

# ***2017 RAMP METERING DEVELOPMENT PLAN***



February 2018



**California Department of Transportation**

Division of Traffic Operations  
Office of Technology

Division of Transportation Planning  
Office of Multimodal System Planning



## TABLE OF CONTENTS

INTRODUCTION .....	1
DATA FIELD DEFINITIONS .....	8
2017 RAMP METERING DEVELOPMENT PLAN MAP .....	11
DISTRICT 1    Title Page .....	13
Ramp Metering Development Plan Map .....	14
Narrative .....	15
DISTRICT 2    Title Page .....	17
Ramp Metering Development Plan Map .....	18
Narrative .....	19
Data .....	20
DISTRICT 3    Title Page .....	21
Ramp Metering Development Plan Map .....	22
Narrative .....	24
Data .....	26
DISTRICT 4    Title Page .....	35
Ramp Metering Development Plan Map .....	36
Narrative .....	38
Data .....	41
DISTRICT 5    Title Page .....	71
Ramp Metering Development Plan Map .....	72
Narrative .....	74
Data .....	76
DISTRICT 6    Title Page .....	77
Ramp Metering Development Plan Map .....	78
Narrative .....	80
Data .....	82
DISTRICT 7    Title Page .....	87
Ramp Metering Development Plan Map .....	88
Narrative .....	90
Data .....	92
DISTRICT 8    Title Page .....	117
Ramp Metering Development Plan Map .....	118
Narrative .....	120
Data .....	122
DISTRICT 9    Title Page .....	133
Ramp Metering Development Plan Map .....	134
Narrative .....	135

DISTRICT 10	Title Page .....	137
	Ramp Metering Development Plan Map .....	138
	Narrative .....	139
	Data .....	142
DISTRICT 11	Title Page .....	147
	Ramp Metering Development Plan Map .....	148
	Narrative .....	150
	Data .....	153
DISTRICT 12	Title Page .....	165
	Ramp Metering Development Plan Map .....	166
	Narrative .....	167
	Data .....	169
APPENDICES	Title Page .....	177
	Glossary .....	178
	County Abbreviations .....	180
	Deputy Directive No. 35 R-1 Ramp Metering .....	181
	Deputy Directive No. 64 R-2 Complete Streets .....	187



# INTRODUCTION

## **The Purpose of the Ramp Metering Development Plan (RMDP)**

The California Department of Transportation (Caltrans) strives to optimize the performance of the transportation system for travelers and goods movement. In support of this goal, Caltrans meters freeway entrance ramps (ramp metering) to reduce traffic congestion and travel times.

As required by Caltrans' Deputy Directive 35 R-1 Ramp Metering (see appendix), each district that currently operates, or expects to operate ramp meters within the next decade, shall prepare a district Ramp Metering Development Plan (RMDP). The district RMDP contains a list of ramp metering locations currently in operation, or are planned for operation in the next ten years. Each district works in partnership with its Metropolitan Planning Organizations (MPOs) and Regional Transportation Planning Agencies (RTPAs) to program ramp metering projects and implement the district RMDP.

This Statewide 2017 RMDP is an update of the 2015 version and is a compilation of information used in each districts' RMDPs. This version of the RMDP supersedes all previous versions. The RMDP was prepared by the Division of Traffic Operations, the Division of Transportation Planning, and the 12 Districts, in accordance with Deputy Directive 35 R-1, and should be updated every two years. The RMDP will be used as an information tool to work with Caltrans' internal functional units, and regional and local partner agencies to ensure that ramp metering projects are included in planning and programming documents for implementation. The RMDP is a comprehensive report that identifies existing and planned ramp metering locations. The ramp meters in the "planned" category should be incorporated into planning and programming documents.

This RMDP should be incorporated into long range (20-25 year) District system plans and documents, such as:

- The District System Management Plan (DSMP) which is a policy planning document that describes how each district envisions their transportation system will be maintained, managed, and developed over the next twenty years and beyond.
- The District System Management Plan-Project List (DSMP-PL) is the Caltrans District project list for planned projects and pre-PID candidates in collaboration with local and regional partners.
- Transportation Concept Reports and Corridor System Management Plans (CSMPs), which evaluate current and projected conditions along a District route and communicate the vision of the development of each route.

In addition to improving State Highway System (SHS) performance, each ramp metering project should improve safety, access, reliability, and mobility for all travelers in California. Caltrans recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system. As with all transportation projects on the SHS, the context of each project location must be consistent with Caltrans Deputy Directive 64 R-2 Complete Streets

– Integrating the Transportation System.<sup>1</sup> Highway ramp intersections with local roads are particularly important opportunities for Caltrans to improve pedestrian safety, bicycle safety, and mobility through optimal design and operations. While the Highway Design Manual<sup>2</sup> (HDM) and the Ramp Metering Design Manual<sup>3</sup> (RMDM) are used when developing ramp meter projects, the project team should also reference the Complete Intersections Guide<sup>4</sup> and the Districts’ system planning products to ensure the needs of pedestrians and bicyclists are considered when developing ramp meter projects.

Caltrans’ Local Development-Intergovernmental Review (LD-IGR) program works with local jurisdictions to mitigate potential adverse impacts of local development projects to the SHS based on the California Environmental Quality Act (CEQA). Ramp metering can be an appropriate and feasible CEQA based component of an LD-IGR traffic congestion mitigation plan for local development projects. As such, the RMDP can be a resource for District LD-IGR staff and the local communities in identifying potential infrastructure mitigation features for a proposed project.

This document is intended for discussion and high level planning purposes, and is a snapshot of estimated current conditions and a forecast of future conditions. It reflects Caltrans’ ramp metering systems as of November 1, 2017 and does not commit Caltrans to install or operate ramp meters at the locations listed. While every effort has been made to ensure accuracy of reported data, the data is not intended for detailed service or facility planning. Such planning requires in-depth site analysis and field confirmation of actual conditions. Early coordination and consultation with RTPAs, MPOs, and local agencies is done to ensure a collaborative effort when planning and implementing ramp meters on the SHS.

The GIS data can be viewed at: <http://caltrans.maps.arcgis.com/apps/webappviewer>

## **The Ramp Metering Program**

### Ramp Metering Policies

As stated in Deputy Directive 35 R-1, “The California Department of Transportation (Department) is committed to using ramp metering as an effective traffic management strategy to maintain an efficient freeway system, and protect the investment made in constructing freeways by keeping them operating at or near capacity.” According to Director’s Policy (DP)-08 Freeway System Management, DP-26 Intelligent Transportation

---

<sup>1</sup> California Department of Transportation. *Deputy Directive No. 64 R-2*.  
< [http://www.dot.ca.gov/hq/tpp/offices/ocp/docs/dd\\_64\\_r2.pdf](http://www.dot.ca.gov/hq/tpp/offices/ocp/docs/dd_64_r2.pdf) >

<sup>2</sup> California Department of Transportation. *Highway Design Manual*.  
< <http://www.dot.ca.gov/design/manuals/hdm.html> >

<sup>3</sup> California Department of Transportation. *Ramp Metering Design Manual*.  
< [www.dot.ca.gov/trafficops/tm/docs/RMDM.pdf](http://www.dot.ca.gov/trafficops/tm/docs/RMDM.pdf) >

<sup>4</sup> California Department of Transportation. *Complete Intersections Guide*.  
< [https://nacto.org/docs/usdg/complete\\_intersections\\_caltrans.pdf](https://nacto.org/docs/usdg/complete_intersections_caltrans.pdf) >

Systems, and the Caltrans' Strategic Management Plan 2015-2020,<sup>5</sup> Caltrans implements advanced technologies and new processes that combine information, electronic, and communications technologies with management strategies to enhance the intelligent transportation systems (ITS), transportation management systems (TMS), and ramp metering systems to produce a coordinated and integrated traffic management systems. The implementation of these policies enhances Caltrans' ability to maximize movement capacity for people, goods, and information, while at the same time providing good stewardship of the public's investment in California's transportation infrastructure and minimizing the system's impacts on the environment.

### Ramp Metering Status in California

Since the 1960s Caltrans has implemented ramp metering to mitigate congestion and protect the investment made in the existing SHS. As of November 2017, there are 3,014 existing ramp meters statewide.

As shown in the Caltrans Statewide Map on page 11, Caltrans has 12 district offices located throughout the State of California. All of the districts except District 1, District 2 and District 9 are currently operating ramp meters or expect to operate ramp meters in the next ten years. District 1, covering the rural Del Norte, Humboldt, Mendocino, and Lake counties; District 2, covering Tehama, Trinity, Shasta, Siskiyou, Plumas, Lassen, and Modoc counties; and District 9, covering the rural Inyo, Mono and eastern Kern counties do not expect to implement ramp metering in the next ten years.

Ramp meters regulate the flow of vehicles entering the freeway. They may operate with fixed metering rates, local traffic-responsive metering rates, or corridor/system-wide traffic-adaptive metering rates. Most ramp meters in California are local traffic-responsive meters and metering rates are determined based on the freeway traffic conditions monitored by vehicle detection systems. During peak commute hours, vehicles are released onto the freeway proportional to the level of congestion on the mainline. When the freeway is free-flowing, ramp metering release rates for mainline entry are high. When the freeway is congested, the ramp metering release rates are low. Some districts are operating local traffic-responsive metering rates during extended hours outside of commuter peak hours to alleviate congestion on the SHS. Corridor/system-wide traffic-adaptive metering utilizes a central system to monitor traffic conditions of a highway network and determine the metering rates for all of the ramp meters along the network that would maximize traffic performance for the entire highway network. Over the past several years, Caltrans has been evaluating several corridor/system-wide traffic-adaptive ramp metering strategies along state highways. The latest strategy, in its third phase of testing, involves field testing along Route 99 in District 3. The University of California Partners for Advanced Transportation Technology (PATH) modified their Asservissement Linéaire d'Entrée Autoroutière (ALINEA) algorithm for integration on the Route 99 freeway corridor ramp metering control and the arterial corridor intersection traffic signal control to further improve mobility, safety, and reduce the energy and emissions impacts of freeway congestion.

---

<sup>5</sup> California Department of Transportation, *Caltrans Strategic Management Plan 2015- 2020*, <[http://www.dot.ca.gov/perf/library/pdf/Caltrans\\_Strategic\\_Mgmt\\_Plan\\_033015.pdf](http://www.dot.ca.gov/perf/library/pdf/Caltrans_Strategic_Mgmt_Plan_033015.pdf)>

## Benefits of Ramp Metering

Ramp metering is a traffic management strategy that uses a system of traffic signals at freeway entrances and connector ramps to regulate the volume of traffic and spacing of vehicles entering a freeway corridor. This strategy is used to maximize the efficiency of the freeway and improve mobility, thereby minimizing the total delay within the transportation corridor. Ramp metering attempts to ensure the total traffic volume entering a freeway segment, plus the entering ramp traffic, remains below the capacity of that freeway segment. Ramp metering has the potential to prevent freeway congestion by delaying its onset. It reduces freeway congestion by controlling the rate of vehicles entering the freeway by eliminating the entry of large groups of vehicles; known as “platoons.” The result is increased freeway throughput, increased freeway operating speeds, and improved overall freeway operation. Ramp metering also maintains smoother and safer merging operations which improve safety by reducing rear-end and sideswipe collisions.

A past study performed on State Route 94 in San Diego<sup>6</sup> indicated that installation of ramp meters improved mainline speeds from below 30 miles per hour (mph) to above 55 mph. The *I-580 Ramp Metering before-and-after Studies – Phase II Final Report* dated August 2008, showed that the installation of ramp meters over an 18 mile stretch of Route 580 in Alameda County shortened travel time by 30 percent. The Metropolitan Transportation Commission (MTC) published the *Freeway Performance Initiative: Regional System Efficiency & Integration in the Works* fact sheet<sup>7</sup> detailing the effect of ramp metering deployments since 2007. The fact sheet shows a 30 percent or greater delay reduction on 80 percent of the freeway segments analyzed in the Bay Area. The most recent field study conducted by PATH with the District 3 Transportation Management Center (TMC) titled Field Experiment of Coordinated Ramp Metering (CRM) performed field testing of the CRM algorithm to determine the technical feasibility of implementing coordinated ramp metering based on real-time data. The field test on SR 99 between Elk Grove Boulevard and south of US 50 and SR 99 merge resulted in improving the corridor traffic flow by seven percent. Phase III of the project will integrate arterial corridor intersection traffic signal control into the CRM system.

In the well-cited *Twin Cities Metro Area Ramp Meter Study*<sup>8</sup> conducted by the Minnesota Department of Transportation in 2001, the traffic flow and safety impacts of ramp metering were evaluated by turning off all 430 ramp meters in the Minneapolis/St. Paul area for six weeks as mandated by the 2001 Minnesota Legislature. The results indicated that when ramp meters were turned off, freeway throughput was reduced by nine percent, travel time increased by 22 percent, speed dropped by seven percent, and the number of crashes increased by 26 percent.

---

<sup>6</sup> California Department of Transportation. *Ramp Metering Study on State Route 94 in San Diego*.  
< <http://www.dot.ca.gov/dist11/d11tmc/sdmap/direct/rampinfo.html> >

<sup>7</sup> Metropolitan Transportation Commission. *Freeway Performance Initiative: Regional System Efficiency & Integration in the Works*.  
< [http://apps.mtc.ca.gov/meeting\\_packet\\_documents/agenda\\_1666/05d\\_1\\_FPI\\_Fact\\_Sheet\\_Final\\_5.2.11.pdf](http://apps.mtc.ca.gov/meeting_packet_documents/agenda_1666/05d_1_FPI_Fact_Sheet_Final_5.2.11.pdf) >

<sup>8</sup> Minnesota Department of Transportation. *Twin Cities Metro Area Ramp Meter Study*.  
< <http://www.dot.state.mn.us/rampmeter/study.html> >

### Ramp Metering Firmware

Caltrans is progressing toward a unified ramp metering firmware that will minimize operational and maintenance costs. A firmware package named Universal Ramp Metering Software (URMS), has been developed for the 2070 Controller. Currently, URMS has been fully deployed in Districts 3, 5, 6, and 10. Other districts continue to use their existing ramp metering firmware packages while evaluating the URMS for full deployment. District 4 uses the Traffic Operations System (TOS). District 7 uses the Semi-Automatic Traffic Management System (SATMS). District 8 and District 11 use the San Diego Ramp Metering System Revision 8 (Rev8). District 12 uses the Orange County Ramp Metering System (OCRMS). In order to prevent disruptions to their ramp metering operations, Districts 4, 7, 11, and 12 are carefully and systematically executing their URMS deployment plan for their respective regions.

### Ramp Metering Research Projects

Caltrans conducts research to develop and implement new performance ideas and products. The Division of Traffic Operation collaborates with the Division of Research, Innovation, and System Information (DRISI) to conduct this research. The results from the research projects are used to update the RMDM. A brief description of current ramp metering research projects are as follows:

- Congestion-Responsive On-Ramp Metering: Recommendations toward a Statewide Policy: The objective of this research is to analyze the performance improvements associated with implementing extended hour ramp metering and make recommendations for extended hour local traffic responsive on-ramp metering.
- Congestion-responsive on-ramp metering before-and-after studies: The objective of this project is to evaluate the validity of enacting freeway on-ramp metering in direct response to the varied start and end times of recurrent freeway congestion. This evaluation shall be done by means of before-and-after field studies on a real-world freeway section supplemented by simulation modeling. Currently, the researchers are working with District 4 staff.
- Coordination of Freeway Ramp Meters and Arterial Traffic Signals (Phase IIB) - Field Operational Test. Researchers are working with District 4 staff on field test site selection. The objective of the field test is to develop test software that will coordinate ramp metering and arterial traffic signals, to efficiently utilize arterial queue storage, and determine overall system performance.

### Ramp Metering Implementation

Caltrans is exploring a statewide policy to utilize traffic-adaptive ramp meters 24 hours per day and seven days per week based on real-time traffic data. Statewide standardization of Caltrans' ramp meter operations will alleviate both recurrent and non-recurrent congestion on the SHS. In preparation for statewide standardization, District 4 has implemented traffic-adaptive ramp metering using fuzzy logic on the I-80 corridor and District 3's CRM demonstration along SR 99 has reported a seven percent improvement in corridor traffic flow

while using traffic-adaptive ramp metering. In addition, a statewide ramp metering operations manual is in the planning stage with a target completion date of March 2020.

### Ramp Metering Training

Fundamentals of Ramp Metering training has been developed and is being conducted across the State through the Traffic Mobility Workshop. The target audience includes not only the operations engineers, but more importantly project engineers, project managers, and resident engineers; as well as planners and local agency staff. Ramp metering topics are also covered in the Project Engineer Academy. These training sessions promote ramp metering as an effective system management strategy throughout the project planning, design, and construction process.

### State Highway Operation and Protection Program (SHOPP)

The State Highways Operation Protection Program (SHOPP) is one of the primary funding sources for ramp metering. In 2015, Senate Bill 486 required Caltrans develop and implement a robust Asset Management Plan by the end of 2020. The SHOPP is the primary program available to Caltrans to execute the Asset Management Plan. Senate Bill 1 (SB 1), the Road Repair and Accountability Act of 2017 was signed into law and will invest \$54 billion over the next decade to fix roads, freeways and bridges in communities across California. SB 1 provides support for state and local systems to meet four critical needs: congestion relief, trade corridor improvements, improved transit/rail travel, and pedestrian/cyclist safety.

The 2017 SHOPP Ten Year Plan is developed under the legislative directive which supports the State's "fix-it-first" approach, and Caltrans' sustainability, stewardship and efficiency, and system performance goals. For future SHOPP cycles, priorities will be evaluated to match funding and the goals established in the Caltrans Strategic Management Plan. Ramp meter replacement could be funded through SB1 as part of a "fix-it-first" project if the equipment exceeds its service life or is obsolete. Over the next ten years, 60 percent of Caltrans' existing ramp meters must be replaced due to these conditions. These ramp meters must be identified in the SHOPP for Fiscal Year (FY) 2017/18 through FY 2020/21. As projects are selected and developed, they will address the repair and installation of ramp metering infrastructure throughout the State.

### **Ramp Metering High-Priority Location Selection**

The following criteria are commonly used by Caltrans to identify proposed locations for ramp metering:

1. Deputy Directive 35 R-1 and the Ramp Metering Design Manual.
2. Mitigate traffic safety situations, especially as a result of entrance ramp merging operations.
3. Mitigate current or future mainline congestion or other operational issues.

4. Improve corridor/system-wide operations; for example, closing gaps of unmetered entrance ramps on freeway corridors.
5. Respond to requests or complaints from the general public or local agencies.
6. Implement the project within the ten year planning horizon of the RMDP.
7. Performance goals in SHOPP ten year plan, CSMPs and planning documents such as RCTO.

In addition to the guidance and policy set forth in Deputy Directive 35 R-1, “Ramp Metering”, and the Ramp Meter Design Manual, the districts may have additional criteria to address local needs. For example, the California Environment Quality Act (CEQA) requires potential ramp meter installation impact documentation on a project-by-project, site-specific basis at the local and regional level. For additional examples of District criteria, please refer to the ramp metering strategies discussed in each district’s narrative.

Once funding becomes available, further prioritization of the planned ramp metering locations is advised. The CSMP guidelines and mobility performance reports (MPR), which identify existing bottleneck locations, are generally the starting points to prioritize ramp metering locations; although operational experience also plays a significant role in the prioritization process. Other documents such as the Regional Transportation Plans, Transportation Concept Reports, District System Management Plans, and the Transportation Management System Master Plan provide additional justification for the prioritization.

Based on its congestion challenges and unique geographical characteristics, the districts established their high-priority ramp metering locations. These locations are considered to be the most critical to mitigate local congestion and are highlighted in purple in the districts’ ramp meter list. It should be noted that the prioritized locations do not represent a commitment for funding by Caltrans or others. The high-priority ramp meter locations should be nominated for funding or incorporated into other capital improvement projects when opportunities arise.

Preliminary conceptual cost ranges for high-priority ramp metering locations are provided by district personnel for advance planning purposes. The average conceptual cost shown in the district’s narratives are derived from the conceptual construction cost estimates listed in Table 1. Actual cost estimates for each project will be determined at the project initiation document (PID) phase.

**Table 1** Ramp Metering Conceptual Construction Cost Estimates

Number of Lanes Proposed	Electrical Cost (\$K)**	Civil Cost (\$K)***	Total Cost (\$K)*
1-Lane	140	250	380
2-Lane	160	740	900
3-Lane	270	850	1120
Connector Ramp Meter	820	1120	1,940

\* Generally, estimates are for typical on-ramps with no structure work and right of way acquisition. Longer and shorter on-ramps will vary from above estimates. Estimate does not include support cost (approximately 33%) or contingencies cost (approximately 25%). These



estimates do not include traffic control or modification to existing drainage; or removal of sound wall, barriers, and metal beam guard rail (MBGR).

\*\* Electrical cost includes electrical equipment (signals, conduit, controller cabinets, controllers, advance warning signs, advance warning signals, and mainline/on-ramp detection).

\*\*\* Civil Cost includes civil work to widen the on-ramp, maintenance vehicle pullout (MVP), CHP enforcement area, signing, and striping.

## General Comparison with the 2015 Statewide RMDP

Table 2 and Table 3 below show the summary ramp metering location information as contained in the 2017 and 2015 RMDPs, respectively. The 2017 RMDP shows a statewide total of 3,014 existing ramp meters. There are 60 more existing ramp meters than are shown in the 2015 RMDP. Since the 2015 RMDP was released, District 4 alone has implemented 26 new ramp metering locations, with the continued support of the Freeway Performance Initiative by the Metropolitan Transportation Commission and other local agencies.

The 2017 RMDP plans to implement ramp metering at 1,840 locations over the next ten years. With the exception of District 1 and District 9, all districts plan to install additional ramp meters.

**Table 2:** 2017 RMPD Metering Locations by District

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	Total
Existing	0	0	197	734	6	87	1029	306	0	2	322	331	3014
Planned	0	11	230	612	33	136	200	227	0	173	199	19	1840
Total	0	11	427	1346	39	223	1229	533	0	175	521	350	4854

**Table 3:** 2015 RMPD Metering Locations by District

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	Total
Existing	0	0	210	708	6	76	1025	278	0	2	318	331	2954
Planned	0	11	148	637	20	130	192	241	0	169	130	19	1697
Total	0	11	358	1345	26	206	1217	519	0	171	448	350	4651

## Data Field Definitions

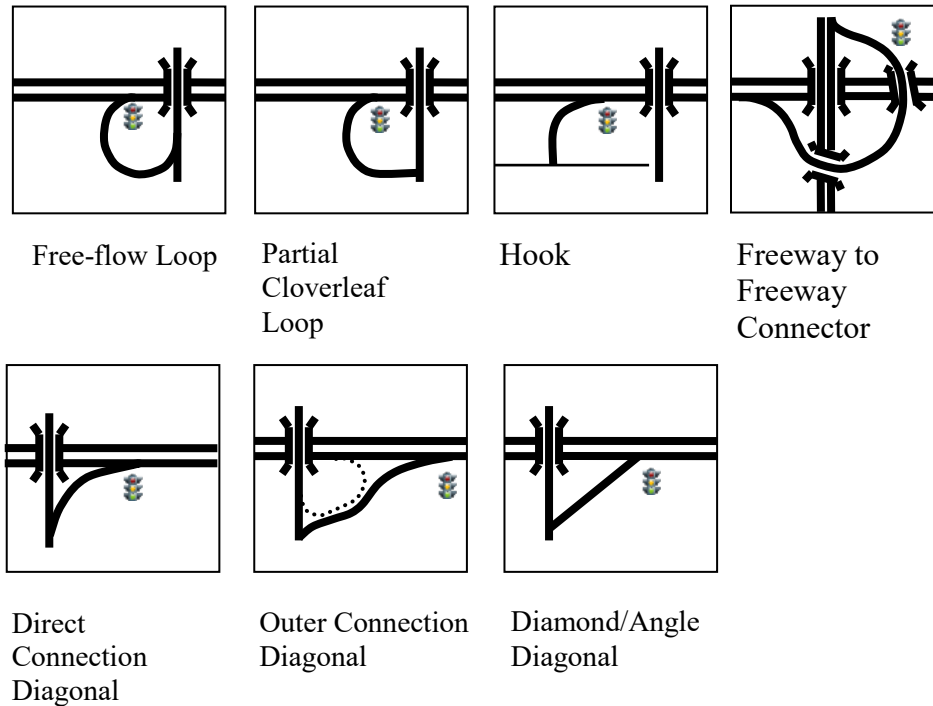
The TMS Inventory database holds data records which include county, route, post mile, and funding information; installation date, controller type, controller software, and controller communication medium. Many of the TMS Inventory database fields are not relevant to the RMDP, therefore, the RMDP contains a subset of the TMS Inventory information. The data fields used in the RMDP are defined by the TMS Inventory database. Eleven data fields are used to describe each ramp metering location contained in the RMDP. These fields are: Status, District, County, Route, Post Mile, Direction, Location, Ramp Type, Number of Lanes, High Occupancy Vehicle Preferential Lane (HOVPL), and Comments. The RMDP

was developed based on the statewide Transportation Management Systems (TMS) Inventory database 2017.

A detailed description of each field is provided as follows:

1. **Status:** A black dot (●) identifies existing ramp metering locations. This includes locations where there are operational ramp meters or locations where ramp metering hardware is fully installed and accepted by the Division of Traffic Operations, but is currently not activated (non-operational). Ramp meters that are in construction are identified as “planned” ramp metering locations.
2. **District:** A management region defined by Caltrans. There are 12 Caltrans districts covering all of California.
3. **County:** The largest territorial division for local government within California.
4. **Route:** The legislatively identified number for a major roadway connecting two or more destinations.
5. **Post Mile:** A number designating a unique location on a roadway measured in miles from the county line. This value may include an alphabetic prefix or suffix, which typically indicates roadway realignment. Post miles begin at zero at the county line and generally increase from west to east and from south to north.
6. **Direction:** The following direction identifiers are used in the RMDP:
  - NB = Northbound
  - SB = Southbound
  - EB = Eastbound
  - WB = Westbound
7. **Location:** The name of the adjacent road, arterial or connecting freeway from which traffic enters the ramp.
8. **Ramp Type:** The configuration of a dedicated road facility providing a connection between two roadways; at least one of the roadways a ramp connects to is typically a high-speed facility such as a freeway or multi-lane highway. The following entrance ramp types are identified in the RMDP:
  - L = Loop
  - H = Hook
  - C = Freeway-to-freeway Connector or Flyover
  - S = Slip or diagonal
  - D = Collector/Distributor/Angle
  - M = Mainline

Example entrance ramp types:



9. **Number (#) of Lanes:** A numeric value describing the total number of lanes present at the ramp's limit line.

10. **HOVPL (High Occupancy Vehicle Preferential Lanes):** Preferential lanes are lanes designated for vehicles with a specified minimum number of occupants. High occupancy vehicles may also include specific low-emission vehicle models. The following HOVPL types are identified in the RMDP:

- M = metered HOVPL
- NM = non-metered HOVPL
- Blank Space = No HOVPL lane

11. **Operational Status:** Where applicable the comment section of the RMDP will include the following terms to describe the status of the ramp meter. The comment section can also include district specific comments which will be described in the district's narrative information:

- Operational = Ramp meter is currently actively metering.
- Non-Operational (Non Op) = Ramp metering hardware is fully installed and accepted by the Division of Traffic Operations but it is currently not activated.
- Partially Constructed (Part Const) = Ramp meter in construction, or just the underground equipment constructed, with no poles/signs/heads in place.
- Planned = Meter non-existent; only planned/proposed/programmed.

# 2017 Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

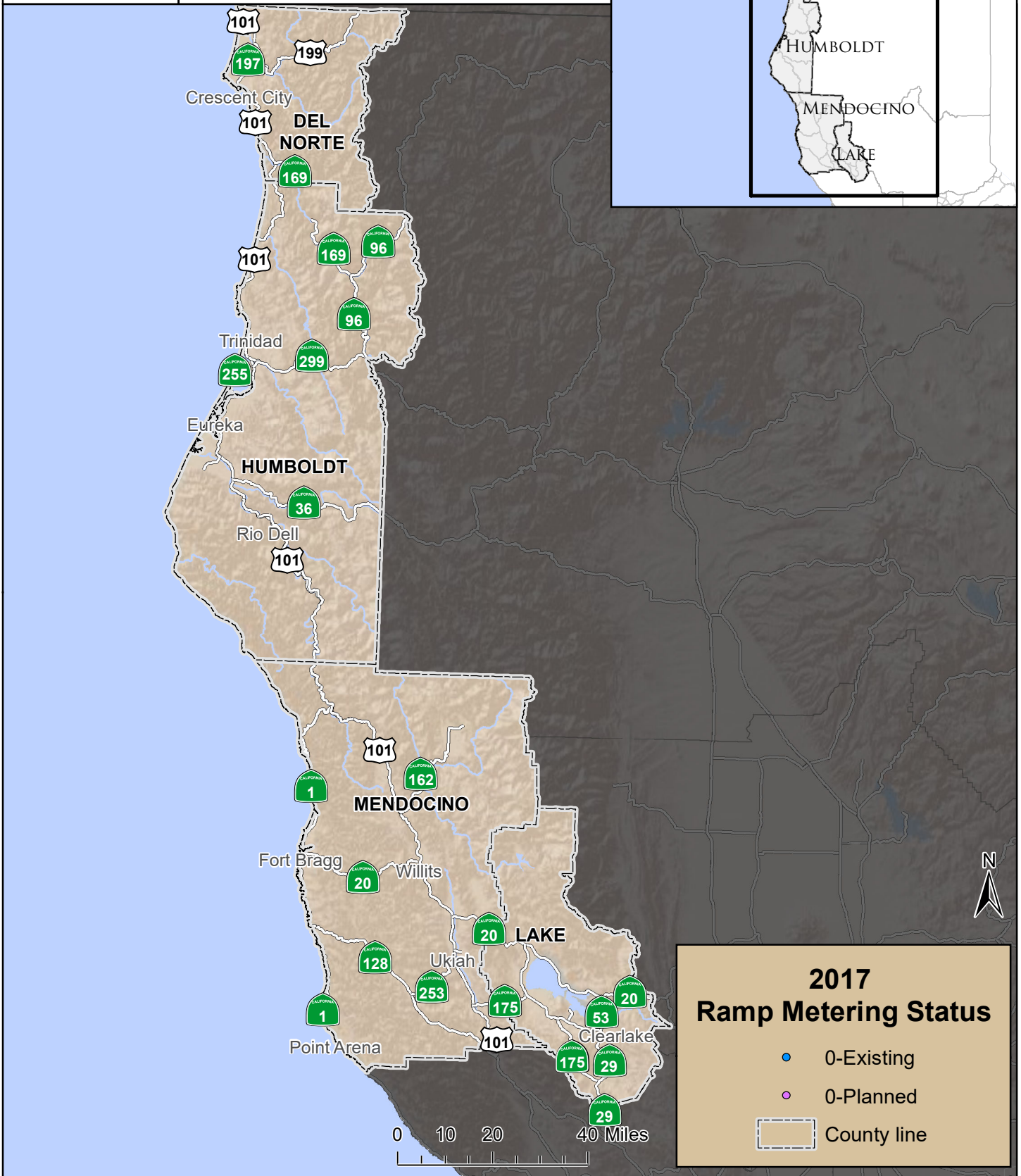
This page is intentionally left blank

# DISTRICT 1

# District 1

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



## **DISTRICT 1**

District 1, primarily a rural district, is headquartered in Eureka. It includes the counties of Del Norte, Humboldt, Lake, and Mendocino. District 1 has a population of 317,395 in an area of 9,348 square miles. This makes it the third most sparsely populated Caltrans district with only 34 people per square mile. There are 947 centerline miles and 2,394 lane-miles of highway managed by Caltrans in District 1.

District 1, also known as the “North Coast,” depends on its highway infrastructure for both commerce and tourism. United States Route 101 (US-101), traversing north to south through the heart of the district, has often been characterized as the “lifeline of the North Coast.”

### Current or Planned Ramp Metering Routes

No routes have current or planned ramp metering in District 1 as illustrated in the District’s map on the previous page.

### Congestion Challenges

No regular or serious congestion issues occur on District 1 freeway corridors that can be addressed by ramp metering.

### District Ramp Metering Strategies

Recurrent urban freeway congestion is not sufficient to justify ramp meters in the ten-year horizon of the RMPD.

### Supporting Documents

- District 1 TCRs, DSMP, and other planning products:  
<http://www.dot.ca.gov/dist1/d1transplan/d1system.htm>

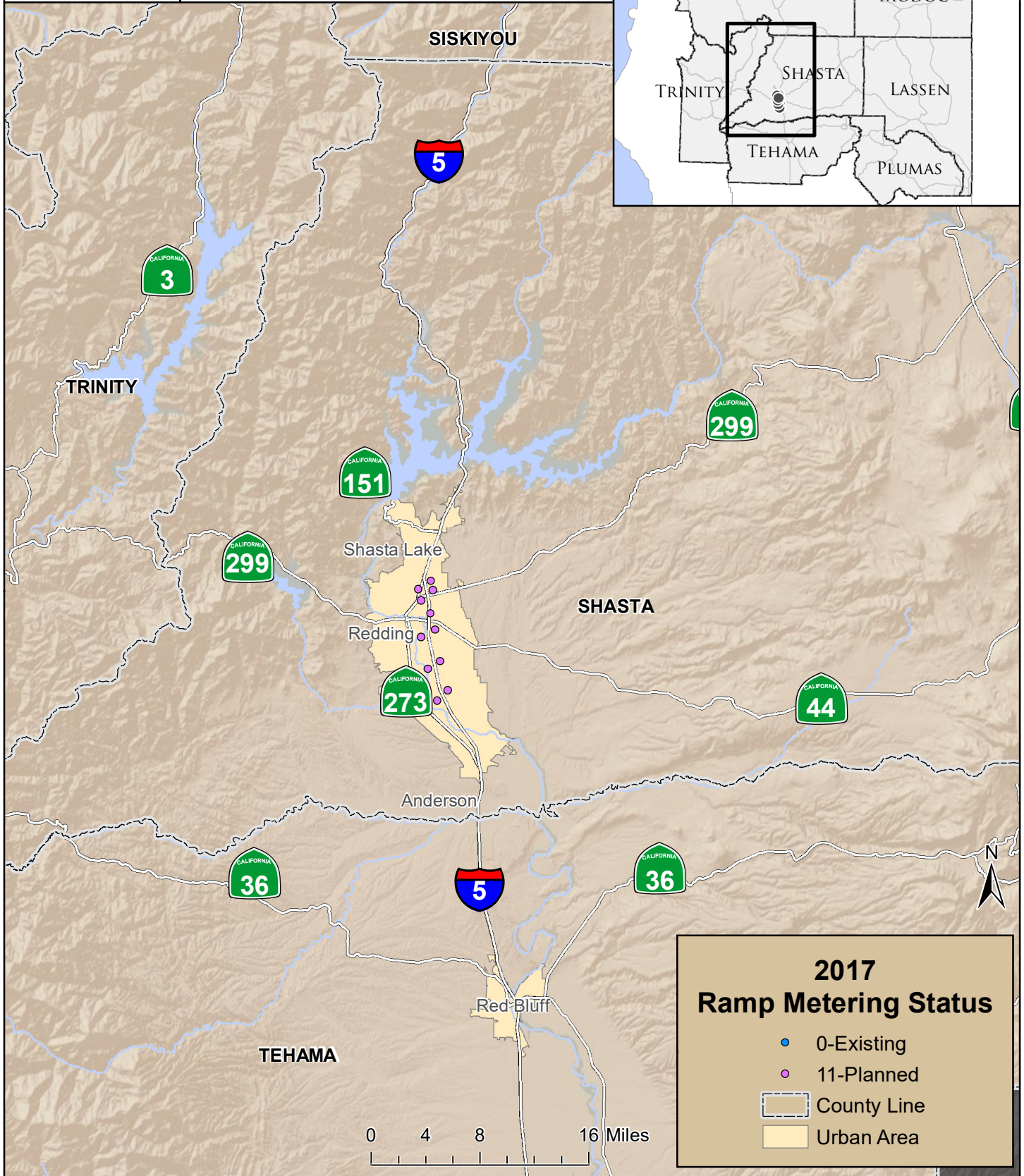
This page is intentionally left blank

# DISTRICT 2

# District 2

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

## DISTRICT 2

District 2 is composed of seven counties in the northeast portion of California: Tehama, Shasta, Trinity, Siskiyou, Plumas, Lassen, and Modoc. The counties are rural in nature with the exception of the Redding/Anderson urban area in Shasta County. District 2 has a population of approximately 360,000 in 27,307 square miles with a density of about 13 people per square mile. This makes it the second most sparsely populated of the twelve Caltrans districts. Caltrans manages 1,752 centerline miles and 4,038 lane-miles of highway in District 2.

### Current or Planned Ramp Metering Routes

The following routes have or are planned to have ramp metering:

Interstate 5 (I-5) and State Route 44 (SR 44).

District 2 has no existing ramp meters and 11 planned ramp meters. Due to a road widening project, the 11 ramp meters are planned near the end of the ten-year period covered by the RMDP. Currently there are no proposed high priority locations in District 2. The ramp meter locations are illustrated on the District's RMDP map.

### Congestion Challenges

Some non-freeway routes within District 2 experience sporadic congestion during summer months. However, ramp metering is not an appropriate option for these facilities. Recurring congestion within the district is generally limited to peak periods on portions of facilities located in the northern end of the Sacramento Valley between the cities of Redding (Shasta County) and Red Bluff (Tehama County). I-5 is the primary highway serving this area and is the focus of the District 2 ramp metering effort.

### District Ramp Metering Strategies

District Directive DD-10 Freeway Ramp Meter Implementation contains the criteria for consideration of ramp metering for freeway and interchange projects within District 2. The directive establishes four levels of ramp meter implementation based on projected ten-year peak-hour traffic density on mainline highway lanes. Ramp meters are included in the RMDP although they are expected to be required and fully operational outside of the ten year period.

### Supporting Documents

- TCRs, CSMPs, DSMP, and other planning products:  
<http://www.dot.ca.gov/dist2/planning/concepttrpts.htm>
- District Directive DD-10 Freeway Ramp Meter Implementation  
<http://onramp.dot.ca.gov/dist02/pdf/dd10.pdf>



## 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	2	Sha	5	9.65	SB	Knighton Rd.				Planned
	2	Sha	5	9.90	NB	Knighton Rd.				Planned
	2	Sha	5	11.96	SB	S. Bonnyview				Planned
	2	Sha	5	12.26	NB	S. Bonnyview				Planned
	2	Sha	5	14.28	SB	Cypress				Planned
	2	Sha	5	14.76	NB	Cypress				Planned
	2	Sha	5	17.05	SB	Lake Blvd.				Planned
	2	Sha	5	17.57	NB	Lake Blvd.				Planned
	2	Sha	5	17.92	SB	Twin View Blvd.				Planned
	2	Sha	5	18.22	NB	Twin View Blvd.				Planned
	2	Sha	44	R 0.13	WB	Dana Dr.				Part Const

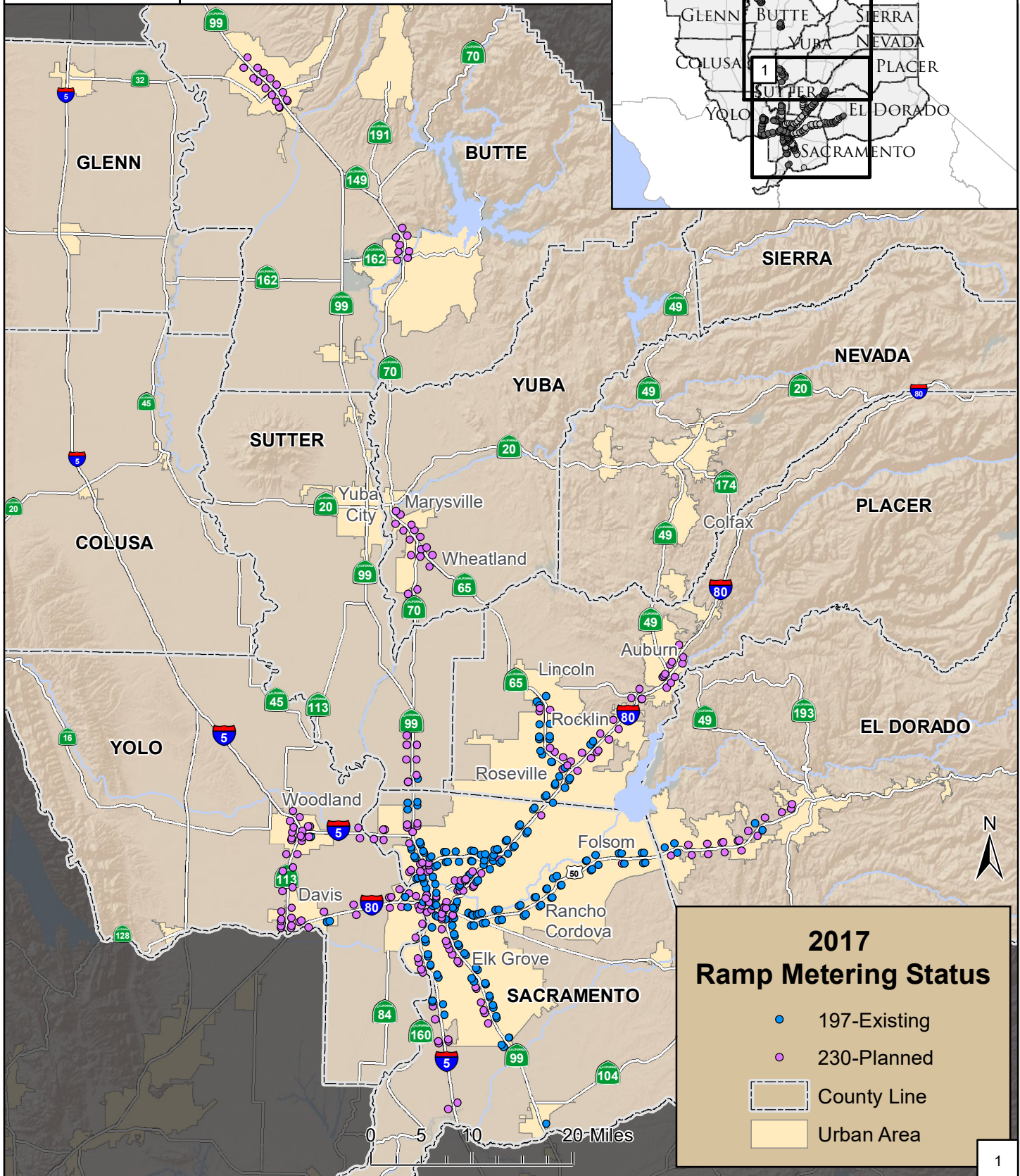
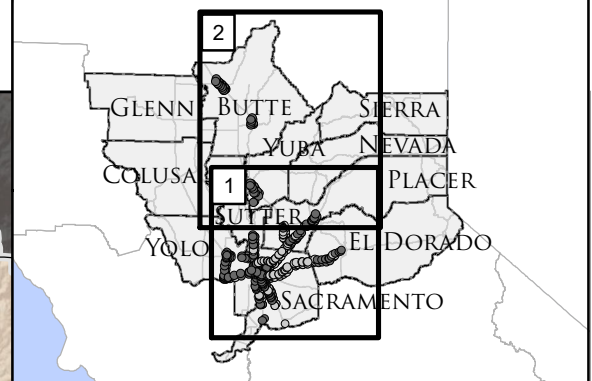
# DISTRICT 3



# District 3

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



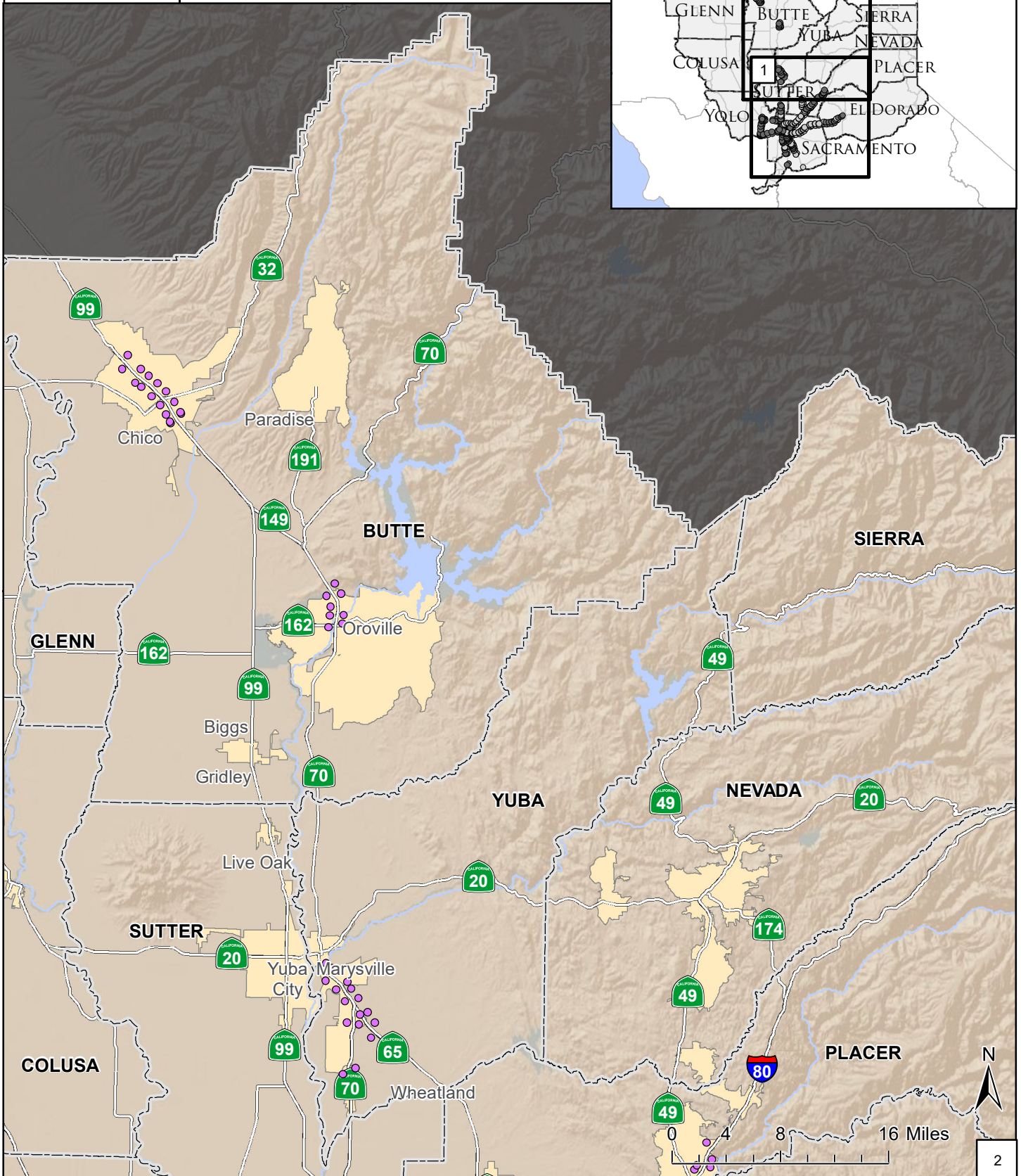
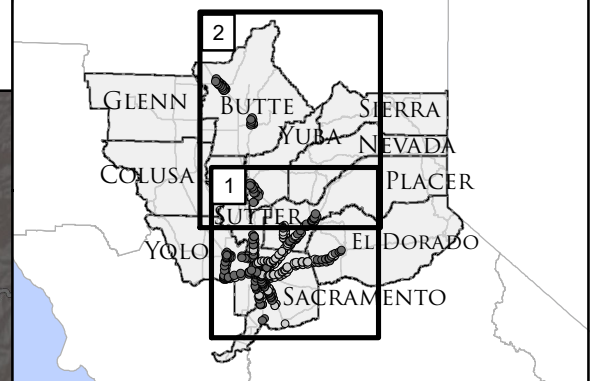
Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



# District 3

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

## DISTRICT 3

District 3 is composed of eleven counties in the Sacramento Valley and Northern Sierras: Glenn, Butte, Colusa, Sierra, Sutter, Yuba, Placer, El Dorado, Sacramento, Yolo, and Nevada. Most of these counties are rural in nature with the exception of the major urban areas of the Sacramento Region. District 3 has a 2016 population estimate of 2,815,566 which represents 7.2% of the total State population and saw a population increase of 0.8% from 2015 to 2016. District 3 was responsible for maintaining 2,318 directional rural and urban mainline miles in 2016.

### Routes with Current or Planned Ramp Metering

Ramp meters in District 3 are currently in operation, or planned to be installed on I-5, I-80, US 50, SR 51, SR 65, SR 70, SR 99, SR 113, and SR 160. There are 197 existing and 230 planned ramp meters on these routes for a projected total of 427 ramp meters for the ten-year period covered by the Ramp Meter Development Plan (RMDP). Ramp meter locations are illustrated in the District's map on the previous page.

### Congestion Challenges

Congestion is a common occurrence in the Sacramento Metropolitan area due to commute traffic and the large volume of interregional truck traffic. The City of Sacramento is the major hub in the Central Valley for the movement of goods, services and recreational traffic. I-5 and SR 99 are major north-south routes and I-80 and US 50 are major east-west routes through District 3. The rate of commercial and residential development in the area continues to be among the highest in the State, which places stress on the transportation infrastructure.

According to District 3's 2016 Mobility Performance Report, which utilizes the Performance Measurement System (PeMS) data, there was an 11.1% increase of 1.1 billion vehicle miles traveled (VMT) compared to 2015. Vehicle hours of delay (VHD) for 2016 reported an annual district wide total of 4.3 million VHD at 35 miles per hour (mph) and 12.3 million VHD at 60 mph. This was an increase of 21.6% VHD at 35 mph, an increase of 26% VHD at 60 mph.

### District Ramp Metering Strategies

The District's ramp metering strategies follow guidance and policy set forth in Deputy Directive No. 35 R-1, *Ramp Metering*, the *Ramp Meter Design Manual*, and the *Highway Design Manual*. Planned and existing ramp meter locations are included in the RMDP. Individual interchanges and/or freeway segments are regularly monitored and ramp metering needs are prioritized; however, the data table for District 3 does not prioritize locations. The RMDP is consistent with the Sacramento Area Council of Governments Metropolitan Transportation Plan and a part of District 3's overall strategy for providing mobility and congestion relief.

Most traffic congestion occurs in urban or developed areas. As a result, most of the existing and future ramp meters have been identified for these locations. New interchanges in close proximity to developed areas as well as existing interchanges where development encroaches are added to the RMDP list. If no congestion is present at a new ramp location, the meters are not

immediately activated. The ramp meter equipment is stored, but the detection equipment is installed for data collection and communication. Currently, there are 157 existing activated ramp meters in District 3.

### Ramp Metering Priorities

Ramp metering has been shown to be an effective strategy to alleviate congestion in corridors prone to bottleneck conditions. Corridors are evaluated and if chronic congestion and bottleneck conditions occur, the entire corridor is then targeted for ramp metering. This is because placing a ramp meter only at the location of the bottleneck tends to move the bottleneck to a non-metered ramp, so the entire corridor benefits from continuous metering.

The locations listed in the table that follows are along corridors that have bottlenecks identified. Chosen locations for ramp metering, experience severe peak hour congestion. HOV preferential lanes are provided wherever ramp meters are installed, and each HOV preferential lane should be metered as per the policies identified in the *Ramp Meter Design Manual*. However, HOV preferential lanes cannot be installed at all locations due to the geometrics of that ramp configuration. When these preferential lanes are not installed, a Policy Exception is required.

Coordinated ramp metering (CRM) algorithm is currently being used on a segment of SR-99 and is also being studied for district wide application. Demand based or 24/7 ramp metering operation is currently being studied throughout the state.

### Supporting Documents

- District 3 Mobility Performance Report 2016
- ♦ District 3 2014 Intelligent Transportation System/Operational Improvement Plan:  
[http://www.dot.ca.gov/dist3/departments/planning/csm/FINAL\\_ITS-OPS%20Plan\\_Aug\\_2014.pdf](http://www.dot.ca.gov/dist3/departments/planning/csm/FINAL_ITS-OPS%20Plan_Aug_2014.pdf)
- ♦ District 3 Transportation Concept Reports, Corridor System Management Plans, District System Management and Development Plan, Feasibility Studies, and other planning products:  
<http://www.dot.ca.gov/dist3/departments/planning/>
- ♦ District/Deputy Directives:  
[http://admin.dot.ca.gov/bfams/admin\\_svcs/sw\\_policy/](http://admin.dot.ca.gov/bfams/admin_svcs/sw_policy/)

# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	3	But	70	13.70	WB	Junction Rte 162	C	1		Planned
	3	But	70	14.06	EB	Junction Rte 162	C	1		Planned
	3	But	70	14.47	WB	Montgomery St	S	1		Planned
	3	But	70	14.73	EB	Montgomery St	S	1		Planned
	3	But	70	15.29	WB	Grand Avenue	S	1		Planned
	3	But	70	15.89	EB	Nelson Road	S	1		Planned
	3	But	70	16.47	WB	Garden Drive	S	1		Planned
	3	But	70	16.77	EB	Garden Drive	S	1		Planned
	3	But	99	R 30.60	SB	EB Skyway Rd	S	1		Planned
	3	But	99	30.69	NB	EB Skyway	L	1		Planned
	3	But	99	R 30.70	SB	WB Skyway Rd	L	1		Planned
	3	But	99	30.82	NB	WB Skyway	S	2		Part Const
	3	But	99	R 31.32	SB	20th St	S	2		Planned
	3	But	99	31.68	NB	20th St	S	2		Planned
	3	But	99	R 32.26	SB	Rte 32	S	1		Planned
	3	But	99	32.54	NB	Rte 32	S	2		Planned
	3	But	99	R 33.17	SB	East First Ave	S	2		Planned
	3	But	99	33.42	NB	East First Ave	S	1		Planned
	3	But	99	34.22	NB	Cohasset Rd	L	1		Planned
	3	But	99	R 34.27	SB	Cohasset Rd	L	1		Planned
	3	But	99	R 34.79	SB	East Ave	S	1		Planned
	3	But	99	35.07	NB	East Ave	S	1		Planned
	3	But	99	R 36.13	SB	Eaton Ave	S	1		Planned
	3	But	99	36.48	NB	Eaton Ave	S	1		Planned
●	3	ED	50	0.69	WB	El Dorado Blvd	S	1	NM	Operational
	3	ED	50	1.04	EB	Latrobe Rd	S	1		Planned
●	3	ED	50	R 1.77	EB	Silva Valley/White Rock Rd	L	1	NM	Operational
●	3	ED	50	R 1.70	WB	Silva Valley Pkwy	S	1	NM	Operational
	3	ED	50	R 3.06	WB	Bass Lake Rd	S	2		Planned
	3	ED	50	R 3.43	EB	Bass Lake Rd	S	2		Planned
	3	ED	50	4.92	EB	Cambridge Rd	L	2		Planned
	3	ED	50	5.00	WB	Cambridge Rd	L	2		Planned
	3	ED	50	6.41	WB	SB Cameron Park Dr	S	2		Planned
	3	ED	50	6.60	WB	NB Cameron Park Dr	L	2		Planned
	3	ED	50	6.71	EB	Cameron Park Dr	S	2		Planned
	3	ED	50	R 8.40	WB	SB Ponderosa Rd	S	2		Planned
	3	ED	50	R 8.54	EB	Ponderosa Rd / S. Shingle Rd	L	2		Planned
	3	ED	50	R 8.59	WB	NB S. Shingle Rd	L	2		Planned
	3	ED	50	R 10.14	WB	Shingle Springs Dr	S	2		Planned
	3	ED	50	R 10.48	EB	Shingle Springs Dr	S	2		Planned
●	3	ED	50	R 11.08	WB	Red Hawk Parkway	S	1		Non Op
●	3	ED	50	R 11.37	EB	Red Hawk Parkway	S	1		Non Op
	3	ED	50	R 11.99	WB	Greenstone Road	S	1		Planned
	3	ED	50	R 13.87	WB	El Dorado Road	S	1		Planned
	3	ED	50	R 14.85	WB	Missouri Flat Rd	S	3		Planned
	3	ED	50	15.66	WB	Placerville Rd	S	1		Planned
	3	Pla	65	R 5.23	NB	WB 80 to NB 65	H	1		Planned
	3	Pla	65	R 5.70	SB	Galleria Blvd	S	1		Planned
	3	Pla	65	R 6.15	NB	Stanford Ranch Rd	S	1		Planned
●	3	Pla	65	R 6.96	SB	EB Pleasant Grove	S	2		Operational

● Existing Meter

High Priority

# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	3	Pla	65	R 7.03	SB	WB Pleasant Grove	L	1	NM	Operational
	3	Pla	65	R 7.14	NB	Pleasant Grove Blvd	L	2		Planned
●	3	Pla	65	R 7.95	SB	EB Blue Oaks	S	1	NM	Operational
	3	Pla	65	M 8.01	NB	Blue Oaks Blvd	L	1		Planned
●	3	Pla	65	M 8.22	SB	WB Blue Oaks	L	1		Operational
●	3	Pla	65	R 9.18	SB	EB Sunset Blvd	S	2	NM	Operational
●	3	Pla	65	R 9.20	NB	WB Sunset Blvd	S	1	NM	Non Op
●	3	Pla	65	R 9.41	SB	WB Sunset Blvd	L	1	NM	Operational
●	3	Pla	65	R 9.52	NB	EB Sunset Blvd	L	1	NM	Non Op
	3	Pla	65	R 11.95	SB	Twelve Bridges	L	1	NM	Planned
●	3	Pla	65	R 10.70	NB	Whitney Ranch Pkwy	S	1		Operational
	3	Pla	65	R 12.10	NB	Twelve Bridges	S	2		Planned
●	3	Pla	65	R 13.17	NB	Ferrari Ranch Rd	S	1	NM	Non Op
●	3	Pla	65	R 13.44	SB	WB Ferrari Ranch Rd	L	1	NM	Non Op
●	3	Pla	65	R 12.67	SB	Industrial Blvd	S	2		Non Op
●	3	Pla	65	R 10.63	SB	Whitney Ranch Pkwy	L	1		Operational
	3	Pla	65	R 12.27	SB	EB Ferrari Ranch Rd	S	1	NM	Part Const
●	3	Pla	80	0.17	WB	EB Riverside Ave	S	2		Operational
●	3	Pla	80	0.37	WB	WB Riverside Ave	L	1		Operational
●	3	Pla	80	0.41	EB	Auburn Blvd	S	2	NM	Non Op
●	3	Pla	80	1.81	WB	EB Douglas Blvd	S	1		Operational
●	3	Pla	80	1.99	WB	WB Douglas Blvd	L	2		Operational
●	3	Pla	80	2.20	EB	Douglas Blvd	S	2		Non Op
●	3	Pla	80	2.81	WB	Atlantic St	S	1		Operational
●	3	Pla	80	3.01	EB	EB Eureka Rd	L	1		Non Op
●	3	Pla	80	3.24	EB	WB Eureka Rd	S	2	NM	Non Op
●	3	Pla	80	3.61	WB	Taylor Rd	S	1		Operational
	3	Pla	80	3.95	WB	SB 65 to WB 80	C	2		Planned
	3	Pla	80	4.50	EB	SB 65 to EB 80	C	1		Planned
	3	Pla	80	5.93	WB	Rocklin Rd	S	2		Planned
	3	Pla	80	6.27	EB	Rocklin Rd	S	1		Planned
	3	Pla	80	7.10	EB	SB Sierra College Blvd	L	1		Planned
●	3	Pla	80	7.10	WB	SB Sierra College Blvd	S	1	NM	Non Op
	3	Pla	80	7.34	EB	NB Sierra College Blvd	S	1		Planned
●	3	Pla	80	7.51	WB	NB Sierra College Blvd	L	1	NM	Non Op
	3	Pla	80	8.57	WB	Horseshoe Bar Rd	S	1		Planned
	3	Pla	80	8.86	EB	Horseshoe Bar Rd	S	1		Planned
	3	Pla	80	10.27	EB	Penryn Rd	L	1		Planned
	3	Pla	80	10.44	WB	Penryn Rd	L	1		Planned
	3	Pla	80	13.67	WB	Newcastle Rd	S	1		Planned
	3	Pla	80	13.79	EB	Newcastle Rd	H	1		Planned
	3	Pla	80	14.32	WB	Rte 193	H	1		Planned
	3	Pla	80	14.52	EB	Rte 193	S	1		Planned
	3	Pla	80	16.96	EB	Ophir Road	S	2		Planned
	3	Pla	80	17.19	WB	Nevada Street	H	1		Planned
	3	Pla	80	17.49	WB	Route 49	S	1		Planned
	3	Pla	80	17.60	EB	Route 49	S	1		Planned
	3	Pla	80	17.75	WB	Elm Avenue	S	1		Planned
	3	Pla	80	17.91	EB	Elm Avenue	D	1		Planned
	3	Pla	80	18.79	WB	Russell Road	H	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	3	Pla	80	R 19.31	WB	Auburn Ravine Road	S	1	M	Planned
	3	Pla	80	R 19.57	EB	Auburn Ravine Road	S	1	M	Planned
	3	Pla	80	R 20.26	EB	Bowman Undercrossing	S	1	M	Planned
	3	Pla	80	R 20.98	WB	Bell Road	S	1	M	Planned
	3	Sac	5	1.93	SB	Twin Cities Rd	S	1		Planned
	3	Sac	5	2.33	NB	Twin Cities Rd	S	1		Planned
	3	Sac	5	8.44	NB	EB Hood Franklin	L	1		Planned
	3	Sac	5	8.44	SB	EB Hood Franklin Blvd	S	1		Planned
	3	Sac	5	8.65	SB	WB Hood Franklin Blvd	L	1		Planned
	3	Sac	5	8.65	NB	WB Hood Franklin	S	1		Planned
	3	Sac	5	10.88	SB	Elk Grove Blvd	L	1		Planned
●	3	Sac	5	11.11	NB	Elk Grove Blvd	S	2	NM	Operational
	3	Sac	5	12.19	SB	Laguna Blvd	L	1		Planned
●	3	Sac	5	12.19	NB	Laguna Blvd	S	2	NM	Operational
●	3	Sac	5	12.60	SB	EB Cosumnes River Blvd	S	1	NM	Non Op
●	3	Sac	5	12.70	SB	WB Cosumnes River Blvd	L	1	NM	Non Op
●	3	Sac	5	14.80	NB	EB Cosumnes River Blvd	L	1	NM	Operational
●	3	Sac	5	14.98	NB	WB Cosumnes River Blvd	S	2	NM	Operational
	3	Sac	5	16.03	SB	EB Pocket Rd	S	1		Planned
●	3	Sac	5	16.08	NB	EB Pocket Rd	L	1	NM	Operational
	3	Sac	5	16.20	SB	WB Pocket Rd	L	1		Planned
●	3	Sac	5	16.29	NB	WB Pocket Rd	S	2		Operational
	3	Sac	5	16.92	SB	EB Florin Rd	S	1		Planned
●	3	Sac	5	17.11	NB	EB Florin Rd	L	1		Operational
	3	Sac	5	17.26	SB	WB Florin Rd	L	1		Planned
●	3	Sac	5	17.47	NB	WB Florin Rd	S	1		Operational
●	3	Sac	5	18.80	NB	43rd Ave	S	2		Operational
	3	Sac	5	19.19	SB	Seamas Ave	S	2		Planned
●	3	Sac	5	19.47	NB	Seamas Ave	S	1	NM	Operational
	3	Sac	5	20.39	SB	Sutterville Rd	S	2		Planned
●	3	Sac	5	20.69	NB	Sutterville Rd	S	1	NM	Operational
	3	Sac	5	22.14	SB	WB 50 to SB 5	C	2		Planned
	3	Sac	5	22.35	SB	EB 50 to SB 5	C	1		Planned
	3	Sac	5	22.65	NB	EB50 to NB 5	C	1		Planned
●	3	Sac	5	22.79	NB	W / 5th St	S	1		Operational
●	3	Sac	5	22.98	SB	P St	S	2		Operational
●	3	Sac	5	23.30	NB	P St	S	2		Operational
	3	Sac	5	23.64	SB	I St	S	1		Planned
●	3	Sac	5	23.73	NB	L St	S	2		Operational
	3	Sac	5	23.79	NB	WB 50 to NB 5	C	2		Planned
●	3	Sac	5	23.92	NB	I St	S	2		Operational
●	3	Sac	5	24.51	SB	Richards Blvd	S	2		Operational
●	3	Sac	5	24.82	NB	Richards Blvd	S	2		Operational
●	3	Sac	5	25.37	SB	Garden Hwy	L	1		Operational
●	3	Sac	5	25.51	NB	Garden Hwy	S	1		Operational
●	3	Sac	5	25.85	SB	EB W El Camino	S	1		Operational
●	3	Sac	5	26.02	SB	WB W El Camino	L	2		Operational
	3	Sac	5	26.55	SB	EB I-80 to SB I-5	C	1		Planned
	3	Sac	5	26.55	SB	WB I-80 to SB I-5	C	2		Planned
	3	Sac	5	26.72	NB	EB I-80 to NB I-5	C	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	3	Sac	5	26.96	NB	WB I-80 to NB I-5	C	1		Planned
●	3	Sac	5	27.96	SB	EB Arena Blvd	S	1	NM	Operational
●	3	Sac	5	28.00	NB	EB Arena Blvd	L	1	NM	Operational
●	3	Sac	5	28.14	SB	WB Arena Blvd	L	2		Operational
●	3	Sac	5	28.20	NB	WB Arena Blvd	S	1	NM	Operational
●	3	Sac	5	28.88	SB	EB Del Paso Rd	S	1		Operational
●	3	Sac	5	28.96	NB	EB Del Paso Rd	L	1		Non Op
●	3	Sac	5	29.08	SB	WB Del Paso Rd	L	2		Operational
●	3	Sac	5	29.16	NB	WB Del Paso Rd	S	1		Non Op
	3	Sac	5	29.54	SB	SB 99 to SB I-5	C	2		Planned
	3	Sac	5	30.15	NB	SB 99 to NB 5	C	1		Planned
	3	Sac	5	32.69	NB	NB Airport Blvd	L	1		Planned
	3	Sac	5	32.79	SB	Airport Blvd	L	1		Planned
	3	Sac	5	32.87	NB	SB Airpot Blvd	S	1		Planned
	3	Sac	5	33.72	SB	Rest Area	S	1		Planned
	3	Sac	50	L 0.16	WB	SB I-5 to WB 50	C	1		Planned
	3	Sac	50	L 0.16	WB	NB I-5 to WB 50	C	2		Planned
	3	Sac	50	R 0.34	EB	SB Rte 51 to EB 50	C	2		Planned
	3	Sac	50	R 0.34	EB	NB 99 to EB 50	C	1		Planned
	3	Sac	50	L 0.43	WB	5th St	S	1		Planned
	3	Sac	50	L 0.47	EB	NB I-5 to EB 50	C	1		Planned
	3	Sac	50	L 0.47	EB	SB I-5 to EB 50	C	2		Planned
●	3	Sac	50	R 0.60	WB	Stockton Blvd	L	1		Operational
●	3	Sac	50	R 0.71	EB	Stockton Blvd	S	2		Operational
●	3	Sac	50	L 1.19	WB	15th St	S	1		Operational
●	3	Sac	50	L 1.43	EB	11th St	S	2		Operational
●	3	Sac	50	L 1.64	EB	16th St	S	2		Operational
●	3	Sac	50	R 1.93	WB	59th St	S	1	NM	Operational
	3	Sac	50	L 2.01	WB	SB 51 to WB 50	C	2		Planned
	3	Sac	50	L 2.20	WB	NB 99 to WB 50	C	2		Planned
●	3	Sac	50	L 2.39	EB	28th St	S	1		Operational
●	3	Sac	50	R 2.44	WB	SB 65th St	S	1		Operational
●	3	Sac	50	R 2.61	EB	SB 65th St	L	1	NM	Operational
●	3	Sac	50	R 2.68	WB	NB 65th St	L	1		Operational
●	3	Sac	50	R 2.81	EB	NB 65th St	S	1	NM	Operational
●	3	Sac	50	R 3.23	WB	Hornet Dr	S	1	NM	Operational
●	3	Sac	50	R 3.43	WB	SB Howe Ave	S	1	NM	Operational
●	3	Sac	50	R 3.63	EB	SB Howe Ave	L	2		Operational
●	3	Sac	50	R 3.76	WB	NB Howe Ave	L	1	NM	Operational
●	3	Sac	50	R 3.88	EB	NB Howe Ave	S	1	NM	Operational
●	3	Sac	50	R 5.06	WB	SB Watt Ave	S	2	NM	Operational
●	3	Sac	50	R 5.29	EB	SB Watt Ave	L	2		Operational
●	3	Sac	50	R 5.38	WB	NB Watt Ave	L	2		Operational
●	3	Sac	50	R 5.63	EB	NB Watt Ave	S	1	NM	Operational
●	3	Sac	50	R 7.62	WB	SB Bradshaw Rd	S	1		Operational
●	3	Sac	50	R 7.67	EB	SB Bradshaw Rd	L	1	NM	Operational
●	3	Sac	50	R 7.81	WB	NB Bradshaw Rd	L	1	NM	Operational
●	3	Sac	50	R 7.89	EB	NB Bradshaw Rd	S	2		Operational
●	3	Sac	50	R 9.35	WB	SB Mather Field Rd	S	1		Operational
●	3	Sac	50	R 9.47	EB	SB Mather Field Rd	L	1	NM	Operational

