

# Congestion Management Process Plan



## Appendix B: Corridor Study Area Trip Evaluation Methodology

This memorandum describes the process for analyzing travel patterns for the four corridor study areas, which was completed to support the 2019 update to the Congestion Management Process (CMP) Plan. The analysis resulted in the classification of the trips from all TAZ's into four different trip classifications: Local Circulation, Local Access, Regional Access and Regional Traffic. These instructions are intended for inclusion in the *CMP Policy and Procedures Handbook* to provide guidance to Metropolitan Council staff in future CMP updates.

### Step 1: Zone Set

In the zone set section, three zones were created for each corridor study area to account for all the trips using the study area. The first zone set has one zone drawn on one end of the corridor study area, the second zone set has one zone drawn on other end of the corridor study area, and the third zone set has two zones – one on each end of the corridor study area. Three projects were created for each study area with these three different zone sets.

### Step 2: Streetlight Project Type

The StreetLight project type selected for the analysis was “O-D to Pre-set Geography”. The Geography setting selected for the project runs was “TAZ”.

### Step 3: StreetLight Run Specifications

The remaining specifications for the StreetLight runs were as follows:

#### General Information

- Data Period: Two months of data reflecting April 2018 and September 2018
- Day parts, day parts, specific dates- default values used for each project run used.

#### Premium Trip Attributes

- Bins for trip duration(min) – 0-10, 10-20, 20-35, 35+
- Bins for trip length(miles)- 0-3, 5-10, 10-15, 15+

Premium trip attributes were used to classify trip based on trip length and trip duration criteria for each trip classification. The duration and length bins reflect the ranges outlined for each of the trip type categories outline for the CMP. The duration and length distributions do not necessarily align with respect to the proportion of trips in each category; additional detail on combining these values is provided in Step 5.

- Bins for trip speed(mph), trip circuitry – default value used (No criteria mentioned for trip/ does not affect trip classification)
- Premium Traveler Attributes- Default values

# Congestion Management Process Plan



## Step 4: Trip Percentages

Interactive visualization tool of StreetLight Insight was used to analyze the trip percentages falling in each trip classification.

Basic project metrics were set the same for all three runs for each corridor study area:

- Average Weekday- Monday-Sunday
- All Day- 12 am-12 am
- Zone type- Destination
- Select destination zone- Zone drawn was selected

The Premium Trip/Traveler Attributes tab was used to record the percentages of trip by trip length and trip duration falling in the four trip classifications.

## Step 5: Post Processing

Post processing of percentages was performed in Excel. The average of trip duration and trip length for all three project runs of each corridor study area was calculated to establish the final percentage of trip for each trip classification.