**Table 1.** Expected vs. Predicted Crashes in the SR 0001, Section RC3 Corridor

| Segment | Expected Crashes | Predicted Crashes | Potential for Safety Improvement (PSI) | Description |
|---|---|---|---|---|
| 1 | 7.167 | 2.856 | 4.311 | Freeway with one exit ramp and one entrance ramp |
| 2 | 10.749 | 7.706 | 3.043 | Freeway |
| 3 | 3.528 | 4.049 | -0.521 | Freeway with one exit ramp |
| 4 | 3.855 | 4.650 | -0.795 | Freeway with one entrance ramp |
| 5 | 7.597 | 8.457 | -0.860 | Freeway |
| 6 | 3.822 | 4.516 | -0.694 | Freeway with one exit ramp and one entrance ramp |
| 7 | 3.955 | 3.010 | 0.945 | Freeway |
| 8 | 2.886 | 3.937 | -1.051 | Freeway with one exit ramp and one entrance ramp |
| 9 | 2.854 | 2.532 | 0.322 | Freeway |
| 10 | 3.920 | 2.738 | 1.182 | Freeway with one exit ramp and one entrance ramp |
| 11 | 5.308 | 8.072 | -2.764 | Freeway |
| Total | 55.64 | 52.52 | 3.118 | |

The Interchange Safety Analysis Tool (ISATe) was utilized to complete an analysis for the existing conditions (per the latest five-year historic crash data utilizing the PCIT and local police crash reports) to evaluate the safety performance of SR 0001 and the service roads within the project area. The ISATe was also used to complete the same analysis for the design year. The ISATe can be used as an analytical tool for quantifying potential effects of crashes for decision-making during the planning, design, operations, and maintenance processes. It also assists in evaluating how design elements could impact safety. The following methodologies were used to calculate the following within the project area:

- **Predicted Average Crash Frequency (Baseline)** – estimate of long-term average crash frequency based on the geometric design, traffic control features, and traffic volume of the site. This measure does not account for any observed site-specific crash history.
- **Observed Crash Frequency** – the historical crash data observed/reported at the site during the period of analysis.
- **Expected Average Crash Frequency (Normalized)** – estimate of long-term average crash frequency, calculated based on the observed crash frequency.
- **Potential for Safety Improvement (PSI)** – estimates of how much long-term crash frequency can be reduced at a site and is represented as the Expected Average Crash Frequency minus the Predicted Average Crash Frequency. A positive PSI identifies areas along a roadway where potential design improvements could improve safety.

The ISATe analysis conducted for SR 0001 indicates that when evaluating the roadway by segments, five of the 11 segments had an Expected number of crashes greater than the 'Predicted' number of crashes (i.e., showing a safety need). These segments are shown in **Table 1**. Numbers shown in "red" indicate the roadway segment is seeing more crashes than "predicted" for a similar roadway in a similar setting. Numbers shown in "green" indicate the roadway segment is experiencing less crashes than "predicted" for a similar roadway in a similar setting.

For the entire corridor, there are 3.1 more 'Expected' crashes versus 'Predicted' crashes, showing a positive PSI for the corridor. This indicates that there are 6% more crashes occurring within the entire corridor than would be expected. These excess crashes indicate potential safety issues within the corridor.