● Existing Meter

High Priority

# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	3	Sac	50	R 9.55	WB	NB Mather Field Rd	L	1	NM	Operational
●	3	Sac	50	R 9.63	EB	NB Mather Field Rd	S	2		Operational
●	3	Sac	50	R 10.85	EB	SB Zinfandel Dr	L	1	NM	Operational
●	3	Sac	50	R 10.86	WB	SB Zinfandel Dr	S	1		Operational
●	3	Sac	50	R 10.98	EB	NB Zinfandel Dr	S	1	NM	Operational
●	3	Sac	50	R 10.99	WB	NB Zinfandel Dr	L	1	NM	Operational
●	3	Sac	50	12.23	WB	SB Sunrise Blvd	S	2	NM	Operational
●	3	Sac	50	12.45	WB	NB Sunrise Blvd	L	2		Operational
●	3	Sac	50	12.55	EB	SB Sunrise Blvd	L	1	NM	Operational
●	3	Sac	50	12.66	EB	NB Sunrise Blvd	S	1	NM	Operational
●	3	Sac	50	15.81	WB	NB Hazel Blvd	L	1		Operational
●	3	Sac	50	15.82	EB	SB Hazel Blvd	L	1	NM	Operational
●	3	Sac	50	15.93	WB	SB Hazel Blvd	S	1	NM	Operational
●	3	Sac	50	15.97	EB	NB Hazel Blvd	S	1	NM	Operational
●	3	Sac	50	16.81	WB	Folsom Blvd	S	2	NM	Operational
●	3	Sac	50	16.91	EB	Folsom Blvd	L	1	NM	Operational
●	3	Sac	50	18.99	WB	SB Prairie City Rd	S	1	NM	Operational
●	3	Sac	50	19.26	WB	NB Prairie City Rd	L	1		Non Op
	3	Sac	50	19.34	EB	NB Prairie City Rd	S	2		Planned
●	3	Sac	50	19.58	EB	SB Prairie City Rd	C	1	NM	Operational
●	3	Sac	50	21.30	WB	SB East Bidwell St	S	1	NM	Operational
●	3	Sac	50	21.44	EB	SB Scott/East Bidwell Rd	L	1	NM	Operational
●	3	Sac	50	21.53	WB	NB East Bidwell St	L	1	NM	Operational
●	3	Sac	50	21.66	EB	NB Scott Rd	S	1		Operational
	3	Sac	51	0.08	SB	T St	S	2		Planned
	3	Sac	51	0.14	NB	EB 50 to NB 51	C	2		Planned
	3	Sac	51	0.14	NB	WB 50 NB 51	C	1		Planned
	3	Sac	51	0.59	SB	N St	S	2		Planned
●	3	Sac	51	0.77	NB	P St	S	2		Operational
	3	Sac	51	1.07	SB	H St	S	2		Planned
●	3	Sac	51	1.26	NB	J St	S	2		Operational
●	3	Sac	51	1.58	NB	E St	S	2		Operational
●	3	Sac	51	3.30	SB	EB Exposition Blvd	S	1		Operational
●	3	Sac	51	3.40	SB	WB Exposition Blvd	L	2		Operational
	3	Sac	51	4.07	SB	Arden Way	L	1		Planned
	3	Sac	51	4.09	NB	NB160 to NB-51	C	2		Planned
	3	Sac	51	4.23	NB	Arden Way	S	1		Planned
●	3	Sac	51	4.60	SB	EB El Camino Ave	S	1		Operational
●	3	Sac	51	4.73	NB	EB El Camino Ave	L	1		Operational
●	3	Sac	51	4.76	SB	WB El Camino Ave	L	2		Operational
●	3	Sac	51	4.92	NB	WB El Camino Ave	S	1		Operational
	3	Sac	51	5.37	SB	Marconi Ave	S	1		Planned
	3	Sac	51	5.95	NB	Howe Ave	H	1		Planned
●	3	Sac	51	6.67	SB	Fulton Ave	S	1		Operational
●	3	Sac	51	6.92	NB	Fulton Ave	S	2	NM	Operational
●	3	Sac	51	7.52	SB	Auburn Blvd	C	1		Operational
●	3	Sac	51	7.87	NB	SB Watt Ave	L	1		Operational
●	3	Sac	51	7.89	SB	SB Watt Ave	S	1		Operational
●	3	Sac	51	8.14	NB	NB Watt Ave	S	1		Operational
●	3	Sac	51	8.60	SB	Rte 244	C	1		Operational

● Existing Meter

High Priority

# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	3	Sac	80	M 1.19	WB	EB West El Camino Rd	S	1		Planned
●	3	Sac	80	M 1.32	EB	EB West El Camino Rd	L	1		Non Op
	3	Sac	80	M 1.35	WB	WB West El Camino Rd	L	1		Planned
●	3	Sac	80	M 1.52	EB	WB West El Camino Rd	S	1		Non Op
	3	Sac	80	M 2.34	WB	SB 5 to WB80	C	1		Planned
	3	Sac	80	M 2.61	WB	NB 5 to WB 80	C	1		Planned
	3	Sac	80	M 2.66	EB	SB 5 to EB 80	C	1		Planned
	3	Sac	80	M 2.92	EB	NB 5 to EB 80	C	2		Planned
●	3	Sac	80	M 3.49	WB	SB Truxel Rd	S	2		Non Op
●	3	Sac	80	M 3.59	EB	SB Truxel Rd	L	2		Operational
●	3	Sac	80	M 3.70	WB	NB Truxel Rd	L	2		Non Op
●	3	Sac	80	M 3.80	EB	NB Truxel Rd	S	1	NM	Operational
●	3	Sac	80	M 4.83	WB	SB Northgate Blvd	S	1		Non Op
●	3	Sac	80	M 4.94	EB	SB Northgate Blvd	L	2		Operational
●	3	Sac	80	M 5.03	WB	NB Northgate Blvd	L	1		Non Op
●	3	Sac	80	M 5.10	EB	NB Northgate Blvd	S	2		Operational
●	3	Sac	80	M 5.97	WB	Norwood Ave	S	1		Non Op
●	3	Sac	80	M 6.33	EB	Norwood Ave	S	2		Operational
●	3	Sac	80	M 7.46	WB	SB Raley Blvd	S	1		Non Op
●	3	Sac	80	M 7.61	EB	SB Raley Blvd	L	1		Operational
●	3	Sac	80	M 7.66	WB	NB Raley Blvd	L	1		Non Op
●	3	Sac	80	M 7.81	EB	NB Raley Blvd	S	1		Operational
●	3	Sac	80	M 8.54	WB	Winters St	S	1	NM	Operational
●	3	Sac	80	M 8.85	EB	Winters St	S	1	NM	Operational
●	3	Sac	80	M 9.15	WB	Longview Dr	S	2		Operational
●	3	Sac	80	M 9.61	EB	Longview Dr	S	1	NM	Operational
●	3	Sac	80	M 10.10	WB	SB Watt Ave	S	1		Operational
●	3	Sac	80	M 10.35	WB	NB Watt Ave	L	1		Operational
●	3	Sac	80	M 10.35	WB	Rte 244	S	2		Operational
	3	Sac	80	R 10.79	EB	Watt Ave RT Station	S	1		Planned
●	3	Sac	80	R 11.52	EB	SR-244 Connector	S	1	NM	Operational
●	3	Sac	80	12.36	WB	EB Madison Ave	S	2	NM	Operational
●	3	Sac	80	12.45	EB	EB Madison Ave	L	1	NM	Operational
●	3	Sac	80	12.50	WB	WB Madison Ave	L	2		Operational
●	3	Sac	80	12.65	EB	WB Madison Ave	S	1	NM	Operational
●	3	Sac	80	14.31	WB	EB Elkhorn Blvd	S	2	NM	Operational
●	3	Sac	80	14.41	EB	EB Greenback Ln	L	1	NM	Operational
●	3	Sac	80	14.50	WB	WB Elkhorn Blvd	L	2		Operational
●	3	Sac	80	14.60	EB	WB Greenback Ln	S	1	NM	Operational
●	3	Sac	80	16.49	WB	EB Antelope Rd	S	1	NM	Operational
	3	Sac	80	16.67	EB	Antelope Rd	L	1		Planned
●	3	Sac	80	16.70	WB	WB Antelope Rd	L	2		Operational
●	3	Sac	99	0.93	NB	C St	S	2	NM	Non Op
●	3	Sac	99	9.93	SB	EB Grantline Rd	S	1	NM	Non Op
●	3	Sac	99	10.20	NB	EB Grantline Rd	L	1	NM	Operational
●	3	Sac	99	10.21	SB	WB Grantline Rd	L	1	NM	Non Op
●	3	Sac	99	10.23	NB	WB Grantline Rd	S	1	NM	Operational
	3	Sac	99	12.61	SB	Elk Grove Blvd	S	2		Planned
●	3	Sac	99	12.62	NB	Stockton Blvd (EG loop)	S	2		Operational
●	3	Sac	99	12.89	NB	Elk Grove Blvd	S	2	NM	Operational

● Existing Meter

High Priority

# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	3	Sac	99	13.66	SB	EB Laguna Blvd	S	1		Planned
●	3	Sac	99	13.78	NB	EB Laguna Blvd	L	1		Operational
	3	Sac	99	13.89	SB	WB Laguna Blvd	L	1		Planned
●	3	Sac	99	14.00	NB	WB Laguna Blvd	S	1		Operational
	3	Sac	99	14.72	SB	Sheldon Rd	S	1		Planned
●	3	Sac	99	14.82	NB	EB Sheldon Rd	L	1	NM	Operational
●	3	Sac	99	15.02	NB	WB Sheldon Rd	S	2	NM	Operational
	3	Sac	99	16.12	SB	EB Calvine Rd	S	2		Planned
●	3	Sac	99	16.19	NB	EB Calvine Rd	L	1	NM	Operational
	3	Sac	99	16.31	SB	WB Calvine Rd	L	2		Planned
●	3	Sac	99	16.32	NB	WB Calvine Rd	S	2	NM	Operational
●	3	Sac	99	16.98	SB	Stockton Blvd	C	1		Operational
●	3	Sac	99	17.51	SB	Bruceville Rd	H	1		Operational
●	3	Sac	99	17.67	NB	EB Mack Rd	L	1	NM	Operational
●	3	Sac	99	17.91	NB	WB Mack Rd	S	1	NM	Operational
	3	Sac	99	19.48	SB	EB Florin Rd	S	1		Planned
●	3	Sac	99	19.52	NB	EB Florin Rd	L	1		Operational
	3	Sac	99	19.71	SB	WB Florin Rd	L	1		Planned
●	3	Sac	99	19.75	NB	WB Florin Rd	S	1	NM	Operational
	3	Sac	99	20.53	SB	EB 47th Ave	S	1		Planned
●	3	Sac	99	20.78	NB	EB 47th Ave	L	1	NM	Operational
	3	Sac	99	20.94	SB	WB 47th Ave	L	1		Planned
●	3	Sac	99	20.99	NB	WB 47th Ave	S	1	NM	Operational
	3	Sac	99	21.44	SB	Martin Luther King Rd	L	1		Planned
	3	Sac	99	21.83	SB	Fruitridge Rd	S	1		Planned
●	3	Sac	99	21.87	NB	EB Fruitridge Rd	L	1		Operational
●	3	Sac	99	22.08	NB	WB Fruitridge Rd	S	1		Operational
	3	Sac	99	22.91	SB	14th Ave (12th Ave )	S	1		Planned
●	3	Sac	99	23.24	NB	12th Ave	S	1		Operational
	3	Sac	99	23.85	SB	Broadway	S	2		Planned
	3	Sac	99	24.07	SB	EB 50 to SB 99	C	2		Planned
	3	Sac	99	24.23	SB	WB 50 to SB 99	C	2		Planned
	3	Sac	99	33.32	NB	EB Elkhorn Blvd	L	1		Planned
	3	Sac	99	33.55	NB	WB Elkhorn Blvd	S	1		Planned
	3	Sac	99	33.18	SB	EB Elkhorn Blvd	S	1		Planned
	3	Sac	99	33.41	SB	WB Elkhorn Blvd	L	1		Planned
●	3	Sac	99	34.90	SB	EB Elverta Rd	S	2	NM	Non Op
●	3	Sac	99	35.56	SB	WB Elverta Rd	L	1	NM	Non Op
●	3	Sac	99	35.33	NB	EB Elverta Rd	L	1	NM	Non Op
●	3	Sac	99	35.67	NB	WB Elverta Rd	S	1	NM	Non Op
	3	Sac	160	45.48	SB	Canterbury Rd	H	1		Planned
	3	Sac	160	45.77	NB	Canterbury Rd	H	1		Planned
	3	Sac	160	45.98	NB	Exposition Blvd	H	1		Planned
	3	Sac	160	46.04	SB	Royal Oaks Dr	H	1		Planned
	3	Sac	160	46.33	NB	Tribute Rd	S	1		Planned
	3	Sac	160	46.89	SB	Arden Way (EB)	S	1		Planned
	3	Sac	160	47.00	SB	Arden Way (WB)	L	1		Planned
●	3	Sut	99	0.75	SB	EB Riego Rd	S	1	NM	Non Op
	3	Sut	99	0.79	SB	WB Riego Rd	L	1	NM	Part Const
●	3	Sut	99	0.98	NB	WB Riego Rd	S	2	NM	Non Op

● Existing Meter

High Priority

# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	3	Sut	99	1.24	NB	EB Riego Rd	L	1	NM	Planned
	3	Sut	99	3.04	NB	Sankey Rd	M	1		Planned
	3	Sut	99	3.04	SB	Sankey Rd	M	1		Planned
	3	Sut	99	5.40	SB	Howsley Rd	S	2		Planned
	3	Sut	99	TBD	NB	(WB) Sutter Bay Blvd				Planned
	3	Sut	99	TBD	NB	(EB) Sutter Bay Blvd				Planned
	3	Sut	99	TBD	SB	(EB) Sutter Bay Blvd				Planned
	3	Sut	99	TBD	SB	(WB) Sutter Bay Blvd				Planned
	3	Yol	5	0.55	SB	Old River Rd	H	1		Planned
	3	Yol	5	0.67	NB	Old River Rd	H	1		Planned
●	3	Yol	5	5.38	SB	SB County Road 102	S		NM	Non Op
	3	Yol	5	5.49	NB	SB County Road 102	L	1		Planned
	3	Yol	5	5.57	SB	NB County Road 102	L	1		Planned
	3	Yol	5	5.69	NB	NB County Road 102	S	1		Planned
	3	Yol	5	6.23	SB	E Main St.	S	2		Planned
	3	Yol	5	R 7.49	NB	SR-113	C	2		Planned
	3	Yol	5	R 7.97	SB	N East St	S	1		Planned
	3	Yol	5	R 8.12	NB	N East St	L	1		Planned
	3	Yol	50	0.72	EB	WB I-80 to EB 50	C	2		Planned
●	3	Yol	50	1.07	WB	SB Harbor Blvd	S	1	NM	Non Op
●	3	Yol	50	1.11	WB	NB Harbor Blvd	L	1	NM	Non Op
●	3	Yol	50	1.34	EB	Harbor Blvd	S	2	NM	Non Op
	3	Yol	50	2.30	WB	Rte 275	S	2		Planned
	3	Yol	50	2.66	EB	Jefferson Blvd	S	2		Planned
	3	Yol	50	2.81	WB	Jefferson Blvd	S	1		Planned
	3	Yol	50	2.82	EB	S River Rd	L	1		Planned
	3	Yol	80	0.07	WB	SB Richard Blvd	S	2		Planned
	3	Yol	80	0.28	WB	NB Richard Blvd	L	2		Planned
	3	Yol	80	0.45	EB	Richards Blvd	S	1		Planned
	3	Yol	80	2.46	WB	Mace Blvd	S	2		Planned
●	3	Yol	80	2.64	EB	SB Mace Blvd	L	1	NM	Operational
●	3	Yol	80	2.82	EB	NB Mace Blvd	S	1	NM	Operational
	3	Yol	80	5.50	WB	Chiles Rd	S	1		Planned
	3	Yol	80	5.61	EB	Chiles Rd	H	1		Planned
	3	Yol	80	9.07	EB	Enterprise Blvd	H	2		Planned
	3	Yol	80	9.08	WB	West Capitol Ave	S	1		Planned
	3	Yol	80	9.32	WB	Enterprise Blvd	H	1		Planned
	3	Yol	80	R 10.99	WB	Reed Ave	S	2		Planned
	3	Yol	80	R 11.22	EB	Reed Ave	L	2		Planned
	3	Yol	113	R 0.31	SB	EB Hutchison Dr	S	1		Planned
	3	Yol	113	R 0.36	NB	EB Hutchison Dr	L	1		Planned
	3	Yol	113	R 0.46	SB	WB Hutchison Dr	L	1		Planned
	3	Yol	113	R 0.56	NB	WB Hutchison Dr	S	1		Planned
	3	Yol	113	R 0.97	SB	EB Russell Blvd	S	1		Planned
	3	Yol	113	R 1.13	SB	WB Russell Blvd	L	1		Planned
	3	Yol	113	R 1.30	NB	Russell Blvd	S	1		Planned
	3	Yol	113	R 1.91	SB	W Covell Blvd	S	1		Planned
	3	Yol	113	R 2.29	NB	W Covell Blvd	S	1		Planned
	3	Yol	113	R 3.94	SB	Rte 29	S	1		Planned
	3	Yol	113	R 4.36	NB	Rte 29	S	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	3	Yol	113	R 5.93	SB	Rte 27	S	1		Planned
	3	Yol	113	R 6.38	NB	Rte 27	S	1		Planned
	3	Yol	113	R 7.42	SB	Rte 25A	S	1		Planned
	3	Yol	113	R 7.87	NB	Rte 25A	S	1		Planned
	3	Yol	113	R 8.96	SB	EB E Gibson Rd	S	1		Planned
	3	Yol	113	R 9.19	NB	EB E Gibson Rd	L	1		Planned
	3	Yol	113	R 9.28	SB	WB E Gibson Rd	L	1		Planned
	3	Yol	113	R 9.46	NB	WB E Gibson Rd	S	1		Planned
	3	Yol	113	R 9.91	SB	E Main St	S	1		Planned
	3	Yol	113	R 10.08	NB	E Main St	L	1		Planned
	3	Yol	113	R 11.14	SB	SB 5 to SB Rte 113	C	2		Planned
	3	Yub	65	R 6.66	SB	Forty Mile Road	S	1		Planned
	3	Yub	65	R 7.10	NB	Forty Mile Road	S	1		Planned
	3	Yub	65	R 7.86	SB	McGown Road	S	1		Planned
	3	Yub	65	R 8.21	NB	McGown Road	S	1		Planned
	3	Yub	70	R 3.30	WB	Plumas Lake Blvd	S	1		Planned
	3	Yub	70	R 3.40	EB	Plumas Lake Blvd	L	1		Planned
	3	Yub	70	R 7.07	WB	McGown Road	S	1		Planned
	3	Yub	70	R 7.60	EB	McGown Road	S	1		Planned
	3	Yub	70	R 8.51	EB	NB Route 65	c	2		Planned
	3	Yub	70	R 9.09	WB	Olivehurst Ave	S	1		Planned
	3	Yub	70	R 9.27	EB	Olivehurst Ave	S	1		Planned
	3	Yub	70	R 10.01	EB	Lindhurst Ave	S	1		Planned
	3	Yub	70	R 10.03	WB	Erle Road	S	1		Planned
	3	Yub	70	R 11.26	WB	Feather River	S	1		Planned
	3	Yub	70	R 11.35	EB	Feather River	S	1		Planned
	3	Yub	70	13.57	EB	North Beale Rd	S	1		Planned

● Existing Meter

High Priority

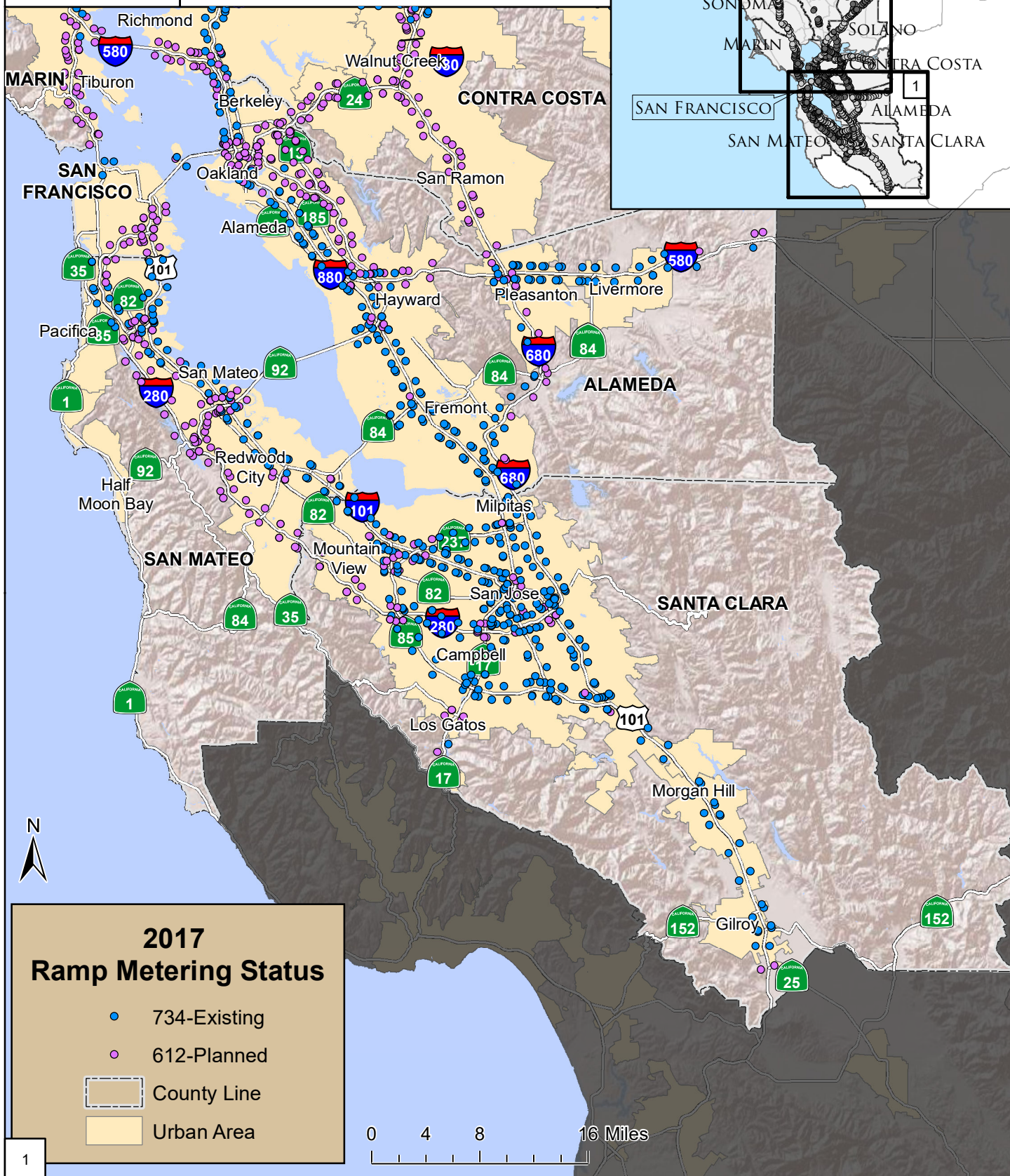
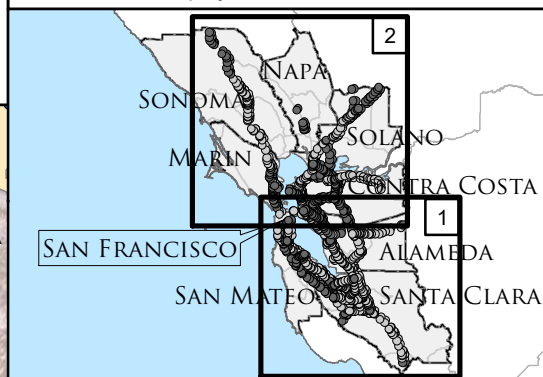
# DISTRICT 4





## Ramp Metering Development Plan

Map by: Office of Performance



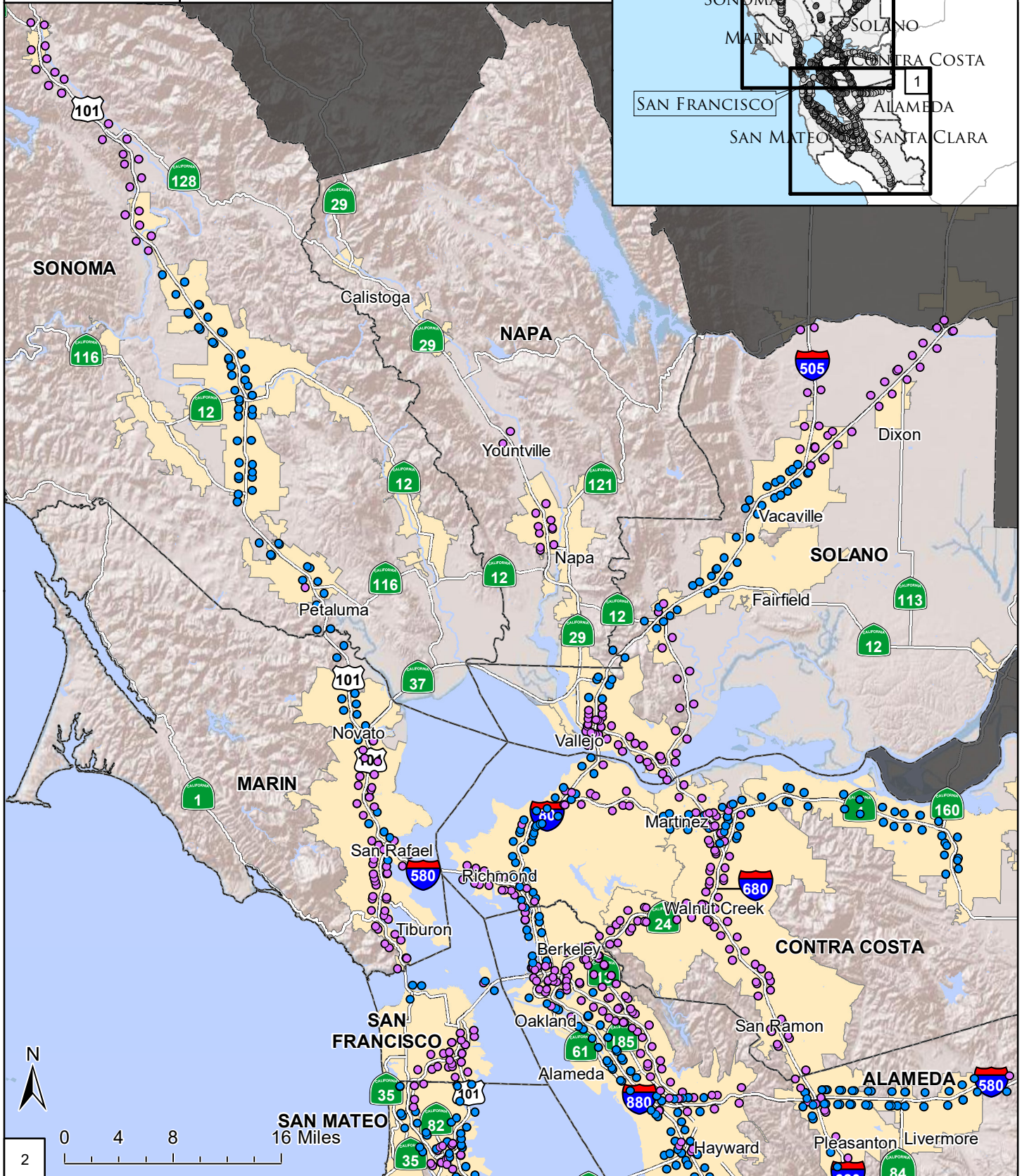
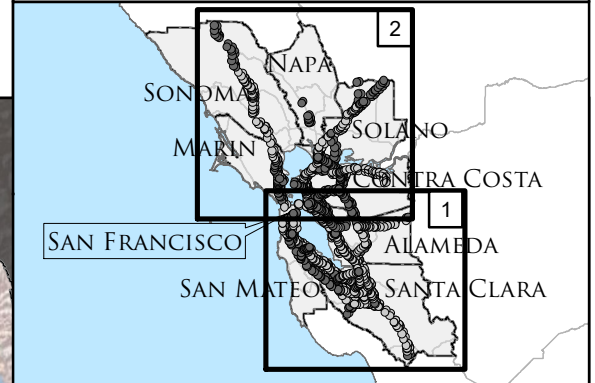
Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



# District 4

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

## **DISTRICT 4**

District 4 is composed of a mix of urbanized areas around the San Francisco Bay, lower density suburban areas, agricultural areas, and open space. The nine counties in the District are: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. There are over 100 incorporated cities. District 4 has a population of approximately 7.15 million in an area of 6,984 square miles. With 1,024 people per square mile, it is the third most densely populated district in the State. District 4 maintains and operates 7,600 lane miles with over 770 centerline miles of conventional highways and 690 miles of freeway including 494 miles of managed lanes.

### Current or Planned Ramp Metering Routes

The following routes have or are planned to have ramp metering:

I-80, I-238, I-280, I-380, I-505, I-580, I-680, I-780, I-880, I-980, US 101, SR 4, SR 13, SR 17, SR 24, SR 29, SR 84, SR 85, SR 87, SR 92, SR 237, SR 238, and SR 242.

District 4 has 734 existing and programmed ramp meters and 612 planned ramp meter projects for a total of 1,346 ramp meters over the ten-year period covered by the RMDP. There are 412 high-priority ramp meter locations in District 4. District 4 also operates mainline metering on westbound I-80 at the San Francisco/Oakland Bay Bridge.

The conceptual cost estimate to install ramp meters at all District 4 high-priority locations is \$280,500,000. Currently, the conceptual cost estimate does not account for right-of-way cost. Actual project cost will be determined during the project development phases when the scope and schedule are finalized.

### Congestion Challenges

As the economic outlook improves, District 4's demand on the State Highway System will most likely expand as a result of increased employment, demand for goods and services, and greater reliance on motorized travel modes. With these growth factors, higher traffic volumes and bottlenecks contributing to higher levels of congestion may result. This in turn adds to the challenge of finding new efficiencies in an already overburdened regional highway transportation network.

### District Ramp Metering Strategies

Caltrans, in partnership with the Alameda County Transportation Commission (Alameda CTC), the Contra Costa Transportation Authority (CCTA), and ten municipalities along the corridor, deployed the Interstate 80 Safety, Mobility, and Automated Real-time Traffic Management (SMART) Corridor Project. In operation since September, 2016 this project has featured adaptive ramp metering, incident management, improvements on San Pablo Avenue (SR 123 which is parallel to I-80), and traffic information boards (integration of interstate highway and local arterial information) with the purpose of improving safety, efficiency, and reliability along the corridor.

On US 101 and SR 82, the San Mateo County Smart Corridors Project is being developed. Corridor-wide adaptive ramp metering is to be implemented under the future SM 101 Managed Lane Project.

The SR 4 Integrated Corridor Management (ICM) project through the use of adaptive ramp metering, advisory speed signs, coordinated traffic signals and transit signal priority, is designed to maintain efficient traffic flow on SR 4 from SR 160 to I-80. Another recently completed I-80 ramp metering improvement project used transportation monitoring stations combined with ramp metering improvements on mainline, ramps, and connectors along I-80, from Red Top Road in Cordelia to Putah Canal in Fairfield, in Solano County to improve traffic operations and reduce travel delay in the corridor.

District 4 recognizes from past experience with Caltrans' corridor system management plans (CSMP) how consulting with local jurisdictions, including the development of formal agreements relating to ramp meter deployment, is an important and prudent measure for advancing transportation operations strategies (TOS) in the San Francisco Bay Area.

Outreach methods include:

- Local agency engagement through an active technical committee
- Identifying and addressing local impacts of ramp metering
- On going communication with regional partners and the general public

District 4 continues to plan, develop, and implement ramp metering with our partner agencies in the region including the Metropolitan Transportation Commission (MTC), appropriate county-level congestion management agencies (CMA), and the local municipalities in the San Francisco Bay Area. The District is developing five "adaptive corridors" throughout the District that will include new ramp metering implementations and upgrading existing operational corridors.

District 4 Directive 97-03 (effective November 1997) set general district policy on ramp metering. This included requiring all new freeway mainline and freeway interchange projects to include ramp metering infrastructure. As part of the 2005 Regional Transportation Plan, MTC adopted a similar policy under Resolution 3609 that encourages all new major freeway projects in the Bay Area to consider installing traffic operations system components and ramp metering equipment.

MTC affirmed in the 2009 Regional Transportation Plan its commitment to Resolution 3609 by making a \$1.6 billion programmatic investment over 25 years to implement the Freeway Performance Initiative (FPI). The purpose of this program is to support system management strategies that improve the operating efficiency of the Bay Area freeway network, including traffic operation systems, ramp metering, and equipment maintenance and replacement.

This investment strategy was expanded upon in the 2013 Regional Transportation Plan (*Plan Bay Area*). In this plan, MTC has reaffirmed and increased their programmatic funding commitment by calling for an investment strategy of approximately \$2.7 billion in discretionary regional funds over the next 28 years to carry out this program and others under the FPI umbrella. Also in 2013, MTC adopted Resolution 4104 which expands upon Resolution 3609 by requiring MTC funded projects to include the installation and activation

of ramp metering.

Top priority corridors to have metering implemented and activated in the next two years include: SR 24, SR 84, SR 238, I-580, and I-680 in Alameda county; SR 4, SR 24, and I-680 in Contra Costa county; SR 17, US 101, SR 237, and I-880 in Santa Clara county; I-80 in Solana County; and US 101 in Sonoma and Marin counties. Priority for funding projects to build out the ramp metering system should include: SR 24, and I-580 in Alameda county; SR 4, and I-680 in Contra Costa county; SR 17, US 101, SR 237, and I-880 in Santa Clara county; I-80 in Solana County; and US 101 in Sonoma and Marin counties.

#### Supporting Documents

- District 4 Directive 97-03 Ramp Metering.
- District 4 corridor system management plans (CSMPs), corridor plans (CPs), and transportation concept reports (TCRs):
  - <http://www.dot.ca.gov/hq/tpp/corridor-mobility/d4-portal-page.html>
- District 4 Office of Traffic Operations Strategies, Office of Traffic Systems:  
<http://www.dot.ca.gov/d4/trafficoperations>
- Metropolitan Transportation Commission (MTC): Resolution 3609 Freeway Performance Initiative.
- Proposed MTC Traffic Operations System (TOPS) Policy Update – MTC Resolution No. 4104:  
[http://apps.mtc.ca.gov/meeting\\_packet\\_documents/agenda\\_2049/3a\\_MTC\\_TOS\\_Policy\\_Update.pdf](http://apps.mtc.ca.gov/meeting_packet_documents/agenda_2049/3a_MTC_TOS_Policy_Update.pdf)
- MTC Plan Bay Area 2040:
  - <https://mtc.ca.gov/our-work/plans-projects/plan-bay-area-2040>





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	Ala	13	4.48	NB	Mountain Blvd / Calaveras Ave	S	1		Planned
	4	Ala	13	4.89	SB	Carson St / Alison Ave	S	1		Planned
	4	Ala	13	5.31	NB	EB Redwood Rd	H	1		Planned
	4	Ala	13	5.48	NB	Redwood Rd / Mountain Blvd	H	1		Planned
	4	Ala	13	6.22	SB	Monterey Blvd / Lincoln Ave	H	1		Planned
	4	Ala	13	6.58	NB	Joaquin Miller Rd / Lincoln Ave /	S	1		Planned
	4	Ala	13	7.13	SB	Monterey Blvd / Park Blvd	S	1		Planned
	4	Ala	13	7.39	NB	Mountain Blvd / Park Blvd	H	1		Planned
	4	Ala	13	8.26	SB	Estates Dr / Moraga Ave	S	1		Planned
	4	Ala	13	8.28	NB	EB Moraga Ave / Thornhill Dr	H	1		Planned
	4	Ala	13	8.37	NB	WB Moraga Ave / Thornhill Dr	S	1		Planned
	4	Ala	13	9.01	SB	Broadway Terrace	S	1		Planned
	4	Ala	13	R 9.18	NB	Pinewood Rd / Broadway Terrace	S	1		Planned
	4	Ala	13	R 9.62	SB	EB Rte 24	C	1		Planned
	4	Ala	13	T 9.82	SB	WB Rte 24	C	1		Planned
	4	Ala	13	T 9.89	NB	WB Rte 24	C	1		Planned
	4	Ala	24	R 2.00	EB	WB Rte 580	C	2		Planned
	4	Ala	24	R 2.00	EB	EB Rte 580	C	2		Planned
	4	Ala	24	R 2.16	WB	Martin Luther King Jr Way / 52nd St	S	2		Planned
	4	Ala	24	R 3.25	EB	Telegraph Ave / 56th St	S	1		Planned
	4	Ala	24	R 3.27	WB	Claremont Ave / Hudson St	S	1		Planned
	4	Ala	24	R 3.98	WB	Miles Ave / Patton St	S	1		Planned
	4	Ala	24	R 4.39	EB	Broadway / Brookside Ave	S	1		Planned
	4	Ala	24	R 4.81	WB	NB Rte 13	C	1		Planned
	4	Ala	24	R 5.39	EB	NB Rte 13	C	2		Planned
	4	Ala	24	R 5.58	WB	Caldecott Ln	S	1		Planned
	4	Ala	24	R 5.71	EB	Broadway	S	1		Part Const
	4	Ala	80	2.43	WB	NB Rte 880 for HOV	C	1	NM	Planned
	4	Ala	80	2.45	WB	NB Rte 880	C	3	NM	Planned
	4	Ala	80	2.54	WB	W Grand Ave / Maritime St / Wake Ave	S	1		Planned
	4	Ala	80	3.05	WB	WB Rte 580	C	4	NM	Planned
	4	Ala	80	3.43	EB	WB Rte 580	C	2		Planned
	4	Ala	80	3.45	WB	Powell St	S	1		Part Const
	4	Ala	80	3.68	EB	NB Rte 880	C	3	NM	Planned
●	4	Ala	80	3.85	EB	Powell St	S	2		Operational
●	4	Ala	80	3.89	WB	W Frontage Rd / Powell St	H	2		Operational
●	4	Ala	80	4.40	WB	W Frontage Rd / Ashby Ave / Point Emery Ln	D	3	M	Operational
●	4	Ala	80	4.67	EB	NB Ashby Ave (Rte 13) / Potter St	S	2		Operational
●	4	Ala	80	5.89	WB	University Ave	L	2	M	Operational
●	4	Ala	80	5.93	EB	WB University Ave	S	2		Operational
●	4	Ala	80	6.42	WB	Gilman St	S	2	M	Operational
●	4	Ala	80	6.79	EB	Gilman St / Eastshore Hwy	S	2		Operational
●	4	Ala	80	R 7.11	WB	Buchanan St	S	2		Operational
	4	Ala	80	R 7.16	WB	EB Rte 580	C	2		Planned
●	4	Ala	80	R 7.54	EB	Buchanan St	S	1		Operational
●	4	Ala	84	R 3.67	SB	WB Paseo Padre Pkwy / Thornton Ave	S	1		Non Op

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Ala	84	R 3.68	NB	WB Paseo Padre Pkwy / Thornton Ave	L	1		Non Op
●	4	Ala	84	R 3.77	SB	EB Thornton Ave / Paseo Padre Pkwy	L	1		Non Op
●	4	Ala	84	R 3.86	NB	EB Thornton Ave / Paseo Padre Pkwy	S	1		Non Op
●	4	Ala	84	R 4.77	SB	Ardenwood Blvd / Newark Blvd	S	1		Non Op
●	4	Ala	84	R 5.09	NB	Newark Blvd / Ardenwood Blvd	S	3	NM	Non Op
	4	Ala	84	R 5.86	SB	SB Rte 880	C	1		Planned
●	4	Ala	92	R 4.42	EB	Clawiter Rd / Eden Landing Rd	L	2	M	Operational
●	4	Ala	92	R 4.54	WB	Clawiter Rd / Breakwater Ct	L	2	M	Operational
●	4	Ala	92	R 5.00	WB	Industrial Blvd / Cryer St	S	2	M	Operational
●	4	Ala	92	R 5.10	EB	Industrial Blvd / Sleepy Hollow Ave	L	2	M	Operational
●	4	Ala	92	R 5.62	WB	Hesperian Blvd	S	2	M	Operational
●	4	Ala	92	R 5.84	EB	Hesperian Blvd (On Rte 92 Seg)	S	2		Operational
	4	Ala	92	6.26	WB	SB Rte 880	C	2		Planned
	4	Ala	92	6.35	EB	SB Rte 880	C	1		Planned
	4	Ala	92	6.51	WB	NB Rte 880	C	1		Planned
	4	Ala	92	6.55	EB	NB Rte 880	C	1		Planned
●	4	Ala	238	R 14.51	NB	Castro Valley Blvd / Foothill Blvd	S	2		Non Op
	4	Ala	238	R 14.77	NB	WB Rte 580	C	3		Planned
	4	Ala	238	R 14.82	NB	EB Rte 580	C	2		Planned
●	4	Ala	238	15.00	SB	E Lewelling Blvd / Mission Blvd / E 14th St	S	2		Non Op
●	4	Ala	238	15.17	NB	170th Ave / Rte 185 / E 14th St	S	1		Non Op
●	4	Ala	238	16.32	SB	Hesperian Blvd / College St	L	1		Non Op
	4	Ala	238	16.42	SB	NB Rte 880	C	2		Planned
	4	Ala	238	16.42	SB	SB Rte 880 / Washington Ave	D	2		Planned
	4	Ala	580	L 1.00	WB	WB Rte 205	C	3		Planned
	4	Ala	580	R 1.38	EB	Jess Ranch Rd / W Grant Line Rd	S	1		Planned
●	4	Ala	580	R 1.66	WB	W Grant Line Rd / Altamont Pass Rd / Jess Ranch Rd	S	1		Operational
	4	Ala	580	R 5.69	EB	N Flynn Rd / Carroll Rd	S	1		Planned
●	4	Ala	580	R 6.22	WB	Carroll Rd / N Flynn Rd	S	1		Operational
●	4	Ala	580	R 8.52	EB	Southfront Rd / Greenville Rd	S	2	M	Operational
●	4	Ala	580	R 8.54	WB	Altamont Pass Rd / Greenville Rd	S	2	M	Operational
●	4	Ala	580	R 9.48	EB	NB N Vasco Rd	S	2	M	Operational
●	4	Ala	580	9.79	WB	NB N Vasco Rd	L	1		Operational
●	4	Ala	580	9.79	WB	SB N Vasco Rd	S	3	M	Operational
●	4	Ala	580	10.57	EB	First St / Springtown Blvd	S	2	M	Operational
●	4	Ala	580	10.82	WB	Springtown Blvd / First St	S	2	M	Operational
●	4	Ala	580	12.42	EB	N Livermore Ave	S	2		Operational
●	4	Ala	580	12.65	WB	N Livermore Ave	S	2		Operational
●	4	Ala	580	14.02	WB	NB Isabel Ave (Rte 84) / Airway Blvd	L	3	M	Operational
●	4	Ala	580	14.03	EB	NB Isabel Ave (Rte 84) / Airway Blvd	S	3	M	Operational
●	4	Ala	580	14.11	EB	SB Isabel Ave (Rte 84) / Portola Ave	L	2	M	Operational
●	4	Ala	580	14.59	WB	SB Isabel Ave (Rte 84) / Portola Ave	S	2	M	Operational
●	4	Ala	580	14.98	EB	SB Airway Blvd	L	2	M	Operational
●	4	Ala	580	15.00	WB	NB Airway Blvd	L	2	M	Operational
●	4	Ala	580	15.17	WB	SB Airway Blvd	S	3	M	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Ala	580	16.50	EB	NB El Charro Rd / Fallon Rd	S	2	M	Operational
●	4	Ala	580	16.66	WB	NB El Charro Rd / Fallon Rd	L	2	M	Operational
●	4	Ala	580	16.71	EB	SB Fallon Rd / El Charro Rd	L	2	M	Operational
●	4	Ala	580	16.90	WB	SB Fallon Rd / El Charro Rd	S	2	M	Operational
●	4	Ala	580	17.74	EB	NB Santa Rita Rd / Tassajara Rd	S	3	M	Operational
●	4	Ala	580	17.94	EB	SB Tassajara Rd / Santa Rita Rd	L	2	M	Operational
●	4	Ala	580	17.94	WB	NB Santa Rita Rd / Tassajara Rd	L	2	M	Operational
●	4	Ala	580	18.07	WB	SB Tassajara Rd / Santa Rita Rd	S	2	M	Operational
●	4	Ala	580	18.67	EB	NB Hacienda Dr	S	2	M	Operational
●	4	Ala	580	18.79	WB	NB Hacienda Dr	L	2	M	Operational
●	4	Ala	580	18.85	EB	SB Hacienda Dr	L	1		Operational
●	4	Ala	580	18.94	WB	SB Hacienda Dr	S	2	M	Operational
●	4	Ala	580	19.74	EB	NB Hopyard Rd / Dougherty Rd	S	1		Operational
●	4	Ala	580	19.85	WB	NB Hopyard Rd / Dougherty Rd	L	2	M	Operational
●	4	Ala	580	19.87	EB	SB Dougherty Rd / Hopyard Rd	L	2	M	Operational
●	4	Ala	580	19.96	WB	SB Dougherty Rd / Hopyard Rd	S	2	M	Operational
●	4	Ala	580	20.09	EB	NB Rte 680	C	2		Non Op
●	4	Ala	580	20.15	EB	SB Rte 680	C	2		Non Op
	4	Ala	580	20.68	WB	NB Rte 680	C	1		Planned
●	4	Ala	580	20.91	WB	SB Rte 680	C	2	NM	Non Op
●	4	Ala	580	R 21.32	EB	NB Foothill Rd / San Ramon Rd	S	2	M	Operational
●	4	Ala	580	R 21.32	EB	SB San Ramon Rd / Foothill Rd	L	1		Operational
●	4	Ala	580	R 21.54	WB	NB Foothill Rd / San Ramon Rd	L	2	M	Operational
●	4	Ala	580	R 21.54	WB	SB San Ramon Rd / Foothill Rd	S	2	M	Operational
	4	Ala	580	R 26.07	EB	Palo Verde Rd / Eden Canyon Rd	S	1		Planned
	4	Ala	580	R 26.41	WB	Eden Canyon Rd / Palo Verde Rd	S	1		Planned
	4	Ala	580	R 28.27	EB	NB Grove Way / Crow Canyon Rd	S	1		Planned
	4	Ala	580	R 28.36	WB	E Castro Valley Blvd / Crow Canyon Rd / Grove Way / Center St	H	2		Planned
	4	Ala	580	R 28.55	EB	SB Grove Way / Crow Canyon Rd	H	1		Planned
●	4	Ala	580	R 29.21	EB	Redwood Rd	S	3	NM	Non Op
●	4	Ala	580	R 29.53	WB	Redwood Rd	S	1		Non Op
	4	Ala	580	30.16	EB	Strobridge Ave / Gary Dr	S	1		Planned
	4	Ala	580	R 30.49	EB	SB Rte 238	C	3		Planned
●	4	Ala	580	R 30.53	EB	NB Rte 238 / Foothill Blvd	S	2	NM	Non Op
	4	Ala	580	R 30.64	WB	Rte 238 / NB Foothill Blvd / Castro Valley Blvd / Mattox Rd	D	2		Planned
	4	Ala	580	R 31.63	EB	Liberty St / 163rd Ave	S	1		Planned
	4	Ala	580	R 32.07	WB	Foothill Blvd / Carolyn St	S	2		Planned
	4	Ala	580	R 32.59	EB	Fairmont Dr / Freedom Ave	S	1		Planned
	4	Ala	580	R 32.98	WB	150th Ave / Foothill Blvd	S	1		Planned
	4	Ala	580	R 34.06	WB	Grand Ave / Benedict Dr	S	1		Planned
	4	Ala	580	R 34.09	EB	Grand Ave	S	1		Planned
	4	Ala	580	R 34.66	WB	Benedict Dr / Marlow Dr	S	1		Planned
	4	Ala	580	R 34.88	EB	SB MacArthur Blvd / Foothill Blvd	S	1		Planned
	4	Ala	580	R 35.15	WB	NB Foothill Blvd / Revere Ave	S	1		Planned
	4	Ala	580	R 35.87	WB	Peralta Oaks Dr / 106th Ave	S	1		Planned
	4	Ala	580	R 36.25	EB	98th Ave / Golf Links Rd	S	1		Planned
	4	Ala	580	R 36.50	WB	Golf Links Rd / Mountain Blvd	S	1		Planned
	4	Ala	580	R 37.62	EB	Keller Ave / Fontaine St	S	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	Ala	580	R 37.93	WB	Mountain Blvd / Maynard Ave / Keller Ave	S	1		Planned
	4	Ala	580	R 38.43	WB	Edwards Ave / Mountain Blvd / Leona Dr	S	1		Planned
	4	Ala	580	R 38.73	EB	Kuhnle Ave / Sunnymere Ave / Seminary Ave	S	1		Planned
	4	Ala	580	R 38.98	EB	SB Rte 13	C	1		Planned
	4	Ala	580	R 39.28	WB	Rusting Ave / Mountain Blvd	S	1		Planned
	4	Ala	580	R 39.45	WB	SB Rte 13 / Calaveras Ave / Davenport Ave / Mountain Blvd	D	1		Planned
	4	Ala	580	L 39.85	EB	SB MacArthur Blvd	S	1		Planned
	4	Ala	580	L 39.96	WB	MacArthur Blvd	S	1		Planned
	4	Ala	580	R 40.19	WB	High St	S	1		Planned
	4	Ala	580	R 40.78	WB	35th Ave	S	1		Planned
	4	Ala	580	R 40.97	EB	Coolidge Ave / Harold St	S	1		Planned
	4	Ala	580	R 41.73	WB	Fruitvale Ave / Montana St / Dimond Ave	S	1		Planned
●	4	Ala	580	R 42.03	EB	Beaumont Ave / MacArthur Blvd	S	1		Non Op
	4	Ala	580	42.78	WB	Park Blvd / Chatham Rd	S	1		Planned
	4	Ala	580	42.78	WB	Excelsior Ave / Park Blvd / Grosvenor Pl	S	1		Planned
	4	Ala	580	43.38	EB	Lakeshore Ave / MacArthur Blvd / Grand Ave	S	1		Planned
	4	Ala	580	43.78	WB	Grand Ave / Santa Clara Ave	S	1		Planned
	4	Ala	580	44.02	EB	SB W MacArthur Blvd	S	1		Planned
	4	Ala	580	44.02	EB	Oakland Ave	S	1		Planned
	4	Ala	580	44.13	WB	Harrison St / Oakland Ave	D	1		Planned
	4	Ala	580	44.88	EB	EB Rte 980 / EB Rte 24 / 27th St	D	2		Planned
	4	Ala	580	44.93	EB	West St / 35th St	S	1		Planned
	4	Ala	580	44.93	EB	WB Rte 24 / Martin Luther King Jr Way	C	2		Planned
	4	Ala	580	45.34	WB	EB Rte 980 / EB Rte 24 / 27th St	D	2		Planned
	4	Ala	580	45.57	WB	WB Rte 24 / WB 52nd St / Martin Luther King Jr Way	D	2		Planned
	4	Ala	580	46.24	WB	W MacArthur Blvd / Emery St / Peralta St / Rte 123 (EB Rte 80)	D	1		Part Const
	4	Ala	580	46.50	EB	WB Rte 80	C	2		Planned
	4	Ala	580	46.50	EB	EB Rte 80	D	3		Planned
	4	Ala	580	47.09	EB	W Grand Ave / Maritime St / Wake Ave (On Rte 80 Seg)	S	1		Planned
	4	Ala	580	R 47.46	WB	Buchanan St	S	1		Planned
●	4	Ala	680	M 0.04	SB	Scott Creek Rd	S	2		Operational
●	4	Ala	680	M 0.41	NB	Scott Creek Rd	S	1		Non Op
●	4	Ala	680	M 2.09	SB	Mission Blvd / Rte 262	D	2		Operational
	4	Ala	680	M 2.34	NB	NB Mission Blvd / Rte 262	L	1		Planned
	4	Ala	680	M 2.52	NB	SB Mission Blvd / Rte 262	S	1		Planned
●	4	Ala	680	M 3.85	SB	Auto Mall Pkwy / Durham Rd	S	2		Operational
●	4	Ala	680	M 3.99	NB	Durham Rd / Auto Mall Pkwy	L	2		Operational
●	4	Ala	680	M 5.33	SB	Washington Blvd	L	2	M	Operational
●	4	Ala	680	M 5.60	NB	Washington Blvd	S	2	M	Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Ala	680	M 6.39	SB	Mission Blvd (Rte 238)	S	2		Operational
●	4	Ala	680	M 6.46	NB	Mission Blvd (Rte 238)	L	2		Operational
	4	Ala	680	R 7.19	NB	Vargas Rd	H	1		Planned
●	4	Ala	680	R 7.37	SB	Vargas Rd	S	1		Operational
●	4	Ala	680	R 8.20	SB	Sheridan Rd / Mission Rd	S	1		Operational
●	4	Ala	680	R 9.57	SB	Andrade Rd / Mission Rd	S	1		Operational
	4	Ala	680	R 9.84	NB	Andrade Rd / Athenour Way	S	1		Planned
●	4	Ala	680	R 10.88	SB	Paloma Rd / Calaveras Rd / Rte 84	D	1		Operational
	4	Ala	680	R 10.97	NB	Calaveras Rd / Paloma Rd / Rte 84	L	1		Planned
●	4	Ala	680	R 10.98	SB	SB Rte 84 / Vallecitos Rd	S	2		Operational
	4	Ala	680	R 11.45	NB	SB Rte 84	S	1		Planned
	4	Ala	680	R 12.11	NB	Koopman Rd / Pleasanton Sunol Rd	S	1		Planned
●	4	Ala	680	R 14.67	SB	Sunol Blvd / Pleasanton Sunol Rd	L	1		Operational
	4	Ala	680	R 14.96	NB	Sunol Blvd / Pleasanton Sunol Rd	S	1		Planned
●	4	Ala	680	R 15.98	SB	Bernal Ave	S	1		Operational
	4	Ala	680	R 16.51	NB	Bernal Ave	S	1		Planned
●	4	Ala	680	R 18.59	SB	EB Stoneridge Dr	S	1		Operational
	4	Ala	680	R 18.74	NB	EB Stoneridge Dr	L	1		Planned
●	4	Ala	680	R 18.81	SB	WB Stoneridge Dr	L	1		Operational
	4	Ala	680	R 18.90	NB	WB Stoneridge Dr	S	1		Planned
	4	Ala	680	R 19.47	NB	EB Rte 580	C	1		Planned
	4	Ala	680	R 19.74	NB	WB Rte 580	C	2		Planned
	4	Ala	680	R 19.84	NB	Village Pkwy / Dublin Blvd	H	2		Planned
	4	Ala	680	R 19.92	SB	EB Rte 580	C	1		Planned
	4	Ala	680	R 19.92	SB	WB Rte 580	C	1		Planned
●	4	Ala	680	R 20.18	SB	St Patrick Way / Amador Plaza Rd	H	1		Non Op
	4	Ala	680	R 21.22	SB	Alcosta Blvd / Westside Dr	S	2		Part Const
●	4	Ala	880	R 0.01	SB	WB Dixon Landing Rd	L	3	M	Operational
●	4	Ala	880	R 0.07	NB	California Cir / Dixon Landing Rd	S	1		Operational
●	4	Ala	880	R 0.07	NB	WB Dixon Landing Rd	S	2	M	Operational
●	4	Ala	880	R 1.67	SB	SB Mission Blvd (Rte 262)	C	3	M	Operational
●	4	Ala	880	R 1.92	SB	Warren Ave	L	3	M	Operational
●	4	Ala	880	2.37	NB	Warren Ave	L	2	M	Operational
●	4	Ala	880	2.53	NB	SB Mission Blvd (Rte 262)	C	3	M	Operational
●	4	Ala	880	3.09	SB	Fremont Blvd / Cushing Pkwy	S	3	M	Operational
●	4	Ala	880	3.26	SB	SB Fremont Blvd	L	2	M	Operational
●	4	Ala	880	3.31	NB	NB Fremont Blvd	L	2	M	Operational
●	4	Ala	880	3.50	NB	SB Fremont Blvd	S	1		Operational
●	4	Ala	880	4.55	SB	EB Auto Mall Pkwy	S	2	M	Operational
●	4	Ala	880	4.70	NB	EB Auto Mall Pkwy	L	2	M	Operational
●	4	Ala	880	4.74	SB	WB Auto Mall Pkwy	L	2	M	Operational
●	4	Ala	880	4.89	NB	WB Auto Mall Pkwy	S	2	M	Operational
●	4	Ala	880	6.08	SB	NB Stevenson Blvd	S	1		Operational
●	4	Ala	880	6.20	NB	NB Stevenson Blvd	L	1		Operational
●	4	Ala	880	6.28	SB	SB Stevenson Blvd	L	1		Operational
●	4	Ala	880	6.40	NB	SB Stevenson Blvd	S	3	M	Operational
●	4	Ala	880	7.03	SB	EB Mowry Ave	S	1		Operational
●	4	Ala	880	7.16	NB	EB Mowry Ave	L	2	M	Operational
●	4	Ala	880	7.23	SB	WB Mowry Ave	L	2	M	Operational
●	4	Ala	880	7.37	NB	WB Mowry Ave	S	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Ala	880	8.65	SB	NB Thornton Ave	S	3	M	Operational
●	4	Ala	880	8.83	NB	NB Thornton Ave	L	2	M	Operational
●	4	Ala	880	8.87	SB	SB Thornton Ave	L	2	M	Operational
●	4	Ala	880	9.01	NB	SB Thornton Ave	S	3	M	Operational
●	4	Ala	880	10.12	SB	NB Decoto Rd (Rte 84)	S	2		Operational
●	4	Ala	880	10.28	NB	NB Decoto Rd (Rte 84)	L	2		Operational
●	4	Ala	880	10.32	SB	SB Decoto Rd (Rte 84)	L	1		Operational
●	4	Ala	880	10.49	NB	SB Decoto Rd (Rte 84)	S	1		Operational
●	4	Ala	880	11.34	SB	EB Alvarado Blvd / Fremont Blvd	S	3	M	Operational
●	4	Ala	880	11.42	SB	WB Fremont Blvd / Alvarado Blvd	L	1		Operational
●	4	Ala	880	11.55	NB	Alvarado Blvd / Fremont Blvd	S	3	M	Operational
●	4	Ala	880	12.87	SB	EB Alvarado Niles Rd	S	2	M	Operational
●	4	Ala	880	13.04	SB	WB Alvarado Niles Rd	L	2	M	Operational
●	4	Ala	880	13.14	NB	Alvarado Niles Rd	S	3	M	Operational
●	4	Ala	880	13.55	SB	Whipple Rd	S	3	M	Operational
●	4	Ala	880	13.90	NB	Whipple Rd	D	1		Operational
●	4	Ala	880	14.52	SB	W Industrial Pkwy	L	1		Operational
●	4	Ala	880	14.63	NB	W Industrial Pkwy	S	2		Operational
●	4	Ala	880	15.55	SB	EB W Tennyson Rd	S	2	M	Operational
●	4	Ala	880	15.55	SB	WB W Tennyson Rd	L	1		Operational
●	4	Ala	880	15.81	NB	WB W Tennyson Rd	S	2	M	Operational
●	4	Ala	880	15.81	NB	EB W Tennyson Rd	L	1		Operational
●	4	Ala	880	16.56	SB	EB Rte 92 (J Arthur Younger Fwy)	C	1		Operational
●	4	Ala	880	16.56	SB	WB Rte 92 (W Jackson St)	C	2	M	Operational
●	4	Ala	880	16.85	NB	EB Rte 92 (J Arthur Younger Fwy)	C	3	M	Operational
●	4	Ala	880	16.85	NB	WB Rte 92 (W Jackson St)	C	1		Operational
●	4	Ala	880	17.48	SB	EB W Winton Ave	S	2	M	Operational
●	4	Ala	880	17.48	SB	WB W Winton Ave	L	1		Operational
●	4	Ala	880	17.83	NB	W Winton Ave	D	2		Operational
●	4	Ala	880	18.25	SB	W A St	S	2	M	Operational
●	4	Ala	880	18.48	NB	W A St	S	2	M	Operational
●	4	Ala	880	19.96	SB	Hesperian Blvd / Grant Ave / Lewelling Blvd	H	2		Operational
●	4	Ala	880	20.21	SB	NB Rte 238	C	3		Non Op
●	4	Ala	880	20.42	NB	WB Lewelling Blvd	S	2	M	Operational
●	4	Ala	880	20.65	SB	Washington Ave	L	1		Operational
●	4	Ala	880	20.91	NB	Washington Ave	L	1		Operational
●	4	Ala	880	20.92	NB	NB Rte 238	C	2		Non Op
●	4	Ala	880	22.73	SB	Marina Blvd	S	2		Operational
●	4	Ala	880	22.95	NB	Marina Blvd	S	2		Operational
●	4	Ala	880	23.62	SB	EB Davis St (Rte 112)	S	2	M	Operational
●	4	Ala	880	23.69	NB	EB Davis St (Rte 112)	L	1		Operational
●	4	Ala	880	23.69	NB	WB Davis St (Rte 112)	S	1		Operational
●	4	Ala	880	23.71	SB	WB Davis St (Rte 112)	L	2	M	Operational
●	4	Ala	880	24.68	SB	EB 98th Ave	S	3	M	Operational
●	4	Ala	880	24.72	NB	EB 98th Ave	L	2	M	Operational
●	4	Ala	880	24.79	SB	WB 98th Ave	L	2	M	Operational
●	4	Ala	880	24.90	NB	WB 98th Ave	S	1		Operational
●	4	Ala	880	25.27	SB	NB Hegenberger Rd	H	3	M	Operational
●	4	Ala	880	25.47	SB	SB Hegenberger Rd	L	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Ala	880	25.52	NB	NB Hegenberger Rd / Edges Ave	L	2		Operational
●	4	Ala	880	25.61	NB	SB Hegenberger Rd	S	1		Operational
●	4	Ala	880	26.58	SB	EB 66th Ave / Zhone Way / Oakport	S	1		Operational
●	4	Ala	880	26.58	SB	WB 66th Ave / Zhone Way	L	1		Operational
●	4	Ala	880	26.70	NB	WB 66th Ave	S	1		Operational
●	4	Ala	880	26.70	NB	EB 66th Ave / Zhone Way / Coliseum Way	D	2		Operational
●	4	Ala	880	27.42	SB	Oakport St / High St	D	1		Operational
●	4	Ala	880	27.86	NB	42nd Ave (Rte 77)	S	1		Operational
●	4	Ala	880	27.86	NB	High St	S	1		Operational
●	4	Ala	880	28.65	SB	29th Ave	S	1		Operational
	4	Ala	880	28.83	NB	29th Ave / E 9th St	S	1		Part Const
●	4	Ala	880	28.88	SB	Kennedy St / E 7th St / 23rd Ave	H	1		Operational
●	4	Ala	880	29.10	NB	NB 23rd Ave	S	2	M	Operational
●	4	Ala	880	29.15	NB	SB 23rd Ave	H	1		Operational
	4	Ala	880	30.03	SB	Embarcadero / 10th Ave	S	1		Planned
●	4	Ala	880	30.96	SB	Oak St	S	3	M	Operational
●	4	Ala	880	31.31	SB	Broadway	S	2		Operational
●	4	Ala	880	31.42	NB	Jackson St	S	2		Operational
	4	Ala	880	31.68	SB	WB Rte 980	C	2		Planned
●	4	Ala	880	R 32.04	SB	Adeline St / 5th St	S	2	NM	Non Op
	4	Ala	880	R 32.79	NB	Union St / 5th St	S	2		Planned
●	4	Ala	880	R 33.29	SB	7th St / Maritime St	S	3		Non Op
	4	Ala	880	R 34.19	SB	WB Rte 80	C	3		Planned
	4	Ala	880	R 34.19	SB	EB Rte 80	C	2		Planned
●	4	Ala	880	R 34.75	NB	W Grand Ave / Frontage Rd	S	1		Non Op
	4	Ala	980	0.42	WB	Brush St / 11th St	S	2		Planned
	4	Ala	980	0.63	WB	17th St / West St	S	2		Planned
	4	Ala	980	0.90	EB	Castro St / 12th St	S	2		Planned
	4	Ala	980	1.01	EB	Castro St / 18th St	S	2		Planned
	4	Ala	980	1.66	EB	27th St (to Rte 580)	S	1		Planned
	4	Ala	980	1.84	WB	EB Rte 580	C	2		Planned
	4	Ala	980	1.84	WB	WB Rte 580	C	2		Planned
	4	Ala	980	1.86	EB	27th St	S	2		Planned
	4	CC	4	L 0.10	WB	WB Rte 80	C	1		Planned
	4	CC	4	0.13	EB	EB Rte 80	C	2		Planned
	4	CC	4	0.20	EB	Willow Ave	H	1		Planned
	4	CC	4	R 0.62	WB	Willow Ave	S	1		Planned
	4	CC	4	R 1.29	EB	Sycamore Ave / Palm Ave / Claey's Ln	H	1		Planned
	4	CC	4	1.81	WB	Franklin Canyon Rd / Sycamore Ave	S	1		Planned
	4	CC	4	2.26	WB	Franklin Canyon Rd	S	1		Planned
	4	CC	4	3.65	EB	Christie Rd	H	1		Planned
	4	CC	4	R 4.51	EB	Cummings Skyway / Franklin Canyon Rd	L	1		Planned
	4	CC	4	T 4.70	WB	Cummings Skyway	S	1		Planned
	4	CC	4	R 5.33	EB	Mc Ewen Rd / Franklin Canyon Rd	S	1		Planned
●	4	CC	4	R 8.41	WB	Alhambra Ave	S	1		Operational
●	4	CC	4	R 8.72	EB	Alhambra Ave	S	2		Operational
●	4	CC	4	R 9.05	WB	Pine St / Center Ave	S	2	M	Operational
●	4	CC	4	R 9.35	EB	Center Ave / Pine St	S	2	M	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	CC	4	R 10.18	WB	Morello Ave / Arnold Dr	S	2		Operational
●	4	CC	4	R 10.47	EB	Morello Ave / Muir Rd	S	2		Operational
●	4	CC	4	12.31	WB	Pacheco Blvd / Blum Rd	S	2	M	Operational
●	4	CC	4	12.35	EB	Pacheco Blvd / Muir Rd	H	2		Operational
	4	CC	4	12.51	WB	SB Rte 680	C	1		Planned
	4	CC	4	12.63	EB	SB Rte 680	C	1		Planned
	4	CC	4	12.71	WB	NB Rte 680	C	1		Planned
	4	CC	4	12.80	EB	NB Rte 680	C	1		Planned
●	4	CC	4	R 13.71	WB	Solano Way / Arnold Industrial Way	S	2	M	Operational
●	4	CC	4	R 13.94	EB	Solano Way / Arnold Industrial Way / March Dr	S	2	M	Operational
	4	CC	4	R 14.36	WB	NB Rte 242	C	1		Planned
●	4	CC	4	R 14.62	WB	Port Chicago Hwy	S	2	M	Operational
	4	CC	4	R 14.82	EB	NB Rte 242	C	3		Planned
●	4	CC	4	R 15.17	WB	Port Chicago Hwy (to SB Rte 242)	S	1		Non Op
●	4	CC	4	R 15.73	EB	Port Chicago Hwy	D	2	M	Operational
●	4	CC	4	R 16.69	WB	Willow Pass Rd / Evora Rd / Willow Pass Ct	S	2	M	Operational
●	4	CC	4	R 17.18	EB	Willow Pass Rd / Avila Rd	S	2	M	Operational
●	4	CC	4	R 18.57	WB	SB Willow Pass Rd / San Marco Blvd / Evora Rd	S	2		Operational
●	4	CC	4	R 18.73	EB	SB Willow Pass Rd / San Marco Blvd / W Leland Rd	L	1		Operational
●	4	CC	4	R 18.81	WB	NB San Marco Blvd / Willow Pass Rd / Evora Rd	L	1		Operational
●	4	CC	4	R 18.96	EB	NB San Marco Blvd / Willow Pass Rd / W Leland Rd	S	1		Operational
●	4	CC	4	R 19.95	WB	Bailey Rd	S	3	M	Operational
●	4	CC	4	R 20.29	EB	Bailey Rd	S	2	M	Operational
●	4	CC	4	22.82	WB	Railroad Ave	S	2		Operational
●	4	CC	4	23.18	EB	Railroad Ave	S	3	M	Operational
●	4	CC	4	24.11	WB	California Ave / Loveridge Rd	H	2		Operational
●	4	CC	4	24.40	EB	Loveridge Rd	S	3	M	Operational
●	4	CC	4	25.82	WB	Auto Center Dr / Somersville Rd	S	3	M	Operational
●	4	CC	4	26.19	EB	Somersville Rd / Auto Center Dr	S	3	M	Operational
●	4	CC	4	26.81	WB	L St / Contra Loma Blvd	S	3	M	Operational
●	4	CC	4	27.07	EB	Contra Loma Blvd / L St	S	2	M	Operational
●	4	CC	4	R 27.66	WB	A St / Lone Tree Way	S	3	M	Operational
●	4	CC	4	R 27.94	EB	Lone Tree Way / A St	S	2	M	Operational
●	4	CC	4	R 28.76	WB	Hillcrest Ave	H	2		Operational
●	4	CC	4	R 28.82	WB	Hillcrest Ave	S	2		Operational
●	4	CC	4	R 29.09	EB	Hillcrest Ave	S	2		Operational
●	4	CC	4	T 30.17	WB	SB Rte 160	C	2		Operational
●	4	CC	4	R 30.77	EB	SB Rte 160	C	1		Operational
●	4	CC	4	R 31.35	EB	Laurel Rd	L	1		Operational
●	4	CC	4	R 31.51	WB	Laurel Rd	S	3	M	Operational
●	4	CC	4	R 31.60	EB	Laurel Rd	S	1		Operational
●	4	CC	4	R 32.73	WB	WB Lone Tree Way	S	2	M	Operational
●	4	CC	4	R 33.12	EB	Lone Tree Way	S	2	M	Operational
●	4	CC	4	R 33.17	WB	Jeffery Way / Lone Tree Way	H	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	CC	4	R 34.16	EB	Sand Creek Rd	L	1		Operational
●	4	CC	4	R 34.17	WB	Sand Creek Rd	S	3		Operational
	4	CC	24	0.62	WB	Fish Ranch Rd	S	1		Planned
	4	CC	24	0.71	EB	Old Tunnel Rd / Fish Ranch Rd	S	1		Planned
	4	CC	24	1.01	WB	California Shakespeare Theater Way / Wilder Rd	S	1		Planned
	4	CC	24	1.32	EB	Wilder Rd	S	1		Planned
	4	CC	24	R 2.12	WB	SB Camino Pablo / Santa Maria Way	S	1		Planned
	4	CC	24	R 2.31	EB	SB Camino Pablo	L	1		Planned
	4	CC	24	R 2.36	WB	NB Camino Pablo	L	1		Planned
	4	CC	24	R 2.59	EB	Bryant Way / Vashell Way / Davis Rd	S	1		Planned
	4	CC	24	R 3.25	WB	St Stephens Dr / El Nido Ranch Rd / E Altarinda Dr	S	1		Planned
	4	CC	24	R 3.66	EB	St Stephens Dr / Hidden Valley Rd / Wanda Ln	S	1		Planned
	4	CC	24	R 4.21	WB	El Nido Ranch Rd	H	1		Planned
	4	CC	24	R 4.34	EB	SB Acalanes Rd	L	1		Planned
	4	CC	24	R 4.35	WB	NB Acalanes Rd	L	1		Planned
	4	CC	24	R 4.51	EB	Acalanes Rd / Mt Diablo Blvd	S	1		Planned
	4	CC	24	R 6.40	WB	Deer Hill Rd / Laurel Dr / First St	H	1		Planned
	4	CC	24	R 6.67	EB	First St	S	1		Planned
	4	CC	24	R 7.55	WB	SB Pleasant Hill Rd	S	1		Planned
	4	CC	24	R 7.55	WB	NB Pleasant Hill Rd	L	1		Planned
	4	CC	24	R 7.81	EB	SB Pleasant Hill Rd	L	1		Planned
	4	CC	24	R 7.81	EB	NB Pleasant Hill Rd / Mt Diablo Blvd	S	2		Planned
	4	CC	24	R 8.67	WB	Mt Diablo Blvd / Camino Diablo / Boulevard Cir	S	1		Planned
	4	CC	24	R 8.69	WB	NB Rte 680	C	2		Planned
	4	CC	24	R 8.70	WB	SB Rte 680	C	3		Planned
	4	CC	24	9.43	WB	Hillside Ave / Ygnacio Valley Rd (on Rte 680 Seg)	L	1		Planned
●	4	CC	80	0.14	WB	Central Ave	S	1		Operational
●	4	CC	80	0.35	EB	Central Ave	S	2		Operational
●	4	CC	80	0.83	WB	Carlson Blvd	S	1		Operational
●	4	CC	80	1.13	EB	Carlson Blvd	S	2		Operational
●	4	CC	80	1.54	WB	Potrero Ave / Eastshore Blvd	S	2		Operational
●	4	CC	80	1.98	EB	WB Cutting Blvd	S	2		Operational
●	4	CC	80	2.03	EB	EB Cutting Blvd	L	1		Operational
	4	CC	80	2.19	EB	Cutting Blvd for HOV	S	1	NM	Part Const
●	4	CC	80	2.72	WB	Barrett Ave / 44th St	S	2		Operational
●	4	CC	80	3.06	EB	San Pablo Ave / Roosevelt Ave	S	2		Operational
●	4	CC	80	3.30	WB	Solano Ave	S	1		Operational
●	4	CC	80	4.22	WB	San Pablo Dam Rd	S	2		Operational
●	4	CC	80	4.58	EB	San Pablo Dam Rd / Amador St	S	1		Operational
●	4	CC	80	4.75	WB	El Portal Dr	S	2		Operational
●	4	CC	80	5.46	EB	El Portal Dr	S	2		Operational
●	4	CC	80	5.82	WB	EB Hilltop Dr	S	2	M	Operational
●	4	CC	80	5.95	EB	EB Hilltop Dr	L	1		Operational
●	4	CC	80	6.02	WB	WB Hilltop Dr	L	1		Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	CC	80	6.15	EB	Hilltop Dr	S	2	M	Operational
	4	CC	80	6.49	WB	Richmond Pkwy / Fitzgerald Dr for HOV	S	1	NM	Part Const
●	4	CC	80	6.69	WB	Richmond Pkwy / Fitzgerald Dr	L	1		Operational
●	4	CC	80	6.73	EB	EB Fitzgerald Dr / Richmond Pkwy	L	2		Operational
●	4	CC	80	6.98	EB	WB Fitzgerald Dr / Richmond Pkwy	H	1		Operational
●	4	CC	80	7.45	WB	Appian Way	S	2		Operational
●	4	CC	80	7.57	EB	SB Appian Way	L	1		Operational
●	4	CC	80	7.73	EB	NB Appian Way	S	2		Operational
●	4	CC	80	8.40	WB	Pinole Valley Rd	S	2		Operational
●	4	CC	80	8.72	EB	Pinole Valley Rd	S	1		Operational
●	4	CC	80	9.56	WB	Rte 4 (John Muir Pkwy)	C	3	M	Operational
●	4	CC	80	10.29	EB	Rte 4 (John Muir Pkwy)	C	2		Operational
●	4	CC	80	10.54	WB	Willow Ave	S	2		Operational
●	4	CC	80	10.87	EB	Willow Ave	S	1		Operational
●	4	CC	80	12.54	WB	Cummings Skyway	S	1		Operational
●	4	CC	80	12.99	EB	Cummings Skyway	S	2		Operational
●	4	CC	80	13.48	WB	San Pablo Ave / Pomona St	S	1		Operational
	4	CC	80	13.71	EB	Pomona St / San Pablo Ave	S	1		Planned
	4	CC	242	L 0.23	NB	NB Rte 680	C	3		Planned
●	4	CC	242	R 0.66	SB	Clayton Rd / Market St	S	2		Operational
●	4	CC	242	R 1.46	SB	Concord Ave	L	2	M	Operational
●	4	CC	242	R 1.50	NB	EB Concord Ave	L	2	M	Operational
●	4	CC	242	R 1.67	NB	WB Concord Ave / Market St	S	3	M	Operational
●	4	CC	242	R 2.05	SB	Solano Way / Grant St	S	2	M	Operational
●	4	CC	242	R 2.27	NB	Solano Way / Grant St	S	1		Operational
●	4	CC	242	R 2.72	SB	EB Olivera Rd	S	1		Operational
●	4	CC	242	R 2.73	SB	WB Olivera Rd	L	1		Operational
	4	CC	242	R 3.18	SB	EB Rte 4	C	1		Planned
	4	CC	242	R 3.18	SB	WB Rte 4	C	3		Planned
	4	CC	580	0.12	EB	Central Ave / Rydin Rd	S	1		Planned
	4	CC	580	0.36	WB	Central Ave	S	1		Planned
	4	CC	580	1.21	EB	Bayview Ave / S 51st St	H	1		Planned
	4	CC	580	1.42	WB	Bayview Ave	S	1		Planned
	4	CC	580	R 2.01	EB	Regatta Blvd / Meade St	L	1		Planned
	4	CC	580	R 2.30	WB	Juliga Woods St / Regatta Blvd	H	1		Planned
	4	CC	580	R 2.74	EB	NB Marina Bay Pkwy / S 23rd St	S	1		Planned
	4	CC	580	R 2.85	WB	NB Marina Bay Pkwy / S 23rd St	L	1		Planned
	4	CC	580	R 2.93	EB	SB S 23rd St / Marina Bay Pkwy	L	1		Planned
	4	CC	580	R 3.05	WB	SB S 23rd St / Marina Bay Pkwy	S	1		Planned
	4	CC	580	R 3.49	EB	Hoffman Blvd / NB S Harbour Way	S	1		Planned
	4	CC	580	R 3.62	EB	SB S Harbour Way	L	1		Planned
	4	CC	580	R 3.87	WB	WB Cutting Blvd	S	1		Planned
	4	CC	580	R 4.50	EB	Canal Blvd / Tewksbury Ave	S	1		Planned
	4	CC	580	R 4.76	WB	Canal Blvd	S	1		Planned
	4	CC	580	R 5.04	WB	NB Castro St / WB E Standard Ave	L	1		Planned
	4	CC	580	R 5.36	EB	E Standard Ave / Marine St	H	2		Planned
	4	CC	580	5.78	EB	Western Dr	S	1		Planned
	4	CC	580	6.07	WB	Western Dr	H	1		Planned
	4	CC	680	R 0.09	SB	San Ramon Valley Blvd / Alcosta Blvd	H	3		Part Const

