

PRELIMINARY HIGH-RISK CROSSWALK LOCATIONS



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As part of the Town wide Pedestrian Safety Audit, GPI was tasked with identifying preliminary crosswalk locations that could benefit from immediate upgrades; including the installation of Rectangular Rapid Flashing Beacons (RRFBs). It is noted that only midblock crossing or "uncontrolled" crossings were selected as part of the preliminary audit. The following 11 site locations were selected based on several criteria including roadway classification, traffic speeds, proximity to schools, transit, religious centers, parks, and civic destinations, adequacy of existing street lighting, the occurrence of pedestrian related collisions and community referenced locations. Recommendations were based on preliminary assessment and additional enhancements at these locations may be recommended as additional data and analysis is completed as part of the full Audit. The following section of this report provides aerial representation of each site location as well as a brief description of existing condition and a reasoning behind each selection.

In no specific order:

1. Webster Street at May Street
2. Webster Street at High School (north)
3. Webster Street at High School (south)
4. Central Avenue at Newman Elementary
5. Dedham Avenue at Harris Avenue
6. Great Plain Avenue at Hillcrest Road
7. Greendale Avenue at Grosvenor Road
8. Highland Avenue at Memorial Field Stairs
9. Great Plain Avenue at North Hill Avenue
10. Great Plain Avenue at Wilshire Park
11. Great Plain Avenue at Broad Meadow Road

PRELIMINARY TOP HIGH-RISK CROSSWALK LOCATIONS



Roadway Classification

Both Webster Street and May Street are collector roads in the Town of Needham. Webster Street experiences a high volume of traffic due to the high school location.

Vehicle Speeds

Both Webster Street and May Street have prima facie speed limits of 30 mph. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a high-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a quarter of a mile of Needham High School as well as two private catholic schools: Monsignor Haddad Middle School and St. Joseph's Elementary School.

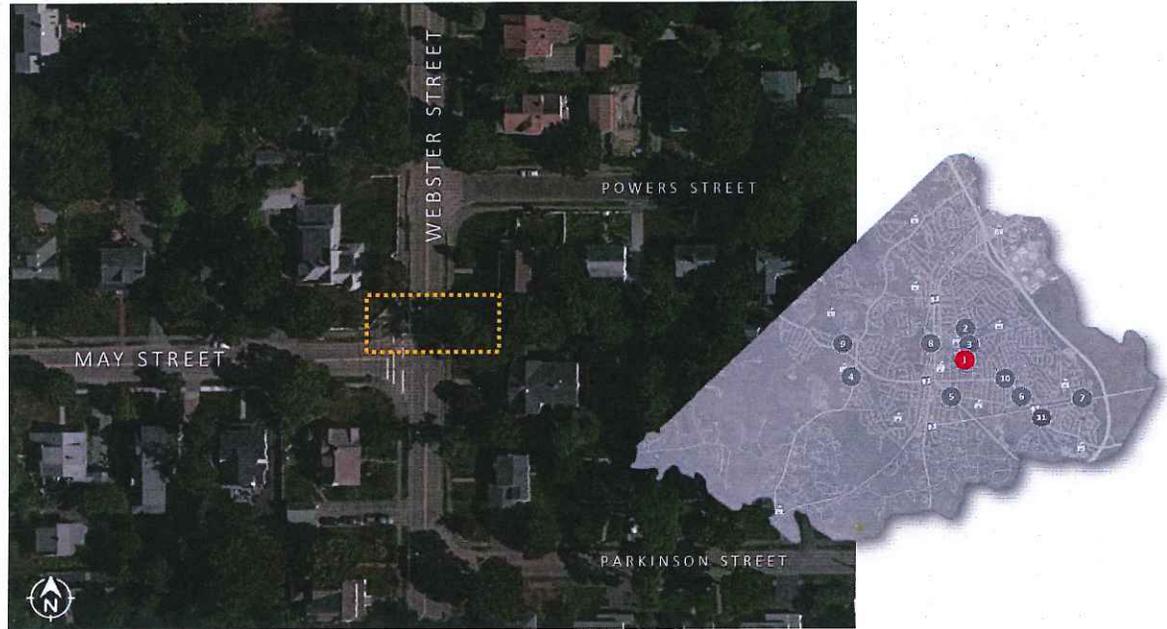
Existing Street Lighting

This crosswalk location falls within an area with potentially inadequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was the most heavily referenced safety concern within the community input documentation.

WEBSTER STREET AT MAY STREET

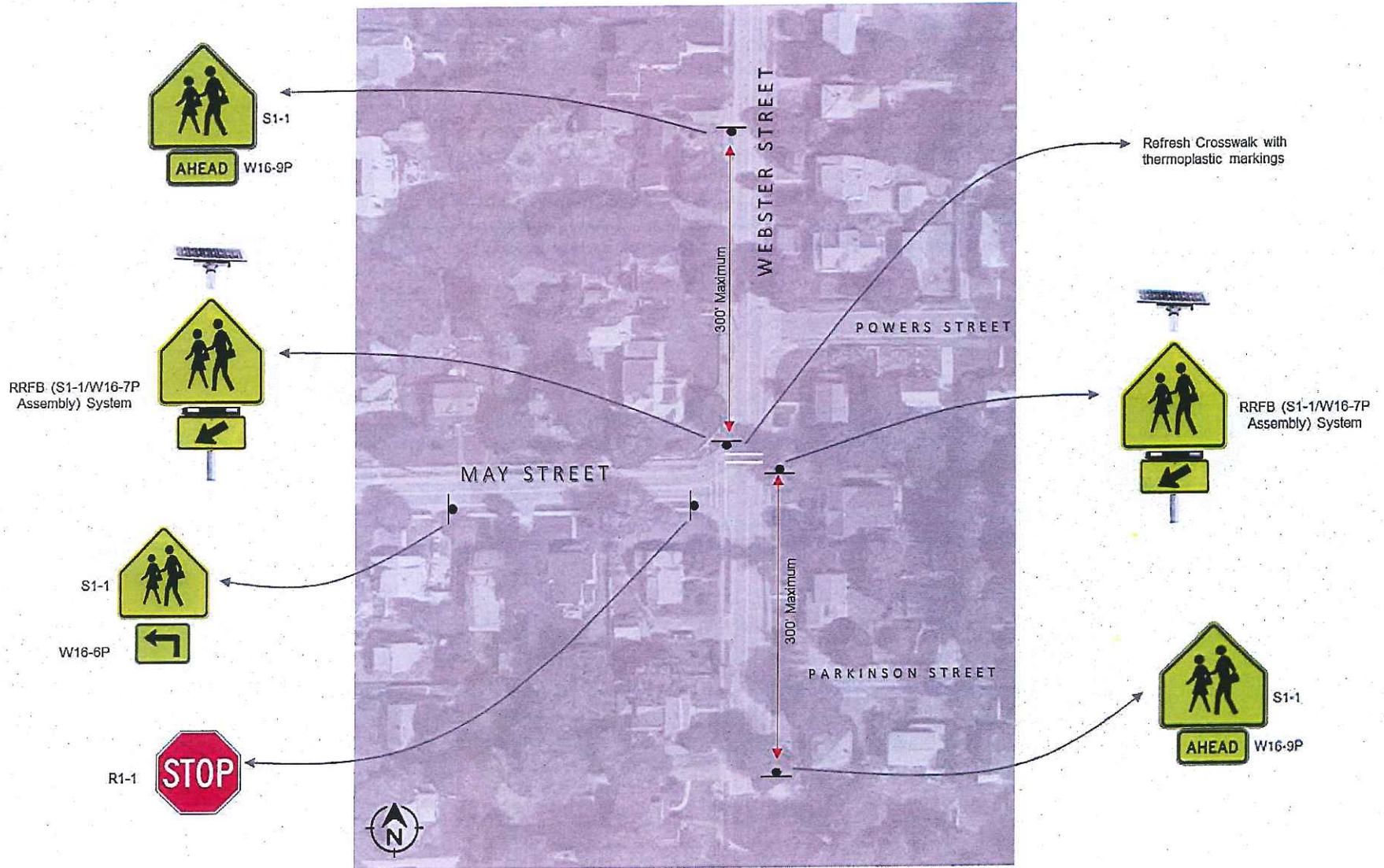


Existing Conditions: The standard marked crosswalk on Webster Street is uncontrolled. No pedestrian crossing signage is present. May Street is STOP sign controlled. Vehicles approaching the intersection from the west on May Street may experience poor sight lines due to the tree line in both directions on Webster Street, the utility pole in the northwest corner of the intersection as well as the vegetation and fence in the northwest corner. Ramps are lacking detectable warning panels and accessibility should be examined for conformance to current ADA standards. Street lighting is present in the northwest and southwest corners of the intersection. Pedestrians crossing Webster Street from the east may be difficult to see at night. Existing curb radii at the intersection are large resulting in a long crossing distance along May Street.

