GENERAL INFORMATION / DEFINITIONS

Basic information is compiled for all intersection and roadway segment locations for both the past one-year period and three-year periods. This information includes:

1. **Volume**: The average daily entering volume (ADEV) for intersections or the two-way average daily traffic volume (ADT) for roadway segments.

2. **Crashes**: The number of crashes that occurred at the intersection or within the roadway segment during the analysis period. For roadway segments, the number of crashes includes crashes occurring on the roadway segment at the intermediate intersections. In addition, the crash frequency included in the roadway segment tabulations is the number of crashes per mile.

3. **Roadway segment length**: The length of the roadway segment in miles.

4. **Severity of Crashes**: The severity of each crash is based on the severity of the most seriously injured person involved in the crash. Additional information on this subject is provided in the discussion of Severity Index on the following page.

The statistics cited in this report were calculated using the above information. Statistics were compiled separately for intersections and for roadway segments. From this point forward, the term "location" will be used when referring to either an intersection or a roadway segment. The calculated statistics are based on accepted independent traffic engineering variables and are described as follows. For the separate statistic groups, each location is assigned a rank that represents the relative position of the location based upon decreasing values for the respective statistic group. More than one location may have the same rank within each statistic group.

1. **Crash Frequency**: The number of crashes occurring at the intersection during the given time period or the number of crashes per mile occurring within the roadway segment during the given time period.

2. **Crash Rate**: Expressed as crashes per million entering vehicles (a/mev) for intersections and as crashes per million vehicle miles (a/mvm) for roadway segments, the crash rate is calculated utilizing the traffic crash and volume information for both the one-year and three-year periods. The use of three-year data tends to de-emphasize unusually high or low annual crash rates caused by unique circumstances such as abnormally severe weather or modified travel patterns caused by roadway/intersection related construction projects.

3. **Severity Index (SI)**: Developed by the National Safety Council, the severity index is calculated using the following formula:

$$SI = \frac{5.8\,(Nk + Na) + 2\,(Nb + Nc) + Npd}{T}$$

where
- SI = Severity index.
- Nk = Number of fatal crashes.
- Na = Number of crashes at which the most severe injury was a Class 4 (incapacitating) injury.
- Nb = Number of crashes at which the most severe injury was a Class 3 (non-incapacitating) injury.
- Nc = Number of crashes at which the most severe injury was a Class 2 (possible injury/no visible sign of injury, but complaint of pain or momentary unconsciousness) injury.
- Npd = Number of property damage only crashes.
- T = Total number of crashes.

4. **Volume:** The average daily entering volume (ADEV) for intersections or the two-way average daily traffic volume (ADT) for roadway segments.

5. **Priority Index (PI):** The priority index for each location is calculated by adding the rank of each location for the four statistic groups (crash frequency, crash rate, severity index, and volume). It should be noted that the four crash statistics are treated equally in importance. As a result, no one statistic is given extra weight prior to the summation of the four. Based on this methodology, the lower the priority index, the higher the priority index rank and the more critical the need for corrective action. The highest priority index is "1."