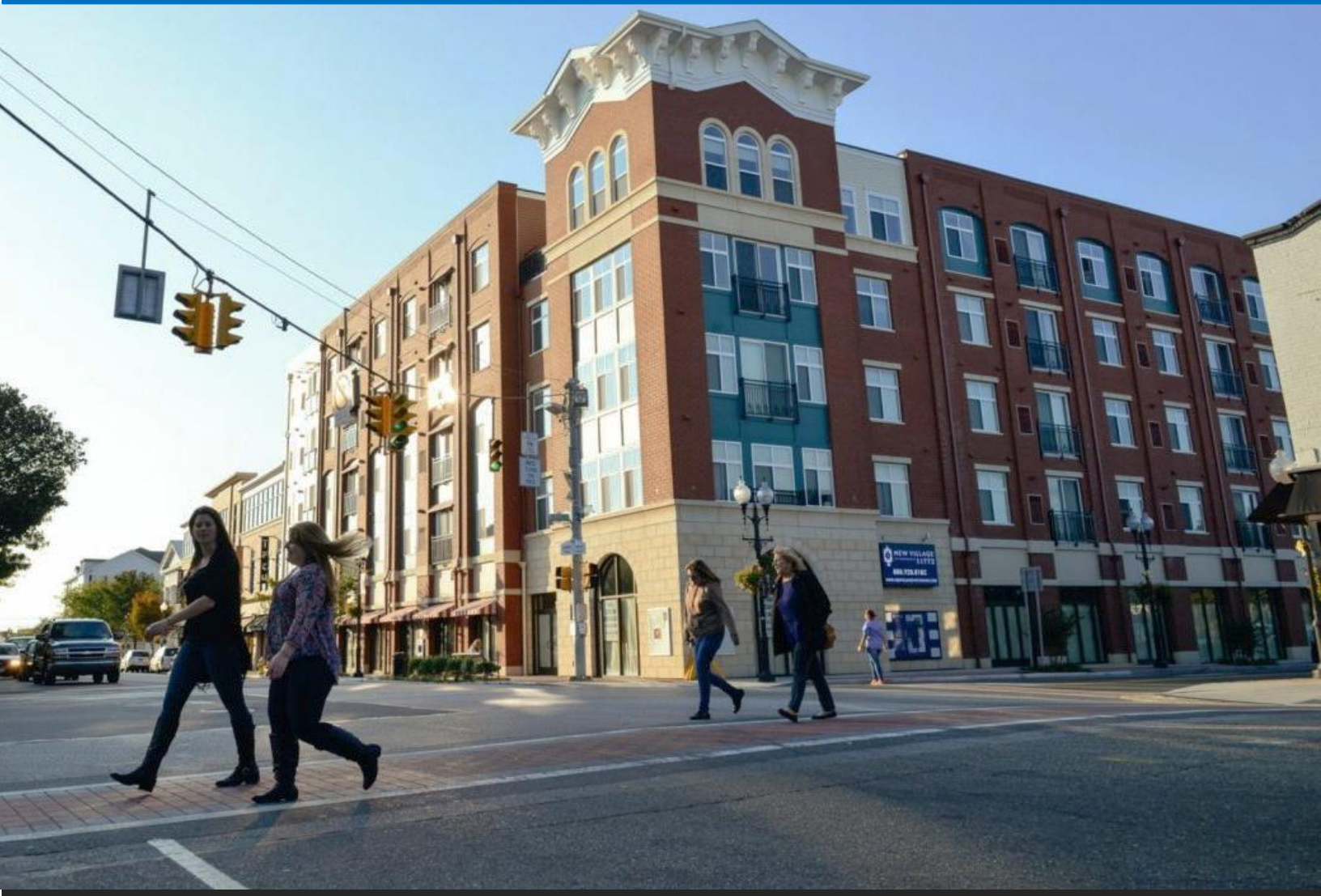
New York Coalition for Transportation Safety| September 2020



PEDESTRIAN SAFETY ON LONG ISLAND

Recommendations from an observational study

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Background Information and Rationale

New York is the leading state for pedestrian fatalities, with 29% of all motor vehicle fatalities involving a pedestrian in 2018, while the national average is only 16%, according to New York's Traffic Safety Statistical Repository (TSSR) (1). Pedestrian safety is a serious concern on Long Island, especially since the rate of fatalities has remained steady from 2014-2018.

According to New York State (NYS) (2), between 2009 and 2013, nearly 50 percent of all pedestrian crashes in NYS occurred in 20 areas, which were then identified as Focus Communities by the New York State Pedestrian Safety Action Plan. Out of the 20 Focus Communities, 8 are communities on Long Island: Hempstead, Brookhaven, Islip, Oyster Bay, N. Hempstead, Babylon, Huntington, and Freeport. Out of the top 10 Focus Communities with the most pedestrian crashes in the state, including the number one community, Hempstead, 5 of them are on Long Island (see chart to the left).