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	CC	680	R 0.17	NB	Alcosta Blvd	S	3		Part Const
	4	CC	680	R 2.74	SB	EB Bollinger Canyon Rd	S	1		Part Const
	4	CC	680	R 2.83	NB	EB Bollinger Canyon Rd	L	1		Part Const
	4	CC	680	R 2.94	SB	WB Bollinger Canyon Rd	L	1		Part Const
	4	CC	680	R 3.04	NB	WB Bollinger Canyon Rd	S	2		Part Const
	4	CC	680	R 3.91	SB	EB Crow Canyon Rd	S	1		Part Const
	4	CC	680	R 4.11	SB	WB Crow Canyon Rd	L	1		Part Const
	4	CC	680	R 4.24	NB	EB Crow Canyon Rd	L	1		Part Const
	4	CC	680	R 4.44	NB	WB Crow Canyon Rd	S	2		Part Const
	4	CC	680	R 6.70	SB	Sycamore Valley Rd	S	2		Part Const
	4	CC	680	R 6.91	NB	Sycamore Valley Rd	S	1		Part Const
	4	CC	680	R 7.43	SB	Diablo Rd	S	1		Planned
	4	CC	680	R 7.52	NB	EB Diablo Rd	L	1		Planned
	4	CC	680	R 7.72	NB	WB Diablo Rd	S	1		Planned
	4	CC	680	R 8.06	SB	El Cerro Blvd	S	1		Planned
	4	CC	680	R 8.32	NB	El Cerro Blvd	S	1		Planned
	4	CC	680	R 8.84	NB	El Pintado Rd	S	1		Planned
	4	CC	680	R 10.21	SB	Stone Valley Rd	S	1		Planned
	4	CC	680	R 10.55	NB	Stone Valley Rd	S	1		Planned
	4	CC	680	R 11.13	SB	W Livorna Rd	S	1		Planned
	4	CC	680	R 11.40	NB	Livorna Rd	S	1		Planned
	4	CC	680	R 12.42	SB	Rudgear Rd / Danville Blvd	S	1		Part Const
	4	CC	680	12.72	NB	Danville Blvd / Rudgear Rd	H	1		Planned
	4	CC	680	13.09	SB	S Main St	L	1		Part Const
	4	CC	680	13.81	SB	WB Olympic Blvd	L	1		Planned
	4	CC	680	13.81	SB	EB Olympic Blvd	S	1		Planned
	4	CC	680	14.03	SB	EB Rte 24	C	2		Planned
	4	CC	680	14.09	NB	Olympic Blvd	S	1		Planned
	4	CC	680	14.55	NB	EB Rte 24	C	3		Planned
	4	CC	680	14.67	SB	Hillside Ave / Ygnacio Valley Rd	S	2		Planned
	4	CC	680	15.50	SB	San Luis Rd / N Main St	S	1		Planned
	4	CC	680	15.73	NB	Lawrence Way / Penniman Way / N Main St	S	2		Part Const
	4	CC	680	16.29	SB	Geary Rd / Treat Blvd	S	1		Planned
	4	CC	680	16.55	SB	N Main St / Sunnyvale Ave	H	1		Planned
	4	CC	680	16.70	NB	Buskirk Ave / Treat Blvd	S	1		Planned
	4	CC	680	16.85	NB	Oak Rd / Elena Ct / Coggins Dr	H	1		Planned
	4	CC	680	R 17.32	SB	Boyd Rd / SB Contra Costa Blvd	S	1		Planned
	4	CC	680	R 17.47	SB	Monument Blvd	S	1		Planned
	4	CC	680	R 17.83	NB	Monument Blvd	S	1		Planned
	4	CC	680	R 18.44	SB	SB Rte 242	C	3		Planned
	4	CC	680	R 19.05	SB	EB Sunvalley Blvd / Willow Pass Rd	S	1		Planned
	4	CC	680	19.07	SB	WB Willow Pass Rd / Sunvalley Blvd	L	1		Planned
	4	CC	680	19.20	NB	Willow Pass Rd	S	2		Planned
	4	CC	680	19.70	SB	Concord Ave / Chilpancingo Pkwy	S	1		Planned
	4	CC	680	19.84	NB	WB Burnett Ave	H	1		Planned
	4	CC	680	19.89	SB	Contra Costa Blvd	H	1		Planned
	4	CC	680	20.04	NB	WB Concord Ave	S	1		Planned
	4	CC	680	21.03	SB	EB Rte 4	C	1		Planned
	4	CC	680	21.13	NB	EB Rte 4	C	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	CC	680	21.26	SB	WB Rte 4	C	1		Planned
	4	CC	680	21.39	NB	WB Rte 4	C	1		Planned
	4	CC	680	22.36	SB	Pacheco Blvd	S	1		Planned
	4	CC	680	22.83	NB	Arthur Rd	S	1		Planned
	4	CC	680	24.25	SB	Marina Vista / Waterfront Rd	S	1		Planned
	4	CC	680	24.31	NB	Waterfront Rd / Marina Vista	S	1		Planned
	4	Mrn	101	0.06	NB	Vista Point	S	1		Planned
	4	Mrn	101	0.17	SB	Alexander Ave / Conzelman Rd / Sausalito Lateral	S	1		Planned
	4	Mrn	101	0.31	NB	Alexander Ave / Bunker Rd	S	1		Planned
	4	Mrn	101	1.71	SB	Spencer / Monte Mar Dr	H	1		Planned
	4	Mrn	101	1.83	NB	Monte Mar Dr / Spencer Ave	S	1		Planned
	4	Mrn	101	2.40	NB	Rodeo Ave	S	1		Planned
	4	Mrn	101	2.49	SB	Rodeo Ave	H	1		Planned
	4	Mrn	101	3.42	SB	Donahue St / N Bridge Blvd (Marin City)	L	1		Planned
	4	Mrn	101	3.57	NB	N Bridge Blvd / Bridgeway / Gate 6 Rd / Donahue St (Marin City)	S	1		Planned
	4	Mrn	101	3.99	SB	Rte 1 (Shoreline Hwy / Almonte Blvd)	S	1		Planned
	4	Mrn	101	4.02	NB	SB Rte 1 (Shoreline Hwy / Almonte Blvd)	H	1		Planned
	4	Mrn	101	4.75	NB	Redwood Hwy Frontage Rd / De Silva Dr	H	1		Planned
	4	Mrn	101	4.75	SB	Redwood Hwy Frontage Rd / Hamilton Dr	H	1		Planned
	4	Mrn	101	5.56	SB	EB East Blithedale Ave / Tiburon Blvd	S	1		Planned
	4	Mrn	101	5.66	NB	EB E Blithedale Ave / Tiburon Blvd	L	1		Planned
	4	Mrn	101	5.73	SB	WB Rte 131 (Tiburon Blvd) / E Blithedale Ave	L	1		Planned
	4	Mrn	101	5.83	NB	WB Rte 131 (Tiburon Blvd / E Blithedale Ave)	S	1		Planned
	4	Mrn	101	6.54	SB	Meadow Valley Rd / Casa Buena Dr	S	1		Planned
	4	Mrn	101	7.24	SB	EB Tamalpais Dr	S	1		Planned
	4	Mrn	101	7.33	NB	EB Tamalpais Dr	L	1		Planned
	4	Mrn	101	7.40	SB	WB Tamalpais Dr	L	1		Planned
	4	Mrn	101	7.51	NB	WB Tamalpais Dr / Redwood Hwy / San Clemente Dr	S	1		Planned
	4	Mrn	101	7.64	SB	Madera Blvd	S	1		Planned
	4	Mrn	101	8.10	NB	Industrial Way / Redwood Hwy / Wornum Dr	S	1		Planned
	4	Mrn	101	8.17	SB	Fifer Ave	S	1		Planned
	4	Mrn	101	8.46	SB	Sir Francis Drake Blvd	D	2		Part Const
●	4	Mrn	101	8.85	NB	Sir Francis Drake Blvd	S	3	NM	Non Op
	4	Mrn	101	9.83	SB	W Francisco Blvd / Jacoby St / Andersen Dr	S	1		Part Const
●	4	Mrn	101	10.00	NB	WB Rte 580 / Bellam Blvd / Francisco Blvd	D	2		Non Op
	4	Mrn	101	10.76	SB	2nd St	S	2		Part Const
●	4	Mrn	101	11.20	NB	Mission Ave	S	2		Non Op

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Mrn	101	12.10	SB	Lincoln Ave / Prospect Dr	H	1		Non Op
●	4	Mrn	101	12.27	NB	Villa Ave / Lincoln Ave / Lillian Ln	H	1		Non Op
	4	Mrn	101	12.77	SB	Merrydale Rd / N San Pedro Rd	H	1		Planned
	4	Mrn	101	12.85	NB	N San Pedro Rd	S	1		Planned
	4	Mrn	101	13.63	NB	EB Manuel T Freitas Pkw / Civic Center Dr	H	1		Planned
	4	Mrn	101	13.67	SB	WB Manuel T Freitas Pkwy	L	1		Planned
	4	Mrn	101	13.67	SB	EB Manuel T Freitas Pkwy / Del Presidio Blvd	S	1		Planned
	4	Mrn	101	13.76	NB	Redwood Frontage Rd / Civic Center Dr	S	1		Planned
	4	Mrn	101	14.62	SB	Lucas Valley Rd	S	1		Planned
	4	Mrn	101	14.66	NB	EB Lucas Valley Rd	L	1		Planned
	4	Mrn	101	14.79	NB	WB Smith Ranch Rd / Lucas Valley Rd	S	1		Planned
	4	Mrn	101	15.43	SB	Miller Creek Rd	S	1		Planned
	4	Mrn	101	15.75	NB	St Vincent Dr / Miller Creek Rd	S	1		Planned
	4	Mrn	101	16.66	SB	Alameda del Prado / Nave Dr	S	1		Planned
	4	Mrn	101	16.79	NB	Nave Dr / Bolling Dr	H	1		Planned
	4	Mrn	101	17.89	SB	Ignacio Blvd / Enfrente Rd	S	1		Planned
	4	Mrn	101	18.05	NB	Nave Dr / Ignacio Blvd / Roblar Dr	H	1		Part Const
	4	Mrn	101	18.18	NB	Bel Marin Keys Blvd / Ignacio Blvd / Nave Dr	S	2		Part Const
●	4	Mrn	101	18.66	SB	WB Rte 37 / EB Novato Blvd	C	2		Non Op
●	4	Mrn	101	19.17	NB	WB Rte 37	C	1		Non Op
●	4	Mrn	101	19.17	NB	EB Novato Blvd	S	1		Non Op
●	4	Mrn	101	19.97	SB	Rowland Blvd	S	3	NM	Non Op
●	4	Mrn	101	R 20.40	NB	Rowland Blvd	S	2		Non Op
●	4	Mrn	101	R 21.03	SB	De Long Ave	S	2	NM	Non Op
●	4	Mrn	101	R 21.23	NB	De Long Ave / Davidson St	S	1		Non Op
●	4	Mrn	101	R 21.85	SB	Atherton Ave	S	2	NM	Non Op
●	4	Mrn	101	R 22.11	NB	Atherton Ave	S	2		Non Op
●	4	Mrn	101	25.48	SB	San Antonio Rd / Redwood Sanitary Landfill Rd	L	1		Non Op
●	4	Mrn	101	25.66	NB	San Antonio Rd / Redwood Sanitary Landfill Rd	S	1		Non Op
	4	Mrn	580	2.54	EB	Main St / E Francisco Blvd	S	1		Planned
	4	Mrn	580	2.86	WB	E Francisco Blvd	H	1		Planned
	4	Mrn	580	3.18	EB	Sir Francis Drake Blvd / Andersen Dr	S	1		Planned
	4	Mrn	580	4.40	EB	Bellam Blvd / NB Rte 101	S	1		Planned
	4	Mrn	580	4.57	WB	Bellam Blvd / E Francisco Blvd	S	1		Planned
	4	Nap	29	R 10.27	SB	EB W Imola Ave	S	1		Planned
	4	Nap	29	10.33	SB	WB W Imola Ave (SB Rte 121)	L	1		Planned
	4	Nap	29	10.46	NB	W Imola Ave (SB Rte 121)	S	1		Planned
	4	Nap	29	11.44	SB	1st St	S	1		Planned
	4	Nap	29	11.48	NB	EB 1st St	H	1		Planned
	4	Nap	29	11.59	NB	WB 1st St	S	1		Planned
	4	Nap	29	11.94	SB	Solano Ave / W Lincoln Ave	H	1		Planned
	4	Nap	29	12.16	NB	Lincoln Ave / California Blvd	S	1		Planned
	4	Nap	29	12.86	SB	Redwood Rd / Trancas St	S	1		Planned
	4	Nap	29	13.16	NB	Trancas St / Redwood Rd	S	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	Nap	29	18.90	SB	California Dr	S	1		Planned
	4	Nap	29	19.16	NB	California Dr	S	1		Planned
	4	SCI	17	4.03	SB	Bear Creek Rd	S	1		Planned
●	4	SCI	17	4.20	NB	Bear Creek Rd / Old Santa Cruz Hwy	S	1		Operational
	4	SCI	17	6.16	SB	S Santa Cruz Ave	S	1		Planned
	4	SCI	17	6.93	SB	SB Rte 9 (Saratoga Los Gatos Rd)	S	1		Planned
	4	SCI	17	7.05	NB	SB Saratoga Los Gatos Rd (Rte 9)	L	1		Part Const
	4	SCI	17	7.10	SB	NB Rte 9 (Saratoga Los Gatos Rd)	L	1		Planned
	4	SCI	17	7.19	NB	NB Saratoga Los Gatos Rd	S	1		Part Const
●	4	SCI	17	8.92	SB	Lark Ave	L	1		Non Op
●	4	SCI	17	9.03	NB	Lark Ave	S	2		Operational
●	4	SCI	17	9.27	SB	SB Rte 85	C	1		Non Op
●	4	SCI	17	9.28	NB	SB Rte 85	C	1		Operational
●	4	SCI	17	9.40	SB	NB Rte 85	C	1		Non Op
●	4	SCI	17	9.54	NB	NB Rte 85	C	2		Operational
●	4	SCI	17	10.20	SB	San Tomas Expwy / Camden Ave	S	3	NM	Non Op
●	4	SCI	17	10.55	NB	EB San Tomas Expwy / Camden Ave / Curtner Ave	H	1		Operational
●	4	SCI	17	10.57	NB	WB Camden Ave / San Tomas Expwy / White Oaks Rd	S	3	M	Operational
●	4	SCI	17	12.24	SB	EB E Hamilton Ave	S	1		Non Op
●	4	SCI	17	12.27	NB	EB E Hamilton Ave	L	2		Operational
●	4	SCI	17	12.39	SB	WB E Hamilton Ave	L	1		Non Op
●	4	SCI	17	12.48	NB	WB E Hamilton Ave	S	2		Operational
	4	SCI	17	13.74	SB	NB Rte 280	C	2		Planned
	4	SCI	17	13.82	SB	SB Rte 280	C	1		Planned
●	4	SCI	85	0.33	NB	NB Rte 101	C	2		Operational
	4	SCI	85	0.36	NB	NB Rte 101 for HOV	C	1	NM	Planned
●	4	SCI	85	0.38	NB	NB Bernal Rd / Silicon Valley Blvd	L	2	M	Operational
●	4	SCI	85	0.56	NB	SB Bernal Rd / Silicon Valley Blvd	S	2	M	Operational
●	4	SCI	85	0.75	NB	SB Rte 101	C	2	M	Operational
●	4	SCI	85	0.92	NB	Great Oaks Blvd	S	2	M	Operational
●	4	SCI	85	1.74	SB	NB Cottle Rd	S	1		Operational
●	4	SCI	85	1.95	SB	SB Cottle Rd	L	1		Operational
●	4	SCI	85	2.00	NB	NB Cottle Rd	L	2		Operational
●	4	SCI	85	2.11	NB	SB Cottle Rd	S	3	M	Operational
●	4	SCI	85	3.80	SB	EB Blossom Hill Rd	S	1		Operational
●	4	SCI	85	3.84	NB	EB Blossom Hill Rd	L	2	M	Operational
●	4	SCI	85	4.03	NB	WB Blossom Hill Rd	S	1		Operational
●	4	SCI	85	4.04	SB	WB Blossom Hill Rd	L	1		Operational
●	4	SCI	85	4.87	SB	SB Rte 87	C	3	M	Operational
●	4	SCI	85	5.05	SB	Santa Teresa Blvd	S	1		Operational
●	4	SCI	85	5.18	NB	Santa Teresa Blvd	L	2	M	Operational
●	4	SCI	85	5.41	NB	SB Rte 87	C	2	M	Operational
●	4	SCI	85	6.10	SB	NB Almaden Expy	S	2	M	Operational
●	4	SCI	85	6.14	NB	NB Almaden Expy	L	2	M	Operational
●	4	SCI	85	6.22	SB	SB Almaden Expy	L	1		Operational
●	4	SCI	85	6.34	NB	SB Almaden Expy	S	2		Operational
●	4	SCI	85	7.97	SB	Camden Ave	S	2	M	Operational
●	4	SCI	85	8.23	NB	Camden Ave	S	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	SCI	85	9.10	SB	Union Ave	S	1		Operational
●	4	SCI	85	9.43	NB	Union Ave	S	2		Operational
●	4	SCI	85	10.07	SB	S Bascom Ave / Los Gatos Blvd	S	2	M	Operational
●	4	SCI	85	10.29	SB	Rte 17	C	2		Operational
●	4	SCI	85	R 10.47	NB	S Bascom Ave	S	2	M	Operational
●	4	SCI	85	R 10.88	NB	Rte 17	C	2		Operational
●	4	SCI	85	R 11.16	NB	Winchester Blvd	S	2	M	Operational
●	4	SCI	85	R 13.52	SB	Saratoga Ave	S	2		Operational
●	4	SCI	85	R 13.93	NB	Saratoga Ave	S	2	M	Operational
●	4	SCI	85	R 15.67	SB	S De Anza Blvd	S	2		Operational
●	4	SCI	85	R 16.06	NB	S De Anza Blvd	S	2		Operational
●	4	SCI	85	R 17.49	SB	Stevens Creek Blvd	S	2	M	Operational
	4	SCI	85	R 18.23	SB	SB Rte 280	C	2		Planned
●	4	SCI	85	R 18.38	NB	SB Rte 280	C	1		Operational
●	4	SCI	85	R 18.50	NB	NB Rte 280 / Stevens Creek Blvd	C	3		Operational
●	4	SCI	85	R 18.70	SB	NB Rte 280	C	1		Operational
●	4	SCI	85	R 18.85	NB	W Homestead Rd	L	1		Operational
●	4	SCI	85	R 19.73	SB	W Fremont Ave	S	2	M	Operational
●	4	SCI	85	R 20.03	NB	W Fremont Ave	S	2		Operational
●	4	SCI	85	R 21.61	SB	SB Rte 82 (El Camino Real)	S	2	M	Operational
●	4	SCI	85	R 21.69	NB	SB Rte 82 (El Camino Real)	L	1		Operational
●	4	SCI	85	R 21.82	SB	NB Rte 82 (El Camino Real)	L	1		Operational
●	4	SCI	85	R 21.86	NB	NB Rte 82 (El Camino Real)	S	2	M	Operational
●	4	SCI	85	R 22.13	NB	EB Rte 237	C	1		Operational
	4	SCI	85	R 22.20	SB	WB Rte 237	C	1		Planned
●	4	SCI	85	R 22.49	SB	W Evelyn Ave	S	1		Operational
●	4	SCI	85	R 23.01	NB	Central Expy / Easy St	S	1		Operational
●	4	SCI	85	R 23.39	SB	Moffett Blvd	L	1		Operational
	4	SCI	85	R 23.66	SB	SB Rte 101 for HOV	C	1	NM	Planned
	4	SCI	85	23.87	SB	SB Rte 101	C	2		Planned
●	4	SCI	85	23.87	SB	SB N Shoreline Blvd	L	2		Operational
	4	SCI	87	0.13	NB	NB Rte 85	C	2		Planned
●	4	SCI	87	0.13	NB	SB Rte 85	C	2	M	Operational
●	4	SCI	87	0.42	NB	Santa Teresa Blvd	S	2		Operational
●	4	SCI	87	1.22	SB	W Capitol Expy	S	1		Operational
●	4	SCI	87	1.53	NB	Narvaez Ave / Capitol Expy	S	2		Operational
●	4	SCI	87	2.66	SB	EB Curtner Ave	S	1		Operational
●	4	SCI	87	2.85	SB	WB Curtner Ave	L	1		Operational
●	4	SCI	87	3.07	NB	Unified Way / Curtner Ave	S	2	M	Operational
●	4	SCI	87	3.54	NB	Almaden Expy (Co Hwy G8)	S	3	M	Operational
●	4	SCI	87	4.36	NB	Lelong St	S	2	M	Operational
	4	SCI	87	4.71	SB	SB Rte 280	C	1		Planned
	4	SCI	87	4.71	SB	NB Rte 280	C	2		Planned
●	4	SCI	87	5.15	SB	Auzerias Ave / Delmas Ave	S	2	M	Operational
●	4	SCI	87	5.68	NB	Park Ave / Woz Way	S	2	M	Operational
●	4	SCI	87	6.03	SB	EB W Julian St	S	2	M	Operational
	4	SCI	87	6.10	NB	Rte 280	C	2		Planned
●	4	SCI	87	6.12	SB	WB W St James St / W Julian St	L	2		Operational
●	4	SCI	87	6.27	NB	W Julian St / W St James St	S	3	M	Operational
●	4	SCI	87	6.70	SB	W Taylor St	S	3	M	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	SCI	87	7.07	NB	W Taylor St	S	3	M	Operational
●	4	SCI	87	8.13	SB	Skyport Dr	S	3	M	Operational
●	4	SCI	87	8.63	NB	Skyport Dr	S	3	M	Operational
	4	SCI	87	9.00	SB	SB Rte 101	C	2		Planned
●	4	SCI	87	9.00	SB	Charcot Ave / N 1st St	S	2		Operational
	4	SCI	101	2.96	SB	Rte 25	S	1		Planned
	4	SCI	101	3.23	NB	Rte 25	S	1		Planned
●	4	SCI	101	R 4.78	SB	Monterey Rd	S	2	M	Operational
●	4	SCI	101	R 4.90	NB	Monterey Rd	L	2		Operational
●	4	SCI	101	R 5.87	SB	E 10th St / Rte 152	S	2	M	Operational
●	4	SCI	101	R 6.06	NB	EB Rte 152 / E 10th St	L	2	M	Operational
●	4	SCI	101	R 6.11	SB	WB Rte 152 / E 10th St	L	2		Operational
●	4	SCI	101	R 6.17	NB	WB Rte 152 / 10th St	S	2		Operational
●	4	SCI	101	R 7.25	SB	Leavesley Rd	S	2		Operational
●	4	SCI	101	R 7.51	NB	EB Leavesley Rd	L	2		Operational
●	4	SCI	101	R 7.79	NB	WB Leavesley Rd	S	2	M	Operational
●	4	SCI	101	R 10.12	SB	Masten Ave	S	2	M	Operational
●	4	SCI	101	R 10.43	NB	Masten Ave	S	3	M	Operational
●	4	SCI	101	R 12.32	SB	E San Martin Ave	S	2	M	Operational
●	4	SCI	101	R 12.59	NB	E San Martin Ave	S	2	M	Operational
●	4	SCI	101	R 14.93	SB	Tennant Ave	S	2	M	Operational
●	4	SCI	101	R 15.08	NB	EB Tennant Ave	L	3	M	Operational
●	4	SCI	101	R 15.21	NB	Tennant Ave	S	1		Operational
●	4	SCI	101	R 15.87	SB	E Dunne Ave	S	2	M	Operational
●	4	SCI	101	R 15.99	NB	EB E Dunne Ave	L	2		Operational
●	4	SCI	101	R 16.18	NB	WB E Dunne Ave	S	1		Operational
●	4	SCI	101	R 17.58	SB	EB Cochrane Rd	S	2	M	Operational
●	4	SCI	101	R 17.78	NB	EB Cochrane Rd	L	2		Operational
●	4	SCI	101	R 17.86	SB	WB Cochrane Rd	L	1		Operational
●	4	SCI	101	R 17.99	NB	WB Cochrane Rd	S	2	M	Operational
●	4	SCI	101	R 21.05	SB	Coyote Creek Golf Dr	S	1		Operational
●	4	SCI	101	R 21.46	NB	Coyote Creek Golf Dr	S	1		Operational
●	4	SCI	101	R 23.29	SB	Bailey Ave	S	2	M	Operational
●	4	SCI	101	R 23.50	NB	Bailey Ave	H	2		Operational
	4	SCI	101	R 26.44	SB	SB Rte 85 for HOV	C	1	NM	Planned
●	4	SCI	101	R 26.69	SB	SB Rte 85	C	2		Operational
●	4	SCI	101	R 26.71	SB	Bernal Rd	S	2	M	Operational
●	4	SCI	101	R 27.02	NB	Bernal Rd / NB Silicon Valley Blvd	L	2		Operational
●	4	SCI	101	R 27.22	NB	Silicon Valley Blvd / Bernal Rd	S	2	M	Operational
●	4	SCI	101	R 28.44	SB	EB Blossom Hill Rd / Silver Creek Valley Rd	S	1		Operational
●	4	SCI	101	R 28.50	NB	EB Blossom Hill Rd / Silver Creek Valley Rd (G10)	L	2		Operational
	4	SCI	101	R 28.67	SB	WB Silver Creek Valley Rd / Blossom Hill Rd	L	1		Planned
●	4	SCI	101	R 28.79	NB	WB Silver Creek Valley Rd / Blossom Hill Rd (G10)	S	2	M	Operational
●	4	SCI	101	30.05	NB	Hellyer Ave / Dove Rd	L	2		Operational
●	4	SCI	101	30.15	SB	Hellyer Ave	H	1		Operational
●	4	SCI	101	30.75	SB	Yerba Buena Rd	S	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	SCI	101	31.19	NB	Yerba Buena Rd	S	2		Operational
●	4	SCI	101	31.30	SB	EB E Capitol Expy	S	2	M	Operational
●	4	SCI	101	31.75	SB	WB E Capitol Expy	L	2	M	Operational
●	4	SCI	101	31.82	NB	EB E Capitol Expy	L	2	M	Operational
●	4	SCI	101	31.83	NB	WB E Capitol Expy	S	3	M	Operational
●	4	SCI	101	32.90	SB	EB Tully Rd	S	2	M	Operational
●	4	SCI	101	32.90	SB	WB Tully Rd	L	2	M	Operational
●	4	SCI	101	33.09	NB	EB Tully Rd	L	2	M	Operational
●	4	SCI	101	33.27	NB	WB Tully Rd	S	3	M	Operational
	4	SCI	101	34.16	SB	SB Rte 280 / SB Rte 680	C	3		Planned
	4	SCI	101	34.44	SB	EB Story Rd	S	1		Planned
	4	SCI	101	34.44	SB	WB Story Rd	L	1		Planned
●	4	SCI	101	34.96	NB	SB Rte 280 / Story Rd	D	1		Operational
●	4	SCI	101	35.11	NB	SB Rte 680	C	2	M	Operational
●	4	SCI	101	R 35.64	SB	Rte 130 (E Santa Clara St / Alum Rock Ave)	S	2		Non Op
●	4	SCI	101	R 35.84	NB	Rte 130 / Alum Rock Ave	S	2		Operational
●	4	SCI	101	R 36.02	SB	McKee Rd / E Julian St	S	1		Non Op
●	4	SCI	101	R 36.22	NB	McKee Rd / E Julian St	S	2		Operational
●	4	SCI	101	37.61	SB	Oakland Rd / N 13th St	S	2		Non Op
●	4	SCI	101	37.84	NB	Oakland Rd / Commercial St	S	2		Operational
	4	SCI	101	38.17	SB	NB Rte 880	C	1		Part Const
	4	SCI	101	38.26	NB	NB Rte 880	C	1		Part Const
	4	SCI	101	38.35	SB	SB Rte 880	C	1		Part Const
	4	SCI	101	38.79	NB	Old Bayshore Hwy	H	1		Planned
	4	SCI	101	38.91	SB	N 4th St / Matrix Blvd / N 1st St	H	2		Planned
●	4	SCI	101	39.28	NB	NB N First St	L	1		Operational
●	4	SCI	101	39.59	NB	WB E Brokaw Rd	S	2	M	Operational
●	4	SCI	101	40.10	NB	NB Rte 87 (Guadalupe Pkwy)	C	3	M	Operational
●	4	SCI	101	40.59	SB	EB De La Cruz Blvd / W Trimble Rd	S	3	M	Operational
●	4	SCI	101	40.65	NB	EB De La Cruz Blvd / W Trimble Rd (G6)	L	1		Operational
●	4	SCI	101	40.75	SB	WB W Trimble Rd / De La Cruz Blvd	L	2	M	Operational
●	4	SCI	101	40.81	NB	WB W Trimble Rd / De La Cruz Blvd	S	2	M	Operational
●	4	SCI	101	41.87	SB	SB Montague Expy / San Thomas	L	2	M	Operational
●	4	SCI	101	41.87	SB	NB San Thomas Expy / Montague Expy	S	2	M	Operational
●	4	SCI	101	42.08	NB	NB San Thomas Expy / Montague Expy	L	2	M	Operational
●	4	SCI	101	42.08	NB	SB Montague Expy / San Thomas	S	3	M	Operational
●	4	SCI	101	42.58	SB	NB Bowers Ave / Great America Pkwy	S	2	M	Operational
●	4	SCI	101	42.70	NB	NB Bowers Ave / Great America Pkwy	L	1		Operational
●	4	SCI	101	42.77	SB	SB Great America Pkwy / Bowers Ave	L	2	M	Operational
●	4	SCI	101	42.95	NB	SB Great America Pkwy / Bowers Ave	S	1		Operational
●	4	SCI	101	43.72	SB	NB Lawrence Expy (G2)	S	3	M	Operational
●	4	SCI	101	43.83	NB	NB Lawrence Expy (County Rte G2)	L	2	M	Operational
●	4	SCI	101	43.88	SB	SB Lawrence Expy (G2)	L	2	M	Operational
●	4	SCI	101	43.98	NB	SB Lawrence Expy (County Rte G2)	S	2	M	Operational
●	4	SCI	101	44.70	SB	NB N Fair Oaks Ave	S	2	M	Operational
●	4	SCI	101	44.87	SB	SB N Fair Oaks Ave	L	2	M	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	SCI	101	44.88	NB	N Fair Oaks Ave	S	2	NM	Non Op
●	4	SCI	101	45.63	SB	NB N Mathilda Ave	S	2	M	Operational
●	4	SCI	101	45.64	NB	NB N Mathilda Ave	L	2	NM	Non Op
●	4	SCI	101	45.72	SB	SB N Mathilda Ave	L	2	M	Operational
●	4	SCI	101	46.02	SB	EB Rte 237	C	1		Operational
	4	SCI	101	46.25	NB	WB Rte 237 / W Moffett Park Dr	S	1		Planned
●	4	SCI	101	46.81	SB	Ellis St	S	2	M	Operational
●	4	SCI	101	47.27	NB	Ellis St	S	2	NM	Non Op
●	4	SCI	101	47.78	SB	Moffett Blvd	S	2	M	Operational
●	4	SCI	101	47.85	NB	Moffett Blvd	L	2		Non Op
●	4	SCI	101	48.05	SB	N Shoreline Blvd	D	2		Operational
●	4	SCI	101	48.30	NB	NB Rte 85	C	2		Non Op
	4	SCI	101	48.36	NB	NB Rte 85 for HOV	C	1	NM	Planned
●	4	SCI	101	48.88	SB	Old Middlefield Way	S	2		Operational
●	4	SCI	101	48.95	NB	N Shoreline Blvd	D	3		Non Op
●	4	SCI	101	49.50	SB	Rengstorff Ave	S	2	M	Operational
	4	SCI	101	49.66	SB	EB Charleston Rd	S	1		Planned
●	4	SCI	101	49.75	NB	Rengstorff Ave	S	2		Non Op
●	4	SCI	101	50.43	NB	San Antonio Rd	D	2		Non Op
●	4	SCI	101	51.95	SB	EB Oregon Expy	S	3	M	Operational
●	4	SCI	101	52.00	SB	WB Embarcadero Rd	L	2	M	Operational
●	4	SCI	101	52.00	SB	EB Embarcadero Rd	S	1		Operational
●	4	SCI	101	52.34	NB	Embarcadero Rd / E Bayshore Rd / EB Oregon Expy	D	2	NM	Non Op
	4	SCI	237	R 0.26	WB	SB Rte 85	C	1		Planned
	4	SCI	237	R 0.49	EB	NB Rte 85	C	1		Planned
	4	SCI	237	R 0.65	WB	S Whisman Rd / E Dana St	S	1		Planned
	4	SCI	237	R 0.87	EB	Sylvan Way / Moorpark Way	S	1		Planned
	4	SCI	237	M 1.37	WB	E Middlefield Rd / W Maude Ave	S	1		Part Const
	4	SCI	237	M 2.06	EB	W Maude Ave	S	1		Part Const
	4	SCI	237	2.42	EB	SB Rte 101	C	1		Planned
	4	SCI	237	2.54	WB	NB Rte 101	C	1		Planned
●	4	SCI	237	2.84	WB	N Mathilda Ave	S	1		Non Op
	4	SCI	237	3.17	EB	N Mathilda Ave	S	1		Planned
	4	SCI	237	R 3.87	WB	Moffett Park Dr / Crossman Ave / N Fair Oaks Ave / E Java Dr	S	1		Planned
●	4	SCI	237	R 4.46	WB	NB Lawrence Expy / Caribbean Dr	L	1		Operational
●	4	SCI	237	R 4.46	WB	SB Caribbean Dr / Lawrence Expy	S	1		Operational
●	4	SCI	237	R 4.74	EB	SB Lawrence Expy / Caribbean Dr	L	1		Operational
●	4	SCI	237	R 4.75	EB	NB Lawrence Expy / Caribbean Dr	S	2	M	Operational
●	4	SCI	237	R 5.61	WB	Great America Pkwy	S	1		Operational
●	4	SCI	237	R 6.18	EB	Great America Pkwy	S	2	M	Operational
●	4	SCI	237	6.70	WB	N First St	S	2		Operational
●	4	SCI	237	7.11	EB	N First St	S	2	M	Operational
●	4	SCI	237	8.03	WB	Zanker Rd	L	2		Operational
●	4	SCI	237	8.17	EB	Zanker Rd	S	3	M	Operational
●	4	SCI	237	8.71	WB	N McCarthy Blvd	S	2	M	Operational
	4	SCI	237	R 9.05	WB	SB Rte 880 for HOV (to Mountain View)	C	1	NM	Planned
●	4	SCI	237	R 9.06	WB	Calaveras Blvd	S	2		Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	SCI	237	9.34	WB	NB Rte 880	C	2		Planned
	4	SCI	237	R 9.34	WB	SB Rte 880	C	2		Planned
	4	SCI	280	R 0.26	NB	Rte 101	C	2		Planned
●	4	SCI	280	R 0.48	NB	NB McLaughlin Ave	L	1		Operational
●	4	SCI	280	R 0.48	NB	SB McLaughlin Ave	S	1		Operational
●	4	SCI	280	R 1.19	SB	S 11th St	S	2		Operational
●	4	SCI	280	R 1.37	SB	S 7th St	S	2		Operational
●	4	SCI	280	R 1.59	NB	S 10th St	S	2		Operational
●	4	SCI	280	R 1.85	NB	S 4th St / E Reed St	S	2		Operational
●	4	SCI	280	R 2.02	SB	SB S 1st St / S Market St	L	1		Operational
●	4	SCI	280	R 2.37	SB	NB Rte 87	C	1		Operational
●	4	SCI	280	R 2.37	SB	SB Rte 87	C	2		Operational
●	4	SCI	280	R 2.46	NB	S Almaden Blvd / W Reed St / Vine St	S	2		Operational
●	4	SCI	280	R 2.66	SB	Bird Ave	S	1		Operational
●	4	SCI	280	R 2.70	NB	NB Rte 87	C	2		Operational
●	4	SCI	280	R 2.70	NB	SB Rte 87	C	1		Operational
●	4	SCI	280	R 3.05	NB	Bird Ave	S	2		Operational
●	4	SCI	280	R 3.81	SB	NB Southwest Expy / Meridian Ave	D	2		Operational
●	4	SCI	280	R 3.88	SB	Moorpark Ave / Menker Ave / Leigh Ave	S	2		Operational
●	4	SCI	280	R 4.15	NB	NB Meridian Ave	L	1		Operational
●	4	SCI	280	R 4.55	NB	Menker Ave / Parkmoor Ave / Meridian Ave	S	2		Operational
●	4	SCI	280	4.76	NB	Winchester Blvd / Tisch Way	S	2		Operational
●	4	SCI	280	L 4.82	NB	Leland Ave / Parkmoor Ave	S	2		Operational
	4	SCI	280	L 5.28	SB	NB Rte 17	C	2		Planned
	4	SCI	280	L 5.34	NB	NB Rte 17	C	1		Planned
	4	SCI	280	L 5.46	SB	SB Rte 880 / Stevens Creek Blvd	D	1		Planned
	4	SCI	280	L 5.68	NB	SB Rte 880	C	1		Planned
●	4	SCI	280	5.78	SB	Saratoga Ave	S	2		Operational
●	4	SCI	280	6.09	NB	Saratoga Ave	S	2		Operational
●	4	SCI	280	6.98	SB	Lawrence Expy	S	3	M	Operational
●	4	SCI	280	7.63	NB	Stevens Creek Blvd / Lawrence Exp	S	2		Operational
●	4	SCI	280	8.31	SB	NB Wolfe Rd	S	2	M	Operational
●	4	SCI	280	8.31	SB	SB Wolfe Rd	L	2	M	Operational
●	4	SCI	280	8.45	NB	NB Wolfe Rd	L	2	M	Operational
●	4	SCI	280	8.46	NB	SB Wolfe Rd	S	1		Operational
●	4	SCI	280	9.27	SB	N De Anza Blvd	S	3	M	Operational
●	4	SCI	280	9.60	NB	N De Anza Blvd	S	2		Non Op
	4	SCI	280	10.51	SB	SB Rte 85	C	3	NM	Part Const
	4	SCI	280	10.52	SB	Stevens Creek Blvd / NB Rte 85	D	1		Part Const
	4	SCI	280	10.96	NB	SB Rte 85	C	1		Planned
	4	SCI	280	10.97	NB	NB Rte 85	C	2		Planned
	4	SCI	280	11.34	SB	NB Foothill Expy	S	1		Planned
	4	SCI	280	11.34	SB	SB Foothill Expy	L	1		Planned
	4	SCI	280	11.41	NB	NB Foothill Expy	L	1		Planned
	4	SCI	280	14.19	SB	Magdalena Rd / Eastbrook Ave	S	1		Planned
	4	SCI	280	14.29	NB	Magdalena Rd	S	1		Planned
	4	SCI	280	14.94	SB	EB El Monte Rd	S	1		Planned
	4	SCI	280	14.94	SB	WB El Monte Rd	L	1		Planned