Initial Recommendations: To supplement the marked crosswalk along Webster Street, a pedestrian actuated Rectangular Rapid Flashing Beacon (RRFB) system (S1-1/W16-7P assembly) shall be installed as well as advanced pedestrian crossing signage. Crosswalk markings shall be refreshed.

Further Recommendations may be suggested at this intersection as part of the Full Pedestrian Safety Audit, including tightened curb radii at May Street to reduce crossing distance and increase pedestrian visibility. Additional street lighting may be warranted especially in the southeast corner of the intersection.

WEBSTER STREET AT MAY STREET



WEBSTER STREET AT HIGH SCHOOL (NORTH)

Roadway Classification

Webster Street is a collector roadway in the Town of Needham. Webster Street experiences a high volume of traffic due to the high school location.

Vehicle Speeds

Webster Street has a prima facie speed limit of 30 mph. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a high-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

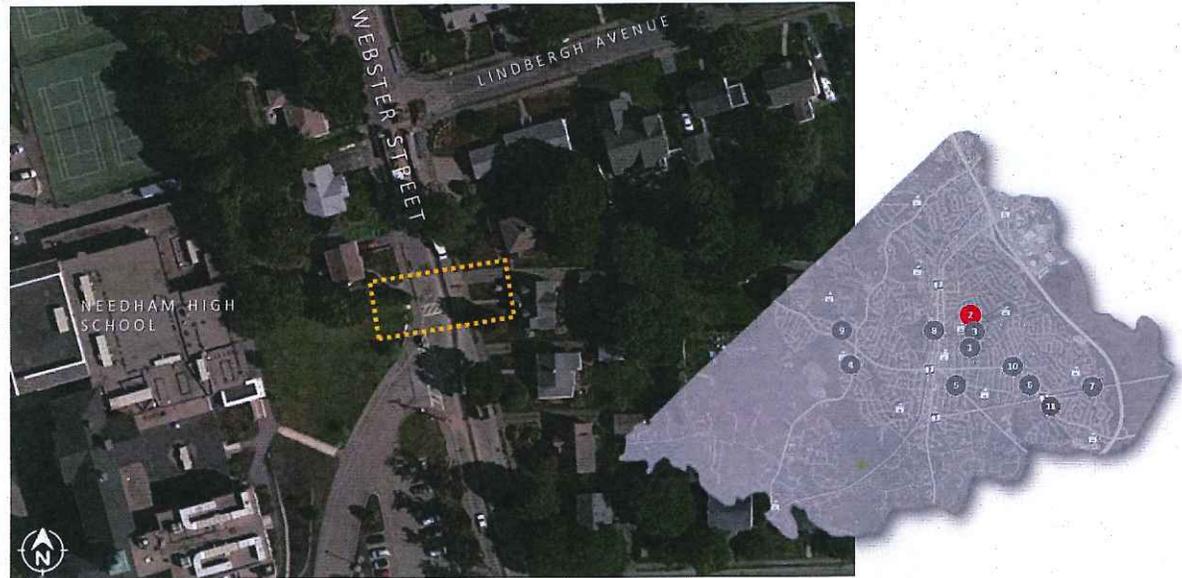
This crosswalk is located within a quarter of a mile of Needham High School.

Existing Street Lighting

This crosswalk location falls within an area with potentially inadequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was a heavily referenced safety concern within the community input documentation.

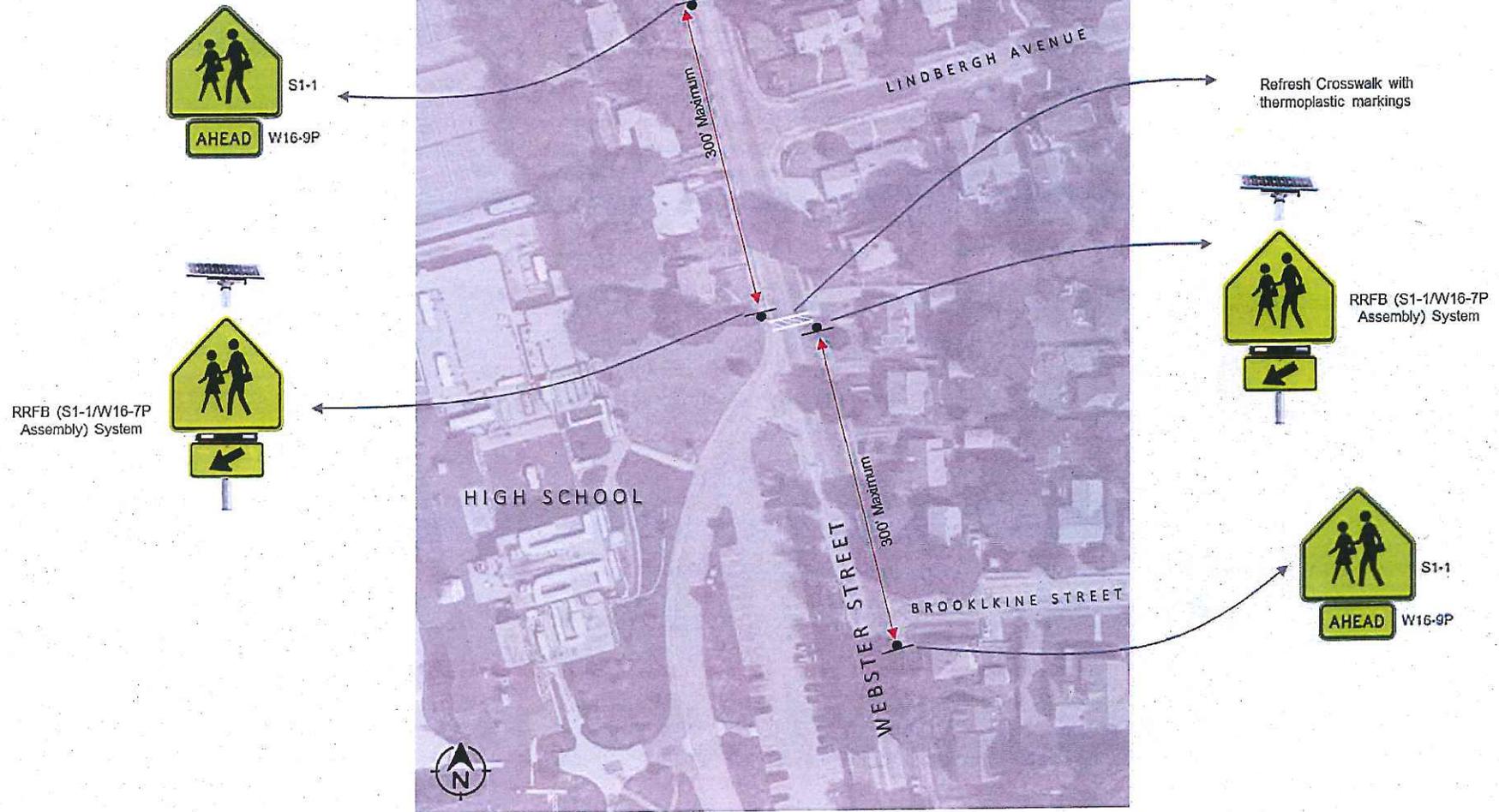


Existing Conditions: The existing marked hatch (zebra) style crosswalk along Webster Street is uncontrolled. There is existing pedestrian crossing signage with flashing LED border lighting; however, the sign is flashing continuously rather than only when pedestrians are present. This could result in drivers becoming accustomed to the sign and not reacting accordingly when a pedestrian is actually in the crosswalk. Advanced pedestrian crossing signage (S1-1/W16-9P assembly) is present for both directions on Webster Street. Sight lines are adequate for both approaches. Ramps are lacking detectable warning panels and accessibility should be examined for conformance to current ADA standards. Street lighting exists just north of the crosswalk on the western side of Webster Street, but no lighting is available for the eastern side.