Pedestrian Safety Action Plan

Focus Communities

Rank	City/Town/Village (by # crashes)	County	Crashes
1	Hempstead	Nassau	2,139
2	Buffalo	Erie	1,254
3	Rochester	Monroe	984
4	Syracuse	Onondaga	810
5	Yonkers	Westchester	727
6	Albany	Albany	681
7	Brookhaven	Suffolk	522
8	Islip	Suffolk	516
9	Oyster Bay	Nassau	478
10	N. Hempstead	Nassau	463
11	Babylon	Suffolk	454
12	White Plains	Westchester	354
13	Schenectady	Schenectady	318
14	Huntington	Suffolk	299
15	New Rochelle	Westchester	243
16	Poughkeepsie	Dutchess	243
17	Utica	Oneida	239
18	Niagara Falls	Niagara	226
19	Freeport	Nassau	209
20	Ramapo	Rockland	205

Although dangerous driving and poor intersection design account for some pedestrian crashes,

a study done in Vancouver showed that 21% of pedestrians observed committed at least one crossing violation (3). These crossing violations include disobeying the lights or crossing mid-intersection. With the increased use of cellphones, distracted crossing has increased as well. A review of 8 observational studies showed text messaging as the most dangerous pedestrian behavior, with an increased prevalence of pedestrians failing to look both ways before crossing the road (4).

This observational study of pedestrian/bicyclist/motorist behavior was undertaken to address pedestrian injury data provided by the NY State Pedestrian Safety Action Plan. This plan underscored the sharp increase in pedestrian injuries and fatalities and the areas of the state in which they occurred. Nassau and Suffolk Counties were highlighted as having some of the highest pedestrian injuries in NY State. Based on this data, the NY Coalition for Transportation Safety (NYCTS) believed that an observational study conducted at two locations, Freeport in Nassau County and Huntington Station in Suffolk County, might provide insight into behaviors that were contributing to the increase in pedestrian injuries.

The study intersections were identified through data provided by the Tri-State Transportation Campaign and TSSR (1). TSSR reported a high rate of pedestrian crashes at the chosen locations and posited that time of day when crashes occurred (42 from 3 pm to 9 pm) was a major contributing factor. NYCTS speculated that this statistic might be the result of visibility issues rather than distracted crossing behavior issues, so they proposed to broaden the scope of the observations to include daytime hours from 9 am to 6 pm.

This study was conducted during the COVID-19 pandemic, which coincidentally encouraged more people to walk and bike as a means to deal with quarantine and isolation.

About the New York Coalition for Transportation Safety (NYCTS)

The New York Coalition for Transportation Safety (NYCTS) creates a transformative pedestrian, bicycle, and motor vehicle safety community for those in need, impacted by injury, crashes, and other transportation-related incidents in New York State. Through a grant funded by the New

York State Governor's Traffic Safety Committee (GTSC), NYCTS works with grant partners to improve pedestrian safety, raise awareness of NYS Vehicle and Traffic Laws, and reduce pedestrian injuries and fatalities. Grant partners include the Long Island Health Collaborative (LIHC), Cohen Children's Medical Center, Community Parents Center, and DEDICATEDD.

Through community-based programs via lectures, conferences, promotional events, and arts programming focused upon pedestrian, bicycle, and driver/motor vehicle safety, the New York Coalition for Transportation Safety (NYCTS) provides public programming and services in New York State to residents in Queens, Brooklyn, Nassau and Suffolk counties. They are a non-profit organization that also serves as an advocate for pedestrian and bicycle safety.

Methodology

Training

Both intersections chosen for this study had a team of three observers. The observers in Freeport were graduate students in occupational therapy from New York Institute of Technology. The observers in Huntington Station assisted the New York Coalition for Transportation Safety (NYCTS) and the Long Island Health Collaborative (LIHC) in previous traffic safety studies.

A pre-observation training webinar was held with staff from the New York Coalition for Transportation Safety and the Long Island Health collaborative. Training included identification of observation sites and rationale for their selection; days of the week observations would take place, and times of day observations would be conducted. A summer month was chosen to eliminate all crashes due to snow and ice, and due to the increased pedestrian activity in warmer weather.

Teams were advised that they would conduct observations from 8 am to 9 am, 12 pm to 1 pm, and 5 pm to 6 pm. In this manner, the observations would include morning and evening rush hours and lunchtime, all times of day when traffic and foot volume might be the greatest. Observations would take place on three weekdays, Monday through Friday.

