

Downtown Hicksville Complete Streets Project

FINAL REPORT

SEPTEMBER 2020





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ACKNOWLEDGMENTS

The Downtown Hicksville Complete Streets Project is being led by the Nassau County Department of Public Works (NCDPW). A consultant team led by NV5 (Melville, NY) and supported by LKMA and Vision Long Island, performed the work involved in the Planning Phase of this project under the direction of NCDPW, which this report summarizes.

Technical Advisory Committee

The Nassau County Department of Public Works would like to thank the members of the Technical Committee for their participation in this phase of the project. The following is a list of organizations and their respective representatives who participated in the Technical Advisory Committee.



County Legislator Laura Schaefer (*District 14*)

County Legislator Arnold Drucker (*District 16*)

County Legislator Rose Marie Walker (*District 17*)

Leslie Maccarone *Town of Oyster Bay Planning & Development*

Jim McCaffrey *Town of Oyster Bay Planning & Development*

Julie Schneider *Town of Oyster Bay Environmental Resources*

Lionel Chitty *Nassau County Office of Minority Affairs, Hicksville Chamber of Commerce*

Jack Khzouz *NICE Bus*

Paul Molinari *Duffy Park Civic Association*

Hector Garcia, Scott Howell, Donna Betty, Jennifer A. Uihlein
Long Island Rail Road

Alex Mirsakov, Vijay Yijayendran, Gene Smith, Ying Miao, Shaik Shaad,
Ed Guerrero, Peter Heuschneider, Lanny Wexler, Steven Belkin
New York State DOT

Sean Sallie, Harold Lutz, David Viana, Aryeh Lemberger, Mary
Studdert, Mike Hagan *Nassau County Department of Public Works*

Public Participation

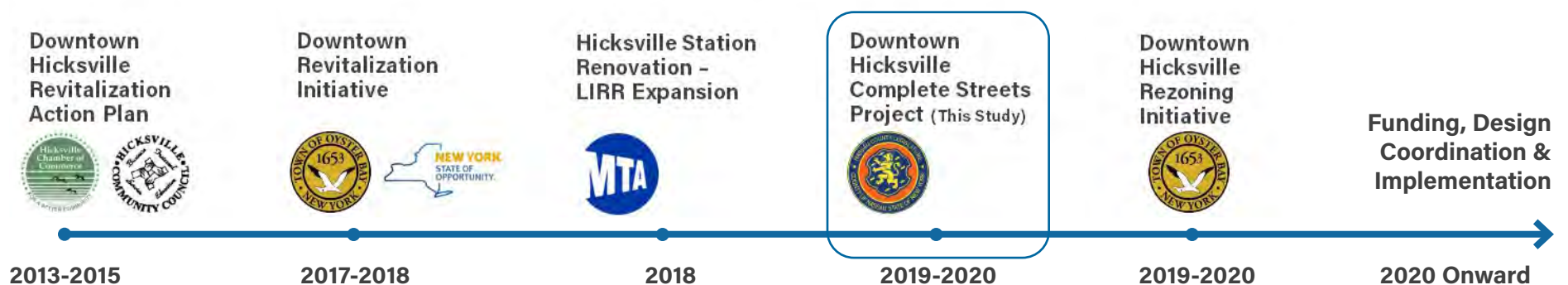
The Nassau County Department of Public Works also would like to thank the residents and other members of the public who participated in the public meetings dedicated toward this project, in addition to those who submitted comments, questions, and suggestions through the project website.

1.0 INTRODUCTION

The overall purpose of the Downtown Hicksville Complete Streets project is to improve the accessibility and safety for all modes of transportation in Downtown Hicksville. This work by the Nassau County Department of Public Works, in partnership with local stakeholders, comes as several transformative projects for the Hicksville community are already underway. They include a rezoning initiative by the Town of Oyster Bay, the Downtown Revitalization Initiative (DRI) by New York State, and the renovation of the Hicksville Station through the MTA's Long Island Rail Road Expansion Project. The County's Complete Streets Project serves as a critical link amongst all of these efforts, helping to make Downtown Hicksville a better connected and more economically resilient area for people to live, work and play. Throughout the course of the study, the Downtown Hicksville Complete Streets Project team coordinated with the above-mentioned agencies. The coordination and sharing of project data have been helpful in advancing the Town's downtown rezoning initiative, which utilized the County's traffic analysis data.

Additionally, the Complete Streets Project provided additional levels of testing and vetting of certain recommendations previously made in the DRI Plan.

The Downtown Hicksville Complete Streets Project is a multi-phased project and will require ongoing coordination between the Town, County, State, MTA and all local stakeholders. This Final Report summarizes the outcome of the Project's Planning Phase, which involved identifying design improvements for streets, intersections, and pedestrian areas that will improve the safety, circulation, and overall experience for those traveling through and within Downtown Hicksville. During the project's next phases – Design and Engineering, followed by Construction – the conceptual recommendations in this report will be studied further and additional public input will be solicited before moving forward with implementation.



1.1 Project Area

The focus of the project is on the area around the Long Island Rail Road (LIRR) Hicksville Station, shown on the map below.

1.2 Project Goals

The following Project Goals were developed in consultation with the Technical Advisory Committee (TAC):

- ♦ **Improve Safety.** Improve safety for all users in Downtown Hicksville including motorists, pedestrians, and bicyclists.
- ♦ **Support Pedestrian Activity in the Downtown Area.** Improve sidewalks and pedestrian crossings to provide direct, safe access between parking areas, the LIRR station and Downtown Hicksville area.
- ♦ **Enhance Commuter Connections.** Improve vehicular, pedestrian, transit and bicycle access to the LIRR station and between commuter parking lots.
- ♦ **Improve Non-Motorized Transportation.** Improve pedestrian and bike connectivity along and across major corridors: Broadway, Jerusalem Avenue, and Newbridge Road.
- ♦ **Accommodate Future Residential Developments.** Support and complement the Town of Oyster Bay's Downtown Rezoning Initiative efforts and new mixed-use developments.



What are "Complete Streets"?

"Complete Streets" is a transportation policy and design approach that makes streets more safe, convenient, comfortable, and accessible for users of all ages and abilities, regardless of their mode of transportation. This is accomplished through design improvements along sidewalks, lane re-configurations, additional and improved pedestrian road crossings, transit treatments, traffic calming measures, and a range of other pedestrian, non-motorized, and vehicular improvements. For more information about "Complete Streets" in New York State, visit the NYS Department of Transportation's website at www.dot.ny.gov/programs/completestreets

1.3 Project Recommendations

Based on the Project Goals, detailed recommendations resulted from input received from the public as well as the TAC. A high-level summary of these recommendations is provided below and on the following pages.

- ♦ **5 - 10 Curb Extensions.** To shorten crossing distances.
- ♦ **3 Expanded Center Medians.** Where median refuge islands can be expanded to shorten crossing distances and provide greater refuge area for pedestrians that cannot cross the entire intersection in a single signal cycle.
- ♦ **3 Commuter-Specific Crossings.** The Underline provides an east-west corridor for non-motorized transportation, which means that each of the 3 street crossings included in the Underline will be designed to their unique contexts.
- ♦ **1.75 Miles of Bike Lanes, 1.0 Mile of Shared Lanes.** A bike network will provide connectivity from east to west and to the station from residential areas.
- ♦ **Upgrade the Downtown Streetscape.** In order to focus the retail corridor along Broadway with infill retail development and eventually new retail/commercial development, the streetscape requires upgrades to provide clear pedestrian space as well as supporting amenities.
- ♦ **All sidewalks and curb ramps ADA Compliant.** ADA Compliance also ensures that there is a comprehensive pedestrian network in an adequate state of repair.
- ♦ **Accommodate Future Residential Developments.** A walkable, safe and thriving downtown area is appealing to developers. This study shared its traffic analysis with the Town of Oyster Bay for use in their Rezoning Initiative.

1 Broadway Downtown Streetscaping

This project may have the highest level of impact for retail and local economic health. As the designated downtown retail area for Hicksville, the current condition does not invite businesses or patrons. Upgrading and making sidewalks and crosswalks accessible would promote pedestrian access from on-street parking as well as centralized parking areas that already exist. Funding for this may be allocated from DRI funds, or may be sought on behalf of NYSDOT which owns the roadway. With the right-of-way in place, this is a relatively simple construction project along a critical corridor.



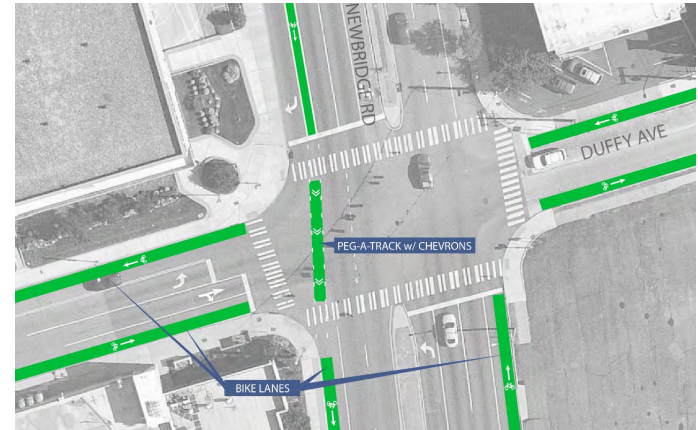
2 Bike Routes and Facilities

These shared lanes and bike racks could be installed relatively quickly, particularly if there are other marking installations taking place in the Downtown Hicksville area.



3 Duffy Ave & Newbridge Rd

With the space mostly available to install bike lanes on both Duffy Ave and Newbridge Ave, these could be installed immediately. Coordination with NYSDOT is required in order to implement these bike lanes.



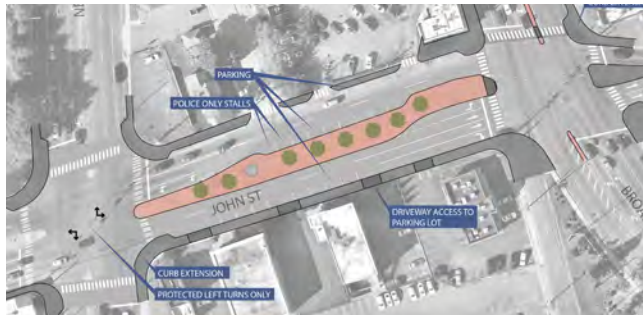
4 Duffy Ave Mid-Block Crossing

A signal warrant analysis is required to justify a pedestrian crossing element at this location. Preliminary counts taken as part of this study indicate that there are likely a sufficient number of pedestrians crossing at this location to warrant a traffic signal or flashing beacon.



5 John St Improvements

As a larger capital project, this full block reconstruction will require coordination between various agencies. Funding for this process needs to be identified, and should be the next step in the process. A full design process, including traffic analysis, will be required to finalize the design and produce construction documents to secure the appropriate amount of funding.



6 Train Station Circulation & Ped Safety Improvements

The recommendations for this area respond to the commuter circulation needs present at the station. Private drop-off, pedestrian waiting areas, limited lanes surrounding the train station and enlarged pedestrian queue spaces will not only be beneficial to future developments, they are critical to the current functioning of this area. The next step is to coordinate with the LIRR and Town of Oyster Bay on these improvements.



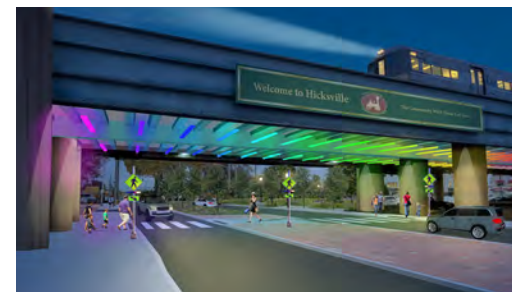
7 Barclay Triangle & Kennedy Park Expansion

This project should be undertaken in two phases. The critical change is to reduce Jerusalem Ave to one lane southbound from Broadway. The lane will also be shifted west to widen the center median at the pedestrian crossing location. Widening the median with paint will provide some short-term relief, but the critical upgrade is a built median with a proper ADA Compliant pedestrian crossing, including Rectangular Rapid Flashing Beacons and gateway signage.



8 “Underline” Connection Under the LIRR Overpass

The Underline is, in some locations, already in tact and wide enough to separate bike and pedestrian movements. Additional work would be required to get a continuous pathway. In the meantime, a low-cost, low-maintenance LED lighting arrangement could be installed to provide the high-impact visual attention grabber, which would come to define Downtown Hicksville as a place, not just a commuter center.

