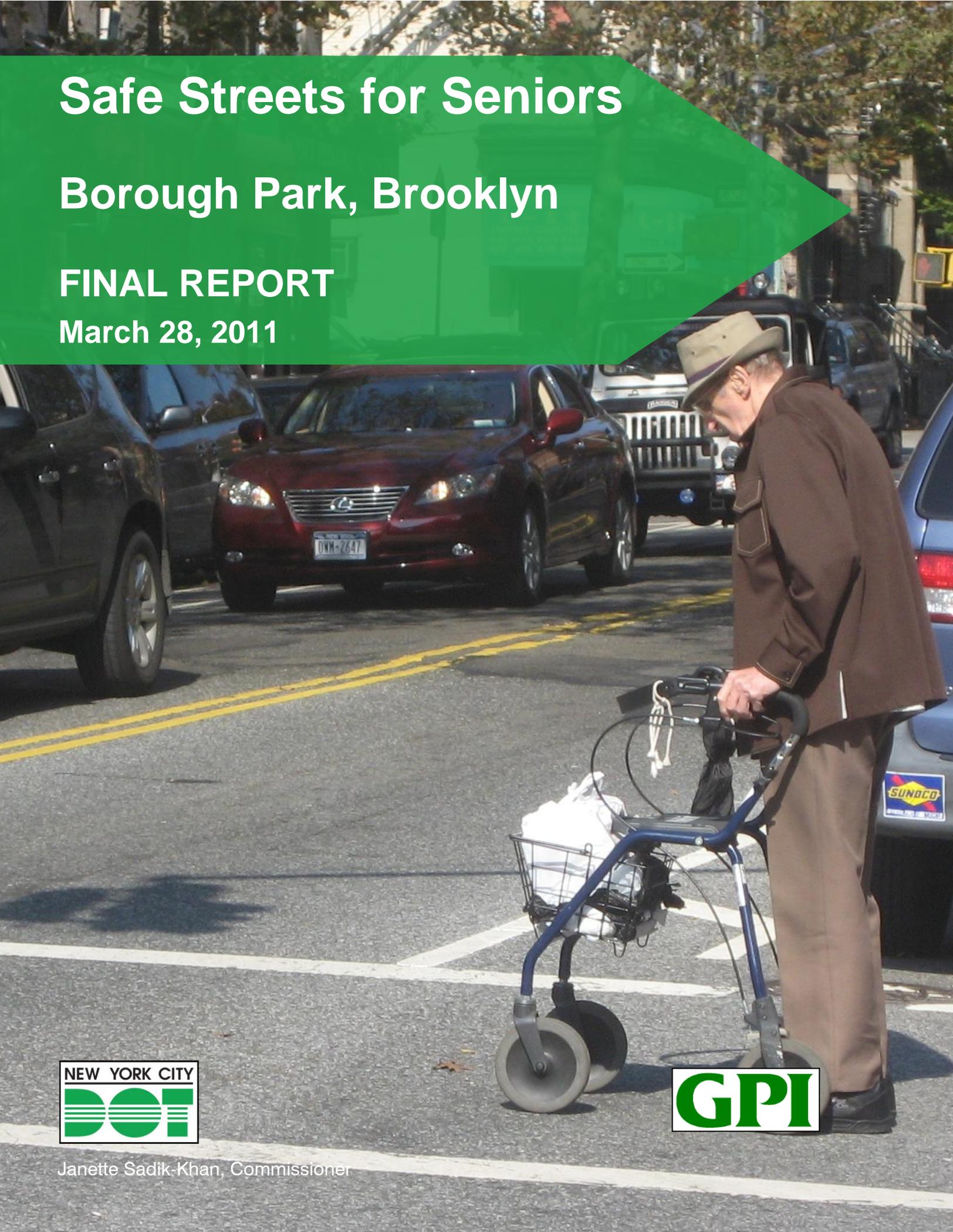


Safe Streets for Seniors

Borough Park, Brooklyn

FINAL REPORT

March 28, 2011



Janette Sadik-Khan, Commissioner

Safe Streets for Seniors
Borough Park, Brooklyn
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PROJECT DESCRIPTION

Since 1990 the number of pedestrian fatalities in New York City has decreased by 56%. Moreover, prior to 1950, pedestrians accounted for $\frac{3}{4}$ of all traffic fatalities and since then, that percentage has decreased to account for about $\frac{1}{2}$ of all traffic fatalities. Despite these statistical improvements, pedestrians continue to be the largest at risk mode – with older adults more likely to suffer serious injuries or fatalities from traffic crashes than other pedestrians. The rate of pedestrian fatalities for every 100,000 persons in the City has decreased by nearly half since 1991 – to 2.0 from 3.8 – while the rate of senior pedestrian fatalities per 100,000 seniors has decreased even more sharply – to 6.6 from 13.1. Nevertheless, while seniors make up only 12% of the population in New York City, they still comprise 39% of pedestrian fatalities. The recognition of the disproportional representation of the senior population among severe pedestrian injuries and fatalities led to the development of the Department’s **Safe Streets for Seniors** (SSS) program.

The purpose of this project is to address senior pedestrian safety issues at twenty-five **Senior Pedestrian Focus Areas** (SPFAs) in the five boroughs of New York City and to develop and implement mitigation measures to improve the safety of seniors and other pedestrians within the 25 SPFA areas. DOT identified SPFAs to include the top senior pedestrian crash (severe injury and fatality) areas within each borough. Four of the SPFAs are located in the Bronx, seven in Brooklyn, five in Queens, eight in Manhattan and one in Staten Island. The SPFAs have been selected based on the density of senior pedestrian crashes resulting in fatalities or severe injuries in a five-year period. DOT conducted in-house studies for five pilot SPFAs and is utilizing consultant services to perform a comprehensive study of pedestrian safety conditions at intersections and along corridors within twenty selected SPFAs.

The project evaluates the crash history and existing traffic conditions and controls (e.g., roadway geometry, signal timing) at selected intersections and corridors within each SPFA in order to develop short- and long-term measures to reduce pedestrian crashes specifically for seniors, and improve safety and traffic operations for all users. The consultant makes specific safety recommendations consisting of low-cost as well as capital engineering and design improvements for these twenty areas. In addition, the consultant conducts data analysis as needed, prepares engineering and design schematics and related services, as necessary, for capital improvements.

In this report, the Borough Park SPFA located in Brooklyn has been studied, evaluated and addressed.

Background

BACKGROUND

Land-use in the Borough Park Study Area includes a mixture of commercial, retail and residential buildings. A majority of the commercial and retail buildings are located within the corridors of 5th Avenue, 8th Avenue, 13th Avenue and New Utrecht Avenue. These commercial buildings are usually multi-storied with the ground floor mainly used by street front stores and other floors typically used for residential or commercial purposes. The residential buildings within the study area range from single story houses to apartment buildings with about six stories. It is a densely populated section of Brooklyn.

Two local subway lines serve the Borough Park SPFA. Subway lines D and M run along New Utrecht Avenue and stop at various subway stations within the corridor. These subway stations include Ft. Hamilton Parkway, 50th Street, 55th Street and 62nd Street. These local subway lines carry a significant number of peak hour commuters and off-peak hour passengers to Manhattan, Bronx and Queens on a daily basis. Bus operations within the study area include the B63, B70, B16, B11 and B9 lines. Typical pedestrian trips within the area are generated by retail, commercial and residential activity, as well as by several schools that are located within and around the study area. The list of these schools is provided in Appendix E. Senior pedestrian activity is also generated by the United Senior Citizen Center, West End Senior Meal Program, Boro Park Senior Center, Boro Park YM-YWHA Senior Center, and the Amico Senior Center.

The Borough Park Study Area has all the elements that are typically dominant in an urban environment including vehicular, bus, subway and pedestrian modes of transportation. These multiple travel modes often compete with each other in terms of the limited available right-of-way. This often results in conflicts with the vulnerable senior pedestrian commuters utilizing the crosswalks and sidewalks in their travels. This project will provide recommendations to improve senior pedestrian safety within the study area.



EXHIBIT 1 – AERIAL PHOTO

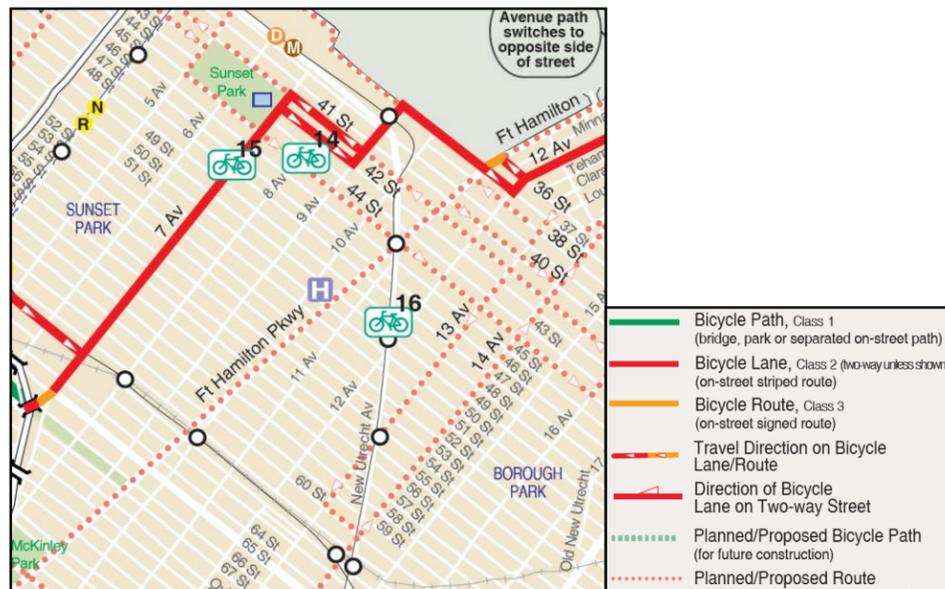


EXHIBIT 4 – BICYCLE ROUTE MAP

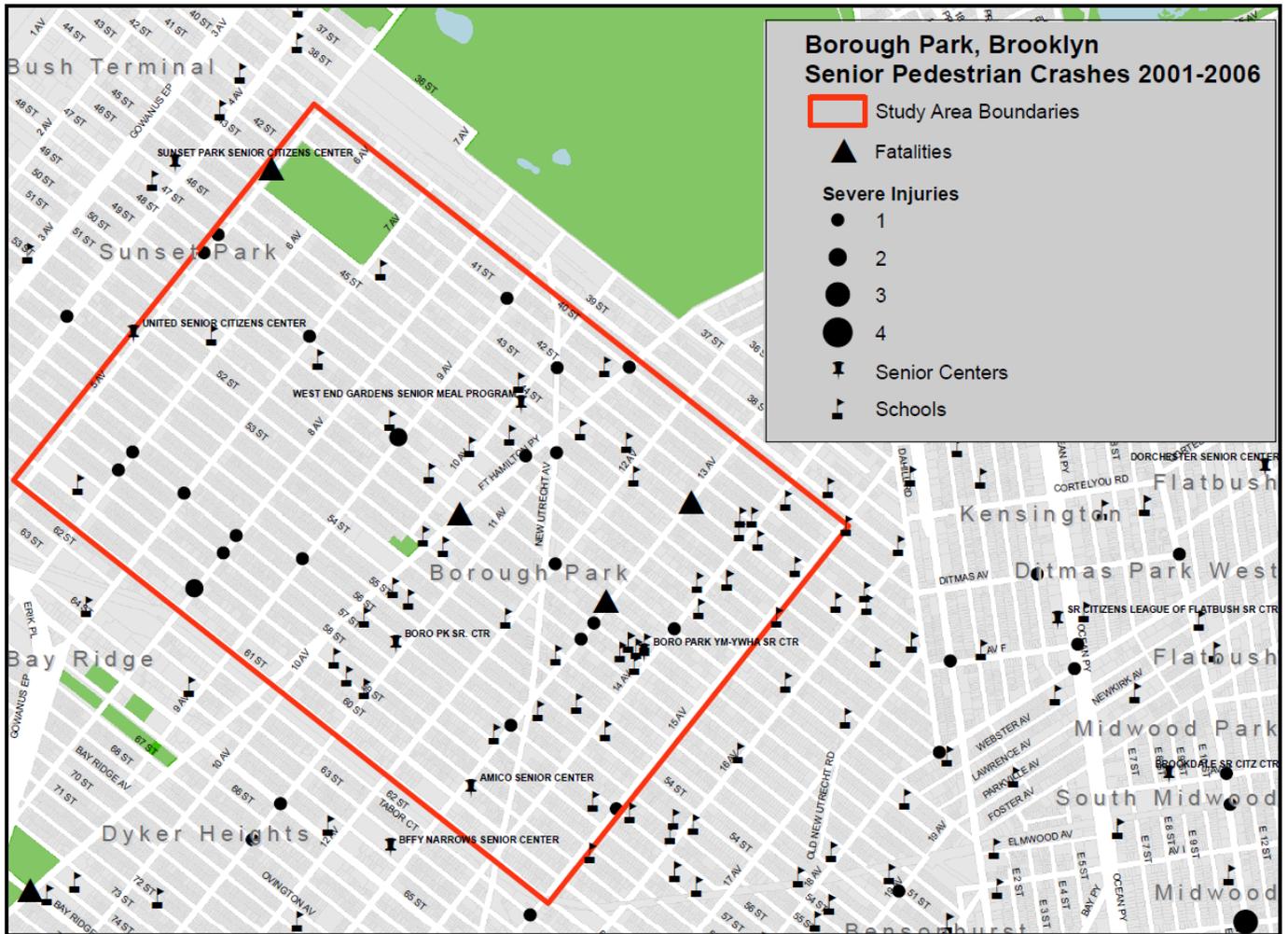


EXHIBIT 3 – TRANSIT MAP



EXHIBIT 2 – TRUCK MAP

EXHIBIT 5 – PEDESTRIAN CRASH STATISTICS (2001-2006)



EXISTING CONDITIONS

The Borough Park Senior Pedestrian Focus Study Area was selected for senior pedestrian improvements because it was identified as having a history of senior pedestrian crashes. This study area mainly includes 13 north-south roadway segments consisting of 5th Avenue, 6th Avenue, 7th Avenue, 8th Avenue, 9th Avenue, 10th Avenue, 11th Avenue, 12th Avenue, 13th Avenue, 14th Avenue, 15th Avenue, New Utrecht Avenue and Ft. Hamilton Parkway. All these roadways are different in their roadway characteristics, with New Utrecht Avenue and Ft. Hamilton Parkway classified as major arterials while all other roadways operate as minor arterials and local residential streets. Within the study area, these roadways are located mostly in residential areas and provide access to local and through traffic. Exhibits 1, 2, 3 and 4 provide area-wide bus, subway and designated truck route information, as well as a roadway and a bicycle map of the study area. Exhibit 5 provides the statistics for senior pedestrian crashes occurring within the study area between 2001 and 2006.

In order to determine, evaluate and recommend measures associated with the safety issues faced by senior pedestrians, numerous site visits and interviews were conducted with senior pedestrians. The issues that were repeatedly observed during our field visits and noted during these interviews are listed below:

- Insufficient pedestrian crossing time
- Faded or missing crosswalk striping
- Turning vehicles not yielding to pedestrians with right-of-way at intersections
- Insufficient pedestrian signs
- Sidewalk and crosswalk obstructions
- Missing or non-standard ADA pedestrian ramps
- Potholes and poor roadway surface conditions at crosswalks

A photo log of the site visits is included in Appendix A, while the field investigation forms are presented in Appendix B.

It was noted during the site visits that these operational and geometric issues, coupled with high traffic volumes and significant pedestrian activity (including school children and seniors), have made it difficult for these pedestrians to safely cross various roadways within the study area. A description of the observations and findings are discussed below, with appropriate safety recommendations.

In addition to the recommendations proposed in this SPFA report which are geared towards senior pedestrian safety improvements, the NYCDOT is concurrently involved in a similar pedestrian safety improvement project which is focused on improving pedestrian safety in the immediate vicinity of 135 “priority” elementary and middle schools that are located throughout the five boroughs of New York City. Some of these “priority” schools are located within the SPFA

projects and thus, the recommendations developed under the school safety projects have also been shown in the ***“Illustrating the Solution”*** section of this report. It is important to note that, in view of the senior pedestrian requirements at some of the common locations, the recommendations made under the SPFA project may further enhance the recommendations proposed under the school safety engineering project.