Team members were provided with digital photographs of the intersections where the observations would take place. Engineering design issues that might impact pedestrian/bicycle/motorist safety were identified and reviewed so that teams would be better prepared when they began the actual study.

Teams were advised of the tasks to be completed at each observation: count traffic volume (cars, pedestrians, and bicyclists); report said counts in writing; and make note of any anecdotal behavior by all roadway users that could be considered risky, e.g., using a cell phone while driving or crossing a street.

Team members were instructed to choose a team leader to coordinate and submit each team's collected data within 5 days of the conclusion of the observations.

Observations

Morning, afternoon, and evening observations were conducted over three consecutive days. All necessary personal protective equipment was provided to team members, including handheld tally counters for calculating and recording numbers. An NYCTS staff member remained with each team to provide supervision, support, and to answer any questions.

Before physical counts began, each team was asked to note the design of the chosen intersection. They then photographed the intersection and the immediate area surrounding it. Teams then proceeded to count all motor vehicles, pedestrians, and bicyclists entering the selected intersections.

Team members noted potential risky behaviors among all road users to the best of their ability. There were additional, non-scientific, yet noteworthy anecdotal observations drawn by most team members. These included distracted behaviors, noting specific areas where cyclists rode (street vs. sidewalk); and, the use of helmets. At the conclusion of all observations, teams were asked to provide suggestions for future pedestrian safety efforts (based on their observations) when they provided their reports.

Study Findings

Freeport

Location 1: South Main Street and East and West Merrick Road, Freeport, NY			
Day 1	**Number of Motor Vehicles Observed**	**Number of Pedestrians Observed**	**Number of Cyclists Observed**
Date: 06/23/2020 **Time:** 12:00 - 1:00 pm **Weather:** Hot Clear day	1,632 observed driving on Merrick road 305 observed driving on South Main Street	343	20
Observed Behaviors – Positive and Negative		**Issues/ Potential risks due to human behavior and infrastructure/ street design**	
16 people walked without the signal, and 24 people crossed midblock. 4 people were also noticed crossing the street with canes and one with a wheelchair. The vehicles making left turns from West Merrick on to S. Main and East Merrick on to S. Main seemed dangerous because of the volume of vehicles and pedestrians, as well as the high speeds vehicles were traveling through the intersection. At times there were large delivery trucks stopped at the corners of the intersection, potentially blocking the vision of motor vehicles making turns around the trucks. 11 police cars were also noted driving down Merrick during the hour observation 3 pedestrians had to walk out of the crosswalk to avoid the cars (From South Main).		Due to the lack of pedestrian signals crossing South Main Street and the poor visibility for drivers making a right turn onto S. Main Street, this location could be high risk for pedestrian accidents. The 14-second timer may not be sufficient time for these pedestrians to cross. Because of the ability to make a right turn on red, 9 vehicles stopped directly on the crosswalk to get a better view of cars coming down Merrick. Pulling up to the stoplight, South Main widens to incorporate a left turn lane. 4 cars did not realize that the lane split, as there is no dividing line between lanes, and stopped directly in the middle.	

Day 2	**Number of Motor Vehicles Observed**	**Number of Pedestrians Observed**	**Number of Cyclists Observed**
Date: 06/24/2020 **Time:** 5:30 – 6:30 PM **Weather:** Hot Clear day	1,908 driving on Merrick Road 330 driving on South Main Street (25 more than day 1)	271	22
Observed Behaviors – Positive and Negative		**Issues/ Potential risks due to human behavior and infrastructure/ street design**	
Motor vehicles were driving at higher speeds, and driver behaviors were the riskiest at this time. 7 of these pedestrians used the crosswalk signal. 9 of these pedestrians were crossing while on their cell phones. 28 of the pedestrians were crossing midblock, similar to Day 1. Bikers were on the sidewalk with no bikers in the roadway. There was more traffic coming from the direction of Meadowbrook Parkway. Motor vehicles were driving at higher speeds, and driver behaviors were the riskiest at this time. This could be because it was rush hour and drivers were in a hurry to get to their destination. There were many incidences where accidents almost occurred. The vehicles making left turns from West Merrick on to S. Main and East Merrick on to S. Main also appeared to be unsafe/ dangerous. 7 cars stopped directly in the crosswalk, completely blocking it off for pedestrians (turning onto South Main)			

