



Providence Bicycle and Pedestrian Advisory Commission

Jorge O. Elorza, Mayor

Staff Report: “Broad Street Road Safety Assessment (RSA)”– Upper South Providence, Elmwood, Lower South Providence, Washington Park – Wards 9, 10, and 11 (For Action)

Presented at May 17, 2017 BPAC meeting

Project Description

The City of Providence seeks comments from the BPAC regarding the draft Broad Street Road Safety Assessment (RSA) completed by VHB. The RSA includes an analysis of crashes that have occurred on Broad Street from 2009-2015 as well as proposed solutions to improve safety along the corridor. When advanced in the future, this project will come back to the BPAC for preliminary plan review.

The City of Providence selected Broad Street for an RSA because it was the corridor with the highest crash frequency citywide between 2009-2015. During a RSA, the City of Providence, RIDOT, and an interdisciplinary team evaluated existing conditions and identified possible factors contributing to crash history and severity at these locations. The findings were then prioritized in order of perceived importance and associated with potential opportunities for targeted improvement/corrective mitigation. Broad Street is a two-lane, principal arterial that has a generally north-south orientation. Broad Street provides a connection between Providence in the north and Cranston in the south.

Along Broad Street there were 82 vulnerable user crashes that occurred from 2009 to 2015. Eleven crashes (13%) involved pedestrians with serious injuries (KAB), five crashes (6%) involved bicycles with serious injuries (KAB) injuries, and the remaining 81 percent were complaints of pain or property damage only crashes.

Key observations and potential mitigation measures that are included in the RSA report are as follows:

- **Drivers do not behave with an awareness of other roadway users.**
- **ADA compliant wheelchair ramps and sidewalks are not consistently provided throughout the corridor.**
 - Reconstruct all noncompliant sidewalks and wheelchair ramps with an ADA compliant design. Ensure no pinch points less than 36” and appropriate sidewalk slopes throughout the corridor and at the corner of Potters Avenue and the bus stop in front of McDonald’s.
- **Not all pedestrian signals may be functioning properly.**
 - Review pedestrian signal equipment to resolve any issues.
 - At signalized intersections evaluate pedestrian clearance intervals.
- **Guide/regulatory/warning signs are small, inconsistent, unclear, obstructed, or missing along Broad Street.**



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- Consider a comprehensive sign audit to verify sign height, retro-reflectivity, current sign standards, consistency, redundancy, and unnecessary signs. Revise signs accordingly.
- Remove all speed limit signs along the corridor and install new signs spaced more appropriately.
- Install NO PARKING signs 20 feet from crosswalks and 25 feet from side streets.
- Install hatched pavement markings to restrict parking within 20 feet of crosswalks and 25 feet of side streets per State Law.
- Continue enforcement of State Law prohibiting parking within 20 feet of a crosswalk and within 25 feet of a side street.
- Enhance crossings with warning signs and “PED XING AHEAD” pavement markings that are compliant with the MUTCD.
- Consider signage and pavement markings alerting drivers of bicycle facilities and potential bicyclists in the vicinity of major bikeway routes.
- Consider installing overhead pedestrian crossing warning signs.
- Consider the installation of Rectangular Rapid Flashing Beacons (RRFB) at major pedestrian crossings where warranted based on pedestrian crossing volumes and high crash locations for higher visibility.
- **Pavement markings were not restored after utility work was completed.**
 - Ensure pavement markings are restored.
- **Vehicles travel at a high rate of speed on Broad Street.**
 - Consider a speed enforcement campaign on Broad Street to discourage speeding.
 - Consider installing driver feedback signs in key locations along the corridor.
- **Although there are a significant number of pedestrians, bicyclists, and buses along Broad Street, there are limited accommodations for all users.**
 - Investigate additions of crosswalks along the corridor to better serve pedestrians.
 - Construct bump-outs on each side of crosswalks, where feasible, to provide better visibility of pedestrians and shorten pedestrian crossing distances.
 - Remove stamped concrete/ brick crosswalks and fill with asphalt to allow for continental crosswalks to be striped. Specifically, at: Hawthorne Avenue, Jillson Street, Morton Street, Marion Street, Vermont Street, Eddy Street, and Montgomery Street.
 - Consider a lead pedestrian interval (LPI) or an exclusive pedestrian phase at key locations along the corridor.



Providence Bicycle and Pedestrian Advisory Commission

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- Consider creating more of a “complete streets” roadway to accommodate all users. Consider enhancements to the corridor to create a gateway in the southern limit.
- Bicycle lanes are recommended as the countermeasure to reduce the potential for vehicle-bicycle related crashes. Although bicycle lanes are recommended, if the roadway cross section can be reconfigured to install a buffered bicycle lane or separated bicycle lane, they would likely enhance safety further.
- **Through observations during the field visit, it was noted that many of the existing signal timings are deficient and impact traffic operations.**
 - Revise traffic signal timings to provide more efficient operations at various locations along the corridor.
 - Coordinate traffic signals along the corridor.
 - Revise vehicular clearance times (minimum green, passage/extension time, yellow, and all red) to reflect speed and geometric conditions.
- **There are many curb cuts and side streets along the corridor which create conflict points at unsignalized intersections.**
 - Restrict turning movements in order to reduce conflict points.
- **Cahir Street has a wide pavement width with bus lane, parking lane and stamped concrete median buffer. The wide cross section encourages high speeds.**

Respectfully submitted by Martina Haggerty.