Our research has indicated that the Borough Park, Brooklyn SPFA has four such “priority” school safety projects, as listed below:

- P.S. 169 (The Sunset Park School), Brooklyn
 - Bobover Yeshiva Bnei Zion School, Brooklyn
 - Our Lady of Perpetual Help, Brooklyn
 - Saint Agatha School, Brooklyn
- (School Safety Engineering Project PIN# 84100MBTR144)

A full copy of the priority school report for these schools is readily available at the following NYCDOT website:

<http://home2.nyc.gov/html/dot/html/safety/saferoutes.shtml>

Copies of the recommendations proposed in these school safety reports have been included in Appendix G for reference. These recommendations, coupled with the SPFA recommendations, will present a complete picture of the suggested improvements within the study area.

RECOMMENDATIONS

5th Avenue

The study segment of 5th Avenue is approximately 1.04 miles long and intersects 22 cross streets. The avenue is a two-way arterial providing north-south access, with one moving lane in each direction and a metered parking lane along each curb side (Photo No 1). Parking is generally permitted on both sides of the arterial within the study area. Most of the cross streets that intersect 5th Avenue are one-way streets providing east-west access, and are



generally categorized as local neighborhood roadways. The cross streets follow a typical grid pattern as they intersect 5th Avenue. This roadway pattern is prevalent within the area. 60th Street is the only two-way cross street that intersects 5th Avenue within the study area. 5th Avenue provides bus service to the B63 line, while cross streets provide bus service to the B11 and B9 lines. 5th Avenue is not a designated through-truck route or bicycle route. This corridor is located adjacent to a predominantly commercial and retail neighborhood.

The field observations and evaluation of traffic data made within this corridor have produced various corridor-wide as well as localized intersection-specific recommendations. These recommendations are shown in the Site 1 illustrations and are described below.

5th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at key intersections.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.
- Install neck-downs at key intersections to reduce pedestrian crossing time. In addition, install new ADA-compliant pedestrian ramps at proposed neck-down locations.

Intersection-Specific Recommendations

The intersection-specific recommendations are in addition to some of the above-noted corridor-wide recommendations.

5th Avenue and 40th Street and 5th Avenue and 41st Street

- Under the present condition, these intersections are signalized, with standard crosswalks on all approaches at 40th Street as well as on the north and east approaches at 41st Street. School crosswalks are currently located on the south and west approaches of 41st Street (Photo Nos. 2 and 3). It is recommended that stop bars be striped 10 feet in advance of the crosswalks on all of the approaches at 40th Street. In addition, at these intersections, field observations have indicated the need to reduce the crosswalk length on the 5th Avenue approaches so that senior pedestrians can safely cross the roadway within a traffic signal cycle. Thus, it is recommended that curb extensions or neck-downs be installed at



the northeast and northwest corners of 5th Avenue and 40th Street and at the southeast and southwest corners of 5th Avenue and 41st Street. New pedestrian ramps should be installed at all proposed neck-down locations.

5th Avenue and 42nd Street and 5th Avenue and 43rd Street

- Under the present condition, these T-intersections are unsignalized, with standard crosswalks located only on the west leg of each intersection (Photo Nos. 4 and 5). It is recommended that neck-downs be installed on the northwest corner of 42nd Street and on the southwest corner of 43rd Street. New pedestrian ramps should also be installed at these proposed neck-down locations. In addition, the stop bar on the eastbound 42nd Street approach should be striped 10 feet in advance of the crosswalk. At the 43rd Street intersection, “Yield to Pedestrian” signs with specific arrows should be installed for the southbound right and northbound left turning movements from 5th Avenue, as well as “No Pedestrian Crossing” and “Use Crosswalk” (with appropriate arrow) signs.



5th Avenue and 44th Street, 45th Street and 46th Street

- Under the present condition, these intersections are signalized, with standard crosswalks located on all four approaches to each intersection (Photo No. 6). At 44th Street, it is recommended that all existing crosswalks be restriped as high-visibility crosswalks. In addition,



stop bars should be striped 10 feet in advance of the crosswalks at all three intersections. At these intersections, field observations have indicated the need to reduce crosswalk lengths on some of the approaches so that senior pedestrians can safely cross the roadway. Thus, it is recommended that curb extensions or neck-downs be installed at the northeast and northwest corners of 5th Avenue and 44th Street, at the southeast and southwest corners of 5th Avenue and 45th Street and at the northeast and northwest corners of 5th Avenue and 46th Street. New pedestrian ramps should also be installed at these proposed neck-down locations.

5th Avenue and 47th Street

- Presently, this intersection is signalized with standard crosswalks located on all four approaches (Photo No. 7). It is recommended that these crosswalks be restriped as high-visibility crosswalks. In addition, stop bars should be striped 10 feet in advance of the crosswalks on the north and south approaches of the intersection. During field



observations, the need to reduce the crosswalk length on some approaches was also noted (particularly for the senior pedestrians). Thus, it is recommended that curb extensions or neck-downs be installed on the southeast and southwest corners of this intersection. New pedestrian ramps should also be installed at these proposed neck-down locations. This intersection is also subjected to significant vehicular and pedestrian movements. Therefore, it is further recommended that “Yield to Pedestrian” signs be installed for the westbound left and right turning movements from 47th Street. It is anticipated that these measures will provide positive guidance to drivers and will improve pedestrian safety.

5th Avenue and 48th Street

- Presently, this intersection is signalized with standard crosswalks located on all four approaches (Photo No. 8). It is recommended that these crosswalks be restriped as high-visibility crosswalks. In addition, stop bars should be striped 10 feet in advance of the crosswalks on the north, south and west approaches of the intersection. During field observations, the need to reduce the crosswalk length on some approaches was also noted

(particularly for the senior pedestrians). Thus, it is recommended that curb extensions or neck-downs be installed on the northeast and northwest corners of this intersection. New pedestrian ramps should also be installed at the proposed neck-down locations. This intersection is also subjected to significant vehicular and pedestrian movements.



Therefore, it is further recommended that oversized street name signs be installed for 48th Street, and that “Yield to Pedestrian” signs also be installed for the eastbound left and right turning movements from 48th Street. It is anticipated that these measures will provide positive guidance to drivers and will improve pedestrian safety.

5th Avenue and 49th Street and 5th Avenue and 50th Street

- Under the present condition, these intersections are signalized, with standard crosswalks on all approaches at 49th Street as well as on the north approach at 50th Street. School crosswalks are currently located on the south, east and west approaches of 50th Street (Photo No. 9). It is recommended that the



stop bars be striped 10 feet in advance of the crosswalks at 49th Street. In addition, at these intersections, field observations have indicated the need to reduce crosswalk lengths on some of the approaches so that senior pedestrians can safely cross the roadway. Thus, it is recommended that curb extensions or neck-downs be installed at the southeast and southwest corners of 5th Avenue and 49th Street and at the northeast and northwest corners of 5th Avenue and 50th Street. New pedestrian ramps should also be installed at these proposed neck-down locations. It is further recommended that “Yield to Pedestrian” signs be installed for the eastbound left and right turning movements from 50th Street.

5th Avenue and 51st Street and 5th Avenue and 52nd Street

- Under the present condition, these intersections are signalized, with school crosswalks on the north, east and west approaches at 51st Street. Standard crosswalks are located on the south approach at 51st Street and on all approaches at 52nd Street (Photo No. 10). It is recommended that high visibility crosswalks be installed on the north and south approaches at 52nd Street, and that the stop bars on these approaches be striped 10 feet in advance of the crosswalks. In addition, at these intersections, field observations have indicated the need to reduce crosswalk lengths on some of the approaches so that senior pedestrians can safely cross the roadway. Thus, it is recommended that curb extensions or neck-downs be installed at the southeast and southwest corners of 5th Avenue and 51st Street and at the northeast and northwest corners of 5th Avenue and 52nd Street. New pedestrian ramps should also be installed at these proposed neck-down locations. It is further recommended that a “Yield to Pedestrian” sign be installed for the westbound left turning movement from 51st Street.



6th Avenue

The study segment of 6th Avenue is located one block east of 5th Avenue. It is also 1.04 miles long and intersects 20 cross streets. Within the study segment, 6th Avenue is a two-way arterial providing north-south access with one moving lane in each direction and a parking lane along each curb side (Photo No. 11). With the exception of 60th Street, all cross streets that intersect 6th Avenue are one-way and are generally categorized as local



neighborhood roadways providing east-west access. Trucks are only allowed up to 60th Street on 6th Avenue. The roadway does not support any bus services. The cross streets within the study area (49th, 50th and 60th Streets) provide bus services via the B11 and B9 lines. 6th Avenue is located predominantly among residential neighborhoods that attract a number of pedestrians, including senior citizens.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations. These recommendations are shown in the Site 2 illustrations and are described below.

6th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at specified intersections.
- Install oversized street name signs at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.
- Install neck-downs at key intersections under the “priority” school safety program (see Appendix G).

7th Avenue

The study segment of 7th Avenue is located one block east of 6th Avenue and the study area roadway length is the same as that of 6th Avenue. Within the study segment, 7th Avenue is a two-way arterial providing north-south access with one moving lane in each direction and a metered parking lane along each curb side (Photo No. 12). The cross streets that intersect 7th Avenue are generally categorized as local neighborhood roadways providing east-west access. 60th Street is the only two-way cross street that intersects 7th Avenue within the study area. This corridor is not a designated through local truck route and it does not provide bus service. The cross streets within the study area provide bus services via the B11 and B9 lines. The 7th Avenue corridor provides a bicycle route along the entire study length, and is located within a predominantly residential neighborhood that attracts numerous pedestrians, including senior citizens.



The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations. These recommendations are shown in the Site 3 illustrations and are described below.

7th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at specified intersections.
- Install oversized street name signs at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.
- Install neck-downs at key intersections under the “priority” school safety program (see Appendix G).

8th Avenue

The study segment of 8th Avenue is 1.04 miles long and intersects 22 cross streets. Within the study segment, 8th Avenue is a two-way arterial providing north-south access with one moving lane in each direction and a metered parking lane along each curb side (Photo No. 13). With the exception of 60th Street, the cross streets that intersect 8th Avenue are one-way streets and are generally categorized as local neighborhood roadways providing



east-west access. This corridor is not a designated through local truck route. 8th Avenue provides bus service to the B70 line, while cross streets provide bus service via the B11 and B9 lines. Throughout the 8th Avenue corridor, there are no designated bicycle routes, except for the bicycle routes which cross 8th Avenue on 40th Street and 41st Street. This corridor is located adjacent to predominantly commercial and retail neighborhoods, located at either end of the study area.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations and intersection-specific recommendations. These recommendations are shown in the Site 4 illustrations and are described below.

8th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at key intersections.
- Install oversized street name signs at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.
- Install neck-downs at key intersections to reduce pedestrian crossing time. In addition, install new ADA-compliant pedestrian ramps at proposed neck-down locations.

Intersection-Specific Recommendations

The intersection-specific recommendations are in addition to some of the above-noted corridor-wide recommendations.

8th Avenue and 57th Street

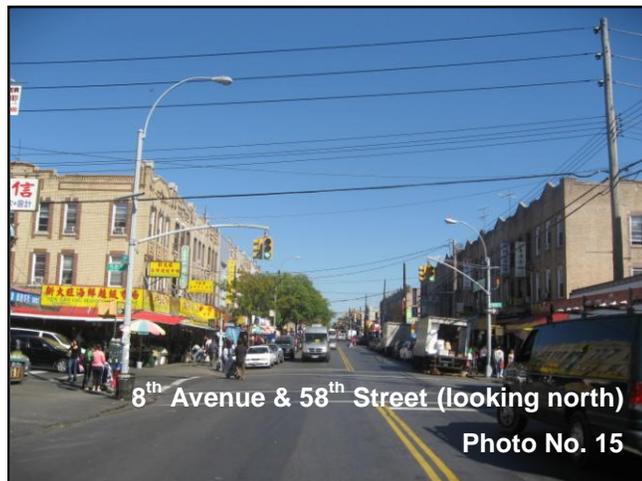
- Under the present condition, this intersection is signalized with standard crosswalks on all approaches (Photo No. 14). It is recommended that these crosswalks be restriped as high-visibility crosswalks. In addition, it is recommended that curb extensions or neck-downs be installed on the northwest and southwest corners in order to



improve pedestrian safety. New pedestrian ramps should also be installed at these proposed neck-down locations. The intersection is also subjected to significant vehicular and pedestrian movements. Therefore, it is recommended that an oversized street name sign be installed for 57th Street. A “Yield to Pedestrian” sign should also be installed for the northbound left turning movement from 8th Avenue. It is further recommended that one parking space be removed on both sides of 57th Street in advance of the east crosswalk by installing “No Standing Any Time” signs. It is anticipated that all of these measures will provide positive guidance to drivers and will improve pedestrian safety.

8th Avenue and 58th Street

- Under the present condition, this intersection is signalized with standard crosswalks on all approaches (Photo No. 15). It is recommended that these crosswalks be restriped as high-visibility crosswalks. Field observations have indicated the need to reduce the crosswalk length at this intersection so that senior pedestrians

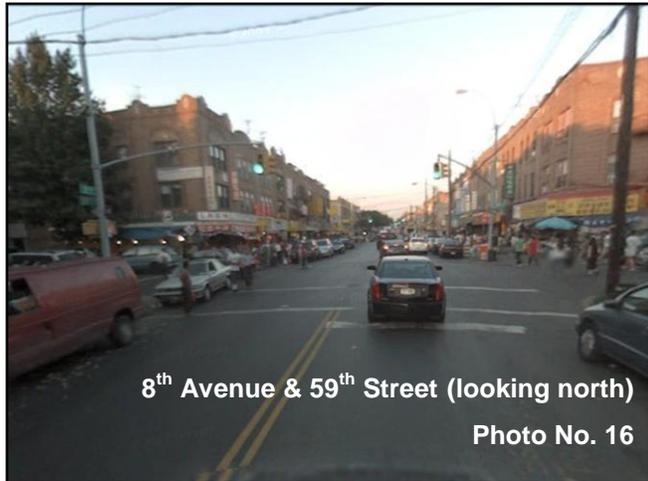


can safely cross the roadway. Thus, it is recommended that curb extensions or neck-downs be installed at the northeast and southeast corners. New pedestrian ramps should also be installed at these proposed neck-down locations. The intersection is also subjected to significant

vehicular and pedestrian movements. Therefore, it is further recommended that an oversized street name sign be installed for 58th Street, as well as a “Yield to Pedestrian” sign for the southbound left turning movement from 8th Avenue. In addition, it is recommended that one parking space be removed on both sides of 58th Street in advance of the west crosswalk by installing “No Standing Any Time” signs. It is anticipated that these measures will help to improve pedestrian safety.

8th Avenue and 59th Street

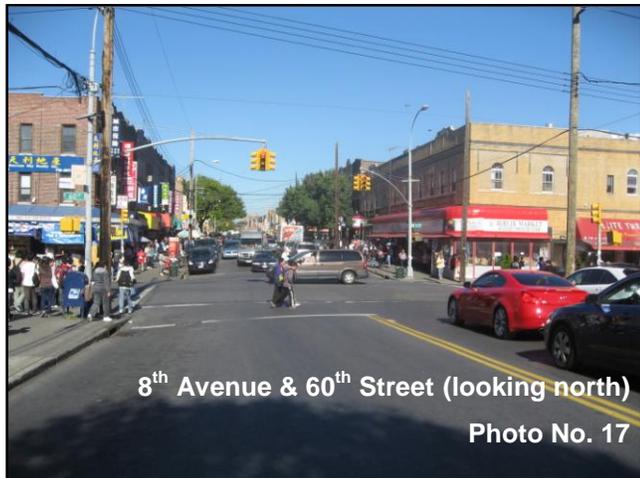
- Under the present condition, this intersection is signalized with standard crosswalks on all approaches (Photo No. 16). It is recommended that these crosswalks be restriped as high-visibility crosswalks. In addition, it is recommended that neck-downs be installed on the northwest and southwest corners of this intersection. New



pedestrian ramps should also be installed at these proposed neck-down locations. The intersection is also subjected to significant vehicular and pedestrian movements. Therefore, it is further recommended that “Yield to Pedestrian” signs be installed for the northbound left turning movement and the westbound right turning movement at this intersection in order to provide positive guidance for drivers and improve pedestrian safety.

