1. CRASH MITIGATION

Project Description:

The project involves updating previous recommendations from the 2006 Mount Vernon Triangle Transportation and Public Realm Design Project to convert New Jersey Avenue to two-way operation. The first element of the project will be to conduct an alternatives analysis to identify opportunities to re-allocate right-of-way space for other modes including transit vehicles, cyclists and pedestrians. The project also addresses high crash activity within the corridor. The crash activity between 2008 and 2010 includes the following:

New Jersey Avenue Intersection with:	2007		2008		2009		Total	
	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries	Crashes	Injuries
N Street	**8**	**6**	**5**	**2**	**5**	**5**	**18**	**13**
Morgan Street	1	0	0	0	1	0	2	0
M Street	4	2	1	0	6	3	11	5
New York Avenue	**39**	**28**	**43**	**33**	**35**	**29**	**117**	**90**
Pierce Street	1	0	4	1	1	0	6	1
L Street	0	0	1	0	0	0	1	0
K Street	**8**	**2**	**6**	**6**	**5**	**6**	**19**	**14**
2nd Street	0	0	1	0	3	1	4	1
I (Eye) Street	1	0	0	0	2	2	3	2
H Street	**11**	**6**	**9**	**7**	**8**	**6**	**28**	**19**
Totals	**73**	**44**	**70**	**49**	**66**	**52**	**209**	**145**

The majority of crashes in the corridor occur at N Street, New York Avenue, K Street and H Street as highlighted in the table above. The highest crash activity occurs at New York Avenue. At all of the intersections, the predominant crash activity includes: 1) Angle, 2) Rear End and 3) Side Swipe crashes. Improvements included as part of the project target these deficiencies:

- **Updating traffic signal timing** for the proper change (yellow) and clearance (red) intervals include updating the pedestrian crossing times and/or providing a Leading Pedestrian Intervals at major signalized intersections. This may reduce Angle Crashes by 30 percent, Rear End Crashes by 17 percent and Pedestrian Crashes by 25 percent based on USDOT guidance. The signal timing update will also review progression to eliminate unneeded stops between intersections, particularly New York Avenue.

- **Geotechnical pavement analysis** will be conducted throughout the limits of work to determine pavement updates needed to help address the Rear End and Sideswipe Crashes. Based on guidance from USDOT, this could reduce these types of crashes by 47 and 43 percent, respectively.

Other opportunities that will reduce crash activity will be considered throughout the design process including:

- Reducing pedestrian crossing distances where practical will simplify pedestrian crossings.
- Providing bicycle facilities, two-way operation and parking will calm traffic along New Jersey Avenue.
- Removing the intersection of New York Avenue at 3rd Street will reduce stops, improve traffic flow and provide more storage for vehicles entering/exiting the 3rd Street Tunnel.
- Signing throughout the corridor will be evaluated and updated including lane use signing to tell motorists what lane to be in, particularly on New York Avenue.
- Pavement markings will be updated including high visibility crosswalks at all of the intersections.
- All of the traffic signals will be reconstructed in the limits of work to include all of the latest standards including Countdown Pedestrian Signals and Accessible Pedestrian Signals to assist pedestrians, particularly the visually-impaired, when crossing intersections.
- Lighting will be updated to the current standards throughout the limits of work.
- The lane geometry will be evaluated within the limits of work to find a balance between traffic, transit, pedestrians and cyclists, consistent with the goals of the 2006 Mount Vernon Triangle Transportation and Public Realm Design Project. The alternatives analysis has identified the opportunity to remove one of the northbound double right-turn lanes. The removal of the extra turn lane should reduce Side Swipe Crashes along New Jersey Avenue as well as at the turn at New York Avenue.