Initial Recommendations: To supplement the marked crosswalk along Webster Street, the LED flashing sign should be replaced by a pedestrian actuated RRFB system (W1-1/W16-7P assembly). New, updated advanced pedestrian crossing signage shall be installed as well. Crosswalk markings shall be refreshed.

Further recommendations may be suggested at this location as part of the Full Pedestrian Safety Audit, including geometric modifications to the high school entrance to reduce the curb radii in the northwest corner of the intersection which currently may facilitate high speed turning movements. Curb extensions may also be explored to reduce the crossing distance along Webster Street and potentially slow down vehicle speeds. Additional street lighting may be warranted for the eastern ramp of the Webster Street crossing.

WEBSTER STREET AT HIGH SCHOOL (NORTH)



Roadway Classification

Webster Street is a collector roadway in the Town of Needham. Webster Street experiences a high volume of traffic due to the high school location.

Vehicle Speeds

Webster Street has a prima facie speed limit of 30 mph. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a high-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a quarter of a mile of Needham High School.

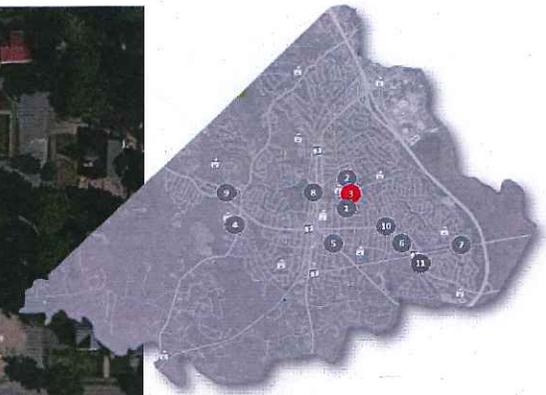
Existing Street Lighting

This crosswalk location falls within an area with potentially inadequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was a heavily referenced safety concern within the community input documentation. There were two fatalities at this crossing in 2018, and as a result this area has become a major concern for the public and town officials.

WEBSTER STREET AT HIGH SCHOOL (SOUTH)

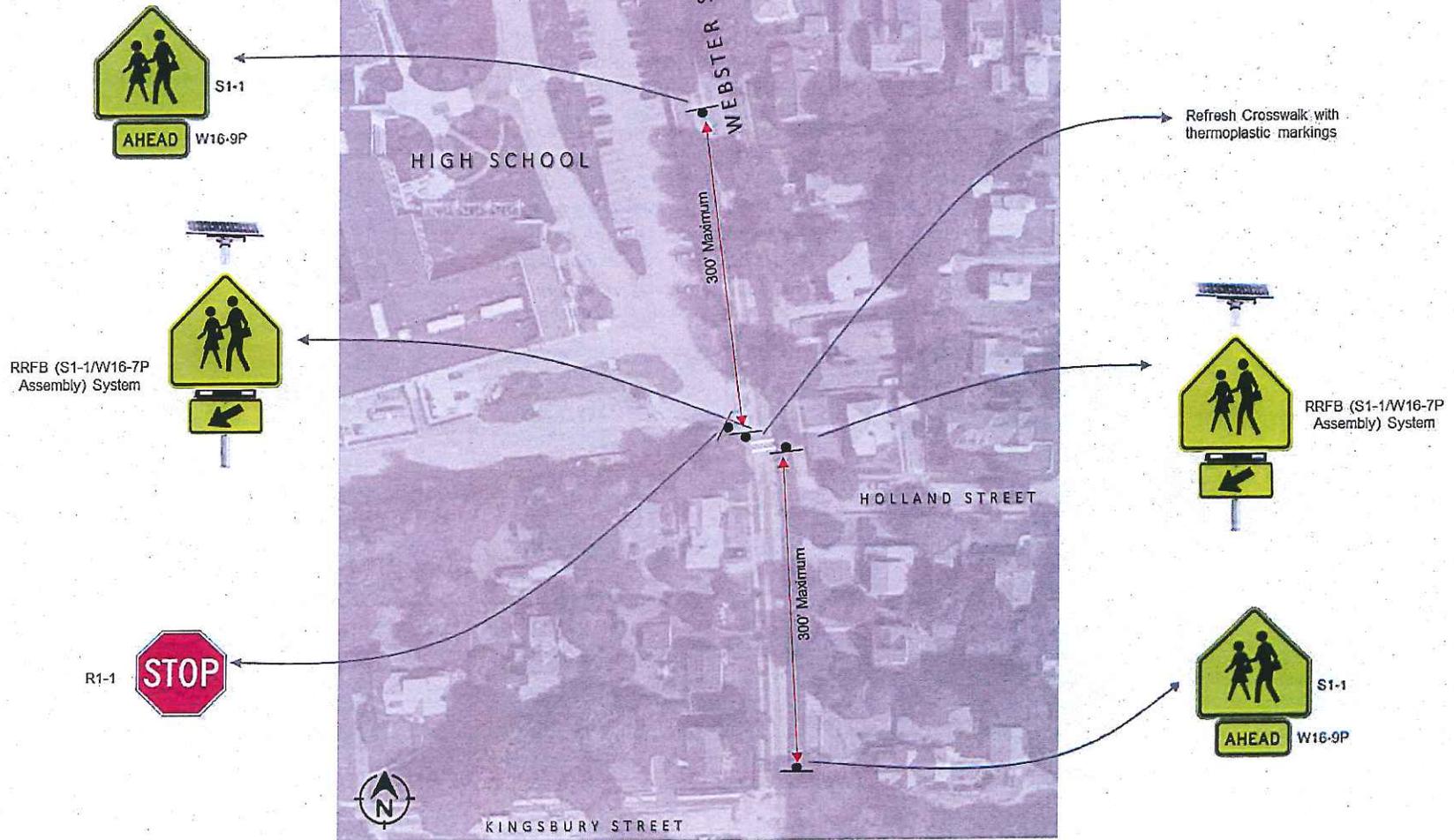


Existing Conditions: The existing marked hatch (zebra) style crosswalk along Webster Street is uncontrolled. There is existing pedestrian crossing signage with flashing LED border lighting; however, the sign is flashing continuously rather than only when a pedestrian is present. This could result in drivers becoming accustomed to the sign and not reacting accordingly when a pedestrian is actually in the crosswalk. There is no advanced warning signage. The crosswalk is located just south of the Needham High School exit in which many vehicles exit right towards the crosswalk and sight lines may be compromised due to the existing geometry and tree line. Street lighting is present on the west side of Webster Street approximately 85 feet north of the crosswalk and 55 feet south of the crosswalk which may not be adequate to efficiently light the crossing. Ramps are lacking detectable warning panels and accessibility should be examined for conformance to current ADA standards.

Initial Recommendations: To supplement the marked crosswalk along Webster Street, the LED flashing sign should be replaced by a pedestrian actuated RRFB system (W1-1/W16-7P assembly). New, updated advanced pedestrian crossing signage shall be installed as well. Crosswalk markings shall be refreshed.

Further recommendations may be suggested at this location as part of the Full Pedestrian Safety Audit, including geometric modifications to the high school exit to reduce the curb radii in the southwest corner of the intersection which currently may facilitate high speed turning movements. Curb extensions may also be explored to reduce the crossing distance along Webster Street and potentially slow down vehicle speeds. Existing street lighting may require modification to more efficiently light the crosswalk on the western side of Webster Street and additional street lighting may be warranted for the eastern ramp of the Webster Street crossing.

WEBSTER STREET AT HIGH SCHOOL (SOUTH)



Roadway Classification

Central Avenue is an urban minor arterial in the Town of Needham. Central Avenue in the vicinity of the crosswalk, experiences heavy volumes of traffic due to proximity of Newman Elementary School.

Vehicle Speeds

Prior to the crosswalk, Central Avenue has a speed limit of 30 mph. The crosswalk, however, falls within a school zone, which has a speed limit of 20 mph at the time the school zone is active. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a medium-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a quarter of a mile of Newman Elementary School, a religious center, a community theater, and a recreational park.