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	SCI	280	15.20	NB	EB El Monte Rd	L	1		Planned
	4	SCI	280	15.21	NB	WB El Monte Rd	S	1		Planned
	4	SCI	280	18.28	SB	SB Page Mill Rd	L	2		Planned
	4	SCI	280	18.28	SB	NB Page Mill Rd	S	1		Planned
	4	SCI	280	18.53	NB	SB Page Mill Rd	S	1		Planned
	4	SCI	280	18.54	NB	NB Page Mill Rd	L	1		Planned
	4	SCI	280	20.48	SB	NB Alpine Rd	S	1		Planned
	4	SCI	680	M 0.16	NB	SB Rte 101	C	2		Planned
	4	SCI	680	M 0.17	NB	NB Rte 101	C	2		Planned
●	4	SCI	680	M 0.20	SB	S King Rd	S	2		Operational
●	4	SCI	680	M 0.53	NB	S King Rd	S	2		Operational
●	4	SCI	680	M 0.98	SB	S Jackson Ave	S	3	M	Operational
●	4	SCI	680	M 1.28	SB	WB E Capitol Expy	L	2		Operational
●	4	SCI	680	M 1.47	SB	WB Rte 130 / Alum Rock Ave	L	1		Operational
●	4	SCI	680	M 1.58	NB	WB E Capitol Expy	S	3		Operational
●	4	SCI	680	M 1.71	NB	EB Rte 130 / Alum Rock Ave	L	1		Operational
●	4	SCI	680	M 1.87	NB	WB Rte 130 / Alum Rock Ave	S	2	M	Operational
●	4	SCI	680	M 2.16	SB	McKee Rd	D	2		Operational
●	4	SCI	680	M 2.59	NB	McKee Rd	D	2		Operational
●	4	SCI	680	M 3.63	SB	Berryessa Rd	D	2		Operational
●	4	SCI	680	M 4.06	NB	Berryessa Rd	D	2		Operational
●	4	SCI	680	M 4.47	SB	Hostetter Rd	D	2		Operational
●	4	SCI	680	M 4.99	SB	SB N Capitol Ave	S	2		Operational
●	4	SCI	680	M 5.34	NB	N Capitol Ave	S	2	M	Operational
●	4	SCI	680	M 5.94	SB	Montague Expy / Landess Ave	D	2		Operational
●	4	SCI	680	M 6.41	NB	Landess Ave / Montague Expy	D	2		Operational
●	4	SCI	680	M 7.39	SB	E Calaveras Blvd (Rte 237)	D	2		Operational
●	4	SCI	680	M 7.99	NB	E Calaveras Blvd (Rte 237)	D	2		Operational
●	4	SCI	680	M 8.29	SB	Jacklin Rd	S	2	M	Operational
●	4	SCI	680	M 8.76	NB	Jacklin Rd	S	2	NM	Non Op
●	4	SCI	880	0.03	SB	Stevens Creek Blvd	S	1		Operational
●	4	SCI	880	0.25	NB	NB Rte 280	C	1		Operational
●	4	SCI	880	0.33	NB	SB Rte 280	C	2		Operational
●	4	SCI	880	0.50	NB	EB Stevens Creek Blvd	L	1		Operational
●	4	SCI	880	0.52	NB	WB Stevens Creek Blvd	S	1		Operational
●	4	SCI	880	1.25	SB	SB N Bascom Ave / Washington St	S	2		Operational
●	4	SCI	880	1.28	SB	NB N Bascom Ave / Washington St	L	1		Operational
●	4	SCI	880	1.33	NB	N Bascom Ave	S	1		Operational
●	4	SCI	880	1.94	SB	SB Rte 82 (The Alameda)	S	1		Operational
●	4	SCI	880	2.04	NB	SB Rte 82 (The Alameda/El Camino Real)	L	1		Non Op
●	4	SCI	880	2.10	SB	NB Rte 82 (The Alameda)	L	1		Operational
●	4	SCI	880	2.20	NB	NB Rte 82 (The Alameda/El Camino Real)	S	1		Non Op
●	4	SCI	880	2.55	SB	SB Coleman Ave	S	3	M	Operational
●	4	SCI	880	2.69	SB	NB Coleman Ave	L	2	M	Operational
●	4	SCI	880	2.69	SB	Airport Blvd (SJ International Airport)	S	2	M	Operational
●	4	SCI	880	2.84	NB	Coleman Ave / McKendrie St	S	3	NM	Non Op
●	4	SCI	880	3.44	SB	SB N First St	S	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	SCI	880	3.51	NB	SB N First St	L	1		Non Op
●	4	SCI	880	3.64	SB	NB N First St	L	1		Operational
●	4	SCI	880	3.73	NB	NB N First St	S	1		Non Op
	4	SCI	880	3.94	SB	SB Rte 101	C	1		Part Const
	4	SCI	880	4.02	NB	SB Rte 101	C	1		Part Const
	4	SCI	880	4.13	SB	NB Rte 101	C	1		Part Const
	4	SCI	880	4.21	NB	NB Rte 101	C	1		Part Const
●	4	SCI	880	4.39	SB	Old Bayshore Hwy	L	2		Operational
●	4	SCI	880	4.50	NB	Old Bayshore Hwy / E Gish Rd	S	2	NM	Non Op
●	4	SCI	880	5.21	NB	E Brokaw Rd	H	2	NM	Non Op
●	4	SCI	880	5.22	SB	E Brokaw Rd / O'toole Ave	S	3	M	Operational
●	4	SCI	880	6.45	SB	SB Montague Expy	L	1		Operational
●	4	SCI	880	6.54	SB	NB Montague Expy	S	1		Operational
●	4	SCI	880	6.97	NB	Montague Expy	D	2		Non Op
●	4	SCI	880	7.53	SB	E Tasman Dr / Great Mall Pkwy	S	2		Operational
●	4	SCI	880	7.65	NB	E Tasman Dr / Great Mall Pkwy	L	2		Operational
●	4	SCI	880	7.99	SB	Rte 237 / W Calaveras Blvd	C	2		Operational
●	4	SCI	880	8.39	NB	EB W Calaveras Blvd (Rte 237)	L	1		Operational
●	4	SCI	880	8.54	NB	WB W Calaveras Blvd (Rte 237) / S Abbott Ave	S	2	M	Operational
	4	SCI	880	8.82	NB	EB Rte 237 for HOV (to Oakland)	C	1	NM	Planned
●	4	SCI	880	8.82	NB	EB Rte 237	C	3		Operational
●	4	SCI	880	10.26	SB	EB Dixon Landing Rd	S	2	M	Operational
	4	SF	80	7.75	WB	SB Treasure Island Rd	S	1		Planned
●	4	SF	80	R 7.99	WB	Macalla Rd / N Gate Rd	L	2	NM	Non Op
●	4	SF	80	R 8.04	EB	Hillcrest Rd / S Gate Rd	S	1		Non Op
	4	SF	101	0.60	SB	WB Third St / SB Bayshore Blvd	D	1		Planned
	4	SF	101	0.69	NB	NB Bayshore Blvd / Hester Ave	S	1		Planned
	4	SF	101	1.42	SB	Rte 280	C	2		Planned
	4	SF	101	1.64	SB	San Bruno Ave / WB Silliman St	H	1		Planned
	4	SF	101	2.00	SB	EB Alemany Blvd / WB Industrial St	D	1		Planned
	4	SF	101	2.16	NB	EB Alemany Blvd / NB San Bruno Ave	D	1		Planned
	4	SF	101	2.24	NB	WB Rte 280	C	2		Planned
	4	SF	101	2.94	SB	WB Cesar Chavez St / Precita Ave	S	1		Planned
	4	SF	101	2.94	SB	SB Potrero Ave	S	1		Planned
	4	SF	101	3.11	NB	WB Cesar Chavez St	S	1		Planned
	4	SF	101	3.11	NB	NB Bayshore Blvd	S	1		Planned
●	4	SF	101	8.44	NB	Girard Rd / Marina Blvd	S	2		Non Op
●	4	SF	101	9.34	SB	NB Rte 1 (Veterans Blvd)	C	2		Non Op
●	4	SF	101	9.57	NB	NB Rte 1 (Veterans Blvd)	C	2		Non Op
	4	SF	280	R 0.04	NB	John Daly Blvd / Knowles Ave / Junipero Serra Blvd	S	1		Planned
	4	SF	280	R 0.87	NB	San Jose Ave (Rte 82) / Alemany Blvd	S	1		Planned
	4	SF	280	R 1.56	SB	Geneva Ave	S	1		Planned
	4	SF	280	R 1.92	NB	Geneva Ave / Ocean Ave	D	2		Planned
	4	SF	280	R 2.57	SB	SB San Jose Ave / Bosworth St / Lyell St	D	1		Planned
	4	SF	280	R 2.83	NB	Monterey Ave / Circular Ave	D	1		Planned
	4	SF	280	R 3.45	SB	SB Alemany Blvd / Ellsworth St	S	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	SF	280	R 3.75	NB	WB Alemany Blvd / Trumbull St / Congdon St	D	1		Planned
	4	SF	280	R 4.05	SB	SB Rte 101	C	2		Planned
	4	SF	280	R 4.06	SB	NB Rte 101	C	2		Planned
	4	SF	280	R 4.52	NB	NB Rte 101	C	2		Planned
	4	SF	280	R 5.76	SB	Pennsylvania Ave / Cesar Chavez St	H	1		Planned
	4	SF	280	R 6.06	NB	25 St / Indiana St	S	1		Planned
	4	SF	280	R 6.52	SB	Mariposa St / Pennsylvania St	S	1		Planned
	4	SF	280	R 6.64	NB	18th St / Minnesota St	S	1		Planned
	4	SM	84	24.60	SB	SB Rte 82 (El Camino Real) / Redwood Ave	S	1		Planned
	4	SM	84	24.63	NB	SB Rte 82 (El Camino Real) / Hazel Ave / Linden St	H	1		Planned
	4	SM	84	24.78	SB	NB Rte 82 (El Camino Real) / Main St	H	1		Planned
	4	SM	84	24.83	NB	NB Rte 82 (El Camino Real) / Laurel St	H	1		Planned
	4	SM	92	T 6.92	WB	NB Rte 280	C	1		Planned
	4	SM	92	R 7.53	EB	NB Rte 280	C	1		Planned
	4	SM	92	R 7.53	EB	SB Rte 280	C	1		Planned
	4	SM	92	R 7.94	WB	Polhemus Rd / Ralston Ave	L	1		Planned
	4	SM	92	R 8.13	EB	Ralston Ave / Polhemus Rd	S	1		Planned
	4	SM	92	R 8.42	WB	De Anza Blvd	S	1		Planned
	4	SM	92	R 8.85	EB	De Anza Blvd	S	1		Planned
	4	SM	92	R 9.27	WB	W Hillsdale Blvd	S	1		Planned
	4	SM	92	R 9.37	EB	EB W Hillsdale Blvd	L	1		Planned
	4	SM	92	R 9.53	EB	WB W Hillsdale Blvd	S	1		Planned
	4	SM	92	R 10.46	WB	Alameda De Las Pulgas	S	1		Planned
	4	SM	92	R 10.70	EB	Alameda De Las Pulgas	S	1		Planned
	4	SM	92	R 11.06	WB	SB Rte 82 (El Camino Real)	S	1		Planned
	4	SM	92	R 11.17	EB	SB Rte 82 (El Camino Real)	L	1		Planned
	4	SM	92	R 11.25	WB	NB Rte 82 (El Camino Real)	L	1		Planned
	4	SM	92	R 11.33	EB	NB Rte 82 (El Camino Real)	S	1		Planned
	4	SM	92	R 11.47	WB	Concar Dr / S Delaware St	H	1		Planned
	4	SM	92	R 11.74	EB	S Delaware St / 19th Ave	S	1		Planned
	4	SM	92	R 11.92	WB	SB Rte 101	C	1		Planned
	4	SM	92	R 11.96	WB	NB Rte 101	C	1		Planned
	4	SM	92	R 12.37	EB	NB Rte 101	C	1		Planned
	4	SM	92	R 12.37	EB	SB Rte 101	C	2		Planned
	4	SM	92	R 12.82	WB	Fashion Island Blvd / Mariners Island Blvd	S	2		Part Const
	4	SM	92	R 12.95	EB	Mariners Island Blvd / Edgewater Blvd	H	1		Part Const
	4	SM	92	R 13.41	WB	Chess Dr / Foster City Blvd	H	2		Planned
	4	SM	92	R 13.63	EB	Metro Center Blvd / Foster City Blvd	H	1		Part Const
●	4	SM	101	0.70	SB	University Ave	S	2		Operational
●	4	SM	101	1.07	NB	NB University Ave (Rte 109)	L	1		Operational
●	4	SM	101	1.12	NB	University Ave (Rte 109) / Donohoe	H	1		Operational
●	4	SM	101	1.75	SB	NB Willow Rd	S	1		Operational
	4	SM	101	1.85	NB	NB Willow Rd	L	1		Part Const
●	4	SM	101	1.89	SB	SB Willow Rd	L	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	SM	101	1.96	NB	SB Willow Rd	S	1		Part Const
●	4	SM	101	3.48	SB	NB Marsh Rd	S	2	M	Operational
●	4	SM	101	3.54	NB	NB Marsh Rd	L	1		Operational
●	4	SM	101	3.65	SB	SB Marsh Rd	L	1		Operational
●	4	SM	101	3.70	NB	SB Marsh Rd	S	3	M	Operational
●	4	SM	101	5.17	SB	Rte 84 / Woodside Rd	S	3	M	Operational
●	4	SM	101	5.33	NB	NB Rte 84 / Seaport Blvd / Woodside Rd	L	2		Operational
●	4	SM	101	5.47	NB	SB Seaport Blvd / Woodside Rd	S	2	M	Operational
●	4	SM	101	6.55	SB	EB Whipple Ave	S	3	M	Operational
●	4	SM	101	6.59	NB	EB Whipple Ave	L	2		Operational
●	4	SM	101	6.67	NB	WB Whipple Ave	S	1		Operational
●	4	SM	101	6.67	SB	WB Whipple Ave	L	1		Operational
●	4	SM	101	7.47	SB	Brittan Ave	H	2		Operational
●	4	SM	101	7.79	SB	Holly St	D	2		Operational
●	4	SM	101	8.54	NB	EB Holly St	L	2	M	Operational
●	4	SM	101	8.54	NB	WB Holly St	S	2	M	Operational
●	4	SM	101	9.11	SB	Ralston Ave / Harbor Blvd	D	3	M	Operational
●	4	SM	101	9.69	NB	EB Ralston Ave / Marine Pkwy	L	2	M	Operational
●	4	SM	101	9.69	NB	WB Marine Pkwy / Ralston Ave	S	3	M	Operational
●	4	SM	101	10.88	SB	EB E Hillsdale Blvd	S	1		Operational
●	4	SM	101	11.06	SB	WB E Hillsdale Blvd	L	2		Operational
●	4	SM	101	11.17	NB	EB E Hillsdale Blvd	L	2	M	Operational
●	4	SM	101	11.35	NB	WB E Hillsdale Blvd	S	1		Operational
●	4	SM	101	11.69	SB	EB Rte 92	C	1		Operational
●	4	SM	101	11.81	SB	Fashion Island Blvd / 19th Ave	S	2	M	Operational
	4	SM	101	11.85	NB	EB Rte 92	C	1		Planned
	4	SM	101	11.92	SB	WB Rte 92	C	1		Planned
●	4	SM	101	12.03	NB	Fashion Island Blvd	S	2	M	Operational
●	4	SM	101	12.05	NB	WB Rte 92	C	2		Operational
●	4	SM	101	12.72	NB	Kehoe Ave / Norton St	S	1		Operational
●	4	SM	101	13.36	SB	EB E 4th Ave	S	2		Operational
●	4	SM	101	13.36	SB	WB E 3rd Ave	L	1		Operational
●	4	SM	101	13.62	NB	E 3rd Ave / E 4th Ave / J Hart Clinton Dr	D	2		Operational
●	4	SM	101	14.30	SB	E Poplar Ave / N Amphlett Blvd	H	1		Operational
●	4	SM	101	14.93	NB	Airport Blvd / Peninsula Ave / Coyote Point Dr	H	2		Operational
●	4	SM	101	16.05	NB	Anza Blvd / Airport Blvd	H	1		Operational
	4	SM	101	16.46	SB	Rollins Rd / Broadway / Cadillac Way	D	2		Part Const
	4	SM	101	16.77	NB	Broadway / Airport Blvd / Old Bayshore Hwy	D	2		Part Const
●	4	SM	101	17.84	SB	EB E Millbrae Ave	S	3	M	Operational
●	4	SM	101	17.94	SB	WB E Millbrae Ave	L	1		Operational
●	4	SM	101	18.06	NB	E Millbrae Ave / Bayshore Hwy / S McDonnell Rd	D	2		Operational
●	4	SM	101	18.93	SB	SFO Domestic Terminals Departures (Lower Level)	S	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	SM	101	19.11	SB	SFO International Terminals Departures (Upper Level)	S	2		Operational
●	4	SM	101	19.29	NB	SFO Domestic Terminals Departures (Lower level)	S	1		Operational
	4	SM	101	19.45	SB	EB Rte 380	C	2		Planned
●	4	SM	101	R 20.26	SB	San Bruno Ave	S	2		Operational
●	4	SM	101	R 20.48	SB	WB Rte 380 / N Access Rd	D	2		Operational
●	4	SM	101	R 20.70	NB	San Bruno Ave / SFO International Terminal Departures (Upper level)	D	2		Operational
●	4	SM	101	R 20.84	NB	N Access Rd (WB Rte 380)	S	1		Operational
●	4	SM	101	R 20.85	NB	EB Rte 380	C	2		Operational
●	4	SM	101	R 20.98	NB	S Airport Blvd / WB Rte 380	S	1		Operational
●	4	SM	101	21.36	SB	Produce Ave / Terminal Ct / San Mateo Ave / S Airport Blvd	S	3		Operational
●	4	SM	101	21.50	NB	S Airport Blvd	H	1		Operational
●	4	SM	101	22.14	NB	E Grand Ave / Airport Blvd	S	1		Operational
●	4	SM	101	22.44	SB	Oyster Point Blvd / Dubuque Ave	S	2		Operational
●	4	SM	101	22.77	SB	Bay Shore Blvd / Airport Blvd	H	2	M	Operational
●	4	SM	101	22.92	NB	Oyster Point Blvd	S	3	M	Operational
●	4	SM	101	23.91	NB	Sierra Point Pkwy / Marina Blvd	S	1		Operational
●	4	SM	101	24.77	SB	Sierra Point Pkwy / Lagoon Rd	H	1		Operational
●	4	SM	101	25.84	NB	Harney Way / Alana Way	H	1		Operational
●	4	SM	101	25.91	SB	Beatty Ave / Candlestick Park / Tunnel Ave	S	2		Operational
	4	SM	280	R 0.07	SB	SB Alpine Rd	L	1		Planned
	4	SM	280	R 0.21	NB	Alpine Rd	S	1		Planned
	4	SM	280	R 1.46	SB	EB Sand Hill Rd	S	1		Planned
	4	SM	280	R 1.46	SB	WB Sand Hill Rd	L	1		Planned
	4	SM	280	R 1.75	NB	EB Sand Hill Rd	L	1		Planned
	4	SM	280	R 1.75	NB	WB Sand Hill Rd	S	1		Planned
	4	SM	280	R 3.15	SB	Rte 84 (Woodside Rd)	S	1		Planned
	4	SM	280	R 3.50	NB	Rte 84 (Woodside Rd)	S	1		Planned
	4	SM	280	R 4.54	SB	Farm Hill Blvd	S	1		Planned
	4	SM	280	R 4.84	NB	Farm Hill Blvd	S	1		Planned
	4	SM	280	R 6.45	SB	Canada Rd	S	1		Planned
	4	SM	280	R 6.57	NB	Canada Rd	H	1		Planned
	4	SM	280	R 6.69	SB	Edgewood Rd	L	1		Planned
	4	SM	280	6.86	NB	Edgewood Rd	S	1		Planned
	4	SM	280	7.56	NB	Vista Point (Hassler Trail)	S	1		Planned
	4	SM	280	8.77	NB	Access Rd / Vista Point	S	1		Planned
	4	SM	280	R 9.21	SB	Gate (Sheep Camp Trail)	S	1		Planned
	4	SM	280	9.54	NB	Gate (Sheep Camp Trail & Gate Vista Point)	S	1		Planned
	4	SM	280	R 10.44	SB	WB Rte 92	C	2		Planned
	4	SM	280	10.73	NB	EB Rte 92	C	1		Planned
	4	SM	280	R 10.75	SB	EB Rte 92	S	1		Planned
	4	SM	280	10.99	NB	WB Rte 92	C	1		Planned
	4	SM	280	R 12.19	SB	Rte 35 / Bunker Hill Dr	H	1		Planned
	4	SM	280	R 12.41	NB	Bunker Hill Dr	S	1		Planned
	4	SM	280	R 14.11	SB	Hayne Rd / Skyline Blvd	S	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	SM	280	R 14.54	NB	Hayne Rd / Black Mountain Rd	S	1		Planned
	4	SM	280	R 17.01	SB	Trousdale Dr / Skyline Blvd (Rte 35)	S	1		Planned
	4	SM	280	R 17.35	NB	Trousdale Dr / Skyline Blvd (Rte 35)	S	1		Planned
	4	SM	280	R 17.78	SB	Hillcrest Blvd / Skyline Blvd (Rte 35)	S	1		Planned
	4	SM	280	R 18.68	NB	Larkspur Blvd / Skyline Blvd (Rte 35)	S	1		Planned
	4	SM	280	R 19.09	SB	SB Rte 35	S	1		Planned
	4	SM	280	R 20.26	NB	Cunningham Way / Crystal Springs Rd	S	1		Planned
	4	SM	280	R 20.61	SB	W San Bruno Ave / Sneath Ln	S	1		Planned
	4	SM	280	R 20.88	SB	WB Rte 380	C	2		Planned
	4	SM	280	R 21.22	NB	WB Rte 380	C	3		Planned
●	4	SM	280	R 21.36	NB	Sneath Ln / W San Bruno Ave	D	2		Operational
●	4	SM	280	R 21.93	SB	Avalon Dr	S	2	M	Operational
●	4	SM	280	R 22.54	SB	EB Westborough Blvd	S	2		Operational
●	4	SM	280	R 22.62	NB	EB Westborough Blvd	L	1		Operational
●	4	SM	280	R 22.99	NB	Junipero Serra Blvd / Westborough Blvd	S	2	M	Operational
●	4	SM	280	R 24.08	SB	Hickey Blvd	S	2		Operational
●	4	SM	280	R 24.18	NB	Hickey Blvd / Imperial Way	L	1		Operational
●	4	SM	280	R 24.78	NB	Serramonte Blvd / Junipero Serra Blvd	S	2		Operational
●	4	SM	280	R 25.09	SB	NB Rte 1	C	1		Operational
●	4	SM	280	R 25.22	SB	Sullivan Ave / D St	D	1		Operational
	4	SM	280	R 25.49	NB	NB Rte 1	C	3		Planned
	4	SM	280	R 26.11	NB	Washington Ave	S	1		Planned
	4	SM	280	M 26.97	SB	SB Rte 1	C	2		Planned
●	4	SM	280	M 27.01	SB	John Daly Blvd / Alemany Blvd	D	2		Operational
	4	SM	380	T 4.89	EB	SB Rte 280	C	2		Planned
	4	SM	380	T 4.90	EB	NB Rte 280	C	2		Planned
	4	SM	380	5.30	WB	SB El Camino Real (Rte 82)	S	1		Planned
	4	SM	380	5.41	EB	SB El Camino Real (Rte 82)	L	1		Planned
	4	SM	380	5.52	WB	NB El Camino Real (Rte 82)	L	1		Planned
	4	SM	380	5.60	EB	NB El Camino Real (Rte 82)	S	1		Planned
	4	SM	380	5.98	WB	NB Rte 101	C	2		Planned
	4	SM	380	6.07	WB	SB Rte 101	C	2		Planned
	4	SM	380	6.41	EB	SB Rte 101	C	1		Planned
	4	SM	380	6.41	EB	NB Rte 101	C	1		Planned
	4	SM	380	6.46	WB	N Access Rd	S	1		Planned
	4	SM	380	6.46	WB	S Airport Blvd	S	2		Planned
	4	Sol	80	1.07	WB	SB Sonoma Blvd (Rte 29) / Sequoia Ave	S	1		Planned
	4	Sol	80	1.24	WB	W Lincoln Rd / Sequoia Ave / Maritime Academy Dr / Sonoma Blvd (Rte 29)	H	1		Planned
	4	Sol	80	1.72	EB	E Lincoln Rd / Magazine St	H	1		Planned
	4	Sol	80	1.73	WB	W Lincoln Rd / Pint St / Magazine St	H	1		Planned
	4	Sol	80	2.04	WB	San Mique Rd / San Diego Dr	H	1		Planned
	4	Sol	80	2.15	WB	WB Rte 780	C	1		Planned
	4	Sol	80	2.29	WB	EB Rte 780	C	1		Planned
	4	Sol	80	2.33	EB	EB Rte 780	C	1		Planned

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	Sol	80	2.33	EB	WB Rte 780	C	1		Planned
	4	Sol	80	2.80	WB	Campbell Ave / 14th St / Georgia St	H	1		Planned
	4	Sol	80	2.97	EB	Georgia St / Miller Ave / Steffan St	H	1		Planned
	4	Sol	80	3.13	WB	Solano Ave / Springs Rd / Mariposa St	S	1		Planned
	4	Sol	80	3.17	EB	Florida St / E Lincoln Rd / Solano Ave / Springs Rd	H	1		Planned
	4	Sol	80	3.42	WB	WB Tennessee St / Mariposa St	L	1		Planned
	4	Sol	80	3.42	WB	EB Tennessee St / Mariposa St	S	1		Planned
	4	Sol	80	3.60	EB	Humboldt St / Tennessee St / Admiral Callaghan Ln	H	1		Planned
	4	Sol	80	3.60	EB	Admiral Callaghan Ln / Tennessee St	H	1		Planned
●	4	Sol	80	4.32	WB	Redwood St	S	2	M	Operational
●	4	Sol	80	4.58	EB	Redwood St / Admiral Callaghan Ln	H	1		Operational
●	4	Sol	80	5.57	WB	EB Rte 37	C	3	M	Operational
●	4	Sol	80	5.74	EB	WB Columbus Pkwy	C	1		Operational
●	4	Sol	80	5.76	WB	WB Columbus Pkwy	L	1		Operational
●	4	Sol	80	6.08	EB	EB Rte 37	C	2		Operational
●	4	Sol	80	7.95	WB	American Canyon Rd	S	1		Operational
●	4	Sol	80	8.36	EB	American Canyon Rd / Hiddenbrook Pkwy	S	1		Operational
●	4	Sol	80	R 11.19	WB	Red Top Rd	S	1		Operational
●	4	Sol	80	R 11.51	EB	Red Top Rd	S	1		Operational
●	4	Sol	80	12.26	EB	EB Rte 12 (Lincoln Hwy)	C	2		Operational
●	4	Sol	80	12.60	WB	Green Valley Rd / Lopes Rd	S	1		Operational
●	4	Sol	80	12.92	EB	NB Rte 680 / Lopes Rd / Green Valley Rd	D	3		Non Op
	4	Sol	80	12.99	WB	NB Rte 680	C	2		Planned
●	4	Sol	80	13.64	EB	Pittman Rd / Suisun Valley Rd	S	3	M	Operational
●	4	Sol	80	15.45	WB	WB Rte 12	C	3		Operational
●	4	Sol	80	16.02	WB	Chadbourne Rd / Abernathy Rd / Suisun Pkwy	S	1		Operational
●	4	Sol	80	16.29	EB	Chadbourne Rd / Abernathy Rd / Suisun Pkwy / Auto Mall Pkwy	S	2		Operational
●	4	Sol	80	16.91	EB	Auto Mall Pkwy / Raleigh Dr	S	1		Operational
●	4	Sol	80	17.07	WB	Rockville Rd / W Texas St	H	2	M	Operational
●	4	Sol	80	17.53	EB	Beck Ave / W Texas St	S	2		Operational
●	4	Sol	80	17.86	WB	EB Travis Blvd	H	1		Operational
●	4	Sol	80	17.94	WB	WB Travis Blvd	L	1		Operational
●	4	Sol	80	18.08	EB	Travis Blvd	S	2		Operational
●	4	Sol	80	18.92	WB	Hilborn Rd / Waterman Blvd / Air Base Pkwy	S	3	M	Operational
●	4	Sol	80	19.28	EB	Air Base Pkwy / Waterman Blvd	S	2	M	Operational
●	4	Sol	80	21.02	WB	Manuel Campos Pkwy / Hilborn Rd / Lyon Rd / N Texas St	H	1		Operational
●	4	Sol	80	21.03	EB	Manuel Campos Pkwy / N Texas St	S	2	M	Operational
●	4	Sol	80	R 23.06	WB	Cherry Glen Rd / Lyon Rd / Lagoon Valley Rd	S	1		Operational
●	4	Sol	80	23.24	EB	Lincoln Hwy / Lagoon Valley Rd	S	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Sol	80	23.73	WB	Cherry Glen Rd / Lincoln Hwy / Rivera Rd	S	1		Operational
●	4	Sol	80	23.93	EB	Pena Adobe Rd / Lincoln Hwy / Rivera Rd	L	1		Operational
●	4	Sol	80	R 25.12	WB	Merchant St / Alamo Dr	S	2		Operational
●	4	Sol	80	R 25.38	EB	Alamo Dr / Lincoln Hwy / Butcher Rd	S	1		Operational
●	4	Sol	80	R 25.83	WB	Hickory Ln / Davis St	S	1		Operational
●	4	Sol	80	R 25.86	EB	Davis St / Bella Vista Rd	S	1		Operational
●	4	Sol	80	R 26.27	WB	Mason St / Depot St / Elmira Rd	S	1		Operational
●	4	Sol	80	R 26.36	EB	Cliffside Dr / Peabody Rd / Elmira Rd / Mason St	H	2		Operational
●	4	Sol	80	R 27.12	EB	SB Allison Dr / E Monte Vista Ave	L	2	M	Operational
●	4	Sol	80	R 27.30	WB	E Monte Vista Ave / Browns Valley Pkwy	S	2		Operational
●	4	Sol	80	R 27.35	EB	NB Allison Dr / Nut Tree Pkwy / Monte Vista	S	2	M	Operational
●	4	Sol	80	R 27.54	WB	E Monte Vista Ave / Nut Tree Rd	H	2		Operational
●	4	Sol	80	R 28.11	WB	SB Rte 505	C	2		Operational
●	4	Sol	80	R 28.27	EB	SB Rte 505 / County Airport Rd / E Monte Vista Ave	D	1		Operational
●	4	Sol	80	R 28.39	EB	Orange Dr / Lawrence Dr / Nut Tree Rd	S	2	M	Operational
	4	Sol	80	29.85	EB	EB Vaca Valley Pkwy / SB Leisure Town Rd	L	1		Part Const
	4	Sol	80	29.86	WB	EB Vaca Valley Pkwy / SB Leisure Town Rd	S	1		Part Const
	4	Sol	80	29.92	WB	NB Leisure Town Rd / WB Vaca Valley Pkwy	L	1		Part Const
	4	Sol	80	30.02	EB	NB Leisure Town Rd / WB Vaca Valley Pkwy	S	1		Part Const
	4	Sol	80	31.18	WB	N Meridian Rd	S	1		Planned
	4	Sol	80	31.37	EB	N Meridian Rd / Weber Rd	H	2		Planned
	4	Sol	80	31.62	WB	Midway Rd / Oday Rd	H	1		Planned
	4	Sol	80	32.79	EB	Midway Rd / Lewis Rd	S	2		Planned
	4	Sol	80	35.51	WB	W Dixon Ave / W A St / Schroeder Rd	L	1		Planned
	4	Sol	80	35.55	EB	W A St / W Dixon Ave / Batavia Rd	H	2		Planned
	4	Sol	80	36.86	EB	Pitt School Rd / Stratford Ave	S	2		Planned
	4	Sol	80	36.94	WB	Pitt School Rd	H	1		Planned
	4	Sol	80	38.15	WB	Currey Rd / Milk Farm Rd	S	1		Planned
	4	Sol	80	38.29	WB	Currey Rd / NB Lincoln Hwy (Rte 113) / Milk Farm Rd	H	1		Planned
	4	Sol	80	38.38	EB	NB Rte 113 (N 1st St)	S	2		Planned
	4	Sol	80	39.73	EB	Pedrick Rd / Sparling Rd	L	2		Planned
	4	Sol	80	39.80	WB	Pedrick Rd / Sievers Rd	L	1		Planned
	4	Sol	80	41.02	WB	Kidwell Rd / Olmo Ln	S	1		Planned
	4	Sol	80	41.51	EB	Kidwell Rd / Sparling Rd	S	1		Planned
	4	Sol	80	42.53	WB	SB Rte 113	C	2		Planned
	4	Sol	80	R 43.21	WB	Old Davis Rd	S	1		Planned
	4	Sol	80	R 43.38	EB	SB Rte 113	C	2		Planned
	4	Sol	80	R 43.55	EB	Old Davis Rd	S	2		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	4	Sol	505	R 0.25	NB	Oranage Dr / EB Rte 80	D	1		Planned
	4	Sol	505	R 0.25	NB	WB Rte 80	C	1		Planned
	4	Sol	505	R 1.22	SB	Vaca Valley Pkwy	S	1		Planned
	4	Sol	505	R 1.67	NB	Vaca Valley Pkwy	S	1		Planned
	4	Sol	505	R 2.93	SB	Midway Rd	S	1		Planned
	4	Sol	505	R 3.22	NB	Midway Rd	S	1		Planned
	4	Sol	505	R 5.47	SB	Allendale Rd	S	1		Planned
	4	Sol	505	R 5.69	NB	Allendale Rd	S	1		Planned
	4	Sol	505	R 10.26	SB	Johnson Rd / Putah Creek Rd	H	1		Planned
	4	Sol	505	R 10.43	NB	Gaddini Rd / Putah Creek Rd	H	1		Planned
	4	Sol	680	R 0.22	SB	EB Rte 780	C	2		Planned
	4	Sol	680	R 0.83	SB	Bayshore Rd	S	1		Planned
	4	Sol	680	M 1.24	NB	EB Rte 780	C	2		Planned
	4	Sol	680	R 1.46	NB	Industrial Way	S	1		Planned
	4	Sol	680	R 2.66	SB	Lake Herman Rd / Lopes Rd	S	1		Planned
	4	Sol	680	R 2.79	NB	Lake Herman Rd / Goodyear Rd	L	1		Planned
	4	Sol	680	R 4.87	SB	Parish Rd / Lopes Rd	S	1		Planned
	4	Sol	680	R 5.17	NB	Parish Rd / Goodyear Rd	S	1		Planned
	4	Sol	680	R 7.22	SB	Marshview Rd / Lopes Rd	S	1		Planned
	4	Sol	680	R 7.43	NB	Marshview Rd / Goodyear Rd	S	1		Planned
	4	Sol	680	R 9.87	SB	Gold Hill Rd / Lopes Rd	S	1		Planned
	4	Sol	680	R 10.18	NB	Gold Hill Rd / Ramsey Rd	S	1		Planned
	4	Sol	680	13.03	SB	WB Rte 80	C	2		Planned
	4	Sol	680	13.03	SB	EB Rte 12 / Rte 80	C	1		Planned
	4	Sol	780	0.88	WB	NB Rte 680	C	2		Planned
	4	Sol	780	0.88	WB	SB Rte 680	C	1		Planned
	4	Sol	780	1.43	EB	E 5th St	S	1		Planned
	4	Sol	780	1.73	WB	E 5th St	S	1		Planned
	4	Sol	780	1.88	EB	E 2nd St	S	1		Planned
	4	Sol	780	2.20	WB	E 2nd St	S	1		Planned
	4	Sol	780	3.06	EB	W 7th St / Southhampton Rd	L	1		Planned
	4	Sol	780	3.06	WB	Southhampton Rd / W 7th St	S	1		Planned
	4	Sol	780	3.66	EB	Southhampton Rd / W Military	S	1		Planned
	4	Sol	780	4.16	WB	W K St / W Military	S	1		Planned
	4	Sol	780	4.68	EB	Rose Dr / Columbus Pkwy	H	1		Planned
	4	Sol	780	4.73	WB	Columbus Pkwy	H	1		Planned
	4	Sol	780	5.92	EB	Glen Cove Rd	S	2		Planned
	4	Sol	780	6.09	WB	Glen Cove Rd	S	1		Planned
	4	Sol	780	6.91	EB	Spruce St / Laurel St	H	1		Planned
	4	Sol	780	6.97	WB	Cedar St / Reis Ave / Laurel St	H	1		Planned
	4	Sol	780	7.07	EB	EB Rte 80	C	1		Planned
	4	Sol	780	7.13	WB	EB Rte 80	C	1		Planned
	4	Sol	780	7.25	EB	WB Rte 80	C	1		Planned
	4	Sol	780	7.32	WB	WB Rte 80	C	1		Planned
●	4	Son	101	0.18	SB	San Antonio Rd	S	1		Non Op
●	4	Son	101	0.19	NB	San Antonio Rd	S	1		Non Op
●	4	Son	101	2.63	SB	Kastania Rd / S Petaluma Blvd	S	2		Non Op
●	4	Son	101	2.70	NB	Kastania Rd / S Petaluma Blvd	S	2		Non Op
	4	Son	101	3.80	SB	Rte 116 / Lakeville St / Caulfield Ln	H	1		Planned
●	4	Son	101	3.84	NB	Rte 116 / Lakeville Hwy	S	1		Non Op

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Son	101	4.70	NB	WB E Washington St	L	1		Non Op
●	4	Son	101	4.71	SB	E Washington St	S	2		Non Op
●	4	Son	101	4.89	NB	EB E Washington St	S	2		Non Op
●	4	Son	101	7.58	SB	NB N Petaluma Blvd / N Old Redwood Hwy	H	1		Non Op
●	4	Son	101	7.63	NB	NB N Old Redwood Hwy / N Petaluma Blvd	L	1		Non Op
●	4	Son	101	7.67	SB	SB N Old Redwood Hwy / N Petaluma Blvd	L	1		Non Op
●	4	Son	101	7.71	NB	SB N Old Redwood Hwy	S	1		Non Op
●	4	Son	101	8.87	SB	Pepper Rd	S	1		Operational
●	4	Son	101	11.86	SB	W Sierra Ave / W School St	S	2	M	Operational
●	4	Son	101	12.61	SB	Rte 116 / Gravenstein Hwy	S	2	M	Operational
●	4	Son	101	12.87	NB	Rte 116 / Gravenstein Hwy / Old Redwood Hwy / Commerce Blvd	S	3	M	Operational
●	4	Son	101	13.71	SB	EB Rohnert Park Expy	S	2	M	Operational
●	4	Son	101	13.83	NB	EB Rohnert Park Expy	L	2	M	Operational
●	4	Son	101	13.89	SB	WB Rohnert Park Expy	L	2	M	Operational
●	4	Son	101	14.23	NB	WB Rohnert Park Expy	S	3	M	Operational
●	4	Son	101	14.85	SB	Golf Course Dr / Redwood Dr / Wilfred Ave	D	3	M	Operational
●	4	Son	101	14.86	NB	Commerce Blvd / Golf Course Dr / Roberts Lake Rd	S	2		Operational
●	4	Son	101	16.56	SB	Todd Rd / S Moorland Ave	S	1		Operational
●	4	Son	101	16.62	NB	Todd Rd / Santa Rosa Ave	S	2		Operational
●	4	Son	101	18.38	SB	Corby Ave / Hearn Ave	S	2		Operational
●	4	Son	101	18.50	NB	Yolanda Ave / Santa Rosa Ave / Hearn Ave	S	2	M	Operational
●	4	Son	101	18.82	SB	Baker Ave / Corby Ave / Santa Rosa Ave	S	2		Operational
●	4	Son	101	18.98	NB	Santa Rosa Ave / Colgan Ave / Baker Ave	S	1		Operational
●	4	Son	101	19.59	SB	EB Rte 12	C	2		Operational
●	4	Son	101	19.59	SB	WB Rte 12	C	2	M	Operational
●	4	Son	101	19.75	NB	EB Rte 12	C	1		Operational
●	4	Son	101	19.76	NB	WB Rte 12	C	1		Operational
●	4	Son	101	19.79	SB	3rd St / Davis St	S	1		Operational
●	4	Son	101	20.42	NB	6th St / Morgan St	S	1		Operational
●	4	Son	101	20.63	SB	College Ave	S	2		Operational
●	4	Son	101	20.90	NB	College Ave	S	2		Operational
●	4	Son	101	21.56	SB	Guerneville Rd / Steele Lane	S	2		Operational
●	4	Son	101	21.93	NB	Steele Lane / Guerneville Rd	S	3	M	Operational
●	4	Son	101	22.40	SB	Bicentennial Way / Cleveland Ave	S	3	M	Operational
●	4	Son	101	22.90	SB	Mendocino OC / Cleveland Ave / Industrial Dr	H	1		Operational
●	4	Son	101	22.96	NB	Mendocino Ave / Fountaingrove Pkwy / Old Redwood Hwy	H	2	M	Operational
●	4	Son	101	23.13	SB	Cleveland Ave / Hopper Ave	L	2	M	Operational
●	4	Son	101	24.77	NB	EB River Rd / Mark West Springs Rd	L	1		Operational
●	4	Son	101	24.82	SB	EB River Rd / Mark West Springs Rd	S	2	M	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	4	Son	101	24.90	NB	WB River Rd / Mark West Springs Rd	S	1		Operational
●	4	Son	101	24.97	SB	WB River Rd / Mark West Springs Rd	L	2	M	Operational
●	4	Son	101	26.24	SB	EB Airport Blvd	S	3	M	Operational
●	4	Son	101	26.39	NB	Airport Blvd	S	3	M	Operational
●	4	Son	101	26.41	SB	WB Airport Blvd	L	2	M	Operational
●	4	Son	101	27.54	NB	EB Shiloh Rd	L	1		Operational
●	4	Son	101	27.58	SB	EB Shiloh Rd	S	2	M	Operational
●	4	Son	101	27.65	NB	WB Shiloh Rd	S	1		Operational
●	4	Son	101	27.69	SB	WB Shiloh Rd	L	1		Operational
●	4	Son	101	29.20	SB	Old Redwood Hwy / Windsor River Rd	S	2	M	Operational
●	4	Son	101	29.56	NB	Old Redwood Hwy / Windsor River Rd	S	1		Non Op
●	4	Son	101	31.09	SB	Arata Lane / Old Redwood Hwy	S	1		Operational
	4	Son	101	33.30	SB	Old Redwood Hwy / Limerick Ln	S	1		Planned
	4	Son	101	33.67	NB	Old Redwood Hwy / Grant Ave / Healdsburg Ave	S	1		Planned
	4	Son	101	34.37	SB	Healdsburg Ave / Exchange Ave	H	1		Planned
	4	Son	101	35.05	NB	Westside Rd / Mill St	S	1		Planned
	4	Son	101	36.13	SB	Dry Creek Rd	S	1		Planned
	4	Son	101	36.48	NB	Dry Creek Rd	S	1		Planned
	4	Son	101	R 38.43	SB	Lytton Springs Rd	S	1		Planned
	4	Son	101	R 38.71	NB	Lytton Springs Rd	S	1		Planned
	4	Son	101	R 39.91	SB	Independence Undps / Souverain Rd / Via Archimedes	S	1		Planned
	4	Son	101	R 40.25	NB	Independence Undps / Souverain Rd / Geyserville Ave	S	1		Planned
	4	Son	101	R 41.24	SB	Geyserville Ave / Geiserville Rd	S	1		Planned
	4	Son	101	R 41.65	NB	Geyserville Ave / Banli Ln	S	1		Planned
	4	Son	101	R 43.08	SB	Canyon Rd (Rte 128) / Chianti Rd	S	1		Planned
	4	Son	101	R 43.57	NB	Canyon Rd / Geyserville Ave (Rte	S	1		Planned
	4	Son	101	R 47.66	SB	Simmons Rd / Asti Store Rd	S	1		Planned
	4	Son	101	R 48.06	NB	Asti Store Rd / Simmons Rd	S	1		Planned
	4	Son	101	R 48.92	SB	Theresa Dr / Dutcher Creek Rd	S	1		Planned
	4	Son	101	R 49.22	NB	Theresa Dr / Asti Rd	S	1		Planned
	4	Son	101	R 50.23	SB	Santana Dr / S Redwood Hwy / S Cloverdale Blvd	S	1		Planned
	4	Son	101	R 50.64	NB	Santana Dr / Asti Rd / S Redwood Hwy	S	1		Planned
	4	Son	101	R 51.46	SB	Citrus Fair Dr / N Cloverdale Blvd	S	1		Planned
	4	Son	101	R 51.82	NB	Citrus Fair Dr / Asti Rd	S	1		Planned
	4	Son	101	R 53.32	SB	N Redwood Hwy (Rte 128)	H	1		Planned
	4	Son	101	R 53.76	NB	N Redwood Hwy (Rte 128)	S	1		Planned

● Existing Meter

High Priority

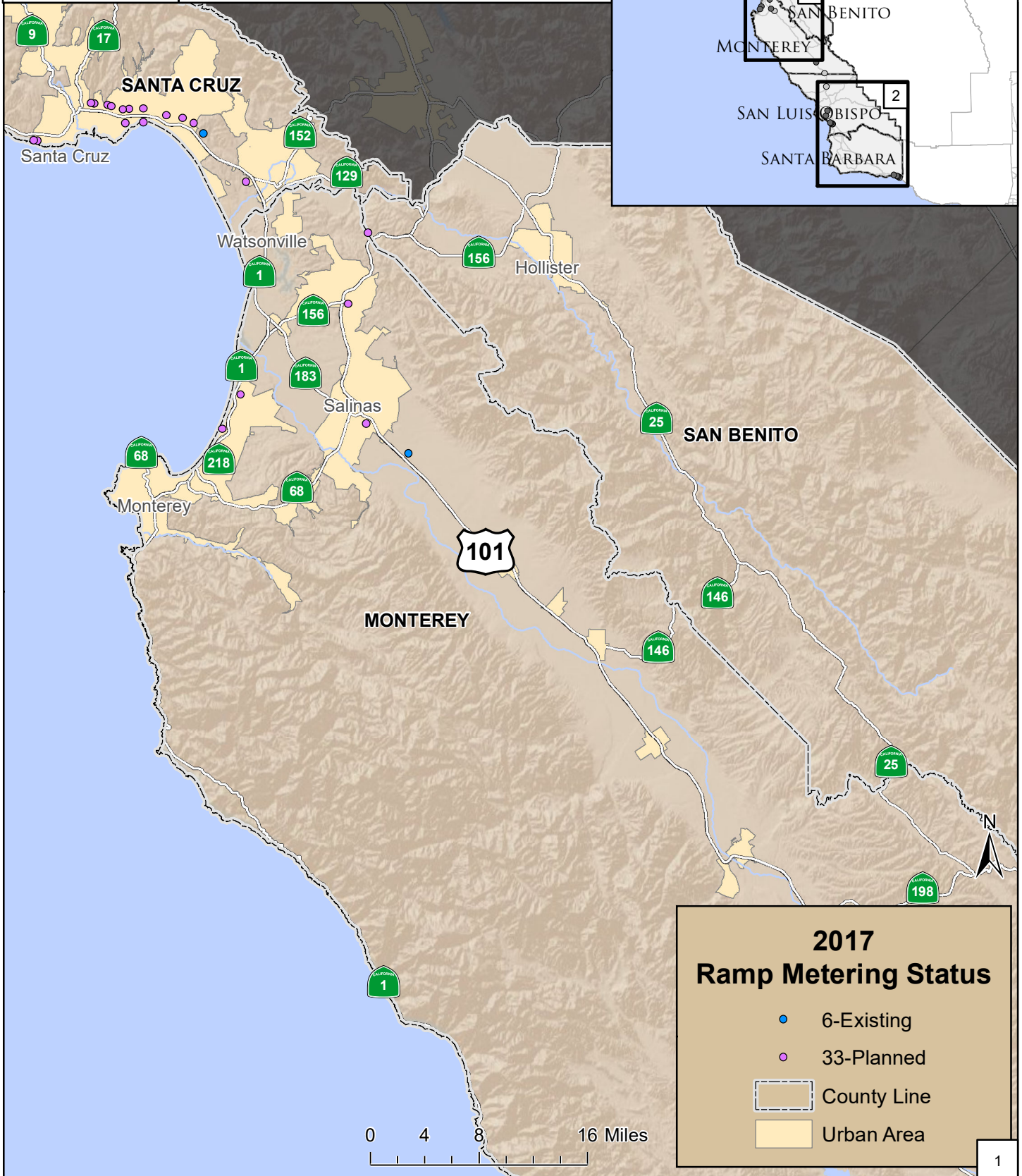
# DISTRICT 5



# District 5

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



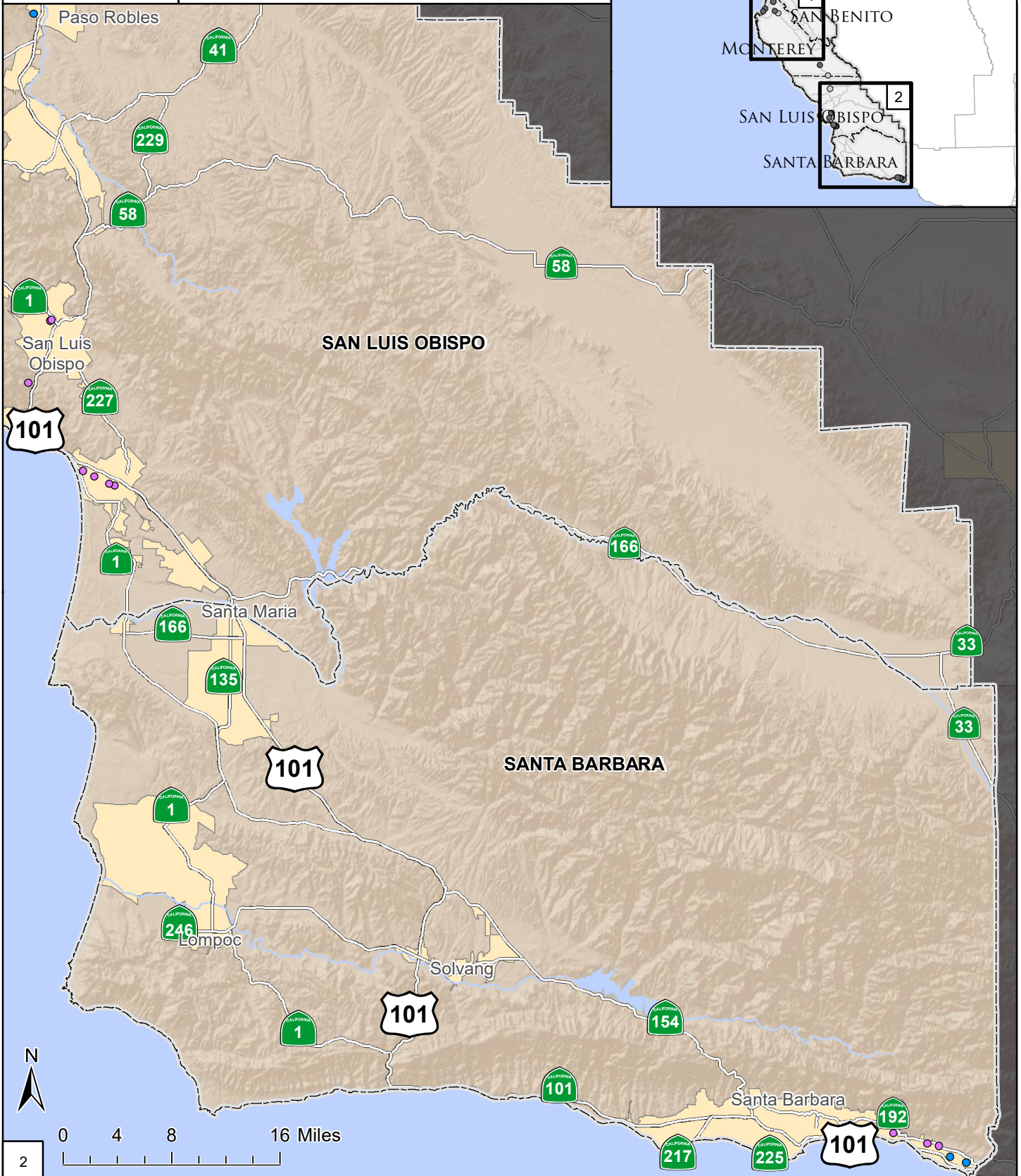
Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



# District 5

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

## **DISTRICT 5**

Known as the Central Coast, District 5 is composed of mostly rural coastal counties with widely separated small cities and distinct urbanized areas ranging in population between 50,000 and 150,000. The counties include Monterey, San Benito, San Luis Obispo, Santa Barbara, and Santa Cruz. The population of this District is 1,474,179 in 11,199 square miles for a density of 132 people per square mile. Caltrans manages 1,169 centerline miles and 3,219 total lane miles of highway in District 5.

Primary economic industries in this District include agriculture, tourism, government, military, and education. The Central Coast produces \$6.5 billion in agriculture per year, has a \$5 billion tourism industry, supports six military bases and 25,000 military personnel, and sustains approximately 100,000 students enrolled at twelve colleges and universities.

US Highway 101 is the primary coastal route between the Los Angeles Basin and the San Francisco Bay Area, two of the country's most populous metro areas. It is the only north-south interregional route that supports goods movement through the district. US 101 also serves as a Department of Defense strategic highway network corridor, Strategic Interregional Corridor, Priority Interregional Highway, principal arterial on the National Highway System, and State highway extra-legal load route as part of the National Truck Network.

### Current or Planned Ramp Metering Routes

The following routes have, or are planned to have, ramp metering:  
SR 1 and US 101

There are 6 existing and 33 planned ramp meters on these routes for a projected total of 39 ramp meters for the ten-year period covered by the Ramp Meter Development Plan (RMDP). Currently there are 4 high-priority ramp meter locations in District 5. Ramp meter locations are illustrated on the District 5 RMDP map.

### Congestion Challenges

Most congestion challenges occur in the urbanized portions of the District. Routine congestion occurs in the urbanized areas of Santa Barbara, Arroyo Grande-Pismo Beach, San Luis Obispo, Salinas, Monterey-Seaside, and Santa Cruz. US 101 serves as a detour route connecting the Central Valley and San Francisco Bay Area with the Los Angeles region during closures of the Interstate 5 mountain pass (Grapevine); therefore, there are occasional heavy congestion levels along large portions of the corridor when those road closures occur.

### District Ramp Metering Strategies

The District's criteria for selecting ramp metering locations align with the statewide strategies identified in the RMDP. In addition to the statewide strategies, District 5 planners and engineers use the following considerations when evaluating and prioritizing potential ramp metering projects and locations:

1. The project provides an immediate opportunity for operational improvements

- for the specific ramp or interchange.
2. The project provides corridor-wide benefits within a city, urban area, or region.
  3. The project represents a collaborative effort with partner agencies.

The District will also analyze location-specific opportunities necessitated by local development impacts where ramp metering may preserve freeway operations.

#### Supporting Documents

- TCRs, CSMPs, DSMP, and other planning products  
[http://www.dot.ca.gov/dist05/planning/system\\_planning.htm](http://www.dot.ca.gov/dist05/planning/system_planning.htm)
- District 5 MPOs/RTPAs  
<http://www.dot.ca.gov/dist05/planning/index.htm>



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	5	Mon	1	R 82.89	SB	Lightfighter Dr				Planned
	5	Mon	101	86.04	NB	Fairview Ave				Planned
	5	Mon	101	86.12	SB	Sanborn Rd				Planned
●	5	Mon	101	95.36	NB	Sr 156 (Prunedale)	L	1	No	Operational
●	5	Mon	101	101.30	SB	San Juan Rd Sb	S	2	No	Operational
●	5	SB	101	13.51	SB	Garden Street	S	2	No	Operational
●	5	SB	101	R 14.77	NB	Carrillo Street	S	2	No	Operational
	5	SB	101	21.16	SB	Patterson Avenue				Part Const
	5	SB	101	21.41	SB	SR 217				Planned
	5	SB	101	82.10	NB	Clark Ave				Planned
●	5	SBt	101	0.07	NB	San Juan Rd	L	2	No	Operational
	5	SBt	101	2.74	SB	SR 156 (San Juan Bautista)				Planned
	5	SCR	1	R 0.72	NB	Riverside Dr				Planned
	5	SCR	1	R 2.27	NB	Harkins Slough Rd				Planned
	5	SCR	1	R 3.18	NB	Airport Blvd				Planned
	5	SCR	1	R 4.07	NB	Buena Vista Dr				Planned
	5	SCR	1	R 6.69	NB	Mar Monte Ave				Planned
	5	SCR	1	R 7.67	NB	San Andres Blvd/Larkin Valley Blvd				Planned
	5	SCR	1	8.36	NB	Freedom Blvd				Planned
	5	SCR	1	9.15	NB	Rio Del Mar Blvd				Planned
	5	SCR	1	10.54	NB	State Park Dr				Planned
	5	SCR	1	12.09	NB	Park Ave				Planned
	5	SCR	1	12.09	SB	Park Ave				Planned
	5	SCR	1	13.19	NB	Bay Ave/Porter St				Planned
	5	SCR	1	13.19	SB	Bay Ave/Porter St				Planned
	5	SCR	1	13.62	NB	41St Avenue				Planned
	5	SCR	1	13.62	SB	41St Avenue				Planned
	5	SCR	1	14.86	NB	Soquel Ave				Planned
	5	SCR	1	14.86	SB	Soquel Ave				Planned
	5	SCR	1	15.82	NB	Morrissey Blvd				Planned
	5	SCR	1	15.82	SB	Morrissey Blvd				Planned
	5	SLO	101	14.61	NB	Oak Park Blvd				Planned
	5	SLO	101	15.76	NB	4Th St				Planned
	5	SLO	101	16.02	NB	James Way				Planned
	5	SLO	101	R 23.97	SB	Higuera St				Planned
	5	SLO	101	28.86	SB	Los Osos Valley Rd				Planned
	5	SLO	101	28.94	SB	Olive St				Planned
	5	SLO	101	30.10	NB	Monterey St				Planned
●	5	SLO	101	55.85	SB	Spring Street	S	2	No	Operational

● Existing Meter

High Priority

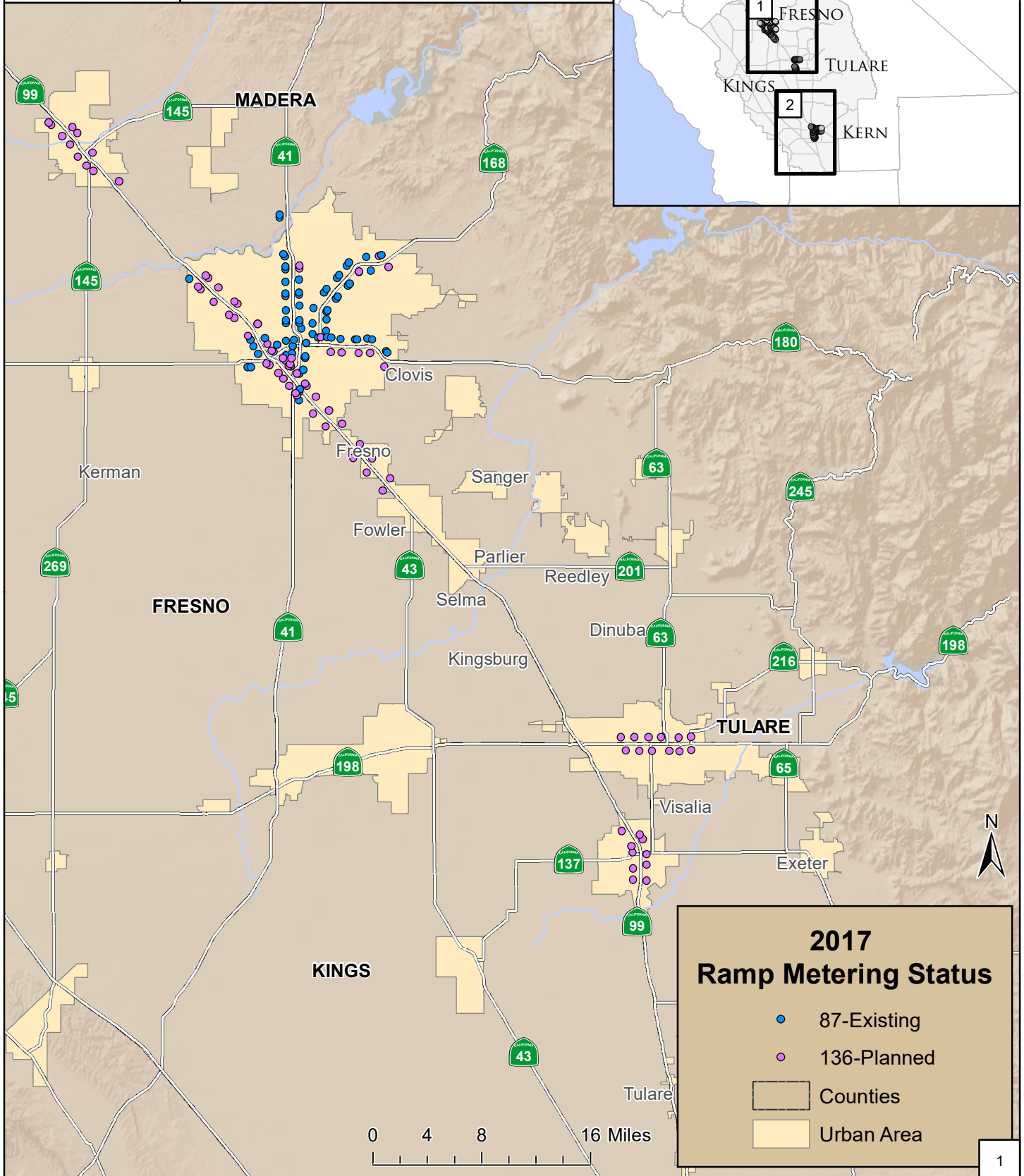
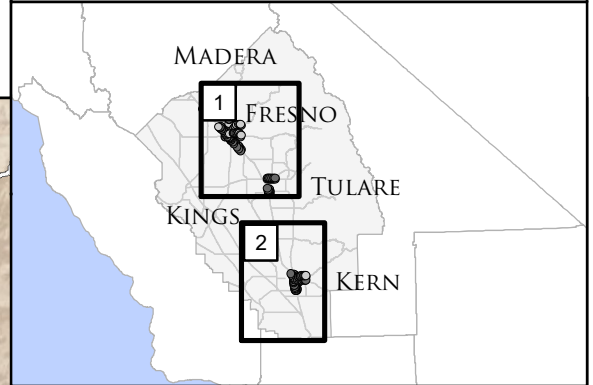
# DISTRICT 6



# District 6

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance

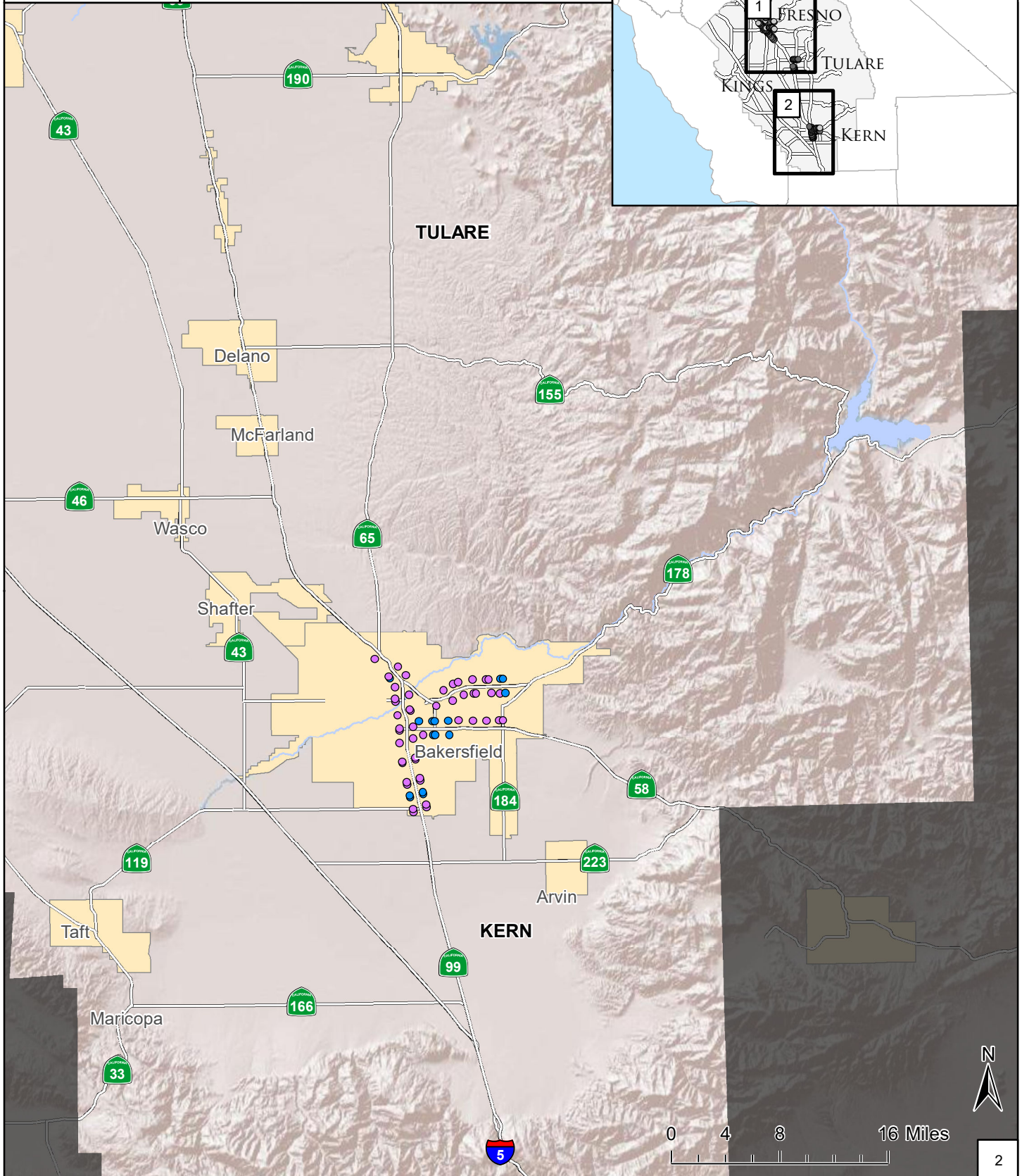
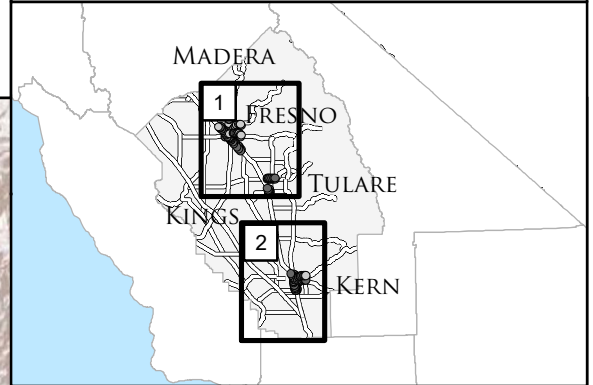


Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

# District 6

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

## **DISTRICT 6**

District 6 is predominately rural and agricultural, with urbanization focused along the SR 99 corridor. The District includes two of the nine largest cities in California—Fresno and Bakersfield. The five counties in the District are: Fresno, Kern, Kings, Madera, and Tulare. District 6 has a population of 2,629,622 in a land area of 22,457 square miles and a density of 112 people per square mile. Caltrans manages 2,029 centerline miles and 5,770 lane-miles of highway within District 6.

### Current or Planned Ramp Metering Routes

The following routes have or are planned to have ramp metering: SR 41, SR 58, SR 99, SR 168, SR 178, SR 180, and SR 198

District 6 has 87 existing ramp meters (including operational and non-operational) and 136 planned ramp meters for a projected total of 223 ramp meters for the ten-year period covered by the RMDP. Currently there are no proposed high priority locations in District 6. Ramp meter locations are illustrated on the District 6 RMDP map.

### Congestion Challenges

District 6 has considerable congestion during traffic incidents and winter fog conditions. The fog causes visibility issues and occasional major accidents which cause traffic delays. Also, the State highway serves as a “main street” within the city limits of a number of small communities. This can present occasional congestion issues due to busy city traffic. With increasing population in the valley cities, more extensive congestion issues are anticipated.

### District Ramp Metering Strategies

Ramp metering locations are selected by district staff based on criteria established within the District. A freeway onramp (or future onramp) location may be added to the District 6 Ramp Meter Development Plan for any one of the following reasons:

- The location is within the city limits of the following major cities within District 6: City of Fresno, City of Clovis, City of Bakersfield, City of Madera, City of Tulare and City of Visalia.
- The location has the following traffic conditions: An annual average peak hour volume of 2000 vehicles per hour per mainline lane or more.
- The location is projected to have the traffic conditions stated in item #2 within 10 years from the release date of the RMDP (a standard annual traffic volume growth rate of 3 percent per year is used).

- Engineering observation and judgment determine that ramp metering would be beneficial even though the location does not meet any of the above criteria. Other justifications for adding ramp metering could include gap closure (an un-metered ramp between two metered ramps), seasonal conditions that cause a location to experience high traffic volumes during a certain time of year, locations with merging issues that could be mitigated in whole or part by ramp metering or other operational or safety issues that could be mitigated in whole or part by ramp metering.

It should be noted that, as is the case with MUTCD traffic signal warrants, meeting the above criteria does not automatically mean a location is included in the RMDP. Engineering studies and judgment may preempt the above criteria.