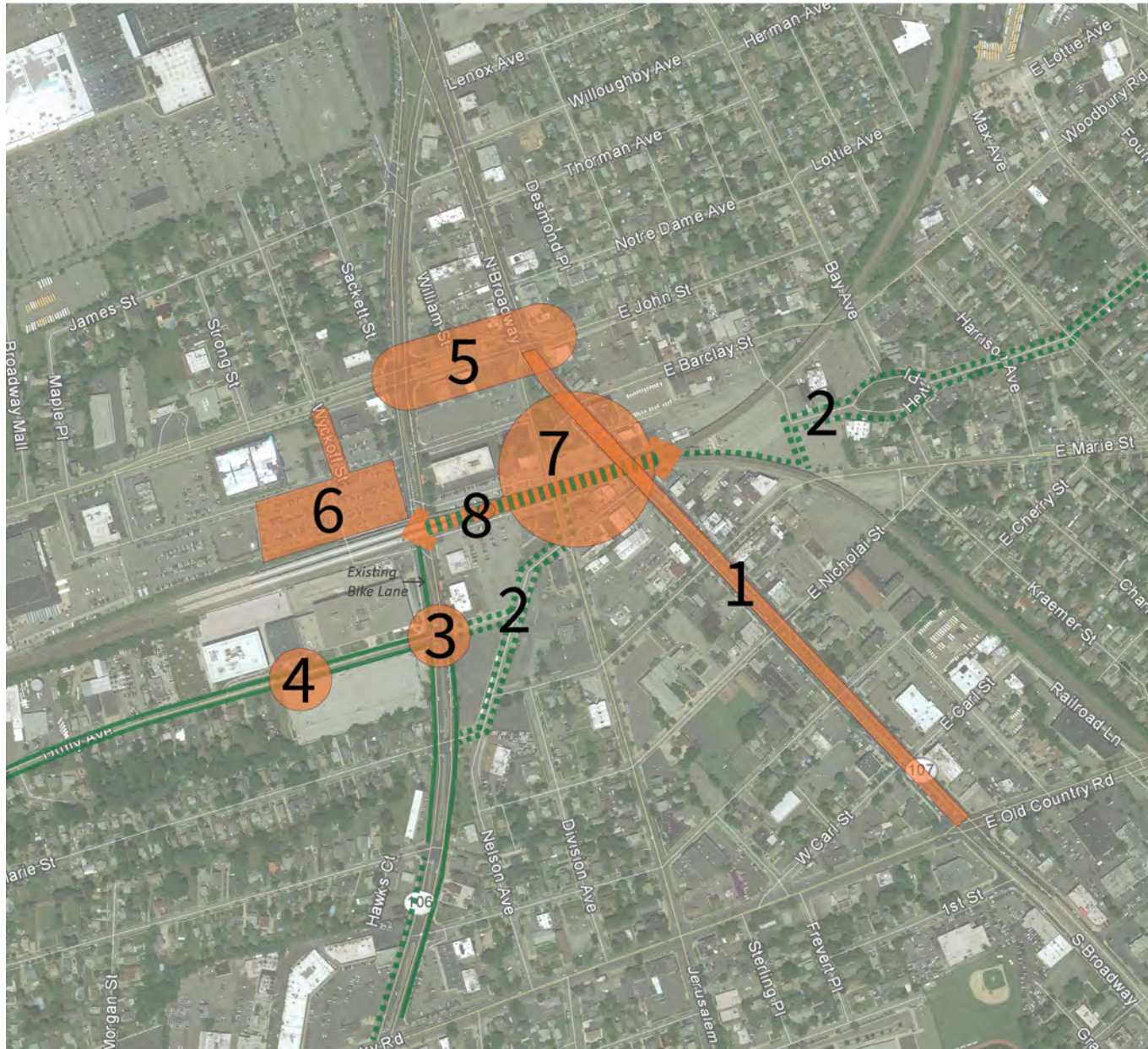


Overview of Recommendations




The summary below provides an overview of the recommendations resulting from this project. These recommendations correspond to the map on the next page, which shows the general location and area of each recommendation.

	Recommendation	Location	Overview	Cost Estimate	Timeframe	Involved Agencies
1	Broadway Downtown Streetscaping	Broadway from John St to Old Country Road	Improve sidewalk and ped ramp conditions; provide clear walking space; bike parking	\$5,941,675	2-5 years	NYS DOT, Town of Oyster Bay
2	Bike Routes and Facilities	Heitz Pl, Nelson Ave, Duffy Ave, Newbridge Rd, Jerusalem Ave	Bike Lanes with buffers where space allows, shared lanes on narrow streets	\$189,800	1 year	NYS DOT, Town of Oyster Bay, NCDPW, LIRR
3	Duffy Ave & Newbridge Rd	Duffy Ave & Newbridge Rd	Duffy Ave: Bike Lanes west of Newbridge Rd, Shared lanes east; Buffered bike lanes south of Duffy Ave	\$96,100	1 year	NYS DOT, Town of Oyster Bay
4	Duffy Ave Mid-Block Crossing	Duffy Ave, 500' west of Newbridge Rd	Pedestrian crossing element at high crossing location	\$408,100	1 year	Town of Oyster Bay
5	John Street Improvements	John St from Newbridge Rd to Broadway	Roadway reconstruction to median removing angled parking and adding landscaping; curb extensions	\$2,219,600	2-5 years	Town of Oyster Bay, NYSDOT
6	Train Station Circulation & Ped Safety Improvements	Barclay St to Train Station from Newbridge Rd to 800 feet east; Wyckoff St	Create plaza for ped circulation; Private vehicle drop-off area; Align parking exit with Wyckoff St	\$5,250,050	2-5 years	Town of Oyster Bay, LIRR
7	Barclay Triangle & Park Expansion	Broadway to Jerusalem Ave from John St to Herzog Pl	Remove one southbound travel lane on Jerusalem Ave and improve alignment from Broadway southbound	\$1,495,900 (Roadway) \$4,000,000 (Park)	1-3 years (Roadway) 3-10 years (Park)	NCDPW, LIRR, Town of Oyster Bay
8	"Underline" Connection Under the LIRR Overpass	East side of Broadway to West side of Newbridge Rd, under the LIRR tracks/station	Continuous separate bike and ped paths with enhanced crossings at intersections	\$2,445,900	2-5 years	Town of Oyster Bay, LIRR

Map of Recommendations



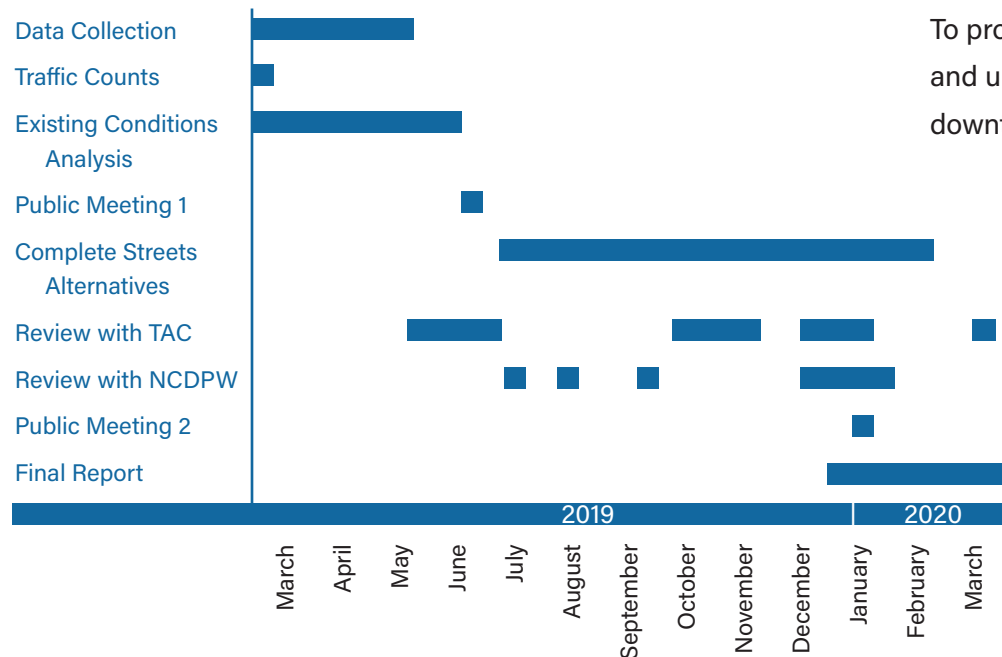
Recommendations

1. Broadway Downtown Streetscaping
2. Bike Routes and Facilities
 -  Dedicated Bike Lane or Buffered Bike Lane
 -  Shared Lane Markings
3. Duffy Ave & Newbridge Road
4. Duffy Ave Mid-Block Crossing
5. John St Improvements
6. Train Station Circulation and Pedestrian Safety Improvements
7. Barclay Triangle & Park Expansion
 - Option A DRI-based
 - Option B Preferred Alternative
8. Underline Connection Under the LIRR Overpass (Broadway to Newbridge Rd)
 -  Underline Bike-Ped Path

2.0 PROJECT METHODOLOGY

The primary tasks involved in this Planning Phase included: (a) Conducting a comprehensive existing conditions analysis, which included a traffic study of the area, on-the-ground observations of the built environment, and analysis of current government regulations; (b) Identifying potential design, technological, operational, and/or physical techniques for improving the safety, convenience, comfort of travel, and access in the study area; and (c) Producing a final report that summarizes the recommendations and organizes them into an implementation strategy. This section provides more details on these tasks and the methods utilized to perform these tasks.

The timeline below shows the relative order of tasks undertaken in this study.



2.1 Stakeholder & Public Outreach

Local knowledge is invaluable to any project like this. A Technical Advisory Committee (TAC) was established at the start of the project to guide the consultant’s work and to review interim and final work products. The TAC included representatives from all of the local, county, and state government agencies that will need to coordinate throughout this project. The TAC also included representatives of a local civic association and the Chamber of Commerce, both of which are also important stakeholders in this project (see the Acknowledgments for the full list of TAC members). The first meeting of the TAC included a walking tour (see photo below), where participants pointed out specific problem areas.

To promote the project to the public and provide project information and updates, a website was created; it can be accessed at www.downtownhicksvillenyc.com.

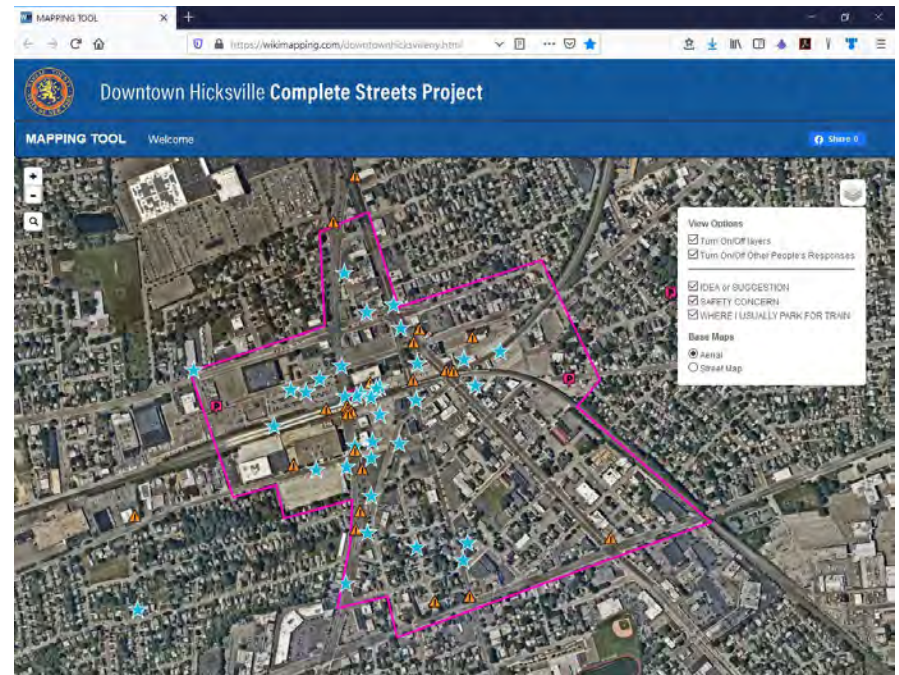


Residents and other stakeholders could stay informed about and participate in the project virtually through the following methods by signing up to receive e-mail updates about the project, submitting questions, comments, suggestions, and ideas about the project through a contact form, and using the Mapping Tool, an interactive, online tool through which users can add points along with comments on a map of the Project Area.

Through the online mapping tool, 58 comments were input by various members of the public. The main themes were safety concerns, parking locations (existing and desired), and greatly enhanced pedestrian facilities.

The public engagement process also involved in-person engagement through two public information meetings. At the first meeting (June 19, 2019), the County and consultant team reviewed the goals and objectives of the project, showcased the data collected to date, and presented an analysis of existing conditions in the Project Area. Over 70 participants had the opportunity to ask the project team questions and provide comments and suggestions. The main themes were lack of centralized parking and the need for one or more parking garages, safety concerns, and the status of New York State's DRI process, which allocated funds to Downtown Hicksville.

At the second public information meeting (January 6, 2020) the project team presented preliminary recommendations for traffic and pedestrian safety improvements within the Project Area to 83 participants. The recommendations were generally well received, with the main feedback being the need for one or more parking garages and how the recommendations related to the DRI funding. There was also a substantial amount of feedback in favor of the Underline.



Online Mapping Tool



Photo from the first public meeting

Analysis of Existing Traffic Conditions

Existing conditions were modeled using traffic data collected in 2019. The following process was followed to analyze the data collected:

- ♦ Input data collected into synchro traffic analysis software
- ♦ Calibrate SYNCHRO model based on observations
- ♦ Provide measures of effectiveness (change in travel time)

Future Projected Scenario

The No Build and Build scenarios included the same base data, which used the following factors to project future (2029) traffic volumes:

- ♦ Background growth rate for the region
- ♦ Trips generated by known future developments
- ♦ Trips generated by anticipated future developments allowed by the Town of Oyster Bay's forthcoming rezoning
- ♦ Provide measures of effectiveness (change in travel time)
- ♦ For Build scenarios: Build conditions were modeled using these factors for recommended improvements of each scenario

In addition to the No Build analysis, which assumes no change to the street or traffic signal network, two unique Build scenarios were modeled and analyzed. These scenarios involved alternate configurations and operational changes to the area between Herzog Pl and John St, and between Newbridge Rd and Broadway, which are described in detail in the Site-Specific Recommendations section. Beyond the two scenarios that were modeled, 3-4 other scenarios were considered using the No Build analysis to inform the team's use of engineering judgment. The result was two scenarios that would both perform with no impact to travel times in the 2029 Build year.

Summary of Traffic Analysis

The existing condition at the time of this study were evaluated, and modifications to signal timing were made to analyze the No Build condition. The No Build assumes that no improvements would be made, but factors in the additional vehicles that would likely be added to the network if all other growth patterns continue as projected. The traffic analysis tool used to compare delay times is Level of Service (LOS), which assigns a letter grade from A to F to each intersection, as a function of how much delay the traffic flow experiences at different times of the day.

In the existing condition, the intersections below had a LOS of D, E or F at some time period that was analyzed, which represents the highest delays. It is important to note that none of the above intersections had a Level of Service of E or F at all times.

- ♦ Broadway and W Marie St
- ♦ Broadway and John St
- ♦ Newbridge Ave and John St
- ♦ Newbridge Ave and Duffy Ave

For the No Build and Build analyses, with the signal timing changes and street network reconfigurations from the recommended projects, those intersections would experience the same or less delay in the future (2029) traffic volumes.

