

Stop Sign Compliance_ with Traffic Circle Option - SOP Summary

Related Project Objective Increased pedestrian visibility

SOP last updated February 12, 2018.

Stop sign compliance refers to drivers coming to a complete stop at stop signs before continuing.

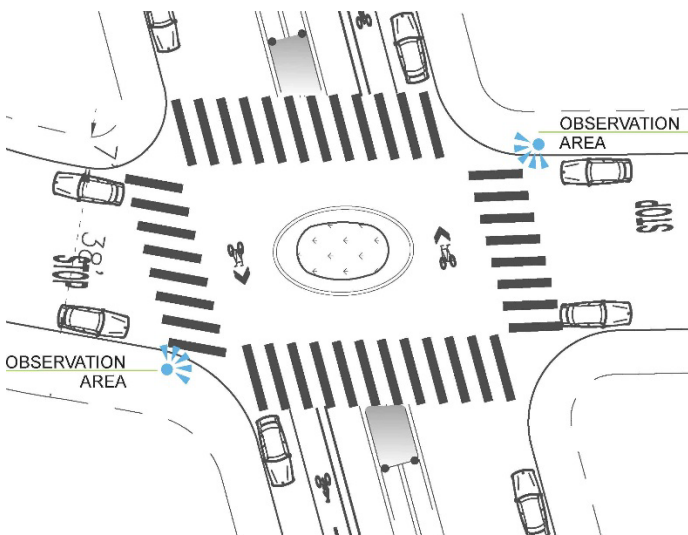
Collecting data on stop sign compliance can indicate the degree of safety that pedestrians experience when crossing the street. The SOP for this data collection type standardizes what constitutes stop sign compliance.

Data Collection Procedures

Location

- The observation area consists of the crosswalk or stop bar at the location of the stop sign, and the full length and width of the crosswalk and/or crossing area. Observations at an intersection should include all stop controlled legs of the intersection.

Figure 1: Example Crosswalk Observation Areas



Duration

- Driver compliance data should be collected for a period of at least two hours.
- The time of day and day of the week should be selected based on pedestrians' existing and anticipated future travel patterns. Consider when volumes are highest and when special user groups

(e.g., commuters, tourists, or students) are likely present.

- Typical weekday AM/PM peak periods for pedestrians are 8:00-10:00 AM and 5:00-7:00 PM.

Definition of Stop Sign Compliance

- Stop sign compliance should be recorded when a driver is approaching an intersection in any leg of the intersection that is stop controlled.
- Full stop sign compliance occurs when a driver comes to a complete stop outside the crosswalk and/or crossing area before proceeding.
- Partial stop sign compliance occurs when a driver comes to a complete stop, but encroaches onto the crosswalk and/or stop bar.
- No compliance occurs when a driver fails to come to complete stop at a stop controlled intersection. If a vehicle slows down at the stop but fails to come to a complete stop, this occurrence should be deemed as non-compliance.

Evaluation


- If data are collected for multiple periods (e.g., both AM and PM peak), the default practice is to aggregate the data for all periods before performing analysis.
- Data should be analyzed and summarized as follows:
 - Intersection Stops: Report stop sign compliance as percentage of total number of vehicles approaching/driving through the intersection.

Table 1: Stop Sign Compliance Summary

Driver Stop Full Compliance	Driver Stop Partial Compliance	Driver Stop Non-Compliance	Total Interactions
Number (%age)	Number (%age)	Number (%age)	Total Number

Tools and Templates

- Video data collection is preferred for stop sign compliance as it allows for more detailed review of drivers' behaviors, as needed.
- Manual field observation is acceptable if video data collection is not possible. A field data collection sheet template is included in the SOP Excel workbook.



Data should be recorded by period, day of week, and direction of travel.

- The SOP Excel workbook includes a data summary template. The data collection team would use this template to summarize the observations made either in the field or by reducing video footage.
- The SOP Excel workbook includes a data analysis template.

Clarifications for Data Collection Team

Intersection Crosswalks

- If data will be collected directly in the field, then the project manager should visit the study area in advance to identify the appropriate places for data collectors to stand while making observations.
- Data collectors should be positioned inconspicuously so that drivers do not mistake them for pedestrians waiting to cross the street.

Traffic Circle Additional Observations

- If stop sign compliance data will be collected at a traffic circle, some additional data should be collected including the following:
 - Wrong Way Driving: When entering a traffic circle, a motorist should drive clockwise around the circle. If drivers move counterclockwise or the wrong way around the traffic circle, this should be noted at the same time stop sign compliance is documented.
 - Encroachment on Crosswalks: If motorists are encroaching on any part of the crosswalks when driving around a traffic circle, this should be noted at the same time stop sign compliance is documented.

Resources

A Policy on Geometric Design of Highways and Streets, 6th Edition, Table 3-1 and Table 3-2