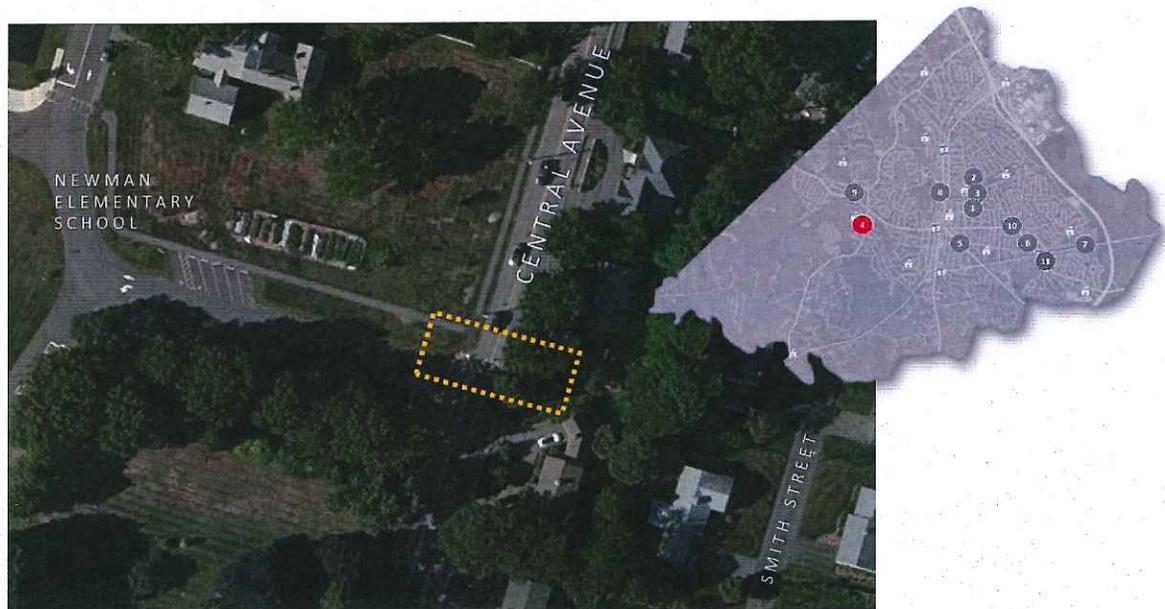
Existing Street Lighting

This crosswalk location falls within an area with potentially inadequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was a heavily referenced safety concern within the community input documentation.

CENTRAL AVENUE AT NEWMAN ELEMENTARY SCHOOL



Existing Conditions: The existing marked hatch (zebra) style crosswalk along Central Avenue is uncontrolled. There is existing pedestrian crossing signage at the crosswalk (S1-1/W16-7P assembly) for both approach lanes. Advanced warning school crossing signs (S1-1/W16-9P assembly) are present for both approaches on Central Avenue. 'SCHOOL' pavement marking stencils and school flashing beacon signs are available in advance of the crosswalk per Massachusetts School Zone requirements. An in-road pedestrian crossing sign (R1-6) is located within the crosswalk across Central Avenue. Street lighting is present on the west side of Webster Street approximately 35 feet north of the crosswalk and 85 feet south of the crosswalk which may not be adequate to efficiently light the crossing. The eastern ramp on Central Avenue is lacking a detectable warning panel and accessibility should be examined for conformance to current ADA standards.

Initial Recommendations: To supplement the marked crosswalk along Central Avenue, a pedestrian actuated RRFB system (S1-1/W16-7P assembly) shall be installed as well as new advanced pedestrian crossing signage and updated school zone flashing beacons. Crosswalk markings and 'SCHOOL' stencils should be refreshed.

Further recommendations may be suggested as part of the Full Pedestrian Safety Audit, such as curb extensions along Central Avenue or possible tightening curb radii for the school entrance location. Additional lighting may be required along the eastern side of Central Avenue to efficiently light the crosswalk.

CENTRAL AVENUE AT NEWMAN ELEMENTARY SCHOOL



Roadway Classification

Dedham Avenue is an urban principal arterial, carrying a heavy volume of traffic throughout Needham, while Harris Avenue is an urban collector roadway.

Vehicle Speeds

The speed limit along Dedham Avenue in the vicinity of the crosswalk is 30 mph which is dropped from 40 mph a few hundred feet south of the intersection, resulting in the possibility of residual speeding. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a high-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a quarter of a mile of the Pollard Middle School and Vesta Park as well as the downtown district.

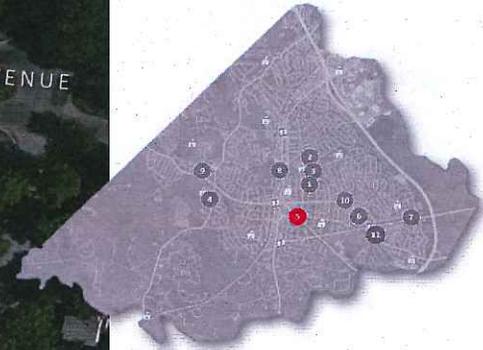
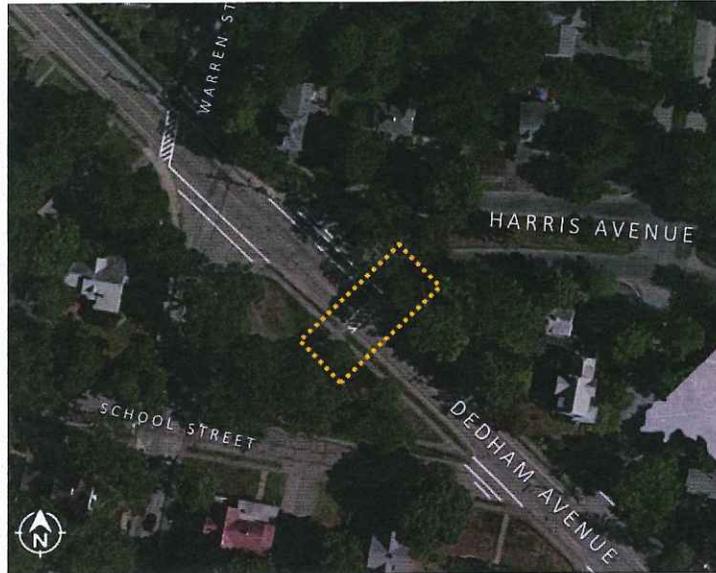
Existing Street Lighting

This crosswalk location falls within an area with average street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was referenced both by the public and city officials as a dangerous crossing location in Town.

DEDHAM AVENUE AT HARRIS AVENUE



Existing Conditions: The existing marked hatch (zebra) style crosswalk along Dedham Avenue is uncontrolled. There is existing pedestrian crossing signage at the crosswalk (S1-1/W16-7P assembly) for the northbound approach only. Advanced warning school crossing signs (S1-1/W16-9P assembly) are present for both approaches on Dedham Avenue. An in-road pedestrian crossing sign (R1-6) is located within the crosswalk across Dedham Avenue. Street lighting is present on the east side of Dedham Avenue approximately 20 feet south of the crosswalk. There is no lighting on the western side of Dedham Avenue. Ramps servicing the Dedham Avenue crosswalk are non-ADA compliant. Given the complexity of the intersection and the adjacent intersection with Warren Street to the north, pedestrian safety is compromised.

Initial Recommendations: To supplement the marked crosswalk along Dedham Avenue, a pedestrian actuated RRF system (S1-1/W16-7P assembly) shall be installed as well as advanced pedestrian crossing signage. Crosswalk markings should be refreshed, and accessible ramps shall be installed.

Further recommendations may be suggested at this location as part of the Full Pedestrian Safety Audit, including geometric modifications to the entire intersection to reduce complexity and prioritize pedestrian safety along this high-volume roadway. This may include the elimination or consolidation of the two marked crosswalks along Dedham Avenue in the vicinity of the Harris Avenue/Warren Street intersections. Additional lighting may be required along the western side of Dedham Avenue to efficiently light the crosswalk.

Roadway Classification

Great Plain Avenue is an urban minor arterial within the vicinity of the crosswalk.

