditional large nursery stock, etc.).	2	0		
		S-5d	Use of trees, large shrubs or other suitable vegetation (beach rose, honeysuckle & shrub willows) as living snow fences.	2	0		
		S-5e	Use of native species for seed mixes and other plantings.	1		<= Please enter 0 or 1	Will be addressed in
		S-5f	Avoidance/protection of individual significant trees and localized areas of established desirable vegetation.	1		<= Please enter 0 or 1	Will be addressed in
		S-5g	Designs which demonstrate, through a combination of preservation and new planting, no ultimate (new trees at projected maturity) net loss of tree canopy within the project limits (minimum one-to-one replacement of trees lost) or, if overall available planting area has been reduced, mitigation with trees to the extent possible (either on or off-site) for trees lost.	1	0		
		S-5h	Planting trees, shrubs and/or plant material in lieu of traditional turf grass.	1		<= Please enter 0 or 1	Will be addressed in
		S-5i	Removal of undesirable plant species, in particular removal/burial of invasive species, to preserve desirable overall species diversity.	1		<= Please enter 0 or 1	Will be addressed in
		S-5j	Preserving, replacing, or enhancing vegetation associated with historic properties or districts, or which maintain the character of unique areas.	1	0		
	W-1 *Stormwater Management*	W-1a	Improve water quality and/or nearby habitat through the use of stormwater retrofitting, stormwater crediting strategies, stream restoration, additional wetland protection, and inclusion of permanent stormwater mgt practices.	2	0		

GreenLITES Project Environmental Sustainability Rating System Scorecard v 2.1.0

Please fill in all yellow highlighted cells *and follow all instructions in* red text.

Project: EAST HAMPTON, AND SOUTHOLI

PIN: 810.01 Type: 8 - Intersection Im

Contact Name:

CATEGORY		ID	DESCRIPTION	POINTS Available	POINTS Scored	INSTRUCTIONS	EXPLAN
Water Quality (W)		W-1g	Detecting and documenting non-stormwater discharges from unpermitted sanitary or other residential, commercial or industrial sources that enter the right-of-way or flows that ultimately discharge to the right-of-way but which cannot be eliminated for reasons beyond our control.	1	0		
	W-2 *Best Management Practices (BMPs)*	W-2a	Design features that make use of highly permeable soils to remove surface pollutants from runoff through infiltration trenches or basins, bioretention cells or rain gardens, grass buffers and stormwater wetlands that treat water quality and water quantity requirements in accordance with NYSDOT Highway Design Manual Chapter 8, Appendix B, subsections 2.3.2 and 2.3.3.	2		<= Please enter 0 or 2	Will be addressed in
		W-2b	Use of other structural BMPs including wet or dry swales, sand filters, filter bags, stormwater treatment sys (e.g., oil/grit separators and hydrodynamic devices), underground detention systems or catch basin inserts.	2		<= Please enter 0 or 2	Will be addressed in
		W-2c	Inclusion of “permeable pavement” such as grid pavers where practical.	2	0		
		W-2d	Minimize the project's overall impervious surface area increase.	1	0		
		W-2e	Include grass channels, where appropriate.	1	1	Please enter comments (or <spacebar> for none) =>	
		W-2f	Designate qualified environmental construction monitor to provide construction oversight in sensitive environmental areas.	2		<= Please enter 0 or 2	Will be addressed in
s (M)	M-1 *Reuse of Materials*	M-1a	Specify that 75% or more of topsoil removed for grading is reused on site.	2		<= Please enter 0 or 2	Will be addressed in
		M-1b	Design the project so that “cut-and-fills” are balanced to within 10 percent.	2		<= Please enter 0 or 2	Will be addressed in
		M-1c	Reuse of excess fill (“spoil”) within the project corridor to minimize project site material in and material out.	2		<= Please enter 0 or 2	Will be addressed in
		M-1d	Specify rubblizing or crack and seating of Portland Cement Concrete pavement.	2		<= Please enter 0 or 2	Will be addressed in
		M-1e	Reuse of previous pavement as subbase during full-depth reconstruction projects.	2		<= Please enter 0 or 2	Will be addressed in
		M-1f	Arranging for the reuse of excess excavated material, asphalt pavement millings, or demolished concrete by another municipality or state agency.	2		<= Please enter 0 or 2	Will be addressed in
		M-1g	Specify the processing of demolished concrete to reclaim scrap metals and to create a usable aggregate material.	2		<= Please enter 0 or 2	Will be addressed in
		M-1h	Salvaging removed trees for lumber or similar uses other than standard wood-chipping (e.g. - milling valuable heartwood from ash trees whose outer wood was infected by ash borers, necessitating removal).	2		<= Please enter 0 or 2	Will be addressed in
		M-1i	Use surplus excavated material on nearby state highways for slope flattening to eliminate guide rail or as fill in areas designated by Park officials as acceptable for	2	0		

GreenLITES Project Environmental Sustainability Rating System Scorecard v 2.1.0

Please fill in all yellow highlighted cells *and follow all instructions in* red text.