#### Supporting Documents

- District 6 TCRs, CSMPs, DSMP, and other planning products: <http://www.dot.ca.gov/d6/planning/>





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	6	Fre	41	R 20.29	NB	North Ave	S	2	M	Operational
●	6	Fre	41	R 21.07	NB	EB Jensen Ave	L	2		Operational
●	6	Fre	41	R 21.22	NB	WB Jensen Ave	S	2	M	Operational
	6	Fre	41	R 22.57	SB	Broadway Ave	L	1		Planned
	6	Fre	41	R 22.69	SB	M St	S	1		Planned
●	6	Fre	41	R 22.71	NB	Broadway Ave	S	1		Operational
●	6	Fre	41	R 22.99	NB	M St	S	1		Operational
	6	Fre	41	R 23.57	SB	Tulare Ave/U St	S	1		Planned
●	6	Fre	41	R 23.70	NB	Tulare Ave	L	2		Operational
●	6	Fre	41	R 23.85	NB	Divisadero St	S	3	M	Operational
●	6	Fre	41	R 24.40	SB	EB SR 180 To SB SR 41	C	2		Operational
●	6	Fre	41	R 24.41	SB	WB SR 180 To SB SR 41	C	2		Operational
●	6	Fre	41	R 24.69	NB	EB SR 180 To NB SR 41	C	2		Operational
●	6	Fre	41	R 24.70	NB	WB SR 180 To NB SR 41	C	2		Operational
●	6	Fre	41	R 25.39	NB	Mckinley Ave	S	2	M	Operational
●	6	Fre	41	R 25.41	SB	Mckinley Ave	L	2		Operational
●	6	Fre	41	R 26.35	SB	EB Shields Ave	S	2		Operational
●	6	Fre	41	R 26.41	NB	EB Shields Ave	L	2	M	Operational
●	6	Fre	41	R 26.53	SB	WB Shields Ave	L	2		Operational
●	6	Fre	41	R 26.59	NB	WB Shields Ave	S	2	M	Operational
●	6	Fre	41	R 27.38	SB	Ashlan Ave	S	3	M	Operational
●	6	Fre	41	R 27.55	NB	Ashlan Ave	S	3	M	Operational
●	6	Fre	41	R 28.34	SB	EB Shaw Ave	S	2		Operational
●	6	Fre	41	R 28.42	NB	EB Shaw Ave	L	2	M	Operational
●	6	Fre	41	R 28.53	SB	WB Shaw Ave	L	2		Operational
●	6	Fre	41	R 28.57	NB	WB Shaw Ave	S	3	M	Operational
●	6	Fre	41	R 29.38	SB	Bullard Ave	S	3	M	Operational
●	6	Fre	41	R 29.58	NB	Bullard Ave	S	3	M	Operational
●	6	Fre	41	R 30.32	SB	EB Herndon Ave	S	2		Operational
	6	Fre	41	R 30.40	NB	EB Herndon Ave	L	1		Planned
●	6	Fre	41	R 30.53	SB	WB Herndon Ave	L	2		Operational
	6	Fre	41	R 30.59	NB	WB Herndon Ave	S	1		Planned
●	6	Fre	41	R 31.58	SB	EB Friant Rd	S	1		Operational
●	6	Fre	41	R 31.76	SB	WB Friant Rd	L	2		Operational
	6	Fre	99	9.04	SB	Manning Ave	S	1		Planned
	6	Fre	99	9.29	NB	Manning Ave	S	1		Planned
	6	Fre	99	10.82	SB	Merced St/Fowler Ave	S	1		Planned
	6	Fre	99	11.25	NB	Merced St	S	1		Planned
	6	Fre	99	11.89	NB	Adams Ave	S	1		Planned
	6	Fre	99	12.32	SB	Clovis Ave	S	1		Planned
	6	Fre	99	12.61	NB	Clovis Ave	S	1		Planned
	6	Fre	99	14.61	NB	American Ave	S	1		Planned
	6	Fre	99	15.37	SB	Chestnut Ave	S	1		Planned
	6	Fre	99	15.97	NB	Central Ave	S	1		Planned
	6	Fre	99	16.76	SB	Cedar Ave	S	1		Planned
	6	Fre	99	17.37	NB	North Ave	S	1		Planned
	6	Fre	99	18.46	SB	EB Jensen Ave	S	1		Planned
	6	Fre	99	18.47	NB	EB Jensen Ave	L	1		Planned
	6	Fre	99	18.66	SB	WB Jensen Ave	L	1		Planned
	6	Fre	99	18.68	NB	WB Jensen Ave	S	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	6	Fre	99	19.38	SB	SB SR 41 To SB SR 99	C	2		Planned
	6	Fre	99	19.61	NB	NB SR 41 To NB SR 99	C	2		Planned
	6	Fre	99	20.06	SB	Ventura St	S	1		Planned
	6	Fre	99	20.33	NB	Ventura St/Golden State	S	1		Planned
	6	Fre	99	20.65	SB	Fresno St	S	1		Planned
	6	Fre	99	20.89	NB	Fresno St	S	1		Planned
	6	Fre	99	21.13	NB	Stanislaus St	S	1		Planned
	6	Fre	99	21.75	SB	EB SR 180 To SB SR 99	C	1		Planned
	6	Fre	99	21.76	NB	EB SR 180 To NB SR 99	C	1		Planned
	6	Fre	99	21.95	SB	WB SR 180 To SB SR 99	C	1		Planned
	6	Fre	99	22.03	NB	WB SR 180 To NB SR 99	C	1		Planned
●	6	Fre	99	22.66	SB	Belmont Ave	S	1		Operational
	6	Fre	99	22.78	NB	Belmont Ave	S	1		Planned
●	6	Fre	99	23.23	SB	Olive Ave	S	2		Operational
●	6	Fre	99	23.34	NB	Olive Ave	S	1		Operational
●	6	Fre	99	23.80	SB	Mckinley Ave	S	2		Operational
	6	Fre	99	24.10	SB	Clinton Ave	S	1		Planned
	6	Fre	99	24.48	NB	Clinton Ave	S	1		Planned
	6	Fre	99	24.48	NB	Golden State/Motel Dr	S	1		Planned
	6	Fre	99	26.01	SB	Golden State/Motel Dr	S	1		Planned
	6	Fre	99	26.42	NB	EB Ashlan Ave	L	1		Planned
	6	Fre	99	26.46	SB	Ashlan Ave	S	1		Planned
	6	Fre	99	26.69	NB	WB Ashlan Ave	S	1		Planned
	6	Fre	99	27.94	SB	Shaw Ave	S	1		Planned
	6	Fre	99	28.27	NB	Shaw Ave	S	1		Planned
	6	Fre	99	29.25	SB	EB Veterans Blvd	S	2		Planned
	6	Fre	99	29.33	NB	EB Veterans Blvd	L	2		Planned
	6	Fre	99	29.52	SB	WB Veterans Blvd	L	2		Planned
	6	Fre	99	29.59	NB	WB Veterans Blvd	S	2		Planned
●	6	Fre	99	30.39	SB	Herndon Ave/Pkwy Dr/Grantland Ave	S	2		Operational
●	6	Fre	168	R 1.08	WB	Mckinley Ave	L	2	M	Operational
●	6	Fre	168	R 1.29	EB	Mckinley Ave	S	3	M	Operational
●	6	Fre	168	R 1.85	WB	Shields Ave	S	3	M	Operational
●	6	Fre	168	R 2.19	EB	Shields Ave	S	3	M	Operational
●	6	Fre	168	R 2.84	WB	Ashlan Ave	S	3	M	Operational
●	6	Fre	168	R 3.02	EB	EB Ashlan Ave	L	2		Operational
●	6	Fre	168	R 3.24	EB	WB Ashlan Ave	S	2	M	Operational
●	6	Fre	168	R 4.04	WB	EB Shaw Ave	S	2	M	Operational
●	6	Fre	168	R 4.25	EB	WB Shaw Ave	L	2		Operational
●	6	Fre	168	R 4.32	WB	EB Shaw Ave	L	2		Operational
●	6	Fre	168	R 4.51	EB	WB Shaw Ave	S	2	M	Operational
●	6	Fre	168	R 5.42	WB	EB Bullard Ave	S	2	M	Operational
●	6	Fre	168	R 5.61	EB	EB Bullard Ave	L	2		Operational
●	6	Fre	168	R 5.65	WB	WB Bullard Ave	L	2		Operational
●	6	Fre	168	R 5.83	EB	WB Bullard Ave	S	2		Operational
●	6	Fre	168	R 6.71	WB	EB Herndon Ave	S	2	M	Operational
	6	Fre	168	R 6.85	EB	EB Herndon Ave	L	2		Planned
●	6	Fre	168	R 6.91	WB	WB Herndon Ave	L	2		Operational
	6	Fre	168	R 7.10	EB	WB Herndon Ave	S	2		Planned
●	6	Fre	168	R 7.90	WB	Fowler Ave	S	3	M	Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	6	Fre	168	R 8.21	EB	Fowler Ave	S	2		Operational
	6	Fre	168	R 8.98	WB	SB Temperance Ave	S	2		Planned
●	6	Fre	168	R 9.23	WB	NB Temperance Ave	L	2		Operational
	6	Fre	168	R 9.32	EB	Temperance Ave	S	2		Planned
●	6	Fre	180	R 54.62	EB	SB Marks Ave	L	2		Non Op
●	6	Fre	180	R 54.87	EB	NB Marks Ave	S	3	M	Non Op
●	6	Fre	180	R 57.17	WB	Fulton St	S	2	M	Operational
●	6	Fre	180	R 57.45	EB	Van Ness Ave	S	2	M	Operational
●	6	Fre	180	R 57.76	WB	Blackstone Ave	S	2	M	Operational
●	6	Fre	180	R 58.00	EB	Abby Ave	S	2	M	Operational
●	6	Fre	180	R 60.06	WB	Cedar Ave	L	2	M	Operational
	6	Fre	180	R 60.25	WB	Chestnut Ave/Bypass	S	2		Planned
●	6	Fre	180	R 60.72	WB	SB Chestnut Ave	S	2		Operational
●	6	Fre	180	R 60.93	WB	NB Chestnut Ave	L	2		Operational
	6	Fre	180	R 61.09	EB	Chestnut Ave	S	2		Planned
●	6	Fre	180	R 61.72	WB	Peach Ave	S	3	M	Operational
	6	Fre	180	R 61.80	EB	Peach Ave	L	1		Planned
●	6	Fre	180	R 62.76	WB	SB Clovis Ave	S	2		Operational
●	6	Fre	180	R 62.94	WB	NB Clovis Ave	L	2		Operational
	6	Fre	180	R 63.04	EB	Clovis Ave	S	2		Planned
●	6	Fre	180	R 63.70	WB	SB Fowler Ave	S	2	M	Operational
●	6	Fre	180	R 63.96	WB	NB Fowler Ave	L	2		Operational
	6	Fre	180	R 64.07	EB	Fowler Ave	S	2		Planned
●	6	Fre	180	R 65.06	WB	SB Temperance Ave	S	2	M	Operational
●	6	Fre	180	R 65.35	WB	NB Temperance Ave	L	2		Operational
	6	Fre	180	R 65.57	EB	Temperance Ave	S	2		Planned
●	6	Ker	58	R 53.28	WB	H St	S	2		Non Op
	6	Ker	58	R 53.63	EB	Chester Ave	S	1		Planned
●	6	Ker	58	R 54.30	WB	SB Union Ave	S	1		Operational
●	6	Ker	58	R 54.37	EB	SB Union Ave	L	1		Operational
●	6	Ker	58	R 54.47	WB	NB Union Ave/Brundage Ln	H	1		Operational
●	6	Ker	58	R 54.50	EB	NB Union Ave	S	1		Operational
●	6	Ker	58	R 55.45	WB	Cottonwood Rd/Brundage Ln	H	1		Operational
●	6	Ker	58	R 55.53	EB	Cottonwood Rd	S	1		Operational
	6	Ker	58	R 56.27	WB	Mt Vernon Ave	S	1		Part Const
	6	Ker	58	R 57.26	WB	Oswell St	S	1		Planned
	6	Ker	58	R 58.28	WB	Fairfax Rd	S	1		Planned
	6	Ker	58	R 59.24	WB	SB SR 184	S	1		Planned
	6	Ker	58	R 59.48	WB	NB SR 184	L	1		Planned
	6	Ker	99	17.35	SB	EB SR 119	S	1		Planned
	6	Ker	99	17.44	NB	EB SR 119	L	1		Planned
	6	Ker	99	17.57	SB	WB SR 119	L	1		Planned
	6	Ker	99	17.64	NB	WB SR 119	S	1		Planned
●	6	Ker	99	18.44	SB	EB Hosking Ave	S	2		Operational
●	6	Ker	99	18.46	NB	EB Hosking Ave	L	2	M	Non Op
●	6	Ker	99	18.58	SB	WB Hosking Ave	L	2		Operational
●	6	Ker	99	18.59	NB	WB Hosking Ave	S	3	M	Non Op
	6	Ker	99	19.44	SB	EB Panama Lane	S	1		Planned
	6	Ker	99	19.48	NB	EB Panama Lane	L	1		Planned
	6	Ker	99	19.60	SB	WB Panama Lane	L	1		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	6	Ker	99	19.63	NB	WB Panama Lane	S	1		Planned
	6	Ker	99	21.04	SB	EB White Lane	S	1		Planned
	6	Ker	99	21.04	NB	EB White Lane	L	2		Planned
	6	Ker	99	21.14	SB	WB White Lane	L	1		Planned
	6	Ker	99	21.18	NB	WB White Lane	S	2		Planned
	6	Ker	99	22.43	SB	Ming Ave	S	1		Planned
	6	Ker	99	22.74	NB	Ming Ave	S	1		Planned
	6	Ker	99	23.38	SB	EB SR58 To SB SR99	C	1		Planned
	6	Ker	99	23.49	SB	WB SR 58 To SB SR 99	C	1		Planned
	6	Ker	99	23.60	NB	WB SR58 To NB SR99	C	1		Planned
	6	Ker	99	24.59	NB	EB California Ave	L	1		Planned
	6	Ker	99	24.66	SB	WB California Ave	L	1		Planned
	6	Ker	99	24.71	NB	WB California Ave	S	1		Planned
	6	Ker	99	25.53	SB	EB Rosedale Hwy/ SR 58	S	1		Planned
	6	Ker	99	25.71	SB	WB SR 178	L	1		Planned
	6	Ker	99	26.00	NB	WB SR 178/Buck Owens Blvd	H	2		Planned
	6	Ker	99	26.60	SB	SR 204/Airport Dr	S	2		Planned
	6	Ker	99	27.15	NB	SR 204/Airport Dr	C	2		Planned
●	6	Ker	99	27.79	SB	EB Olive Dr	S	2		Non Op
	6	Ker	99	27.91	NB	Olive Dr/State Rd	H	1		Planned
	6	Ker	99	27.95	SB	WB Olive Ave	L	1		Planned
	6	Ker	99	R 29.59	SB	SB SR 65 To SB SR 99	C	2		Planned
	6	Ker	178	R 2.60	EB	Union Ave/Monterey St	S	1		Planned
	6	Ker	178	R 3.31	WB	Beale Ave	S	1		Planned
	6	Ker	178	R 3.56	EB	Beale Ave/Owens St	H	1		Planned
	6	Ker	178	R 4.15	WB	Haley St/Height St	H	1		Planned
	6	Ker	178	R 4.55	WB	Mt Vernon Ave	S	1		Planned
	6	Ker	178	R 4.71	EB	Mt Vernon Ave	S	1		Planned
	6	Ker	178	R 5.50	WB	Oswell St	S	1		Planned
	6	Ker	178	R 5.59	EB	SB Oswell St	L	1		Planned
	6	Ker	178	R 5.75	EB	NB Oswell St	S	1		Planned
	6	Ker	178	R 6.51	WB	SB Fairfax Rd	S	2		Planned
	6	Ker	178	R 6.70	WB	NB Fairfax Rd	L	1		Planned
	6	Ker	178	R 6.90	EB	Fairfax Rd	S	2		Planned
●	6	Ker	178	R 7.59	WB	SB Morning Dr	S	2		Operational
	6	Ker	178	R 7.68	EB	SB Morning Dr	L	1		Planned
●	6	Ker	178	R 7.80	WB	NB Morning Dr	L	2		Operational
●	6	Ker	178	R 7.89	EB	NB Morning Dr	S	2		Operational
●	6	Mad	41	0.96	SB	EB Valley Childrens Blvd	S	3	M	Operational
●	6	Mad	41	1.16	SB	WB Valley Childrens Blvd	L	2		Operational
	6	Mad	99	R 7.58	NB	Ave 12	S	2		Planned
	6	Mad	99	9.41	SB	Almond Ave	H	1		Planned
	6	Mad	99	10.16	SB	Madera Ave	S	1		Planned
	6	Mad	99	10.37	NB	Madera Ave	S	1		Planned
	6	Mad	99	10.95	SB	4th St	S	1		Planned
	6	Mad	99	12.04	SB	Cleveland Ave	S	1		Planned
	6	Mad	99	12.20	NB	Cleveland Ave	S	1		Planned
	6	Mad	99	12.80	SB	Ave 16	L	1		Planned
	6	Mad	99	12.86	NB	Gateway Dr	S	1		Planned
	6	Mad	99	R 14.11	SB	EB Avenue 17	S	1		Planned

● Existing Meter

High Priority



## 2017 Ramp Metering Development Plan

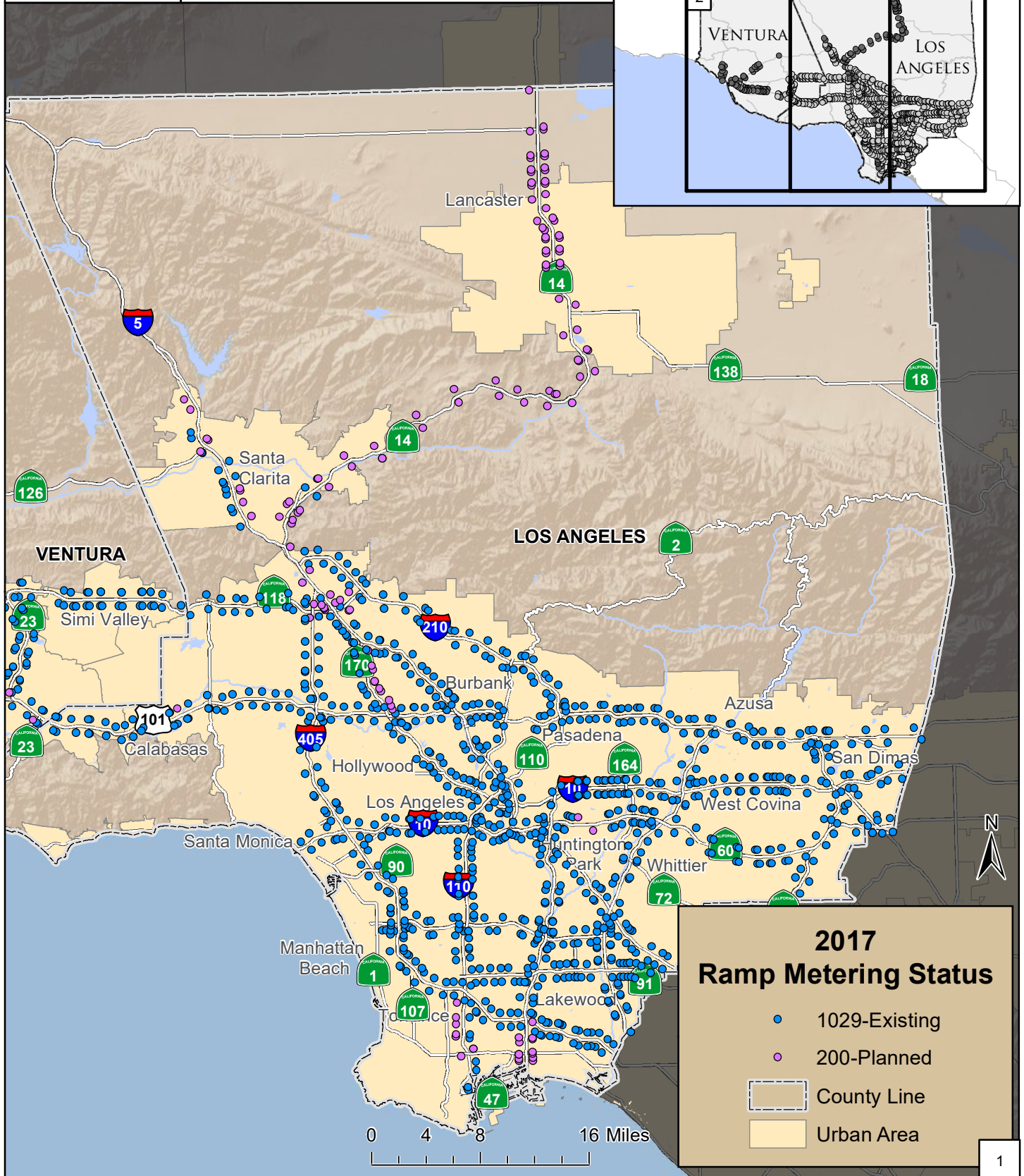
Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	6	Mad	99	R 14.30	SB	WB Avenue 17	L	1		Planned
	6	Tul	99	27.58	NB	Paige Ave	L	1		Planned
	6	Tul	99	27.65	SB	Paige Ave	H	1		Planned
	6	Tul	99	28.44	SB	Bardsley Ave	S	1		Planned
	6	Tul	99	28.72	NB	Bardsley Ave	S	1		Planned
	6	Tul	99	29.48	NB	Tulare Ave	H	1		Planned
	6	Tul	99	29.66	SB	Tulare Ave	H	1		Planned
	6	Tul	99	30.36	SB	Merritt Ave	S	1		Planned
	6	Tul	99	30.36	NB	Hillman St	S	1		Planned
	6	Tul	99	30.72	NB	Prosperity Ave	S	1		Planned
	6	Tul	99	31.74	SB	Carmill Ave	S	2		Planned
	6	Tul	198	6.63	WB	Akers St	S	2		Planned
	6	Tul	198	6.95	EB	Akers St	S	1		Planned
	6	Tul	198	7.58	WB	Demaree Rd	S	1		Planned
	6	Tul	198	7.95	EB	Demaree Rd	S	2		Planned
	6	Tul	198	R 8.61	WB	Mooney Blvd/SR 63	S	1		Planned
	6	Tul	198	R 8.92	EB	Mooney Blvd/SR 63	S	1		Planned
	6	Tul	198	R 9.57	WB	Watson St	H	1		Planned
	6	Tul	198	R 10.16	EB	Court St	H	1		Planned
	6	Tul	198	R 10.83	WB	Ben Maddox Way	H	1		Planned
	6	Tul	198	R 10.93	EB	Ben Maddox Way	H	1		Planned
	6	Tul	198	R 11.76	WB	Lovers Ln	H	1		Planned
	6	Tul	198	R 11.88	EB	Lovers Ln	S	1		Planned

# DISTRICT 7

# District 7

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



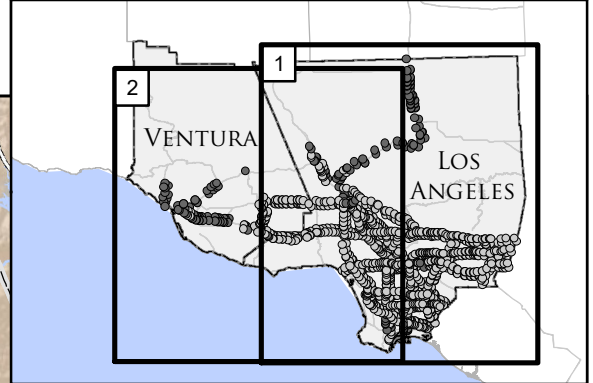
Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



# District 7

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



## **DISTRICT 7**

District 7 consists of two highly urbanized counties, Los Angeles County and Ventura County. Los Angeles County with over 10.4 million people is the most populated county in the state. District 7 has a population of 11,285,793 in 5,906 square miles for a density of 1,911 people per square mile. On average, 100 million vehicle miles are traveled daily in District 7. The District manages 1,113 centerline miles and 6,627 total lane-miles of highway.

### Routes with Current or Planned Ramp Metering

I-5, I-10, I-105, I-110, I-210, I-405, I-605, I-710, US 101, SR 2, SR 14, SR 23, SR 33, SR 57, SR 60, SR 71, SR 90, SR 91, SR 118, SR 126, SR 134, SR 170

District 7 has 999 existing ramp meters and 30 existing connector meters. District 7 has 23 high priority ramp meter locations. In addition, at least 190 ramp meters and 10 connector meters are planned, for a total of 1229 ramp and connector meters, projected for the ten-year period, covered by the RMDP.

### Congestion Challenges

District 7 employs a variety of strategies to address current congestion challenges including:

- High Occupancy Vehicle Preferential Lane (HOVPL)
- Various Ramp Metering Strategies (Platoon, Staggered, weekend & extended metering).
- Metering of On-ramp HOV preferential lanes.
- Metering installation at freeway to freeway interchanges or connectors.
- 24/7 metering at newly constructed or reconfigured ramp and connector metering sites.
- High Occupancy Toll lanes (HOT lanes) along Routes 10 and 110
- Dynamic Corridor Metering with City street traffic signal connectivity (Near Future)
- Congestion Pricing (Future)
- Changeable Message Signs (CMS)

### District Ramp Metering Strategies

In recent District 7 planning studies (CSMPs), ramp metering analysis was completed. The US 101 CSMP recommended ramp metering where adequate storage exists and metering is determined to be effective in reducing congestion. District 7 collects congestion data in order to manage freeway traffic and identify future ramp meter locations. The District will be developing a protocol for incident response where ramp metering will play an integral part in managing traffic demand upstream of incidents as well as on adjacent freeways.

The District is currently engaged in partnerships with local agencies to develop technology and processes by which ramp meter operation can be coordinated or integrated with local street signal operation.

This effort has been underway along I-110 corridor between I-105 and I-405 and the I-210 Corridor between SR 57 and SR 134, in addition to I-405 between I-10 and US 101. Furthermore, a new strategy of 24/7 metering, as a research project administered by Headquarters, in cooperation with several Districts including District 7, is aimed at studying the effect of on-ramp traffic backup, queue length and storage, on ramp metering operation and strategies at selected congested corridors within the State.

#### Supporting Documents

- District 7 TCRs, CSMPs, CPs, DSMP and other planning products:  
<http://www.dot.ca.gov/hq/tpp/corridor-mobility/d7-page.html>
- Southern California Association of Governments (SCAG):  
<http://www.scag.ca.gov>



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	2	14.95	WB	Riverside	H	2	NM	Operational
●	7	LA	2	15.92	WB	San Fernando	S	2	NM	Operational
●	7	LA	2	17.04	WB	Verdugo Rd	H	1		Operational
●	7	LA	2	18.23	WB	Colorado	S	2	NM	Operational
●	7	LA	2	18.91	WB	Holly	S	2	NM	Operational
●	7	LA	2	19.83	WB	Mountain	S	2	NM	Operational
●	7	LA	2	22.62	WB	Verdugo Bl	S	2	NM	Operational
●	7	LA	5	1.06	SB	Valley View	H	1		Operational
●	7	LA	5	1.11	NB	Valley View	H	1		Operational
●	7	LA	5	1.56	NB	Alondra	L	2		Operational
●	7	LA	5	1.67	SB	Alondra & Marquart	H	1		Operational
●	7	LA	5	2.27	SB	Carmenita	H	1		Operational
●	7	LA	5	2.51	NB	Carmenita	H	1		Operational
●	7	LA	5	3.28	SB	Rosecrans	H	1		Operational
●	7	LA	5	3.62	SB	Firestone SB	S	2	NM	Operational
●	7	LA	5	4.28	SB	Norwalk	S	1		Operational
●	7	LA	5	4.36	NB	Norwalk NB	L	1		Operational
●	7	LA	5	4.58	NB	Norwalk SB	H	1		Operational
●	7	LA	5	4.89	SB	Imperial	H	1		Operational
●	7	LA	5	4.96	NB	Imperial	S	1		Operational
●	7	LA	5	5.25	NB	Pioneer	S	1		Operational
●	7	LA	5	6.04	SB	Orr & day	H	1		Operational
●	7	LA	5	6.20	NB	Florence & Orr-day	H	2	NM	Operational
●	7	LA	5	6.50	SB	Florence	H	1		Operational
●	7	LA	5	8.21	SB	Lakewood NB	H	1		Operational
●	7	LA	5	8.27	NB	Lakewood NB	L	2	NM	Operational
●	7	LA	5	8.35	SB	Lakewood SB	L	1		Operational
●	7	LA	5	8.42	NB	Lakewood SB	H	2	NM	Operational
●	7	LA	5	8.92	NB	Paramount	L	2		Operational
●	7	LA	5	8.93	SB	Paramount	H	2	NM	Operational
●	7	LA	5	9.87	SB	Slauson	H	2		Operational
●	7	LA	5	10.76	SB	Garfield / Bandini	H	2		Operational
●	7	LA	5	11.54	SB	Washington	S	2		Operational
●	7	LA	5	12.68	SB	Eastern & Atlantic	H	2	NM	Non Op
●	7	LA	5	14.35	NB	Downey	H	1		Operational
●	7	LA	5	14.76	SB	Ditman	H	1		Operational
●	7	LA	5	15.77	SB	Concord	H	1		Operational
●	7	LA	5	16.49	SB	Eight	H	1		Operational
●	7	LA	5	16.60	SB	Seven	S	1		Operational
●	7	LA	5	17.44	SB	Fourth	H	2		Operational
●	7	LA	5	17.93	SB	Cesar Chavez	H	2		Operational
●	7	LA	5	18.59	SB	Mission	H	2		Operational
●	7	LA	5	18.77	NB	Marengo	H	2		Operational
●	7	LA	5	19.45	SB	Broadway	H	2	NM	Operational
●	7	LA	5	20.00	NB	Pasadena	H	2	NM	Operational
●	7	LA	5	20.33	SB	Ave. 26	H	2	NM	Operational
●	7	LA	5	20.70	SB	Duvall	H	1		Operational
●	7	LA	5	21.10	NB	Riverside	H	2		Operational
●	7	LA	5	21.71	SB	Stadium Way	H	1		Operational
●	7	LA	5	21.80	NB	Stadium Way	H	2	NM	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	5	23.20	NB	Fletcher	S	2		Operational
●	7	LA	5	23.58	SB	Glendale	H	1		Operational
●	7	LA	5	23.86	NB	Glendale	S	1		Operational
●	7	LA	5	24.17	SB	Los Feliz	L	2	NM	Operational
●	7	LA	5	24.36	NB	Los Feliz EB	L	2	NM	Operational
●	7	LA	5	24.50	SB	Griffith Pk	H	1		Operational
●	7	LA	5	24.54	NB	Los Feliz WB	S	1		Operational
●	7	LA	5	25.85	SB	Colorado	L	1		Operational
●	7	LA	5	25.90	NB	Colorado	S	2	NM	Non Op
●	7	LA	5	26.35	SB	Zoo Dr.	S	1		Operational
●	7	LA	5	27.66	SB	Western EB	S	2	NM	Operational
●	7	LA	5	27.70	SB	Western WB	L	2	NM	Operational
●	7	LA	5	27.77	NB	Western EB	L	1		Operational
●	7	LA	5	27.92	NB	Western WB	S	2	NM	Operational
●	7	LA	5	28.20	SB	Alameda EB	S	1		Operational
●	7	LA	5	28.30	SB	Alameda WB	L	1		Operational
●	7	LA	5	28.40	NB	Alameda EB	L	1		Operational
●	7	LA	5	28.45	NB	Alameda WB	S	1		Operational
●	7	LA	5	28.90	SB	Verdugo	H	1		Operational
●	7	LA	5	29.27	NB	Olive	H	1		Operational
●	7	LA	5	29.68	SB	Burbank EB	S	2	NM	Operational
●	7	LA	5	29.89	SB	Burbank WB	L	1		Operational
●	7	LA	5	29.97	NB	Burbank BI	H	1		Operational
●	7	LA	5	30.69	NB	Lincoln	S	1		Operational
●	7	LA	5	30.69	SB	Lincoln	S	1		Operational
●	7	LA	5	31.41	NB	Buena Vista	H	1		Operational
●	7	LA	5	31.41	SB	Buena Vista	H	2		Operational
●	7	LA	5	32.28	SB	Hollywood way	S	2	M	Operational
●	7	LA	5	32.41	NB	Hollywood Way	S	3	M	Operational
●	7	LA	5	33.23	SB	Roscoe	S	2	NM	Operational
●	7	LA	5	33.58	SB	Sunland	S	1		Operational
●	7	LA	5	33.72	NB	Sunland	S	1		Operational
●	7	LA	5	34.24	SB	Penrose	H	1		Operational
●	7	LA	5	34.78	NB	Tuxford	S	1		Operational
●	7	LA	5	34.88	SB	Tuxford	S	2	M	Operational
●	7	LA	5	35.07	NB	Lankershim	S	1		Operational
●	7	LA	5	35.07	SB	Lankershim	L	1		Operational
●	7	LA	5	35.84	NB	Sheldon	L	1		Operational
●	7	LA	5	35.84	SB	Sheldon	H	1		Operational
●	7	LA	5	36.75	SB	Brandford	S	2	M	Operational
●	7	LA	5	37.30	SB	Osborne EB	S	2	M	Operational
●	7	LA	5	37.37	NB	Osborne EB	L	1		Operational
●	7	LA	5	37.47	SB	Osborne WB	L	1		Operational
●	7	LA	5	37.55	NB	Osborne WB	S	1		Operational
●	7	LA	5	37.84	SB	Terra Bella	S	1		Operational
●	7	LA	5	38.34	SB	Van Nuys EB	S	2	M	Operational
●	7	LA	5	38.55	SB	Van Nuys WB	L	2	M	Operational
●	7	LA	5	39.14	SB	Paxton St.	L	1		Operational
●	7	LA	5	39.31	NB	Paxton St.	S	1		Operational
	7	LA	5	39.78	SB	Chatsworth				Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	7	LA	5	39.91	SB	Brand				Planned
	7	LA	5	40.05	SB	San Fernando Mission EB				Planned
	7	LA	5	40.31	SB	San Fernando Mission WB				Planned
	7	LA	5	40.44	NB	San Fernando Mission				Planned
	7	LA	5	42.48	SB	Roxford				Planned
	7	LA	5	42.79	NB	Roxford				Planned
●	7	LA	5	48.88	SB	Calgrove	S	1		Operational
	7	LA	5	49.22	NB	Calgrove				Planned
●	7	LA	5	50.18	SB	EB Lyons	S	2		Operational
	7	LA	5	50.43	NB	Lyons				Planned
●	7	LA	5	50.47	SB	WB Lyons/Pico Cyn.	L	2		Operational
	7	LA	5	51.42	NB	EB Mc Bean Pkwy.				Planned
●	7	LA	5	51.42	SB	Mc Bean Pkwy. EB	S	2		Operational
	7	LA	5	51.60	NB	WB Mc Bean Pkwy.				Planned
●	7	LA	5	51.78	SB	Mc Bean Pkwy. WB	L	2		Operational
●	7	LA	5	52.30	SB	Valencia Bl. EB	S	2		Operational
●	7	LA	5	52.46	NB	Valencia Bl.	L	2		Non Op
●	7	LA	5	52.46	SB	Valencia Bl. WB	L	2		Operational
●	7	LA	5	53.40	SB	Magic Mtn Pkwy	S	2		Non Op
●	7	LA	5	53.65	NB	Magic Mtn Pkwy	S	2		Non Op
	7	LA	5	55.30	SB	EB 126				Planned
	7	LA	5	55.37	NB	EB 126				Planned
●	7	LA	5	55.39	SB	Rye Cyn.	H	1		Operational
	7	LA	5	55.57	SB	WB 126				Planned
	7	LA	5	55.68	NB	WB 126				Planned
●	7	LA	5	56.47	SB	Hasley Canyon	S	2		Non Op
●	7	LA	5	56.70	SB	Sedona way/Hasley Cyn	L	2	NM	Non Op
	7	LA	5	58.83	SB	Parker Rd.				Planned
	7	LA	5	59.70	SB	Lake Hughes				Planned
●	7	LA	10	1.80	EB	4th Street	S	2		Operational
●	7	LA	10	2.10	EB	Lincoln	S	2		Operational
●	7	LA	10	2.93	WB	20th Street	S	2	NM	Operational
●	7	LA	10	3.49	EB	Cloverfield	S	2		Non Op
●	7	LA	10	4.12	WB	Centinela	H	2		Operational
●	7	LA	10	4.50	EB	Centinela	S	2		Operational
●	7	LA	10	4.68	EB	Bundy Dr.	S	2	NM	Operational
●	7	LA	10	6.46	WB	Overland	H	2		Operational
●	7	LA	10	6.50	EB	Overland	S	2		Operational
●	7	LA	10	7.20	EB	Manning	H	2	NM	Operational
●	7	LA	10	7.80	WB	Robertson	H	2		Operational
●	7	LA	10	7.90	EB	Robertson/National	L	2	NM	Operational
●	7	LA	10	8.70	EB	La Cienega	H	2		Operational
●	7	LA	10	8.70	WB	La Cienega	S	2		Operational
●	7	LA	10	9.01	EB	Venice	S	2	NM	Operational
●	7	LA	10	9.21	WB	Fairfax	S	2	NM	Operational
●	7	LA	10	9.50	EB	Washington	S	2	NM	Operational
●	7	LA	10	10.30	EB	La Brea SB	L	1		Operational
●	7	LA	10	10.40	WB	La Brea SB	S	2		Operational
●	7	LA	10	10.50	EB	La Brea NB	S	2		Operational
●	7	LA	10	10.50	WB	La Brea NB	L	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	10	11.20	WB	Crenshaw	S	2		Operational
●	7	LA	10	11.53	EB	Crenshaw	S	2		Operational
●	7	LA	10	12.23	WB	Arlington	S	2		Operational
●	7	LA	10	12.45	EB	Arlington	S	2		Operational
●	7	LA	10	12.60	WB	Western	S	2	NM	Operational
●	7	LA	10	12.95	EB	Western	S	2	NM	Operational
●	7	LA	10	13.21	WB	Normandie	S	2		Operational
●	7	LA	10	13.44	EB	Normandie	S	2		Operational
●	7	LA	10	13.66	WB	Vermont	S	2		Operational
●	7	LA	10	13.95	EB	Vermont	S	2	NM	Operational
●	7	LA	10	14.10	WB	Hoover/20th St.	H	2		Operational
●	7	LA	10	14.30	EB	Hoover	H	2		Operational
●	7	LA	10	15.16	WB	Grand Ave (WB 10)	S	1		Non Op
●	7	LA	10	15.19	WB	Grand Ave (Rte 110)	S	1		Non Op
●	7	LA	10	15.33	EB	Flower	H	2		Non Op
●	7	LA	10	15.64	WB	Maple	S	2		Non Op
●	7	LA	10	15.78	EB	Los Angeles	S	2		Non Op
●	7	LA	10	16.21	WB	Central	S	1		Non Op
●	7	LA	10	16.22	EB	San Pedro	S	2		Non Op
●	7	LA	10	16.84	EB	Central	S	2		Non Op
●	7	LA	10	17.09	WB	Alameda	H	2		Non Op
●	7	LA	10	17.10	EB	Alameda	L	2		Non Op
●	7	LA	10	17.43	EB	Olympic	L	1		Non Op
●	7	LA	10	17.57	WB	Santa Fe	H	1		Non Op
●	7	LA	10	17.60	EB	Santa Fe	H	1		Non Op
●	7	LA	10	20.88	EB	Eastern (710 Conn)	H	1		Operational
●	7	LA	10	20.88	EB	Eastern (710 Conn)	H	1		Non Op
●	7	LA	10	21.50	WB	Winthrop (710 Conn)	S	1		Non Op
●	7	LA	10	22.30	WB	Fremont	H	2		Operational
●	7	LA	10	23.28	EB	Atlantic SB	L	1		Operational
●	7	LA	10	23.29	WB	Atlantic SB	S	1		Operational
●	7	LA	10	23.38	EB	Atlantic NB	S	1		Operational
●	7	LA	10	23.38	WB	Atlantic NB	L	1		Operational
●	7	LA	10	23.93	EB	Garfield SB	L	1		Operational
●	7	LA	10	23.96	WB	Garfield SB	S	1		Operational
●	7	LA	10	24.03	EB	Garfield NB	S	1		Operational
●	7	LA	10	24.04	WB	Garfield NB	L	1		Operational
●	7	LA	10	24.77	EB	New SB	L	1		Operational
●	7	LA	10	24.82	WB	New SB	S	1		Operational
●	7	LA	10	24.87	EB	New NB	S	1		Operational
●	7	LA	10	24.89	WB	New NB	L	1		Operational
●	7	LA	10	25.22	WB	Del Mar SB	S	1		Operational
●	7	LA	10	25.26	EB	Del Mar SB	L	1		Operational
●	7	LA	10	25.38	EB	Del Mar NB	S	1		Operational
●	7	LA	10	25.39	WB	Del Mar NB	L	1		Operational
●	7	LA	10	25.77	EB	San Gabriel SB	L	1		Operational
●	7	LA	10	25.80	WB	San Gabriel SB	S	1		Operational
●	7	LA	10	25.89	EB	San Gabriel NB	S	1		Operational
●	7	LA	10	25.90	WB	San Gabriel NB	L	1		Operational
●	7	LA	10	26.29	WB	Walnut Grove	S	1		Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	10	26.32	EB	Walnut Grove	S	1		Operational
●	7	LA	10	26.79	EB	Rosemead SB	L	1		Operational
●	7	LA	10	26.79	WB	Rosemead SB	S	1		Operational
●	7	LA	10	26.92	WB	Rosemead NB	L	1		Operational
●	7	LA	10	26.94	EB	Rosemead NB	S	1		Operational
●	7	LA	10	27.10	EB	Flair	H	2		Non Op
●	7	LA	10	27.67	WB	Temple City	H	1		Operational
●	7	LA	10	28.09	EB	Baldwin	S	2	NM	Operational
●	7	LA	10	28.56	WB	Santa Anita	S	2	NM	Operational
●	7	LA	10	28.78	EB	Santa Anita	S	2	NM	Operational
●	7	LA	10	29.35	WB	Peck	S	1		Operational
●	7	LA	10	29.51	EB	Valley Blvd	L	1		Operational
●	7	LA	10	29.60	WB	Valley	L	1		Operational
●	7	LA	10	29.98	EB	Stewart	S	1		Operational
●	7	LA	10	30.70	EB	Durfee/Garvey	S	2		Operational
●	7	LA	10	31.72	WB	Frazier	H	2	NM	Operational
●	7	LA	10	32.00	EB	SB 605 to EB 10	C	1		Operational
●	7	LA	10	32.16	WB	Baldwin Park SB	S	2	NM	Operational
●	7	LA	10	32.31	EB	Baldwin Park	S	1		Operational
●	7	LA	10	32.33	WB	Baldwin Park NB	L	1		Operational
●	7	LA	10	32.78	WB	Francisquito	H	2		Operational
●	7	LA	10	33.46	EB	Puente	H	2		Operational
●	7	LA	10	33.48	WB	Puente	H	2		Operational
●	7	LA	10	34.36	WB	Pacific	H	2	NM	Operational
●	7	LA	10	34.44	EB	West Covina Pkwy	L	2	NM	Operational
●	7	LA	10	35.36	EB	Vincent SB	L	2	NM	Operational
●	7	LA	10	35.36	WB	Vincent SB	S	2	NM	Operational
●	7	LA	10	35.45	WB	Vincent NB	L	2	NM	Operational
●	7	LA	10	35.50	EB	Vincent NB	S	2		Operational
●	7	LA	10	36.41	WB	Azusa SB	S	2	NM	Operational
●	7	LA	10	36.46	EB	Azusa SB	L	1		Operational
●	7	LA	10	36.52	WB	Azusa NB	L	2	NM	Operational
●	7	LA	10	36.60	EB	Azusa NB	S	1		Operational
●	7	LA	10	37.43	WB	Citrus SB	S	2	NM	Operational
●	7	LA	10	37.53	WB	Citrus NB	L	2	NM	Operational
●	7	LA	10	37.59	EB	Citrus	H	1		Operational
●	7	LA	10	37.92	WB	Barranca SB	S	2	NM	Operational
●	7	LA	10	38.07	WB	Barranca NB	H	2		Operational
●	7	LA	10	38.09	EB	Barranca	H	2		Operational
●	7	LA	10	38.40	WB	Grand	S	2		Operational
●	7	LA	10	38.48	EB	Grand	L	1		Operational
●	7	LA	10	38.89	WB	Holt SB	S	2	NM	Operational
●	7	LA	10	38.95	EB	Holt SB	L	1		Operational
●	7	LA	10	39.05	WB	Holt NB	L	1		Operational
●	7	LA	10	39.14	EB	Holt NB	S	1		Operational
●	7	LA	10	40.35	WB	Via Verde	S	2	NM	Operational
●	7	LA	10	40.58	EB	Via Verde	S	2	NM	Operational
●	7	LA	10	41.99	WB	Kellogg	S	2		Operational
●	7	LA	10	43.53	WB	Fairplex	S	2		Operational
●	7	LA	10	43.76	EB	Fairplex	S	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	10	43.85	WB	Dudley	H	1		Operational
●	7	LA	10	44.13	EB	Dudley	L	1		Operational
●	7	LA	10	45.17	WB	White	S	2	NM	Operational
●	7	LA	10	45.62	WB	Garey	S	2		Operational
●	7	LA	10	46.01	EB	Orange Grove	S	2		Operational
●	7	LA	10	46.23	WB	Towne	S	2		Operational
●	7	LA	10	46.58	EB	Towne	S	2	NM	Operational
●	7	LA	10	47.61	WB	Indian Hill	S	2	NM	Operational
●	7	LA	10	47.87	EB	Indian Hill	S	2	NM	Operational
	7	LA	14	R 25.10	NB	Sierra Hwy / Foothill				Planned
	7	LA	14	R 26.89	NB	San Fernando Rd. / Newhall Ave EB				Planned
	7	LA	14	R 26.89	SB	San Fernando Rd. / Newhall Ave EB				Planned
	7	LA	14	R 27.19	NB	San Fernando Rd. / Newhall Ave WB				Planned
	7	LA	14	R 27.88	SB	Placerita Cyn.				Planned
	7	LA	14	R 28.06	NB	Placerita Cyn. EB				Planned
	7	LA	14	R 28.12	SB	Sierra Hwy / Placerita				Planned
	7	LA	14	R 28.27	NB	Placerita Cyn. WB				Planned
●	7	LA	14	29.54	SB	Golden Valley	S	2	M	Operational
●	7	LA	14	29.98	NB	Golden Valley	S	3	M	Operational
	7	LA	14	R 30.64	SB	Sierra Hwy.				Planned
	7	LA	14	R 30.72	SB	Via Princess Way				Planned
	7	LA	14	R 31.12	NB	Via Princess Way				Planned
	7	LA	14	R 33.40	SB	Sand Cyn.				Planned
	7	LA	14	R 33.59	NB	Sand Cyn.				Planned
	7	LA	14	R 35.52	SB	Shadow Pines (Soledad Cyn.)				Planned
	7	LA	14	R 36.02	NB	Shadow Pines (Soledad Cyn.)				Planned
	7	LA	14	R 36.02	NB	Shadow Pines (Soledad Cyn.)				Planned
	7	LA	14	R 39.65	SB	Agua Dulce Cyn.				Planned
	7	LA	14	R 40.07	NB	Agua Dulce Cyn.				Planned
	7	LA	14	R 43.04	NB	Escondido Cyn.				Planned
	7	LA	14	R 43.48	SB	Escondido Cyn.				Planned
	7	LA	14	R 46.54	SB	Red Rover Mine Rd.				Planned
	7	LA	14	R 47.13	NB	Red Rover Mine Rd.				Planned
	7	LA	14	R 48.47	SB	Crown Valley Rd.				Planned
	7	LA	14	R 48.81	NB	Crown Valley Rd.				Planned
	7	LA	14	R 50.62	SB	Santiago Rd.				Planned
	7	LA	14	R 50.94	NB	Santiago Rd.				Planned
	7	LA	14	R 51.22	SB	Sierra Hwy				Planned
	7	LA	14	R 51.48	SB	Soledad Cyn. Rd.				Planned
	7	LA	14	R 52.52	NB	Soledad Cyn Rd.				Planned
	7	LA	14	R 54.25	SB	Pearblossom Hwy.				Planned
	7	LA	14	R 54.91	NB	Pearblossom Hwy.				Planned
	7	LA	14	R 56.14	NB	W Palmdale Blvd EB				Planned
	7	LA	14	R 56.22	NB	W Palmdale Blvd WB				Planned
	7	LA	14	R 56.26	SB	W Palmdale Blvd WB				Planned
	7	LA	14	R 56.34	SB	W Palmdale Blvd EB				Planned
	7	LA	14	R 58.09	SB	Avenue S				Planned
	7	LA	14	R 58.40	NB	Avenue S				Planned
	7	LA	14	R 60.25	NB	10th St.				Planned
	7	LA	14	R 61.27	SB	Rancho Vista Blvd				Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	7	LA	14	R 63.51	SB	Avenue N EB				Planned
	7	LA	14	R 63.63	NB	Avenue N EB				Planned
	7	LA	14	R 63.72	SB	Avenue N WB				Planned
	7	LA	14	R 63.81	NB	Avenue N WB				Planned
	7	LA	14	R 64.54	SB	Avenue M EB				Planned
	7	LA	14	R 64.64	NB	Avenue M EB				Planned
	7	LA	14	R 64.72	SB	Avenue M WB				Planned
	7	LA	14	R 64.83	NB	Avenue M WB				Planned
	7	LA	14	R 65.55	SB	Avenue L EB				Planned
	7	LA	14	R 65.64	NB	Avenue L EB				Planned
	7	LA	14	R 65.73	SB	Avenue L WB				Planned
	7	LA	14	R 65.82	NB	Avenue L WB				Planned
	7	LA	14	R 66.66	SB	Avenue K EB				Planned
	7	LA	14	R 66.66	NB	Avenue K EB				Planned
	7	LA	14	R 66.85	SB	Avenue K WB				Planned
	7	LA	14	R 66.87	NB	Avenue K WB				Planned
	7	LA	14	R 67.51	SB	Avenue J-8				Planned
	7	LA	14	R 68.14	NB	Avenue J				Planned
	7	LA	14	R 68.78	SB	Avenue I				Planned
	7	LA	14	R 69.13	NB	Avenue I				Planned
	7	LA	14	R 69.85	SB	Avenue H EB				Planned
	7	LA	14	R 69.95	NB	Avenue H EB				Planned
	7	LA	14	R 70.03	SB	Avenue H WB				Planned
	7	LA	14	R 70.13	NB	Avenue H WB				Planned
	7	LA	14	R 70.85	SB	Avenue G EB				Planned
	7	LA	14	R 70.95	NB	Avenue G EB				Planned
	7	LA	14	R 71.03	SB	Avenue G WB				Planned
	7	LA	14	R 71.14	NB	Avenue G WB				Planned
	7	LA	14	R 71.85	SB	Avenue F EB				Planned
	7	LA	14	R 71.96	NB	Avenue F EB				Planned
	7	LA	14	R 72.03	SB	Avenue F WB				Planned
	7	LA	14	R 72.14	NB	Avenue F WB				Planned
	7	LA	14	R 73.84	SB	Avenue D (138)				Planned
	7	LA	14	R 73.96	NB	Avenue D EB				Planned
	7	LA	14	R 74.15	NB	Avenue D WB				Planned
	7	LA	14	R 76.84	SB	Avenue A				Planned
●	7	LA	57	1.26	NB	Brea Canyon Rd.	S	2	NM	Operational
●	7	LA	57	1.82	SB	Diamond Bar Bl.	S	2		Operational
●	7	LA	57	2.20	NB	Diamond Bar Bl.	S	2	NM	Operational
●	7	LA	57	3.05	SB	Pathfinder Rd.	S	2	NM	Operational
●	7	LA	57	3.45	NB	Pathfinder Rd.	S	2	NM	Operational
●	7	LA	57	5.04	SB	Sunset Crossing	L	2	NM	Operational
●	7	LA	57	5.27	NB	Sunset Crossing	S	1		Operational
●	7	LA	57	5.97	SB	Temple Ave EB	S	1		Operational
●	7	LA	57	6.16	NB	Temple Ave EB	L	2	NM	Operational
●	7	LA	57	6.28	SB	Temple Ave WB	L	2	NM	Operational
●	7	LA	57	6.35	NB	Temple Ave WB	S	2	NM	Operational
●	7	LA	57	7.30	NB	Campus Dr.	S	2	NM	Operational
●	7	LA	57	8.78	SB	Via Verde	H	1		Operational
●	7	LA	57	8.83	NB	Via Verde	S	2	NM	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	57	10.08	SB	Covina	S	2	NM	Operational
●	7	LA	57	10.26	NB	Covina	H	1		Operational
●	7	LA	57	10.70	SB	Arrow Hwy EB	S	2	NM	Operational
●	7	LA	57	10.74	NB	Arrow Hwy	H	2	NM	Operational
●	7	LA	57	10.90	SB	Arrow Hwy WB	L	2	NM	Operational
●	7	LA	57	11.41	SB	Auto Center Drive	S	2	NM	Operational
●	7	LA	60	0.42	WB	Soto	L	1		Operational
●	7	LA	60	0.64	EB	Soto	H	1		Operational
●	7	LA	60	1.47	WB	Lorena	L	1		Operational
●	7	LA	60	1.60	EB	Lorena	S	2		Operational
●	7	LA	60	2.05	EB	Indiana	S	1		Operational
●	7	LA	60	2.47	WB	Third St.	L	2		Operational
●	7	LA	60	2.50	EB	Third St.	H	2		Operational
●	7	LA	60	4.35	EB	Atlantic SB	L	1		Operational
●	7	LA	60	4.35	WB	Atlantic SB	S	2	NM	Operational
●	7	LA	60	4.49	WB	Atlantic NB	L	2	NM	Operational
●	7	LA	60	4.56	EB	Atlantic NB	S	2	NM	Operational
●	7	LA	60	4.94	WB	Findlay	S	2	NM	Operational
	7	LA	60	5.36	WB	Garfield Ave.				Planned
	7	LA	60	6.44	EB	Markland				Planned
●	7	LA	60	7.60	WB	Paramount SB	S	2	NM	Operational
●	7	LA	60	7.74	EB	Paramount SB	L	2	NM	Operational
●	7	LA	60	7.82	WB	Paramount NB	L	2	NM	Operational
●	7	LA	60	7.94	EB	Paramount NB	S	2	NM	Operational
●	7	LA	60	8.52	EB	San Gabriel	L	2		Operational
●	7	LA	60	8.59	WB	San Gabriel	L	1		Operational
●	7	LA	60	9.39	WB	Rosemead SB	S	2	NM	Operational
●	7	LA	60	9.47	EB	Rosemead SB	L	2		Operational
●	7	LA	60	9.54	WB	Rosemead NB	L	1		Operational
●	7	LA	60	9.63	EB	Rosemead NB	S	1		Operational
●	7	LA	60	10.13	EB	Santa Anita SB	L	2	NM	Operational
●	7	LA	60	10.14	WB	Santa Anita SB	S	2	NM	Operational
●	7	LA	60	10.28	EB	Santa Anita NB	S	1		Operational
●	7	LA	60	10.35	WB	Santa Anita NB	H	1		Operational
●	7	LA	60	10.91	WB	Peck SB	S	2	NM	Operational
●	7	LA	60	11.00	EB	Peck/Durfee	H	2	NM	Operational
●	7	LA	60	11.06	WB	Peck NB	L	1		Operational
●	7	LA	60	12.71	EB	Crossroads Pkwy	S	2		Operational
●	7	LA	60	12.86	WB	Crossroads Pkwy	H	1		Operational
●	7	LA	60	14.12	WB	7th	S	1		Non Op
●	7	LA	60	14.50	EB	Seventh Ave	S	1		Operational
●	7	LA	60	15.79	WB	Hacienda SB	S	2		Operational
●	7	LA	60	15.91	EB	Hacienda SB	L	2	NM	Operational
●	7	LA	60	15.99	WB	Hacienda NB	L	2		Operational
●	7	LA	60	16.13	EB	Hacienda NB	S	2	NM	Operational
●	7	LA	60	17.77	WB	Azusa SB	S	2		Operational
●	7	LA	60	17.94	EB	Azusa SB	L	2	NM	Operational
●	7	LA	60	18.00	WB	Azusa NB	L	2	NM	Operational
●	7	LA	60	18.15	EB	Azusa NB	S	2	NM	Operational
●	7	LA	60	19.32	WB	Fullerton SB	S	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	60	19.44	EB	Fullerton SB	L	1		Operational
●	7	LA	60	19.46	WB	Fullerton NB	L	2		Operational
●	7	LA	60	19.63	EB	Fullerton NB	S	2	NM	Operational
●	7	LA	60	20.34	WB	Nogales SB	S	2	NM	Operational
●	7	LA	60	20.39	EB	Nogales SB	L	2	NM	Operational
●	7	LA	60	20.47	WB	Nogales NB	L	2	NM	Operational
●	7	LA	60	20.53	EB	Nogales NB	S	2	NM	Operational
●	7	LA	60	21.31	WB	Fairway	S	2	NM	Operational
●	7	LA	60	21.46	EB	Fairway SB	L	1		Operational
●	7	LA	60	21.69	EB	Fairway NB	S	2	NM	Operational
●	7	LA	60	22.78	WB	(Rte 57/60) to Rte 60	S	2		Non Op
●	7	LA	60	22.80	WB	Brea Canyon	S	2		Operational
●	7	LA	60	22.95	EB	Brea Canyon	H	2		Operational
●	7	LA	60	24.44	WB	Grand	L	2		Operational
●	7	LA	60	24.45	EB	Grand	S	2		Operational
●	7	LA	60	25.60	EB	Diamond Bar	S	2	NM	Operational
●	7	LA	60	25.87	WB	Diamond Bar	L	2	NM	Operational
●	7	LA	60	27.80	EB	Phillips Ranch SB	L	1		Operational
●	7	LA	60	27.87	WB	Phillips Ranch SB	S	2		Operational
●	7	LA	60	28.00	WB	Phillips Ranch NB	L	2		Operational
●	7	LA	60	28.97	EB	Phillips Ranch NB	S	2	NM	Operational
●	7	LA	60	29.15	WB	Garey	S	2		Operational
●	7	LA	60	29.51	EB	Garey	S	2		Operational
●	7	LA	60	30.19	WB	Reservoir	S	2	NM	Operational
●	7	LA	60	30.59	EB	Reservoir	S	2		Operational
●	7	LA	71	0.80	NB	Ridgeway St.	S	2		Non Op
●	7	LA	71	1.60	NB	Mission Blvd	S	2		Non Op
●	7	LA	71	1.70	SB	Mission Blvd	S	1		Non Op
●	7	LA	71	3.74	NB	Rio Rancho Rd.	S	2		Non Op
●	7	LA	71	3.74	SB	Rio Rancho Rd.	S	2		Non Op
●	7	LA	91	6.94	WB	Main St	L	1		Operational
●	7	LA	91	7.16	EB	Main St	H	2		Operational
●	7	LA	91	7.55	WB	Avalon	L	2		Operational
●	7	LA	91	7.81	EB	Avalon	S	1		Operational
●	7	LA	91	8.27	WB	Central	S	1		Operational
●	7	LA	91	8.58	EB	Central	S	3	NM	Operational
●	7	LA	91	9.10	WB	Wilmington	S	1		Operational
●	7	LA	91	9.11	EB	Wilmington	S	3	NM	Operational
●	7	LA	91	9.67	WB	Acacia St	S	2	NM	Operational
●	7	LA	91	10.13	EB	Alameda	L	2		Operational
●	7	LA	91	10.48	EB	Santa Fe	S	2		Operational
●	7	LA	91	11.03	EB	Long Beach	L	1		Operational
●	7	LA	91	11.03	WB	Long Beach	S	2	NM	Operational
●	7	LA	91	11.78	WB	Atlantic	S	2	NM	Operational
●	7	LA	91	12.21	EB	Atlantic	S	1		Operational
●	7	LA	91	13.01	WB	Cherry	S	2	NM	Operational
●	7	LA	91	13.26	EB	Cherry	S	2		Operational
●	7	LA	91	13.51	WB	Paramount	S	2		Operational
●	7	LA	91	13.69	EB	Paramount	S	2		Operational
●	7	LA	91	14.04	WB	Downey	S	2	NM	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	91	14.21	EB	Downey	S	2		Operational
●	7	LA	91	14.55	WB	Lakewood SB	S	2		Operational
●	7	LA	91	14.59	EB	Lakewood SB	L	2	NM	Operational
●	7	LA	91	14.65	WB	Lakewood NB	L	2	NM	Operational
●	7	LA	91	14.80	EB	Lakewood NB	S	2	NM	Operational
●	7	LA	91	15.22	EB	Clark	S	2	NM	Operational
●	7	LA	91	15.54	WB	Bellflower	S	2		Operational
●	7	LA	91	15.76	EB	Bellflower	S	2	NM	Operational
●	7	LA	91	17.37	EB	Studebaker	S	2	NM	Operational
●	7	LA	91	17.96	EB	Pioneer SB	L	1		Operational
●	7	LA	91	17.96	WB	Pioneer SB	S	2	NM	Operational
●	7	LA	91	18.21	EB	Pioneer NB	S	1		Operational
●	7	LA	91	18.21	WB	Pioneer NB	L	1		Operational
●	7	LA	91	18.50	WB	Norwalk SB	S	1		Operational
●	7	LA	91	18.54	EB	Norwalk SB	L	1		Operational
●	7	LA	91	18.70	WB	Norwalk NB	L	1		Operational
●	7	LA	91	18.77	EB	Norwalk NB	S	1		Operational
●	7	LA	91	19.06	WB	Bloomfield	S	2		Operational
●	7	LA	91	19.30	WB	Artesia WB	S	2	NM	Operational
●	7	LA	91	19.40	EB	Shoemaker	H	2		Operational
●	7	LA	91	20.14	WB	183rd/Carmenita	S	2		Operational
●	7	LA	101	0.19	NB	Mission Rd	H	1		Operational
●	7	LA	101	0.48	SB	Garey St	H	2		Operational
●	7	LA	101	0.64	SB	Los Angeles St	H	1		Operational
●	7	LA	101	2.42	NB	Glendale	H	1		Operational
●	7	LA	101	2.54	SB	Glendale	H	1		Operational
●	7	LA	101	2.72	SB	Alvarado	H	2		Operational
●	7	LA	101	2.97	NB	Alvarado	H	2		Operational
●	7	LA	101	3.24	SB	Rampart	H	1		Operational
●	7	LA	101	3.31	NB	Rampart	H	1		Operational
●	7	LA	101	3.68	SB	Silverlake	H	2	NM	Operational
●	7	LA	101	3.86	NB	Silverlake	H	1		Operational
●	7	LA	101	4.14	SB	Vermont Ave	S	2		Operational
●	7	LA	101	4.53	NB	Vermont	H	2		Operational
●	7	LA	101	4.73	SB	Melrose	H	2	NM	Operational
●	7	LA	101	5.11	NB	Normandie	H	1		Operational
●	7	LA	101	5.45	SB	Santa Monica	H	2	NM	Operational
●	7	LA	101	5.95	NB	Western	H	1		Operational
●	7	LA	101	6.10	SB	Sunset	H	2	NM	Operational
●	7	LA	101	6.38	SB	Hollywood	H	2	NM	Operational
●	7	LA	101	6.58	NB	Hollywood	H	1		Operational
●	7	LA	101	6.99	SB	Argyle Ave	H	2		Operational
●	7	LA	101	7.20	NB	Argyle/Franklin	H	2		Operational
●	7	LA	101	7.27	SB	Cahuenga	H	1		Operational
●	7	LA	101	7.39	NB	Cahuenga	H	1		Operational
●	7	LA	101	7.75	SB	Highland Ave	H	1		Operational
●	7	LA	101	9.75	NB	Universal Center (EB)	L	2		Operational
●	7	LA	101	9.85	NB	Universal Center (WB)	H	1		Operational
●	7	LA	101	9.95	SB	Lankershim	H	1		Operational
●	7	LA	101	10.48	SB	Ventura	L	1		Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	101	10.53	NB	Lankershim	H	2		Operational
●	7	LA	101	11.15	SB	Vineland	L	1		Operational
●	7	LA	101	11.53	NB	Moorpark	H	1		Operational
●	7	LA	101	12.00	NB	Tujunga	S	1		Operational
●	7	LA	101	12.75	SB	Laurel Canyon Bl	S	2		Operational
●	7	LA	101	12.90	NB	Laurel Canyon Blvd	S	2		Operational
●	7	LA	101	13.80	SB	Coldwater Canyon	S	2	NM	Operational
●	7	LA	101	13.98	NB	Coldwater Canyon	S	1		Operational
●	7	LA	101	14.70	SB	Woodman Ave	S	2	NM	Operational
●	7	LA	101	15.00	NB	Woodman Ave	S	1		Operational
●	7	LA	101	15.81	SB	Van Nuys Bl	S	2	NM	Operational
●	7	LA	101	16.01	NB	Van Nuys Blvd	S	2		Operational
●	7	LA	101	16.70	SB	Sepulveda Bl	S	2	NM	Operational
●	7	LA	101	16.80	SB	Sepulveda / Greenleaf	L	2		Operational
●	7	LA	101	17.59	NB	Haskell	L	1		Operational
●	7	LA	101	18.40	SB	Hayvenhurst	S	2	NM	Operational
●	7	LA	101	19.00	SB	Balboa	S	2	NM	Operational
●	7	LA	101	19.40	NB	Balboa	S	1		Operational
●	7	LA	101	20.15	SB	White oak	S	2	NM	Operational
●	7	LA	101	20.34	NB	White oak	S	1		Operational
●	7	LA	101	20.96	SB	Burbank/ Reseda	S	2	NM	Operational
●	7	LA	101	21.40	NB	Reseda	S	1		Operational
●	7	LA	101	22.07	SB	Van Alden	H	1		Non Op
●	7	LA	101	22.36	NB	Tampa	S	1		Operational
●	7	LA	101	23.22	SB	Winnetka	S	2	NM	Operational
●	7	LA	101	23.40	NB	Winnetka	S	1		Operational
●	7	LA	101	24.23	SB	De soto	S	2		Operational
●	7	LA	101	24.45	NB	De soto	S	2		Operational
●	7	LA	101	24.76	SB	Canoga	S	2		Operational
●	7	LA	101	25.26	SB	Topanga NB	S	1		Operational
●	7	LA	101	25.39	SB	Topanga SB	L	1		Operational
●	7	LA	101	25.47	NB	Topanga Cyn	H	1		Operational
●	7	LA	101	25.67	SB	Ventura/Shoop	S	2		Operational
●	7	LA	101	26.90	NB	Woodlake	H	1		Operational
●	7	LA	101	27.26	SB	Mulholland	S	2	NM	Operational
●	7	LA	101	27.38	SB	Valley circle	H	2	NM	Operational
	7	LA	101	27.73	NB	Valley Circle/Long Valley				Planned
●	7	LA	101	28.20	SB	Pkwy Calabasas NB	S	2	NM	Operational
●	7	LA	101	28.40	NB	Calabasas Pkwy EB	L	2		Non Op
●	7	LA	101	28.42	SB	Pkwy Calabasas SB	L	2		Operational
●	7	LA	101	28.50	NB	Calabasas Pkwy WB	S	1		Non Op
●	7	LA	101	31.02	SB	Los Virgenes EB	S	1		Operational
●	7	LA	101	31.10	NB	Los Virgenes	S	1		Non Op
●	7	LA	101	31.25	SB	Los Virgenes WB	L	1		Operational
●	7	LA	101	31.83	SB	Lost Hills Rd.	S	1		Operational
●	7	LA	101	32.07	NB	Lost Hills Rd.	S	1		Non Op
●	7	LA	101	32.55	SB	Liberty Cyn.	S	1		Operational
●	7	LA	101	32.91	NB	Liberty Cyn.	S	1		Operational
●	7	LA	101	33.76	SB	Palo Comado Cyn.	H	1		Non Op
●	7	LA	101	33.80	NB	Palo Comado Cyn.	S	1		Non Op