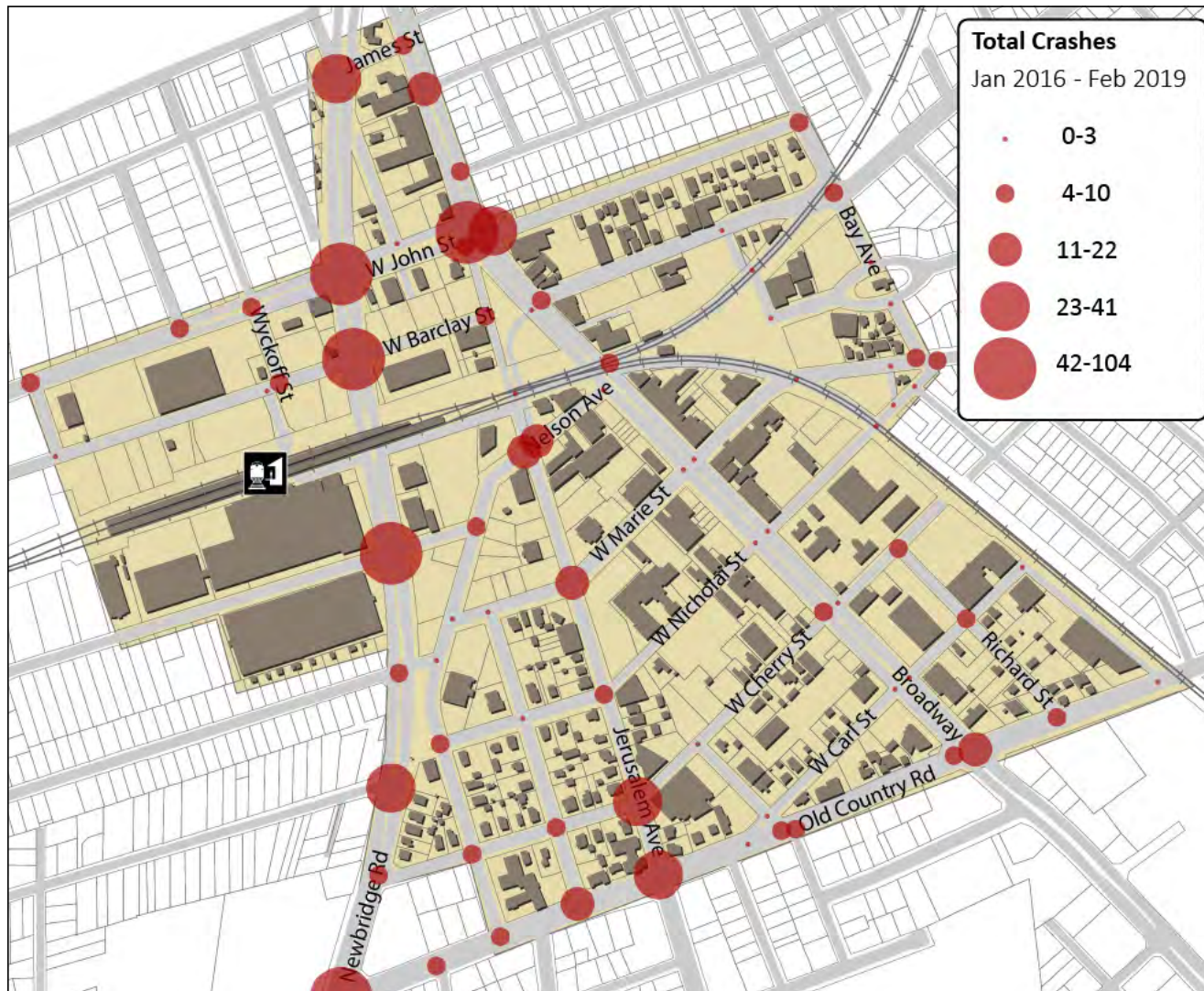
What this means is that with all of the factors considered, and all of the improvements recommended, traffic flow will remain stable.

If implemented as recommended, the full set of recommendations should shorten or maintain travel times, while providing all of the safety, accessibility, multi-modal and aesthetic improvements.

Crash Data Analysis

Crash summary data were obtained from New York State Department of Transportation (NYSDOT) for the Hicksville downtown area for the period from January 1, 2016 through December 31, 2018, the most recent three-year period for which data are available.

All of the study area intersections were analyzed as part of the safety evaluation. The data is summarized in the map below. High crash locations are shown with larger circles on the map below.



Field Observations

Beginning even before the walking tour with the TAC, our team was in the field taking photos and measurements, and observing traffic flow with a focus on problem areas.

In addition to identifying challenges, our team developed the map below to indicate areas with the highest pedestrian activity, using thicker lines to indicate higher pedestrian volumes.



ADA Assessment

As a part of the project scope, the Nassau County Department of Public Works (NCDPW) requested that all of the existing pedestrian crossings under their jurisdiction within the study limits be inventoried and evaluated for compliance with current American with Disabilities Act (ADA) standards. Corridors included in the assessment include the following:

- ♦ Jerusalem Ave – From West Old Country Rd to Nelson Ave
- ♦ Old Country Rd – From Newbridge Rd to Richard St
- ♦ W. John St – From Wyckoff St to E. John St
- ♦ E. Barclay St – From LIRR Parking Lot to Bay Ave

Curb ramps were given a condition rating of 1 through 5 based on the extent to which they complied with code requirements. Ramps that were fully compliant were given a rating of 5 while those that were non-compliant by one criteria were given a rating of 4. Ramps that were non-compliant in multiple criteria were given a rating of 2 or 3, while the complete absence of a ramp was given a rating of 1. In total, ninety-two (92) curb ramps were evaluated, and none were considered fully accessible to current standards (5 rating). Thirteen (13) ramps were rated as accessible, but requiring additional improvements needed for full compliance (4 rating). The remaining seventy-nine (79) locations were not accessible (2 rating) or partially accessible (3 rating). A NCDPW evaluation form was completed for each location and entered into NCDPW's GIS database system. Detailed summary tables for each roadway corridor is provided in the Appendix of this report.

A general assessment of NYSDOT and Town of Oyster Bay jurisdictional roadways within the study limits was also conducted. Curb ramps along NYSDOT roadways, NY 106 (Newbridge Road) and NY 107 (Broadway), were observed to be fully accessible as they appeared to be recently replaced. Curb ramps along the various Town roadways throughout the study area were observed to be dated and non-compliant.

2.3 Development of Alternatives

The process of developing alternatives started with the project goals, community vision, and safety improvements to develop possible alternatives, and then testing those scenarios with the traffic model. As an iterative process, scenarios were shared with the TAC and eventually at Public Meeting 2, with the input received being factored in to future alternatives developed. After considering the input received at each step of the way, the project team refined the details, resulting in the Site-Specific Recommendations found in this report.

2.4 Cost Estimates & Final Report

To set Downtown Hicksville up for implementation of individual recommended projects, the project team has developed order of magnitude cost estimates. This will provide the governing jurisdictions for each recommendation a guide when seeking funding. Also in pursuit of funding, each site-specific recommendation has a stand alone section that could be used to accompany a funding application. The cost estimates can be found in Section 3.2, Site-Specific Recommendations.

3.0 RECOMMENDATIONS

Heavily based on input received at Public Meetings and during Stakeholder Engagement and TAC meetings, the proposed recommendations were developed and shared with the public at the second Public Meeting.

General recommendations are best practices that are recommended for any work undertaken in the Downtown Hicksville study area. These general guidelines will improve pedestrian conditions and calm traffic, primarily. The site-specific recommendations that follow address specific conditions and were driven by the project goals. All recommendations are subject to refinement pending full engineering review as part of the design phase.

3.1 General Recommendations

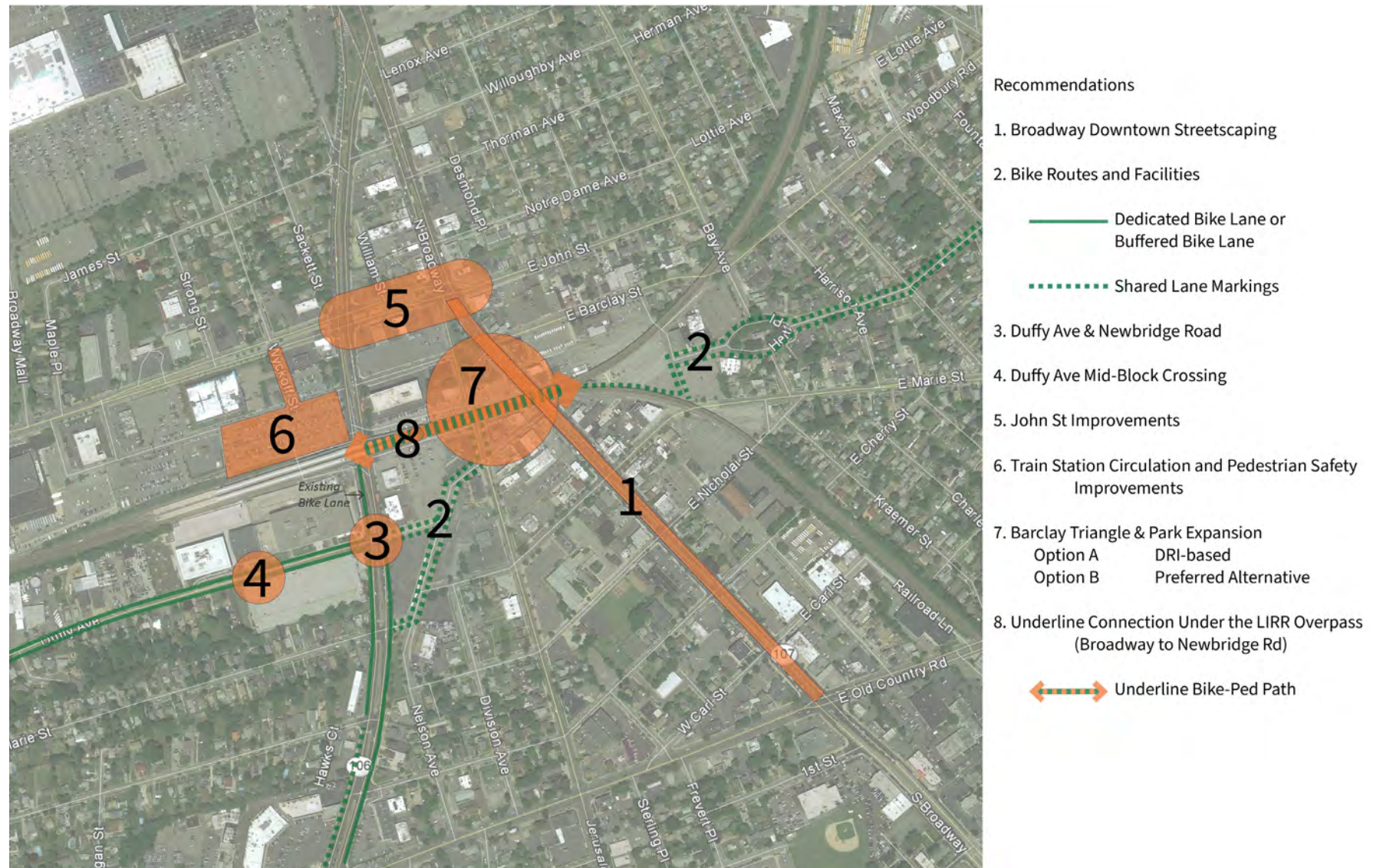
In addition to site-specific recommendations, there are some best practices that are applicable to Downtown Hicksville. These should be incorporated into future planning and design efforts, to ensure that improvements have the highest impact and provide the safest, most effective measures.

- **Curb Extensions:** NYSDOT does not allow curb extensions on their right-of-way, but other roadways may benefit from shortened crossing distance.
- **Narrowed moving lanes:** 11 foot moving lanes can accommodate bus and truck traffic, and has a traffic calming effect of slowing travel speeds. 10 foot moving lanes may be appropriate on secondary roads, that are mainly residential and/or have low traffic volumes.
- **ADA Compliance:** Many intersections are already ADA compliant and in a state of good repair. However, the majority are not. All pedestrian ramps, sidewalks and crossings should be made ADA compliant, which also entails smoothing surfaces, pedestrian signal upgrades and improving conditions for all pedestrians.
- **Prioritize sidewalk continuity through driveway aprons:** While some driveway aprons require pedestrians to cross the driveway entrance at the grade of the roadway, it is preferred to keep the sidewalk a consistent grade, with vehicles having to slow down to drive up to the sidewalk grade to enter a parking lot. This detail is missing from many new development models, but has a great impact on pedestrians, particularly people with disabilities and the elderly, which may need to use walkers and wheelchairs.
- **Provide landscaping and/or green infrastructure where possible:** Median islands, curb extensions and other geometric features offer an opportunity to build in landscaping. Provided that sight lines are maintained, traditional landscaping may be most practical. However, in areas that experience flooding, green infrastructure can easily be worked into many design alternatives. With any landscaping, maintenance can be a hurdle. There are many working examples of maintenance partnerships between local businesses and jurisdictional owners, where a simple Memorandum of Understanding shifts the maintenance responsibility to local businesses that benefit from landscaped areas.

3.2 Site-Specific Recommendations

After collecting data, public input, analyzing crash hot spots and traffic flow, the project team developed eight site-specific recommendations. For each, a description of the existing conditions

being addressed is followed by the recommended treatment for each location in the sections that follow. The map below locates and identifies each of the site-specific recommendations.



Each of the recommendations was reviewed as part of the larger street network, so there are some efficiencies that would be gained from implementing these recommendations. However, as concepts, there is flexibility to implement each site-specific recommendation as a stand alone improvement, provided that a detailed traffic analysis of the specific improvements is conducted to ensure the result would be successful. In addition, most of the improvements do not require a change in roadway geometry or call for a reduction in moving lanes, so in most cases the recommendations would not have a direct negative traffic impact.

Recommendations such as providing a network of bike facilities, including secure parking, have the potential to reduce vehicle trips, and should be sought out first. In most cases the space is available for dedicated bike lanes where they are recommended, and shared lanes are adequate for the low volume roads on which they are recommended.

Other recommendations that would greatly enhance pedestrian conditions should be prioritized, even if using temporary design measures such as signs and markings, initially. Curb extensions can be painted to tighten turning radii, which can slow turning vehicles. Extending median tips to fully surround crosswalks can also be done in paint as an interim measure. Each incremental change has the ability to change driver and pedestrian behavior, contributing to a safer downtown area for all users. Larger capital projects can be tested and studied using temporary design measures, to build the case for a full build out, or for using a similar treatment elsewhere.

In the Next Steps section of this report, more information will be provided about phasing and potential funding sources.



Top Left: ADA compliant pedestrian ramp with push button and new sidewalks.

Right: Curb extensions and distinctive crosswalk with bike lanes.

Bottom Left: Large bike parking area, including some covered racks.