Vehicle Speeds

Great Plain Avenue has a prima facie speed limit of 30 MPH near the crosswalk. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a medium-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a half mile of Pollard Middle School and within a quarter of a mile to the Hersey MBTA commuter rail stop.

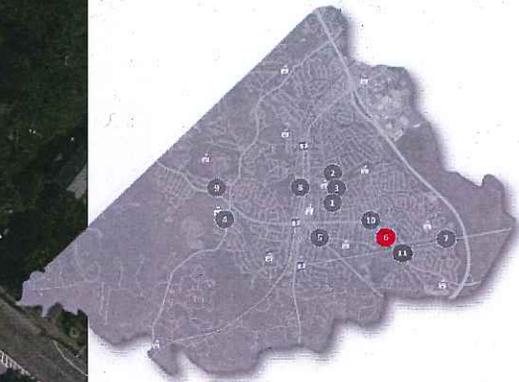
Existing Street Lighting

This crosswalk location falls within an area with potentially adequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was a heavily referenced safety concern within the community input documentation as it is often used by students to access Pollard Middle School as well as commuters utilizing the Hersey commuter rail stop.

GREAT PLAIN AVENUE AT HILLCREST ROAD

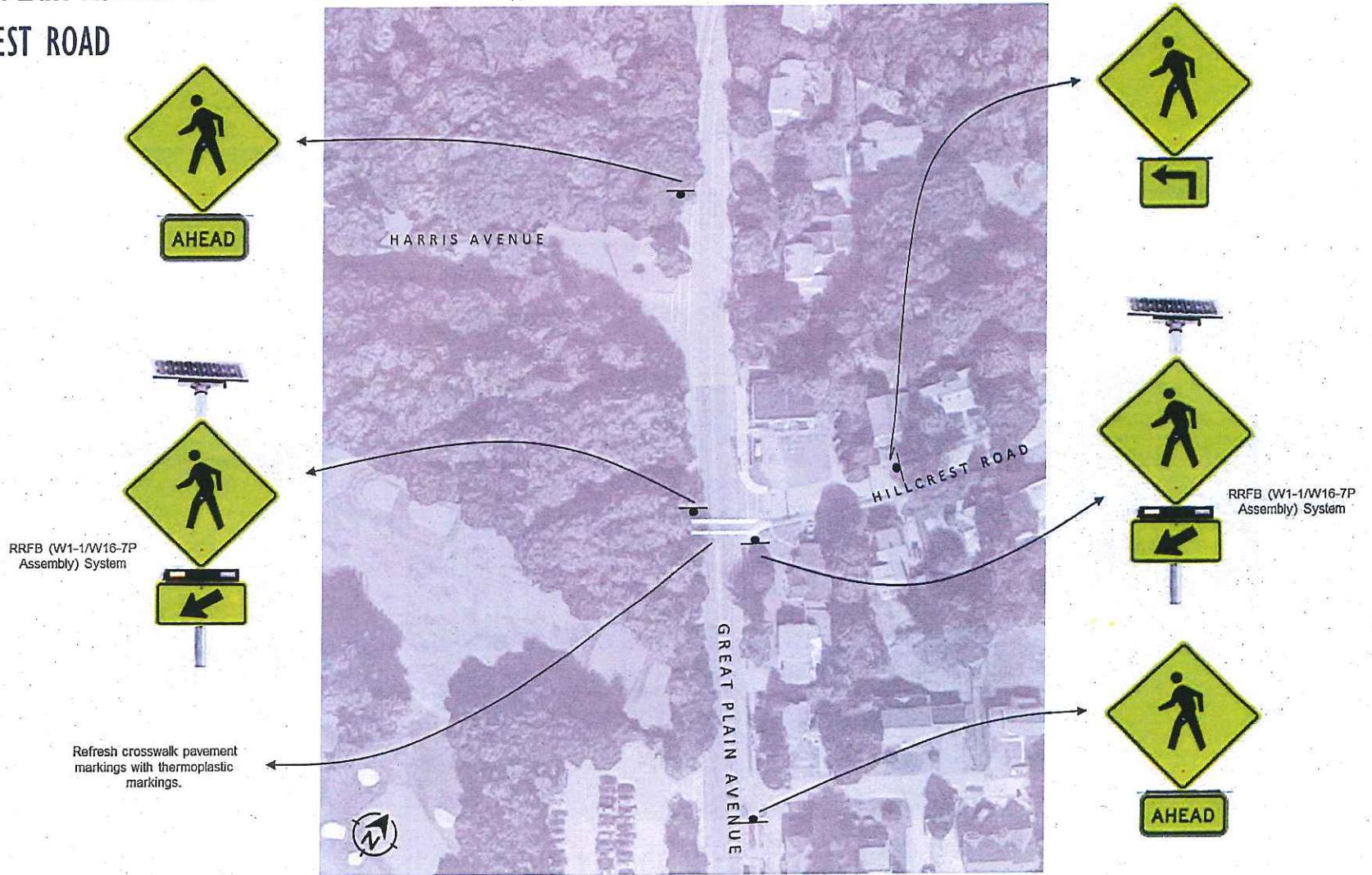


Existing Conditions: The existing standard style crosswalk along Great Plain Avenue is uncontrolled. There is existing pedestrian crossing signage at the crosswalk (S1-1/W16-7P assembly) for both approach lanes. Advanced warning pedestrian crossing signs are not present for either approach. An in-road pedestrian crossing sign (R1-6) is located within the crosswalk across Great Plain Avenue. Street lighting is present on the east side of Great Plain Avenue approximately 55 feet north of the crosswalk and 85 feet south of the crosswalk which may not be adequate to efficiently light the crossing. No street lighting is present on the western side of Great Plain Avenue. Ramps are lacking detectable warning panels and accessibility should be examined for conformance to current ADA standards.

Initial Recommendations: To supplement the marked crosswalk along Great Plain Avenue, a pedestrian actuated RRF system (W1-1/W16-7P assembly) shall be installed as well as advanced pedestrian crossing signage. Crosswalk markings shall be refreshed with high visibility paint.

Further recommendations may be suggested at this location as part of the Full Pedestrian Safety Audit, including curb extensions to reduce the crossing distance along Great Plain Avenue and potentially slow down vehicle speeds. Existing street lighting may require modification to more efficiently light the crosswalk.

GREAT PLAIN AVENUE AT HILLCREST ROAD



Roadway Classification

Greendale Avenue is an urban minor arterial and carries a significant volume of traffic throughout Needham.

Vehicle Speeds

The speed limit on Greendale at the crosswalk location is 40 mph. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a low-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a half of a mile of Brookmeadow Elementary School and the Hersey Commuter Rail Stop.

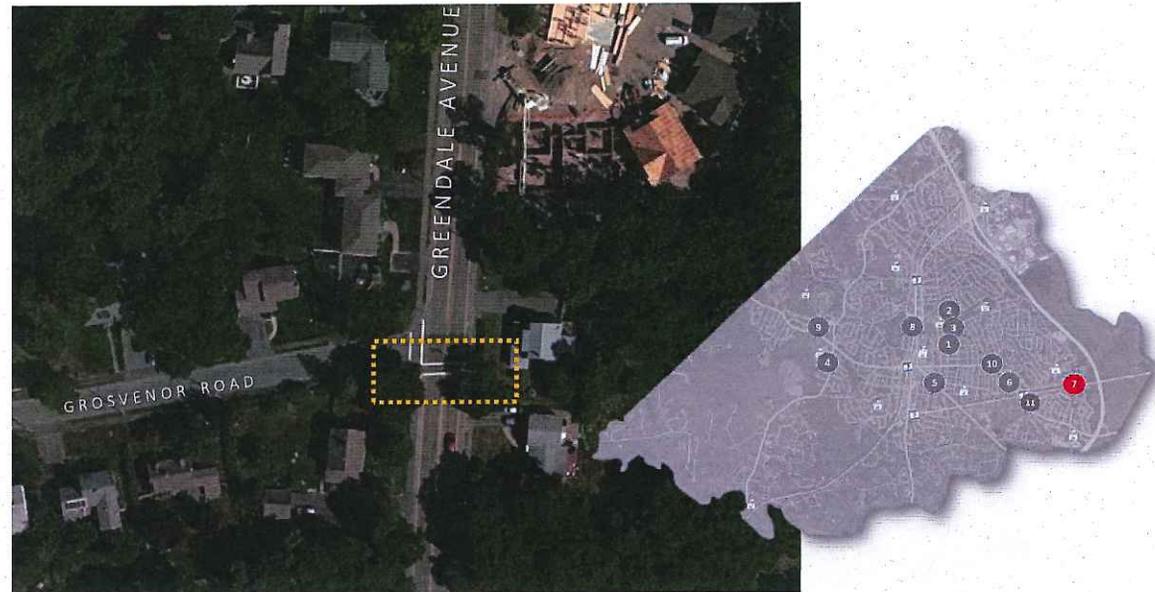
Existing Street Lighting

This crosswalk location falls within an area with potentially inadequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was a refenced safety concern within the community input documentation.