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	101	34.95	SB	Kanan Rd. EB	S	1		Operational
●	7	LA	101	35.03	SB	Kanan Rd. WB	L	1		Operational
●	7	LA	101	35.03	NB	Kanan Rd. EB	L	1		Operational
●	7	LA	101	35.18	NB	Kanan Rd. WB	S	1		Operational
●	7	LA	101	36.07	SB	Reyes Adobe	S	1		Operational
●	7	LA	101	36.30	NB	Reyes Adobe	S	2		Operational
●	7	LA	101	37.35	SB	Lindero Cyn. EB	S	1		Operational
●	7	LA	101	37.50	NB	Lindero Cyn EB	L	1		Operational
●	7	LA	101	37.58	SB	Lindero Cyn. WB	L	2		Operational
●	7	LA	101	37.71	NB	Lindero Cyn WB	S	2		Operational
●	7	LA	101	37.71	NB	Lindero Cyn WB	S	2		Non Op
●	7	LA	101		NB	SB 23 to NB 101	C	2		Non Op
●	7	LA	105	0.95	EB	Hughes Way/Imperial	S	1		Non Op
●	7	LA	105	1.23	EB	Douglas St./Nash	H	2		Operational
●	7	LA	105	1.80	EB	Imperial/Aviation	H	3	NM	Operational
●	7	LA	105	2.50	EB	NB 405 to EB 105	C	2		Operational
●	7	LA	105	2.82	EB	SB 405 to EB 105	C	2		Operational
●	7	LA	105	3.10	EB	SB Hawthorne Bl	H	2	NM	Operational
●	7	LA	105	3.30	WB	Imperial/Prairie Ave.	S	2	NM	Operational
●	7	LA	105	3.60	EB	Imperial/Prairie	H	2	NM	Operational
●	7	LA	105	4.50	WB	Crenshaw Bl. SB	S	2	NM	Operational
●	7	LA	105	4.60	EB	Crenshaw SB / 120th	H	2	NM	Operational
●	7	LA	105	4.80	WB	Crenshaw Bl. NB	L	2	NM	Operational
●	7	LA	105	4.90	EB	Crenshaw NB	S	2	NM	Operational
●	7	LA	105	6.50	WB	Vermont Ave.	S	2	NM	Operational
●	7	LA	105	6.81	WB	SB-110 to WB-105	C	2		Operational
●	7	LA	105	7.20	EB	Hoover	S	2	NM	Operational
●	7	LA	105	7.55	EB	SB 110 to EB 105	C	2		Operational
●	7	LA	105	7.56	EB	NB 110 to EB 105	C	2		Operational
●	7	LA	105	8.80	WB	Central Ave.	S	3	NM	Operational
●	7	LA	105	9.00	EB	Central Ave.	S	3	NM	Operational
●	7	LA	105	9.70	EB	Wilmington	H	2	NM	Operational
●	7	LA	105	10.10	WB	Wilmington Ave.	H	3	NM	Operational
●	7	LA	105	11.40	WB	Long Beach Bl. SB	H	2	NM	Operational
●	7	LA	105	11.60	WB	Long Beach Bl. NB	L	2	NM	Operational
●	7	LA	105	11.70	EB	Long Beach SB	L	2	NM	Operational
●	7	LA	105	11.90	EB	Long Beach NB	H	2	NM	Operational
●	7	LA	105	13.01	WB	NB-710 to WB-105	C	2		Non Op
●	7	LA	105	13.21	WB	SB 710 to WB 105	C	1		Non Op
●	7	LA	105	13.80	WB	Garfield Ave	S	2	NM	Operational
●	7	LA	105	13.81	EB	NB 710 to EB 105	C	2		Non Op
●	7	LA	105	13.94	EB	SB 710 to EB 105	C	2		Non Op
●	7	LA	105	14.10	WB	Garfield Ave (Rte710)	S	1		Operational
●	7	LA	105	14.80	EB	Paramount	S	2	NM	Operational
●	7	LA	105	15.60	EB	Lakewood SB	H	2	NM	Operational
●	7	LA	105	15.60	WB	Lakewood	S	2	NM	Operational
●	7	LA	105	15.90	EB	Lakewood NB	S	2	NM	Operational
●	7	LA	105	16.50	WB	Bellflower	S	2	NM	Operational
●	7	LA	105	16.80	EB	Bellflower	S	2	NM	Operational
●	7	LA	105	17.90	WB	Hoxie Ave	S	1		Non Op

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	110	1.05	NB	Harbor	S	2		Non Op
●	7	LA	110	1.58	NB	J. Gibson	H	2		Non Op
●	7	LA	110	2.84	NB	C St.	H	2	NM	Non Op
●	7	LA	110	3.38	NB	Anaheim St	H	2		Non Op
	7	LA	110	3.97	SB	Pacific Coast Hwy				Planned
●	7	LA	110	4.17	NB	PCH	H	2		Non Op
	7	LA	110	4.17	NB	Pacific Coast Hwy				Planned
	7	LA	110	5.29	SB	Sepulveda EB				Planned
●	7	LA	110	5.38	NB	Sepulveda EB	L	2		Operational
	7	LA	110	5.49	SB	Sepulveda WB				Planned
●	7	LA	110	5.60	NB	Sepulveda WB	S	2	NM	Operational
	7	LA	110	6.36	SB	223rd St				Planned
●	7	LA	110	6.84	NB	220th St	H	2	NM	Operational
	7	LA	110	6.87	SB	Carson				Planned
	7	LA	110	7.78	SB	Torrance				Planned
●	7	LA	110	7.98	NB	Torrance	H	1		Operational
●	7	LA	110	9.21	NB	190th St	S	2	NM	Operational
●	7	LA	110	11.11	SB	Redondo Beach	S	2	NM	Operational
●	7	LA	110	11.22	NB	Redondo Beach	L	2		Operational
●	7	LA	110	11.73	SB	Rosecrans	S	2		Operational
●	7	LA	110	11.83	NB	Rosecrans EB	L	2	NM	Operational
●	7	LA	110	11.97	NB	Rosecrans WB	S	2	NM	Operational
●	7	LA	110	12.78	SB	El Segundo	S	2		Operational
●	7	LA	110	12.86	NB	El Segundo	L	2		Operational
●	7	LA	110	13.44	SB	WB 105 to SB 110	C	2		Non Op
●	7	LA	110	13.45	SB	EB 105 to SB 110	C	1		Non Op
●	7	LA	110	13.80	SB	Imperial Hwy	S	2	NM	Operational
●	7	LA	110	14.29	NB	Imperial Hwy.	S	2	NM	Operational
●	7	LA	110	14.50	NB	EB/WB 105 to NB 110	C	3		Operational
●	7	LA	110	15.10	NB	Century	S	2	NM	Operational
●	7	LA	110	15.88	NB	Manchester EB	L	2	NM	Operational
●	7	LA	110	15.88	SB	Manchester EB	S	2	NM	Operational
●	7	LA	110	15.89	NB	Manchester WB	S	2	NM	Operational
●	7	LA	110	16.02	SB	Manchester WB	L	2	NM	Operational
●	7	LA	110	17.13	NB	Florence	S	2	NM	Operational
●	7	LA	110	17.16	SB	Florence/76th	S	2	NM	Operational
●	7	LA	110	17.30	SB	Gage	S	2	NM	Operational
●	7	LA	110	17.68	NB	Gage	S	2	NM	Operational
●	7	LA	110	17.88	SB	Slauson	S	2	NM	Operational
●	7	LA	110	17.97	NB	Slauson	L	2	NM	Operational
●	7	LA	110	18.64	NB	51st	S	1		Operational
●	7	LA	110	18.89	SB	Vernon	S	1		Operational
●	7	LA	110	19.16	NB	Vernon	S	2	NM	Operational
●	7	LA	110	19.37	SB	M.L. King Bl.	S	2	NM	Operational
●	7	LA	110	19.47	NB	M.L. King Bl.	L	2	NM	Operational
●	7	LA	110	19.80	SB	37th / Exposition	S	2	NM	Operational
●	7	LA	110	20.14	NB	Exposition	S	2		Operational
●	7	LA	110	21.36	NB	Washington	H	1		Operational
●	7	LA	110	21.60	SB	11TH ST.	S	2		Operational
●	7	LA	110	21.85	NB	11TH St.	S	1		Non Op

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	110	22.31	SB	8TH ST.	S	2		Operational
●	7	LA	110	22.39	NB	9TH St.	S	1		Non Op
●	7	LA	110	23.05	SB	3RD St.	L	1		Non Op
●	7	LA	110	23.23	NB	3RD ST.	S	1		Non Op
●	7	LA	110	24.06	NB	Figueroa	S	1		Non Op
●	7	LA	110	24.46	SB	Stadium Way	H	1		Operational
●	7	LA	110	24.56	NB	Hill	S	1		Non Op
●	7	LA	110	24.76	NB	Stadium Way	L	1		Non Op
●	7	LA	110	25.00	SB	Amador	S	1		Operational
●	7	LA	110	25.41	SB	SB 5 TO SB 110	C	2		Non Op
●	7	LA	118	1.65	WB	Topanga Cyn.	S	2		Operational
●	7	LA	118	1.95	EB	Topanga Cyn.	S	2	NM	Operational
●	7	LA	118	2.72	WB	Desoto Ave.	L	2		Operational
●	7	LA	118	2.86	EB	Desoto Ave.	S	2		Operational
●	7	LA	118	3.80	EB	Porter Ranch Dr.	S	2	NM	Operational
●	7	LA	118	3.86	WB	Porter Ranch Dr.	S	2	NM	Operational
●	7	LA	118	4.46	WB	Tampa Ave.	S	2		Operational
●	7	LA	118	4.79	EB	Tampa Ave.	S	2		Operational
●	7	LA	118	5.65	WB	Reseda Blvd.	H	2		Operational
●	7	LA	118	5.97	EB	Reseda Blvd.	S	2		Operational
●	7	LA	118	7.61	EB	Balboa Bl. SB	L	2	NM	Operational
●	7	LA	118	7.80	WB	Balboa Blvd.	S	2		Operational
●	7	LA	118	7.99	EB	Balboa Bl. NB	S	2	NM	Operational
●	7	LA	118	8.58	EB	Hayvenhurst Ave	S	2	NM	Operational
●	7	LA	118	8.85	WB	Woodley Ave.	S	2		Operational
	7	LA	118	9.60	EB	Sepulveda				Planned
	7	LA	118	9.96	WB	Sepulveda				Planned
	7	LA	118	11.60	WB	Laurel Canyon Blvd				Planned
	7	LA	118	12.30	WB	San Fernando				Planned
	7	LA	118	12.31	EB	San Fernando				Planned
	7	LA	118	12.40	EB	Paxton				Planned
	7	LA	118	13.17	WB	Glenoaks				Planned
●	7	LA	134	0.49	EB	Vineland	H	1		Operational
●	7	LA	134	0.95	EB	Cahuenga	S	1		Operational
●	7	LA	134	0.95	WB	Vineland (170 Conn.)	L	1		Non Op
●	7	LA	134	1.90	WB	Alameda 1 SB	H	1		Operational
●	7	LA	134	1.92	WB	Alameda 2 NB	S	1		Operational
●	7	LA	134	2.11	EB	Hollywood Way	H	1		Operational
●	7	LA	134	2.86	WB	Buena Vista	S	2		Operational
●	7	LA	134	3.04	EB	Buena Vista	S	1		Operational
●	7	LA	134	3.75	WB	Forest Lawn	S	1		Operational
●	7	LA	134	3.87	EB	Forest Lawn	S	1		Operational
●	7	LA	134	4.73	WB	Victory	S	2		Operational
●	7	LA	134	6.00	WB	San Fernando Rd	H	1		Operational
●	7	LA	134	6.10	EB	San Fernando Rd	H	2		Operational
●	7	LA	134	6.50	WB	Pacific	S	1		Operational
●	7	LA	134	6.66	EB	Pacific	S	1		Operational
●	7	LA	134	6.88	WB	Central	S	2		Operational
●	7	LA	134	7.22	EB	Brand	S	2		Operational
●	7	LA	134	7.69	WB	Glendale	H	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	134	7.84	EB	Glendale SB	L	2	NM	Operational
●	7	LA	134	7.96	EB	Glendale NB	S	2	NM	Operational
●	7	LA	134	8.58	WB	Harvey	S	2		Operational
●	7	LA	134	9.07	EB	Harvey	S	2	NM	Operational
●	7	LA	134	11.50	WB	Figueroa	H	2		Operational
●	7	LA	134	11.53	EB	Figueroa	H	1		Operational
●	7	LA	134	11.64	EB	Colorado	S	2	NM	Operational
●	7	LA	134	12.27	WB	San Rafael	S	1		Operational
●	7	LA	134	12.45	EB	San Rafael	S	1		Operational
●	7	LA	134	12.78	WB	Orange Grove	H	2	NM	Operational
●	7	LA	134	13.18	EB	Orange Grove	H	1		Operational
	7	LA	170	14.70	NB	Vineland / WB Rte. 134				Planned
	7	LA	170	15.03	NB	Tujunga / Riverside				Planned
●	7	LA	170	15.26	SB	Magnolia	S	2	NM	Operational
	7	LA	170	15.50	NB	Magnolia Blvd.				Planned
●	7	LA	170	15.96	SB	Burbank Bl.	S	2	NM	Operational
	7	LA	170	16.14	NB	Burbank Blvd.				Planned
●	7	LA	170	16.60	SB	Oxnard Bl.	S	2	NM	Operational
	7	LA	170	16.61	NB	Oxnord St.				Planned
●	7	LA	170	17.16	SB	Victory Bl. EB	S	2	NM	Non Op
	7	LA	170	17.19	NB	Victory Blvd. EB				Planned
●	7	LA	170	17.30	SB	Victory Bl. WB	L	1		Operational
	7	LA	170	17.42	NB	Victory Blvd. WB				Planned
●	7	LA	170	18.19	SB	Sherman Way	S	2		Operational
	7	LA	170	18.21	NB	Sherman Way EB				Planned
	7	LA	170	18.41	NB	Sherman Way WB				Planned
●	7	LA	170	19.62	SB	Roscoe EB	S	2		Operational
	7	LA	170	19.68	NB	Roscoe Blvd.				Planned
●	7	LA	170	19.80	SB	Roscoe WB	L	1		Operational
●	7	LA	170	20.27	SB	Arleta	H	2		Operational
●	7	LA	210	0.87	WB	Yarnell	L	1		Operational
●	7	LA	210	1.04	EB	Yarnell	S	2	M	Operational
●	7	LA	210	1.76	WB	Roxford	S	2	M	Operational
●	7	LA	210	2.14	EB	Roxford	S	2	M	Operational
●	7	LA	210	3.11	WB	Polk	S	2	M	Operational
●	7	LA	210	3.44	EB	Polk	S	2		Operational
●	7	LA	210	3.95	WB	Hubbard	S	2	M	Operational
●	7	LA	210	4.28	EB	Hubbard	S	2		Operational
●	7	LA	210	4.79	WB	Maclay	S	2	M	Operational
●	7	LA	210	5.09	EB	Maclay	S	2		Operational
●	7	LA	210	5.51	WB	EB 118 to WB 210	C	2		Non Op
●	7	LA	210	5.92	WB	Paxton St.	S	2	M	Operational
●	7	LA	210	6.25	EB	Paxton St.	S	1		Operational
●	7	LA	210	6.50	EB	EB 118 to EB 210	C	2		Non Op
●	7	LA	210	7.73	WB	Osborne	S	1		Operational
●	7	LA	210	8.01	EB	Osborne	S	2	M	Operational
●	7	LA	210	9.30	WB	Wheatland	S	2	M	Operational
●	7	LA	210	9.61	EB	Wheatland	S	2	M	Operational
●	7	LA	210	10.93	WB	Sunland SB	S	2	M	Operational
●	7	LA	210	11.06	EB	Sunland SB	L	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	210	11.16	WB	Sunland NB	L	1		Operational
●	7	LA	210	11.36	EB	Sunland NB	S	2	M	Operational
●	7	LA	210	14.05	WB	La Tuna Canyon SB	S	1		Operational
●	7	LA	210	14.24	WB	La Tuna Canyon NB	L	1		Operational
●	7	LA	210	14.41	EB	La Tuna Canyon	S	1		Operational
●	7	LA	210	15.31	WB	Honolulu	H	1		Operational
●	7	LA	210	15.89	EB	Lowell/ Honolulu	S	2		Operational
●	7	LA	210	16.62	WB	Pennsylvania	S	2	M	Operational
●	7	LA	210	17.00	EB	Pennsylvania	S	2		Operational
●	7	LA	210	17.47	EB	La Crescenta	L	1		Non Op
●	7	LA	210	17.95	WB	Ocean View	S	1		Operational
●	7	LA	210	18.34	WB	NB 2 to WB 210	C	2		Non Op
●	7	LA	210	18.73	EB	Ocean View	S	2	M	Operational
●	7	LA	210	19.10	EB	NB 2 to EB 210	C	2		Non Op
●	7	LA	210	19.68	WB	Angeles Crest SB	S	2	M	Operational
●	7	LA	210	19.87	WB	Angeles Crest NB	L	1		Operational
●	7	LA	210	19.89	EB	Angeles Crest SB	L	1		Operational
●	7	LA	210	20.07	EB	Angeles Crest NB	S	1		Operational
●	7	LA	210	20.42	WB	Gould	S	2	M	Operational
●	7	LA	210	21.01	EB	Foothill	S	2		Operational
●	7	LA	210	21.41	WB	Berkshire	S	2	M	Operational
●	7	LA	210	21.65	EB	Berkshire	S	2	M	Operational
●	7	LA	210	22.29	WB	Arroyo	S	1		Operational
●	7	LA	210	22.64	EB	Arroyo	S	2		Operational
●	7	LA	210	23.00	WB	Lincoln	S	1		Operational
●	7	LA	210	23.25	EB	Lincoln	H	2		Operational
●	7	LA	210	23.89	WB	Mountain St	S	2		Operational
●	7	LA	210	24.22	EB	Mountain St	S	2		Operational
●	7	LA	210	24.24	WB	EB 134 to WB 210	C	2		Non Op
●	7	LA	210	24.83	WB	Walnut	S	2	M	Operational
●	7	LA	210	25.42	WB	Fair Oaks (Route 134)	S	2	NM	Operational
●	7	LA	210	25.74	EB	Marengo	S	2		Operational
●	7	LA	210	26.14	WB	Lake	S	2		Operational
●	7	LA	210	26.49	EB	Lake	S	2		Operational
●	7	LA	210	26.82	WB	Hill	S	2		Operational
●	7	LA	210	27.16	EB	Hill	S	2		Operational
●	7	LA	210	27.65	EB	Allen	S	2		Operational
●	7	LA	210	28.05	WB	Altadena	S	2		Operational
●	7	LA	210	28.29	WB	San Gabriel	S	2		Operational
●	7	LA	210	28.70	EB	San Gabriel	S	2		Operational
●	7	LA	210	29.19	WB	Sierra Madre Villa	S	1		Operational
●	7	LA	210	29.46	EB	Madre	S	2	M	Operational
●	7	LA	210	29.59	WB	Rosemead	S	2		Operational
●	7	LA	210	29.72	WB	Foothill - Rosemead	H	2		Operational
●	7	LA	210	29.74	EB	Rosemead	S	2		Operational
●	7	LA	210	29.85	WB	Michillinda	L	2		Operational
●	7	LA	210	30.01	EB	Michillinda	H	2		Operational
●	7	LA	210	30.49	WB	Baldwin - Foothill	H	2		Operational
●	7	LA	210	30.71	WB	Baldwin NB	L	2		Operational
●	7	LA	210	30.95	EB	Baldwin	S	2		Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	210	31.73	WB	Santa Anita SB	S	2		Operational
●	7	LA	210	31.91	WB	Santa Anita NB	L	2		Operational
●	7	LA	210	32.06	EB	Santa Anita	S	2		Operational
●	7	LA	210	32.76	WB	Huntington	H	2		Operational
●	7	LA	210	32.86	EB	Huntington WB	L	1		Operational
●	7	LA	210	33.05	EB	Huntington EB	S	2		Operational
●	7	LA	210	33.76	WB	Myrtle	S	2		Operational
●	7	LA	210	34.15	EB	Myrtle	S	2		Operational
●	7	LA	210	34.58	WB	Mountain	S	2		Operational
●	7	LA	210	34.95	WB	Buena Vista	S	2		Operational
●	7	LA	210	35.20	EB	Mountain	S	2		Operational
●	7	LA	210	35.38	EB	Buena Vista	S	2		Operational
●	7	LA	210	36.00	WB	NB 605 to WB 210	C	2		Operational
●	7	LA	210	36.21	WB	Mount Olive	H	2	M	Operational
●	7	LA	210	36.41	EB	Mount Olive	L	2	M	Operational
●	7	LA	210	36.60	EB	NB 605 to EB 210	C	2		Operational
●	7	LA	210	37.78	WB	Irwindale SB	S	2		Operational
●	7	LA	210	37.92	WB	Irwindale NB	L	2		Operational
●	7	LA	210	38.01	EB	Irwindale	S	2		Operational
●	7	LA	210	38.87	WB	Vernon	S	2		Operational
●	7	LA	210	39.15	EB	Vernon	S	2		Operational
●	7	LA	210	39.45	WB	Azusa SB	S	1		Operational
●	7	LA	210	39.62	WB	Azusa NB	H	2		Operational
●	7	LA	210	39.70	EB	Azusa SB	L	2		Operational
●	7	LA	210	39.71	EB	Azusa NB	S	2	M	Operational
●	7	LA	210	40.28	WB	Citrus	H	2		Operational
●	7	LA	210	40.56	EB	Citrus SB	L	2	M	Operational
●	7	LA	210	40.74	EB	Citrus NB	S	1		Operational
●	7	LA	210	41.47	WB	Grand	S	2	M	Operational
●	7	LA	210	41.63	WB	Grand - Baseline	H	2		Operational
●	7	LA	210	41.80	EB	Grand	S	2		Operational
●	7	LA	210	43.10	WB	Sunflower	S	2		Operational
●	7	LA	210	43.39	EB	Sunflower	S	2	M	Operational
●	7	LA	210	43.90	WB	NB 57 to WB 210	C	2		Operational
●	7	LA	210	44.10	WB	Lone Hill	S	2	M	Operational
●	7	LA	210	44.20	EB	Lone Hill	S	2	M	Operational
●	7	LA	210	44.60	EB	NB 57 to EB 210	C	2		Operational
●	7	LA	210	45.06	WB	Foothill SB	S	2	M	Operational
●	7	LA	210	45.17	WB	Foothill NB	L	2		Operational
●	7	LA	210	45.31	WB	San Dimas	S	2		Operational
●	7	LA	210	45.66	EB	San Dimas	S	2		Operational
●	7	LA	210	47.00	EB	Foothill	H	2		Operational
●	7	LA	210	48.00	WB	Fruit	S	2		Operational
●	7	LA	210	48.20	EB	Fruit	S	2		Operational
●	7	LA	210	49.40	WB	Towne	S	2		Operational
●	7	LA	210	49.63	EB	Towne	S	2		Operational
●	7	LA	210	51.85	EB	Baseline	S	2		Operational
●	7	LA	210	51.94	WB	Baseline	L	2		Operational
●	7	LA	405	0.55	NB	Studebaker	S	1		Operational
●	7	LA	405	0.90	SB	Stearns	S	2	NM	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	405	1.10	NB	Palo Verde	L	1		Operational
●	7	LA	405	1.50	SB	Woodruff	S	1		Operational
●	7	LA	405	1.73	NB	Woodruff	S	1		Operational
●	7	LA	405	2.16	NB	Bellflower NB	L	2		Operational
●	7	LA	405	2.19	SB	Bellflower NB	S	1		Operational
●	7	LA	405	2.45	SB	Bellflower SB	L	1		Operational
●	7	LA	405	2.46	NB	Bellflower SB	H	1		Operational
●	7	LA	405	2.97	SB	Willow	H	2	NM	Operational
●	7	LA	405	3.28	NB	Lakewood NB	L	2	NM	Operational
●	7	LA	405	3.44	NB	Lakewood SB	S	2	NM	Operational
●	7	LA	405	3.47	SB	Lakewood SB	L	2	NM	Operational
●	7	LA	405	4.47	SB	Spring	S	2	NM	Operational
●	7	LA	405	4.57	NB	Spring	H	2	NM	Operational
●	7	LA	405	4.81	NB	Cherry NB	L	1		Operational
●	7	LA	405	4.81	SB	Cherry SB	L	1		Operational
●	7	LA	405	4.92	NB	Cherry SB	H	1		Operational
●	7	LA	405	5.38	SB	Orange	L	2	NM	Operational
●	7	LA	405	5.46	NB	Orange	H	1		Operational
●	7	LA	405	5.99	NB	Atlantic NB	L	1		Operational
●	7	LA	405	6.00	SB	Atlantic NB	H	1		Operational
●	7	LA	405	6.15	SB	Atlantic SB	L	1		Operational
●	7	LA	405	6.42	SB	Long Beach	H	2		Operational
●	7	LA	405	6.56	NB	Wardlow	S	2	NM	Operational
●	7	LA	405	7.22	NB	Pacific Pl	H	2	NM	Operational
●	7	LA	405	8.02	NB	Santa Fe	H	2		Operational
●	7	LA	405	8.05	SB	Santa Fe	H	2		Operational
●	7	LA	405	8.63	SB	Alameda	H	2		Operational
●	7	LA	405	8.69	NB	Alameda	L	2		Operational
●	7	LA	405	9.47	NB	Wilmington	L	1		Operational
●	7	LA	405	9.47	SB	Wilmington	S	2		Operational
●	7	LA	405	10.49	SB	Carson	S	2	NM	Operational
●	7	LA	405	10.66	NB	Carson	S	1		Operational
●	7	LA	405	11.20	SB	Avalon	S	2		Operational
●	7	LA	405	11.32	NB	Avalon	H	2		Operational
●	7	LA	405	11.32	SB	Avalon	L	2		Operational
●	7	LA	405	12.57	SB	Main St	S	2	NM	Operational
●	7	LA	405	13.31	NB	Vermont	S	2	NM	Operational
●	7	LA	405	13.81	NB	Normandie	H	1		Operational
●	7	LA	405	13.81	SB	Normandie	S	2	NM	Operational
●	7	LA	405	14.34	NB	Western	H	1		Operational
●	7	LA	405	14.52	SB	190th/Western	H	1		Operational
●	7	LA	405	15.43	NB	Crenshaw	H	1		Operational
●	7	LA	405	15.51	SB	Crenshaw	L	1		Operational
●	7	LA	405	16.47	SB	Artesia	S	2		Operational
●	7	LA	405	16.66	NB	Artesia	H	1		Operational
●	7	LA	405	17.01	NB	Redondo Beach	S	1		Operational
●	7	LA	405	17.52	NB	Hawthorne	L	3	NM	Operational
●	7	LA	405	17.64	SB	Hawthorne	L	2	NM	Operational
●	7	LA	405	18.20	NB	Inglewood NB	L	2	NM	Operational
●	7	LA	405	18.20	SB	Inglewood NB	H	2	NM	Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	405	18.30	SB	Inglewood SB	L	2	NM	Operational
●	7	LA	405	18.35	NB	Inglewood SB	H	2	NM	Operational
●	7	LA	405	19.16	NB	Rosecrans EB	L	1		Operational
●	7	LA	405	19.16	SB	Rosecrans	H	1		Operational
●	7	LA	405	19.36	NB	Rosecrans WB	S	1		Operational
●	7	LA	405	20.13	NB	El Segundo EB	L	2	NM	Operational
●	7	LA	405	20.30	SB	El Segundo EB	S	2	NM	Operational
●	7	LA	405	20.39	NB	El Segundo WB	H	2	NM	Operational
●	7	LA	405	20.60	SB	El Segundo WB	H	2	NM	Operational
●	7	LA	405	21.08	SB	Imperial Hwy. EB	H	2	NM	Operational
●	7	LA	405	21.10	NB	Imperial Hwy. EB	L	2	NM	Operational
●	7	LA	405	21.30	SB	Imperial Hwy. WB	H	2	NM	Operational
●	7	LA	405	21.39	NB	Imperial Hwy. WB	H	2	NM	Operational
●	7	LA	405	22.00	SB	Century Bl. EB	H	2		Operational
●	7	LA	405	22.02	SB	Centrury Bl WB/98th	H	2		Operational
●	7	LA	405	22.30	SB	EB/WB 105 to SB 405	C	2		Operational
●	7	LA	405	22.34	SB	Manchester WB/Olive	H	2		Operational
●	7	LA	405	22.40	NB	WB 105 to NB 405	C	2		Non Op
●	7	LA	405	22.68	NB	Century Bl. EB	L	2	NM	Operational
●	7	LA	405	22.70	NB	Century Bl. WB	D	2		Operational
●	7	LA	405	23.36	NB	Manchester EB	L	2	NM	Operational
●	7	LA	405	23.47	NB	Manchester Bl. WB	D	2		Operational
●	7	LA	405	23.61	SB	La Cienaga Bl.	H	1		Operational
●	7	LA	405	24.25	NB	La Tijera Bl.	D	2	NM	Operational
●	7	LA	405	24.25	SB	La Tijera Bl.	D	2	NM	Operational
●	7	LA	405	24.80	NB	Howard Hughes Pkwy	H	2	NM	Operational
●	7	LA	405	25.00	SB	Howard Hughes Pkwy	H	2		Operational
●	7	LA	405	25.83	SB	Jefferson Bl.	D	3	NM	Operational
●	7	LA	405	26.00	NB	Jefferson Bl.	D	3		Operational
●	7	LA	405	26.84	SB	Braddock Dr.	D	1		Operational
●	7	LA	405	27.35	NB	Culver Bl.	D	2	NM	Operational
●	7	LA	405	27.81	NB	Venice Bl.	H	1		Operational
●	7	LA	405	27.81	SB	Venice Bl.	H	1		Operational
●	7	LA	405	29.16	SB	National Bl.	D	2		Operational
●	7	LA	405	30.13	NB	Pico / Olympic Bl.	H	2		Operational
●	7	LA	405	30.80	SB	Santa Monica Bl.	D	3		Operational
●	7	LA	405	30.95	NB	Santa Monica Bl.	D	2		Operational
●	7	LA	405	31.39	SB	Wilshire Bl. EB	H	2		Operational
●	7	LA	405	31.48	NB	Wilshire Bl. EB	L	1		Operational
●	7	LA	405	31.57	NB	Wilshire Bl. WB	H	1		Operational
●	7	LA	405	31.66	SB	Wilshire Bl. WB	L	2		Operational
●	7	LA	405	32.90	SB	Sunset Bl. EB	D	2		Operational
●	7	LA	405	32.96	NB	Sunset Bl. EB	L	1		Operational
●	7	LA	405	33.05	SB	Sunset WB/Church Ln	L	1		Operational
●	7	LA	405	33.42	NB	Moraga Ave	H	2		Operational
●	7	LA	405	34.71	NB	Getty Center Dr.	L	1		Operational
●	7	LA	405	34.73	SB	Getty Center Dr.	D	2		Operational
●	7	LA	405	36.25	SB	Skirball/Muholland Dr	D	2		Operational
●	7	LA	405	36.93	NB	Skirball/Muholland Dr.	H	1		Operational
●	7	LA	405	38.42	SB	Valley Vista Bl.	D	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	405	38.74	NB	Ventura Bl.	H	1		Operational
●	7	LA	405	39.09	SB	Ventura Bl.	L	2	NM	Operational
●	7	LA	405	40.08	SB	Burbank Blvd	H	1		Operational
●	7	LA	405	40.42	NB	Burbank Bl	H	2		Operational
●	7	LA	405	41.31	SB	Victory Blvd EB	L	1		Operational
●	7	LA	405	41.48	SB	Victory Blvd WB	H	2		Operational
●	7	LA	405	41.49	NB	Victory Bl	H	2		Operational
●	7	LA	405	42.25	SB	Sherman Way EB	H	2	NM	Operational
●	7	LA	405	42.40	SB	Sherman Way WB	L	2		Operational
●	7	LA	405	42.59	NB	Sherman Way	H	2		Operational
●	7	LA	405	43.61	SB	Roscoe Blvd	H	2		Operational
●	7	LA	405	43.93	NB	Roscoe Bl	S	2		Operational
●	7	LA	405	44.62	SB	Nordoff St	H	2		Operational
●	7	LA	405	44.92	NB	Nordoff St	S	2		Operational
●	7	LA	405	46.10	SB	Devonshire St EB	S	2		Operational
●	7	LA	405	46.28	SB	Devonshire St WB	H	1		Operational
●	7	LA	405	46.43	NB	Devonshire St WB	H	1		Operational
●	7	LA	405	46.44	NB	Devonshire St EB	L	1		Operational
●	7	LA	405	47.28	SB	San Fernando Mission	L	2		Operational
●	7	LA	405	47.62	SB	Rinaldi St	S	2		Operational
●	7	LA	405	47.94	NB	Rinaldi St	S	2		Operational
●	7	LA	605	0.23	NB	Spring St	L	1		Operational
●	7	LA	605	1.67	SB	Carson EB	L	2		Operational
●	7	LA	605	1.70	NB	Carson EB	L	2		Operational
●	7	LA	605	1.85	SB	Carson WB	L	1		Operational
●	7	LA	605	1.91	NB	Carson WB	S	2	NM	Operational
●	7	LA	605	2.79	SB	Del Amo EB	L	2	NM	Operational
●	7	LA	605	2.81	NB	Del Amo EB	L	2	NM	Operational
●	7	LA	605	2.93	SB	Del Amo WB	L	1		Operational
●	7	LA	605	2.96	NB	Del Amo WB	S	2	NM	Operational
●	7	LA	605	3.68	SB	South EB	L	2	NM	Operational
●	7	LA	605	3.71	NB	South EB	L	1		Operational
●	7	LA	605	3.83	SB	South WB	L	1		Operational
●	7	LA	605	3.86	NB	South WB	S	1		Operational
●	7	LA	605	5.74	SB	Alondra EB	S	2	NM	Operational
●	7	LA	605	5.77	NB	Alondra EB	L	1		Operational
●	7	LA	605	5.85	SB	Alondra WB	L	1		Operational
●	7	LA	605	5.92	NB	Alondra WB	L	2	NM	Operational
●	7	LA	605	6.72	SB	Rosecrans EB	H	2	NM	Operational
●	7	LA	605	6.84	SB	Rosecrans WB	L	2	NM	Operational
●	7	LA	605	6.85	NB	Rosecrans to WB 105	L	1		Operational
●	7	LA	605	6.93	NB	Rosecrans WB	S	2	NM	Operational
●	7	LA	605	7.20	SB	EB 105 to SB 605	C	2		Non Op
●	7	LA	605	7.80	NB	Imperial	H	2	NM	Operational
●	7	LA	605	7.90	SB	Imperial	L	2		Operational
●	7	LA	605	8.20	NB	EB 105 to NB 605	C	2		Operational
●	7	LA	605	8.34	SB	Firestone	S	2		Non Op
●	7	LA	605	8.50	NB	Firestone	S	2	NM	Operational
●	7	LA	605	9.16	SB	Florence	S	2		Operational
●	7	LA	605	9.30	NB	Florence	H	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	605	10.32	SB	Telegraph	L	2		Operational
●	7	LA	605	10.40	NB	Telegraph	S	2	NM	Operational
●	7	LA	605	11.49	SB	Slauson	H	1		Operational
●	7	LA	605	11.96	SB	Washington EB	S	2	NM	Operational
●	7	LA	605	11.97	SB	Washington WB	L	1		Operational
●	7	LA	605	12.22	NB	Washington EB	H	1		Operational
●	7	LA	605	12.57	NB	Saragosa	S	2	NM	Operational
●	7	LA	605	13.44	SB	Whittier EB	S	2	NM	Operational
●	7	LA	605	13.51	NB	Whittier EB	L	1		Operational
●	7	LA	605	13.61	SB	Whittier WB	L	1		Operational
●	7	LA	605	13.64	NB	Whittier WB	S	2	NM	Operational
●	7	LA	605	14.30	SB	Beverly EB	S	2	NM	Operational
●	7	LA	605	14.31	SB	Beverly WB	L	1		Operational
●	7	LA	605	14.60	NB	Beverly	H	2		Operational
●	7	LA	605	15.45	SB	Rose Hills	H	1		Operational
●	7	LA	605	15.73	NB	Rose Hills	S	1		Operational
●	7	LA	605	16.54	SB	Peck SB	S	2	NM	Operational
●	7	LA	605	16.75	SB	Peck NB	H	1		Operational
●	7	LA	605	16.78	NB	Peck	H	1		Operational
●	7	LA	605	19.29	SB	Valley EB	S	1		Operational
●	7	LA	605	19.30	SB	Valley WB	L	2		Operational
●	7	LA	605	19.36	NB	Valley EB	L	1		Operational
●	7	LA	605	19.50	NB	Valley WB	H	1		Operational
●	7	LA	605	20.88	SB	Ramona	S	2	NM	Operational
●	7	LA	605	21.23	NB	Ramona	S	2	NM	Operational
●	7	LA	605	21.95	SB	Lower Azusa	S	2		Operational
●	7	LA	605	22.37	NB	Lower Azusa	S	1		Operational
●	7	LA	605	23.35	SB	Live Oak	S	2		Operational
●	7	LA	605	23.95	NB	Arrow Hwy EB	L	1		Operational
●	7	LA	605	24.15	NB	Arrow Hwy WB	H	1		Operational
	7	LA	710	6.28	NB	Anaheim St EB				Planned
	7	LA	710	6.28	SB	Anaheim St EB				Planned
	7	LA	710	6.43	SB	Anaheim St WB				Planned
	7	LA	710	6.51	NB	Anaheim St WB				Planned
	7	LA	710	6.80	SB	WB PCH				Planned
	7	LA	710	6.80	SB	EB PCH				Planned
	7	LA	710	6.83	NB	EB PCH				Planned
	7	LA	710	7.01	NB	WB PCH				Planned
	7	LA	710	7.73	SB	EB Willow St.				Planned
	7	LA	710	7.81	NB	EB Willow St.				Planned
	7	LA	710	7.96	SB	WB Willow St.				Planned
	7	LA	710	8.06	NB	WB Willow St.				Planned
	7	LA	710	9.16	NB	Wardlow Rd.				Planned
●	7	LA	710	9.72	NB	Pacific Pl	H	1		Operational
●	7	LA	710	10.69	NB	Del Amo EB	L	1		Operational
●	7	LA	710	10.95	SB	Del Amo WB	L	2		Operational
●	7	LA	710	11.00	NB	Del Amo WB	S	1		Operational
●	7	LA	710	11.89	SB	Long Beach	S	2	NM	Operational
●	7	LA	710	12.13	NB	Long Beach	S	2	NM	Operational
●	7	LA	710	12.80	SB	Artesia Bl	S	1		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	LA	710	13.83	SB	Alondra Blvd	S	1		Operational
●	7	LA	710	14.10	NB	Alondra Bl	S	2		Operational
●	7	LA	710	14.90	NB	Rosecrans EB	L	2	NM	Operational
●	7	LA	710	14.90	SB	Rosecrans EB	H	2	NM	Operational
●	7	LA	710	15.10	NB	Rosecrans WB	H	2	NM	Operational
●	7	LA	710	15.10	SB	Rosecrans WB	L	2	NM	Operational
●	7	LA	710	15.25	SB	EB/WB 105 to SB 710	C	3		Non Op
●	7	LA	710	15.90	SB	King	S	2	NM	Operational
●	7	LA	710	16.10	NB	EB/WB 105 to NB 710	C	2		Non Op
●	7	LA	710	16.90	NB	Imperial EB	L	1		Operational
●	7	LA	710	16.92	SB	Imperial EB	S	2	NM	Operational
●	7	LA	710	16.98	SB	Imperial WB	L	1		Operational
●	7	LA	710	17.05	NB	Imperial WB	S	2	NM	Operational
●	7	LA	710	18.42	NB	Firestone EB	L	2	NM	Operational
●	7	LA	710	18.42	SB	Firestone EB	S	2	NM	Operational
●	7	LA	710	18.51	NB	Firestone WB	S	2	NM	Operational
●	7	LA	710	18.51	SB	Firestone WB	L	2	NM	Operational
●	7	LA	710	19.30	SB	Florence EB	S	2	NM	Operational
●	7	LA	710	19.50	NB	Florence EB	L	2	NM	Operational
●	7	LA	710	19.76	NB	Florence WB	S	2	NM	Operational
●	7	LA	710	19.76	SB	Florence WB	L	2	NM	Operational
●	7	LA	710	21.68	SB	Atlantic NB	H	2		Operational
●	7	LA	710	21.95	SB	Atlantic SB	L	1		Non Op
●	7	LA	710	22.15	NB	Atlantic	H	1		Non Op
●	7	LA	710	22.53	SB	Washington Blvd	H	2		Non Op
●	7	LA	710	22.54	NB	Washington	S	1		Operational
●	7	LA	710	23.47	SB	Olympic Blvd	H	1		Operational
●	7	LA	710	23.50	NB	Olympic Blvd	S	1		Operational
●	7	LA	710	24.43	NB	Third St	H	1		Operational
●	7	LA	710	24.54	SB	Third St	L	1		Operational
●	7	LA	710	24.89	SB	Cesar Chavez	S	1		Non Op
●	7	LA	710	25.03	SB	Floral (WB & EB 60)	S	2		Non Op
●	7	VEN	23	3.93	NB	Hillcrest	S	2		Operational
●	7	VEN	23	4.89	SB	Janss EB	S	1		Operational
●	7	VEN	23	5.05	NB	Janss EB	H	1		Operational
●	7	VEN	23	5.09	SB	Janss WB	H	1		Operational
●	7	VEN	23	5.25	NB	Janss WB	S	1		Operational
●	7	VEN	23	5.87	SB	Los Arboles EB	S	1		Operational
●	7	VEN	23	6.02	NB	Los Arboles EB	H	1		Operational
●	7	VEN	23	6.06	SB	Los Arboles WB	H	1		Operational
●	7	VEN	23	6.22	NB	Los Arboles WB	S	1		Operational
●	7	VEN	23	7.01	SB	Sunset Hills EB	S	1		Operational
●	7	VEN	23	7.14	NB	Sunset Hills EB	H	1		Operational
●	7	VEN	23	7.20	SB	Sunset Hills WB	H	1		Operational
●	7	VEN	23	7.37	NB	Sunset Hills WB	S	1		Operational
●	7	VEN	23	7.90	SB	Olsen EB	S	2		Operational
●	7	VEN	23	8.21	SB	Olsen WB	H	1		Operational
●	7	VEN	23	8.30	NB	Olsen EB	H	1		Operational
●	7	VEN	23	8.51	NB	Olsen WB	S	1		Operational
●	7	VEN	23	9.92	SB	Tierra Rejada EB	S	1		Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	VEN	23	10.12	SB	Tierra Rejada WB	H	1		Operational
●	7	VEN	23	10.16	NB	Tierra Rejada EB	H	1		Operational
●	7	VEN	23	10.36	NB	Tierra Rejada WB	S	1		Operational
●	7	VEN	23	11.21	SB	New Los Angeles	S	2		Non Op
●	7	VEN	23	11.43	NB	New Los Angeles	L	2		Operational
	7	VEN	33	0.40	NB	Main St.				Planned
	7	VEN	33	1.57	SB	Stanley				Planned
	7	VEN	33	1.72	NB	Stanley				Planned
	7	VEN	33	2.71	SB	Shell Rd.				Planned
	7	VEN	33	2.82	NB	Shell Rd.				Planned
	7	VEN	33	4.33	SB	Canada Larga Rd.				Planned
	7	VEN	33	4.65	NB	Canada Larga Rd.				Planned
	7	VEN	33	5.47	SB	Casitas Vista				Planned
	7	VEN	33	5.89	NB	Vista Rd.				Planned
●	7	VEN	101	0.46	SB	Westlake EB	S	1		Operational
●	7	VEN	101	0.63	SB	Westlake WB	L	2		Operational
●	7	VEN	101	0.68	NB	Westlake EB	L	1		Non Op
●	7	VEN	101	0.79	NB	Westlake WB	S	1		Non Op
	7	VEN	101	0.94	SB	Connector from SB 23				Planned
●	7	VEN	101	1.49	SB	Hampshire	S	1		Operational
●	7	VEN	101	1.78	NB	Hampshire	S	2		Non Op
●	7	VEN	101	3.06	SB	Rancho Rd.	S	1		Operational
●	7	VEN	101	3.17	NB	Rancho	S	1		Non Op
	7	VEN	101	3.37	NB	Connector from SB 23				Planned
●	7	VEN	101	3.92	SB	Moorpark	S	3		Non Op
●	7	VEN	101	4.28	NB	Moorpark	S	2		Operational
●	7	VEN	101	5.17	NB	Lynn Rd	S	2		Non Op
	7	VEN	101	6.89	SB	Borchard / R.Cornejo				Planned
	7	VEN	101	7.23	NB	Borchard				Planned
●	7	VEN	101	7.70	SB	Wendy Dr.	S	1		Non Op
●	7	VEN	101	7.86	NB	Wendy 1	L	1		Non Op
●	7	VEN	101	8.06	NB	Wendy 2	S	2		Non Op
	7	VEN	101	12.31	SB	Pleasant Valley				Planned
	7	VEN	101	12.40	NB	Pleasant Valley				Planned
	7	VEN	101	13.23	NB	Flynn Rd				Planned
	7	VEN	101	13.56	SB	Lewis Rd				Planned
	7	VEN	101	13.69	NB	Lewis Rd				Planned
	7	VEN	101	13.91	SB	Fulton / Somis				Planned
	7	VEN	101	14.66	SB	Carmen				Planned
	7	VEN	101	14.87	NB	Carmen				Planned
	7	VEN	101	15.20	SB	Springville Rd				Planned
	7	VEN	101	15.30	NB	Springville Rd				Planned
	7	VEN	101	15.80	SB	Los Posas WB				Planned
	7	VEN	101	15.86	NB	Las Posas EB				Planned
	7	VEN	101	15.93	SB	Los Posas EB				Planned
	7	VEN	101	15.99	NB	Las Posas WB				Planned
	7	VEN	101	17.59	SB	Central				Planned
	7	VEN	101	17.90	NB	Central				Planned
	7	VEN	101	19.02	SB	Del Norte				Planned
	7	VEN	101	19.32	NB	Del Norte				Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	VEN	101	20.03	NB	RICE 1	L	2		Non Op
●	7	VEN	101	20.03	SB	RICE	S	2		Non Op
	7	VEN	101	20.03	SB	Rice				Planned
	7	VEN	101	20.05	NB	Rice				Planned
●	7	VEN	101	20.15	NB	RICE2	S	1		Non Op
	7	VEN	101	20.54	NB	Rose EB				Planned
	7	VEN	101	20.80	SB	Rose WB				Planned
	7	VEN	101	20.97	SB	Rose EB				Planned
	7	VEN	101	21.06	NB	Rose WB				Planned
	7	VEN	101	21.78	SB	Vineyard WB				Planned
	7	VEN	101	21.97	NB	Vineyard EB				Planned
	7	VEN	101	22.03	SB	Vineyard EB				Planned
	7	VEN	101	22.18	NB	Vineyard WB				Planned
●	7	VEN	101	22.48	SB	Oxnard Blvd.	S	2	NM	Non Op
●	7	VEN	101	22.94	NB	Oxnard Blvd.	S	3		Non Op
●	7	VEN	101	23.46	SB	Johnson Dr.	L	1		Non Op
●	7	VEN	101	23.71	NB	Johnson Dr.	H	1		Non Op
	7	VEN	101	24.01	SB	Victoria EB				Planned
	7	VEN	101	24.51	SB	Victoria WB				Planned
	7	VEN	101	24.80	NB	Victoria Ave.				Planned
	7	VEN	101	25.86	SB	Telephone Rd.				Planned
	7	VEN	101	26.60	NB	Connector from WB 126				Planned
	7	VEN	101	26.92	SB	Connector from WB 126				Planned
	7	VEN	101	30.55	SB	Connector from SB 33				Planned
	7	VEN	101	31.00	NB	Connector from SB 33				Planned
●	7	VEN	118	19.60	EB	Princeton Ave	S	2		Operational
●	7	VEN	118	19.75	WB	Princeton Ave	S	2		Operational
●	7	VEN	118	19.87	WB	CollinsDr.	S	2		Operational
●	7	VEN	118	20.60	EB	Collins Dr.	L	2		Operational
●	7	VEN	118	22.86	WB	Madera Rd.	S	2		Operational
●	7	VEN	118	22.90	EB	Madera Rd. SB	L	1		Operational
●	7	VEN	118	23.20	EB	Madera Rd. NB	S	2		Operational
●	7	VEN	118	23.63	WB	First St. SB	S	2		Operational
●	7	VEN	118	23.63	WB	First St. NB	L	2		Operational
●	7	VEN	118	23.78	EB	First St. SB	L	2		Operational
●	7	VEN	118	23.97	EB	First St. NB	S	2		Operational
●	7	VEN	118	24.78	EB	Erringer Rd. SB	L	2		Operational
●	7	VEN	118	24.80	WB	Erringer Rd. NB	L	2		Operational
●	7	VEN	118	24.93	WB	Erringer Rd. SB	S	2		Operational
●	7	VEN	118	24.97	EB	Erringer Rd. NB	S	2		Operational
●	7	VEN	118	25.78	EB	Sycamore Dr. SB	L	2		Operational
●	7	VEN	118	25.83	WB	Sycamore Dr. SB	S	2		Operational
●	7	VEN	118	25.83	WB	Sycamore Dr. NB	L	2		Operational
●	7	VEN	118	25.89	EB	Sycamore Dr. NB	S	2		Operational
●	7	VEN	118	27.20	EB	Tapo Cyn. SB	L	2		Operational
●	7	VEN	118	27.30	WB	Tapo Cyn. SB	S	2		Operational
●	7	VEN	118	27.30	WB	Tapo Cyn. NB	L	2		Operational
●	7	VEN	118	27.40	EB	Tapo Cyn. NB	S	2		Operational
●	7	VEN	118	28.70	EB	Stearns St. SB	L	2		Operational
●	7	VEN	118	28.80	WB	Stearns St. NB	L	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

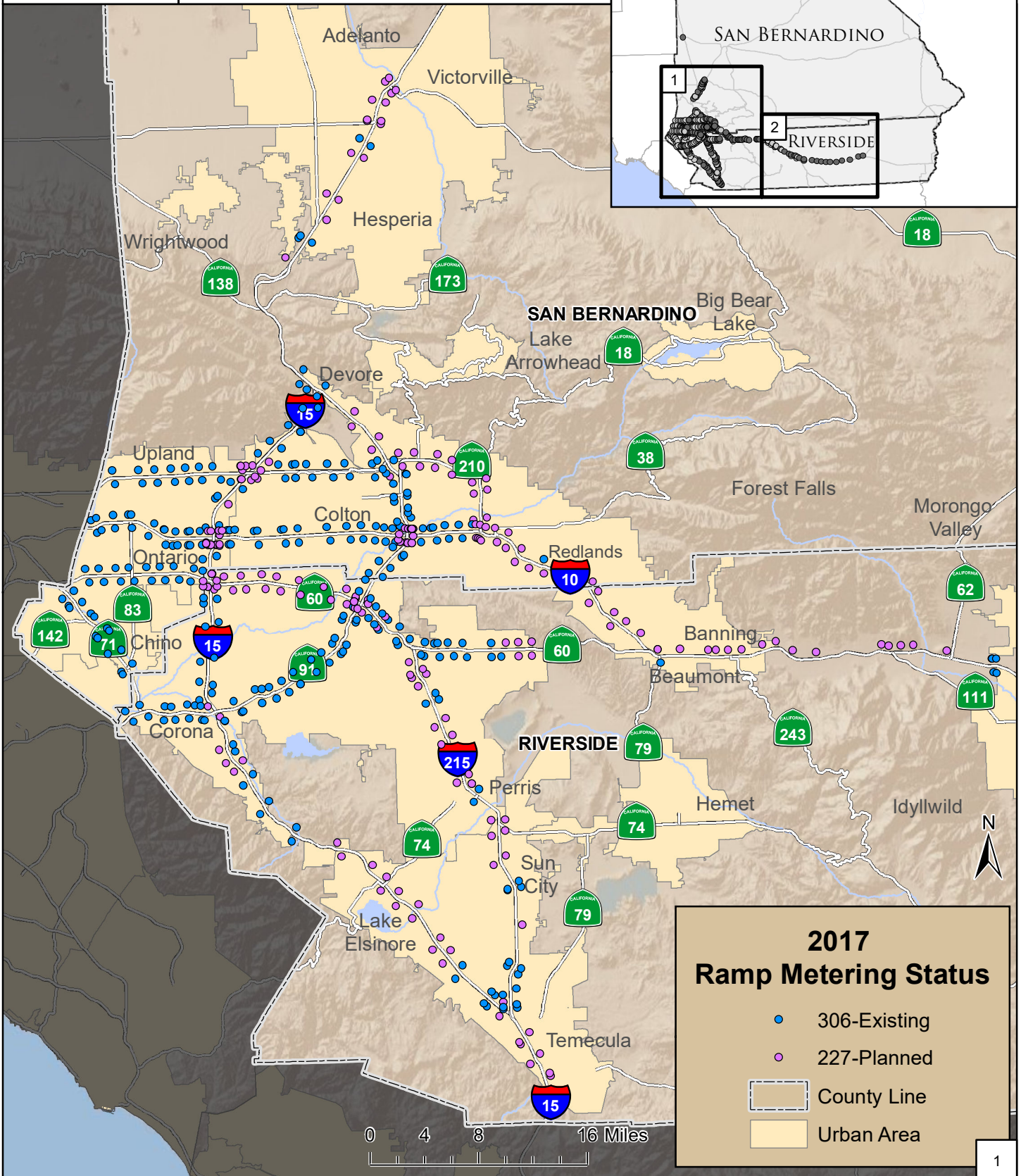
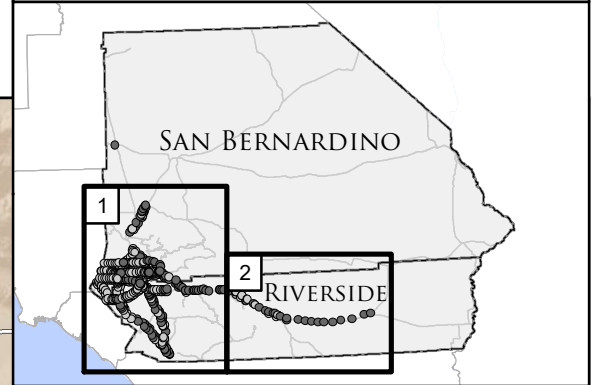
Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	7	VEN	118	28.86	WB	Stearns St. SB	S	2		Operational
●	7	VEN	118	28.90	EB	Stearns St. NB	S	2		Operational
●	7	VEN	118	29.50	WB	Yosemite Ave. SB	S	2		Operational
●	7	VEN	118	29.50	WB	Yosemite Ave. NB	L	2		Operational
●	7	VEN	118	29.53	EB	Yosemite Ave. SB	L	2		Operational
●	7	VEN	118	29.73	EB	Yosemite Ave. NB	S	2		Operational
●	7	VEN	118	30.38	WB	Kuehner Dr.	S	2		Operational
●	7	VEN	118	30.82	EB	Kuehner Dr.	S	2		Operational
●	7	VEN	118	32.48	WB	Rockey Peak Rd.	S	2		Operational
●	7	VEN	118	32.53	EB	Rockey Peak Rd.	S	2		Operational
	7	VEN	126	0.00	EB	Main St.				Planned
	7	VEN	126	1.36	WB	SB Victoria				Planned
	7	VEN	126	1.36	WB	NB Victoria				Planned
	7	VEN	126	1.44	EB	SB Victoria				Planned
	7	VEN	126	1.52	EB	NB Victoria				Planned
	7	VEN	126	2.91	EB	Kimball Rd.				Planned
	7	VEN	126	4.91	WB	SB Wells Rd.				Planned
	7	VEN	126	4.91	WB	NB Wells Rd.				Planned
	7	VEN	126	5.08	EB	SB Wells Rd.				Planned
	7	VEN	126	5.08	EB	NB Wells Rd.				Planned
	7	VEN	126	8.84	WB	Briggs Rd.				Planned
	7	VEN	126	8.96	EB	Briggs Rd.				Planned
	7	VEN	126	10.27	WB	Peck/Acacia				Planned
	7	VEN	126	10.37	EB	Peck/Acacia				Planned
	7	VEN	126	11.28	WB	Palm Ave.				Planned
	7	VEN	126	11.48	EB	Palm Ave.				Planned
	7	VEN	126	11.95	WB	10th St. (Rte. 150)				Planned
	7	VEN	126	12.14	EB	10th St. (Rte. 150)				Planned
	7	VEN	126	20.61	WB	Kimball Rd.				Planned

# DISTRICT 8

# District 8

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



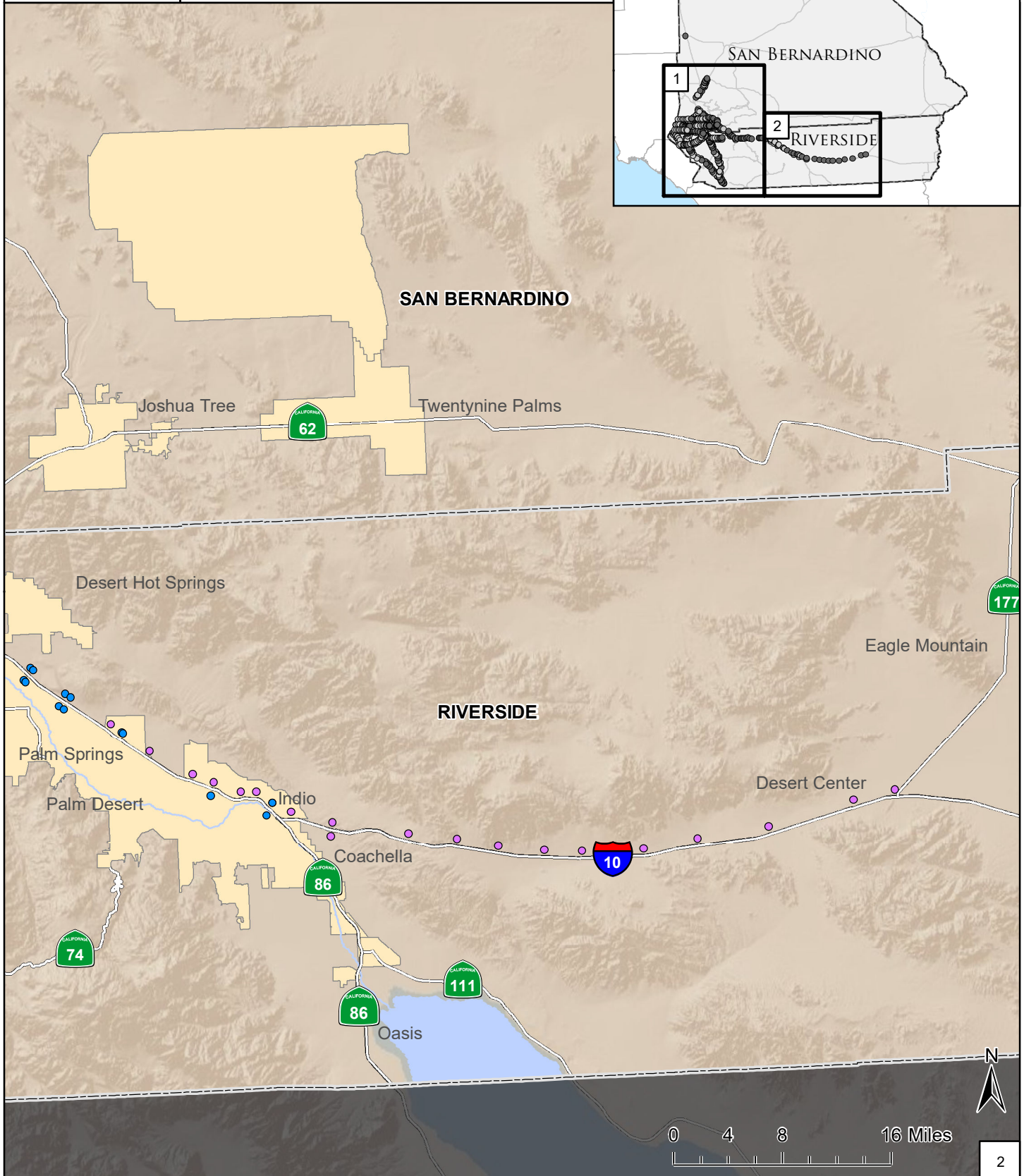
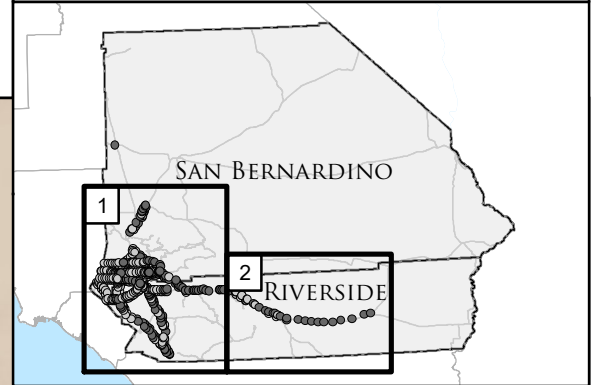
Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



# District 8

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



## **DISTRICT 8**

District 8, located in Southern California, is comprised of Riverside and San Bernardino counties and includes 49 incorporated cities and unincorporated areas of the county. Just east of the Los Angeles Metropolitan Area and Orange County, north of San Diego and Imperial counties, the southwest portion of the district is largely urbanized valleys surrounded by hills and high mountains.

The greater portion of the district is comprised of rural expanses of desert and mountains. The land area of District 8 is the largest of the districts encompassing 28,650 square miles. According to the 2015 American Community Survey San Bernardino and Riverside have a combined population of approximately 4.4 million and a population density of 153 people per square mile. Of the 4.4 million, 1.7 million commute to work while 77 percent of those commuting drive alone to work. District 8 manages 1,919 centerline miles and 7,200 lane-miles of highway.

### Current or Planned Ramp Metering Routes

The following routes have or are planned to have ramp metering:  
I-10, I-15, I-215, SR 60, SR 71, SR 91, SR 210, SR 259, and US 395

District 8 has 306 existing metered ramps and 227 planned metered ramps for a projected total of 533 metered ramps for the ten-year period covered by the 2017 RMDP. District 8 has 47 high priority ramp meter locations. Ramp meter locations are illustrated on the District 8 RMDP map.