#1 Broadway Downtown Streetscape Improvements

EXISTING CONDITIONS

The Broadway corridor is a NYSDOT roadway with high vehicular volumes, but it is also the corridor identified by prior community-led planning initiatives as the desired focus of Hicksville's downtown district. In its current condition, there is a lack of organization and cohesive aesthetic, which can limit retail and consumer interest by creating an inconsistent character and state of repair.

Without bike racks, cyclists lock their bikes to other available street furniture. Pedestrian-scaled lighting, thriving street trees and other amenities are lacking, and the condition of pavement has degraded, which in addition to creating a run down appearance presents accessibility issues.

SUMMARY OF RECOMMENDATIONS

In order to address these conditions to help the Broadway corridor from E John St to Old Country Rd function as a walkable downtown retail district and to encourage development and retail interest, streetscape improvements are recommended.

In addition to improving the pedestrian and cyclist experience with new amenities, the cohesive change in streetscape from the surrounding parts of the corridor would create a sense of place, which would have a traffic calming effect. Features such as decorative lighting and/or plantings, street trees appropriate for the physical environment, and gateway features also have a traffic calming effect on through traffic, by announcing the contrast between the

surrounding sections of the corridor and the Downtown Hicksville retail and community center.

Specific improvements should include a buffer strip between the curb and the utility strip, the critical utilities in the utility strip (light poles, parking meters, etc), as well as uniform bike racks and decorative pedestrian scaled lighting, and a minimum of 5-6 feet of clear pedestrian circulation space. Finally, where space is available, an entry zone at the building line outside of the clear pedestrian zone is preferred so access to storefronts does not to impede on pedestrian flow. Curb extensions, where possible, will shorten crossing distances, but cannot be installed on NYSDOT roadways, but would be feasible on Town and County side streets. Any curb extensions should be designed with turning radii for larger vehicles.

The corridor could also benefit from a comprehensive and coordinated facade improvement program, which would encourage the use of design guidelines to enhance and create uniform downtown appearance of storefronts, lighting and awnings.

Involved Agencies: NYSDOT, Town of Oyster Bay

Implementation Timeframe: 2-5 years

Total Project Cost Estimate: \$5,941,675

Construction Cost: \$4,870,075

Engineering and Design: \$487,100

Construction Administration and Inspection: \$584,500

EXISTING



Broadway looking north from E Marie St.

PROPOSED



Narrow paving strip with expanded pedestrian circulation area.



Broadway looking north from E Marie St.



ADA Compliant brick curb extension with planters.

#2 Bicycle Network

Downtown Hicksville requires a network of bike lanes and bike parking areas, to improve access for cyclists to the station and throughout the downtown area. At the time of this study, only 250 feet of bike lane was in place, on Newbridge Rd southbound from the railroad overpass to Duffy Ave. This single block of bike lane does not connect to a larger network, but was included in a reconfiguration of this block, and is designed with a right turn lane weaving through it, lining cyclists up to continue southbound.

To develop a network of bike lanes that would connect the residential areas to the station and surrounding business, each roadway was evaluated for suitability to accommodate bike lanes, as well as the connections to the larger network of planned bike lanes.

The map on the next page shows the proposed bike network, based on the analysis performed. A total of 1.75 miles of bike lanes are proposed.

Bike parking under the overpass is heavily used, as shown in the photo above. Additional bike parking areas should be placed in high visibility areas. Along corridors with retail or community destinations, bike racks would support the use of the bike network.



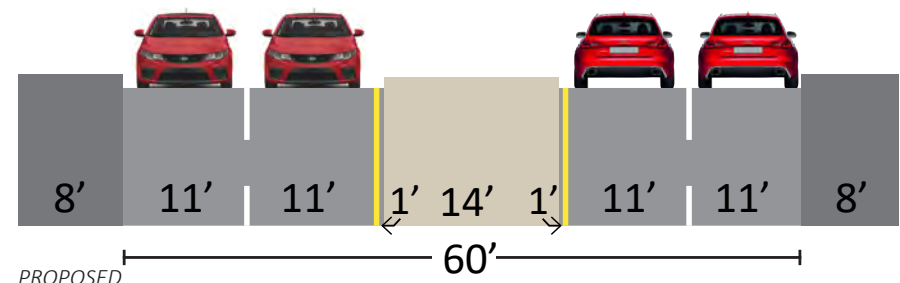
Involved Agencies: NYSDOT, Town of Oyster Bay, NCDPW, LIRR

Implementation Timeframe: 1 year

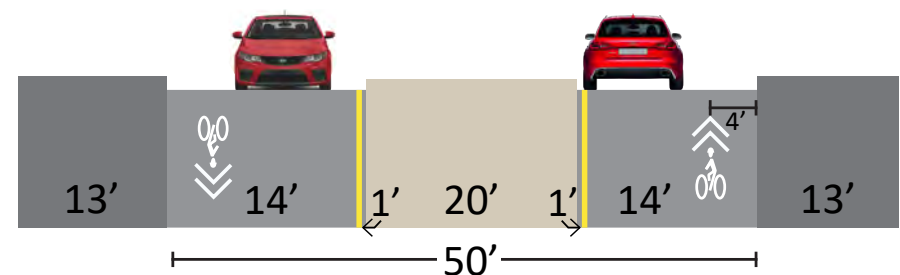
Total Project Cost Estimate: \$189,800

EXAMPLE OF SHARED LANES (JERUSALEM AVE AT LIRR OVERPASS)

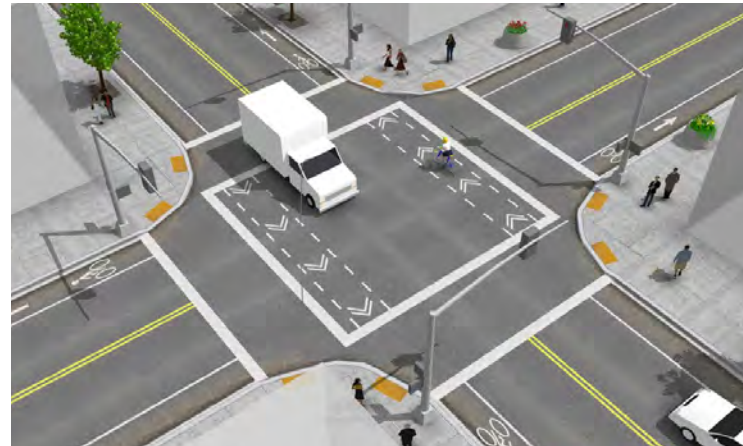
EXISTING



PROPOSED







These images show each of the types of bike facilities that are recommended, with a brief description of the attributes of each.

Top Left: Shared Lane Markings (with and without on-street parking) provides a marking to align cyclists to take the lane, which is otherwise allowed on most roads, but alerts drivers to their presence.

Top Right: Bike Lane (with and without parking) provides dedicated space at least 5 feet wide for cyclists.

Bottom Left: Buffered Bike Lane provides at least 5 feet of dedicated space with an additional buffer when space permits.

Bottom Right: Intersection Markings guide cyclists through the intersection to reduce conflicts between vehicles and cyclists.

These graphics are accompanied by detailed design details in the NACTO Urban Bicycle Design Guide.

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#3 Duffy Avenue & Newbridge Road

EXISTING CONDITIONS

Immediately south of the main train station entrance, the intersection of Duffy Ave and Newbridge Road is heavily used by commuters, both while driving to the station, and to get from various parking areas to the station on foot. The block north of this intersection also accommodates bus stops for all of the bus routes that serve Downtown Hicksville, as well as trucks and other through traffic.

When the block of Newbridge Rd between the LIRR overpass and this intersection was reconfigured, a bike lane was included and is the only existing bike lane in the study area. However, as a critical connector for southbound cyclists as well as westbound cyclists, in addition to being a high crash location, this intersection was prioritized for bike accommodations.

Currently, both Duffy Ave and Newbridge Rd have wide shoulders marked on either side of this intersection. While the shoulders north of this intersection on Newbridge Rd are used for bus stops, the shoulders to the south, east and west are mostly unimpeded. It is proposed that this space be used for curbside bike lanes, which would transition to shared lanes where the shoulder is needed for on-street parking, bus stops, or other critical uses. Where on-street parking is available in addition to off-street parking for businesses along both Duffy Ave and Newbridge Rd, it is recommended that the parking be removed in order to provide a more consistent and comfortable bike facility.

Duffy Avenue west of this intersection narrows considerably, but allows space for shared lane markings to connect to the station area. West of Newbridge Rd, Duffy Ave is significantly more quiet with lower traffic volumes and speeds, so shared lanes are appropriate here. The shoulders along Newbridge Rd are wide enough to accommodate buffered bike lanes, which will improve the level of comfort alongside the relatively busy conditions on Newbridge Rd.

The westbound bike connection along Duffy Ave, if continued approximately 1.5 miles west, would connect to the Wantagh Parkway Greenway, which would create an important connection to that trail, as well as nearby recreational trails in Eisenhower Park.

It should also be noted that the Town of Oyster Bay's parking garage is heavily used by commuters, many of which cross at this intersection.

This intersection is a high crash location.



Pedestrian crossing Newbridge Rd.



Bus stopping on Newbridge Rd at the train station.



Looking east over the intersection of Newbridge Rd and Duffy Ave.



Pedestrians walking south on the east side of Newbridge Rd to the Town parking garage.

SUMMARY OF RECOMMENDATIONS

This major intersection sits one block south of the main LIRR Station entrance, so it serves a high volume of commuters in vehicles as well as on foot, in addition to several bus lines and a high volume of through traffic. The proposed improvements would greatly enhance bicycle mobility through this area, forming an important connection from residential areas that would make biking to the LIRR Station a more viable alternative. The overall strategy is to use excess space to tighten up moving lanes and create dedicated space for cyclists. These measures will create a traffic calming effect, as well.

- Curbside bike lanes on Duffy Ave from Nelson Ave west to connect to the Wantagh State Parkway bike trail, which is a regional recreational trail.
- Curbside buffered bike lanes on Newbridge Rd south of Duffy Ave to Old Country Rd.
- As a high crash location, narrowing moving lanes to 11 feet on Newbridge Rd and Duffy Ave will calm traffic by reducing the width of the travel lanes, while still allowing trucks and buses to operate safely.
- Curb extensions were considered at this location, but because Newbridge Rd is a NYSDOT roadway, they are not feasible to recommend.

Involved Agencies: NYSDOT, Town of Oyster Bay

Implementation Timeframe: 1 year

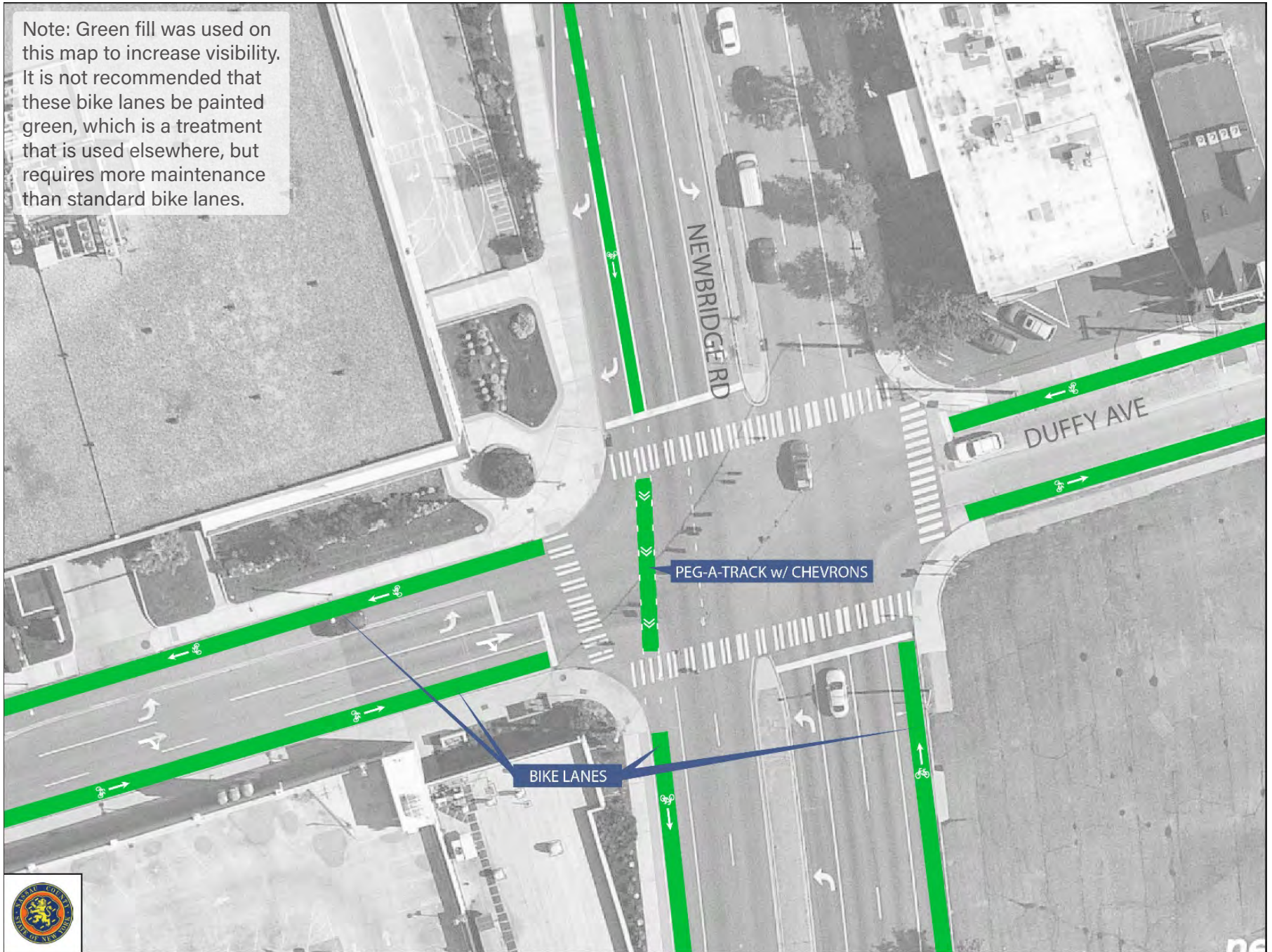
Total Project Cost Estimate: \$96,100

Construction Cost: \$73,900

Engineering and Design: \$11,100

Construction Administration and Inspection: \$11,100

Note: Green fill was used on this map to increase visibility. It is not recommended that these bike lanes be painted green, which is a treatment that is used elsewhere, but requires more maintenance than standard bike lanes.