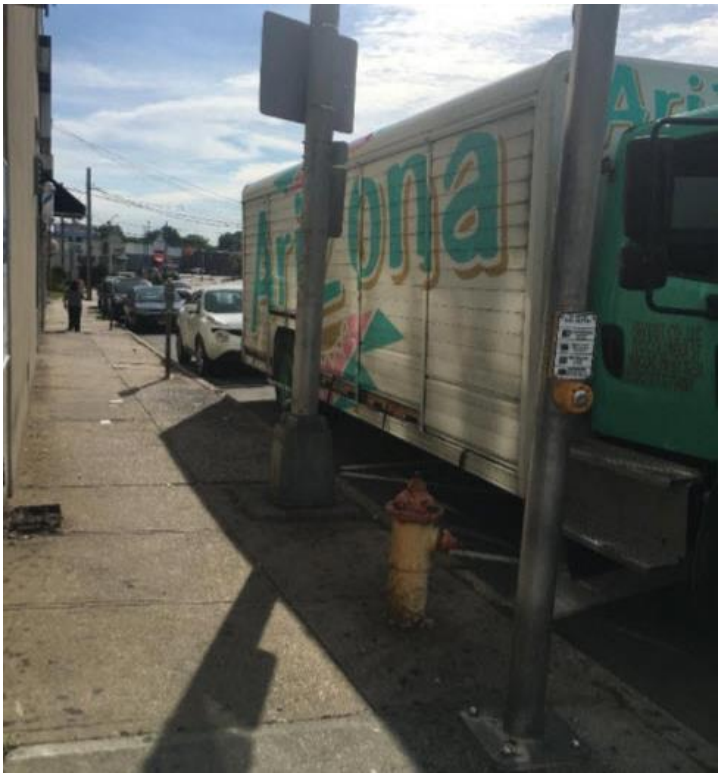
Cars turning on to South Main from Merrick often cut the corner of the left turn lane on South Main. 2 cars performed a U-turn right before the intersection and causing a small back up of traffic flow.			
Day 3	**Number of Motor Vehicles Observed**	**Number of Pedestrians Observed**	**Number of Cyclists Observed**
Date: 06/25/2020 **Time:** 8:15 – 9:15 AM **Weather:** Hot Clear day	1,285 motor vehicles on Merrick Road 203 Motor Vehicles on South Main Street	104	12
Observed Behaviors – Positive and Negative		**Issues/ Potential risks due to human behavior and infrastructure/ street design**	
Due to the decreased traffic at this time, we saw 5 bikers riding with traffic in the roadway. 7 of the bikers remained on the sidewalk. 17 people were crossing the road mid-block as well; increased amounts were crossing Merrick Road. Only one person crossed and pressed the button during this time. The volume of traffic was much lower compared to the first two observations. Cars seemed to be traveling at slightly slower speeds. Driver behaviors were the least risky during this time. This was a drastic decrease in vehicles compared to the two previous days. 6 vehicles stopped in the crosswalk, blocking it from pedestrians. 3 people noticed the reduction in traffic and pulled over where there were no parking spots closer to the intersection, put their hazards on, and ran into the deli.			

Huntington Station

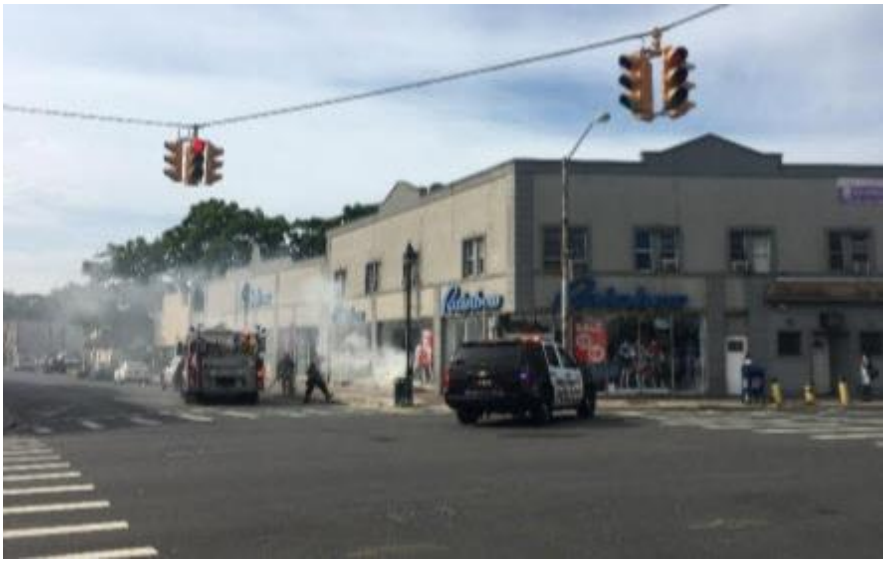
Location 2: Route 110 and 15th Street, Westbound and West Hills Road, Huntington Station, New York			
Day 1	**Number of Motor Vehicles Observed**	**Number of Pedestrians Observed**	**Number of Cyclists Observed**
Date: 06/23/2020 **Time:** 12:15 – 1:15 PM **Weather:** Hot Clear day	1,477	22	8
Observed Behaviors – Positive and Negative		**Issues/ Potential risks due to human behavior and infrastructure/ street design**	
Some drivers cut through a garage to make a left turn onto West Hills Road from Route 110 going Northbound.		The main problem seems to be the crosswalk markings, which are in the wrong location because the pedestrians aren't using them and are instead jaywalking in the area that is most convenient for them. The time allotted to cross Route 110 is only 10 seconds compared to the 15 seconds allotted when crossing from the street to the island and back to the street in the fork created by Route 110 and West Hills Road. Because the strip mall on Route 110 across from the Citgo gas station is so busy, it is hard to make a left turn into the mall going Southbound. There is some construction being done on the traffic lights and sidewalks in the whole studied area. Going Southbound on Route 110, the asphalt in the right turning lane is very uneven, causing drivers to veer to the left as they make a right turn. The right turning lane also seems to be too narrow for drivers.	