The conceptual cost estimate, excluding civil work and right-of-way cost, to install ramp meters at all of the district's proposed high-priority locations is \$10,640,000. Actual project cost will be determined during the project development phases when the scope and schedule are finalized.

### Congestion Challenges

Highway congestion is a common occurrence in the District due to commute traffic within and in between other urban areas of Southern California. Congestion is further exacerbated by large volumes of goods movement traffic mostly originating from local manufacturing and the ports of Los Angeles and Long Beach. The rural desert areas and the mountain routes in particular Interstate 15 experiences congestion due to seasonal recreational uses and weekend travel to Las Vegas. Additionally, bottleneck analysis reveals I-215, I-10, I-15, I-210, SR 60, SR 71 and SR 91 are the most congested routes within the District.

### District Ramp Metering Strategies

District 8 is committed to using ramp metering as an effective traffic management strategy. In efforts to maximize freeway capacity and optimize mobility through the freeway system, ramp meters throughout District 8 are operating in traffic-responsive mode to reduce congestion.

Ramp meters automatically turn on when traffic volume or density on mainline lanes reach a

specific threshold and turn off when these conditions are no longer present. The variable ramp discharge rate is proportional to:

- Mainline traffic volume.
- Density of mainline traffic (collected using mainline detection).
- Weaving analysis and geometrics of the ramp location.
- Traffic demands at the ramp.

In District 8, the Transportation Management Center (TMC), communication networks, and detection coverage are essential in determining the state of congestion on each corridor. Based on the state of congestion, ramp meters are installed at locations that mitigate congestion issues.

Ramp meters are also added to all new and reconstructed interchanges even in locations that are not yet urbanized. These ramp meters may not activate often if the congestion levels are low. However, the real time data collected at these locations is transmitted to the central systems, advanced transportation management system (ATMS), and Ramp Metering Information System (RMIS) for traffic analysis and traveler information.

District 8 works closely with local partners to minimize back-ups on city streets and to maximize coordination with city engineers, traffic signal engineers, and ramp metering engineers on the management of the arterial system.

#### Supporting Documents

- District 8 TCRs, CSMPs, DSMP, and other planning products:  
<http://www.dot.ca.gov/d8/index.html>
- District/Deputy Directives:  
[http://admin.dot.ca.gov/bfams/admin\\_svcs/sw\\_policy](http://admin.dot.ca.gov/bfams/admin_svcs/sw_policy)



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	8	Riv	10	R 0.71	WB	Calimesa Blvd				Planned
	8	Riv	10	R 1.03	EB	Calimesa Blvd				Planned
	8	Riv	10	R 2.90	WB	Cherry Valley Blvd				Planned
	8	Riv	10	R 3.19	EB	Cherry Valley Blvd				Planned
	8	Riv	10	R 4.06	WB	Brookside Rd				Planned
	8	Riv	10	R 5.38	WB	Oak Valley Parkway				Planned
●	8	Riv	10	7.44	WB	Beaumont Ave				Operational
	8	Riv	10	7.44	WB	Beaumont/ Rte 79				Planned
●	8	Riv	10	7.70	EB	Beaumont Ave				Operational
	8	Riv	10	9.15	WB	Highland Springs				Planned
	8	Riv	10	11.17	WB	Sunset Ave				Planned
	8	Riv	10	R 11.84	WB	22nd St				Planned
	8	Riv	10	12.73	WB	8th St/ Rte 243				Planned
	8	Riv	10	13.75	WB	Hargrave St				Planned
	8	Riv	10	R 15.41	WB	N Truck Insp				Planned
	8	Riv	10	R 16.31	WB	Fields				Planned
	8	Riv	10	R 17.50	WB	Apache Trail				Planned
	8	Riv	10	R 19.52	WB	Main St				Planned
	8	Riv	10	R 24.40	WB	Verbenia Ave				Planned
	8	Riv	10	R 24.88	WB	NB Rte 111				Planned
	8	Riv	10	25.98	WB	White Water Rd				Planned
	8	Riv	10	27.01	WB	White Water Rd				Planned
	8	Riv	10	29.41	WB	SB Rte 62				Planned
	8	Riv	10	32.88	WB	Indian Ave				Planned
●	8	Riv	10	32.91	WB	Indian Canyon Dr				Operational
●	8	Riv	10	32.96	EB	Indian Canyon Dr				Operational
●	8	Riv	10	33.14	WB	Indian Canyon Dr				Operational
●	8	Riv	10	33.34	EB	Indian Canyon Dr				Operational
●	8	Riv	10	35.96	WB	Gene Autry Trail (Diamond)	S	1		Operational
●	8	Riv	10	36.10	EB	Gene Autry Trail (Loop)	L	1		Operational
●	8	Riv	10	36.20	WB	Gene Autry Trail (Loop)	L	1		Operational
●	8	Riv	10	36.29	EB	Gene Autry Trail (Diamond)	S	1		Operational
●	8	Riv	10	39.24	WB	Date Palm Dr	T			Operational
●	8	Riv	10	39.28	EB	Date Palm Dr (L)	L			Operational
●	8	Riv	10	39.70	EB	Date Palm Dr				Operational
●	8	Riv	10	39.71	WB	Date Palm Dr (L)	L			Operational
	8	Riv	10	43.20	WB	Ramon Rd				Planned
●	8	Riv	10	44.28	WB	Monterey Ave				Operational
●	8	Riv	10	44.50	WB	Monterey Ave				Operational
	8	Riv	10	46.74	WB	SB Cook St				Planned
	8	Riv	10	50.46	WB	Varner Road				Planned
	8	Riv	10	R 52.17	WB	Jefferson/Rte 86				Planned
●	8	Riv	10	52.17 R	EB	Jefferson St				Operational
	8	Riv	10	R 54.60	WB	Monroe St				Planned
	8	Riv	10	R 55.62	WB	Jackson St				Planned
	8	Riv	10	R 56.83	WB	Auto Ctr Dr				Planned
●	8	Riv	10	R 56.83	WB	Golf Center Dr.	S	1		Operational
●	8	Riv	10	R 57.07	EB	Golf Center Dr.	S	1		Operational
	8	Riv	10	R 58.77	WB	Dillion Rd				Planned
	8	Riv	10	R 62.62	EB	50th Ave				Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	8	Riv	10	R 62.62	WB	50th Ave				Planned
	8	Riv	10	R 68.32	WB	Brown Arroyo 56 204				Planned
	8	Riv	10	R 72.03	WB	Cactus City Rd				Planned
	8	Riv	10	R 75.08	WB	Frontage Rd				Planned
	8	Riv	10	R 78.54	WB	Buried Mtn Wash Br				Planned
	8	Riv	10	R 81.39	WB	Cottonwood Springs				Planned
	8	Riv	10	R 85.90	WB	Chiriaco Summit				Planned
	8	Riv	10	R 90.00	WB	Hayfield Rd				Planned
	8	Riv	10	R 95.37	WB	Red Cloud Rd				Planned
	8	Riv	10	R 101.93	WB	Eagle Mtn Rd				Planned
	8	Riv	10	R 104.97	WB	Rice Rd/ Rte 177				Planned
	8	Riv	15	3.33	NB	Rte 79/Front				Planned
	8	Riv	15	3.58	NB	Rte 79/Front				Planned
	8	Riv	15	4.83	SB	Rancho California				Planned
	8	Riv	15	5.13	NB	Rancho California				Planned
	8	Riv	15	6.45	SB	Rte 79/Winchester				Planned
	8	Riv	15	6.65	SB	Rte 79/Winchester				Planned
	8	Riv	15	6.81	NB	Rte 79/Winchester				Planned
	8	Riv	15	9.34	SB	Murrieta Hot Springs				Planned
	8	Riv	15	9.59	NB	Murrieta Hot Springs				Planned
●	8	Riv	15	10.42	NB	California Oaks (Loop)	L			Operational
●	8	Riv	15	10.44	SB	California Oaks (Loop)	L			Operational
●	8	Riv	15	10.76	SB	California Oaks	s			Operational
●	8	Riv	15	10.78	NB	California Oaks	s			Operational
●	8	Riv	15	13.47	SB	Clinton Keith Rd	T			Operational
●	8	Riv	15	13.80	NB	Clinton Keith Rd	T			Operational
	8	Riv	15	14.90	SB	Baxter Rd				Planned
	8	Riv	15	15.23	NB	Baxter Rd				Planned
	8	Riv	15	16.14	SB	Bundy Cyn				Planned
	8	Riv	15	16.47	NB	Bundy Cyn				Planned
	8	Riv	15	18.93	SB	Railroad Cyn				Planned
	8	Riv	15	19.31	NB	Railroad Cyn				Planned
	8	Riv	15	20.66	SB	Main St				Planned
	8	Riv	15	21.14	NB	Main St				Planned
	8	Riv	15	22.08	SB	Rte 74/Central				Planned
	8	Riv	15	22.43	NB	Rte 74/Central				Planned
	8	Riv	15	24.04	NB	Nichols Rd				Planned
	8	Riv	15	26.51	SB	Lake St				Planned
	8	Riv	15	26.91	NB	Lake St				Planned
●	8	Riv	15	30.25	SB	Indian Trail Rd	S	1		Operational
●	8	Riv	15	30.60	NB	Indian Trail Rd	S	2		Operational
●	8	Riv	15	33.09	SB	Temescual Cyn				Operational
●	8	Riv	15	33.54	NB	Temescual Cyn				Operational
●	8	Riv	15	35.50	SB	Weirick Rd				Operational
●	8	Riv	15	35.88	NB	Weirick Rd				Operational
	8	Riv	15	36.93	SB	Cajalco Rd				Planned
	8	Riv	15	36.96	NB	Cajalco Rd				Planned
	8	Riv	15	37.68	SB	Cerrito Rd				Planned
●	8	Riv	15	38.02	NB	El Cerrito	S	2		Operational
	8	Riv	15	38.56	SB	Ontario Ave				Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	8	Riv	15	38.91	NB	Ontario Ave	S	2		Operational
●	8	Riv	15	40.38	NB	Magnolia Ave	S	2		Operational
●	8	Riv	15	40.48	NB	Magnolia Ave	S	2		Operational
●	8	Riv	15	42.76	SB	Hidden Valley Blvd	S	2		Operational
●	8	Riv	15	43.02	NB	Hidden Valley Blvd	S	2		Operational
●	8	Riv	15	43.77	NB	Second St NB	S	1		Operational
●	8	Riv	15	43.86	SB	Second St SB	S	2		Operational
●	8	Riv	15	45.40	SB	Sixth St	S	1		Operational
●	8	Riv	15	45.71	NB	Sixth St	S	1		Operational
●	8	Riv	15	48.05	SB	Limonite Ave	S	2		Operational
●	8	Riv	15	48.37	NB	Limonite Ave	S	1		Operational
●	8	Riv	15	49.80	SB	Cantu Galleano SB	S	2		Operational
●	8	Riv	15	50.10	NB	Cantu Galleano NB	L	3		Operational
●	8	Riv	15	50.20	SB	Cantu Galleano SB	L	2		Operational
	8	Riv	15	TBD	NB	EB 60 Connector	C			Planned
	8	Riv	15	TBD	NB	WB 60 Connector	C			Planned
	8	Riv	15	TBD	SB	EB 60 Connector	C			Planned
	8	Riv	15	TBD	SB	Wb 60 Connector	C			Planned
●	8	Riv	60	R 0.23	EB	Milliken Ave	S	1		Operational
	8	Riv	60	R 0.55	WB	Rte 15 Connector				Planned
	8	Riv	60	R 0.98	EB	Rte 15 Connector				Planned
	8	Riv	60	R 1.56	WB	Van Buren Blvd				Planned
	8	Riv	60	R 2.22	EB	Etiwanda Ave				Planned
	8	Riv	60	R 2.87	WB	Country Village				Planned
	8	Riv	60	R 3.19	EB	Country Village				Planned
	8	Riv	60	R 4.35	WB	Pedley Rd				Planned
	8	Riv	60	R 4.71	EB	Pedley Rd				Planned
	8	Riv	60	R 5.40	WB	Pyrite St				Planned
	8	Riv	60	R 5.82	EB	Pyrite St				Planned
	8	Riv	60	7.36	WB	Valley Way				Planned
	8	Riv	60	7.66	EB	Valley Way				Planned
	8	Riv	60	9.39	WB	Rubidoux Blvd				Planned
	8	Riv	60	9.83	EB	Rubidoux Blvd				Planned
	8	Riv	60	10.86	WB	Market St				Planned
	8	Riv	60	11.28	EB	Market St				Planned
●	8	Riv	60	11.80	EB	Main St	S	1		Operational
	8	Riv	60	11.94	EB	Orange St				Planned
●	8	Riv	60	13.39	WB	Day St	L	1		Operational
●	8	Riv	60	13.45	EB	Day St	S	2		Operational
●	8	Riv	60	14.17	WB	Pigeon Pass Rd	S	2		Operational
●	8	Riv	60	14.41	WB	Pigeon Pass Rd	L	1		Operational
●	8	Riv	60	14.53	EB	Pigeon Pass Rd/Fredrick	S	2		Operational
●	8	Riv	60	15.17	WB	Heacock Ave	S	2		Operational
●	8	Riv	60	15.60	EB	Heacock Ave	S	1		Operational
●	8	Riv	60	16.14	WB	Perris Blvd	S	2		Operational
●	8	Riv	60	16.60	EB	Perris Blvd	S	1		Operational
●	8	Riv	60	18.37	WB	Nasson St (Loop)	L			Operational
●	8	Riv	60	18.37	EB	Nasson St (T)	T			Operational
●	8	Riv	60	19.12	EB	Moreno Beach(T)	T			Operational
	8	Riv	60	19.46	WB	Moreno Beach Dr				Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	8	Riv	60	20.37	WB	Redlands Blvd				Planned
	8	Riv	60	20.37	EB	Redlands Blvd				Planned
	8	Riv	60	21.37	WB	Theodore St				Planned
	8	Riv	60	21.37	EB	Theodore St				Planned
	8	Riv	60	TBD	EB	NB 15 Connector	C			Planned
	8	Riv	60	TBD	EB	SB 15 Connector	C			Planned
	8	Riv	60	TBD	WB	NB 15 Connector	C			Planned
	8	Riv	60	TBD	WB	SB 15 Connector	C			Planned
●	8	Riv	91	R 1.00	WB	Green River Rd	S	3	M	Operational
●	8	Riv	91	R 1.06	EB	Green River Rd	S	2	M	Operational
●	8	Riv	91	R 1.98	WB	Rte 71	S	2		Operational
●	8	Riv	91	R 2.54	EB	Rte 71	S	2		Operational
●	8	Riv	91	R 3.69	WB	Serfas Club Dr	S	3	M	Operational
●	8	Riv	91	R 3.73	EB	Serfas Club Dr	S	2	M	Operational
●	8	Riv	91	4.21	WB	Maple St	S	2	M	Operational
●	8	Riv	91	4.35	EB	Paseo Grande				Operational
●	8	Riv	91	5.30	WB	Lincoln Ave	S	3	M	Operational
●	8	Riv	91	5.50	EB	Lincoln Ave	S	2		Operational
●	8	Riv	91	5.86	WB	W. Grand Ave	S	1		Operational
●	8	Riv	91	6.27	WB	Main St	S	2	M	Operational
●	8	Riv	91	6.46	EB	Main St	S	3	M	Operational
●	8	Riv	91	6.62	EB	Main St to 15 Connector				Operational
	8	Riv	91	7.03	WB	Rte 15 Connector				Planned
	8	Riv	91	7.71	EB	Rte 15 Connector				Planned
●	8	Riv	91	9.02	WB	Mckinley Ave	S	3	M	Operational
●	8	Riv	91	9.22	EB	Mckinley Ave	L	2	M	Operational
●	8	Riv	91	9.36	EB	Mckinley Ave	S	1		Operational
●	8	Riv	91	10.72	WB	Pierce St	S	2	M	Operational
●	8	Riv	91	11.05	WB	Magnolia Ave	S	1		Operational
●	8	Riv	91	11.22	EB	Magnolia Ave	S	1		Operational
●	8	Riv	91	11.93	WB	La Sierra Ave	S	3	M	Operational
●	8	Riv	91	12.17	EB	La Sierra Ave	S	3	M	Operational
●	8	Riv	91	13.01	WB	Tyler St	S	2	M	Operational
●	8	Riv	91	13.06	EB	Tyler St	S	2	M	Operational
●	8	Riv	91	14.07	WB	Van Buren St	S	2	M	Operational
●	8	Riv	91	14.10	EB	Van Buren St	S	2	M	Operational
●	8	Riv	91	14.10	EB	Van Buren St (Loop)	L			Operational
●	8	Riv	91	15.57	EB	Adams St	S	2	M	Operational
●	8	Riv	91	15.71	WB	Adams St	S	2	M	Operational
●	8	Riv	91	16.59	WB	Madison St	S	2	M	Operational
●	8	Riv	91	16.75	EB	Madison St	S	2	M	Operational
●	8	Riv	91	17.72	WB	Arlington Ave	S	2	M	Operational
●	8	Riv	91	17.75	EB	Jane St				Operational
●	8	Riv	91	17.93	EB	Arlington Ave	S	2		Operational
●	8	Riv	91	18.34	WB	Central Ave	S	2	M	Operational
●	8	Riv	91	18.52	EB	Central Ave	S	1		Operational
●	8	Riv	91	19.83	WB	14th St	S	2		Operational
●	8	Riv	91	20.12	EB	14th St	S	2		Operational
●	8	Riv	91	20.29	WB	10th St	S	2		Operational
●	8	Riv	91	20.60	EB	Mission Inn	S	2		Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	8	Riv	91	21.30	EB	La Cadena Dr				Planned
●	8	Riv	91	21.47	WB	Spruce	S	2		Operational
	8	Riv	91	21.51	WB	Rte 60				Planned
●	8	Riv	215	9.33	SB	Murrieta Hot Springs	S	1		Operational
●	8	Riv	215	9.46	NB	Murrieta Hot Springs	S	1		Operational
●	8	Riv	215	9.54	SB	Murrieta Hot Springs	S	1		Operational
●	8	Riv	215	9.71	NB	Murrieta Hot Springs	S	1		Operational
●	8	Riv	215	10.45	SB	Los Alamos	S	3	M	Operational
●	8	Riv	215	10.84	NB	Los Alamos	S	3	M	Operational
●	8	Riv	215	12.31	NB	Clinton Keith Road (L)	L			Operational
●	8	Riv	215	12.32	SB	Clinton Keith Road	T			Operational
●	8	Riv	215	12.73	NB	Clinton Keith Road	T			Operational
●	8	Riv	215	12.77	SB	Clinton Keith Road (L)	L			Operational
	8	Riv	215	15.70	NB	Scott Road				Planned
●	8	Riv	215	18.30 R	SB	Newport Road				Operational
●	8	Riv	215	18.40 R	NB	Newport Road				Operational
●	8	Riv	215	18.52 R	SB	Newport Road				Operational
●	8	Riv	215	18.70 R	NB	Newport Road				Operational
	8	Riv	215	20.59	SB	Mccall Blvd				Planned
	8	Riv	215	21.07	NB	Mccall Blvd				Planned
	8	Riv	215	22.58	SB	Ethanac Road				Planned
	8	Riv	215	22.94	NB	Ethanac Road				Planned
	8	Riv	215	23.72	SB	Rte 74				Planned
	8	Riv	215	23.73	NB	Rte 74				Planned
●	8	Riv	215	26.19	SB	Redlands Ave (Diamond)	S	3	M	Operational
●	8	Riv	215	26.39	NB	Redlands Ave (Diamond)	S	3	M	Operational
●	8	Riv	215	27.38	NB	D St				Operational
	8	Riv	215	27.38	NB	D St				Planned
	8	Riv	215	27.70	SB	Nuevo Road				Planned
	8	Riv	215	28.03	NB	Nuevo Road				Planned
	8	Riv	215	R 30.76	SB	Ramona Expwy				Planned
	8	Riv	215	R 31.08	NB	Ramona Expwy				Planned
	8	Riv	215	R 32.20	SB	Harley Knox				Planned
	8	Riv	215	R 32.49	NB	Harley Knox				Planned
●	8	Riv	215	R 33.99	SB	Van Buren Blvd				Operational
●	8	Riv	215	R 34.02	NB	Van Buren Blvd (L)				Operational
●	8	Riv	215	R 34.40	NB	Van Buren Blvd (T)				Operational
	8	Riv	215	R 35.51	SB	Cactus Ave				Planned
	8	Riv	215	R 35.89	NB	Cactus Ave				Planned
	8	Riv	215	R 36.32	SB	Alesandro Blvd				Planned
	8	Riv	215	R 36.47	SB	Alesandro Blvd				Planned
	8	Riv	215	R 36.59	NB	Alesandro Blvd				Planned
	8	Riv	215	R 37.23	SB	Eucalyptus Ave				Planned
●	8	Riv	215	R 37.61	NB	Eucalyptus Ave	S	1		Operational
●	8	Riv	215	38.63	NB	Box Spring	S	1		Operational
●	8	Riv	215	38.77	SB	Sycamore (Box Spring)	S	2		Operational
●	8	Riv	215	39.34	SB	Central	S	3	M	Operational
●	8	Riv	215	39.65	NB	Central	S	2	M	Operational
●	8	Riv	215	40.76	SB	M.Luther King	S	2		Operational
●	8	Riv	215	40.93	NB	M. Luther King	S	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	8	Riv	215	41.11	SB	Pennsylvania Ave				Planned
	8	Riv	215	41.24	NB	Pennsylvania Ave				Planned
●	8	Riv	215	41.45	SB	University Ave	S	2		Operational
●	8	Riv	215	41.56	NB	University Ave	S	2	M	Operational
●	8	Riv	215	42.07	SB	Blaine St	S	2		Operational
●	8	Riv	215	42.25	NB	Blaine St	S	2		Operational
	8	Riv	215	43.14	SB	Rte 91				Planned
	8	Riv	215	43.23	NB	Rte 60				Planned
	8	Riv	215	43.34	NB	Rte 215				Planned
	8	Riv	215	43.39	SB	Rte 215				Planned
	8	Riv	215	43.43	SB	Rte 60				Planned
●	8	Riv	215	43.96	sb	Columbia Ave				Operational
●	8	Riv	215	43.97	NB	Columbia Ave	S	2		Operational
●	8	Riv	215	44.91	SB	Center St				Operational
●	8	SBd	10	0.58	WB	Monte Vista Ave	S	2	M	Operational
●	8	SBd	10	0.81	EB	Monte Vista Ave	S	2		Operational
●	8	SBd	10	1.15	EB	Central Ave	S	2	M	Operational
●	8	SBd	10	1.15	WB	Central Ave	S	2	M	Operational
●	8	SBd	10	2.26	WB	Mountain Ave	S	2	M	Operational
●	8	SBd	10	2.39	EB	Mountain Ave	S	2	M	Operational
●	8	SBd	10	3.34	WB	Euclid Ave	S	1		Operational
●	8	SBd	10	3.55	WB	Euclid Ave	L	1		Operational
●	8	SBd	10	3.60	EB	Euclid Ave	S	1		Operational
●	8	SBd	10	5.21	WB	4th St	S	2		Operational
●	8	SBd	10	5.29	EB	4th St	S	2	M	Operational
●	8	SBd	10	6.04	WB	Vineyard Ave	S	1		Operational
●	8	SBd	10	6.12	WB	Vineyard Ave	L	1		Operational
●	8	SBd	10	6.53	EB	Vineyard Ave	S	2	M	Operational
●	8	SBd	10	6.98	EB	Holt Ave	S	2		Operational
●	8	SBd	10	7.19	WB	Archibald Ave	S	1	M	Operational
●	8	SBd	10	7.29	EB	Archibald Ave	S	3		Operational
●	8	SBd	10	8.08	WB	Haven Ave Wb	S	2	M	Operational
●	8	SBd	10	8.11	EB	Haven Ave Eb	L	2	M	Operational
●	8	SBd	10	8.22	WB	Haven Ave Eb	S	2	M	Operational
●	8	SBd	10	8.23	EB	Haven Ave Wb	L	2	M	Operational
●	8	SBd	10	8.99	WB	Milliken Ave	S	2		Operational
●	8	SBd	10	9.12	EB	Milliken Ave	S	2		Operational
	8	SBd	10	9.56	EB	EB Off To NB Rte 15	C			Planned
	8	SBd	10	9.58	WB	WB On From NB Rte 15				Planned
	8	SBd	10	9.76	EB	EB Off To SB Rte 15				Planned
	8	SBd	10	9.77	WB	WB On From SB Rte 15				Planned
	8	SBd	10	10.13	EB	EB On From NB Rte 15				Planned
	8	SBd	10	10.23	EB	EB On From SB 15				Planned
	8	SBd	10	10.40	WB	WB Off To Rte 15				Planned
●	8	SBd	10	11.04	WB	Etiwanda Ave (T)	L	2		Operational
●	8	SBd	10	11.08	EB	Etiwanda Ave (Loop)	S	2		Operational
●	8	SBd	10	11.19	WB	Etiwanda Ave (Loop)	S	2	M	Operational
●	8	SBd	10	11.20	EB	Etiwanda Ave (T)	L	2		Operational
●	8	SBd	10	11.53	WB	Valley Blvd	S	2		Operational
●	8	SBd	10	13.04	WB	Cherry Ave				Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	8	Sbd	10	13.23	WB	Cherry Ave				Operational
●	8	SBd	10	13.35	EB	Cherry Ave				Operational
●	8	SBd	10	15.06	WB	Citrus Ave (Loop)	L			Operational
●	8	SBd	10	15.20	WB	Citrus Ave (T)	T			Operational
●	8	SBd	10	15.35	EB	Citrus Ave (T)	T			Operational
●	8	SBd	10	16.24	WB	Sierra Wb On	S	3	M	Operational
●	8	SBd	10	16.34	EB	Sierra Eb On	S	3	M	Operational
●	8	SBd	10	18.40 R	WB	Cedar Ave (T)	T			Operational
●	8	SBd	10	18.66 R	EB	Cedar Ave (T)	T			Operational
●	8	SBd	10	19.85	WB	Riverside Ave	S	3	M	Operational
●	8	SBd	10	20.15	EB	Riverside Ave	S	3	M	Operational
●	8	SBd	10	20.88	WB	Pepper Ave	T		M	Operational
●	8	SBd	10	21.08	EB	Pepper Ave	T		M	Operational
●	8	SBd	10	21.88 R	WB	Rancho Ave (T)	T			Operational
●	8	SBd	10	22.05 R	EB	Rancho Ave (T)	T			Operational
●	8	SBd	10	22.55 R	WB	La Cadena Dr (T)	T			Operational
●	8	SBd	10	22.77 R	EB	9th St (T)	T			Operational
●	8	SBd	10	23.19 R	WB	Mt. Vernon Ave (T)	T			Operational
●	8	SBd	10	23.42 R	EB	Mt. Vernon Ave (Loop)	L			Operational
	8	SBd	10	23.81 R	EB	EB Off To 215				Planned
	8	SBd	10	24.07 R	WB	WB From Sb 215				Planned
	8	SBd	10	24.31 R	WB	WB On From NB 215				Planned
	8	SBd	10	R 24.31	EB	Rte 215 Connector				Planned
	8	SBd	10	R 24.42	EB	EB On From NB 215				Planned
●	8	SBd	10	R 24.54	WB	Hunts Lane	S	1		Operational
	8	SBd	10	24.62 R	EB	EB On From SB 215				Planned
	8	SBd	10	24.81	WB	WB Off To Rte 215				Planned
●	8	SBd	10	25.40	EB	Waterman Ave	S	2		Operational
●	8	SBd	10	25.45	WB	Hospitality	S	2		Operational
●	8	SBd	10	26.15	WB	Tippecanoe Ave	S	2		Operational
●	8	SBd	10	26.36	WB	Tippecanoe Ave (Loop)				Operational
●	8	SBd	10	26.43	EB	Tippecanoe Ave	S	2		Operational
●	8	SBd	10	27.15	WB	Mt. View Ave	S	2		Operational
●	8	SBd	10	27.42	EB	Mt. View Ave	S	1		Operational
●	8	SBd	10	28.18	WB	California St	S	2		Operational
●	8	SBd	10	28.43	EB	California St	S	1		Operational
●	8	SBd	10	29.16	WB	Alabama	S	2		Operational
	8	SBd	10	29.42	EB	EB Off To WB Rte 210				Planned
	8	SBd	10	29.43	WB	WB On From Rte 210				Planned
	8	SBd	10	29.65	WB	Rte 30				Planned
	8	SBd	10	29.83	EB	Rte 30				Planned
	8	SBd	10	29.94	WB	WB Off To WB Rte 215				Planned
	8	SBd	10	29.99	EB	Tennessee St				Planned
	8	SBd	10	30.12	EB	EB On From EB Rte 210				Planned
	8	SBd	10	30.92	WB	Orange St				Planned
	8	SBd	10	31.20	EB	Sixth St				Planned
	8	SBd	10	31.76	WB	University Ave				Planned
	8	SBd	10	32.30	EB	Cypress Ave				Planned
	8	SBd	10	32.98	WB	Ford St				Planned
	8	SBd	10	33.39	EB	Redlands Blvd				Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	8	SBd	10	34.43	EB	Wabash Ave				Planned
●	8	SBd	10	35.36	WB	Yucaipa Blvd	s	1		Operational
	8	SBd	10	35.61	EB	Yucaipa Blvd				Planned
	8	SBd	10	R 39.04	WB	County Line Rd				Planned
	8	SBd	10	TBD	EB	NB 15 Connector	C			Planned
	8	SBd	10	TBD	EB	NB 215 Connector	C			Planned
	8	SBd	10	TBD	EB	SB 15 Connector	C			Planned
	8	SBd	10	TBD	EB	SB 215 Connector	C			Planned
	8	SBd	10	TBD	WB	NB 15 Connector	C			Planned
	8	SBd	10	TBD	WB	NB 215 Connector	C			Planned
	8	SBd	10	TBD	WB	SB 15 Connector	C			Planned
	8	SBd	10	TBD	WB	SB 215 Connector	C			Planned
●	8	SBd	15	0.77	SB	Jurupa Ave	S	2		Operational
●	8	SBd	15	1.18	NB	Jurupa Ave	S	2		Operational
	8	SBd	15	2.04	SB	Rte 10 Connector				Planned
	8	SBd	15	2.55	NB	Rte 10 Connector				Planned
●	8	SBd	15	3.14	SB	4Th St	L	2		Operational
●	8	SBd	15	3.31	NB	4Th St	S	2		Operational
●	8	SBd	15	5.09	SB	Foothill Blvd	L	1		Operational
●	8	SBd	15	5.32	SB	Foothill Blvd	S	1		Operational
	8	SBd	15	5.52	NB	Foothill Blvd				Planned
●	8	SBd	15	6.70	SB	Baseline Rd	S	1		Operational
●	8	SBd	15	7.06	NB	Baseline Rd				Operational
	8	SBd	15	8.99	NB	Cherry Ave				Planned
●	8	SBd	15	9.66	SB	Summit Blvd	S	1		Operational
	8	SBd	15	9.86	NB	Summit Blvd				Planned
●	8	SBd	15	10.92	SB	Duncan Canyon Rd			M	Operational
●	8	SBd	15	11.18	NB	Duncan Canyon Rd				Operational
●	8	SBd	15	12.71	SB	Sierra Ave	S	1		Operational
●	8	SBd	15	13.02	NB	Sierra Ave				Operational
	8	SBd	15	13.03	NB	Sierra Ave				Planned
●	8	SBd	15	13.03	NB	15@Sierra Ave NB On Ramp				Operational
●	8	SBd	15	14.59	SB	Glen Helen Road				Operational
●	8	SBd	15	R 14.79	SB	Kenwood Ave				Operational
●	8	SBd	15	15.04	NB	Glen Helen Road				Operational
●	8	SBd	15	R 15.21	NB	Kenwood Ave				Operational
●	8	SBd	15	16.10	SB	215 NB to 15 SB Connector				Operational
	8	SBd	15	R 28.46	SB	Oak Hill Rd				Planned
●	8	SBd	15	30.21	SB	Ranchero Rd				Operational
●	8	SBD	15	30.41	SB	Ranchero Rd				Operational
●	8	Sbd	15	30.54	NB	Ranchero Rd				Operational
	8	SBd	15	32.52	NB	Palm Ave				Planned
	8	SBd	15	34.09	SB	Phelan Rd				Planned
	8	SBd	15	34.23	NB	Phelan Rd				Planned
	8	SBd	15	37.60	SB	Bear Valley Cutoff				Planned
	8	SBd	15	37.85	NB	Bear Valley Cutoff				Planned
●	8	SBd	15	38.79	NB	Nisquali Rd/La Mesa Rd(T)	T			Operational
●	8	SBd	15	38.91	SB	Nisquali Rd (Loop)	L			Operational
	8	SBd	15	40.43	SB	Jct Rte 18 Palmdale Rd				Planned
	8	SBd	15	40.48	NB	W Jct Rte 18				Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	8	SBd	15	40.56	SB	W Jct Rte 18				Planned
	8	SBd	15	40.68	NB	Jct Rte 18 Palmdale Rd				Planned
	8	SBd	15	41.90	SB	Mojave Dr				Planned
	8	SBd	15	42.16	NB	Mojave Dr				Planned
	8	SBd	15	43.28	NB	E. Jct 18 D Street				Planned
	8	SBd	15	43.35	SB	E. Jct 18 D Street				Planned
	8	SBd	15	43.72	NB	E. Jct 18 E Street				Planned
	8	SBd	15	43.75	SB	E. Jct 18 E Street				Planned
	8	SBd	15	TBD	NB	EB 10 Connector	C			Planned
	8	SBd	15	TBD	NB	EB 210 Connector	C			Planned
	8	SBd	15	TBD	NB	WB 10 Connector	C			Planned
	8	SBd	15	TBD	NB	WB 210 Connector	C			Planned
	8	SBd	15	TBD	SB	EB 10 Connector	C			Planned
	8	SBd	15	TBD	SB	EB 210 Connector	C			Planned
	8	SBd	15	TBD	SB	WB 10 Connector	C			Planned
	8	SBd	15	TBD	SB	Wb 210 Connector	C			Planned
●	8	SBd	60	R 1.17	WB	Ramona Ave	S	1		Operational
●	8	SBd	60	R 1.49	EB	Ramona Ave	S	1		Operational
●	8	SBd	60	R 2.17	WB	Central Ave	S	1		Operational
●	8	SBd	60	R 2.55	EB	Central Ave	S	1		Operational
●	8	SBd	60	R 3.42	WB	Mountain Ave	S	1		Operational
●	8	SBd	60	R 3.80	EB	Mountain Ave	S	1		Operational
●	8	SBd	60	R 4.39	WB	Euclid Ave	S	1		Operational
●	8	SBd	60	R 4.79	EB	Euclid Ave	S	1		Operational
●	8	SBd	60	R 5.69	WB	Grove Ave	S	2	M	Operational
●	8	SBd	60	R 6.06	EB	Grove Ave	S	2	M	Operational
●	8	SBd	60	R 6.69	WB	Vineyard Ave	S	1		Operational
●	8	SBd	60	R 7.07	EB	Vineyard Ave	S	1		Operational
●	8	SBd	60	R 7.71	WB	Archibald Ave	S	2	M	Operational
●	8	SBd	60	R 8.08	EB	Archibald Ave	S	2	M	Operational
●	8	SBd	60	R 9.10	EB	Haven Ave	S	1		Operational
●	8	SBd	60	R 9.10	WB	Haven Ave	S	2	M	Operational
●	8	SBd	60	R 9.75	WB	Milliken Ave	S	1		Operational
●	8	SBd	71	R 0.87	NB	Chino Ave	S	3		Operational
●	8	SBd	71	R 1.10	SB	Chino Ave	S	3	M	Operational
●	8	SBd	71	R 1.66	NB	Grand Ave	S	3	M	Operational
●	8	SBd	71	R 1.88	NB	Grand Ave	L	2	M	Operational
●	8	SBd	71	R 2.01	SB	Grand Ave	S	2	M	Operational
●	8	SBd	71	R 3.19	SB	Chino Hill Pkwy	S	2	M	Operational
●	8	SBd	71	R 3.75	SB	Ramona Ave	S	2	M	Operational
●	8	SBd	71	R 4.69	NB	Soquel Canyon	S	2	M	Operational
●	8	SBd	71	R 4.88	NB	Soquel Canyon	L	2	M	Operational
●	8	SBd	71	R 4.90	SB	Soquel Canyon	L	2	M	Operational
●	8	SBd	71	R 5.10	SB	Soquel Canyon	S	2	M	Operational
●	8	SBd	71	R 6.34	NB	Pine Ave	S	2	M	Operational
●	8	SBd	71	R 6.71	SB	Pine Ave	S	2	M	Operational
●	8	SBd	71	R 7.96	NB	Euclid Ave	L	2	M	Operational
●	8	SBd	71	R 8.00	SB	Euclid Ave	L	2	M	Operational
●	8	SBd	71	R 8.23	NB	Euclid Ave	S	2	M	Operational
●	8	SBd	210	1.40	WB	Mountain Ave	S	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	8	SBd	210	1.60	EB	Mountain Ave	S	2		Operational
●	8	SBd	210	3.30	WB	Campus Ave	S	2		Operational
●	8	SBd	210	3.60	EB	Campus Ave	S	2	M	Operational
●	8	SBd	210	4.50	WB	Carnelian	S	2		Operational
●	8	SBd	210	4.70	EB	Carnelian	S	2		Operational
●	8	SBd	210	5.70	WB	Archibald Ave	S	2		Operational
●	8	SBd	210	6.00	EB	Archibald Ave	S	2		Operational
●	8	SBd	210	6.80	WB	Haven Ave	S	2		Operational
●	8	SBd	210	7.00	EB	Haven Ave	S	2		Operational
●	8	SBd	210	7.80	WB	Milliken Ave	S	2		Operational
●	8	SBd	210	8.00	EB	Milliken Ave	S	2		Operational
●	8	SBd	210	8.80	WB	Day Creek	S	2		Operational
●	8	SBd	210	9.40	EB	Day Creek	S	2		Operational
	8	SBd	210	11.77	WB	Cherry Ave				Planned
	8	SBd	210	12.11	EB	Cherry Ave				Planned
●	8	SBd	210	13.66	WB	Citrus Ave	S	2		Operational
●	8	SBd	210	14.15	EB	Citrus Ave	S	2		Operational
●	8	SBd	210	14.70	WB	Sierra Ave SB	S	2		Operational
●	8	SBd	210	14.88	EB	Sierra Ave SB	L	2	M	Operational
●	8	SBd	210	14.90	WB	Sierra Ave NB	S	2		Operational
●	8	SBd	210	14.91	EB	Sierra Ave NB	S	2	M	Operational
●	8	SBd	210	R 15.73	WB	Alder	S	2	M	Operational
●	8	SBd	210	R 16.16	EB	Alder	S	2	M	Operational
●	8	SBd	210	R 17.25	WB	Ayala	S	2	M	Operational
●	8	SBd	210	R 17.68	EB	Ayala	S	2	M	Operational
●	8	SBd	210	R 18.53	WB	Riverside	S	3		Operational
●	8	SBd	210	R 18.88	EB	Riverside	S	2		Operational
●	8	SBd	210	R 20.54	WB	State	S	3		Operational
●	8	SBd	210	R 20.76	EB	State	S	2		Operational
●	8	SBd	210	21.51	WB	215 NB To 210 WB Connector	s	2		Operational
	8	SBd	210	R 22.77	WB	H St				Planned
	8	SBd	210	R 23.10	EB	H St				Planned
	8	SBd	210	R 23.94	WB	Waterman Ave				Planned
	8	SBd	210	R 24.38	EB	Waterman Ave				Planned
	8	SBd	210	R 25.58	EB	Del Rosa Ave				Planned
	8	SBd	210	R 25.58	WB	Del Rosa Ave				Planned
	8	SBd	210	R 26.64	WB	Highland Ave				Planned
	8	SBd	210	R 27.05	EB	Highland Ave				Planned
	8	SBd	210	R 29.23	WB	Baseline St				Planned
	8	SBd	210	R 29.49	EB	Baseline St				Planned
	8	SBd	210	R 30.12	WB	Fifth St				Planned
	8	SBd	210	R 30.40	EB	Fifth St				Planned
	8	SBd	210	R 32.14	WB	San Bernardino Ave				Planned
	8	SBd	210	R 32.27	EB	San Bernardino Ave				Planned
	8	SBd	210	TBD	EB	15 NB Connector	C			Planned
	8	SBd	210	TBD	EB	15 SB Connector	C			Planned
	8	SBd	210	TBD	WB	15 NB Connector	C			Planned
	8	SBd	210	TBD	WB	15 SB Connector	C			Planned
●	8	SBd	215	0.06	SB	La Cadena	S	1		Operational
●	8	SBd	215	0.51	NB	Iowa Ave	S	2		Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

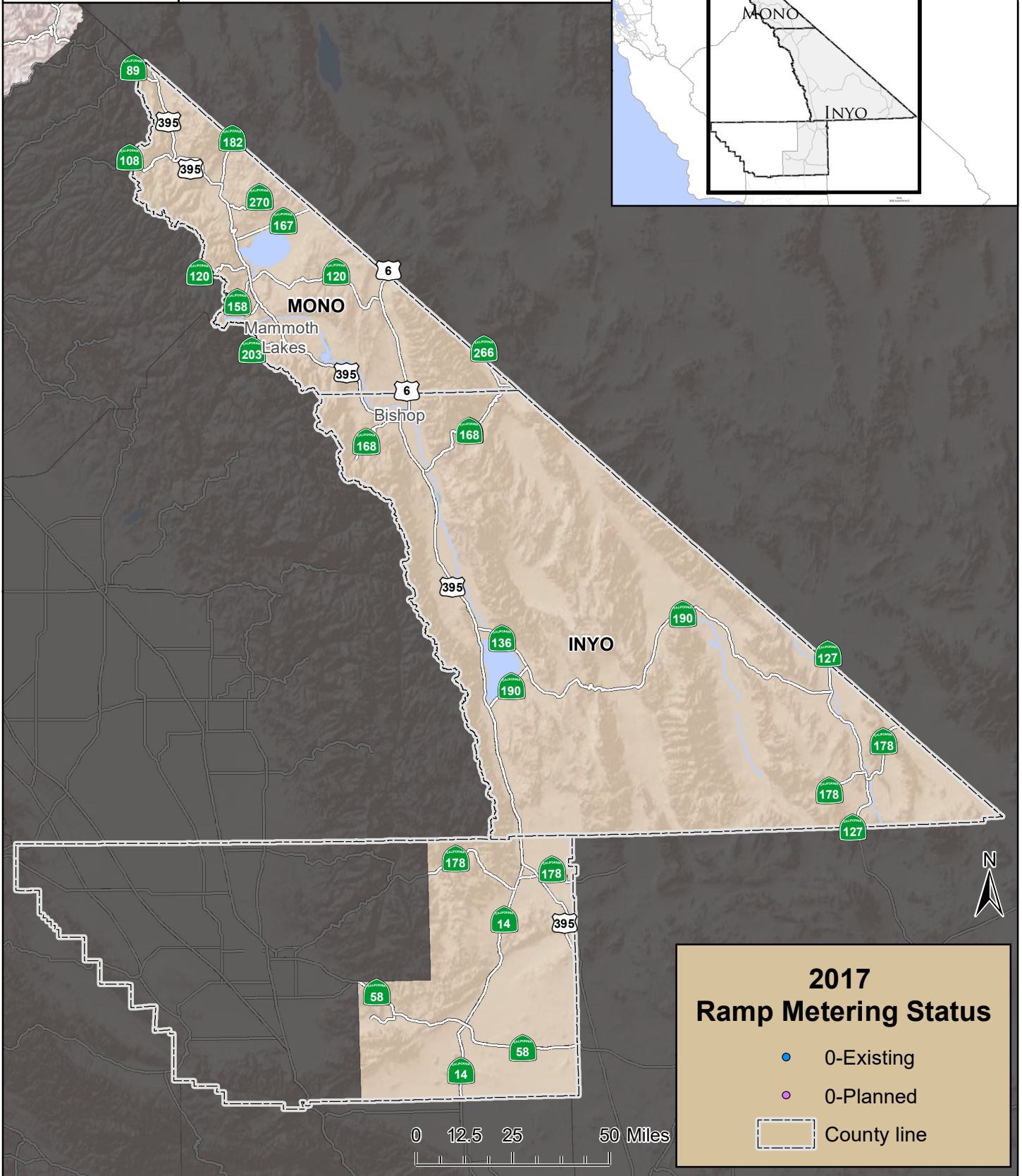
Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	8	SBd	215	1.17	SB	Barton Rd	S	2		Operational
●	8	SBd	215	1.44	NB	Barton Rd	S	1		Operational
●	8	SBd	215	2.57	SB	Mt. Vernon Ave	S	1		Operational
●	8	SBd	215	2.66	NB	Washington Ave (Loop)	S	2		Operational
●	8	SBd	215	2.90	NB	Washington Ave (Hook)	S	2		Operational
●	8	SBd	215	4.85	SB	Orange Show Rd	S	1		Operational
●	8	SBd	215	5.06	SB	Orange Show Rd	L	1		Operational
●	8	SBd	215	5.12	NB	Orange Show Rd	S	2		Operational
●	8	SBd	215	5.43	SB	Inland Center Dr	S	2		Operational
●	8	SBd	215	5.53	NB	Inland Center Dr	S	2		Operational
●	8	SBd	215	6.20	NB	Mill St	S	2		Operational
●	8	SBd	215	6.68	SB	2nd St	S	1		Operational
●	8	SBd	215	7.00	NB	3rd St	S	1		Operational
●	8	SBd	215	7.10	SB	5th St	T			Operational
●	8	SBd	215	7.30	NB	5th St	S	2		Operational
●	8	SBd	215	7.98	SB	Baseline Road	T			Operational
●	8	SBd	215	8.50	NB	Baseline Road	T			Operational
	8	SBd	215	9.13	SB	Massachusetts Ave				Planned
●	8	SBd	215	9.42	SB	27th St	s	2		Operational
●	8	SBd	215	9.73	SB	210 EB To 215 SB Connector	s	2		Operational
●	8	SBd	215	9.85	NB	27th St	s	2		Operational
	8	SBd	215	11.43	SB	University Pkwy				Planned
	8	SBd	215	11.81	NB	University Pkwy				Planned
	8	SBd	215	13.80	SB	Palm Ave				Planned
	8	SBd	215	14.30	NB	Palm Ave				Planned
●	8	SBd	215	17.10	NB	Devore Rd/Cajon Blvd				Operational
●	8	SBd	215	17.25	SB	Devore Rd				Operational
	8	SBd	215	TBD	NB	EB 10 Connector	C			Planned
	8	SBd	215	TBD	NB	WB 10 Connector	C			Planned
	8	SBd	215	TBD	SB	EB 10 Connector	C			Planned
	8	SBd	215	TBD	SB	WB 10 Connector	C			Planned
●	8	SBd	259	L 0.07	NB	Baseline Road	T			Operational
	8	SBd	395	45.95	SB	Rte 395 @Hwy 58				Planned

# DISTRICT 9

# District 9

Ramp Meter Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

## DISTRICT 9

District 9 is rural district which serves Inyo, Mono, and eastern Kern Counties and also has planning, maintenance, and operations responsibilities in northern San Bernardino County. With a population of 149,920 people and 17,440 square miles, the district is the least populated in the State and has the lowest population density of all of Caltrans' districts with 8.5 people per square mile. Recreation and goods movement account for the majority of freeway travel within District 9. District 9 manages 964 centerline miles and 2,582 total lane-miles of highway.

Domestic and international tourism is the major economic activity with over 13 million visitor-days generated annually. The following popular destinations are located in District 9: Yosemite and Death Valley National Parks; Inyo and Humboldt-Toiyabe National Forests; Red Rock and Bodie State Parks; Mammoth and June Mountain Ski Areas; the Pacific Crest and Ansel Adams Trails, both the highest and lowest points in the continental USA, and Mono Lake Basin National Scenic Area. Three military bases are located in the District- Edwards Air Force Base, the Marines Mountain Weapons Training Center, and China Lake Naval Weapons Center.

### Current or Planned Ramp Metering Routes

No routes have current or planned ramp metering in District 9 as illustrated on the District's Ramp Metering Development Plan (RMDP) map.

### Congestion Challenges

Tourism-related, seasonal congestion and major holiday congestion occurs but does not necessitate ramp metering at this time.

### District Ramp Metering Strategies

Currently, District 9 has no ramp meters located within its jurisdiction.

### Supporting Documents

- District 9 TCRs, DSMP, and other planning products:  
<http://www.dot.ca.gov/dist9/planning/index.html>

This page is intentionally left blank

# DISTRICT 10



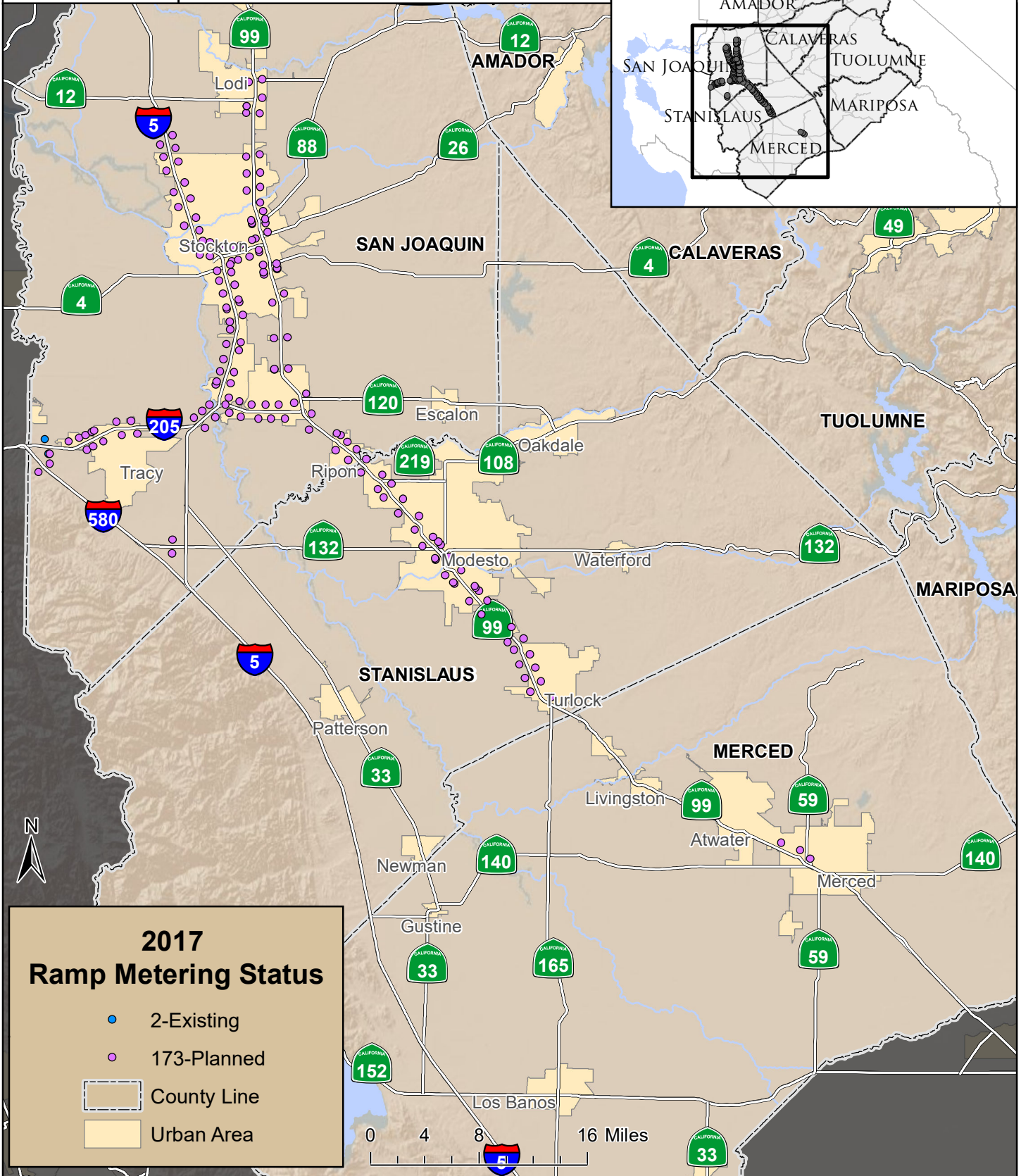
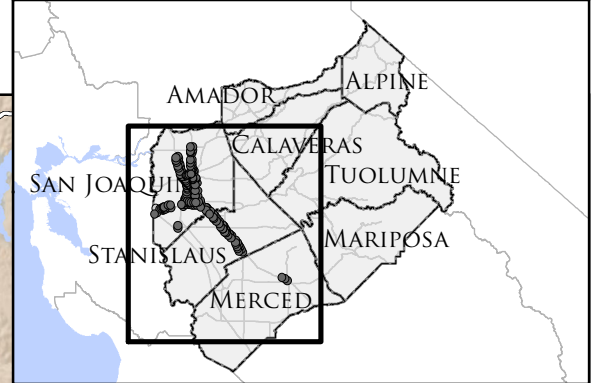


California Department of Transportation

# District 10

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

## **DISTRICT 10**

District 10 is primarily a rural district composed of eight counties; Alpine, Amador, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, and Tuolumne Counties. With a total population of 1.6 million people in 10,862 square miles, the district has an average population density of 151 people per square mile. District 10 is responsible for maintaining 3,670 lane miles of State routes.

### Current or Planned Ramp Metering Routes

The following routes have or are planned to have ramp metering:

I-5, I-205, I-580, SR 4, SR 99, SR 120, and SR 132

District 10 has 2 existing ramp meters and 173 planned ramp meters for a projected total of 175 ramp meters for the ten-year period covered by the RMDP. Currently there are 30 high priority ramp meter locations in District 10. Ramp meter locations are illustrated on the District 10 RMDP map.

### Congestion Challenges

Interstates 5 and 205 are the most congested routes in the district. They serve as commuter routes to Sacramento and the Bay Area, respectively. State Route 99 also has serious congestion. All three routes are primary targets for ramp metering. Ramp metering is currently used to meet congestion challenges on I-205 at the Mountain House Parkway interchange.

### District Ramp Metering Strategies

While some segments in District 10 are candidates for the immediate implementation of ramp metering, the necessary equipment has not yet been installed, and therefore, a lead time of two years was assumed for high-priority segments.

In San Joaquin County, high-priority segments (5 to 10 years) include westbound and eastbound I-205, northbound I-5 (I-205 to SR 4), and northbound and southbound SR 99 (Austin Road to Hammer Lane). These segments were defined as being of high-priority because they are projected to experience high demands and severe congestion. Furthermore, there are a number of improvement projects currently planned within these segments that provide the opportunity to install metering equipment and implement necessary ramp improvements.

In both Stanislaus and Merced Counties, no segments were identified as being high-priority for the implementation of ramp metering.

Medium priority segments in San Joaquin County include most of southbound I-5, northbound I-5 north of SR 4, portions of southbound SR 99 through Stockton and south of SR 120, northbound SR 99 south of SR 120 and north of Hammer Lane, SR120, and SR4. Some medium priority segments are projected to experience high demands by 2016, but metering equipment installations are not scheduled with currently planned projects.

In other cases, operational issues are more prevalent in the long term, but currently-planned projects provide an opportunity to install metering equipment and implement necessary ramp improvements.

A majority of SR 99 in Stanislaus County has been identified as medium priority for ramp metering implementation. This includes the portion of SR 99 from Mitchell Road to the San Joaquin County line. The segment for northbound SR 99 from Briggsmore Avenue to the county line, and southbound SR 99 from the county line to Palendale Avenue, may be considered a slightly higher priority.

In Merced, northbound SR 99 starting at Mission Avenue has been identified as being a medium priority for ramp metering implementation.

Low-priority segments in San Joaquin County include southbound I-5 north of Eight Mile Road, southbound SR 99 north of Hammer Lane, and southbound SR 99 between Arch Road and SR 120. In Stanislaus County, the portion of SR 99 south of Mitchell has been identified as a low priority. In Merced County, southbound SR 99 has been identified as a low priority.

### Ramp Metering Priorities

District 10's high-priority ramp metering locations on SR 99 have completed construction. Once the ramp meter configuration and testing is complete, the entire SR 99 corridor in San Joaquin County and portions in Stanislaus County will be metered. The ramp metering locations are highlighted in District 10's RMDP data. The District is now moving on to address the medium priority projects. The following construction projects include all 30 high priority ramp locations on SR 99:

1. SR 99 Ramp Metering (Minor A funded) – NB between SR-4 (Crosstown) and Hammer Lane – Construction FY 2014/15 - Completed.
2. SR 99 Ramp Metering (SHOPP funded) – SB between SR-4 (Crosstown) and Hammer Lane – Construction FY 2014/15 - Completed.
3. SR 99 South Stockton Widening Project (STIP funded) – NB & SB between Arch Road and SR-4 (Crosstown) – Construction FY 2015/17- Completed.
4. SR 99 Manteca Widening (STIP, Prop 1 B funded) – NB & SB between Austin Road and Arch Road – Construction FY 2014/17- Completed.
5. SR 99 at Austin Road (Encroachment Permit) – NB and SB onramps at Austin Road – Construction FY 2016/17 – Completed.
6. SR 99 at Kiernan Avenue / SR 219 (STIP funded) – Construction FY 2016/18
7. SR 99 at Palendale Avenue (STIP funded) – Construction FY 2016/18
8. SJ and STA Ramp Metering (SHOPP funded) NB and SB between SR 219 and San Joaquin County line on SR 99 – Construction FY 2018/19.

District 10 ramp metering priorities are based on the approved *Final Report, Northern San Joaquin Valley Regional Ramp Metering and HOV Master Plan*, dated February 27, 2009. This plan was signed by the District 10 Director and the San Joaquin Council of Governments (SJCOG), Stanislaus Council of Governments (StanCOG), and Merced County Association of Governments (MCAG) Executive Directors.

Completing the installation of ramp meters on SR-99 is also consistent with District 10's signed memorandum of understanding for *The Implementation of Ramp Metering in San Joaquin County* with SJCOG dated May 2, 2011.