#4 Duffy Avenue Mid-Block Crossing

EXISTING CONDITIONS

The Town of Oyster Bay parking garage has multiple entrances/exits for pedestrians. Many commuters park in the Town parking garage on the south side of Duffy Ave, and cross mid-block approximately 500 feet west of the intersection of Duffy Ave and Newbridge Rd. At approximately this location on the north side of Duffy Ave, there is a walkway that connects to New York Sports Club (see photo on bottom right of this page), and continues to stairs that connect the train station tunnel with direct access to the station platforms (see photo on top right of this page).

For commuters that do not require services in the station building, this provides a more direct connection to the platform than crossing at the intersection of Duffy Ave and Newbridge Rd. However, this creates an unsafe mid-block crossing, which is compounded by heavy volumes of commuter vehicles accessing the Town parking garage. Photos on the next page show this condition during a typical morning commute.

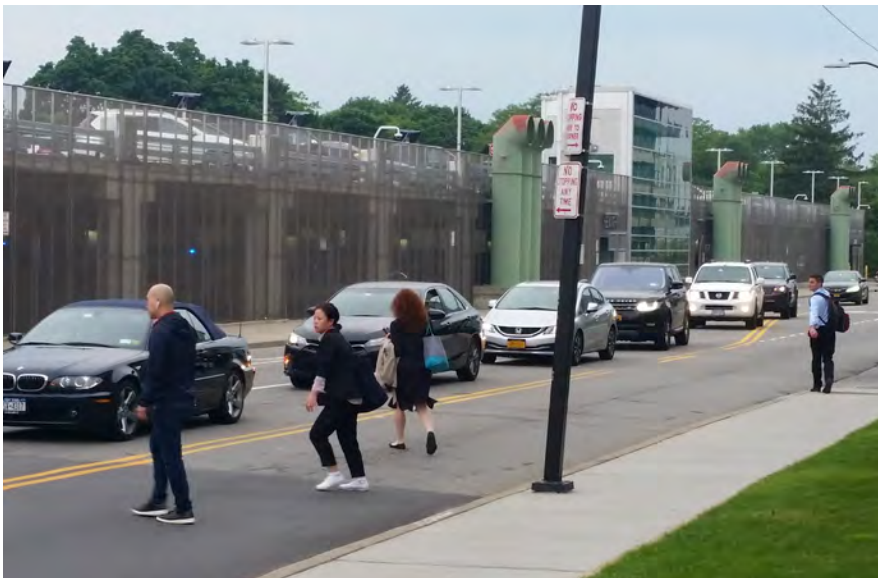




Looking south across Duffy Ave at the Town parking garage entrance.



Commuter drop-off in the curbside moving lane on Duffy Ave.



Pedestrians crossing in the afternoon to get back to their vehicles in the Town parking garage.



Pedestrian finding a gap between oncoming traffic during the morning commute.

SUMMARY OF RECOMMENDATIONS

The recommended solution to the existing crossing condition is to create a new signalized intersection on Duffy Ave, at the exit of the Town garage. Adding a signal and crosswalks would provide a safe crossing for the hundreds of commuters that cross here to use the walkway to the station.

Pedestrian counts taken during the AM peak hour (7-8 am) revealed over 400 pedestrian crossings at this uncontrolled, mid-block location. That level of pedestrian volumes would warrant a signalized crossing.

- Create a T-intersection with Duffy Ave and the entrance/exit of the Town Parking Garage.
- Add crosswalk on the west side of the entrance/exit of the Town Parking Garage.
- Add pedestrian crossing element, such as a traffic signal or Rectangular Rapid Flashing Beacon (example photo below).

Preliminary counts taken at this location during the peak AM hour found that the number of pedestrian crossings at this location exceed the required number to warrant a traffic signal, but a full warrant analysis should be conducted.



Involved Agencies: Town of Oyster Bay

Implementation Timeframe: 1 year

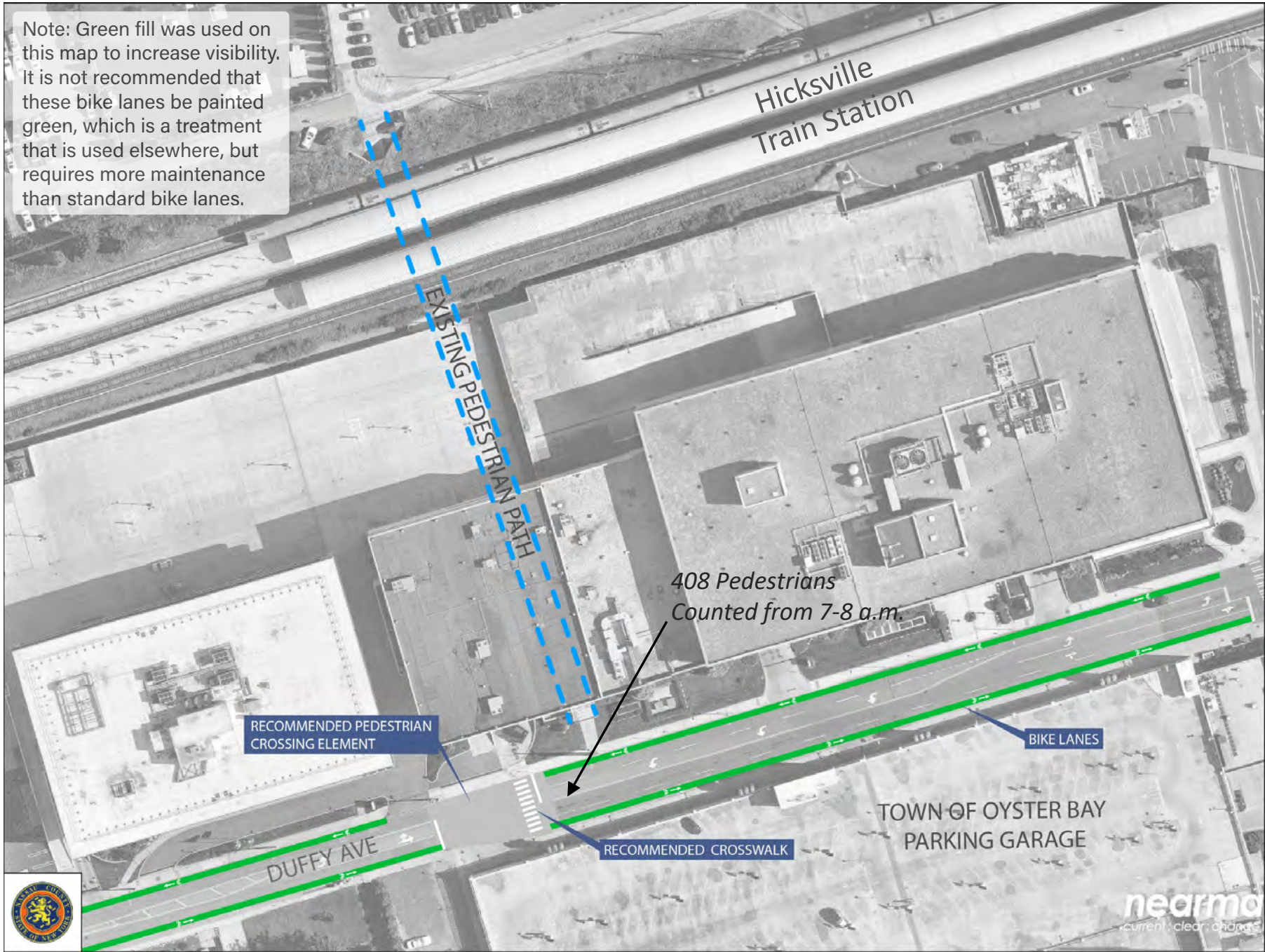
Total Project Cost Estimate: \$408,100

Construction Cost: \$313,900

Engineering and Design: \$47,100

Construction Administration and Inspection: \$47,100

Note: Green fill was used on this map to increase visibility. It is not recommended that these bike lanes be painted green, which is a treatment that is used elsewhere, but requires more maintenance than standard bike lanes.



#5 John Street Improvements

EXISTING CONDITIONS

John Street between Newbridge Rd and Broadway is much wider than the rest of the corridor in this study area, which creates wide crossing distances for pedestrians at both intersections. While there are center medians on all approaches, many are narrow and are not accessible as pedestrian refuge islands.

Much of the width of this block of John St is taken up by a center median which has 20 front-in angled parking spaces, some of which at the west side of the median are designated for use by Nassau County Police. Pulling out of these parking spaces on such a short block with lanes of oncoming traffic in each direction presents possible conflict points for both through traffic and vehicles turning onto John St from Newbridge Rd and Broadway. This parking is lightly utilized, and serves uses that mostly have off-street parking lots.

The left turn lane from John St eastbound onto Broadway northbound is very short, causing turning vehicles to queue in the adjacent through lane. Both through lanes carry through the intersection, but on the east side they merge abruptly into a single lane on John St east of Broadway.

Both of these intersections are high crash locations.



John St median from above.



John St median from street level.



Looking east across Broadway from John Street median.



Red light camera on Broadway.



Looking north from northern tip of Kennedy Park with Jerusalem Ave to left, Broadway to right.



Looking east across northern tip of Kennedy Park from Jerusalem Ave.

SUMMARY OF RECOMMENDATIONS

This short block of John St anchored by two high-volume intersections would benefit from a reconstruction to simplify the parking movements and provide longer left turn lanes on the inner approaches. Where feasible, additional measures to shorten pedestrian crossing distances would make this intersection less of a barrier for pedestrians. Depending on future development north of John St, creating a safe and convenient crossing may reduce many vehicle trips.

- Replace front in angled parking in center median with a limited number of parallel parking spaces, including preserving some for County Police.
- Add additional parallel parking spaces on the north and south sides of John Street to offset loss of spaces in the median
- Landscape center median and extend the east side of the median through the crosswalk.
- Elongate the left turn lane from John St eastbound onto Broadway northbound to allow for more vehicle storage.
- Make all left turns at Newbridge Rd and John St protected left turns.
- Include driveway access to each parcel.
- Enlarge triangular channelizing island on John St east of Broadway to improve alignment and provide larger pedestrian refuge.
- Add curb extensions on County road John St (not allowed on NYSDOT roads).

Involved Agencies: Town of Oyster Bay, NYSDOT

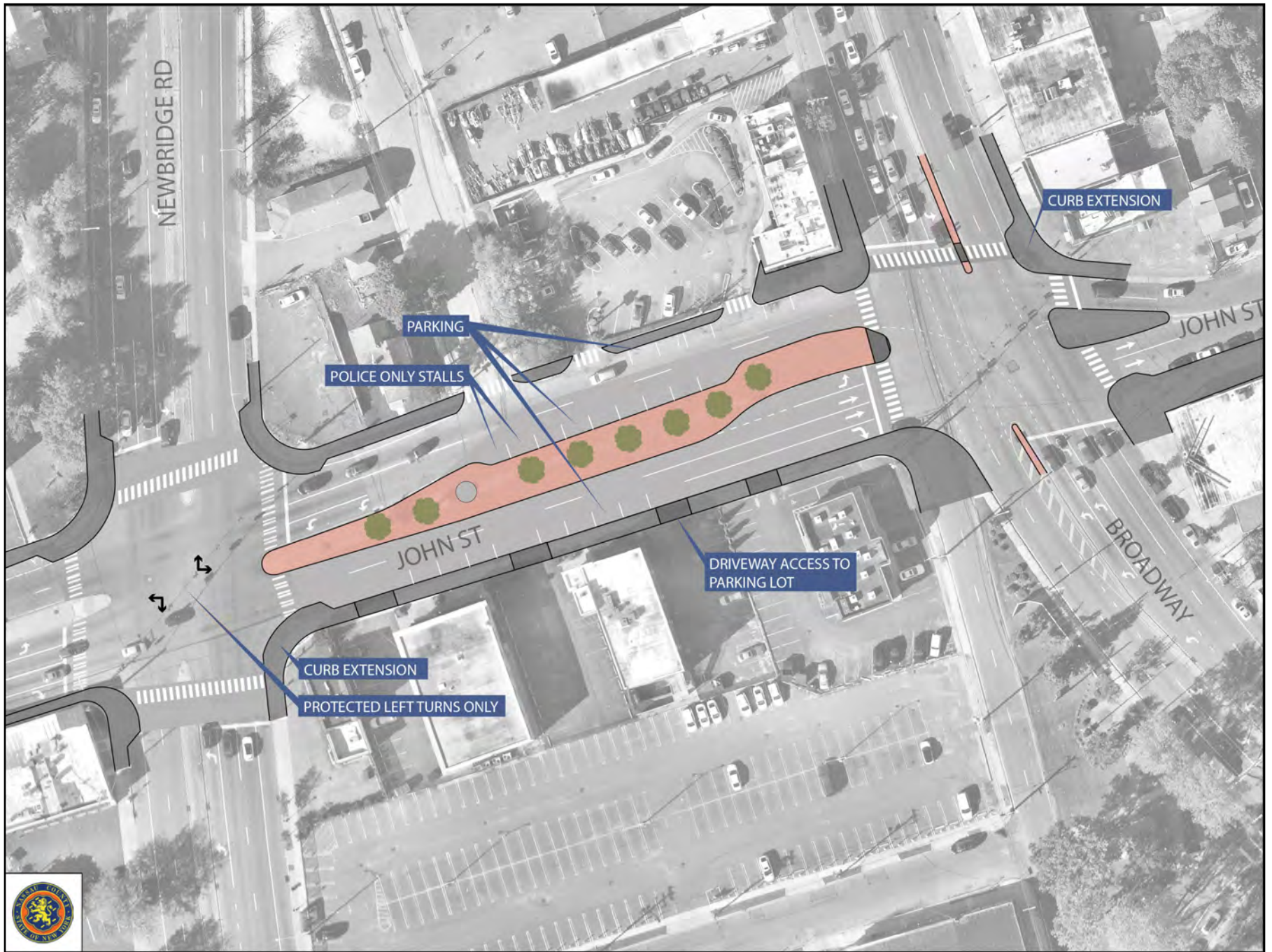
Implementation Timeframe: 2-5 years

Total Project Cost Estimate: \$2,219,600

Construction Cost: \$1,849,600

Engineering and Design: \$185,000

Construction Administration and Inspection: \$185,000



#6 Train Station Circulation & Ped Safety Improvements

EXISTING CONDITIONS

The area south of the station is a service road, which is also a heavily used private vehicle drop off area with limited pedestrian space allocated. The area north of the station serves as the main entrance to the station. The current configuration presents several conflict points, which range from a lack of pedestrian circulation and queuing space, to unpredictable vehicular movements.