8th Avenue and 60th Street

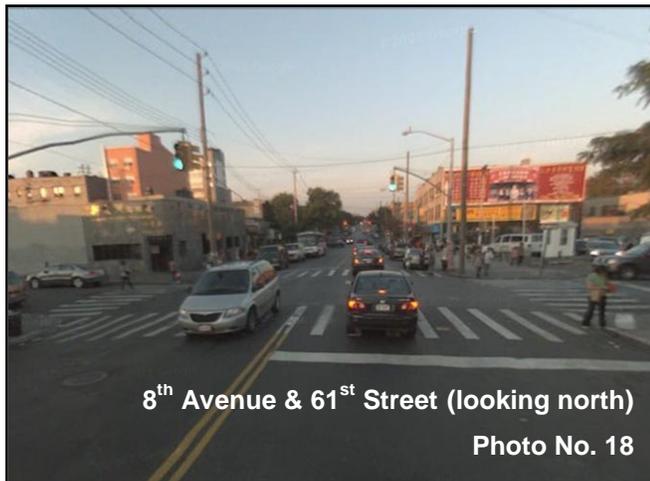
- Under the present condition, this intersection is signalized with standard crosswalks on all approaches (Photo No. 17). It is recommended that these crosswalks be restriped as high-visibility crosswalks. Traffic counts conducted at this intersection have shown significant pedestrian activity during various



peak traffic hours. See Appendix D for traffic count information. It is therefore recommended that curb extensions or neck-downs be installed at the northwest and southeast corners. New pedestrian ramps should also be installed at these proposed neck-down locations. The installation of the neck-downs will reduce pedestrian crossing time and help to minimize conflicts with turning vehicles. These recommendations will also be accompanied by the installation of oversized street name signs facing both the 8th Avenue and 60th Street approaches, as well as “Yield to Pedestrian” signs for all movements at this intersection.

8th Avenue and 61st Street

- Under the present condition, this intersection is signalized with high-visibility crosswalks on all approaches (Photo No. 18). It is recommended that curb extensions or neck-downs be installed at the southwest and southeast corners of this intersection. New pedestrian ramps should also be installed at these proposed neck-down



locations. The intersection is also subjected to significant vehicular and pedestrian movements. Therefore, it is recommended that a “Yield to Pedestrian” sign be installed for the southbound right turning movement from 8th Avenue in order to improve pedestrian safety. In addition, it is recommended that one parking space be removed on the north side of 61st Street in advance of the east crosswalk by installing a “No Standing Any Time” sign.

9th Avenue

The study segment of 9th Avenue is located one block east of 8th Avenue. Within the study segment, 9th Avenue is a two-way arterial providing north-south access, with one moving lane in each direction and a parking lane along each curb side (Photo No. 19). The study segment is about 1.04 miles long and intersects 22 cross streets. As is typical in this area, the cross streets form a grid pattern, intersecting 9th Avenue. With the exception of 60th Street,



all cross streets are one-way streets providing east-west access. 9th Avenue is located adjacent to a predominantly residential neighborhood. This corridor is not a designated through local truck route and does not provide through bus service; however, the cross streets provide bus service via the B11 and B9 lines. The bicycle route along this corridor is limited to the block between 42nd and 41st Streets.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations. These recommendations are shown in the Site 5 illustrations and are described below.

9th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at key intersections.
- Install oversized street name signs at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.

10th Avenue

The study segment of 10th Avenue is located one block east of 9th Avenue. It is 0.69 miles long and intersects 17 cross streets. Within the study segment, 10th Avenue is a two-way arterial providing north-south access, with one moving lane in each direction and a parking lane along each curb side (Photo No. 20). Most of the cross streets that intersect 10th Avenue are one-way streets and are generally categorized as local neighborhood roadways providing east-west access. 10th Avenue also intersects the busy travel routes of New Utrecht Avenue and 60th Street. The 10th Avenue corridor is not a designated through local truck route. 10th Avenue does not provide bus service; however, the cross streets provide bus service via the B11 and B9 lines. There is no designated bicycle route along 10th Avenue within the study area. The neighborhood surrounding 10th Avenue is predominantly residential, with significantly less traffic activity than other study area streets.



10th Avenue also intersects the busy travel routes of New Utrecht Avenue and 60th Street. The 10th Avenue corridor is not a designated through local truck route. 10th Avenue does not provide bus service; however, the cross streets provide bus service via the B11 and B9 lines. There is no designated bicycle route along 10th Avenue within the study area. The neighborhood surrounding 10th Avenue is predominantly residential, with significantly less traffic activity than other study area streets.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations and one intersection-specific recommendation. These recommendations are shown in the Site 6 illustrations and are described below.

10th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at specified intersections.

Intersection-Specific Recommendations

The intersection-specific recommendations are in addition to the above-noted corridor-wide recommendations.

10th Avenue and 40th Street

- This intersection is currently unsignalized and is controlled by a “STOP” sign installed on the minor one-way approach of 40th Street. Thus, at this intersection, traffic along 10th Avenue has the right-of-way and operates under uncontrolled or prevailing speed conditions (Photo No. 21). Under the existing conditions, there is a



school crossing on the uncontrolled northbound approach of 10th Avenue. It is important to note that the school crossing on 10th Avenue is provided with advance school crossing signs; however, it is recommended that these warning signs be replaced with the more stringent “STOP” signs. This will make the intersection all-way stop-controlled. This measure will improve pedestrian safety and will also help to increase the stop compliance at this school crossing. It is further recommended that new school crosswalks be provided on the east and west legs and a standard crosswalk be installed on the north leg. These measures will help to improve pedestrian safety at this intersection.

12th Avenue

The study segment of 12th Avenue is located one block east of 11th Avenue. It is 1.04 miles long and intersects 23 cross streets. Within the study segment, 12th Avenue is a two-way arterial providing north-south access, with one moving lane in each direction and a parking lane along each curb side (Photo No. 22). Most of the cross streets that intersect 12th Avenue are one-way streets and are generally categorized as local neighborhood roadways providing east-west access; however, 12th Avenue also intersects New Utrecht Avenue and 60th Street, which are significantly busy travel routes providing two-way traffic operations. The 12th Avenue corridor is not a designated local truck route and does not provide bus service; however, some of its cross streets provide bus service via the B11 and B9 lines. 12th Avenue is located adjacent to a predominantly residential neighborhood, and does not provide a designated bicycle route.



The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations. These recommendations are shown in the Site 7 illustrations and are described below.

12th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at specified intersections.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.

13th Avenue

The study segment of 13th Avenue is located one block east of 12th Avenue. Within the study segment, 13th Avenue is a one-way arterial providing southbound access, with two moving lanes in the southbound direction and a metered parking lane along each curb side (Photo No. 23). Most of the cross streets that intersect 13th Avenue are one-way streets and are generally categorized as local neighborhood roadways providing east-west access;



however, 13th Avenue also intersects New Utrecht Avenue and 60th Street, which are significantly busy two-way roadways. The 13th Avenue corridor is not a designated truck route, but it does provide bus service to the B16 line, and its various intersecting cross streets provide bus service to the B11 and B9 lines. Presently, the 13th Avenue corridor does not accommodate a designated bicycle route; however, the NYCDOT is planning to implement a bicycle route along this corridor in the near future. 13th Avenue is located adjacent to predominantly commercial and retail neighborhoods generating significant pedestrian and vehicular activity.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations. These recommendations are shown in the Site 8 illustrations and are described below.

13th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks at specified intersections.
- Install oversized street name signs at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.

14th Avenue

The study segment of 14th Avenue is 1.04 miles long and intersects the same 23 cross streets as 13th Avenue. Within the study segment, 14th Avenue is a one-way arterial providing northbound access, with two moving lanes and a parking lane along each curb side (Photo No. 24). With the exception of New Utrecht Avenue and 60th Street (which are busier two-way roadways), all cross streets that intersect 14th Avenue are one-way and are



generally categorized as local neighborhood roadways providing east-west access. This corridor is not a designated truck route. The 14th Avenue corridor provides bus service to the B16 line, while cross streets provide bus service to the B11 and B9 lines. Presently, 14th Avenue is not a designated bicycle route; however, the NYCDOT is planning to implement a bicycle route on 14th Avenue in the near future. This corridor is located adjacent to a mixture of commercial, retail and residential land uses.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations. These recommendations are shown in the Site 9 illustrations and are described below.

14th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at specified intersections.
- Install oversized street name sign at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.

15th Avenue

The study segment of 15th Avenue is located one block east of 14th Avenue. It is a two-way arterial providing north-south access, with one moving lane in each direction and a parking lane along each curb side (Photo No. 25). With the exception of 60th Street, all cross streets that intersect 15th Avenue are one-way and are generally categorized as local neighborhood roadways providing east-west access. This corridor is not a designated through local



truck route nor does it provide bus service or bicycle routes. Various cross streets intersecting 15th Avenue, however, provide bus services to the B11 and B9 lines. The 15th Avenue corridor is located adjacent to a predominantly residential neighborhood with significant pedestrian activity.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations and one intersection-specific recommendation. These recommendations are shown in the Site 10 illustrations and are described below.

15th Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at specified intersections.
- Install oversized street name signs at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.

Intersection-Specific Recommendations

The intersection-specific recommendations are in addition to the above-noted corridor-wide recommendations.

15th Avenue and 61st Street

- Under the present condition, this intersection is unsignalized and is controlled by a stop sign installed on the minor intersecting approach of 61st Street. Thus, at this intersection, 15th Avenue has the right-of-way and operates under uncontrolled or prevailing speed conditions (Photo No. 26). Under the existing conditions, there



15th Avenue & 61st Street (looking south)

Photo No. 26

is a standard crosswalk on the stop-controlled east leg and a high-visibility crosswalk on the west leg. It is recommended that new “STOP” signs be installed on the north and south legs, making the intersection all-way stop-controlled. This measure will improve senior pedestrian safety and will also help increase the stop compliance at this crossing. It is also recommended that new stop bars be provided on the north and south legs. It is further recommended that parking spaces be removed on the west side of 15th Avenue between the north and south crosswalks by installing “No Standing Any Time” signs. These measures will help to improve pedestrian safety at this intersection.

New Utrecht Avenue

The study segment of New Utrecht Avenue is diagonally located between 9th Avenue and 15th Avenue. It is 1.23 miles long and intersects 26 cross streets. Within the study segment, New Utrecht Avenue is a two-way arterial providing north-south access, with one moving lane in each direction and a metered parking lane along each curb side (Photo No. 27). Most of the cross streets that intersect New Utrecht Avenue are one-way streets and



are generally categorized as local neighborhood roadways providing east-west access. New Utrecht Avenue also intersects 10th Avenue, 11th Avenue, 12th Avenue, 13th Avenue, 14th Avenue, Ft. Hamilton Parkway and 60th Street, all of which are significantly busy travel routes providing two-way traffic operations. This corridor is not a designated truck route. New Utrecht Avenue does not provide bus service; however, some of the cross streets provide bus service via the B11 and B9 lines. New Utrecht Avenue also has local subway train stops (line D, line M) at Ft. Hamilton Parkway, 50th Street, 55th Street and 62nd Street. The D and M subway lines provide convenient services to Manhattan, Bronx and Queens. These subway lines run on the elevated tracks located above New Utrecht Avenue. As a result, structural columns are located along New Utrecht Avenue to support these elevated subway tracks. New Utrecht Avenue is not a designated bicycle route. This corridor is located adjacent to predominantly commercial and retail neighborhoods, resulting in significant vehicular and pedestrian activity throughout the day.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations and intersection-specific recommendations. These recommendations are shown in the Site 11 illustrations and are described below.

New Utrecht Avenue Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at specified intersections.
- Install oversized street name signs at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.

Intersection-Specific Recommendations

The intersection-specific recommendations are in addition to some of the above-noted corridor-wide recommendations.

New Utrecht Avenue and 43rd Street

- Under the present condition, this intersection is unsignalized and is controlled by a stop sign installed on the minor intersecting approach of 43rd Street. Thus, at this intersection, New Utrecht Avenue has the right-of-way and operates under uncontrolled or prevailing speed conditions (Photo No. 28). At the present time, there is a school



crosswalk on the uncontrolled south leg and a standard crosswalk on the stop-controlled east leg. It is important to note that the school crossing on New Utrecht Avenue is provided with school crossing signs; however, it is recommended that these warning signs be replaced with the more stringent “STOP” signs, making the intersection all-way stop-controlled. This measure will improve pedestrian safety and will also help increase the stop compliance at this school crossing. It is further recommended that the existing stop bar be striped 10 feet in advance of the east crosswalk. In addition, a new standard crosswalk should be installed on the north leg, and new stop bars should be provided on the north and south legs. These measures will help to improve pedestrian safety at this intersection.

New Utrecht Avenue and Ft. Hamilton Parkway

- Under the present condition, this intersection is signalized with school crosswalks on its north, south and west approaches (Photo No. 29). It is recommended that stop bar be striped 10 feet in advance of the crosswalk on the southbound approach. Traffic counts conducted at



this intersection have indicated significant pedestrian activity during various peak traffic hours. See Appendix D for traffic count information. It is therefore recommended that ‘No Turns’ and ‘No Left Turn’ signs be installed at Ft. Hamilton Parkway eastbound and New Utrecht Avenue northbound respectively, in order to avoid further conflicts between pedestrians and turning vehicles. In addition, “Yield to Pedestrian” signs should be installed for the southbound right turning movement from New Utrecht Avenue and the eastbound right turning movement from Ft. Hamilton Parkway. One parking space should be removed from the east side of New Utrecht Avenue between Ft. Hamilton Parkway and 45th Street by installing “No Standing Fire Zone” signs. It is further recommended that oversized street name signs be installed facing both the New Utrecht Avenue approaches and the Ft. Hamilton Parkway approaches. It is anticipated that these measures will provide positive guidance to drivers and will improve pedestrian safety. Further recommendations for this intersection are presented under the Ft. Hamilton Parkway intersection specific improvements.

New Utrecht Avenue and 45th Street

- Under the present condition, this intersection is signalized with school crosswalks on its north, south and east approaches and a standard crosswalk on its west leg (Photo No. 30). It is recommended that an island extension be installed on the southeast corner of this intersection. This will replace the existing hatched pavement markings and the



temporary tubular markers presently installed at the southeast corner. New pedestrian ramps should also be installed at this location. In addition, it is recommended that oversized street name signs be installed for 45th Street facing both New Utrecht Avenue approaches. It is also recommended that “Yield to Pedestrian” signs be installed for the southbound right and northbound left turning movements from New Utrecht Avenue. It is further recommended that the existing “No Parking Anytime” signs located along the west side of New Utrecht Avenue between 45th Street and 11th Avenue be replaced with “No Standing Fire Zone” signs.

New Utrecht Avenue, 12th Avenue and 50th Street

- Under the present condition, this intersection is signalized with high-visibility crosswalks on all approaches (Photo No. 31). It is recommended that the stop bar be striped 10 feet in advance of the crosswalk on the southbound 12th Avenue approach. It is also recommended that 'No Left Turn' signs be installed at the northbound



New Utrecht Avenue approach. There are no significant northbound left turning vehicles observed at this intersection and thus, the elimination of this northbound left turn will not affect the traffic flow. It will, however, help to improve pedestrian safety as this left turn maneuver is at a highly skewed angle and conflicts with pedestrians crossing 12th Avenue at its west crosswalk (see Appendix D for vehicular and pedestrian counts). It is anticipated that these measures will provide positive guidance to drivers and will improve pedestrian safety.

