

# CMAQ: Traffic Flow Improvements

Project Name\*\*: \_\_\_\_\_ MPMS# (if known): \_\_\_\_\_

This is an interactive application form. Please fill it out completely and review your entries carefully. After completing the form, save it to your computer, and include it with your application package submission as described in SPC's CMAQ Program Guidance and Procedures document. **The fields marked with a double asterisk (\*\*) are required.**

1. Type of Project\*\*: **Select all types of projects that apply. To select contiguous types of projects, click and drag your selection or depress the 'Shift' key while making your selections. To select non-contiguous types of projects, depress the 'Ctrl' key while making your selections. Selections should be made using mouse click(s).**

If other, describe: \_\_\_\_\_

A. Arterial Corridor Improvements: **Please submit results from Synchro or other simulation package that was used for project analysis.**

2. Corridor Description:

a. Corridor Name: \_\_\_\_\_

b. Corridor Length: \_\_\_\_\_ miles

c. Number of Lanes (one-way): \_\_\_\_\_ lanes

d. Speed Limit on the Corridor: \_\_\_\_\_ mph

e. Volume (one-way AADT) on the Corridor: \_\_\_\_\_ vehicles

f. Peak Hour Level of Service (LOS) on the Corridor (select one):

g. Number of Signals on the Corridor: Existing \_\_\_\_\_ New: \_\_\_\_\_ Improved: \_\_\_\_\_

h. Signal Coordination Improvements (select one):

i. Signal Timing Changes (select one):

1. Green Time:  If other, specify change in green time: \_\_\_\_\_ seconds

2. Consider Impact on Cross Street Flow? \_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, provide information regarding applicable cross streets below:

	Cross Street Name	Number of Lanes (one-way)	Volume (AADT)	Peak Hour Level of Service
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

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j. Mid-Block Improvements:

- 1. Add Center Left-Turn Lane? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- 2. Install Median Barriers? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- 3. Widen Existing Lanes? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- 4. Number of Added Through Lanes: \_\_\_\_\_ lanes

k. Traffic Diversions (optional):

	<u>Freeways</u>	<u>Arterials</u>	<u>Locals</u>
1. Estimated Peak Hour Diversion (for vehicles):	_____	_____	_____
2. Number of Competing Facilities:	_____	_____	_____
3. Competing Facility Speed (mph):	_____	_____	_____

l. Bus Lane Improvements:

- 1. Will a HOV/Bus-Only Lane Be Added? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- 2. Will a Queue Jump Lane Be Added? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- If yes to either question above, Average Number of Buses per Hour: \_\_\_\_\_ AM      \_\_\_\_\_ Midday  
\_\_\_\_\_ PM      \_\_\_\_\_ Night
- 3. Will a Bus Pull-Off Lane Be Added? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- If yes, Average Number of Buses per Hour Using Added Pull-off Lane: \_\_\_\_\_ buses
- 4. Average Number of Riders per Bus: \_\_\_\_\_ AM      \_\_\_\_\_ Midday      \_\_\_\_\_ PM      \_\_\_\_\_ Night
- 5. Percent of Total Bus Route in Section: \_\_\_\_\_ %
- 6. Average Year of Manufacturer for Buses: \_\_\_\_\_
- 7. Bus Fuel Type (select one):

If other, explain: \_\_\_\_\_

**B. Intersection Improvements: Please submit results from Synchro or other simulation package that was used for project analysis.**

3. Intersection Description:

a.	Major Road Name	Number of Lanes (one-way)	Volume (AADT)	Peak Hour Level of Service

b.	Minor Road Name	Number of Lanes (one-way)	Volume (AADT)	Peak Hour Level of Service

- c. Number of Added Left-Turn Lanes? \_\_\_\_\_ lanes
- d. Number of Added Right-Turn Lanes? \_\_\_\_\_ lanes

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- e. Are there Pedestrian Improvements? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- f. Jughandle Design? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- g. Realign Intersection? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- h. Channelize Intersection? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- i. Lengthen Hard Shoulder? \_\_\_\_\_ Yes      \_\_\_\_\_ No
- j. Signal Coordination Improvements (select one):
- k. Signal Timing Changes (select one):

Green Time:  If other, specify change in green time: \_\_\_\_\_ seconds

**C. Roundabout Analysis:**

4. Existing Intersection(s) / Junction: \_\_\_\_\_

a. Total Approach Delay Per Vehicle (from HCS, Synchro, or other HCM-based software)