On the south side (photo bottom right), the roadway is three lanes wide, which creates a condition during drop-off and pick-up where private vehicles are waiting and operating in an unpredictable way. Along the curbs, some vehicles stop and stand for long periods of time, while others stop briefly to let commuters out. The middle lane is the drive lane, which is often interrupted by vehicles merging from the curbside into the moving lane. The proximity to Dunkin Donuts exacerbates the congestion, as some drivers park in the designated 15 minute parking spaces on the south side of the road to get coffee and/or breakfast.

The roadway on the south side of the station turns under the railroad platform and comes out on the north side of the station, creating a U-turn loop. The roadway emerges where the red circle is shown on the photo on the top right of the next page. At this point, vehicles have many options. If drivers do not wish to park and want to get back onto Newbridge Road, they typically continue along the road north of the station.

That road north of the station has the same three lane condition as the south side, with the same conflict between curbside vehicles,

some of which are taxis and others private vehicles, that are waiting in the outer lanes with the middle being a through lane (photo top right of next page). This creates friction between vehicles trying to exit the station parking lot from the south side as well as from the outer moving lanes on the north side (photo bottom of next page).

Pedestrians experience a lack of space to circulate or wait to be picked up, as a result of the columns that line the station. When stepping out from between columns, pedestrian visibility is reduced. This is compounded by vehicles parked against the curb, forcing pedestrians to emerge from in between parked cars in order to cross the road. The marked crosswalks are significantly faded, and only lead to a concrete knee wall that has two openings. Navigating the unpredictable vehicular movements on both sides of the station and in the main parking lot to the north creates unpredictable pedestrian patterns, since no pedestrian route is marked.





SUMMARY OF RECOMMENDATIONS

The recommended reconfiguration of this parking area would respond to the safety, circulation and access constraints that existed at the time of this study. Any future development on this site should consider these suggestions, which would be mutually beneficial to any uses in and around the station area.

- ◆ Reconfigure the main station entrance to include a plaza on the north side, with an expanded pedestrian area where the plaza meets Newbridge Rd to accommodate high pedestrian volumes.
- ◆ Provide additional pedestrian circulation space on the south side of the main station entrance using paint and delineators on the roadway (this could be built out as funds are made available).
- ◆ Remove one moving lane on both north and south sides of the station, leaving two moving lanes that connect under the overpass. Curbside lane is for taxi drop-off outer lane is for through traffic.
- ◆ Create small plaza at the entrance to the tunnel in the southwest corner of the parking lot, to improve pedestrian circulation and waiting after leaving the station building.
- ◆ Create a private vehicle drop-off area along the south side of the main parking area, parallel to the platform north of the station. A drop-off area would provide access to the main station entrance, as well as the tunnel to the platforms, which is a convenient access point for many commuters.
- ◆ Align internal drive aisle with Wyckoff St, creating a standard 4-way intersection with Barclay St.
- ◆ Provide a pedestrian route from the station to the street network
- ◆ Landscape areas between parking stalls with stormwater plantings.

Involved Agencies: Town of Oyster Bay, LIRR

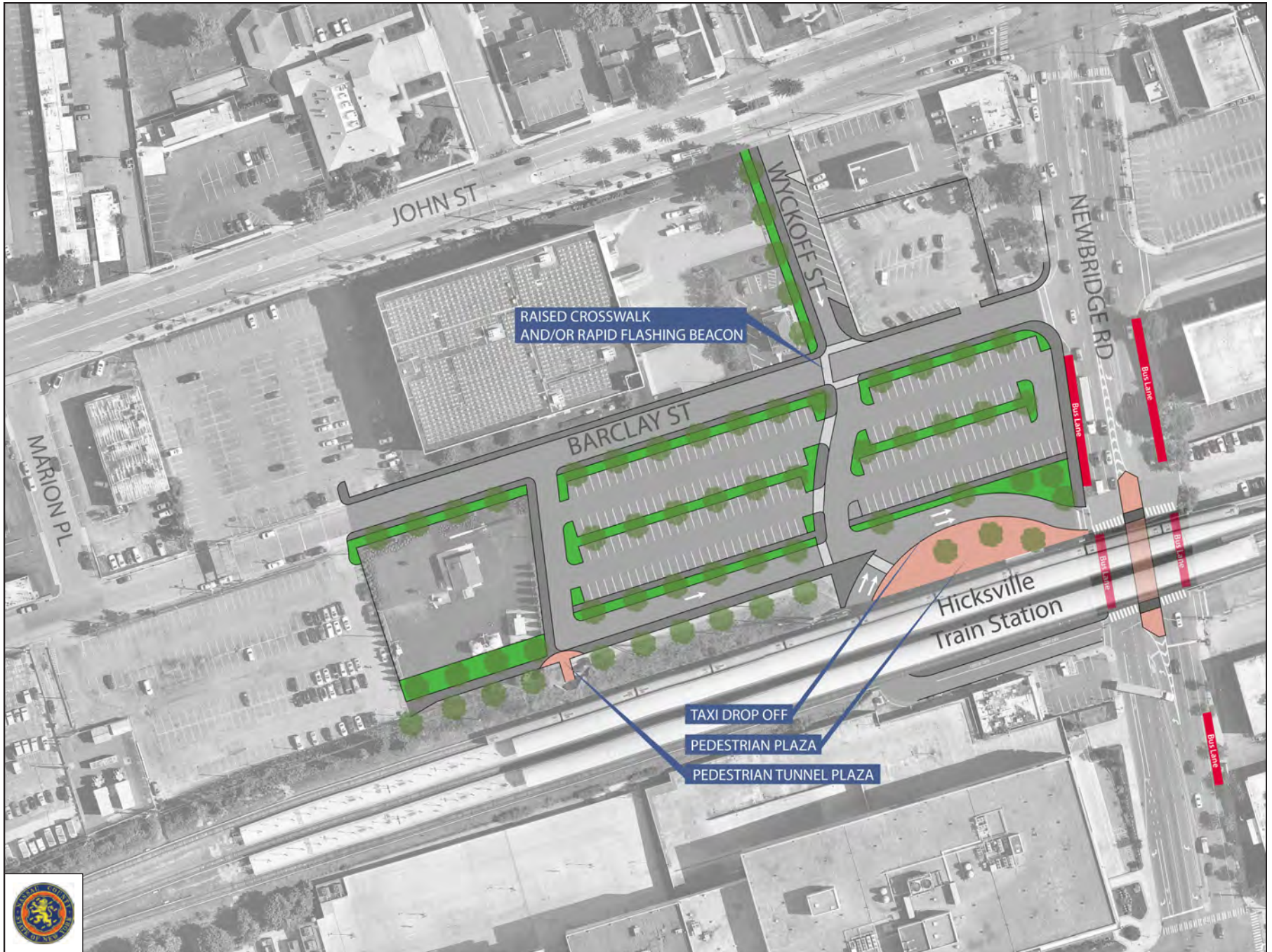
Implementation Timeframe: 2-5 years

Total Project Cost Estimate: \$5,250,050

Construction Cost: \$4,449,050

Engineering and Design: \$356,000

Construction Administration and Inspection: \$445,000



#7 Barclay Triangle & Park Expansion

EXISTING CONDITIONS

The triangular area from John St to the LIRR overpass, and from Jerusalem Ave to Broadway, is an area that was re-imagined by members of the community in the Downtown Revitalization Initiative (DRI). The atypical geometry and divided, underutilized park space right in the heart of Downtown Hicksville makes it an important prospect to the ongoing revitalization efforts, as well as providing an opportunity to improve safety.

The convergence of Jerusalem Avenue from Broadway which creates the acute angle of the triangle, also creates a five legged intersection at John St, with an expansive paved area with many complex movements. This intersection is a high crash location, the highest in the study area.

Currently, to access Jerusalem Ave southbound, vehicles in the leftmost southbound moving lane are required to split off from the through movement onto Broadway and veer into one of the two receiving lanes on Jerusalem Ave (labeled 1 on the next page). With more lanes than are needed and no physical measure to calm traffic, speeds tend to pick up by the time vehicles reach the LIRR overpass, which is a high volume, uncontrolled pedestrian crossing.

Northbound traffic queues present a different issue for pedestrians at the crossing under the LIRR overpass, backing up from the intersection of Broadway past the overpass during peak hours (labeled 2 on the next page). This causes pedestrians to cross between queuing vehicles, which are typically moving slowly as they come to a stop to wait for a green light.

Drivers coming from Barclay St east of Broadway, looking to access the surface parking lots immediately north of the station, must turn north onto Broadway, west onto John Street across a very wide intersection, and then south onto Newbridge Road. It should be noted that Newbridge Road at John St is a high crash location (labeled 3 on the next page). This route requires various lane changes in a short distance. Options to reduce that series of turns were pursued in the development of recommendations.

Kennedy Park, which sits between Jerusalem Ave and Broadway, has two distinct areas. The area south of the northbound leg of Jerusalem Ave is a landscaped plaza, while the area to the north has grass and landscaping, as well as the historic steam engine. With the community desire to enlarge the park space, the project team maintained a goal of enlarging the usable space as park space.

Another recommendation of the DRI was to convert the parking lot north of the railroad tracks, between Newbridge Rd and Jerusalem Ave, into a community space called "Festival Plaza". The project team supports the use of this space for community events, and also recognizes the importance of commuter parking this close to the station. As a result, this space is shown with distinctive pavers in a pattern that creates parking stalls, making the space flexible for various uses.

EXISTING CONDITIONS



SUMMARY OF RECOMMENDATIONS

Option A

When the DRI was undertaken, the recommendations, while preferred by the community, were not vetted by running a traffic model to see if they were feasible. This project started by testing the vision of the DRI, followed by other options.

Among the preferred recommendations that came out of the DRI process was a vision to re-establish the street grid by continuing Barclay St through the triangle, and to create a larger park with the space gained by removing Jerusalem Ave, particularly the northbound roadway which bends 90 degrees and terminates at Broadway and Barclay St. Option A represents the vision from the DRI, with any related issues addressed to make the scenario work operationally.

- Close Jerusalem Ave from John Street to the LIRR overpass.
- Open Barclay St through the park, creating a 4-way intersection at Barclay St and Broadway.
- Open Barclay St across Newbridge Rd, which is currently closed with a center median. This would reduce the number of vehicles using John St, a high crash location, going westbound toward the station.
- Open Herzog Pl and Broadway, to allow northbound traffic from Jerusalem Ave to travel north onto Broadway, which had previously been accommodated by Jerusalem Ave. In order to carry the volumes that would be displaced from Jerusalem Ave, Herzog Pl would need to be two lanes northbound instead of one lane in each direction. Install new crosswalk on the north side of Herzog Pl where most pedestrians currently cross.

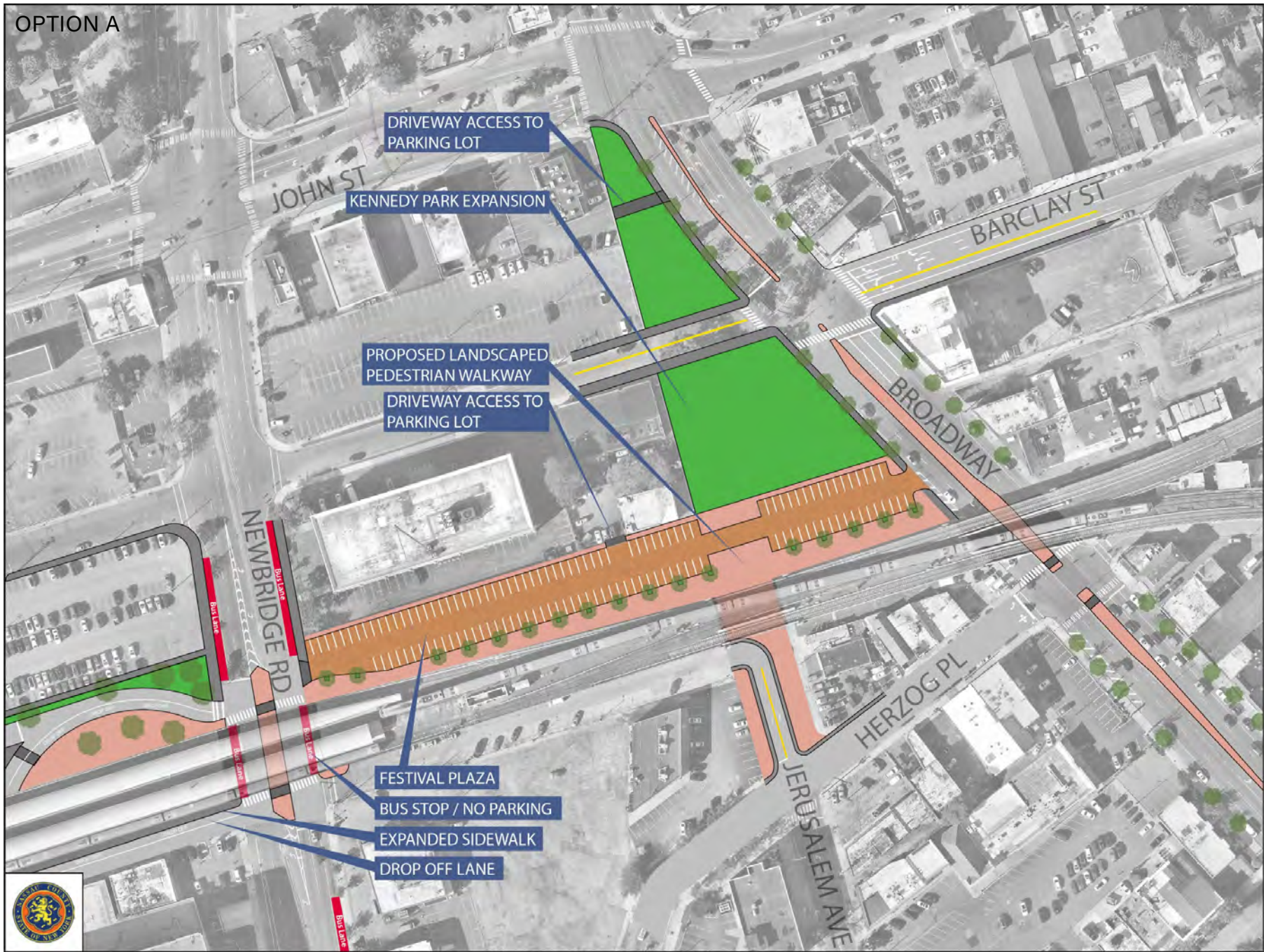
Traffic modeling revealed at least three fatal flaws with this reconfiguration.