GREENDALE AVENUE AT GROSVENOR ROAD



Existing Conditions: The existing standard marked crosswalk along Greendale Avenue is uncontrolled. There is existing pedestrian crossing signage at the crosswalk (S1-1/W16-7P assembly) for both approach lanes. Advanced warning school crossing signs (S1-1 assembly) are present for both approaches on Greendale Avenue. An in-road pedestrian crossing sign (R1-6) is located within the crosswalk across Greendale Avenue. Street lighting is present on the east side of Greendale Avenue directly above the crosswalk which may not effectively light the crossing. There is no lighting on the western side of Greendale Avenue. Both ramps servicing the crosswalk lack detectable warning panels and are inaccessible.

Initial Recommendations: Given the moderately paced speed limit (40 mph) within the vicinity of this crosswalk, a RRFB may not be appropriate. Due primarily to the speed along Greendale Avenue, the town is currently installing a Pedestrian Hybrid Beacon (HAWK Signal) to the north at the intersection of Greendale Avenue and Bird Street/Rybury Hillway. In addition, the crosswalk just south of this location at Greendale Avenue and Intervale Road should also be considered. Further analysis is recommended to determine if both crosswalks are needed, or if they could be consolidated to a more defined location with the inclusion of an additional Hawk Signal.

Roadway Classification

Highland Avenue is an urban minor arterial. This portion of Highland Avenue carries significant traffic through the downtown district.

Vehicle Speeds

Highland Avenue has a prima facie speed limit of 30 mph within the vicinity of the site location. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a high-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This site is located within a quarter of a mile of Needham High School and within a half mile of both the Needham Center and Needham Heights commuter rail stops. This site is also located nearby the Library and new Rosemary Pool.

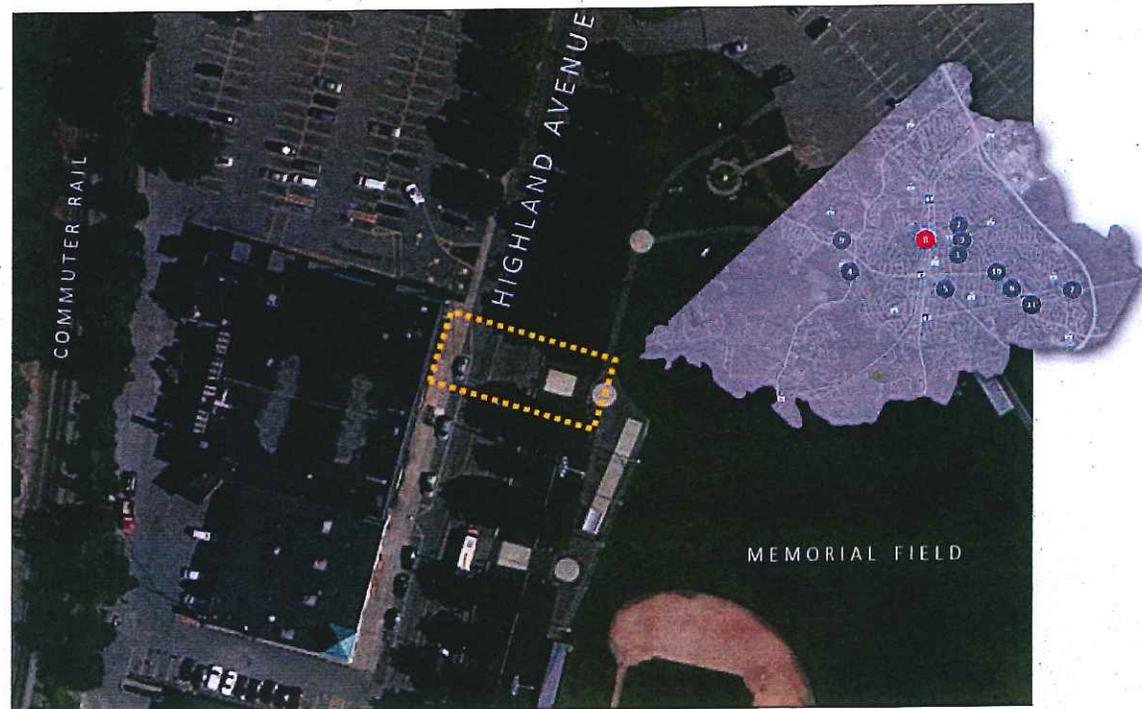
Existing Street Lighting

This crosswalk location falls within an area with potentially adequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This location was a heavily referenced safety concern within the community input documentation. There is currently no crosswalk located here but students often cross the busy main street at this location to access retail and commercial businesses.

HIGHLAND AVENUE AT MEMORIAL FIELD STAIRS (NORTH)



Existing Conditions: There is currently no crosswalk located at this location; however, according to community surveys and preliminary observations, students regularly cross Highland Avenue in this area. The roadway in this vicinity is very wide with on-street parking on the west side contributing to the poor visibility of pedestrians.

Initial Recommendations: Pedestrian counts must be conducted at this location, but should the counts reveal a heavy demand for a marked crosswalk, the Town should consider the installation of a pedestrian actuated RRFB in conjunction with a high visibility crosswalk treatment at this location.

Further Recommendations: Providing a crossing location at this site will require extensive ADA compliancy in regard to the staircase. Accessible ramps will be required at the crossing and perhaps a pedestrian refuge island or curb extensions should be explored to reduce the crossing distance. Any treatments will likely result in the loss of a few parking spaces.

HIGHLAND AVENUE AT MEMORIAL FIELD STAIRS (NORTH)



Roadway Classification

Great Plain Avenue is an urban principal arterial within the vicinity of the crosswalk.

Vehicle Speeds

The regulated speed limit is 30 mph on Great Plain Avenue at this crosswalk location. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a low-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a quarter of a mile of Newman Elementary School.

Existing Street Lighting

This crosswalk location falls within an area with potentially inadequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was a heavily referenced safety concern within the community input documentation due to the existing curve along Great Plain Avenue which may alter sight distance.