POINTS		Project: EAST HAMPTON, AND SOUTHOLI	
		PIN: 810.01	Type: 8 - Intersection Im
		Contact Name:	

CATEGORY		ID	DESCRIPTION	Available	Scored	INSTRUCTIONS	EXPLAN
Materials & Resources (M)		M-1n	Reuse of elements of the previous structure (stone veneer, decorative railing, etc.).	1	0		
		M-1o	Designing an on-site location for chipped wood waste disposal from clearing and grubbing operations.	1		<= Please enter 0 or 1	Will be addressed in
		M-1p	Specifying the recycling of chipped untreated wood waste for use as mulch and/or ground cover. (Pressure/preservative-treated or painted/coated wood cannot be used as mulch and must be disposed properly).	1		<= Please enter 0 or 1	Will be addressed in
		M-1q	Project documents make scrap metals available for reuse or recycling.	1		<= Please enter 0 or 1	Will be addressed in
		M-1r	Identify approved, environmentally acceptable and permitted sites in the contract documents for the disposal of surplus excavated material.	1		<= Please enter 0 or 1	Will be addressed in
		M-1s	Obtain and implement a project specific DEC Beneficial Use Determination for the innovative re-use of otherwise waste material from a location within NYS.	1		<= Please enter 0 or 1	Will be addressed in
		M-1t	Specify the salvage/moving of houses rather than demo for disposal in landfills.	1	0		
		M-1u	Reuse of major structural elements such as bridge piers, bridge structure, etc. if warranted and appropriate and does not compromise the feature life cycle.	2	0		
	M-2 *Recycled Content*	M-2a	Use tire shreds in embankments.	2		<= Please enter 0 or 2	Will be addressed in
		M-2b	Use recycled plastic extruded lumber or recycled tire rubber (e.g. for noise barriers).	2		<= Please enter 0 or 2	Will be addressed in
		M-2c	Specify hot-in-place or cold-in-place recycling of hot mix asphalt pavements.	2		<= Please enter 0 or 2	Will be addressed in
		M-2d	Specify use of recycled glass in pavements and embankments, as drainage material or filter media where adequate local sources can be obtained.	2		<= Please enter 0 or 2	Will be addressed in
		M-2e	Specify asphalt pavement mixes containing Recycled Asphalt Pavement (RAP).	2		<= Please enter 0 or 2	Will be addressed in
		M-2f	Specify PCC pavement mixes containing Recycled Concrete Aggregate (RCA).	2		<= Please enter 0 or 2	Will be addressed in
		M-2g	Use crumb rubber or recycled plastic for noise barrier material.	2		<= Please enter 0 or 2	Will be addressed in
		M-2h	Use of porous pavement systems in light duty situations (e.g. sidewalks, truck turnarounds, rest stops, parking lots, police turnarounds).	2		<= Please enter 0 or 2	Will be addressed in
	M-3 *Local Materials*	M-3a	Specify locally available natural light weight fill. Contact Geotechnical staff to help in locating these materials.	2		<= Please enter 0 or 2	Will be addressed in
		M-3b	Specify local seed stock and plants.	2		<= Please enter 0 or 2	Will be addressed in
	M-4 *Bio-*	M-4a	Project designs that utilize soil bioengineering treatments (the reliance on plant material for slope protection, rebuilding, stabilization, and erosion control) along water	2		<= Please enter 0 or 2	Will be addressed in

GreenLITES Project Environmental Sustainability Rating System Scorecard v 2.1.0

Please fill in all yellow highlighted cells *and follow all instructions in* red text.

Project: **EAST HAMPTON, AND SOUTHOLI**

PIN: **810.01** *Type:* **8 - Intersection Im**

Contact Name:

CATEGORY		ID	DESCRIPTION	POINTS Available	POINTS Scored	INSTRUCTIONS	EXPLAN
Materials & Resources (M)		M-4d	Project designs utilizing soil biotechnical engineering treatments (combination of plant materials and structural elements to achieve slope protection, rebuilding, stabilization, and erosion control) NOT along water bodies or wetlands. Examples include vegetated: crib walls, gabions, Geosynthetic Reinforced Earth Systems (GRES), geocells, and mats.	1		<= Please enter 0 or 1	Will be addressed in
		M-4e	Project designs that utilize soil bioengineering treatments or soil biotechnical engineering treatments in upland areas.	1		<= Please enter 0 or 1	Will be addressed in
	M-5 *Hazardous Material Minimization*	M-5a	Project design substantially minimizes the need to use hazardous materials (e.g. steel or conc RR ties instead of treated wood), or increases the interval before reconstruction must be performed using hazardous or toxic materials, or improves durability of components containing hazardous substances.	2		<= Please enter 0 or 2	Will be addressed in
		M-5b	Project design specifies less hazardous materials or avoids generating contaminated wastes by reducing the volatile organic compounds (VOCs) or hazardous air pollutants (HAPs) emitted during project construction (e.g., use of non-solvent traffic or bridge paints, lower VOC/nonhazardous air pollutant bridge deck sealers) and by eliminating or reducing toxic metals/components.	2		<= Please enter 0 or 2	Will be addressed in
		M-5c	Removing and disposing of contaminated soils beyond what is necessary for project construction.	2		<= Please enter 0 or 2	Will be addressed in
& Atmosphere (E)	E-1 *Improved Traffic Flow*	E-1a	Special use lane (HOV/Reversible/Bus Express).	3	**0**		
		E-1b	Innovative interchange design and/or elimination of freeway bottlenecks (diverging diamond, single point urban).	3	**0**		
		E-1c	Specify new roundabout(s).	3	**3**		A new mini-roundab
		E-1d	Implementation of a robust Traffic Management Center / Traveler Information System operation (e.g., TMC, CCTV, VMS freeway detection, ramp metering, road weather info system and/or weigh in motion devices, travel time signs).	3	**0**		
		E-1e	Installation of a closed-loop coordinated signal system.	2	**0**		
		E-1f	Installation of a transit express system (queue jumper, pre-emptive signals, etc)	2	**0**		
		E-1g	Expansion of a Traffic Management Center / Traveler Information System operation; for example increasing system coverage significantly (installation of new CCTV, VMS, freeway detection, ramp metering, road weather information system and/or weigh in motion devices, travel time signs, etc.).	2	**0**		
		E-1h	Implementation of a corridor-wide access management plan.	2	**0**		
		E-1i	Limiting/consolidating access points along highway.	1	**0**		

GreenLITES Project Environmental Sustainability Rating System Scorecard v 2.1.0

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POINTS		Project: EAST HAMPTON, AND SOUTHOLI
		PIN: 810.01 Type: 8 - Intersection Im
		Contact Name:

CATEGORY		ID	DESCRIPTION	Available	Scored	INSTRUCTIONS	EXPLAN
Energy & Atmosphere (E)		E-1n	Inclusion of an integrated traffic/incident management/traveler information systems or strategies to manage traffic during construction (queue or speed warning, VMS with real time construction information, tow/HELP vehicles on site/standby, CCTV monitoring of construction zone, etc.).	1	0		
		E-1o	Installation of isolated systems to provide for spot warning (queue warning, truck rollover, low bridge, no trucks allowed, etc.).	1	0		
		E-1p	Road Diet (reduction of travel lanes to incoporate a single bidirectional center turn lane and wider right-hand lanes to accommodate bicycles).	2	0		
	E-2 *Reduce Electrical Consumption*	E-2a	Solar/battery powered street lighting or warning signs.	2	0		
		E-2b	Replace overhead sign lighting with higher type retro-reflective sign panels.	2	0		
		E-2c	Use of LED street lighting.	2	0		
		E-2d	Solar bus stops.	2	0		
		E-2e	Use of LED warning signs/flashing beacons	1	0		
		E-2e	Retrofit existing street/sign lighting with high efficiency types.	1	0		
	E-3 *Reduce Petroleum Consumption*	E-3a	Provide new Park & Ride lots.	3	0		
		E-3b	Provide new intermodal connections.	3	0		
		E-3c	Increase bicycle amenities at Park & Rides and transit stations (bike lockers/shelters, Web-based reservations system for lockers, providing showers or partnering with health clubs for these services).	2	0		
		E-3e	Operational improvements of an existing Park & Ride lot.	1	0		
		E-3f	Improve an existing intermodal connection (e.g. add BRT station, kiosks, etc.).	1	0		
		E-3g	Reduce mowing areas outside of the clear zone, reestablishing natural ground cover and/or seeding with low maintenance seed species. Example: Incorporation of Conservation Alternative Mowing Practices (CAMPS) techniques/guidance into design plans.	1	0		
		E-3h	Use of warm mix asphalt.	1	0		
		E-3i	Documented analysis proving the project design reduces either the Department's or the local community's carbon footprint (Send analysis to the GreenLITES Program	1	0		

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Project: EAST HAMPTON, AND SOUTHOLI

PIN: 810.01 Type: 8 - Intersection Im

Contact Name:

CATEGORY		ID	DESCRIPTION	POINTS Available	POINTS Scored	INSTRUCTIONS	EXPLAN
Energy & Atmosphere (E)	*Facilities*	E-4c	New separated bike path or shoulder widening to provide for on-road bike lane.	2	0		
		E-4d	Create new or extend existing sidewalks.	2	2		Proposed enhancem
		E-4e	New pedestrian signals.	2	2	*Please enter comments (or <spacebar> for none) =>*	
		E-4f	Align roadway and other highway features/structures within ROW as to enable future development of separated multi-use paths or other bike/ped facilities.	2	0		
		E-4g	Work with local communities to create parallel bike routes where state roads are not suitable for less experienced cyclists.	2	0		
		E-4h	Sidewalk or bikeway rehabilitation, widening, realignment or repair.	1	0		
		E-4i	Upgrading pedestrian signals - inclusion of pedestrian buttons and/or addition of audible signal, countdown timers.	1	1	*Please enter comments (or <spacebar> for none) =>*	
		E-4j	Installation of bikeway signs, "Share the Road" signs, and/or *Sharrow* (shared lane) pavement markings.	1	1	*Please enter comments (or <spacebar> for none) =>*	
		E-4k	Shoulder restoration for bicycling.	1	1	*Please enter comments (or <spacebar> for none) =>*	
		E-4l	Inclusion of five-rail bridge rail system for bicyclists.	1	0		
		E-4m	Installation of permanent bicycle racks.	1	0		
		E-4n	New crosswalks.	1	1		Proposed enhancem
		E-4o	New curb bulb-outs.	1	1	*Please enter comments (or <spacebar> for none) =>*	
		E-4p	New raised medians/pedestrian refuge islands.	1	0		
		E-4q	New speed hump/speed table/raised intersection.	1	0		
		E-4r	New curbing (where none previously existed), to better define the edge of a roadway and to provide vertical separation of pedestrian facilities; does not include flush, mountable or bridge curbing.	1	0		
		E-4s	New or relocated highway barrier or repeating vertical elements (trees, lampposts, bollards, rural mailboxes, etc) between roadway & walk/bikeway to better separate/delineate motorized and non-motorized travel ways.	1	0		
		E-4t	Installation of bicycle detectors (quadrupoles) at signalized intersections.	1	0		
		E-4u	"All Stop" phase programmed into a traffic signal and/or button actuated "No Turn on	1	0		

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POINTS		Project: EAST HAMPTON, AND SOUTHOLI	
		PIN: 810.01	Type: 8 - Intersection Im
		Contact Name:	

	CATEGORY	ID	DESCRIPTION	Available	Scored	INSTRUCTIONS	EXPLAN
Energy & Atmosphere (E)		E-4z	Use of durable cast iron detectible warning units embedded in concrete (rather than surface applied polyurethane, stamped concrete, concrete brick, etc.).	1	1	*Please enter comments (or <spacebar> for none) =>*	
		E-4aa	Add/replace crosswalks with high visibility, reduced wear, staggered ladder bar crosswalks (a modified Type L which avoids wheel paths, and is sometimes referred to as a 'piano key' type crosswalk).	1	1	*Please enter comments (or <spacebar> for none) =>*	
	E-5 *Noise Abatement*	E-5a	Construction of a new noise barrier.	2	0		
		E-5b	Incorporate traffic system management techniques to reduce prior noise levels (e.g. use of truck routes, progressive traffic signals, lowering speeds).	2	0		
		E-5c	Provide a buffer zone for adjacent receptors.	2	0		
		E-5d	Provide sound insulation to public schools.	2	0		
		E-5e	Diamond grinding of existing Portland Cement Concrete (PCC) pavement.	1	0		
		E-5f	Rehabilitation of an existing noise wall.	1	0		
		E-5g	Berms designed to reduce noise.	1	0		
		E-5h	Provide planting to improve perceived noise impacts.	1	0		
	E-6 *Stray Light Reduction*	E-6a	Retrofit existing light heads with full cut-offs.	2	0		
		E-6c	Use cut-offs on new light heads.	1	0		
n/Unlisted (I)	Incorporation of *new or improved* ways to provide a more environmentally, economically and/or socially sustainable transportation system (subject to review by **GreenLITES** R						
	I-1 *Innovation*	I-1a		4	0		
	Incorporation of items/methods into the project which might contribute to sustainability *but are not specifically listed above* (subject to review by **GreenLITES** Review Team). *Up*						
	I-2 *Unlisted*	I-2a		2	0		

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		PIN: 810.01	Type: 8 - Intersection Im
		Contact Name:	

CATEGORY	ID	DESCRIPTION	Available	Scored	INSTRUCTIONS	EXPLAN
Street Design Manual						
		Total points scored:		**26**	***Please finish entering data***	