1. The opening of Newbridge Rd and Barclay creates backups that would cause the intersection to fail.
2. Even with two lanes toward Broadway, Herzog Pl would fail due to back ups beyond Jerusalem Ave.
3. High volumes of vehicles turning from Herzog Pl north onto Broadway would create a conflict with the heavy pedestrian crossing across Broadway. This new turning movement would create greater conflicts between vehicles and pedestrians, and is not recommended.

This option would also require the relocation of the historic steam engine in Kennedy Park

After evaluating the vision of the DRI process using existing traffic counts extended to a 10-year build horizon, it was determined that the conflicts constitute fatal flaws for this option. Based on the areas that failed, additional options were developed and run through the traffic model.

OPTION A



SUMMARY OF RECOMMENDATIONS

Option B

In response to the issues with Option A, the project team considered at least 4 other options. Option B, detailed on the following pages, was the resulting configuration that aimed to meet the needs of the project while avoiding conditions that would create conflicts or cause intersections to fail.

- Close the existing alignment of Jerusalem Ave from John St to Barclay St, leaving one lane from Barclay St to Herzog Pl. This removes the fifth leg of the intersection.
- Add a southbound lane for Jerusalem Ave from Barclay St, curving at an angle similar to the northbound lane, but with a widened median between the north and southbound lanes. This effectively creates a slip turn lane for vehicles that would have used a bend in the roadway.
- Expand Kennedy Park all the way to the LIRR tracks, removing the parking lot that is currently between Jerusalem Ave and Broadway.

OPTION B



SUMMARY OF RECOMMENDATIONS

Preferred Alternative

Our Preferred Alternative is a third option, which took into account feedback we received from members of the community at our second public meeting. This option retains most of the existing configuration, but removes one of the southbound lanes on Jerusalem Ave. Removing that lane optimizes the alignment from Broadway onto Jerusalem and calms traffic as it enters Jerusalem Ave. Volumes on Jerusalem Ave were low enough to operate with one lane without causing delays, and the narrowed roadway will result in additional park space while slowing southbound traffic on Jerusalem Ave.

- Jerusalem Ave would be accessed from a new moving lane in what is now a shoulder against the curb north of John St. This would improve the alignment by removing the need to weave from the through lane on Broadway to get onto Jerusalem Ave.
- Align the single moving lane on Jerusalem Ave to the western edge of the roadway, This will allow for the expansion of the center median to provide a larger pedestrian refuge across this unsignalized crossing, as well as landscaping.
- Curbside bike lanes could also be implemented between Herzog Pl and the LIRR overpass, allowing cyclists to access bike parking from the south.
- Expand Kennedy Park all the way to the LIRR tracks, removing the parking lot that is currently between Jerusalem Ave and Broadway.

This alternative should be implemented in two phases. First, with pavement markings, the realignment of a single southbound lane of Jerusalem Ave can be implemented. The additional width of the center median on Jerusalem Ave can also be created with pavement markings. The capital work required to improve this crossing and bring it to ADA compliance is critical to the next recommendation in this report, the Underline (Recommendation #8). As a result, funding for the Jerusalem Ave realignment should be prioritized. The remaining Kennedy Park expansion improvements can proceed at any time, but are less critical to other safety upgrades in the area.

Involved Agencies: NCDPW, LIRR, Town of Oyster Bay

Implementation Timeframe: 1-3 years (Roadway); 3-10 years (Park)

Roadway Project Cost Estimate: \$1,495,900

Construction Cost: \$1,135,900

Engineering and Design: \$180,000

Construction Administration and Inspection: \$180,000

Park Project Cost Estimate: \$4,000,000

Kennedy Park Reconstruction: \$2,500,000

Festival Plaza: \$1,500,000

#8 Underline Connection Under The LIRR Overpass

EXISTING CONDITIONS

Commuter parking is dispersed on all sides of the LIRR station, however, staircases leading to the station platform are only found west of Jerusalem Ave. This means that commuters parked east of Newbridge Rd, must walk parallel to the railroad tracks for some distance, crossing one or more of the three major roads that traverse the study area: Broadway, Jerusalem Ave, and Newbridge Rd. Each of these crossings has unique challenges, with the common thread being that they are heavily used by commuters accessing the station from various parking areas.

Broadway and Herzog Place (photos below left): This intersection sits south of the railroad overpass, but the marked crosswalk is on the south side of the intersection, over 100 feet from the overpass. As a result, commuters regularly use the most direct path, which



involves crossing between a guiderail and delineators that have been installed to close the median along Broadway. At times, crossings at this location take place against the traffic light, with minimal visibility resulting from the railroad supports, which block the view of pedestrians for oncoming southbound vehicles.

Jerusalem Ave (photo below): With two lanes in each direction to cross, a median without pedestrian ramps, and low lighting, this crossing is the only one that is not signalized. Additionally, this crossing comes after two blocks of low capacity, high speed vehicular movements, as vehicles travel southbound from W John St along Jerusalem Ave to this crossing location.



Newbridge Road (photo top right): Immediately adjacent to the main station entrance is the busiest of the three crossings. Private vehicle drop-off/pick-up is occurring in areas meant to be curbside bus stops. This creates backups slowing down NICE bus service. Additionally, the back-up of private vehicles often encroaches into the crosswalks, leaving pedestrians with less space to safely cross.

Under the LIRR Overpass: The area that connects these three major intersections is a walkway that varies in width. A paved sidewalk is found throughout, but is only 5 feet wide in many places where parked vehicles encroach leaving no space for cyclists. The lighting under the overpass is relatively dim and not scaled for pedestrians.



SUMMARY OF RECOMMENDATIONS

The strategy behind the “Underline” recommendation is to create a well lit, covered, linear passageway with safe street crossings. With minor expansion in some areas, the linear connection is already in tact between Broadway and Newbridge Rd. Additional elements such as distinctive lighting and context-sensitive pedestrian crossings would tie the linear spaces together and create a striking distinction from the surrounding area.

This accented physical transformation would create a sense of place, acting as a gateway to Downtown Hicksville for thousands of through vehicles. As the busiest LIRR station in Nassau and Suffolk Counties, bisected by two major State corridors, this placemaking measure would tie the linear passageway together as it crosses each roadway.

Below are the recommendations for each area of the Underline:

Broadway and Herzog Pl

- Remove guiderail and construct a raised median south of the bridge supports, which would remove the need for the guiderail and other delineators that are currently in place.
- Create a crosswalk on the north side of the intersection, which is the most direct route across Broadway for the hundreds of commuters that are currently crossing here without a crosswalk to access the station.
- Install curb extension on the northwest corner of Broadway and Herzog Pl to provide more space for pedestrians to queue while waiting to cross Broadway.

Jerusalem Ave

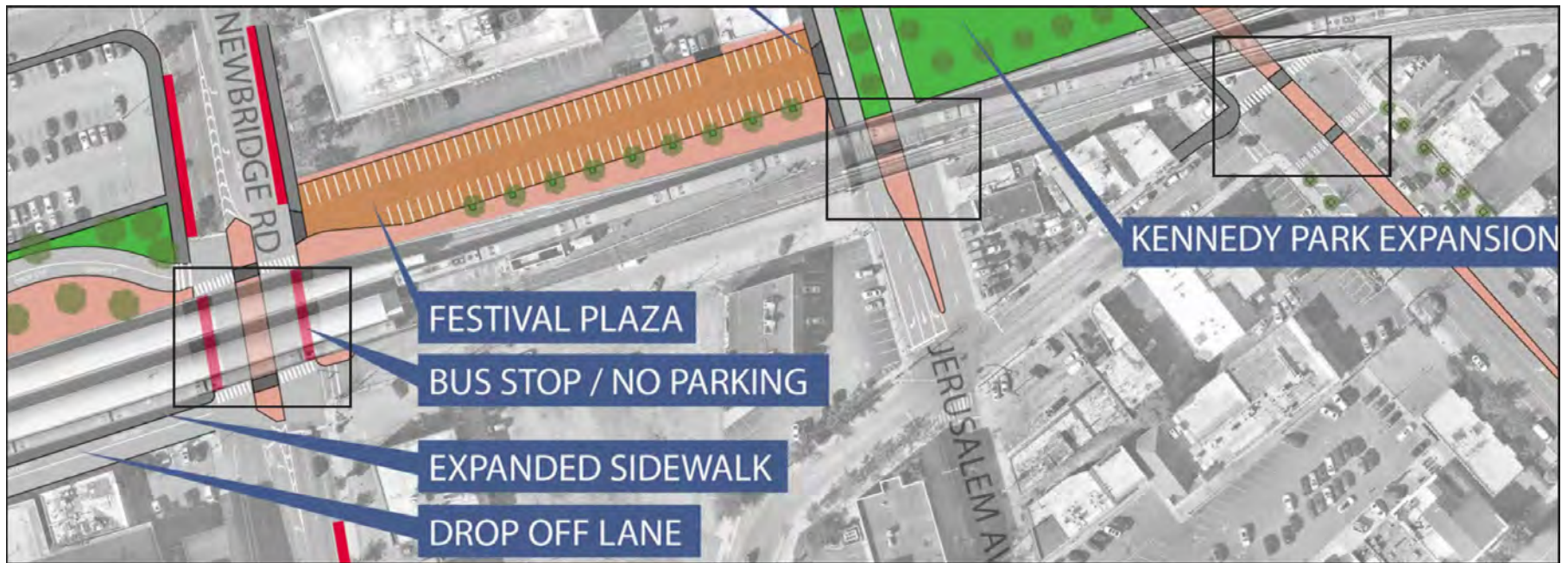
- Remove one moving lane and expand center median to shorten crossing distance and provide larger pedestrian refuge for this uncontrolled crossing.
- Provide Rectangular Rapid Flashing Beacons for both northbound and southbound moving lanes.
- Images on page 56 show the existing condition and photo simulations of the proposed day and night conditions.

Newbridge Rd

- Designate curbside area as Bus Lanes with No Standing signs. Bus Lanes painted red will increase compliance.
- Expand pedestrian area on all four corners to increase pedestrian queuing space.
- Expand median and add pedestrian ramps to create a refuge area.

Under the LIRR Overpass

The name and concept proposed for the “Underline” area under the overpass originated with the DRI process. Due to the importance of this east-west axis, the project team built on the concept set forth in the DRI plan to envision a consistently wide path with separate alignments for pedestrians and cyclists. In order to achieve this, a small amount of parking spaces would need to be relocated to widen the existing sidewalk to at least 10-12 feet. By funneling all movements under the overpass, crossings will be at controlled locations that are appropriately signed and marked.



Since commuters access the station in the dark during parts of the year, low-maintenance LED lighting is recommended. In addition to providing adequate pedestrian-scaled lighting, this lighting will bring the attention of drivers to the crossings, slowing vehicle speeds.

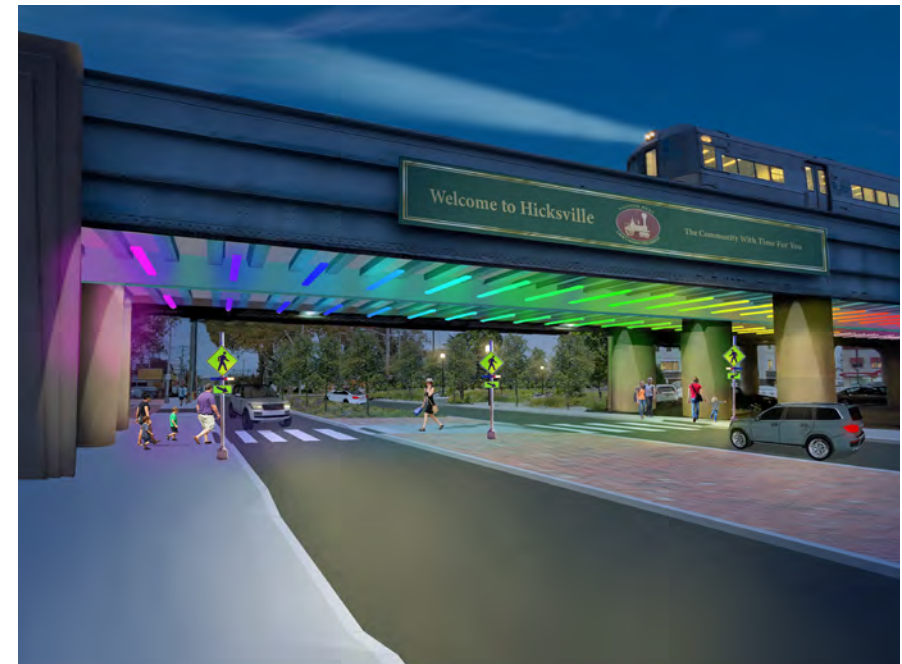
Involved Agencies: Town of Oyster Bay, LIRR
 Implementation Timeframe: 2-5 years
 Total Project Cost Estimate: \$2,445,900
 Construction Cost: \$1,972,500
 Engineering and Design: \$236,700
 Construction Administration and Inspection: \$236,700



Existing Condition (Top Left): Commuters crossing at a gap in traffic on Jerusalem Ave.

Recommended - Daylight (Bottom Left): Photo simulation showing accessible pedestrian crossing with enlarged median refuge island, Rectangular Rapid Flashing Beacons, continuous sidewalks and gateway signage.

Recommended - Night (Bottom Right): Photo simulation showing a possible lighting effect to accent this crossing during hours of darkness.



4.0 NEXT STEPS

This project concluded with the presentation of preliminary recommendations to the public in January 2020, followed by the production of this report, which documents the finalized recommendations. The recommendations are conceptual in nature, so additional study and design will be required for many of these projects. However, the recommendations were taken together as a set of safety and mobility improvements, and would be most effective if all eight recommendations are implemented within a timeframe of 5-10 years.

Half of the recommendations are early action items that can be implemented relatively quickly. The other half of the recommendations could be implemented within 2-5 years, beginning with applications for funding using this report.

The Implementation Timeline that follows outlines a Plan of Action moving forward for lead agencies and supporting organizations to take on as resources are available to initiate new projects.

