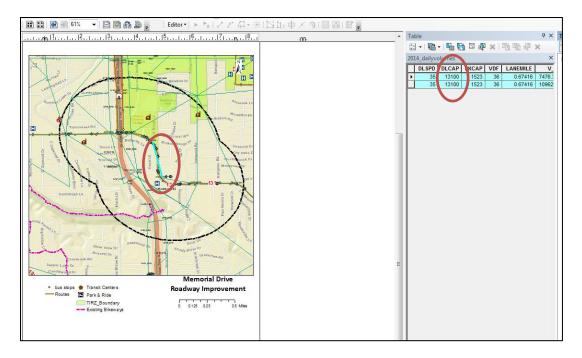
Memorial Drive - Beltway 8 to Tallowood

Crash Reduction Analysis Narrative

Using data requested from H-GAC, crashes for 2009-2013 within the project limits were identified and mapped using GIS software. Crashes that occurred within the project limits were exported to an .xls file and entered manually into the template provided by H-GAC.



Volume data was obtained through the downloadable volume layer package available on the H-GAC website. Capacity data was gleaned from H-GAC Travel Demand Model outputs previously requested from H-GAC staff. The capacity listed in the field DLCAP was doubled, to correspond with the two-way volumes used. A useful life of 40 years was used.



The Crash Modification Factor Clearinghouse (cmfclearinghouse.org) was accessed in order to determine the crash reduction factors (CRF) to apply towards the project. The installation of curb and gutter and the introduction of left turn bays is proposed as part of the project, and were factored in to the CRF calculation.

The installation of curb and gutter provides a CRF of 11%, and the installation of left-turn bays provides a CRF of 25%. This will result in a total CRF of 33.25%. The combination of these crash reduction factors was determined by using the formula available here:

 $\frac{\text{https://connect.ncdot.gov/resources/safety/Teppl/TEPPL\% 20All\% 20Documents\% 20Library/W-Projects--High\% 20Accident\% 20Location-Safety\% 20Project\% 20Reports,\% 20Benefit\% 20Cost\% 20Analysis\% 20-\% 20Evaluation\% 20Guidelines.pdf$