Day 2	Number of Motor Vehicles Observed	Number of Pedestrians Observed	Number of Cyclists Observed
Date: 06/24/2020 **Time:** 8:20 – 9:20 AM **Weather:** Hot Clear day	1,071	23	10
Observed Behaviors – Positive and Negative		**Issues/ Potential risks due to human behavior and infrastructure/ street design**	
Although the speed limit is 30mph, drivers were going at least 45-50mph on Route 110 North and Southbound. UPS driver going Northbound used the West Hills Road right turn lane driving Northbound to get to West Hills Road. Route 110 Southbound cyclists crossed over President Street, where there is no crosswalk as a way to continue South on West Hills Road.		The time allotted to cross Route 110 near East 15th Street was 15 seconds and an additional 15 seconds of timed red-light signals for northbound and southbound traffic after the pedestrian countdown signal reached 0 seconds.	
Day 3	**Number of Motor Vehicles Observed**	**Number of Pedestrians Observed**	**Number of Cyclists Observed**
Date: 06/25/2020 **Time:** 5:10 – 6:10 PM **Weather:** Hot Clear day	1,696	28	25
Observed Behaviors – Positive and Negative		**Issues/ Potential risks due to human behavior and infrastructure/ street design**	
Much of the pedestrian traffic in the studied area was from the strip mall location.		The crosswalk button must be pressed firmly before the light goes on, and the count starts. Some of these crosswalk buttons may not be working correctly yet.	

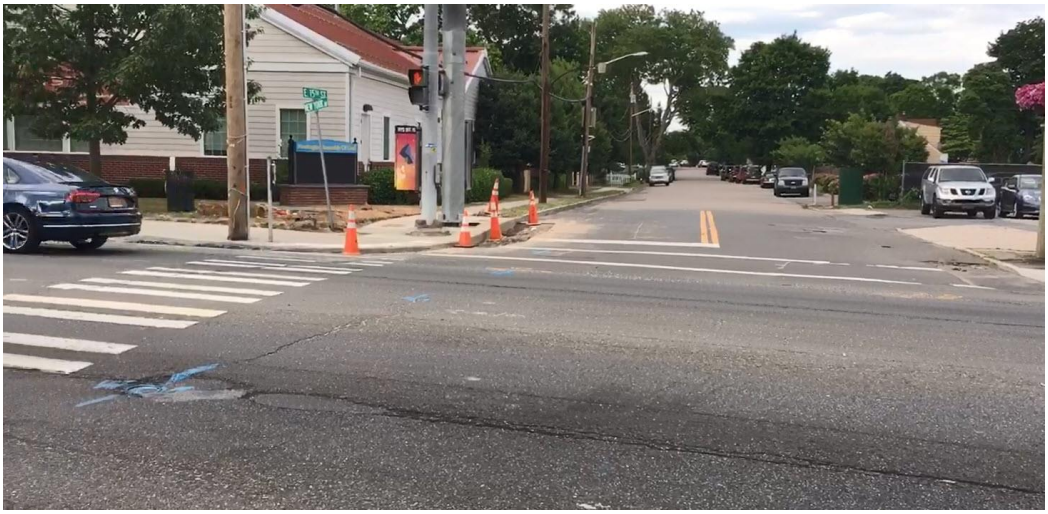
	There is no crosswalk near the bus stop close to the Citgo gas station. So, pedestrians are jaywalking to get to the bus stop.