GREAT PLAIN AVENUE AT NORTH HILL AVENUE

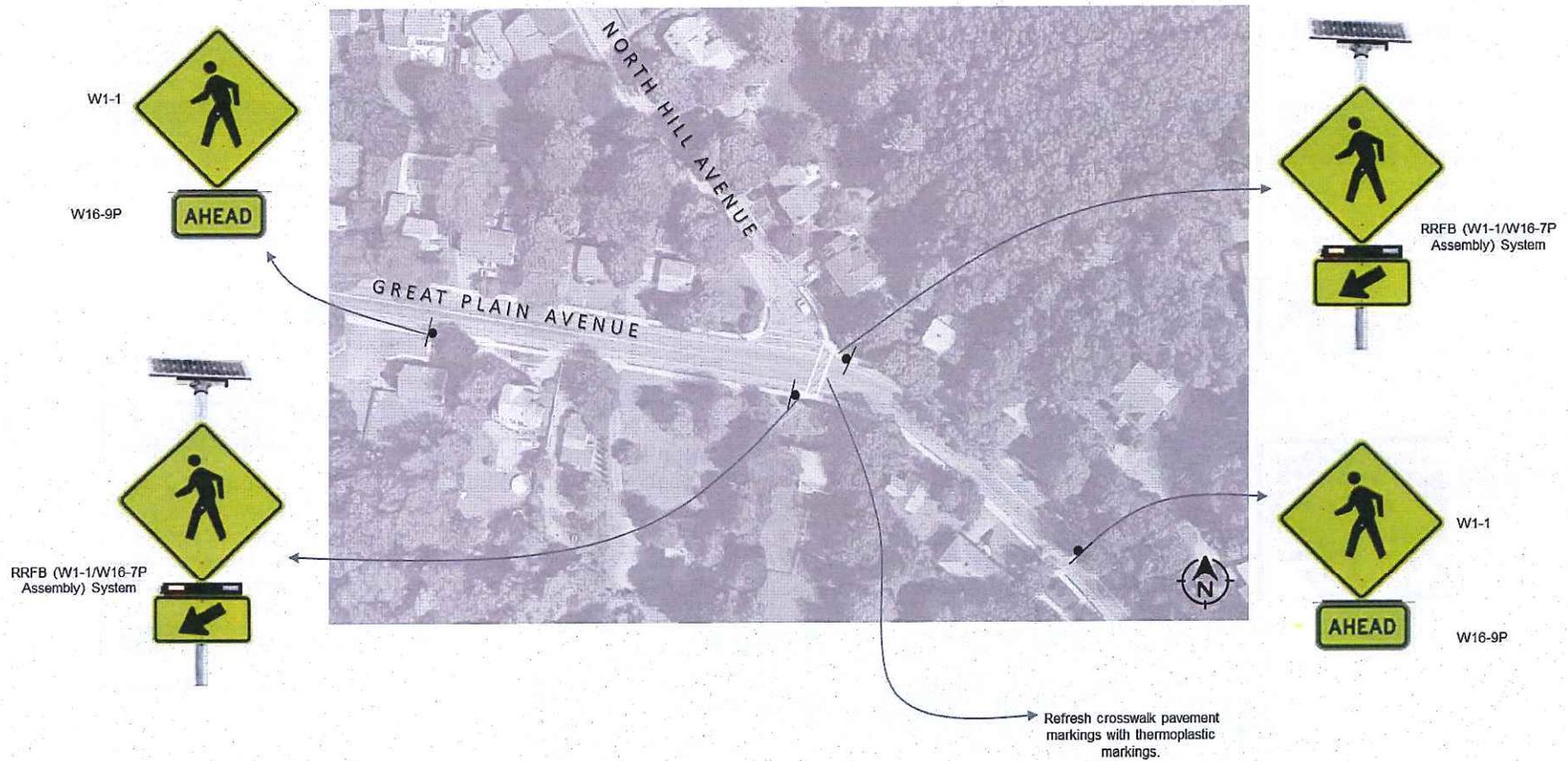


Existing Conditions: The existing marked hatch (zebra) style crosswalk along Great Plain Avenue is uncontrolled. There is existing pedestrian crossing signage at the crosswalk (W1-1/W16-7P/R1-6 assembly) for both approaches, however, signage is placed after the crosswalk rather leading before and adjacent. Advanced warning school crossing signs (W1-1/W16-9P assembly) are present for both approaches on Great Plain Avenue. Street lighting is present on the northern side of Great Plain Avenue only, approximately 75 feet east and west of the crosswalk. Despite the curvature in the roadway, sight lines do not appear to be problematic.

Initial Recommendations: To supplement the marked crosswalk along Great Plain Avenue, a pedestrian actuated RRFB system (S1-1/W16-7P assembly) shall be installed as well as new advanced pedestrian crossing signage. Crosswalk markings should be refreshed.

Further recommendations as part of the Full Pedestrian Safety Audit may include accessible ramps with detectable warning panels. Street lighting may require modification to efficiently service the crosswalk. Curb extensions may also be explored to reduce pedestrian crossing distance and potentially slow down vehicle speeds.

GREAT PLAIN AVENUE AT NORTH HILL AVENUE



Roadway Classification

Great Plain Avenue is an urban minor arterial in the vicinity of the crosswalk.

Vehicle Speeds

Great Plain Avenue has a prima facie speed limit of 30 MPH near the crosswalk. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a low-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a half of a mile of Pollard Middle School.

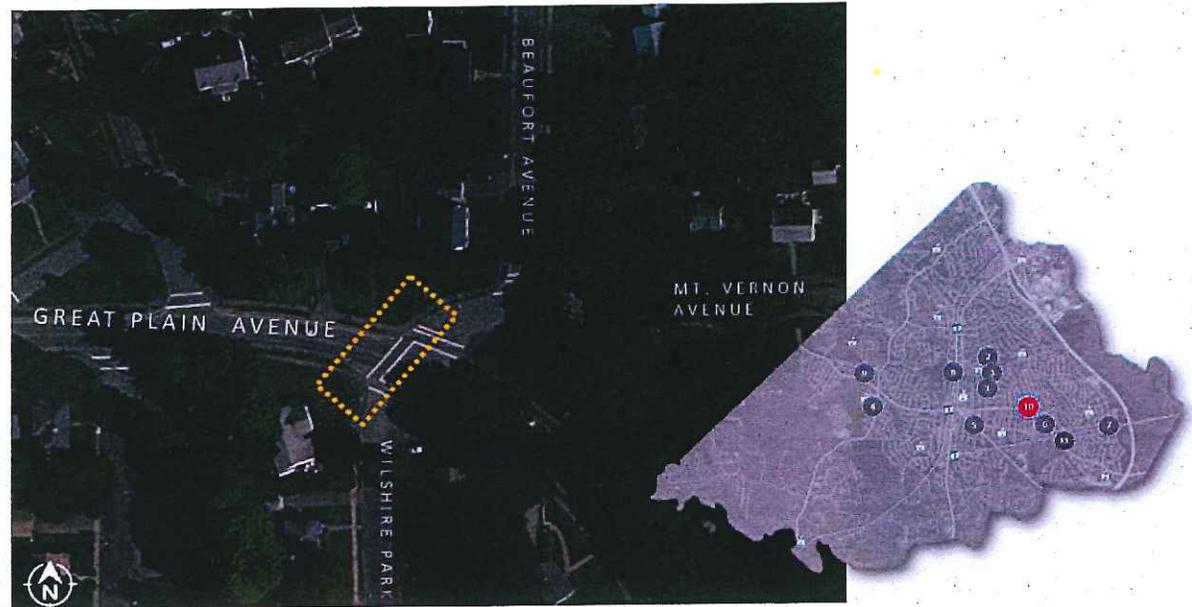
Existing Street Lighting

This crosswalk location falls within an area with potentially inadequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was a heavily referenced safety concern within the community input documentation due to the existing curve along Great Plain Avenue which may alter sight distance.