Ft. Hamilton Parkway

The study segment of Ft. Hamilton Parkway is diagonally located between 9th Avenue and 12th Avenue. It is 1.06 miles long and intersects 23 cross streets. Within the study segment, Ft. Hamilton Parkway is a two-way arterial providing north-south access, with one moving lane in each direction and a parking lane along each curb side (Photo No. 32). Most of the cross streets that intersect Ft. Hamilton Parkway are one-way streets and are



generally categorized as local neighborhood roadways providing east-west access. Ft. Hamilton Parkway also intersects New Utrecht Avenue and 60th Street, which are major travel routes. This corridor is not a designated local truck route. Ft. Hamilton Parkway provides bus service to the B16 line from 56th Street to 61st Street, while cross streets at 49th, 50th and 60th Streets provide bus service via the B11 and B9 lines throughout the study area. Ft. Hamilton Parkway is presently not designated as a bicycle route within the study area; however, NYCDOT is planning to implement a bicycle route on Ft. Hamilton Parkway in the near future. The Ft. Hamilton Parkway corridor is located adjacent to predominantly residential, commercial and retail neighborhoods with significant vehicular and pedestrian traffic activity.

The field observations and evaluation of traffic data made within this corridor have resulted in various corridor-wide recommendations and intersection-specific recommendations. These recommendations are shown in the Site 12 illustrations and are described below.

Ft. Hamilton Parkway Corridor-Wide Recommendations

- Install high-visibility crosswalks, as well as advanced stop bars, at key intersections.
- Install oversized street name signs at key intersecting roadways.
- Install new ADA (Americans with Disabilities Act) compliant pedestrian ramps at various intersections.

Intersection-Specific Recommendations

The intersection-specific recommendations are in addition to some of the above-noted corridor-wide recommendations.

Ft. Hamilton Parkway and 40th Street

- Under the present condition, this intersection is signalized with school crosswalks on all of the approaches (Photo No. 33). The intersection is subjected to significant vehicular and pedestrian movements; therefore, it is recommended that a curb extension or neck-down be installed on the southeast corner of Ft. Hamilton Parkway at this intersection.



New pedestrian ramps should also be installed at this proposed neck-down location. It is further recommended that oversized street name signs be installed for 40th Street facing the Ft. Hamilton Parkway approaches. It is anticipated that these measures will provide positive guidance to drivers and will improve pedestrian safety.

Ft. Hamilton Parkway and 44th Street

- Under the present condition, this intersection is signalized with school crosswalks on the north, east and west approaches (Photo No. 34). Traffic counts conducted at this intersection have indicated significant pedestrian activity during various peak traffic hours. See Appendix D for traffic count information. It is recommended that a ‘No



Left Turn’ sign be installed on northbound Ft. Hamilton Parkway and a ‘No Right Turn’ sign be installed on southbound Ft. Hamilton Parkway to avoid wrong way conflicts. In addition, a ‘No Right Turn’ sign should also be installed on the eastbound leg of 44th Street in order to restrict right turn movements at this intersection. It is further recommended that oversized street name signs be installed for 44th Street facing both Ft. Hamilton Parkway approaches and that a “Yield to Pedestrian” sign be installed for the eastbound left turning movements from 44th Street. It is also recommended that one parking space be removed on the south side of

44th Street between Ft. Hamilton Parkway and 12th Avenue by installing “No Standing Fire Zone” signs. It is anticipated that these measures will provide positive guidance to drivers and will improve pedestrian safety.

Ft. Hamilton Parkway from New Utrecht Avenue to 47th Street

- Under the present condition, all of the intersections within this segment of Ft. Hamilton Parkway are signalized. These intersections are provided with a combination of standard and school crosswalks on various approaches (Photo No. 35). It is recommended that the north and south crosswalks at 46th Street and all of the crosswalks at



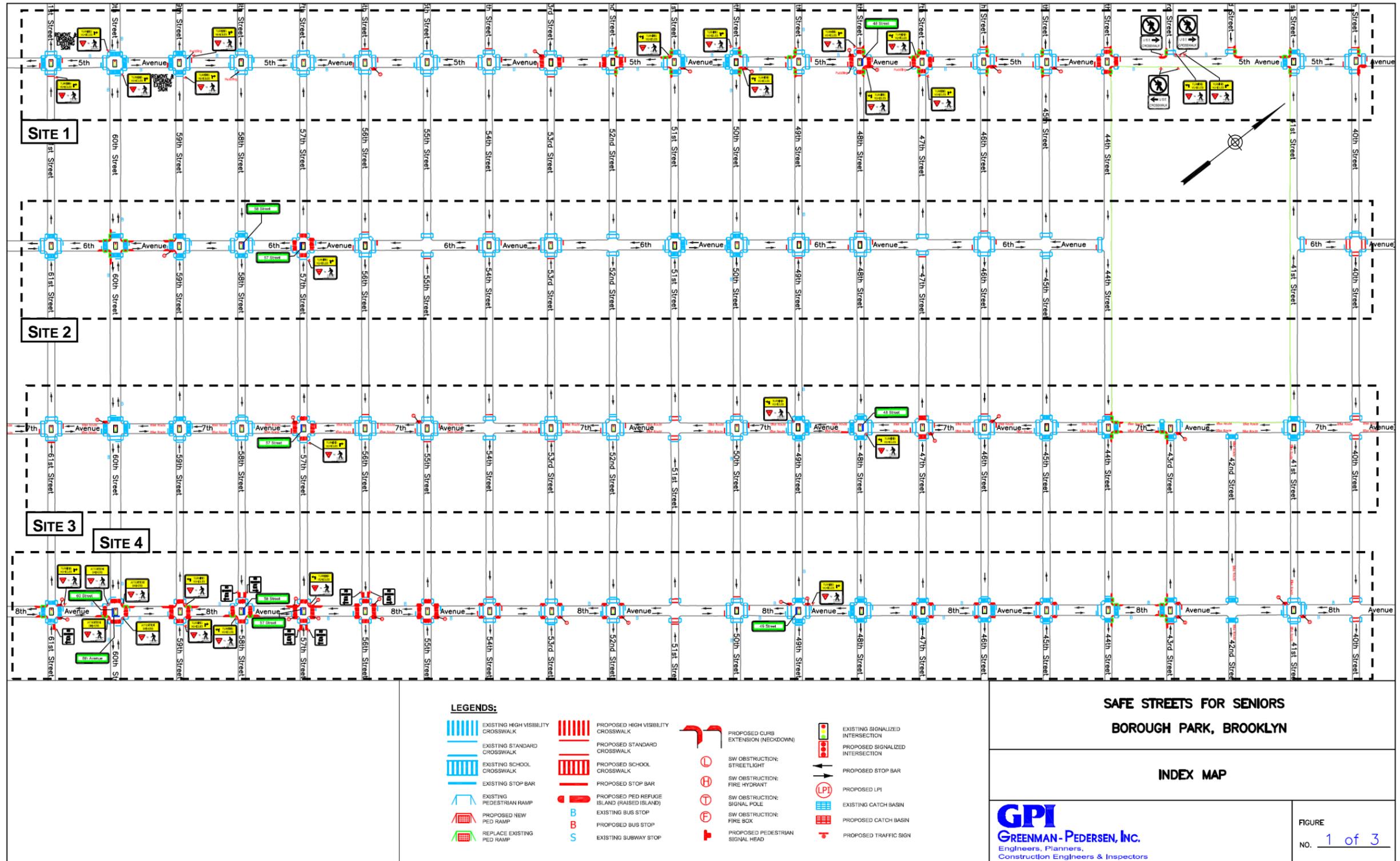
- 47th Street be striped as high-visibility crosswalks. In addition, the stop bars at 46th Street and 47th Street should be striped 10 feet in advance of the crosswalks on all approaches to these intersections. For this section of the corridor, field observations have indicated the need to reduce the crosswalk length on Ft. Hamilton Parkway so that senior pedestrians can safely cross the roadway within a single cycle or in two separate cycles. Thus, it is recommended that a raised median island be provided from New Utrecht Avenue to 45th Street and from 46th Street to 47th Street in order to protect pedestrians from oncoming traffic. The raised median island should be provided in combination with a striped median island for this section of the Ft. Hamilton Parkway corridor. The corridor is also subjected to significant vehicular and pedestrian movements. Therefore, it is further recommended that oversized street name signs facing both Ft. Hamilton Parkway approaches at 46th Street be installed, and that a “Yield to Pedestrian” sign be installed for the eastbound right turning movement from 46th Street.
- In addition, it is recommended that parking spaces be removed at the following locations by installing “No Standing Fire Zone” signs:
 - Ft. Hamilton Parkway between New Utrecht Avenue and 45th Street: 2 spaces, west side just south of south crosswalk at New Utrecht Avenue
 - Ft. Hamilton Parkway between 45th and 46th Streets: 2 spaces, east side just north of north crosswalk at 46th Street; 2 spaces, west side in advance of north crosswalk at 46th Street

- Ft. Hamilton Parkway between 46th and 47th Streets: 2 spaces, east side just north of north crosswalk at 47th Street; 2 spaces, west side just south of south crosswalk at 46th Street; 2 spaces, west side in advance of north crosswalk at 47th Street
- 45th Street between Ft. Hamilton Parkway and 10th Avenue: 1 space, south side just west of west crosswalk at Ft. Hamilton Parkway; 1 space, north side just west of west crosswalk at Ft. Hamilton Parkway
- 46th Street between Ft. Hamilton Parkway and 11th Avenue: 1 space, south side just east of east crosswalk at Ft. Hamilton Parkway; 1 space, north side just east of east crosswalk at Ft. Hamilton Parkway
- 47th Street between Ft. Hamilton Parkway and 10th Avenue: 2 spaces, south side just west of west crosswalk at Ft. Hamilton Parkway

It is anticipated that these measures will provide positive guidance to drivers and will improve pedestrian safety.

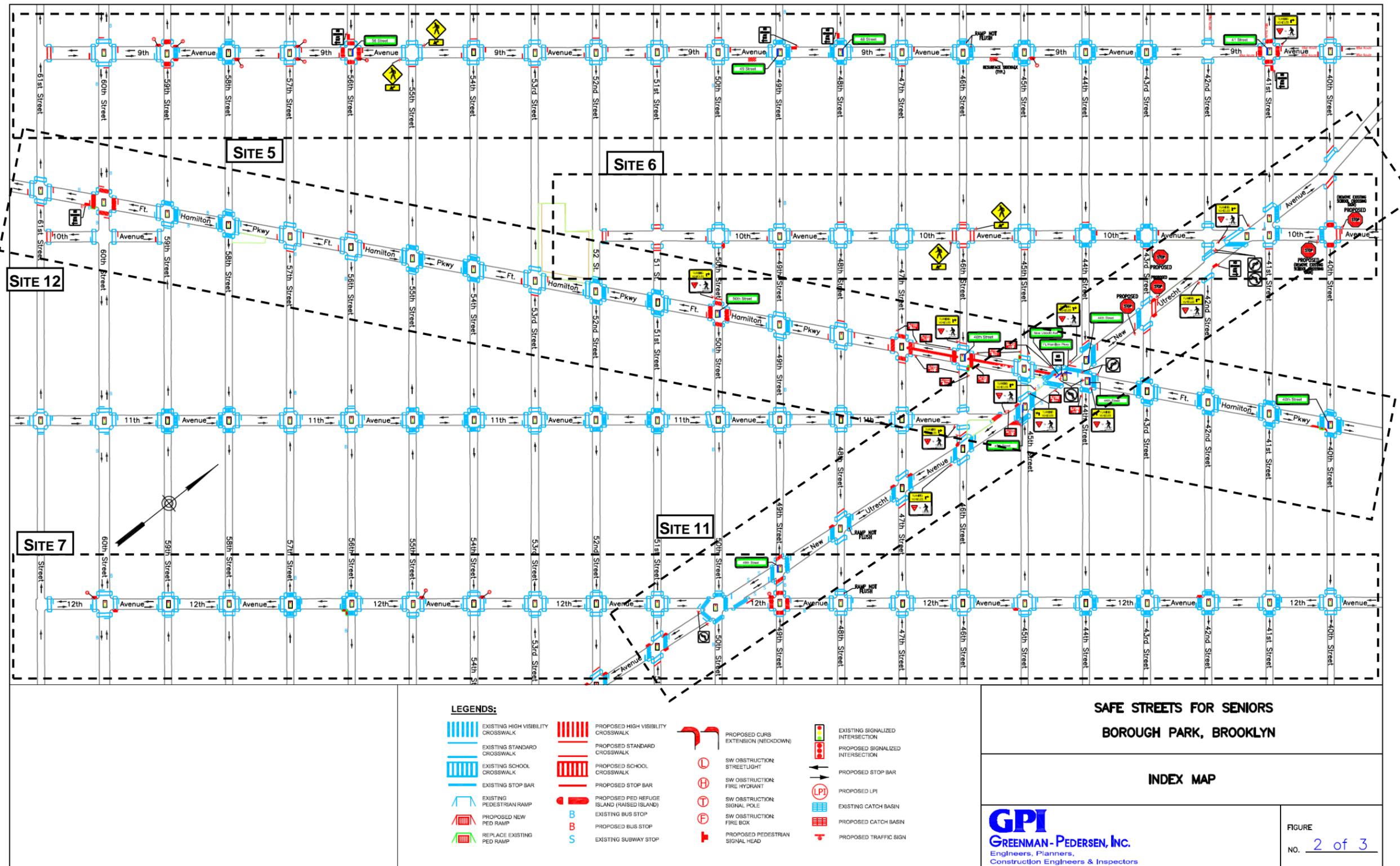
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Illustrating the Solution



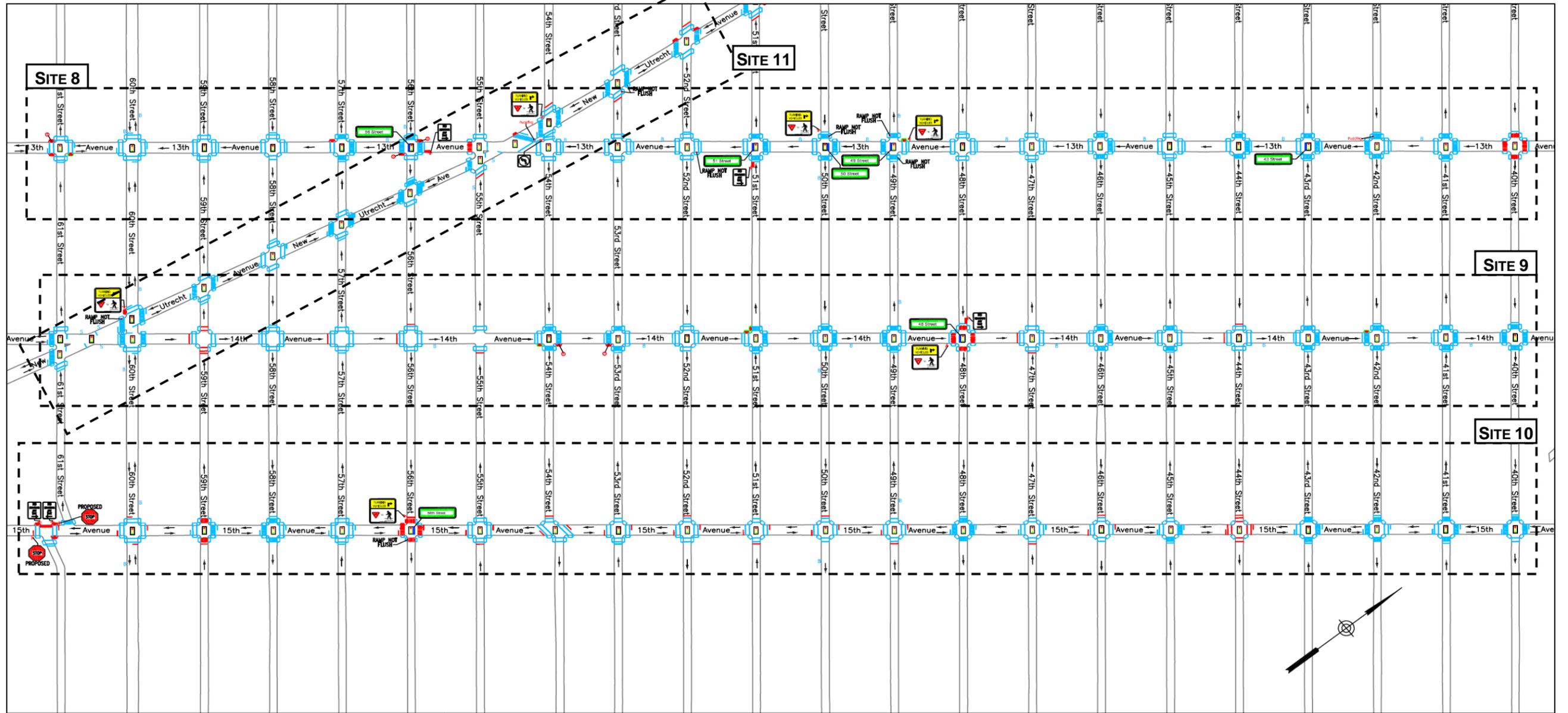
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LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