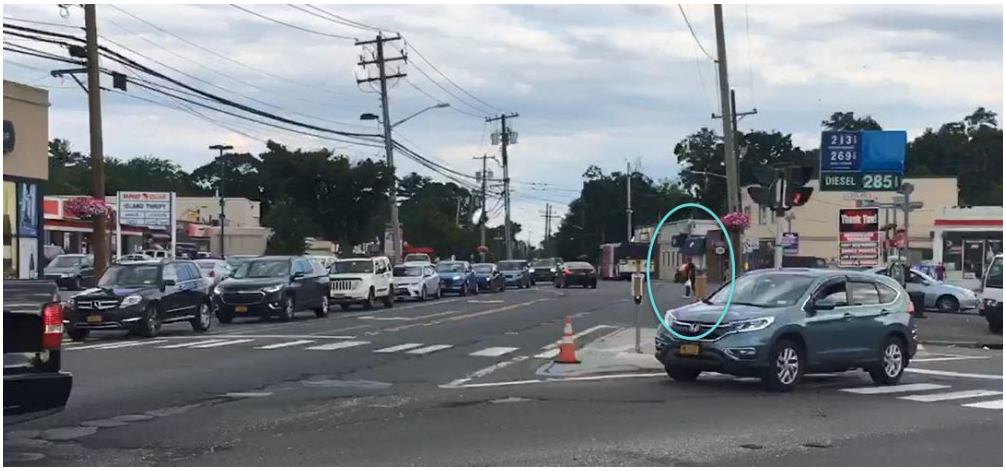
A delivery truck blocking the corner of Merrick Road and South Main Street.



A fire observed on day 3 on the corner of Merrick Road and South Main Street.



Construction observed blocking the sidewalk and crosswalk on the corner of E. 15th Street and New York Avenue.

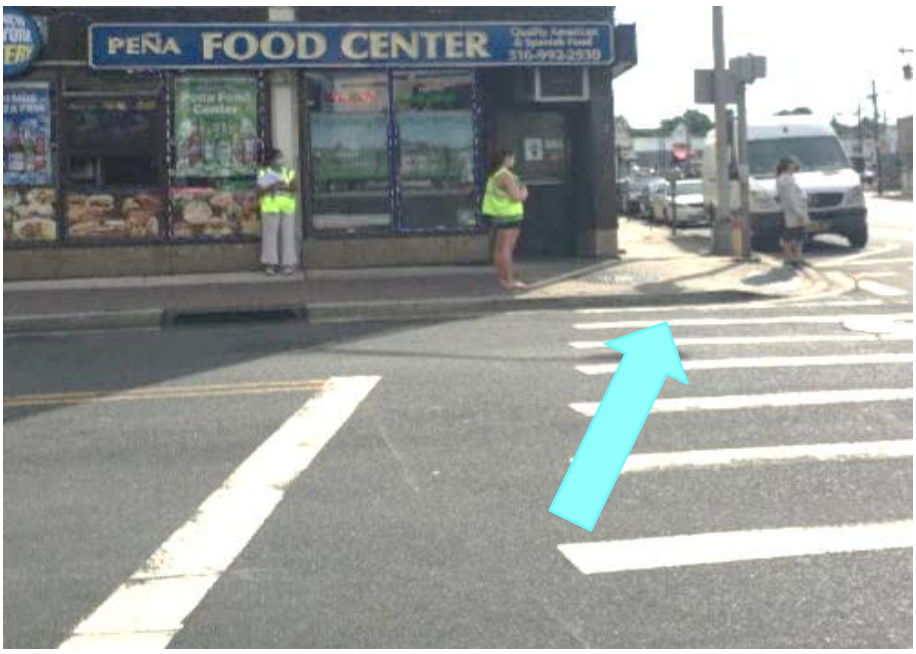


Pedestrians were often observed jaywalking across New York Avenue to reach the bus stop, as there is no crosswalk on this part of the street.

Recommendations

Freeport

- There should be four pedestrian walk signals; one at each corner. All four pedestrian signals should be on automatic timers.
- There should be “No turn on red signals” placed to reduce the risk of pedestrian accidents. Turn signals on the traffic light would make turns off of Merrick and on to S. Main more safe and smooth.
- Education on using the crosswalk button would be useful. Handing out pamphlets at the Pena Deli and Grocery Store or putting up a flyer may be helpful. Flyers should be in Spanish and English due to the high Hispanic population.
- Placing a bike rack by the Burger King may decrease the number of bikes locked to signs or resting on the sidewalk.
- On the corner on South Main and East Merrick there should be a more accessible curb cut to cross S. Main Street. The current curb cut is potentially hazardous for wheelchair users (see image below).



Huntington Station

- A “DO NOT ENTER” sign should be placed in the right turning lane going into West Hills Road from Route 110 Northbound.
- A “NO LEFT TURN” sign should be placed near the parking lot of Dominos entering President Street.
- A “NO LEFT TURN” sign should be placed in the right turning lane of West Hills Road into Route 110 Northbound.
- Consideration should be given to creating a dedicated left turning lane for northbound Route 110 traffic attempting to make turns into the west side strip mall at the painted traffic island. This would provide an easier flow of northbound Route 110 traffic.
- Debris should be removed from the roadbed curbs on the southbound Route 110 and southbound West Hills Road, to stop right lane traffic from veering left to avoid obstacles.
- Sidewalks on the southbound Route 110 and southbound West Hills Road need to be repaired to allow pedestrians to effectively use them.