GREAT PLAIN AVENUE AT WILSHIRE PARK / BEAUFORT AVENUE

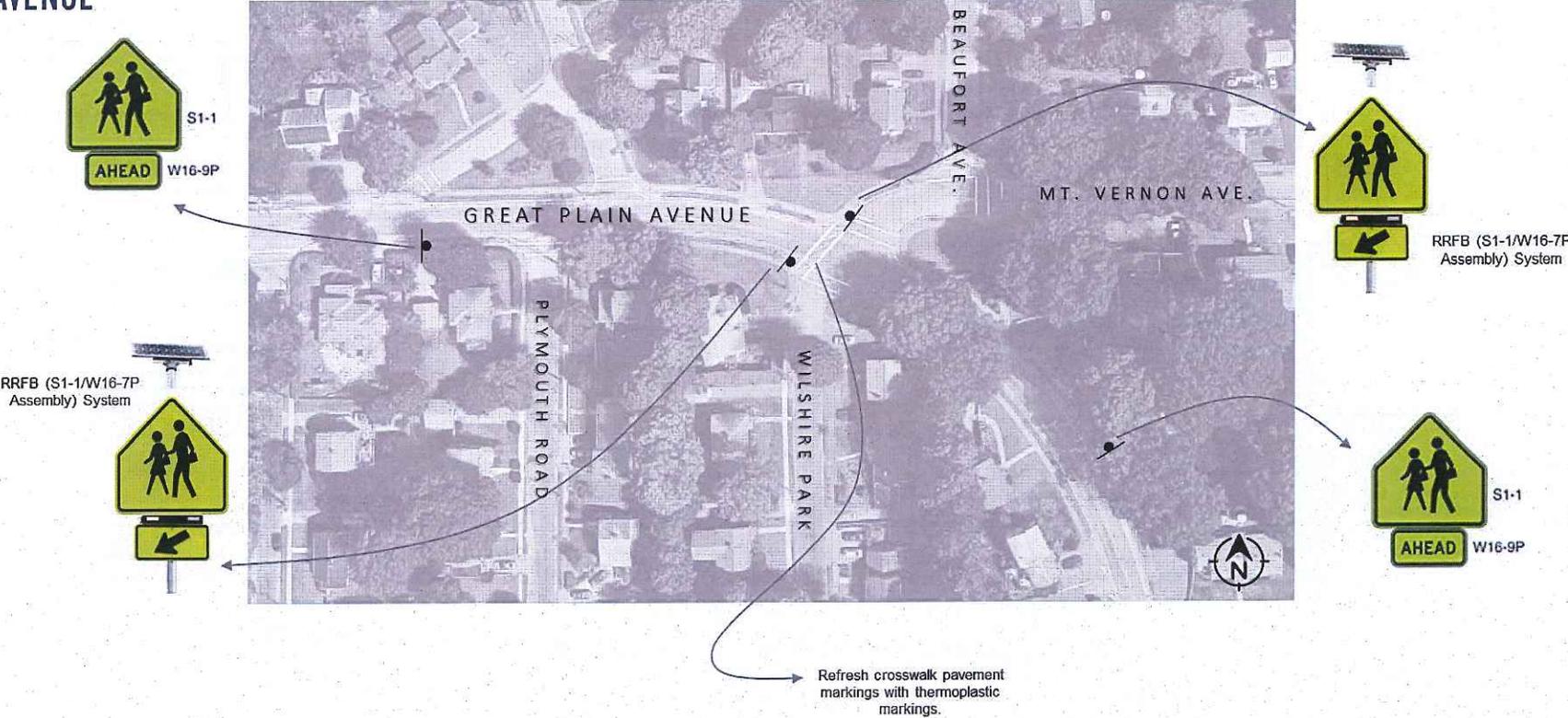


Existing Conditions: The existing standard crosswalk along Great Plain Avenue is uncontrolled. There is existing pedestrian crossing signage at the crosswalk (W1-1/W16-7P/R1-6 assembly) for both approaches, however, signage is placed after the crosswalk rather than before and adjacent along the northwest approach. Advanced warning school crossing signs (S1-1 assembly) are present for both approaches on Great Plain Avenue. There is no street lighting on Great Plain Avenue in the vicinity of the crosswalk. The curvature in the roadway creates sight line issues specifically for vehicles traveling northwest on Great Plain Avenue. Ramps are lacking detectable warning panels and accessibility should be examined for conformance to current ADA standards.

Initial Recommendations: To supplement the marked crosswalk along Great Plain Avenue, a pedestrian actuated RRFBS system (S1-1/W16-7P assembly) shall be installed as well as new advanced pedestrian crossing signage. Crosswalk markings should be refreshed.

Further recommendations may be suggested at this location as part of the Full Pedestrian Safety Audit to address sight line concerns and may require relocation of the crosswalk to the west near the intersection of Great Plain Avenue at Plymouth Road. Street lighting may require modification to efficiently service the crosswalk. Ramp accessibility shall be examined and addressed.

GREAT PLAIN AVENUE AT WILSHIRE PARK / BEAUFORT AVENUE



Roadway Classification

Great Plain Avenue is an urban minor arterial within the vicinity of the crosswalk.

Vehicle Speeds

Great Plain Avenue has a prima facie speed limit of 30 MPH near the crosswalk. Additional speed and volume data will be obtained as part of the comprehensive pedestrian safety audit.

Pedestrian Related Collisions

This crosswalk location falls within a medium-density pedestrian related crash cluster according to MassDOT Crash records available from 2012-2016. Additional local crash reports are to be obtained and analyzed as part of the comprehensive pedestrian safety audit.

Proximity to Schools, Transit, Parks, Religious Centers, Civic Destinations

This crosswalk is located within a half mile of Pollard Middle School and within a quarter of a mile to the Hersey MBTA commuter rail stop.

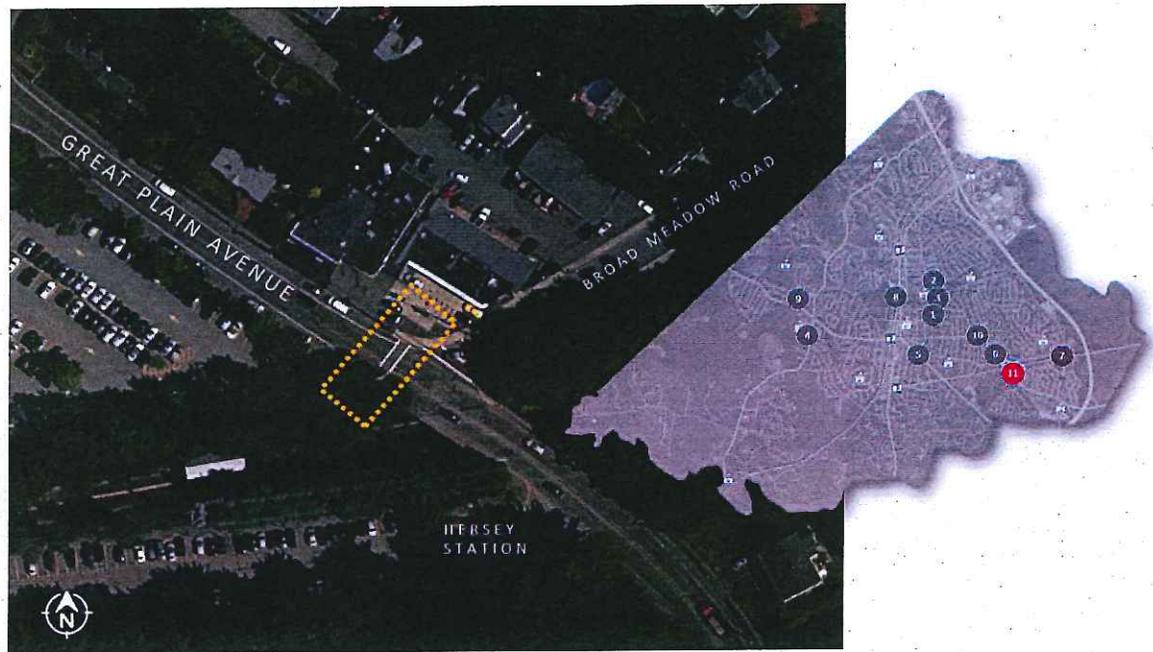
Existing Street Lighting

This crosswalk location falls within an area with potentially adequate street lighting. Existing lighting shall be further investigated as part of the comprehensive study and shall be compared to FHWA Standards to accurately recommend appropriate measures.

Community Input

This crosswalk location was a heavily referenced safety concern within the community input documentation as it is often used by students to access Pollard Middle School as well as commuters utilizing the Hersey commuter rail stop.

GREAT PLAIN AVENUE AT BROAD MEADOW ROAD



Existing Conditions: The existing standard style crosswalk along Great Plain Avenue is uncontrolled. There is existing pedestrian crossing signage at the crosswalk (S1-1/W16-7P assembly) for both approach lanes. Advanced warning pedestrian crossing signs are present for both approaches. An in-road pedestrian crossing sign (R1-6) is located within the crosswalk across Great Plain Avenue. Street lighting is present on the east side of Great Plain Avenue approximately 55 feet north of the crosswalk and 85 feet south of the crosswalk which may not be adequate to efficiently light the crossing. No street lighting is present on the western side of Great Plain Avenue. Ramps are lacking detectable warning panels and accessibility should be examined for conformance to current ADA standards.

Initial Recommendations: To supplement the marked crosswalk along Great Plain Avenue, a pedestrian actuated RRFBS system (W1-1/W16-7P assembly) shall be installed as well as advanced pedestrian crossing signage. Crosswalk markings shall be refreshed with high visibility paint.

Further recommendations may be suggested at this location as part of the Full Pedestrian Safety Audit, including curb extensions to reduce the crossing distance along Great Plain Avenue and potentially slow down vehicle speeds. Existing street lighting may require modification to more efficiently light the crosswalk.

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