**SAFE STREETS FOR SENIORS
BOROUGH PARK, BROOKLYN**

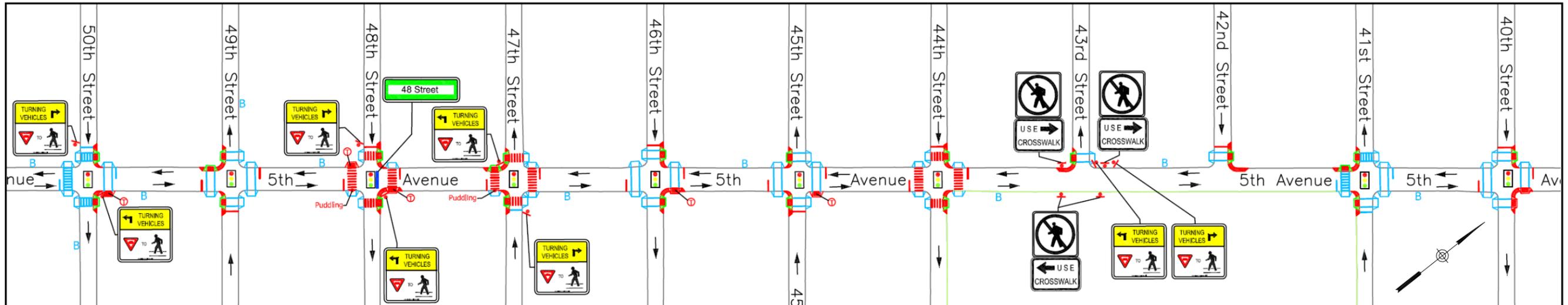
INDEX MAP

GPI
GREENMAN - PEDERSEN, INC.
Engineers, Planners,
Construction Engineers & Inspectors

FIGURE
NO. 3 of 3

SITE 1: PLAN 1 - 5TH AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



	EXISTING HIGH VISIBILITY CROSSWALK		PROPOSED HIGH VISIBILITY CROSSWALK		PROPOSED CURB EXTENSION (NECKDOWN)		EXISTING SIGNALIZED INTERSECTION
	EXISTING STANDARD CROSSWALK		PROPOSED STANDARD CROSSWALK		SW OBSTRUCTION: STREETLIGHT		PROPOSED SIGNALIZED INTERSECTION
	EXISTING SCHOOL CROSSWALK		PROPOSED SCHOOL CROSSWALK		SW OBSTRUCTION: FIRE HYDRANT		PROPOSED STOP BAR
	EXISTING STOP BAR		PROPOSED STOP BAR		SW OBSTRUCTION: SIGNAL POLE		PROPOSED LPI
	EXISTING PEDESTRIAN RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		SW OBSTRUCTION: FIRE BOX		EXISTING CATCH BASIN
	PROPOSED NEW PED RAMP		EXISTING BUS STOP		PROPOSED PEDESTRIAN SIGNAL HEAD		PROPOSED CATCH BASIN
	REPLACE EXISTING PED RAMP		PROPOSED BUS STOP				PROPOSED TRAFFIC SIGN
			EXISTING SUBWAY STOP				

Pedestrian concerns in this area:

- Non-standard pedestrian ramps
- Turning vehicles not yielding to pedestrians
- Signal timing (insufficient crossing time)

Additional Information:

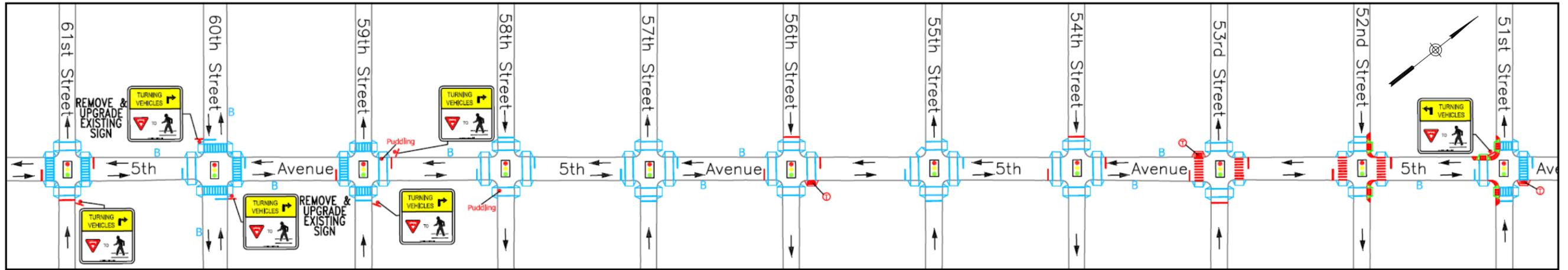
- Parking regulations for the project area have been collected and are shown in Appendix C
- Details of neck-down construction are shown in Appendix F
- This study area was visited on October 9,10, 17 and 20, 2008

Recommended improvements include:

- Time all signals for seniors and where feasible, the crossing time will be extended
- Install new high visibility crosswalks
- Install new advanced stop bars
- Install new pedestrian ramps. Where proposed, align the ramps with the proposed crosswalks
- Install new "Yield to Pedestrian" signs at the intersections shown in the illustration
- Install new oversized street name sign at the intersection of 5th Avenue and 48th Street. This sign is to be located on the signal mast arm facing 5th Avenue traffic in both directions
- Install neck-downs or curb extensions at the intersections along 5th Avenue from 40th Street to 50th Street as shown in the illustration. This may require the removal of parking spaces from the existing curb-side parking (to be constructed by others)
- Install new "No Pedestrian Crossing" and "Use Crosswalk" (with appropriate arrow) signs at the intersection of 5th Avenue and 43rd Street

SITE 1: PLAN 2 - 5TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

	EXISTING HIGH VISIBILITY CROSSWALK		PROPOSED HIGH VISIBILITY CROSSWALK		PROPOSED CURB EXTENSION (NECKDOWN)		EXISTING SIGNALIZED INTERSECTION
	EXISTING STANDARD CROSSWALK		PROPOSED STANDARD CROSSWALK		SW OBSTRUCTION: STREETLIGHT		PROPOSED SIGNALIZED INTERSECTION
	EXISTING SCHOOL CROSSWALK		PROPOSED SCHOOL CROSSWALK		SW OBSTRUCTION: FIRE HYDRANT		PROPOSED STOP BAR
	EXISTING STOP BAR		PROPOSED STOP BAR		SW OBSTRUCTION: SIGNAL POLE		PROPOSED LPI
	EXISTING PEDESTRIAN RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		SW OBSTRUCTION: FIRE BOX		EXISTING CATCH BASIN
	PROPOSED NEW PED RAMP		EXISTING BUS STOP		PROPOSED PEDESTRIAN SIGNAL HEAD		PROPOSED CATCH BASIN
	REPLACE EXISTING PED RAMP		EXISTING SUBWAY STOP				PROPOSED TRAFFIC SIGN

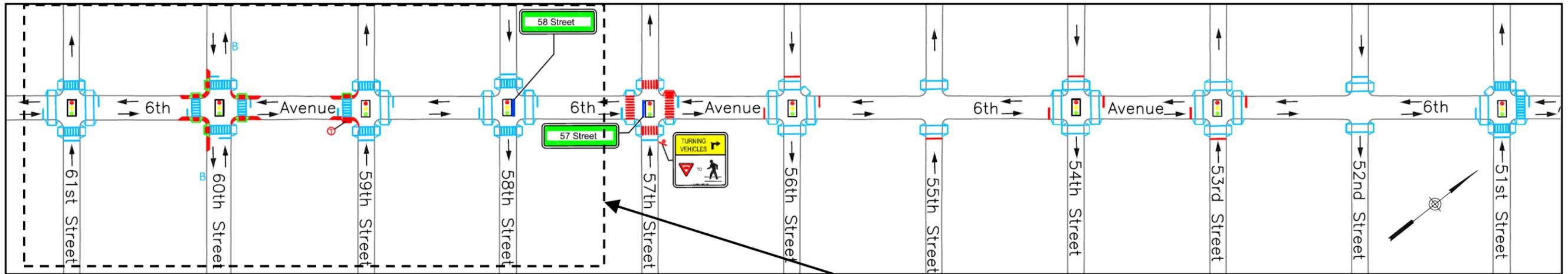
- Recommended improvements include:**
- Install new high visibility crosswalks
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the proposed crosswalks
 - Install new "Yield to Pedestrian" signs at the intersections shown in the illustration
 - Install a neck-down or a curb extension:
 - On the southeast and southwest corners of 5th Avenue at 51st Street. This may require the removal of parking spaces from the existing curb-side parking
 - On the northeast and northwest corners of 5th Avenue at 52nd Street. This may require the removal of parking spaces from the existing curb-side parking

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - Details of neck-down construction are shown in Appendix F
 - This study area was visited on October 9,10, 17 and 20, 2008

SITE 2: PLAN 2 - 6TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

	EXISTING HIGH VISIBILITY CROSSWALK		PROPOSED HIGH VISIBILITY CROSSWALK		PROPOSED CURB EXTENSION (NECKDOWN)		EXISTING SIGNALIZED INTERSECTION
	EXISTING STANDARD CROSSWALK		PROPOSED STANDARD CROSSWALK		SW OBSTRUCTION: STREETLIGHT		PROPOSED SIGNALIZED INTERSECTION
	EXISTING SCHOOL CROSSWALK		PROPOSED SCHOOL CROSSWALK		SW OBSTRUCTION: FIRE HYDRANT		PROPOSED STOP BAR
	EXISTING STOP BAR		PROPOSED STOP BAR		SW OBSTRUCTION: SIGNAL POLE		PROPOSED LPI
	EXISTING PEDESTRIAN RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		SW OBSTRUCTION: FIRE BOX		EXISTING CATCH BASIN
	PROPOSED NEW PED RAMP		EXISTING BUS STOP		PROPOSED PEDESTRIAN SIGNAL HEAD		PROPOSED CATCH BASIN
	REPLACE EXISTING PED RAMP		PROPOSED BUS STOP				PROPOSED TRAFFIC SIGN
			EXISTING SUBWAY STOP				

CURB EXTENSION IMPROVEMENT UNDER SCHOOL SAFETY PROJECT (APPENDIX-G)

- Recommended improvements include:**
- Time all signals for seniors and where feasible, the crossing time will be extended
 - Install new high visibility crosswalks at 6th Avenue and 57th Street
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new "Yield to Pedestrian" sign at the intersection shown in the illustration
 - Install new oversized street name signs at various intersections along 6th Avenue. These signs are to be located on the signal mast arm facing 6th Avenue traffic in both directions
 - Install a neck-down or a curb extension:
 - On the southeast and southwest corners of 6th Avenue at 59th Street. This may require the removal of parking spaces from the existing curb-side parking (School Safety Improvement)
 - On the northwest and northeast corners of 6th Avenue at 60th Street. This may require the removal of parking spaces from the existing curb-side parking (School Safety Improvement)
 - On the southeast and southwest corners of 6th Avenue and 60th Street. This may require the removal of parking spaces from the existing curb-side parking (School Safety Improvement)

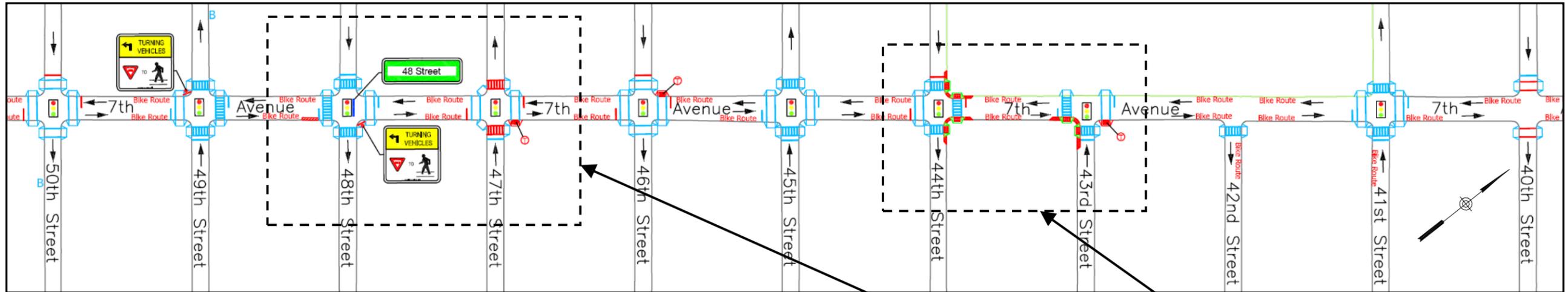
Traffic Analysis:
 Turning Movement and Pedestrian Counts at
 - 6th Avenue and 57th Street
 Traffic count data is shown in Appendix D

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians
 - Signal timing (insufficient crossing time)

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - Details of neck-down construction are shown in Appendix F
 - This study area was visited on October 9, 10, 17 and 20, 2008
 - Recommendations developed for Our Lady of Perpetual Help Elementary School are shown in Appendix G

SITE 3: PLAN 1 - 7TH AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

DAYLIGHTING AND SCHOOL CROSSWALK IMPROVEMENTS UNDER SCHOOL SAFETY PROJECT

ALL CURB EXTENSION IMPROVEMENTS EXCEPT EXTENDED NECKDOWN AT 43RD STREET UNDER SCHOOL SAFETY PROJECT (APPENDIX-G)

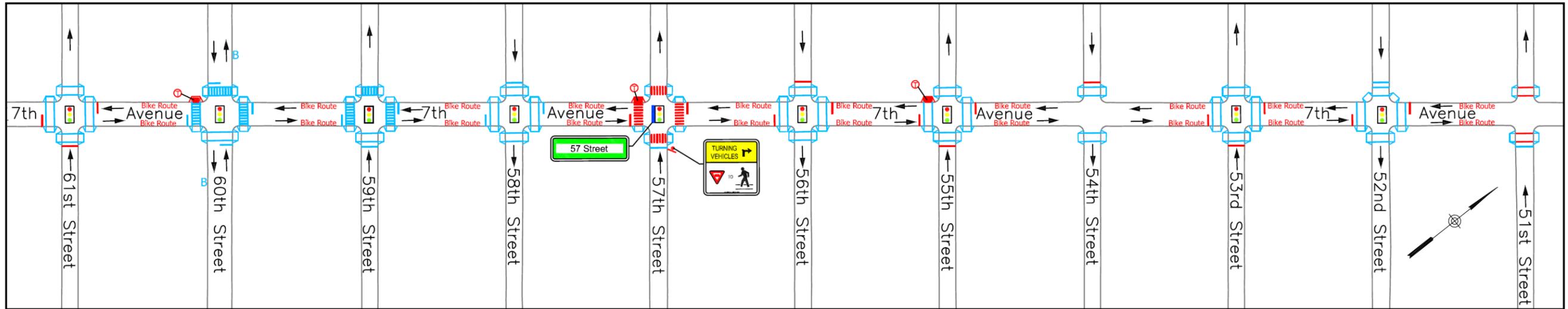
- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians
 - Speeding vehicles

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - Details of neck-down construction are shown in Appendix F
 - This study area was visited on October 9, 10, 17 and 20, 2008
 - Recommendations developed for St. Agatha School and PS 169 The Sunset School are shown in Appendix G