4.1 Plan of Action

With various jurisdictions owning roadways and parcels throughout the study area, a continuation of the interagency coordination will be critical to the success of Downtown Hicksville. Through earlier efforts, the TAC members had already been working together, and the common goal of improving Downtown Hicksville will need to continue these collaborations. Below is a plan of action for each of the recommendations.

1 Broadway Downtown Streetscaping

This project may have the highest level of impact for retail and local economic health. As the designated downtown retail area for Hicksville, the current condition does not invite businesses or patrons. Upgrading and making sidewalks and crosswalks accessible would promote pedestrian access from on-street parking as well as centralized parking areas that already exist. Funding for this may be allocated from DRI funds, or may be sought on behalf of NYSDOT which owns the roadway. With the right-of-way in place, this is a relatively simple construction project along a critical corridor.

2 Bike Routes and Facilities

These shared lanes and bike racks could be installed relatively quickly, particularly if there are other marking installations taking place in the Downtown Hicksville area.

3 Duffy Ave & Newbridge Rd

With the space mostly available to install bike lanes on both Duffy Ave and Newbridge Ave, these could be installed immediately. Coordination with NYSDOT is required in order to implement these bike lanes.

4 Duffy Ave Mid-Block Crossing

A signal warrant analysis is required to justify a pedestrian crossing element at this location. Preliminary counts taken as part of this study indicate that there are likely a sufficient number of pedestrians crossing at this location to warrant a traffic signal or flashing beacon.

5 John St Improvements

As a larger capital project, this full block reconstruction will require coordination between various agencies. Funding for this process needs to be identified, and should be the next step in the process. A full design process, including traffic analysis, will be required to finalize the design and produce construction documents to secure the appropriate amount of funding.

6 Train Station Circulation & Ped Safety Improvements

This parcel is the subject of future development, so the exact fate is not certain. The recommendations for this area are still valid, as they respond to the commuter circulation needs present at the station.

Private drop-off, pedestrian waiting areas, limited lanes surrounding the train station and enlarged pedestrian queue spaces will not only be beneficial to future developments, they are critical to the current functioning of this area. The next step is to coordinate with the LIRR and Town of Oyster Bay on these improvements.

7 Barclay Triangle & Kennedy Park Expansion

This project should be undertaken in two phases. The critical change is to reduce Jerusalem Ave to one lane southbound from Broadway. The lane will also be shifted west to widen the center median at the pedestrian crossing location.

Widening the median with paint will provide some short-term relief, but the critical upgrade is a built median with a proper ADA Compliant pedestrian crossing, including Rectangular Rapid Flashing Beacons and gateway signage. This capital build out could be done as an intermediary phase, or as part of the expansion of Kennedy Park.

8 “Underline” Connection Under the LIRR Overpass

The Underline is, in some locations, already in tact and wide enough to separate bike and pedestrian movements. Additional work would be required to get a continuous pathway. In the meantime, a low-cost, low-maintenance LED lighting arrangement could be installed to provide the high-impact visual attention grabber, which would come to define Downtown Hicksville as a place, not just a commuter center.

4.2 Potential Funding Sources

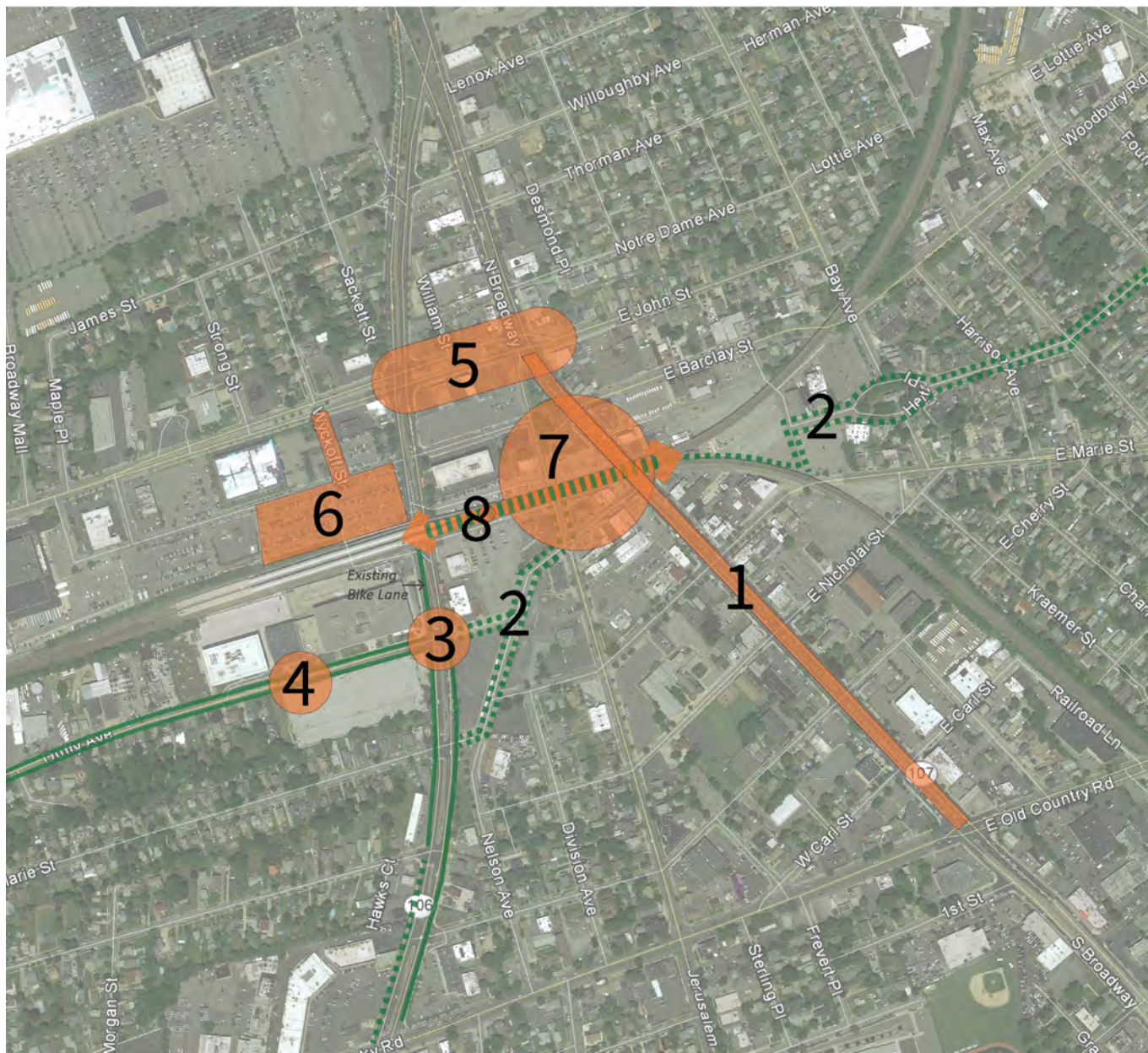
In addition to operational funding, which may be available for short-term improvements such as signs and markings, the funding programs below are available annually or semi-annually. Many of the recommendations in this report would qualify for some or all of the programs below. More detail about each of these funding sources, as well as the US DOT's matrix of Transportation, Transit, Safety and Highway Funds can be found in the Appendices.

- ♦ Transportation Alternatives Program (TAP)
- ♦ Congestion Mitigation & Air Quality Program (CMAQ)
- ♦ Safe Routes to School (SRTS) Program
- ♦ Consolidated Local Street and Highway Improvement Program (CHIPS)
- ♦ Recreational Trails Program
- ♦ Pedestrian Safety Action Plan (PSAP)

Other programs that could provide funding for some of these recommendations include:

- ♦ Multi-modal Program: Requires projects to be nominated by a Legislative Member or the Governor
- ♦ Community Development Block Grants (CDBG): Administered by Nassau County
- ♦ State and Municipal Facilities Program (SAM): Administered by DASNY

	Recommendation	Location	Overview	Cost Estimate	Timeframe	Involved Agencies
1	Broadway Downtown Streetscaping	Broadway from John St to Old Country Road	Improve sidewalk and ped ramp conditions; provide clear walking space; bike parking	\$5,941,675	2-5 years	NYS DOT, Town of Oyster Bay
2	Bike Routes and Facilities	Heitz Pl, Nelson Ave, Duffy Ave, Newbridge Rd, Jerusalem Ave	Bike Lanes with buffers where space allows, shared lanes on narrow streets	\$189,800	1 year	NYS DOT, Town of Oyster Bay, NCDPW, LIRR
3	Duffy Ave & Newbridge Rd	Duffy Ave & Newbridge Rd	Duffy Ave: Bike Lanes west of Newbridge Rd, Shared lanes east; Buffered bike lanes south of Duffy Ave	\$96,100	1 year	NYS DOT, Town of Oyster Bay
4	Duffy Ave Mid-Block Crossing	Duffy Ave, 500' west of Newbridge Rd	Pedestrian crossing element at high crossing location	\$408,100	1 year	Town of Oyster Bay
5	John Street Improvements	John St from Newbridge Rd to Broadway	Roadway reconstruction to median removing angled parking and adding landscaping; curb extensions	\$2,219,600	2-5 years	Town of Oyster Bay, NYSDOT
6	Train Station Circulation & Ped Safety Improvements	Barclay St to Train Station from Newbridge Rd to 800 feet east; Wyckoff St	Create plaza for ped circulation; Private vehicle drop-off area; Align parking exit with Wyckoff St	\$5,250,050	2-5 years	Town of Oyster Bay, LIRR
7	Barclay Triangle & Park Expansion	Broadway to Jerusalem Ave from John St to Herzog Pl	Remove one southbound travel lane on Jerusalem Ave and improve alignment from Broadway southbound	\$1,495,900 (Roadway) \$4,000,000 (Park)	1-3 years (Roadway) 3-10 years (Park)	NCDPW, LIRR, Town of Oyster Bay
8	"Underline" Connection Under the LIRR Overpass	East side of Broadway to West side of Newbridge Rd, under the LIRR tracks/station	Continuous separate bike and ped paths with enhanced crossings at intersections	\$2,445,900	2-5 years	Town of Oyster Bay, LIRR



Recommendations

1. Broadway Downtown Streetscaping
2. Bike Routes and Facilities
 - Dedicated Bike Lane or Buffered Bike Lane
 - ⋯ Shared Lane Markings
3. Duffy Ave & Newbridge Road
4. Duffy Ave Mid-Block Crossing
5. John St Improvements
6. Train Station Circulation and Pedestrian Safety Improvements
7. Barclay Triangle & Park Expansion
 - Option A DRI-based
 - Option B Preferred Alternative
8. Underline Connection Under the LIRR Overpass (Broadway to Newbridge Rd)
 - ↔ Underline Bike-Ped Path

4.3 Economic Benefits

In Downtown Hicksville, the recommended Complete Streets projects will improve safety and connectivity for pedestrians, bicyclists and motorists; improve visibility and accessibility to area businesses; and improve the overall desirability and appearance of the downtown area. These improvements are likely to have economic benefits through the potential for increased visibility and patronage of area businesses, which would be reflected in sales tax collections. This could lead to less retail vacancies, which in turn creates higher tax revenue, as well as more local employment opportunities. Furthermore, these improvements could lead to a higher regard for local commercial and residential real estate, which would lead to higher property values.

Specifically, the streetscape upgrades along Broadway would present the greatest direct economic opportunity. With a unified aesthetic and enhanced safety and comfort defining the downtown retail area, Broadway could become more of a retail destination, with multiple trips taking place on foot between various retail establishments.

Creating spaces for multi-modal uses provides options for residents and commuters. If encouraged by a safer environment with more facilities for pedestrians and bicyclists, individual commuters could benefit economically through cost savings by shifting from driving to walking or biking to the Hicksville LIRR Station.

Several studies have attempted to quantify the economic benefits of Complete Streets investments. A November 2017 study in the *Journal of Transport & Health* examined the impact of Complete Streets investments on adjacent residential real estate in 2000 and 2007 in

Orlando, FL. The researchers found that, on average, single-family homes exposed to Complete Streets had approximately 8% and 4% home value appreciation and home value resilience than their counterparts in adjacent non-exposed control area during housing market boom and recession, respectively.

Clearly, many attributes about a neighborhood contribute to the desirability of its housing stock. Living near or along a safe, well-designed street that accommodates walkers, bicyclists, and motorists is generally more desirable to a prospective home buyer than living along a road that only caters to motorists. This principle also can be extrapolated to downtowns and commercial areas, where safe circulation for a variety of modes is critical.

According to a presentation “The Economic Benefits of Complete Streets Projects,” for the Nassau County Infill Redevelopment Feasibility Study for Baldwin (October 29, 2013), an examination of several case studies led to the conclusion that investment in Complete Streets resulted in positive and quantifiable economic benefits for the communities. The presentation states: “a \$7 to \$10 million investment in Complete Streets can generate returns ranging from \$20 to \$100 million” through creation of new jobs, attraction of new businesses, and reduction in retail vacancies.

A joint NYSERDA/NYS DOT report entitled *Measuring the Impact of Complete Street Projects: Preliminary Field Testing* (Report 16-19, December 2016) captures the results of a qualitative, survey-based study that sought to assess the impact of Complete Streets projects in eight street corridors in Buffalo, NY where Complete Streets projects were implemented. With respect to economic benefits, which

the report only touches on lightly, approximately 26% of merchants reported that their sales were “somewhat more” or “much more” since the street improvements were completed.

At various points during the implementation of the Downtown Hicksville Complete Streets Project, Nassau County should work with the Town of Oyster Bay to track quantitative and qualitative data that will provide a sense of the economic benefits of investing in this project. A baseline should be established after the planned private real estate development projects and other public improvements being undertaken by the Town come to fruition, otherwise it might be difficult to differentiate the economic benefits of the Complete Streets Project alone.

Tracking economic benefits will require data such as increases in property values or tax revenue after improvements are implemented, crash reductions, and reductions in delay times. Each benefit should be studied and compared to the conditions prior to the implementation of any complete streets recommendations.

The existing street design and infrastructure would be considered conventional design, which has come to prioritize throughput of vehicular traffic, with the minimum required infrastructure for other modes of transportation. Therefore, comparing the existing conditions immediately before implementation would provide a comparison of any of the benefits after the implementation of complete streets treatments. This will illustrate the benefits resulting from complete streets, as opposed to rebuilding the existing geometry to primarily move traffic through the corridors as they have been to date.