Summary

The intent of this observational study, as noted in the rationale section of this report, is to identify crossing violation actions that most often disregarded NY State pedestrian and motor vehicle laws. To fully understand the problem it was also necessary to document motorist behaviors that could influence or impact pedestrian crossing habits.

Our objectives were to identify pedestrian crossing infractions by frequency, and to document motorists' infractions or reckless behaviors at, or approaching, the intersections. Based on the results of this investigation, it is our intent to develop remediations that address the most common pedestrian infractions. These remediations may include safety education programs, target messaging to particular high risk locations, street education with pedestrian safety handouts, and support of local police departments to promote and enforce pedestrian safety campaigns.

The following pedestrian violations were most frequently observed. Infractions are ranked from highest to lowest.

1. Crossing against the signal
2. Crossing mid-block
3. Using cell phone while crossing the street.

The top motorist violations and/or reckless behaviors identified as detrimental to safe crossings by pedestrians are:

1. Speeding
2. Vehicles stopped in crosswalk during "walk" cycle
3. Right and left turning vehicles ignoring pedestrian right of way in crosswalk
4. Permission for motor vehicles to turn right on red light.

References

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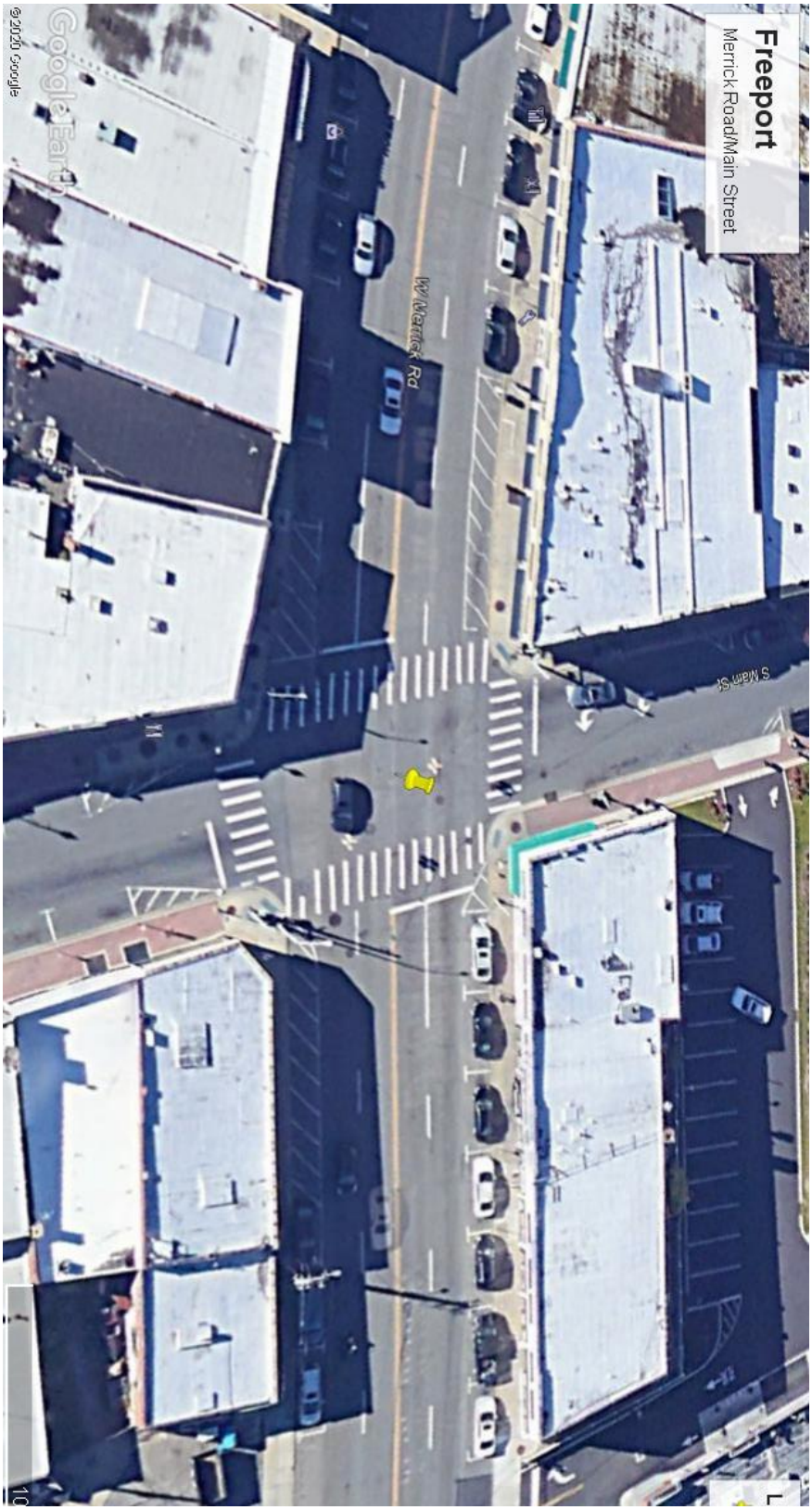
Appendix A