- Recommended improvements include:**
- Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new "Yield to Pedestrian" signs at the intersections shown in the illustration
 - Install new oversized street name sign at 7th Avenue and 48th Street. This sign is to be located on the signal mast arm facing 7th Avenue traffic in both directions
 - Remove the first parking space along the south leg of 7th Avenue and 48th Street in advance of the south crosswalk to provide daylighting (School Safety Improvement)
 - Install a neck-down or a curb extension:
 - On the southeast corner of 7th Avenue and 43rd Street. This may require the removal of parking spaces from the existing curb-side parking (School Safety Improvement)
 - On the northwest and northeast corners of 7th Avenue and 44th Street. This may require the removal of parking spaces from the existing curb-side parking (School Safety Improvement)

SITE 3: PLAN 2 - 7TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

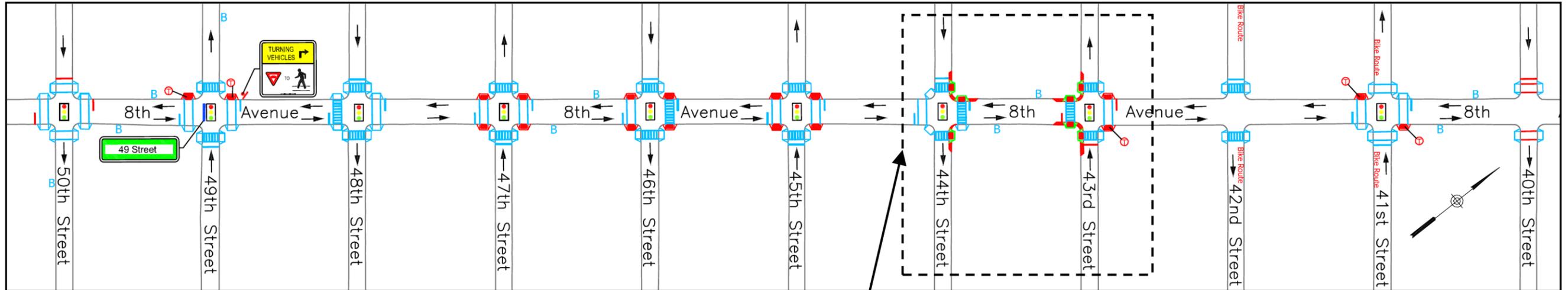
- Recommended improvements include:**
- Install new high visibility crosswalks
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new "Yield to Pedestrian" sign at the intersection shown in the illustration
 - Install new oversized street name sign at the intersection of 7th Avenue and 57th Street. This sign is to be located on the signal mast arm facing 7th Avenue traffic in both directions

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians
 - Speeding vehicles

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - This study area was visited on October 9,10, 17 and 20, 2008

SITE 4: PLAN 1 - 8TH AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

CURB EXTENSION IMPROVEMENT UNDER SCHOOL SAFETY PROJECT (APPENDIX-G)

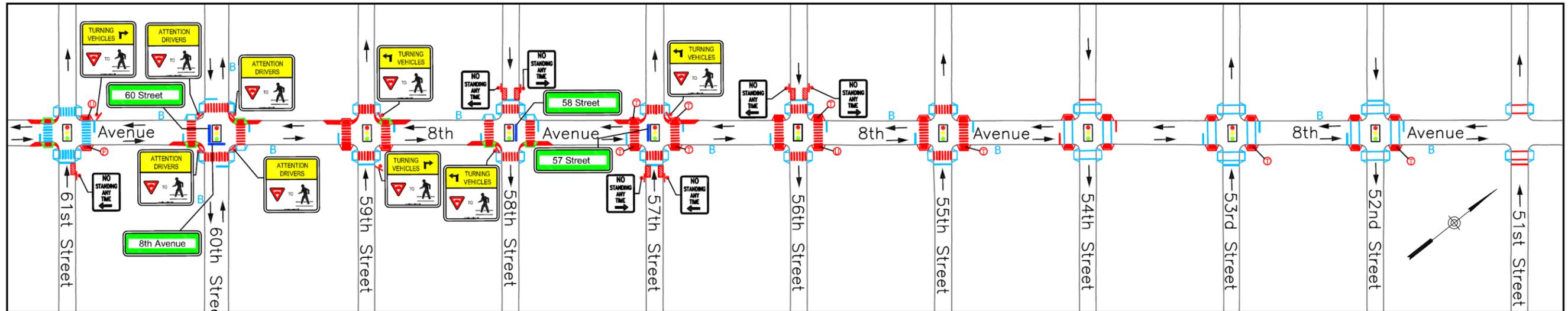
- Recommended improvements include:**
- Time all signals for seniors and where feasible, the crossing time will be extended
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new "Yield to Pedestrian" sign at the intersection shown in the illustration
 - Install new oversized street name sign at the intersection of 8th Avenue and 49th Street. This sign is to be located on the signal mast arm facing 8th Avenue traffic in both directions
 - Install a neck-down or a curb extension:
 - On the southwest and southeast corners of 8th Avenue and 43rd Street. This may require the removal of parking spaces from the existing curb-side parking (School Safety Improvement)
 - On the northeast and northwest corners of 8th Avenue and 44th Street. This may require the removal of parking spaces from the existing curb-side parking (School Safety Improvement)

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians
 - Signal timing (insufficient crossing time)

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - Details of neck-down construction are shown in Appendix F
 - This study area was visited on October 9, 10, 17 and 20, 2008
 - Recommendations developed for PS 169 The Sunset School are shown in Appendix G

SITE 4: PLAN 2 - 8TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

	EXISTING HIGH VISIBILITY CROSSWALK		PROPOSED HIGH VISIBILITY CROSSWALK		PROPOSED CURB EXTENSION (NECKDOWN)		EXISTING SIGNALIZED INTERSECTION
	EXISTING STANDARD CROSSWALK		PROPOSED STANDARD CROSSWALK		SW OBSTRUCTION: STREETLIGHT		PROPOSED SIGNALIZED INTERSECTION
	EXISTING SCHOOL CROSSWALK		PROPOSED SCHOOL CROSSWALK		SW OBSTRUCTION: FIRE HYDRANT		PROPOSED STOP BAR
	EXISTING STOP BAR		PROPOSED STOP BAR		SW OBSTRUCTION: SIGNAL POLE		PROPOSED LPI
	EXISTING PEDESTRIAN RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		SW OBSTRUCTION: FIRE BOX		EXISTING CATCH BASIN
	PROPOSED NEW PED RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		PROPOSED PEDESTRIAN SIGNAL HEAD		PROPOSED CATCH BASIN
	REPLACE EXISTING PED RAMP		EXISTING BUS STOP				PROPOSED TRAFFIC SIGN
			PROPOSED BUS STOP				
			EXISTING SUBWAY STOP				

Pedestrian concerns in this area:

- Non-standard pedestrian ramps
- Turning vehicles not yielding to pedestrians
- Signal timing (insufficient crossing time)

Traffic Analysis:

Turning Movement and Pedestrian Counts at
- 8th Avenue and 60th Street
Traffic count data is shown in Appendix D

Additional Information:

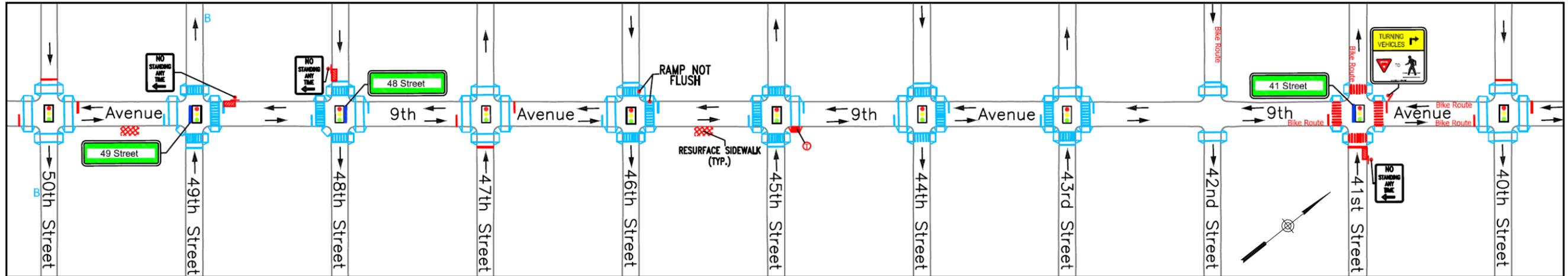
- Parking regulations for the project area have been collected and are shown in Appendix C
- Details of neck-down construction are shown in Appendix F
- This study area was visited on October 9, 10, 17 and 20, 2008

Recommended improvements include:

- Time all signals for seniors and where feasible, the crossing time will be extended
- Install new high visibility crosswalks
- Install new advanced stop bars
- Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
- Install new "Yield to Pedestrian" signs at the various locations shown in the illustration
- Install new oversized street name signs at the various intersections shown in the illustration. These signs are to be located on the signal mast arm facing traffic in both directions
- Remove one parking space:
 - On both sides of 56th Street in advance of the west crosswalk
 - On both sides of 57th Street in advance of the east crosswalk
 - On both sides of 58th Street in advance of the west crosswalk
 - On the north side of 61st Street in advance of the east crosswalk
- Install a neck-down or a curb extension:
 - On the northwest and southwest corners of 8th Avenue and 57th Street. This may require the removal of parking spaces from the existing curb-side parking
 - On the northeast and southeast corners of 8th Avenue and 58th Street. This may require the removal of parking spaces from the existing curb-side parking
 - On the northwest and southwest corners of 8th Avenue and 59th Street. This may require the removal of parking spaces from the existing curb-side parking
 - On the northwest and southeast corners of 8th Avenue and 60th Street. This may require the removal of parking spaces from the existing curb-side parking
 - On the southeast and southwest corners of 8th Avenue and 61st Street. This may require the removal of parking spaces from the existing curb-side parking

SITE 5: PLAN 1 – 9TH AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

	EXISTING HIGH VISIBILITY CROSSWALK		PROPOSED HIGH VISIBILITY CROSSWALK		PROPOSED CURB EXTENSION (NECKDOWN)		EXISTING SIGNALIZED INTERSECTION
	EXISTING STANDARD CROSSWALK		PROPOSED STANDARD CROSSWALK		SW OBSTRUCTION: STREETLIGHT		PROPOSED SIGNALIZED INTERSECTION
	EXISTING SCHOOL CROSSWALK		PROPOSED SCHOOL CROSSWALK		SW OBSTRUCTION: FIRE HYDRANT		PROPOSED STOP BAR
	EXISTING STOP BAR		PROPOSED STOP BAR		SW OBSTRUCTION: SIGNAL POLE		PROPOSED LPI
	EXISTING PEDESTRIAN RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		SW OBSTRUCTION: FIRE BOX		EXISTING CATCH BASIN
	PROPOSED NEW PED RAMP		EXISTING BUS STOP		PROPOSED PEDESTRIAN SIGNAL HEAD		PROPOSED CATCH BASIN
	REPLACE EXISTING PED RAMP		PROPOSED BUS STOP				PROPOSED TRAFFIC SIGN
			EXISTING SUBWAY STOP				

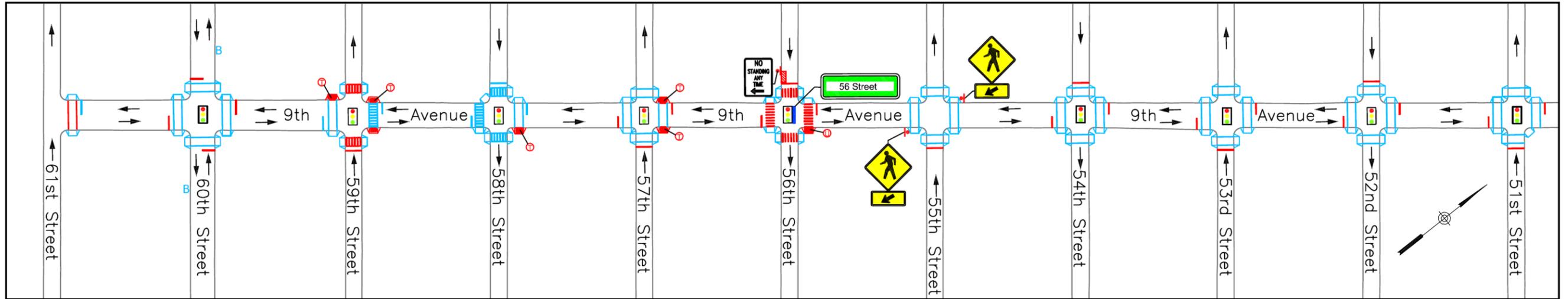
- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - This study area was visited on October 9, 10, 17 and 20, 2008

- Recommended improvements include:**
- Install new high visibility crosswalks
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new “Yield to Pedestrian” sign at the intersection shown in the illustration
 - Install new oversized street name signs at various intersections along 9th Avenue. These signs are to be located on the signal mast arm facing 9th Avenue traffic in both directions
 - Resurface sidewalks on the east side of 9th Avenue between 45th Street and 46th Street, and between 49th Street and 50th Street
 - Remove one parking space:
 - On the north side of 41st Street in advance of east crosswalk
 - On the south side of 48th Street in advance of the west crosswalk
 - On the west side of 49th Street in advance of north crosswalk

SITE 5: PLAN 2 – 9TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

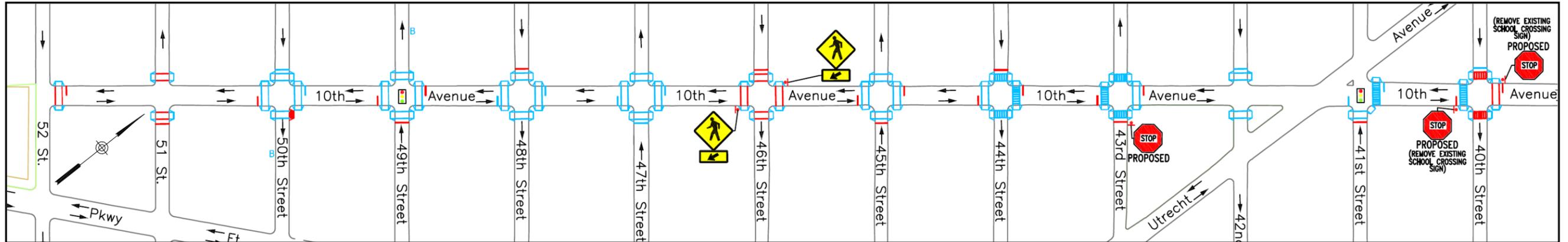
- Recommended improvements include:**
- Install new high visibility crosswalks
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new oversized street name sign at the intersection of 9th Avenue and 56th Street. This sign is to be located on the signal mast arm facing 9th Avenue traffic in both directions
 - Install new pedestrian crossing signs with arrows at the 9th Avenue and 55th Street intersection on both the northbound and southbound approaches
 - Remove one parking space on the south side of 56th Street in advance of the west crosswalk

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians
 - Speeding vehicles

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - This study area was visited on October 9, 10, 17 and 20, 2008

SITE 6: PLAN 1 – 10TH AVENUE (FROM 40TH STREET TO 52ND STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

Recommended improvements include:

- Install new school and standard crosswalks at the intersection of 10th Avenue and 40th Street
- Install new advanced stop bars
- Install new pedestrian crossing signs with arrows at the 10th Avenue and 46th Street intersection on both the northbound and southbound approaches
- Change the intersection of 10th Avenue and 40th Street into an all-way "STOP"- controlled intersection. Provide new "STOP" signs on both the northbound and southbound approaches and remove the existing school children crossing signs from those crosswalks

Pedestrian concerns in this area:

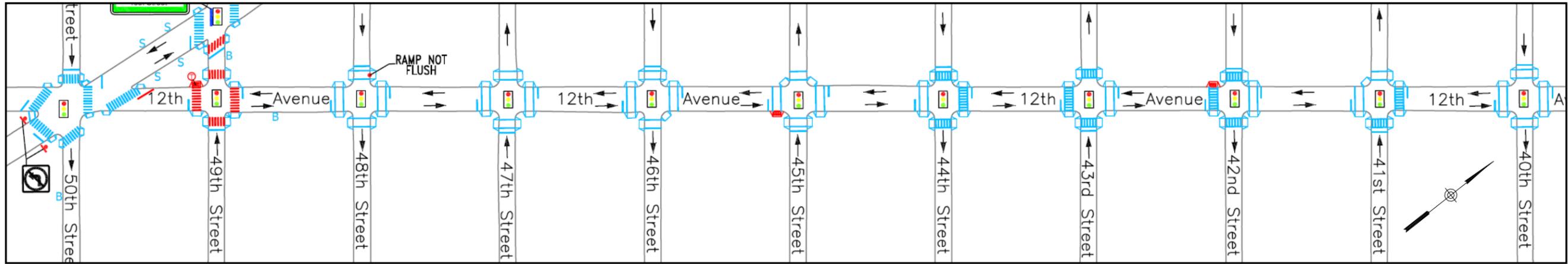
- Turning vehicles not yielding to pedestrians
- Speeding vehicles