Time Period	NB	SB	EB	WB
AM (delay in seconds per vehicle):	_____	_____	_____	_____
Midday (delay in seconds per vehicle):	_____	_____	_____	_____
PM (delay in seconds per vehicle):	_____	_____	_____	_____
Night (delay in seconds per vehicle):	_____	_____	_____	_____

5. Roundabout Type (select one):  If 'Flared Double Lane', Length of Short Lane: \_\_\_\_\_ ft.

6. Hourly Volume:

		<b>NB</b>		<b>SB</b>	
<b>Time Period</b>	<u>Left</u>	<u>Thru</u>	<u>Right</u>	<u>Left</u>	<u>Thru</u>
AM (veh/hr)	_____	_____	_____	_____	_____
Midday (veh/hr)	_____	_____	_____	_____	_____
PM (veh/hr)	_____	_____	_____	_____	_____
Night (veh/hr)	_____	_____	_____	_____	_____
<b>Time Period</b>	<u>Left</u>	<u>Thru</u>	<u>Right</u>	<u>Left</u>	<u>Thru</u>
AM (veh/hr)	_____	_____	_____	_____	_____
Midday (veh/hr)	_____	_____	_____	_____	_____
PM (veh/hr)	_____	_____	_____	_____	_____
Night (veh/hr)	_____	_____	_____	_____	_____

**D. Electronic Toll Collection at Toll Plaza:**

7. Toll Plaza Characteristics:

	<u>Current</u>	<u>Future</u>
a. Toll Booths with No EZ-PASS/ETC:	_____	_____
b. Toll Booths Accepting All Payment Types:	_____	_____
c. Toll Booths Accepting EZ-PASS/ETC Only:	_____	_____

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d. Number of HIGH SPEED EZ-PASS/ETC lanes: \_\_\_\_\_

e. Length of Toll Service Lanes (in feet): \_\_\_\_\_

f. Length of Upstream Roadway Section (in feet): \_\_\_\_\_

g. Number of Upstream Traffic Lanes: \_\_\_\_\_

## 8. Traffic Data:

a. Volume (AADT): \_\_\_\_\_ vehicles

b. Percent of Vehicles with EZ-PASS/ETC Transponders: \_\_\_\_\_%

c. Percent of Vehicles with EZ-PASS/ETC Transponders Using the HIGH SPEED Toll Lanes (if present): \_\_\_\_\_%

## E. Incident Management:

## 9. Base Conditions:

a. Section Name: \_\_\_\_\_

b. Section Length: \_\_\_\_\_ miles

c. AADT (1 way): \_\_\_\_\_ vehicles

d. Number of Lanes (1 way): \_\_\_\_\_ lanes

e. Speed Limit: \_\_\_\_\_ mph

f. Peak Hour Level of Service (select one): g. Type of Roadway (select one): 

If other, explain: \_\_\_\_\_

## 10. Daily Incident Information:

a. Incidents Per Day for Roadway Section: \_\_\_\_\_ or Incidents Per Million Vehicle Miles for Roadway Section: \_\_\_\_\_

b. Accidents Per Day for Roadway Section: \_\_\_\_\_ or Accidents Per Million Vehicle Miles for Roadway Section: \_\_\_\_\_

c. Typical Blockage Due to Accident (select one): 

d. Percent of Incident Delay that is Idling: \_\_\_\_\_%

e. Impact on Congestion (Low, Medium, High): \_\_\_\_\_ Freeway \_\_\_\_\_ Arterial \_\_\_\_\_ Local

Explain: \_\_\_\_\_

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## 11. Incident Management Improvements:

a. Level of Incident Management Improvements: **Select all level of incident management improvements that apply. To select contiguous level of incident management improvements, click and drag your selection or depress the 'Shift' key while making your selections. To select non-contiguous level of incident management improvements, depress the 'Ctrl' key while making your selections. Selections should be made using mouse click(s).**

If other, describe: \_\_\_\_\_

b. Level of Incident Diversion Improvements: **Select all level of incident diversion improvements that apply. To select contiguous level of incident diversion improvements, click and drag your selection or depress the 'Shift' key while making your selections. To select non-contiguous level of incident diversion improvements, depress the 'Ctrl' key while making your selections. Selections should be made using mouse click(s).**

### F. Other:

12. Describe traffic flow improvements that do not fit above categories A-E.

### 13. Additional Information:

If you need additional space, use and attach as many 'Additional Information' forms as needed.