



## 5.3 Build Alternative Safety Analysis

A predicted safety analysis was performed to determine if the proposed improvements addressed the existing safety concerns for this IOAR. The safety analysis performed follows the guidelines in the 2018 IARUG.

The proposed improvements include changing the ramp terminal intersections from stop-controlled to signal-controlled intersections. Therefore, a crash modification factor (CMF) for “Install a traffic signal” was obtained from the CMF Clearinghouse funded by FHWA. The CMF (ID:1459) of 0.83 was used for the proposed improvement. The complete predictive crash analysis is summarized in **Table 5-7**. The CMF is provided in **Appendix F**.

Table 5-7: Build Alternative Annual Crash Reduction Calculations

Study Locations	Number of Crashes	Annual Crash Frequency (crashes/year)	CMF	Proposed Annual Crash Frequency	Annual Reduction in Crashes
I-10 EB at U.S. 90	6	1.2	0.83	0.996	0.204
I-10 WB at U.S. 90	29	5.8	0.83	4.814	0.986
<b>Total Reduction</b>					1.190

By implementing the proposed modification, a total crash reduction of 1.190 crashes a year is predicted.