Additional Information:

- Parking regulations for the project area have been collected and are shown in Appendix C
- This study area was visited on October 9,10, 17 and 20, 2008

SITE 7: PLAN 1 – 12TH AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

- Recommended improvements include:**
- Time all signals for seniors and where feasible, the crossing time will be extended
 - Install new high visibility crosswalks
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new “No Left Turn” signs at the intersection of New Utrecht Avenue and 12th Avenue/50th Street

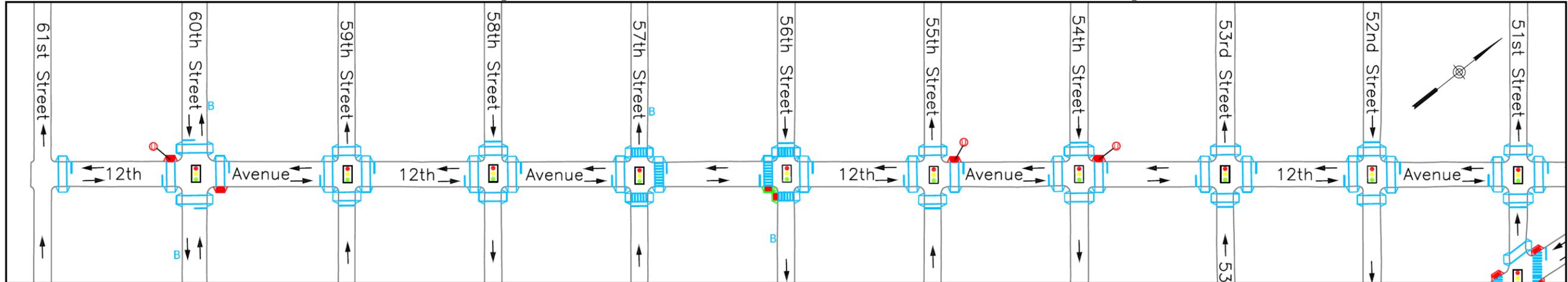
- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians
 - Signal timing (insufficient crossing time)

Traffic Analysis:
 Turning Movement and Pedestrian Counts at
 - 12th Avenue & New Utrecht Avenue/50th Street
 Traffic count data is shown in Appendix D

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - This study area was visited on October 9, 10, 17 and 20, 2008

SITE 7: PLAN 2 – 12TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

Recommended improvements include:

- Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks

Pedestrian concerns in this area:

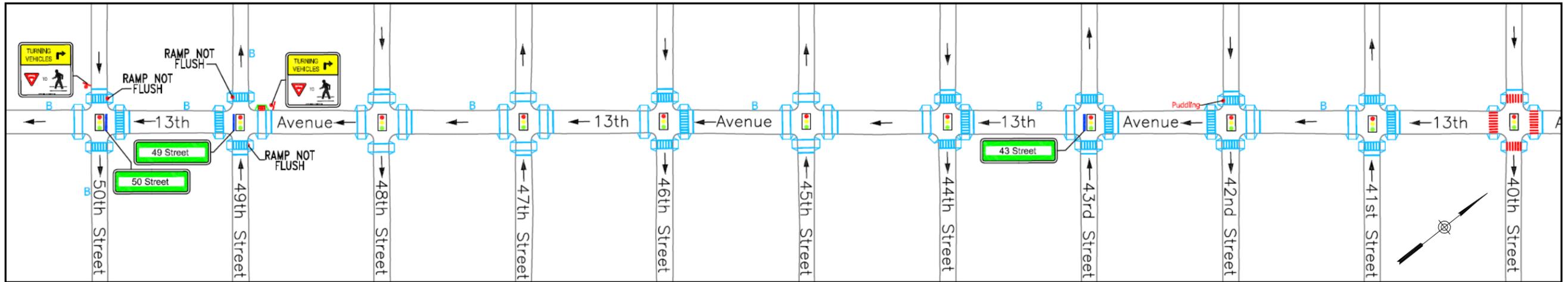
- Non-standard pedestrian ramps

Additional Information:

- Parking regulations for the project area have been collected and are shown in Appendix C
- This study area was visited on October 9, 10, 17 and 20, 2008

SITE 8: PLAN 1 – 13TH AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

Pedestrian concerns in this area:

- Non-standard pedestrian ramps
- Turning vehicles not yielding to pedestrians
- Signal timing (insufficient crossing time)

Additional Information:

- Parking regulations for the project area have been collected and are shown in Appendix C
- This study area was visited on October 9,10, 17 and 20, 2008

Recommended improvements include:

- Time all signals for seniors and where feasible, the crossing time will be extended
- Install high visibility crosswalks
- Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
- Install new “Yield to Pedestrian” signs at the intersections shown in the illustration
- Install new oversized street name signs at various intersections along 13th Avenue. These signs are to be located on the signal mast arm facing 13th Avenue traffic in both directions

Traffic Analysis:

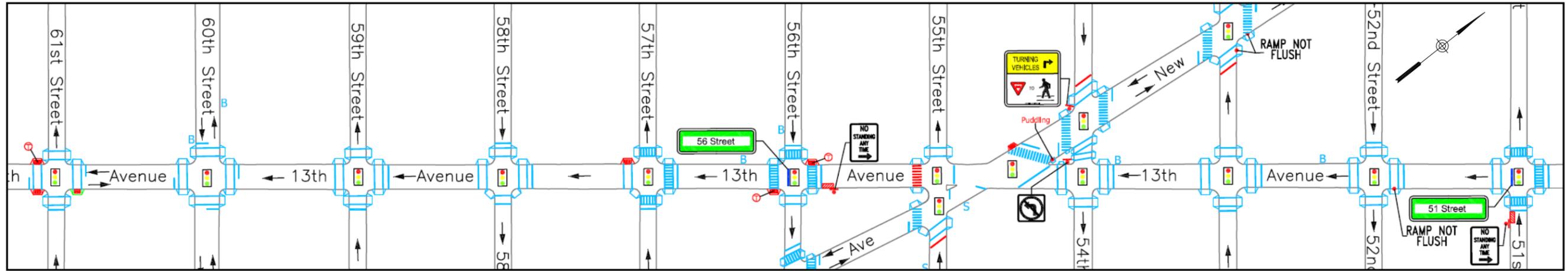
Turning Movement and Pedestrian Counts at

- 13th Avenue and 43rd Street
- 13th Avenue and 49th Street

Traffic count data is shown in Appendix D

SITE 8: PLAN 2 – 13TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

	EXISTING HIGH VISIBILITY CROSSWALK		PROPOSED HIGH VISIBILITY CROSSWALK		PROPOSED CURB EXTENSION (NECKDOWN)		EXISTING SIGNALIZED INTERSECTION
	EXISTING STANDARD CROSSWALK		PROPOSED STANDARD CROSSWALK		SW OBSTRUCTION: STREETLIGHT		PROPOSED SIGNALIZED INTERSECTION
	EXISTING SCHOOL CROSSWALK		PROPOSED SCHOOL CROSSWALK		SW OBSTRUCTION: FIRE HYDRANT		PROPOSED STOP BAR
	EXISTING STOP BAR		PROPOSED STOP BAR		SW OBSTRUCTION: SIGNAL POLE		PROPOSED LPI
	EXISTING PEDESTRIAN RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		SW OBSTRUCTION: FIRE BOX		EXISTING CATCH BASIN
	PROPOSED NEW PED RAMP		EXISTING BUS STOP		PROPOSED PEDESTRIAN SIGNAL HEAD		PROPOSED CATCH BASIN
	REPLACE EXISTING PED RAMP		EXISTING SUBWAY STOP				PROPOSED TRAFFIC SIGN

Pedestrian concerns in this area:

- Non-standard pedestrian ramps
- Turning vehicles not yielding to pedestrians
- Signal timing (insufficient crossing time)

Additional Information:

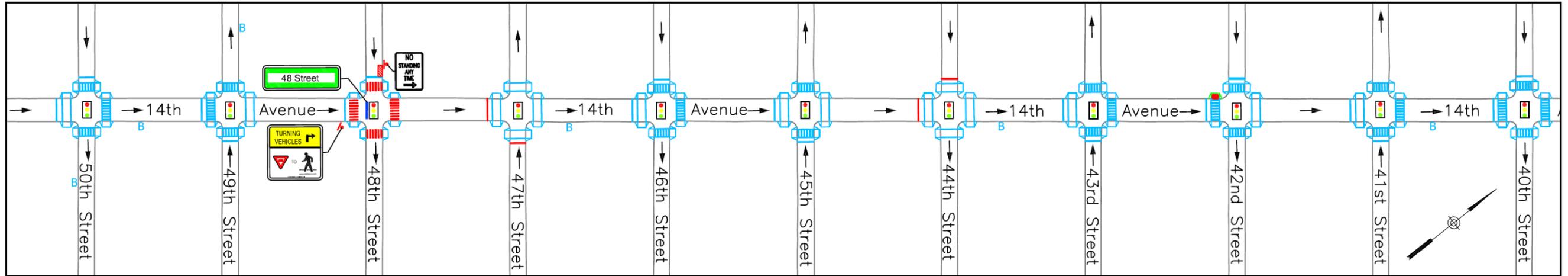
- Parking regulations for the project area have been collected and are shown in Appendix C
- This study area was visited on October 9, 10, 17 and 20, 2008

Recommended improvements include:

- Time all signals for seniors and where feasible, the crossing time will be extended
- Install high visibility crosswalks
- Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
- Install new “Yield to Pedestrian” sign at the intersection shown in the illustration
- Install new oversized street name signs at various intersections along 13th Avenue. These signs are to be located on the signal mast arm facing 13th Avenue traffic in both directions
- Remove one parking space on the south side of 51st Street in advance of the east crosswalk
- Remove one parking space on the east side of 13th Avenue at 56th Street in advance of the north crosswalk
- Install a new “No Left Turn” sign on the southwest corner of 13th Avenue and 54th Street

SITE 9: PLAN 1 – 14TH AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

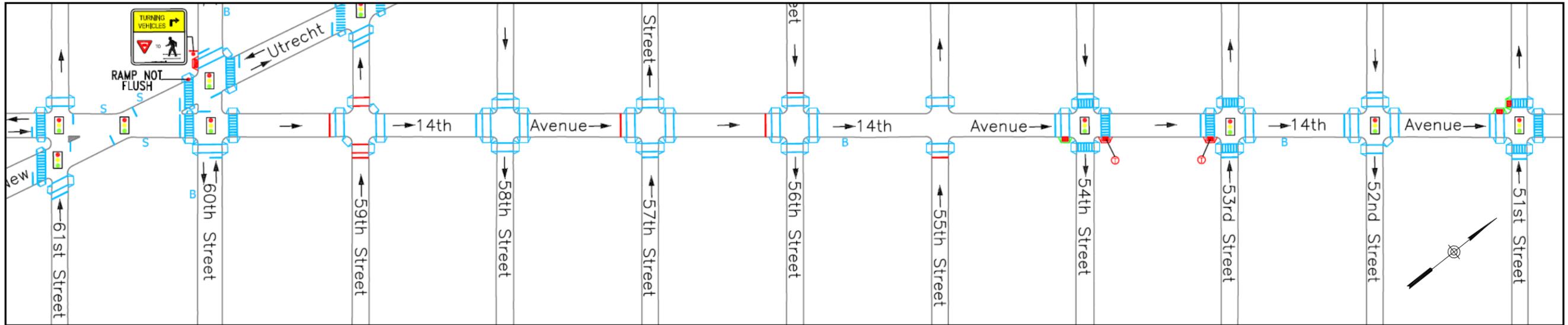
- Recommended improvements include:**
- Install new high visibility crosswalks
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new “Yield to Pedestrian” sign at the intersection shown in the illustration
 - Install new oversized street name signs at the intersection of 14th Avenue and 48th Street. This sign is to be located on the signal mast arm facing 14th Avenue traffic in both directions
 - Remove one parking space on the north side of 48th Street in advance of the west crosswalk

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - This study area was visited on October 9,10, 17 and 20, 2008

SITE 9: PLAN 2 – 14TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

Recommended improvements include:

- Install new advanced stop bars
- Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks

Pedestrian concerns in this area:

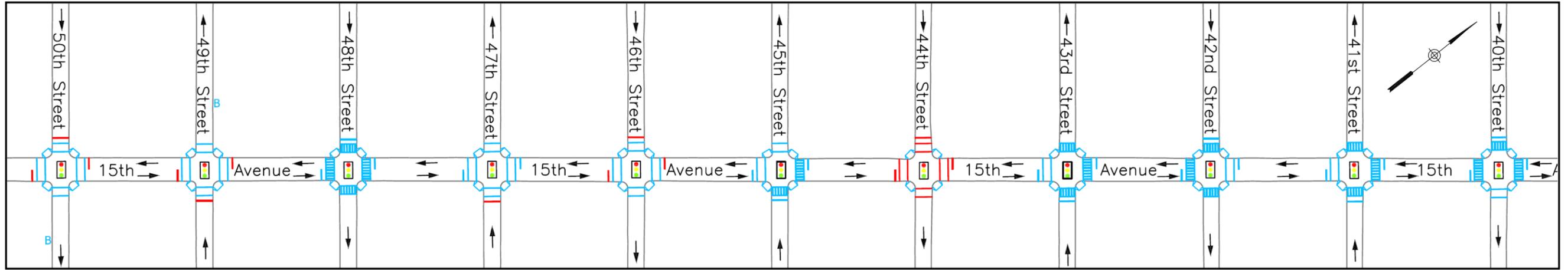
- Non-standard pedestrian ramps
- Speeding vehicles

Additional Information:

- Parking regulations for the project area have been collected and are shown in Appendix C
- This study area was visited on October 9,10, 17 and 20, 2008

SITE 10: PLAN 1 – 15TH AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

Recommended improvements include:

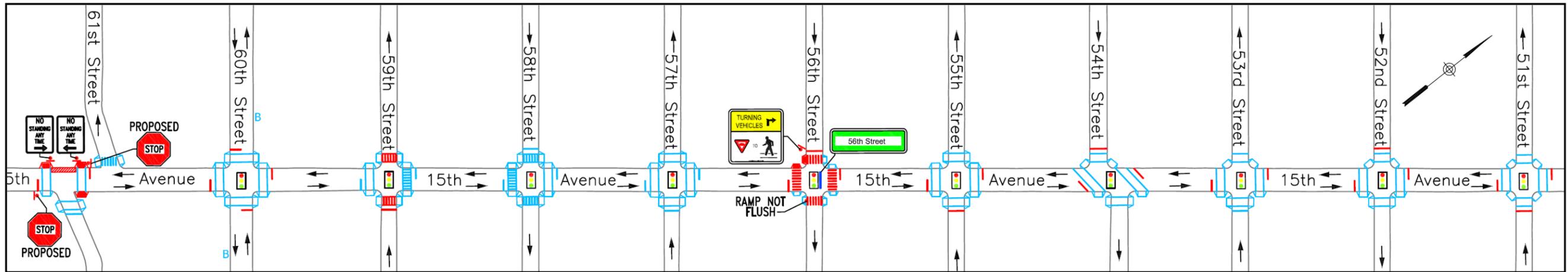
- Install new advanced stop bars

Additional Information:

- Parking regulations for the project area have been collected and are shown in Appendix C
- This study area was visited on October 9, 10, 17 and 20, 2008