Freeport
Merrick Road/Main Street
W Merrick Rd
S Main St
Google Earth
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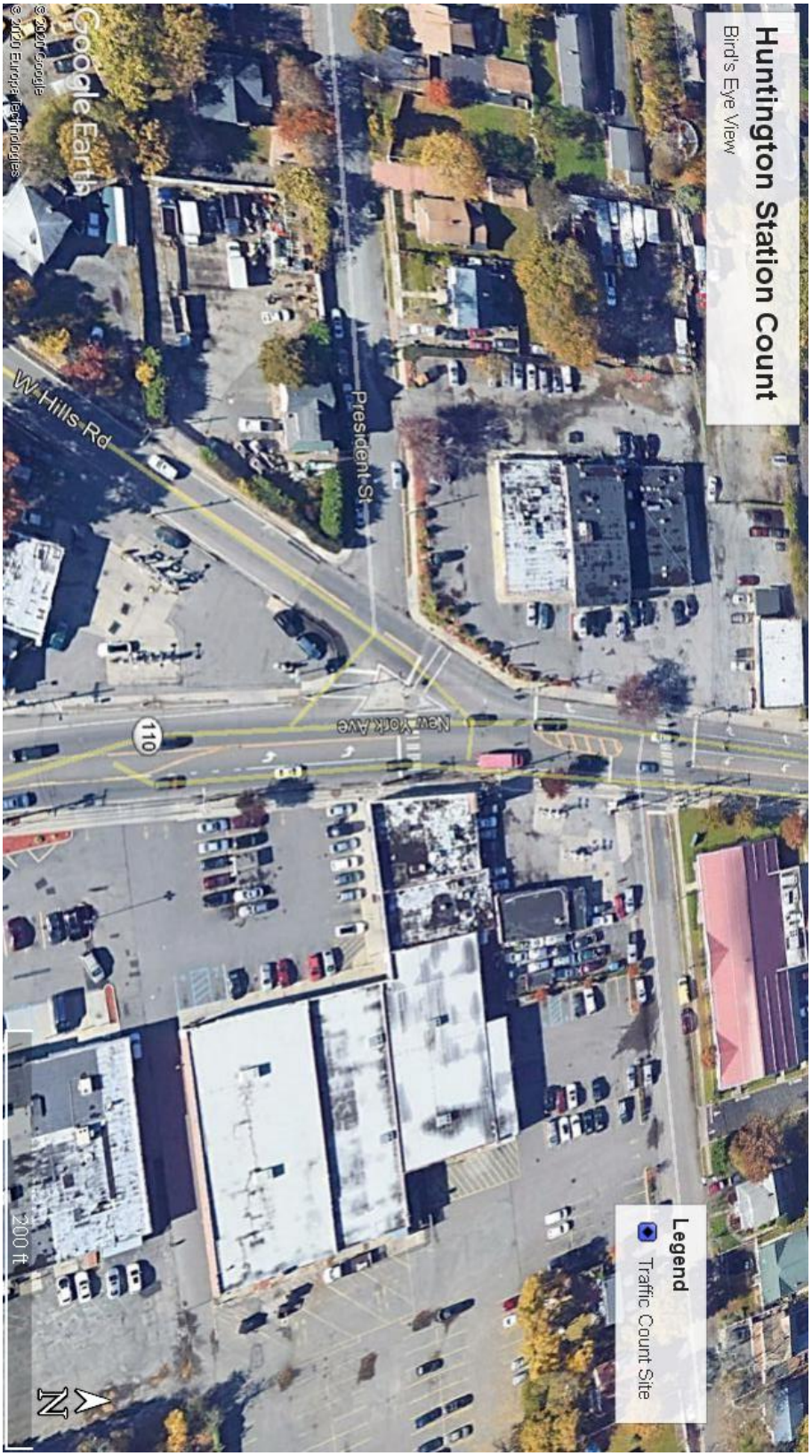
Appendix B


Huntington Station Count
Bird's Eye View
Legend
Traffic Count Site
W Hills Rd
President St
New York Ave
110
N
200 ft
Google Earth
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