SITE 10: PLAN 2 – 15TH AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

	EXISTING HIGH VISIBILITY CROSSWALK		PROPOSED HIGH VISIBILITY CROSSWALK		PROPOSED CURB EXTENSION (NECKDOWN)		EXISTING SIGNALIZED INTERSECTION
	EXISTING STANDARD CROSSWALK		PROPOSED STANDARD CROSSWALK		SW OBSTRUCTION: STREETLIGHT		PROPOSED SIGNALIZED INTERSECTION
	EXISTING SCHOOL CROSSWALK		PROPOSED SCHOOL CROSSWALK		SW OBSTRUCTION: FIRE HYDRANT		PROPOSED STOP BAR
	EXISTING STOP BAR		PROPOSED STOP BAR		SW OBSTRUCTION: SIGNAL POLE		PROPOSED LPI
	EXISTING PEDESTRIAN RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		SW OBSTRUCTION: FIRE BOX		EXISTING CATCH BASIN
	PROPOSED NEW PED RAMP		EXISTING BUS STOP		PROPOSED PEDESTRIAN SIGNAL HEAD		PROPOSED CATCH BASIN
	REPLACE EXISTING PED RAMP		PROPOSED BUS STOP				PROPOSED TRAFFIC SIGN
			EXISTING SUBWAY STOP				

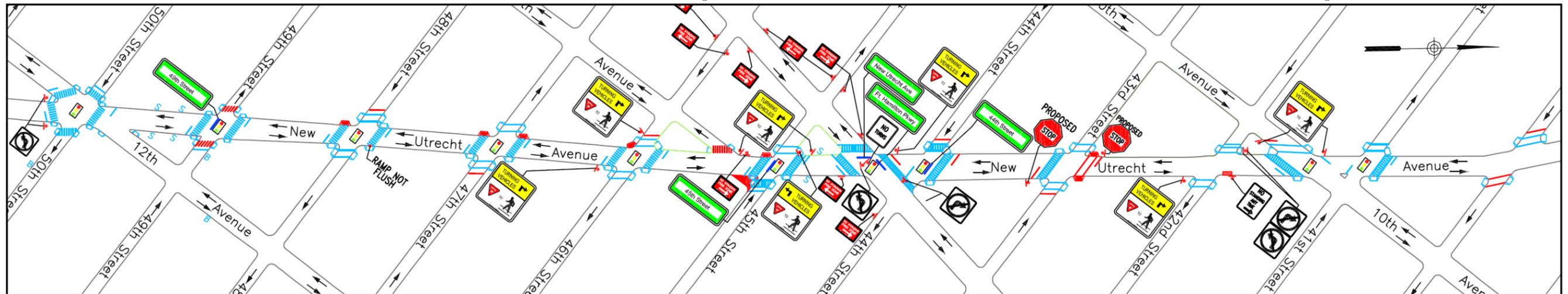
- Recommended improvements include:**
- Install new high visibility crosswalks
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new “Yield to Pedestrian” sign at the intersection shown in the illustration
 - Install new oversized street name sign at the intersection of 15th Avenue and 56th Street. This sign is to be located on the signal mast arm facing 15th Avenue traffic in both directions
 - Change the intersection of 15th Avenue and 61st Street into an all-way “STOP” controlled intersection. Provide new “STOP” signs on both the northbound and southbound approaches
 - Remove parking spaces on the west side of 15th Avenue at 61st Street between the north and south crosswalks

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - This study area was visited on October 9,10, 17 and 20, 2008

SITE 11: PLAN 1 – NEW UTRECHT AVENUE (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

	EXISTING HIGH VISIBILITY CROSSWALK		PROPOSED HIGH VISIBILITY CROSSWALK		PROPOSED CURB EXTENSION (NECKDOWN)		EXISTING SIGNALIZED INTERSECTION
	EXISTING STANDARD CROSSWALK		PROPOSED STANDARD CROSSWALK		SW OBSTRUCTION: STREETLIGHT		PROPOSED SIGNALIZED INTERSECTION
	EXISTING SCHOOL CROSSWALK		PROPOSED SCHOOL CROSSWALK		SW OBSTRUCTION: FIRE HYDRANT		PROPOSED LPI
	EXISTING STOP BAR		PROPOSED STOP BAR		SW OBSTRUCTION: SIGNAL POLE		EXISTING CATCH BASIN
	EXISTING PEDESTRIAN RAMP		PROPOSED PED REFUGE ISLAND (RAISED ISLAND)		SW OBSTRUCTION: FIRE BOX		PROPOSED CATCH BASIN
	PROPOSED NEW PED RAMP		EXISTING BUS STOP		PROPOSED PEDESTRIAN SIGNAL HEAD		PROPOSED TRAFFIC SIGN
	REPLACE EXISTING PED RAMP		PROPOSED BUS STOP				
			EXISTING SUBWAY STOP				

Pedestrian concerns in this area:

- Non-standard pedestrian ramps
- Turning vehicles not yielding to pedestrians
- Signal timing (insufficient crossing time)

Traffic Analysis:

Turning Movement and Pedestrian Counts at

- Ft. Hamilton Parkway/New Utrecht Avenue and 44th Street
- New Utrecht Avenue and 45th Street
- New Utrecht Avenue/12th Avenue and 50th Street
- New Utrecht Avenue and 49th Street

Traffic count data is shown in Appendix D

Additional Information:

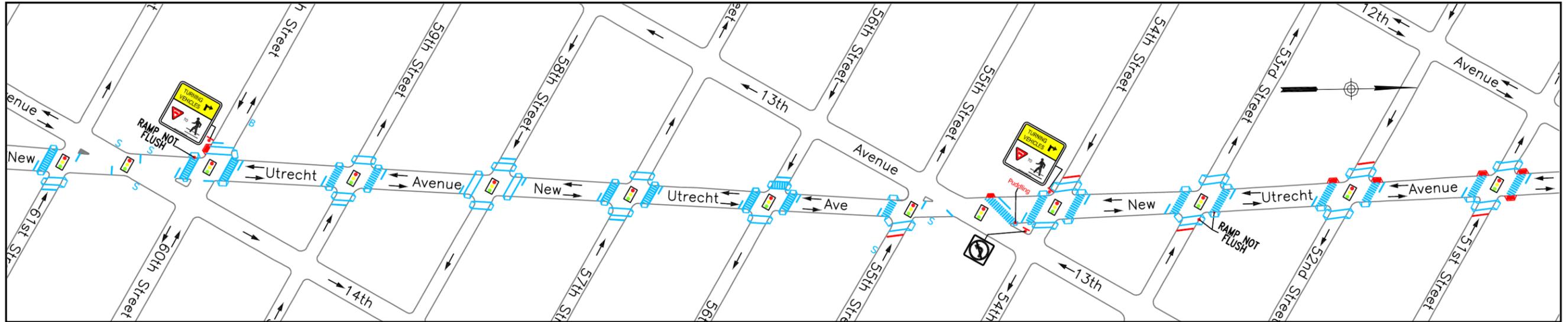
- Parking regulations for the project area have been collected and are shown in Appendix C
- Details of neck-down construction are shown in Appendix F
- This study area was visited on October 9, 10, 17 and 20, 2008

Recommended improvements include:

- Time all signals for seniors and where feasible, the crossing time will be extended
- Install new high visibility crosswalks
- Install new advanced stop bars
- Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
- Install new "Yield to Pedestrian" signs at the intersections shown in the illustration
- Install new oversized street name signs at various intersections along New Utrecht Avenue. These signs are to be located on the signal mast arm facing New Utrecht Avenue traffic in both directions and at the intersection of New Utrecht Avenue and Ft. Hamilton Parkway facing Ft. Hamilton Parkway traffic in both directions
- Install a neck-down or a curb extension:
 - On the southeast corner of New Utrecht Avenue and 45th Street. This may require the removal of parking spaces from the existing curb-side parking
- Install new "No Left Turn" and "No Turns" signs at the intersection of Ft. Hamilton Parkway and New Utrecht Avenue. Also install "No Left Turn" signs at the intersection of New Utrecht Avenue and 50th Street
- Install new "No Left Turn" and "No Right Turn" signs (back-to-back) on the northwest corner at the intersection of New Utrecht Avenue and 42nd Street
- Remove one parking space on the east side of New Utrecht Avenue just north of its intersection with 42nd Street by installing a "No Standing Any Time" sign. Remove one parking space on the east side of New Utrecht Avenue between Ft. Hamilton Parkway and 45th Street by installing a "No Standing Fire Zone" sign
- Replace the "No Parking Anytime" signs along the west side of New Utrecht Avenue between 11th Avenue and 45th Street with "No Standing Fire Zone" signs
- Change the intersection of New Utrecht Avenue and 43rd Street into an all-way "STOP" controlled intersection. Provide new "STOP" signs on both the northbound and southbound approaches

SITE 11: PLAN 2 – NEW UTRECHT AVENUE (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

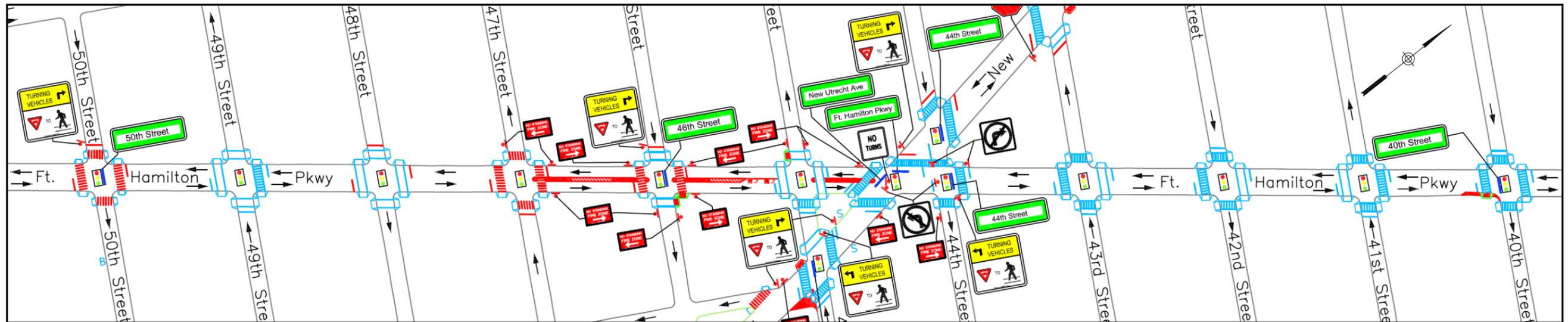
- Recommended improvements include:**
- Time all signals for seniors and where feasible, the crossing time will be extended
 - Install new advanced stop bars
 - Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
 - Install new "Yield to Pedestrian" signs at the intersections shown in the illustration

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Turning vehicles not yielding to pedestrians
 - Signal timing (insufficient crossing time)

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - This study area was visited on October 9, 10, 17 and 20, 2008

SITE 12: PLAN 1 – FT. HAMILTON PARKWAY (FROM 40TH STREET TO 50TH STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

Pedestrian concerns in this area:

- Non-standard pedestrian ramps
- Turning vehicles not yielding to pedestrians
- Signal timing (insufficient crossing time)
- Speeding vehicles

Traffic Analysis:

Turning Movement and Pedestrian Counts at

- Ft. Hamilton Parkway/New Utrecht Avenue and 44th Street
- Ft. Hamilton Parkway and 50th Street

Traffic count data is shown in Appendix D

Additional Information:

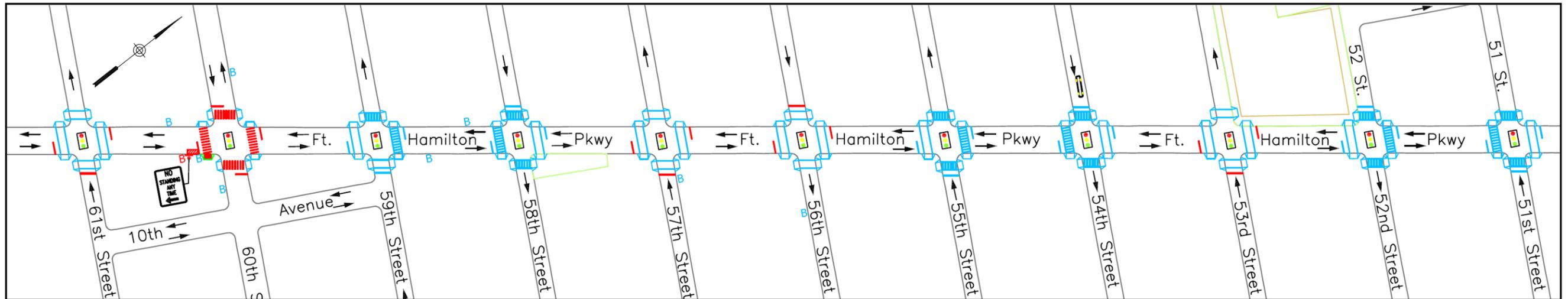
- Parking regulations for the project area have been collected and are shown in Appendix C
- Details of neck-down and raised median island construction are shown in Appendix F
- This study area was visited on October 9,10, 17 and 20, 2008

Recommended improvements include:

- Time all signals for seniors and where feasible, the crossing time will be extended
- Install new high visibility crosswalks
- Install new advanced stop bars
- Install new pedestrian ramps. Where proposed, align the ramps with the crosswalks
- Install new "Yield to Pedestrian" signs at the intersections shown in the illustration
- Install new oversized street name signs at various intersections along Ft. Hamilton Parkway. These signs are to be located on the signal mast arm facing Ft. Hamilton Parkway traffic in both directions and at the intersection of New Utrecht Avenue and Ft. Hamilton Parkway facing New Utrecht Avenue traffic in both directions
- Install a new pedestrian refuge island (raised median) on Ft. Hamilton Parkway between New Utrecht Avenue and 47th Street
- Install a neck-down or a curb extension:
 - On the southeast corner of Ft. Hamilton Parkway at 40th Street. This may require the removal of parking spaces from the existing curb-side parking
- Remove parking spaces on Ft. Hamilton Parkway from 44th Street to 47th Street by installing "No Standing Fire Zone" signs as shown in the illustration
- Install new "No Left Turn" and "No Turns" signs at the intersection of Ft. Hamilton Parkway and New Utrecht Avenue and at the intersection of Ft. Hamilton Parkway and 44th Street
- Install new "No Right Turn" signs at the intersection of Ft. Hamilton Parkway and 44th Street

SITE 12: PLAN 2 – FT. HAMILTON PARKWAY (FROM 51ST STREET TO 61ST STREET)

Illustrating the Solution



LEGENDS:

EXISTING HIGH VISIBILITY CROSSWALK	PROPOSED HIGH VISIBILITY CROSSWALK	PROPOSED CURB EXTENSION (NECKDOWN)	EXISTING SIGNALIZED INTERSECTION
EXISTING STANDARD CROSSWALK	PROPOSED STANDARD CROSSWALK	SW OBSTRUCTION: STREETLIGHT	PROPOSED SIGNALIZED INTERSECTION
EXISTING SCHOOL CROSSWALK	PROPOSED SCHOOL CROSSWALK	SW OBSTRUCTION: FIRE HYDRANT	PROPOSED STOP BAR
EXISTING STOP BAR	PROPOSED STOP BAR	SW OBSTRUCTION: SIGNAL POLE	PROPOSED LPI
EXISTING PEDESTRIAN RAMP	PROPOSED PED REFUGE ISLAND (RAISED ISLAND)	SW OBSTRUCTION: FIRE BOX	EXISTING CATCH BASIN
PROPOSED NEW PED RAMP	EXISTING BUS STOP	PROPOSED PEDESTRIAN SIGNAL HEAD	PROPOSED CATCH BASIN
REPLACE EXISTING PED RAMP	PROPOSED BUS STOP		PROPOSED TRAFFIC SIGN
	EXISTING SUBWAY STOP		

- Recommended improvements include:**
- Install new high visibility crosswalks
 - Install new advanced stop bars
 - Relocate the bus-stop on the northbound approach to the intersection of Ft. Hamilton Parkway and 60th Street 20 feet back from its existing location. Install a “No Standing Any Time” sign at this location to create daylighting

- Pedestrian concerns in this area:**
- Non-standard pedestrian ramps
 - Speeding vehicles

- Additional Information:**
- Parking regulations for the project area have been collected and are shown in Appendix C
 - This study area was visited on October 9,10, 17 and 20, 2008