## Supporting Documents

- District 10 Directive C-13 Ramp Metering Elements (March 22, 2011):  
[http://district10.onramp.dot.ca.gov/downloads/district10/files/Directives\\_C-13RampMeteringFinal3-11.pdf](http://district10.onramp.dot.ca.gov/downloads/district10/files/Directives_C-13RampMeteringFinal3-11.pdf)
- MPO Ramp Metering – Northern San Joaquin Valley Regional Ramp Metering and High Occupancy Vehicle (HOV) Master Plan (February 27, 2009):  
<http://www.sjcog.org/documentcenter/view/51>
- District 10 TCRs, CSMPs, DSMP, and other planning products:  
<http://www.dot.ca.gov/dist10/divisions/Planning/advancedplanning/pages/tcrs.html>
- Memorandum of Understanding (MOU) District 10 and San Joaquin Council of Governments (May 2011)  
<http://www.sjcog.org/documentcenter/view/51>



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
	10	Mer	99	15.95	NB	V Street	S	2		Planned
	10	Mer	99	16.89	NB	16th Street	S	2		Planned
	10	Mer	99	18.43	NB	Franklin Road	H	1		Planned
	10	SJ	4	16.21	WB	NB Rte 5 Connector	C	3		Planned
	10	SJ	4	16.48	WB	Center Street	S	1		Planned
	10	SJ	4	16.80	EB	El Dorado Street	S	1		Planned
	10	SJ	4	17.05	WB	Stanislaus Street	S	1		Planned
	10	SJ	4	17.27	EB	Stanislaus Street	S	2		Planned
	10	SJ	4	17.59	WB	Wilson Way	S	2		Planned
	10	SJ	4	17.97	EB	Wilson Way	S	1		Planned
	10	SJ	4	18.60	WB	Filbert Street	S	1		Planned
	10	SJ	4	18.89	EB	Filbert Street	S	1		Planned
	10	SJ	4	19.44	EB	NB Rte 99 connector	C	2		Planned
	10	SJ	5	13.65	SB	Manthey Road	H	1		Planned
	10	SJ	5	14.18	NB	Mossdale Road	H	1		Planned
	10	SJ	5	14.34	SB	WB Rte 120	C	2		Planned
	10	SJ	5	15.04	NB	WB Rte 120	C	1		Planned
	10	SJ	5	16.26	SB	Louise Avenue	S	2		Planned
	10	SJ	5	16.50	SB	Louise Avenue Loop	L	2		Planned
	10	SJ	5	16.74	NB	Louise Avenue	S	2		Planned
	10	SJ	5	17.28	SB	Lathrop Road	S	2		Planned
	10	SJ	5	17.60	NB	Lathrop Road Loop	L	2		Planned
	10	SJ	5	18.30	SB	Lathrop Road Loop	L	2		Planned
	10	SJ	5	19.18	NB	Lathrop Road	S	2		Planned
	10	SJ	5	19.39	SB	Roth Road	S	1		Planned
	10	SJ	5	19.81	NB	Roth Road	S	1		Planned
	10	SJ	5	20.50	SB	El Dorado Street	C	2		Planned
	10	SJ	5	21.30	SB	Matthews Road	S	1		Planned
	10	SJ	5	21.61	NB	Matthews Road	S	1		Planned
	10	SJ	5	22.34	SB	French Camp Road	S	2		Planned
	10	SJ	5	22.44	SB	French Camp Road Loop	L	2		Planned
	10	SJ	5	22.52	NB	French Camp Road Loop	L	2		Planned
	10	SJ	5	22.72	NB	French Camp Road	S	3		Planned
	10	SJ	5	23.50	SB	Downing Avenue	S	2		Planned
	10	SJ	5	23.86	NB	Downing Avenue	S	2		Planned
	10	SJ	5	24.49	SB	Eighth Street	S	1		Planned
	10	SJ	5	24.82	NB	Eighth Street	S	1		Planned
	10	SJ	5	25.20	SB	Dr. MLK Jr Boulevard / Rte 4	S	2		Planned
	10	SJ	5	25.50	NB	Dr. MLK Jr Boulevard / Rte 4	S	2		Planned
	10	SJ	5	26.98	SB	Pershing Avenue	H	2		Planned
	10	SJ	5	27.22	NB	Pershing Avenue	S	1		Planned
	10	SJ	5	27.81	SB	Mt. Diablo	S	1		Planned
	10	SJ	5	28.06	NB	Mt. Diablo	S	1		Planned
	10	SJ	5	28.42	SB	Country Club Blvd	S	1		Planned
	10	SJ	5	29.18	NB	Alpine Avenue	S	1		Planned
	10	SJ	5	29.88	SB	March Lane	S	2		Planned
	10	SJ	5	30.14	NB	March Lane	S	2		Planned
	10	SJ	5	31.32	SB	Ben Holt	S	2		Planned
	10	SJ	5	31.60	NB	Ben Holt	S	2		Planned
	10	SJ	5	32.52	SB	Hammer Lane	S	3		Planned
	10	SJ	5	32.85	NB	Hammer Lane	S	2		Planned
	10	SJ	5	34.10	SB	Otto Drive	S	2		Planned

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
	10	SJ	5	34.50	NB	Otto Drive	S	2		Planned
	10	SJ	5	35.15	SB	Eight Mile Road	S	3		Planned
	10	SJ	5	35.51	NB	Eight Mile Road	S	1		Planned
	10	SJ	5	36.10	SB	North Gateway Blvd	S	2		Planned
	10	SJ	5	36.50	NB	North Gateway Blvd	S	2		Planned
	10	SJ	99	0.74	SB	Main Street	S	1		Part Const
	10	SJ	99	0.79	NB	Main Street	H	1		Part Const
	10	SJ	99	1.59	NB	Milgeo Avenue	H	1		Part Const
	10	SJ	99	2.12	SB	Jack Tone Road	S	1		Part Const
	10	SJ	99	2.30	NB	Colony Road	H	1		Part Const
	10	SJ	99	2.50	NB	Jack Tone Road	S	1		Part Const
	10	SJ	99	4.50	SB	Austin Road	S	1		Part Const
	10	SJ	99	5.03	NB	Austin Road	S	1		Part Const
	10	SJ	99	6.49	SB	Yosemite Ave/ Rte 120	S	2		Planned
	10	SJ	99	6.84	NB	Yosemite Ave/ Rte 120	S	2		Planned
	10	SJ	99	9.31	SB	Lathrop Road	S	2	M	Part Const
	10	SJ	99	9.34	SB	Lathrop Road Loop	L	2	M	Part Const
	10	SJ	99	9.36	NB	Lathrop Road Loop	L	2		Part Const
	10	SJ	99	11.62	SB	French Camp Road Loop	L	2	M	Part Const
	10	SJ	99	11.66	NB	French Camp Road	S	2	M	Part Const
	10	SJ	99	14.47	SB	Arch Road	S	2		Part Const
	10	SJ	99	14.76	NB	Arch Road	S	2		Part Const
	10	SJ	99	16.55	SB	Mariposa Road	S	2	M	Part Const
	10	SJ	99	16.65	SB	Mariposa Road Loop	L	2	M	Part Const
	10	SJ	99	16.75	NB	Mariposa Road Loop	L	2	M	Part Const
	10	SJ	99	16.85	NB	Mariposa Road	S	2	M	Part Const
	10	SJ	99	17.14	SB	Golden Gate Avenue Loop	L	2	M	Part Const
	10	SJ	99	17.18	NB	Golden Gate Avenue / Rte 4	S	2	M	Part Const
	10	SJ	99	19.33	SB	WB Fremont/ Rte 26 EB Loop	L	1		Part Const
	10	SJ	99	19.45	NB	WB Fremont/ Rte 26 EB	S	2	NM	Part Const
	10	SJ	99	20.25	SB	EB Waterloo / Rte 88	S	1		Part Const
	10	SJ	99	20.31	NB	EB Waterloo / Rte 88 Loop	L	1		Part Const
	10	SJ	99	20.36	SB	WB Waterloo / Rte 88 Loop	L	2		Part Const
	10	SJ	99	20.47	NB	WB Waterloo / Rte 88	S	2	NM	Part Const
	10	SJ	99	20.72	SB	Cherokee Road	S	2		Part Const
	10	SJ	99	21.03	NB	Cherokee Road	S	2		Part Const
	10	SJ	99	21.72	NB	Wilson Way	C	1		Planned
	10	SJ	99	22.77	SB	Hammer Lane	S	2	M	Part Const
	10	SJ	99	23.02	NB	Hammer Lane	S	2	NM	Part Const
	10	SJ	99	24.04	SB	Morada Lane	H	2		Planned
	10	SJ	99	24.10	NB	Morada Lane	H	2		Planned
	10	SJ	99	25.30	SB	Eight Mile Road	H	2		Planned
	10	SJ	99	25.39	NB	Eight Mile Road	H	2		Planned
	10	SJ	99	28.47	NB	Harney Lane	H	1		Planned
	10	SJ	99	28.50	SB	Harney Lane	H	1		Planned
	10	SJ	99	28.87	SB	Cherokee Lane	S	1		Planned
	10	SJ	99	28.87	SB	Kettleman Lane/ Rte 12 WB	S	1		Planned
	10	SJ	99	29.68	NB	Kettleman Lane/ Rte 12 WB	S	1		Planned
	10	SJ	99	30.79	SB	Victor Road/ Rte 12 EB	S	1		Planned
	10	SJ	99	30.92	NB	Victor Road/ Rte 12 EB	H	1		Planned
	10	SJ	120	1.19	WB	Yosemite Avenue	S	2		Planned
	10	SJ	120	1.49	EB	Yosemite Avenue	S	2		Planned

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
	10	SJ	120	2.00	WB	Mckinley Avenue	S	1		Planned
	10	SJ	120	2.40	EB	Mckinley Avenue	S	1		Planned
	10	SJ	120	3.08	WB	Airport Way	S	1		Planned
	10	SJ	120	3.58	EB	Airport Way	S	1		Planned
	10	SJ	120	4.12	WB	Union Road	S	1		Planned
	10	SJ	120	4.52	EB	Union Road	S	1		Planned
	10	SJ	120	5.07	WB	South Main Street	S	1		Planned
	10	SJ	120	5.56	EB	South Main Street	S	1		Planned
	10	SJ	132	2.24	EB	Bird Road	S	1		Planned
	10	SJ	132	2.24	WB	Bird Road	S	1		Planned
●	10	SJ	205	1.17	WB	Mountain House Pkwy	S	2		Operational
●	10	SJ	205	1.50	EB	Mountain House Pkwy Loop	L	2		Operational
	10	SJ	205	1.62	EB	Mountain House Pkwy	S	2	M	Part Const
	10	SJ	205	2.92	WB	West 11th St	C	1		Planned
	10	SJ	205	4.00	WB	Lamers Road	S	2		Planned
	10	SJ	205	4.20	EB	Lamers Road Loop	L	2		Planned
	10	SJ	205	4.50	WB	Lamers Road Loop	L	3		Planned
	10	SJ	205	4.70	EB	Lamers Road	S	2		Planned
	10	SJ	205	5.01	WB	Grant Line Road	S	1		Planned
	10	SJ	205	5.21	WB	Naglee Road	S	1		Planned
	10	SJ	205	5.57	EB	Grant Line Road	S	1		Planned
	10	SJ	205	6.84	WB	Tracy Blvd	S	1		Planned
	10	SJ	205	7.22	EB	Tracy Blvd	S	1		Planned
	10	SJ	205	7.97	WB	Mcarthur Drive	S	1		Planned
	10	SJ	205	8.29	EB	Mcarthur Drive	S	1		Planned
	10	SJ	205	13.10	EB	Paradise Cut	S	2		Planned
	10	SJ	205	13.10	WB	Paradise Cut	S	2		Planned
	10	SJ	580	13.39	EB	Patterson Pass Road	S	2		Planned
	10	SJ	580	13.65	WB	Patterson Pass Road	S	3		Planned
	10	Sta	5	15.71	SB	Sperry Road	S	2		Planned
	10	Sta	5	16.03	NB	Sperry Road	S	2		Planned
	10	Sta	99	1.83	NB	Lander Avenue	S	1		Planned
	10	Sta	99	3.33	SB	West Main Street	S	1		Planned
	10	Sta	99	3.63	NB	West Main Street	S	1		Planned
	10	Sta	99	4.39	SB	Fulkerth Road	S	1		Planned
	10	Sta	99	4.70	NB	Fulkerth Road	S	1		Planned
	10	Sta	99	5.45	SB	Monte Vista	S	1		Planned
	10	Sta	99	5.81	NB	Monte Vista	S	1		Planned
	10	Sta	99	6.60	SB	Taylor	S	1		Planned
	10	Sta	99	6.89	NB	Taylor	S	1		Planned
	10	Sta	99	7.59	SB	Keyes Road	S	1		Planned
	10	Sta	99	8.02	NB	Keyes Road	S	1		Planned
	10	Sta	99	9.97	SB	Mitchell Road	S	1		Planned
	10	Sta	99	10.35	NB	Mitchell Road	S	1		Planned
	10	Sta	99	11.38	SB	2nd & North	S	1		Planned
	10	Sta	99	11.41	NB	Pine Street	H	1		Planned
	10	Sta	99	11.70	NB	Whitmore Avenue Loop	L	2		Planned
	10	Sta	99	11.82	NB	Whitmore Avenue	S	2		Planned
	10	Sta	99	13.03	SB	9th Street	S	2		Planned
	10	Sta	99	13.16	SB	Hatch Road	S	1		Planned
	10	Sta	99	13.39	NB	Hatch Road	H	1		Planned
	10	Sta	99	14.31	SB	Crows Landing	S	1		Planned

● Existing Meter

High Priority



## 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
	10	Sta	99	14.47	NB	Crows Landing Loop	L	1		Planned
	10	Sta	99	15.21	SB	Tuolumne Blvd Loop	L	1		Planned
	10	Sta	99	15.21	NB	Tuolumne Blvd	H	1		Planned
	10	Sta	99	15.45	SB	5th & G Street	S	1		Planned
	10	Sta	99	15.63	SB	5th & H Street	S	1		Planned
	10	Sta	99	15.97	NB	6th & I Street	S	2		Planned
	10	Sta	99	16.26	NB	6th & L Street	S	2		Planned
	10	Sta	99	16.75	NB	Kansas Avenue	H	1		Planned
	10	Sta	99	16.93	SB	Kansas Avenue Loop	L	1		Planned
	10	Sta	99	18.36	SB	Carpenter/Briggsmore	S	1		Planned
	10	Sta	99	18.65	NB	Carpenter/Briggsmore	S	1		Planned
	10	Sta	99	20.03	SB	Beckwith Road	S	1		Planned
	10	Sta	99	20.46	NB	Beckwith Road	S	1		Planned
	10	Sta	99	21.55	SB	Pelandale Avenue	L	3	NM	Part Const
	10	Sta	99	21.93	NB	Pelandale Avenue	H	3	NM	Part Const
	10	Sta	99	22.38	SB	Kiernan Ave/ Rte 219	S	3	M	Part Const
	10	Sta	99	22.74	NB	Kiernan Ave/ Rte 219	S	3	M	Part Const
	10	Sta	99	24.07	SB	Hammett Road	S	2		Part Const
	10	Sta	99	24.43	NB	Hammett Road	S	2		Part Const

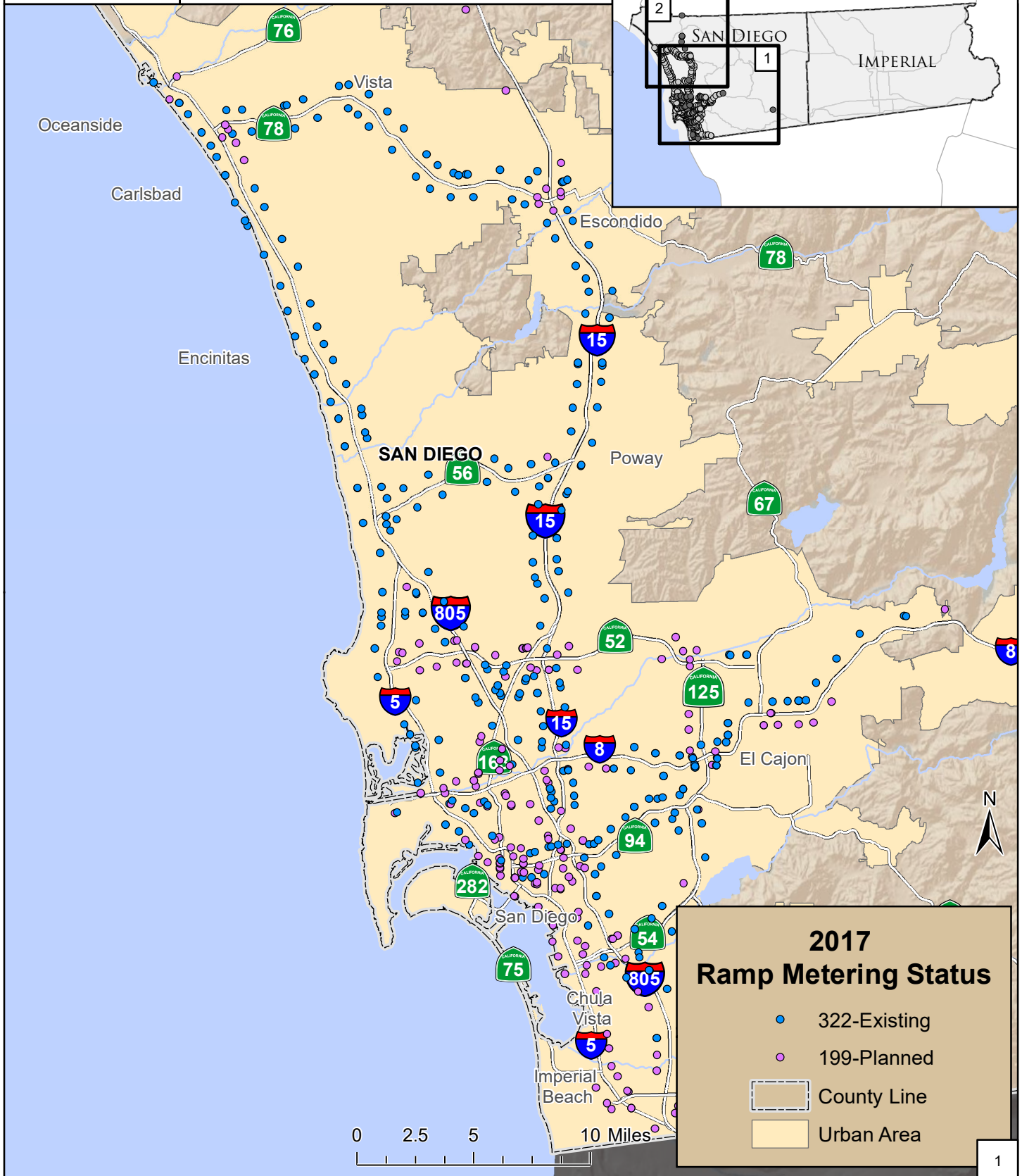
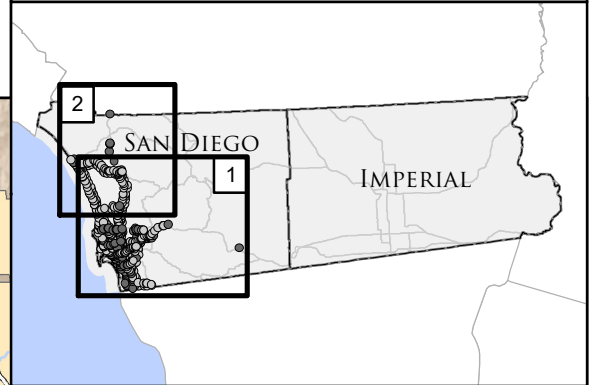
This page is intentionally left blank

# DISTRICT 11

# District 11

Ramp Meter Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance

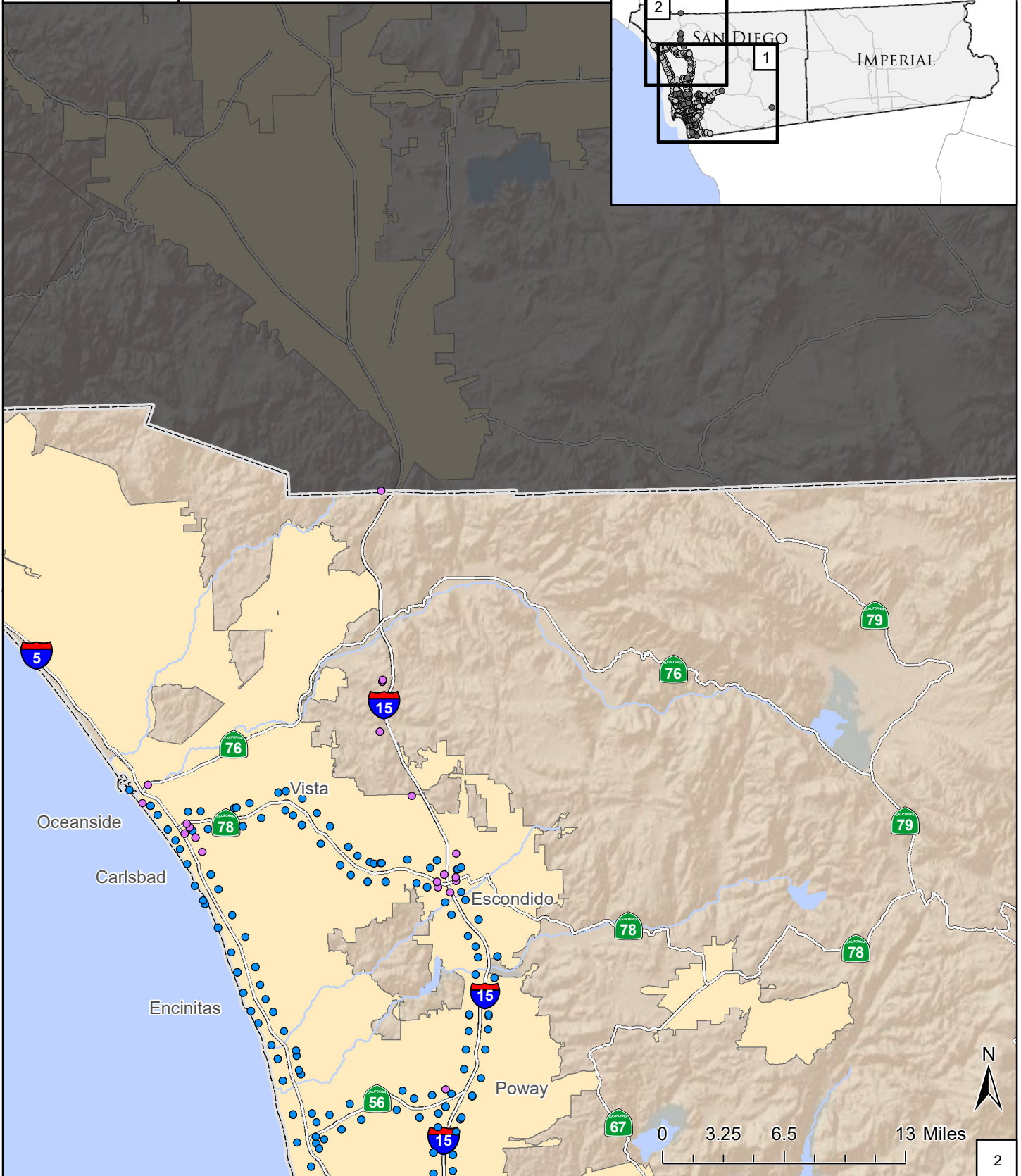
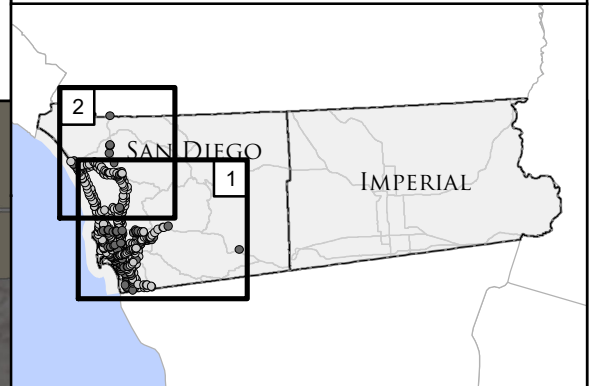


Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

# District 11

Ramp Meter Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.



## **DISTRICT 11**

District 11 is the southernmost district in the State and includes San Diego and Imperial Counties. District 11 has a population of 3,383,000 people in a land area of 8,379 square miles and a density of 404 people per square mile. District 11 manages 1,029 centerline miles and 4,069 total lane-miles of highway.

The district is among the most varied geographical regions of the State stretching from coastal cliffs and beaches to mountain ranges and arid deserts. San Diego County's urban character consists of 18 incorporated cities and ranks as the 13th largest metropolitan area in the country. Beyond the metropolitan area, the rural character of San Diego County includes the Cleveland National Forest, the Anza-Borrego Desert State Park, and several smaller rural communities.

While Imperial County has seven incorporated cities, it is mostly rural with large tracts of agricultural and desert land.

### Current or Planned Ramp Metering Routes

The following routes have or are planned to have ramp metering:

I-5, I-8, I-15, SR-52, SR-54, SR-56, SR-78, SR-94, SR-125, SR-163, I-805, and SR-905.

District 11 currently has 322 existing ramp meters. There are 52 high priority locations as shown in the following District 11's priority metering location section that currently need further study before proceeding. An additional 199 urban onramps or connectors are candidates for the ten-year period covered by the RMDP for a total of 521 projected ramp meters if funding is available and regional priorities and needs coincide.

The conceptual ramp meter infrastructure cost estimate to install the ramp meters at all of the district's proposed high-priority locations, excluding civil work, is approximately \$2,320,000. At this time, the conceptual cost estimate does not account for right-of-way costs. Actual project cost estimates will be determined during the project development phases when the scope and schedules are finalized.

### Congestion Challenges

Several San Diego metropolitan area freeways experience consistent and recurrent congestion during the morning and afternoon peak-period travel times. In particular, I-5, SR 78, and I-805 experience over 4,000 average daily vehicle hours of delay during these peak periods. TMS elements, HOV lanes, and variable toll pricing have been or will be implemented to add efficiencies to the system. Highway improvements such as managed lanes, as well as additional multimodal and operational improvements, may further improve mobility in the San Diego region.

### District Ramp Metering Strategies

District 11 coordinates with local and regional partner agencies regarding strategies to deploy

future ramp metering. District 11 currently meters traffic Monday through Friday during the congested morning and afternoon commute periods, this is typically from 5:30 - 9:30 a.m., and 3:00 - 7:00 p.m. On more congested freeways including I-5 and SR 78, metering can last until 11:00 a.m. or start at 2:00 p.m.

Metering strategies to consider include extended hours and weekends to assist with heavily congested corridors. San Diego County meters a majority (71%) of its urban ramps that include nine freeway-to- freeway connector meters. The majority (57%) of these entrance ramps contain an HOV preferential lane which is metered. The metered on-ramps with more than one lane operate with a staggered discharge. Over half (57%) of the meters operate as two cars per green and 43% operate as one car per green. Imperial County does not currently warrant ramp meters.

District 11 utilizes several types of communication methods to manage the ramp meters including telephone lease lines, Digital Subscriber Lines (DSL), and fiber optics. The district is transitioning to state-owned fiber communication on new projects. In addition, the 170 controllers will be converted to 2070 controllers at various locations where fiber optics have been installed.

The first 4-lane meter was deployed in San Diego in the fall of 2013 at Mira Mesa Blvd to SB I-805, and consists of two Single Occupancy Vehicle (SOV), one HOV, and one transit (bus) only lane.

### Future Strategies

#### Hardware

- Continue deployment of 2070 controller implementation where fiber or high bandwidth communication is available.
- Use virtual machine servers for the central system, testing, and reporting features.

#### Software

- Develop dynamic corridor ramp metering with a flexible “harness” to allow the addition of various corridor metering algorithms.
- Develop queue dissipation with mid-ramp detection for unique conditions such as being located near railroad tracks

### Priority Metering Locations

District 11 has developed a prioritized list of proposed ramp meter locations. These locations are on-ramps and connectors in heavily congested morning commute segments. Ramp metering is recommended and considered a low cost solution to improve the traffic flow and reduce congestion. If funding is received, further analysis by the district should include metering with auxiliary lanes or ramp widening.

The I-5 north bound ramps and connectors heading downtown require meters due to

overcapacity of the freeway mainline during the morning commute period between 6:00 - 9:00 a.m. The connectors shown in the list of priority ramp meter locations are major contributors to the congestion with significant traffic volumes.

In 2003, a project (EA 24390k) was initiated to install meters on the high priority on-ramps, but funding was not available. Congestion has been increasing since 2003 and this stretch of freeway was included in the 2012 AM Top 10 Congested Segment Map. If additional funds become available the project needs to be updated and further analysis of the connectors, auxiliary lanes, and ramp widening will be required.

The locations on westbound SR 52 should be metered due to congestion of the mainline from 6:30 - 8:30 a.m. Congestion spans one mile east of Mast Blvd. to one mile west of the SR 125 to SR 52 connector with mainline speeds significantly dropping from 70 miles per hour to 5 miles per hour. Field surveillance has confirmed the extent and severity of this traffic. The heaviest congestion contributor is traffic from Mast Blvd. with 2,235 vehicles per hour during the peak morning hours.

#### Supporting Documents

- District 11 TCRs, CSMPs, and DSMP and other planning documents  
<http://www.dot.ca.gov/dist11/departments/planning/index.htm>
- San Diego Association of Governments (SANDAG):  
<http://www.sandag.org/>



# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	11	SD	5	2.99	NB	5 NB Connector from 905 EB	C			Planned
	11	SD	5	3.14	SB	5 SB from Tocayo Ave/905 EB	C			Planned
	11	SD	5	3.16	NB	5 NB Connector from 905 WB	C			Planned
	11	SD	5	3.36	SB	5 SB Connector from 905 WB	C			Planned
	11	SD	5	3.96	NB	Coronado Ave to 5 NB	L			Part Const
	11	SD	5	4.26	SB	5 SB from Palm EB/Rte 75	C			Planned
	11	SD	5	4.80	NB	Palm Ave/Rte 75 to 5 NB	C			Part Const
	11	SD	5	5.53	NB	Main St to 5 NB	S			Part Const
	11	SD	5	6.16	NB	Palomar St to 5 NB	S			Part Const
	11	SD	5	6.70	NB	Industrial Blvd/L St to 5 NB	S			Part Const
	11	SD	5	7.43	NB	J St to 5 NB	S			Part Const
	11	SD	5	7.93	NB	H St to 5 NB	S			Part Const
	11	SD	5	9.15	NB	E St to 5 NB	S			Part Const
	11	SD	5	9.16	SB	5 SB Connector from 54 WB	C			Planned
	11	SD	5	9.60	NB	5 NB Connector from 54 WB	C			Planned
	11	SD	5	9.96	SB	24th St to 5 SB				Planned
	11	SD	5	10.24	NB	24th St to 5 NB	S			Planned
	11	SD	5	10.60	SB	Harbor Dr to 5 SB				Planned
	11	SD	5	10.96	SB	8th St to 5 SB/Civic Center				Planned
	11	SD	5	11.34	NB	7th St/8th St to 5 NB	H			Planned
	11	SD	5	11.61	SB	National Blvd to 5 SB				Planned
	11	SD	5	12.01	SB	5 SB Connector from 15 SB	C			Planned
	11	SD	5	12.61	NB	5 NB from 15 SB Connector	C			Planned
	11	SD	5	13.11	SB	29th St/Boston Ave to 5 SB				Planned
	11	SD	5	13.19	NB	28th St NB to 5 NB	L			Planned
	11	SD	5	13.43	NB	National Ave WB to 5 NB	S			Planned
	11	SD	5	13.90	SB	5 SB Connector from 75 NB	C			Planned
	11	SD	5	13.94	SB	Crosby/Logan Ave to 5 SB				Planned
	11	SD	5	14.28	NB	5 NB Connector From 75 EB	C			Planned
	11	SD	5	14.60	SB	17th/J St to 5 SB	S			Planned
	11	SD	5	14.72	NB	Imperial Ave/19th St to 5 NB	S			Planned
	11	SD	5	14.90	SB	16th and E St to 5 SB	S			Planned
	11	SD	5	14.96	SB	17th/E St to 5 SB				Planned
	11	SD	5	15.06	NB	5 NB from 94 WB	C			Planned
	11	SD	5	15.08	NB	21st/F St to 5 NB	S			Planned
	11	SD	5	15.11	SB	C St to 5 SB				Planned
	11	SD	5	15.15	SB	Pershing St to 5 SB				Planned
	11	SD	5	15.30	NB	B St to 5 NB	S			Planned
	11	SD	5	15.54	NB	Pershing Dr to 5 NB	H			Planned
	11	SD	5	15.60	SB	Park Ave to 5 SB				Planned
	11	SD	5	16.08	NB	5 NB Connector from 163 N/S	C			Planned
●	11	SD	5	16.11	SB	5th Ave to 5 SB	S	2	M	Operational
	11	SD	5	16.52	SB	First Ave to 5 SB				Planned
	11	SD	5	16.74	SB	Hawthorne/Grape St to 5 SB				Planned
	11	SD	5	16.75	NB	First Ave to 5 NB	S			Planned
●	11	SD	5	16.94	NB	Hawthorn St to 5 NB	H	2	NM	Operational
●	11	SD	5	17.34	SB	Kettner Blvd to 5 SB	H	1	NM	Operational
	11	SD	5	17.59	SB	Pacific Highway to 5 SB				Planned
●	11	SD	5	18.13	NB	India St to 5 NB	H	2	NM	Operational
●	11	SD	5	18.16	SB	Hancock St/Washington St to 5 SB	H	2	NM	Operational
●	11	SD	5	18.41	NB	Washington/San Diego Ave to 5 NB	H	2	M	Operational
●	11	SD	5	18.93	SB	Old town Ave to 5 SB	S	1	NM	Operational

● Existing Meter

High Priority



# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	11	SD	5	19.26	NB	Old Town Ave/Moore St to 5 NB	S	2	NM	Operational
	11	SD	5	19.97	NB	Rosecrans to 5 NB				Planned
	11	SD	5	20.19	NB	5 NB Connector from 8 WB	C			Planned
	11	SD	5	20.25	SB	5 SB Connector from 8 EB	C			Planned
	11	SD	5	20.26	SB	5 SB Connector from 8 WB	C			Planned
●	11	SD	5	20.72	SB	Sea World Dr to 5 SB	S	2	M	Operational
●	11	SD	5	20.87	NB	Sea World Dr to 5 NB	S	2	NM	Operational
●	11	SD	5	22.08	SB	Clairemont Dr EB to 5 SB	S	1	NM	Operational
●	11	SD	5	22.32	SB	Clairemont Dr WB to 5 SB	L	2	M	Operational
●	11	SD	5	22.32	NB	Clairemont Dr to 5 NB	S	2	M	Operational
●	11	SD	5	22.96	SB	Mission Bay Dr/Grand Ave to 5 SB	S	3	M	Operational
●	11	SD	5	23.58	SB	Balboa Ave to 5 SB	L	2	M	Operational
●	11	SD	5	24.06	NB	Mission Bay Dr to 5 NB	S	2	NM	Operational
●	11	SD	5	25.85	SB	La Jolla Pkwy to 5 SB	S	1	NM	Operational
	11	SD	5	26.11	NB	5 NB Connector from 52 WB	C			Planned
●	11	SD	5	26.73	SB	Gilman Dr to 5 SB	S	3	M	Operational
	11	SD	5	27.05	NB	Gilman Dr to 5 NB				Planned
●	11	SD	5	27.90	SB	Nobel Dr to 5 SB	S	3	M	Operational
●	11	SD	5	28.26	SB	La Jolla Village Dr EB to 5 SB	H	2	M	Operational
●	11	SD	5	28.39	NB	La Jolla Village Dr EB to 5 NB	L	2	M	Operational
●	11	SD	5	28.46	SB	La Jolla Village Dr WB to 5 SB	L	2	NM	Operational
●	11	SD	5	28.56	NB	La Jolla Village Dr WB to 5 NB	S	1	NM	Operational
	11	SD	5	29.34	SB	Genesee Ave to 5 SB	S			Part Const
	11	SD	5	29.63	NB	Genesee Ave to 5 NB	S			Part Const
●	11	SD	5	31.66	SB	Carmel Mountain Rd to 5 SB	S	3	M	Operational
●	11	SD	5	31.91	NB	Carmel Mountain Rd to 5 NB	S	3	M	Operational
●	11	SD	5	32.79	SB	Carmel Valley Rd to 5 SB	S	2	NM	Operational
●	11	SD	5	32.90	NB	Carmel Valley Rd to 5 NB	S	2	M	Operational
●	11	SD	5	34.14	NB	Del Mar Heights Rd to 5 NB	S	2	NM	Operational
●	11	SD	5	34.30	SB	Del Mar Heights Rd EB to 5 SB	H	2	M	Operational
●	11	SD	5	34.31	SB	Del Mar Heights Rd WB to 5 SB	L	2	NM	Operational
●	11	SD	5	36.23	NB	Via de la Valle EB to 5 NB	L	2	NM	Operational
●	11	SD	5	36.28	SB	Via de la Valle EB to 5 SB	H	2	M	Operational
●	11	SD	5	36.28	SB	Via de la Valle WB to 5 SB	L	2	NM	Operational
●	11	SD	5	36.50	NB	Via de la Valle WB to 5 NB	H	2	M	Operational
●	11	SD	5	37.37	NB	Lomas Santa Fe Dr EB to 5 NB	S	2	M	Operational
●	11	SD	5	37.40	SB	Lomas Santa Fe Dr WB to 5 SB	L	2	M	Operational
●	11	SD	5	37.40	SB	Lomas Santa Fe Dr EB to 5 SB	S	2	M	Operational
●	11	SD	5	37.64	NB	Lomas Santa Fe Dr WB to 5 NB	S	2	M	Operational
●	11	SD	5	38.54	NB	Manchester Ave to 5 NB	S	1	NM	Operational
●	11	SD	5	38.58	SB	Manchester Ave to 5 SB	L	2	NM	Operational
●	11	SD	5	39.83	SB	Birmingham Dr to 5 SB	S	2	NM	Operational
●	11	SD	5	39.90	NB	Birmingham Dr to 5 NB	S	2	M	Operational
●	11	SD	5	40.63	SB	Santa Fe Rd to 5 SB	S	2	M	Operational
●	11	SD	5	40.69	NB	Santa Fe Dr to 5 NB	S	1	NM	Operational
●	11	SD	5	41.53	SB	Encinitas Blvd to 5 SB	S	2	M	Operational
●	11	SD	5	41.66	NB	Encinitas Blvd to 5 NB	S	2	M	Operational
●	11	SD	5	42.68	NB	Leucadia Blvd to 5 NB	H	2	M	Operational
●	11	SD	5	42.69	SB	Leucadia Blvd to 5 SB	S	3	M	Operational
●	11	SD	5	43.79	SB	La Costa Ave to 5 SB	S	3	M	Operational
●	11	SD	5	44.21	NB	La Costa Ave to 5 NB	S	2	M	Operational
●	11	SD	5	45.44	SB	Poinsettia Ln to 5 SB	S	3	M	Operational

● Existing Meter

High Priority



# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	11	SD	5	45.58	NB	Poinsettia Ln to 5 NB	S	2	M	Operational
●	11	SD	5	46.87	SB	Palomar Airport Rd EB to 5 SB	S	2	M	Operational
●	11	SD	5	47.10	SB	Palomar Airport Rd WB to 5 SB	L	2	M	Operational
●	11	SD	5	47.17	NB	Palomar Airport Rd to 5 NB	S	3	M	Operational
●	11	SD	5	47.97	SB	Cannon Rd to 5 SB	S	3	M	Operational
●	11	SD	5	48.10	NB	Cannon Rd to 5 NB	S	3	M	Operational
●	11	SD	5	49.25	SB	Tamarack Ave to 5 SB	S	2	M	Operational
	11	SD	5	49.38	NB	Tamarack Ave to 5 NB	S			Planned
●	11	SD	5	50.09	SB	Carlsbad Village Dr to 5 SB	S	1	NM	Operational
	11	SD	5	50.24	NB	Carlsbad Village Dr to 5 NB	S			Planned
●	11	SD	5	50.71	SB	Las Flores Dr to 5 SB	S	1	NM	Operational
	11	SD	5	50.81	NB	Las Flores Dr to 5 NB	S			Planned
	11	SD	5	51.05	NB	5 NB Connector from 78 WB	C			Planned
●	11	SD	5	51.44	SB	Cassidy St to 5 SB	S	1	NM	Operational
●	11	SD	5	52.41	SB	Oceanside Blvd to 5 SB	L	2	M	Operational
●	11	SD	5	53.30	SB	Mission Ave WB to 5 SB	L	2	M	Operational
●	11	SD	5	53.30	SB	Mission Ave EB to 5 SB	S	1	NM	Operational
	11	SD	5	53.74	SB	Hill St to 5 SB				Planned
	11	SD	5	53.90	NB	5 NB Connector from 76	C			Planned
●	11	SD	5	54.43	SB	Harbor Dr to 5 SB	L	3	M	Operational
	11	SD	8	0.49	EB	Morena Blvd to 8 EB				Planned
●	11	SD	8	0.70	EB	West Mission Bay Dr to 8 EB	L	2	NM	Operational
●	11	SD	8	0.80	EB	Sports Arena Blvd to 8 EB	S	3	M	Operational
	11	SD	8	0.86	EB	Taylor St to 8 EB				Planned
	11	SD	8	0.99	WB	Taylor St to 8 WB				Planned
	11	SD	8	1.91	WB	Hotel Circle to 8 WB				Planned
	11	SD	8	1.96	EB	Hotel Circle S to 8 EB				Planned
●	11	SD	8	2.12	EB	Rosecrans St to 8 EB	S	3	M	Operational
	11	SD	8	3.09	EB	Mission Center Rd to 8 EB				Planned
	11	SD	8	3.12	WB	Mission Center Rd to 8 WB				Planned
	11	SD	8	3.68	WB	Texas St to 8 WB				Planned
	11	SD	8	5.75	WB	Qualcomm Way to 8 WB				Planned
●	11	SD	8	5.90	EB	Texas St NB to 8 EB	S	1	NM	Operational
●	11	SD	8	5.91	EB	Texas St SB to 8 EB	L	2	M	Operational
	11	SD	8	7.00	EB	Waring rd to 8 EB				Planned
	11	SD	8	7.81	EB	8 EB from 15 NB Connector	C			Planned
	11	SD	8	7.82	EB	8 EB from 15 SB Connector	C			Planned
●	11	SD	8	8.10	EB	Fairmount Ave NB to 8 EB	H	1	NM	Operational
●	11	SD	8	8.10	EB	Fairmount Ave SB to 8 EB	H	1	NM	Operational
●	11	SD	8	8.93	WB	Waring Rd to 8 WB	S	2	M	Operational
●	11	SD	8	8.95	EB	Waring Rd to 8 EB	S	2	M	Operational
●	11	SD	8	10.11	WB	College Ave SB to 8 WB	S	2	NM	Operational
●	11	SD	8	10.11	WB	College Ave NB to 8 WB	L	1	NM	Operational
●	11	SD	8	10.20	EB	College Ave SB to 8 EB	L	1	NM	Operational
●	11	SD	8	10.20	EB	College Ave NB to 8 EB	H	1	NM	Operational
●	11	SD	8	11.35	WB	Lake Murray Blvd to 8 WB	S	2	M	Operational
●	11	SD	8	11.35	WB	70th St to 8 WB	L	1	NM	Operational
●	11	SD	8	12.35	WB	Fletcher Pkwy to 8 WB	S	3	M	Operational
	11	SD	8	12.63	EB	La Mesa Blvd to 8 EB				Planned
	11	SD	8	12.78	EB	Severin Dr to 8 EB				Planned
●	11	SD	8	12.80	EB	El Cajon Blvd to 8 EB	S	1	NM	Operational
●	11	SD	8	12.80	EB	Spring St to 8 EB	S	1	NM	Operational

● Existing Meter

High Priority





# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	11	SD	8	12.83	WB	Spring St/Center St to 8 WB	H	2	NM	Operational
●	11	SD	8	13.41	WB	Jackson Dr to 8 WB	H	2	M	Operational
●	11	SD	8	14.01	WB	La Mesa Blvd to 8 WB	S	2	M	Operational
●	11	SD	8	14.01	WB	125 SB to 8 WB	C	2	M	Operational
●	11	SD	8	14.71	WB	125 NB to 8 WB	C	1	NM	Operational
●	11	SD	8	14.71	WB	Severin/Murray Dr to 8 WB	S	2	M	Operational
●	11	SD	8	15.40	WB	El Cajon Blvd to 8 WB	S	3	M	Operational
	11	SD	8	16.00	EB	Magnolia Ave to 8 EB				Planned
	11	SD	8	16.01	EB	Fletcher pkwy to 8 EB				Planned
●	11	SD	8	16.40	WB	West Main St to 8 WB	S	2	NM	Operational
	11	SD	8	16.60	EB	Mollison Ave to 8 EB				Planned
●	11	SD	8	17.05	WB	Johnson Ave to 8 WB	S	2	M	Operational
	11	SD	8	17.48	EB	2nd St to 8 EB				Planned
●	11	SD	8	17.51	WB	Magnolia Ave NB to 8 WB	L	1	NM	Operational
●	11	SD	8	17.51	WB	67 SB to 8 WB	C	3	NM	Operational
●	11	SD	8	17.51	WB	Broadway/Fletcher Pkwy to 8 WB	S	3	M	Operational
	11	SD	8	17.99	EB	East Main to 8 EB				Planned
●	11	SD	8	18.11	WB	Mollison Ave to 8 WB	S	2	M	Operational
	11	SD	8	18.96	EB	Greenfield Dr to 8 EB				Planned
●	11	SD	8	19.10	WB	2nd St to 8 WB	S	2	NM	Operational
●	11	SD	8	20.41	WB	Greenfield Dr to 8 WB	S	2	NM	Operational
●	11	SD	8	21.75	WB	Los Coches Rd to 8 WB	S	3	M	Operational
●	11	SD	8	23.61	WB	Lake Jennings Rd SB to 8 WB	H	2	NM	Operational
●	11	SD	8	23.71	WB	Lake Jennings Rd NB to 8 WB	L	2	M	Operational
	11	SD	8	25.51	WB	Dumbar Ln to 8 WB				Planned
	11	SD	8	58.21	WB	Tavern Rd to 8 EB				Planned
●	11	SD	11	0.90	WB	Enrico Ferme to 11 WB	S		NM	Operational
	11	SD	15	0.32	NB	15 NB Connector from 5 SB	C			Planned
	11	SD	15	0.40	NB	15 NB Connector from 5 NB	C			Planned
	11	SD	15	0.67	SB	Oceanview Blvd to 15 SB				Planned
	11	SD	15	1.63	SB	Imperial Ave to 15 SB				Planned
	11	SD	15	1.76	SB	Market st to 15 SB	S			Planned
	11	SD	15	2.50	NB	15 NB Connector from 94 EB	C			Planned
	11	SD	15	3.21	SB	15 SB from 805 SB Connector	C			Planned
	11	SD	15	3.46	NB	15 NB Connector from 805 NB	C			Planned
●	11	SD	15	4.55	SB	University Ave to 15 SB	S	2	M	Operational
●	11	SD	15	4.68	NB	University Ave to 15 NB	S	2	M	Operational
●	11	SD	15	5.00	SB	El Cajon Blvd to 15 SB	S	2	M	Operational
●	11	SD	15	5.07	NB	El Cajon Blvd to 15 NB	S	3	M	Operational
●	11	SD	15	5.49	SB	Adams Ave to SB 15	H	2	NM	Operational
●	11	SD	15	5.61	NB	Adams Ave to 15 NB	H	2	M	Operational
	11	SD	15	6.03	SB	Camino del Rio Sur to 15 SB				Planned
	11	SD	15	6.08	NB	Camino del Rio Sur to 15 NB				Planned
	11	SD	15	6.10	NB	15 NB Connector from 8 EB	C			Planned
	11	SD	15	6.21	SB	Fairmont Ave to 15 SB				Planned
●	11	SD	15	6.27	NB	Fairmont Ave to 15 NB	S	2	NM	Operational
	11	SD	15	6.62	NB	15 NB Connector from 8 WB	C			Planned
●	11	SD	15	6.67	SB	Friars Rd to 15 SB	L	1	NM	Operational
●	11	SD	15	6.78	SB	Friars Rd to 15 SB/8	S	1	NM	Operational
●	11	SD	15	6.96	NB	Friars Rd to 15 NB	S	3	M	Operational
●	11	SD	15	7.67	SB	Murphy Canyon Rd to 15 SB	S	2	M	Operational
●	11	SD	15	8.33	NB	Aero Dr to 15 NB	S	2	M	Operational

● Existing Meter

High Priority



# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	11	SD	15	8.34	SB	Aero Dr to 15 SB	S	3	M	Operational
●	11	SD	15	9.18	NB	Balboa Ave EB to 15 NB	L	1	NM	Operational
●	11	SD	15	9.19	SB	Balboa Ave EB to 15 SB	S	3	M	Operational
●	11	SD	15	9.20	SB	Balboa Ave WB to 15 SB	L	2	M	Operational
●	11	SD	15	9.37	NB	Balboa Ave WB to 15 NB	H	1	NM	Operational
●	11	SD	15	9.95	SB	Clairemont Mesa Blvd to 15 SB	S	3	M	Operational
●	11	SD	15	9.96	NB	Clairemont Mesa Blvd to 15 NB	S	2	NM	Operational
	11	SD	15	10.31	SB	15 SB Connector from EB/WB 52	C			Planned
	11	SD	15	11.00	NB	15 NB Connector from 52 EB/WB	C			Planned
●	11	SD	15	13.27	NB	Miramar Way to 15 NB	L	1	NM	Operational
●	11	SD	15	13.45	SB	Miramar Way to 15 SB	S	2	M	Operational
●	11	SD	15	14.15	SB	Miramar Rd to 15 SB	S	3	M	Operational
●	11	SD	15	14.28	NB	Miramar Rd to 15 NB	L	2	NM	Operational
●	11	SD	15	14.30	NB	Pomerado Rd to 15 NB	S	1	NM	Operational
●	11	SD	15	14.36	SB	Pomerado Rd to 15 SB	L	2	NM	Operational
●	11	SD	15	14.88	SB	Carroll Canyon Rd to 15 SB	S	2	NM	Operational
●	11	SD	15	15.01	NB	Carroll Canyon Rd to 15 NB	S	2	M	Operational
●	11	SD	15	15.93	NB	Mira Mesa Blvd WB to 15 NB	S	2	M	Operational
●	11	SD	15	15.94	NB	Mira Mesa Blvd EB to 15 NB	L	2	NM	Operational
●	11	SD	15	15.96	SB	Mira Mesa Blvd EB to 15 SB	S	3	M	Operational
●	11	SD	15	15.96	SB	Mira Mesa Blvd WB to 15 SB	L	2	M	Operational
●	11	SD	15	17.24	SB	Mercy Rd to 15 SB	S	3	M	Operational
●	11	SD	15	17.27	NB	Mercy Rd to 15 NB	S	3	M	Operational
●	11	SD	15	18.14	NB	Poway Rd to 15 NB	S	1	NM	Operational
●	11	SD	15	18.24	SB	Rancho Penasquitos to 15 SB	S	2	NM	Operational
●	11	SD	15	18.25	SB	Poway Rd to 15 SB	L	2	NM	Operational
●	11	SD	15	18.25	NB	Rancho Penasquitos to 15 NB	L	1	NM	Operational
●	11	SD	15	19.02	SB	Ted Williams Pkwy to 15 SB	S	2	M	Operational
●	11	SD	15	19.45	NB	56 EB to 15 NB	L	2	M	Operational
●	11	SD	15	19.51	NB	Ted Williams Pkwy to 15 NB	S	2	NM	Operational
●	11	SD	15	20.54	SB	Carmel Mountain Rd to 15 SB	S	3	M	Operational
●	11	SD	15	20.58	NB	Carmel Mountain Rd to 15 NB	S	3	M	Operational
●	11	SD	15	21.83	SB	Camino del Norte to 15 SB	S	3	M	Operational
●	11	SD	15	22.04	NB	Camino del Norte to 15 NB	S	3	M	Operational
●	11	SD	15	22.86	SB	Bernardo Center Dr to 15 SB	S	2	NM	Operational
●	11	SD	15	23.02	NB	Bernardo Center Dr to 15 NB	S	2	NM	Operational
●	11	SD	15	23.69	NB	Rancho Bernardo Rd EB to 15 NB	L	2	M	Operational
●	11	SD	15	23.76	SB	Rancho Bernardo Rd EB to 15 SB	H	3	M	Operational
●	11	SD	15	23.81	NB	Rancho Bernardo Rd WB to 15 NB	H	2	M	Operational
●	11	SD	15	23.82	SB	Rancho Bernardo Rd WB to 15 SB	L	2	M	Operational
●	11	SD	15	25.84	SB	West Bernardo Dr to 15 SB	S	1	NM	Operational
●	11	SD	15	25.99	NB	W Bernardo Dr/ Pomerado to 15 NB	H	2	M	Operational
●	11	SD	15	26.88	NB	Via Rancho Pkwy to 15 NB	L	2	NM	Operational
●	11	SD	15	27.01	SB	Via Rancho Pkwy to 15 SB	S	3	M	Operational
●	11	SD	15	27.78	SB	Centre City Pkwy to 15 SB	S	3	M	Operational
●	11	SD	15	28.62	SB	Citracado Pkwy to 15 SB	S	2	NM	Operational
●	11	SD	15	28.82	NB	Citracado Pkwy to 15 NB	S	1	NM	Operational
●	11	SD	15	29.97	SB	Auto Park Way / 9th Ave to 15 SB	S	2	M	Operational
●	11	SD	15	30.21	NB	Auto Park Way / 9th Ave to 15 NB	S	2	NM	Operational
●	11	SD	15	30.70	SB	Valley Pkwy to 15 SB	L	1	NM	Operational
●	11	SD	15	30.72	NB	Valley Pkwy to 15 NB	S	2	NM	Operational
	11	SD	15	31.47	SB	15 SB Connector from 78 EB	C			Planned

● Existing Meter

High Priority



# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	11	SD	15	31.50	NB	15 NB Connector from 78 EB	C			Planned
	11	SD	15	31.67	SB	15 SB Connector from 78 WB	C			Planned
	11	SD	15	31.88	NB	15 NB Connector from 78 WB	C			Planned
●	11	SD	15	32.73	SB	El Norte Pkwy to 15 SB	S	2	M	Operational
	11	SD	15	33.11	NB	El Norte Pkwy to 15 NB				Planned
	11	SD	15	36.82	SB	Deer Spring Rd to 15 SB				Planned
	11	SD	15	40.62	SB	Gopher Canyon Rd to 15 SB				Planned
	11	SD	15	42.99	SB	Rte 395/Escondido Hwy to 15 SB				Planned
	11	SD	15	42.99	SB	Rte 76/Pala Rd to 15 SB				Planned
	11	SD	15	43.19	SB	Rte 395/Escondido Hwy to 15 SB	C			Planned
	11	SD	15	53.80	SB	Rainbow Valley Rd to 15 SB				Planned
	11	SD	52	1.21	WB	Regents Rd to 52 WB				Planned
	11	SD	52	1.56	EB	Regents Rd to 52 EB				Planned
	11	SD	52	2.01	WB	Genesee Ave to 52 WB				Planned
	11	SD	52	2.65	EB	Genesee Ave to 52 EB				Planned
	11	SD	52	3.45	WB	52 WB from 805 SB Connector	C			Planned
	11	SD	52	3.56	WB	52 WB from 805 NB Connector	C			Planned
	11	SD	52	3.93	EB	52 EB from 805 SB Connector	C			Planned
	11	SD	52	3.94	EB	52 EB from 805 NB Connector	C			Planned
	11	SD	52	5.29	WB	Convoy St to 52 WB				Planned
	11	SD	52	5.63	EB	Convoy St to 52 EB				Planned
	11	SD	52	6.58	WB	52 WB from 163 NB Connector	C			Planned
	11	SD	52	6.59	WB	52 WB from 163 SB Connector	C			Planned
	11	SD	52	6.73	WB	52 WB from 15 SB Connector	C			Planned
	11	SD	52	6.74	WB	52 WB from 15 NB Connector	C			Planned
	11	SD	52	6.80	WB	Kearny Villa Rd to 52 WB				Planned
	11	SD	52	7.08	EB	Ruffin/Kearny Villa Rd to 52 EB				Planned
	11	SD	52	7.61	EB	52 EB from 15 SB Connector	C			Planned
	11	SD	52	7.62	EB	52 EB from 15 NB Connector	C			Planned
	11	SD	52	8.48	WB	Santo Rd to 52 WB				Planned
	11	SD	52	8.82	EB	Santo Rd to 52 EB				Planned
	11	SD	52	13.10	WB	Mast Blvd to 52 WB				Planned
	11	SD	52	13.46	EB	Mast Blvd to 52 EB				Planned
	11	SD	52	14.03	WB	Mision Gorge Rd to 52 WB				Planned
	11	SD	52	14.77	WB	52 WB from 125 NB Connector	C			Planned
●	11	SD	52	15.98	WB	Cuyamaca St SB 52 WB	S	2	M	Operational
●	11	SD	52	16.26	WB	Cuyamaca St NB 52 WB	L	2	M	Operational
●	11	SD	52	16.91	WB	Magnolia Ave to 52 WB	S	2	M	Operational
●	11	SD	52	16.94	WB	67 SB to 52 WB	S	2	NM	Operational
	11	SD	54	0.35	EB	National City Blvd to 54 EB	L			Planned
	11	SD	54	0.81	WB	Highland Ave/4th Ave to 54 WB	S			Planned
	11	SD	54	1.00	EB	Highland Ave/4th St to 54 EB	S			Planned
	11	SD	54	1.83	WB	54 WB from 805 SB Connector	C			Planned
	11	SD	54	1.89	EB	54 EB from 805 SB Connector	C			Planned
	11	SD	54	1.93	WB	54 WB from 805 NB Connector	C			Planned
	11	SD	54	2.15	EB	54 EB from 805 NB Connector	C			Planned
●	11	SD	54	2.95	EB	Reo Dr to 54 EB	S	2	M	Operational
●	11	SD	54	2.97	WB	Reo Dr to 54 WB	S	2	M	Operational
●	11	SD	54	4.04	WB	Woodman St to 54 WB	S	2	M	Operational
●	11	SD	54	4.29	EB	Woodman St to 54 EB	S	2	M	Operational
●	11	SD	54	4.77	WB	Briarwood Rd to 54 WB	S	2	M	Operational
●	11	SD	54	5.07	EB	Briarwood Rd to 54 EB	S	2	M	Operational

● Existing Meter

High Priority



# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	11	SD	56	0.42	EB	El Camino Real to 56 EB	S	2	NM	Operational
●	11	SD	56	0.85	WB	Carmel Creek Rd to 56 WB	L	2	M	Operational
●	11	SD	56	0.97	EB	Carmel Creek Rd to 56 EB	S	2	M	Operational
●	11	SD	56	1.83	WB	Carmel Country Rd to 56 WB	L	2	NM	Operational
●	11	SD	56	1.89	EB	Carmel Country Rd to 56 EB	S	2	NM	Operational
●	11	SD	56	2.91	WB	Carmel Valley Rd to 56 WB	S	3	M	Operational
●	11	SD	56	3.19	EB	Carmel Valley Rd to 56 EB	S	3	M	Operational
●	11	SD	56	5.95	WB	Camino Del Sur to 56 WB	S	3	M	Operational
●	11	SD	56	6.17	EB	Camino Del Sur to 56 EB	S	3	M	Operational
●	11	SD	56	6.87	WB	Black Mountain Rd to 56 WB	S	3	M	Operational
●	11	SD	56	7.16	EB	Black Mountain Rd to 56 EB	S	3	M	Operational
●	11	SD	56	8.06	EB	Rancho Penasquitos Blvd to 56 EB	H	1	NM	Operational
●	11	SD	56	8.06	WB	Rancho Penasquitos Blvd to 56 WB	S	1	NM	Operational
	11	SD	56	8.85	WB	56 WB from 15 SB Connector	C			Planned
	11	SD	67	0.05	NB	67 NB from 8 EB Connector	C			Planned
	11	SD	67	0.06	NB	67 NB from 8 WB Connector	C			Planned
	11	SD	78	0.10	EB	78 EB Connector from 5 NB	C			Planned
●	11	SD	78	0.65	WB	Jefferson St to 78 WB	S	3	M	Operational
●	11	SD	78	0.86	EB	Jefferson St to 78 EB	S	3	M	Operational
●	11	SD	78	1.39	WB	El Camino Real to 78 WB	S	2	NM	Operational
●	11	SD	78	1.59	EB	El Camino Real to 78 EB	S	2	NM	Operational
●	11	SD	78	3.25	WB	College Blvd SB to 78 WB	S	3	M	Operational
●	11	SD	78	3.33	WB	College Blvd NB to 78 WB	H	2	NM	Operational
●	11	SD	78	3.59	EB	Plaza Dr to 78 EB	H	2	NM	Operational
●	11	SD	78	4.29	WB	Emerald Dr to 78 WB	S	2	NM	Operational
●	11	SD	78	4.47	EB	Emerald Dr to 78 EB	S	2	NM	Operational
●	11	SD	78	5.80	WB	Melrose/West Vista Way to 78 WB	H	2	NM	Operational
●	11	SD	78	6.14	WB	Vista Village Dr to 78 WB	H	2	M	Operational
●	11	SD	78	6.32	EB	Vista Village Dr to 78 EB	S	3	M	Operational
●	11	SD	78	6.86	WB	Civic Center Dr to 78 WB	S	2	M	Operational
●	11	SD	78	6.89	EB	Civic Center Dr to 78 EB	L	2	NM	Operational
●	11	SD	78	7.76	WB	Mar Vista Dr to 78 WB	L	2	NM	Operational
●	11	SD	78	7.80	EB	Mar Vista Dr to 78 EB	S	2	M	Operational
●	11	SD	78	8.97	WB	Sycamore Ave to 78 WB	S	3	M	Operational
●	11	SD	78	9.22	EB	Sycamore Ave to 78 EB	S	3	M	Operational
●	11	SD	78	10.44	WB	Rancho Santa Fe Rd to 78 WB	S	2	M	Operational
●	11	SD	78	10.68	EB	Rancho Santa Fe Rd to 78 EB	S	2	M	Operational
●	11	SD	78	11.10	WB	Las Posas Rd to 78 WB	S	2	M	Operational
●	11	SD	78	11.36	EB	Las Posas/Grand Ave to 78 EB	H	2	M	Operational
●	11	SD	78	12.04	WB	San Marcos Blvd SB to 78 WB	S	2	M	Operational
●	11	SD	78	12.27	WB	San Marcos Blvd NB to 78 WB	L	1	NM	Operational
●	11	SD	78	12.27	EB	San Marcos Blvd to 78 EB	S	3	M	Operational
●	11	SD	78	12.81	WB	Twin Oaks SB to 78 WB	H	2	M	Operational
●	11	SD	78	12.88	WB	Twin Oaks NB to 78 WB	L	2	M	Operational
●	11	SD	78	13.02	EB	Twin Oaks Valley Rd to 78 EB	S	3	M	Operational
●	11	SD	78	14.14	WB	Barham/Woodland to 78 WB	H	2	M	Operational
●	11	SD	78	14.86	EB	Barham/Woodland to 78 EB	H	2	M	Operational
●	11	SD	78	15.37	WB	Nordahl Rd to 78 WB	S	2	NM	Operational
●	11	SD	78	15.60	EB	Nordahl Rd to 78 EB	S	2	NM	Operational
	11	SD	78	16.27	WB	78 WB Connector from 15 NB	C			Planned
	11	SD	78	16.54	EB	78 EB Connector from 15 NB	C			Planned
●	11	SD	78	17.28	WB	Centre City Pkwy SB to 78 WB	S	2	M	Operational

● Existing Meter

High Priority



# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	11	SD	78	17.34	WB	Centre City Pkwy NB to 78 WB	L	2	M	Operational
●	11	SD	78	17.62	WB	Broadway/Lincoln Ave to 78 WB	M	3	M	Operational
●	11	SD	94	1.44	EB	19th St to 94 EB	H	1	NM	Operational
●	11	SD	94	1.44	EB	G St to 94 EB	S	3	NM	Operational
	11	SD	94	1.48	EB	94 EB Connector from 5 SB	C			Planned
●	11	SD	94	1.87	EB	25th St to 94 EB	S	2	NM	Operational
●	11	SD	94	2.23	WB	28th St to 94 WB	H	1	NM	Operational
●	11	SD	94	2.24	EB	28th St to 94 EB	S	1	NM	Operational
●	11	SD	94	2.61	WB	32nd St to 94 WB	H	1	NM	Operational
●	11	SD	94	2.63	EB	32nd St to 94 EB	H	1	NM	Operational
●	11	SD	94	3.14	WB	15 SB to 94 WB	C	2	M	Operational
●	11	SD	94	3.26	WB	15 NB to 94 WB	C	1	NM	Operational
	11	SD	94	3.53	EB	94 EB Connector from 15 NB	C			Planned
●	11	SD	94	3.55	WB	Home Ave to 94 WB	H	1	NM	Operational
●	11	SD	94	3.98	WB	805 NB to 94 WB	C	2	M	Operational
	11	SD	94	4.40	EB	94 EB Connector from 805	C			Planned
	11	SD	94	4.70	EB	47th st to 94 EB				Planned
●	11	SD	94	4.83	WB	49th St to 94 WB	H	1	M	Operational
●	11	SD	94	5.16	WB	Euclid Ave SB to 94 WB	S	1	NM	Operational
●	11	SD	94	5.16	WB	Euclid Ave NB to 94 WB	S	1	NM	Operational
●	11	SD	94	5.16	EB	Euclid Ave to 94 EB	S	1	NM	Operational
●	11	SD	94	5.61	WB	Kelton Rd to 94 WB	S	2	M	Operational
●	11	SD	94	5.80	EB	Kelton Rd to 94 EB	S	1	NM	Operational
●	11	SD	94	6.21	WB	Federal Blvd to 94 WB	S	1	NM	Operational
●	11	SD	94	7.24	WB	College Grove Way to 94 WB	H	2	M	Operational
●	11	SD	94	7.75	WB	College Ave to 94 WB	S	1	NM	Operational
●	11	SD	94	7.76	WB	Broadway to 94 WB	H	1	NM	Operational
●	11	SD	94	8.14	WB	Massachusetts Ave to 94 WB	S	2	M	Operational
●	11	SD	94	8.36	EB	Massachusetts Ave to 94 EB	S	1	NM	Operational
●	11	SD	94	8.55	WB	Waite Dr to 94 WB	H	1	NM	Operational
●	11	SD	94	8.87	WB	Lemon Grove Ave to 94 WB	S	1	NM	Operational
●	11	SD	94	9.01	EB	Lemon Grove Ave to 94 EB	S	1	NM	Operational
●	11	SD	94	9.62	WB	125 NB to 94 WB	C	2	NM	Operational
	11	SD	94	10.03	EB	94 EB Connector from 125 NB	C			Planned
●	11	SD	94	10.11	WB	94 WB to 94 WB Connector	M	3	M	Operational
●	11	SD	94	10.13	WB	Spring St to 94 WB	S	2	M	Operational
	11	SD	125	TBD	NB	125 NB Connector from 8 EB	C			Planned
	11	SD	125	TBD	NB	125 NB Connector from 8 WB	C			Planned
	11	SD	125	TBD	SB	125 SB Connector from 8 EB	C			Planned
	11	SD	125	TBD	SB	125 SB Connector from 8 WB	C			Planned
	11	SD	125	TBD	SB	125 SB Connector from 54 WB	C			Planned
●	11	SD	125	11.92	SB	Paradise Valley Rd to 125 SB	H	3	M	Operational
●	11	SD	125	12.03	NB	Elkelton Pl to 125 NB	H	2	M	Operational
●	11	SD	125	12.75	SB	Jamacha Rd to 125 SB	S	3	M	Operational
●	11	SD	125	12.91	NB	Jamacha Rd to 125 NB	S	3	M	Operational
●	11	SD	125	15.22	SB	Spring St to 125 SB	S	1	NM	Operational
●	11	SD	125	15.78	NB	Campo Rd to 125 NB	H	2	M	Operational
●	11	SD	125	16.87	SB	Lemon Ave to 125 SB	S	2	NM	Operational
●	11	SD	125	17.24	SB	Grossmont Blvd to 125 SB	S	2	M	Operational
●	11	SD	125	17.36	NB	Grossmont Blvd to 125 NB	S	2	NM	Operational

● Existing Meter

High Priority





# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	11	SD	125	17.38	SB	8 EB to 125 SB	C	1	NM	Operational
●	11	SD	125	17.78	SB	125 SB Connector to 125 SB	M	3	M	Operational
	11	SD	125	18.44	SB	Amaya Dr to 125 SB	L			Planned
	11	SD	125	19.11	SB	Navajo Rd to 125 SB	H			Planned
	11	SD	125	19.86	SB	Grossmont College Dr to 125 SB	S			Planned
	11	SD	125	21.97	SB	125 SB Connector from 52 EB	C			Planned
	11	SD	125	22.26	SB	125 SB Connector from 52 WB	C			Planned
	11	SD	163	0.05	NB	A St/11th St to 163 NB				Planned
	11	SD	163	1.19	NB	Park Blvd to 163 NB				Planned
	11	SD	163	2.60	SB	Robinson Ave to 163 SB	S			Planned
●	11	SD	163	2.67	SB	Washington St to 163 SB	H	2	M	Operational
	11	SD	163	2.75	NB	University Ave to 163 NB	H			Planned
	11	SD	163	2.76	NB	Washington St to 163 NB	H			Planned
	11	SD	163	3.13	NB	6th St to 163 NB	S			Planned
	11	SD	163	3.79	SB	163 SB from 8 WB Connector	C			Planned
	11	SD	163	4.22	SB	Friars Rd EB to 163 SB				Planned
	11	SD	163	4.27	SB	Friars Rd WB to 163 SB	L			Planned
	11	SD	163	4.67	NB	Friars Rd EB to 163 NB	H			Planned
	11	SD	163	5.60	NB	Genesee Ave to 163 NB	S			Planned
	11	SD	163	5.60	SB	Genesee Ave EB to 163 SB	H			Planned
	11	SD	163	5.83	SB	Genesee Ave WB to 163 SB	L	3		Planned
●	11	SD	163	7.83	SB	Mercury/Armour to 163 SB	H	2	NM	Operational
●	11	SD	163	8.01	NB	Balboa Ave to 163 NB	L	2	NM	Operational
●	11	SD	163	8.05	SB	Balboa Ave/Mercury to 163 SB	H	3	M	Operational
●	11	SD	163	8.16	NB	Century Park Ct to 163 NB	H	2	M	Operational
●	11	SD	163	8.67	SB	Clairemont Mesa Blvd EB to 163 SB	H	2	NM	Operational
●	11	SD	163	8.75	NB	Clairemont Mesa Blvd EB to 163 NB	L	2	NM	Operational
●	11	SD	163	8.91	SB	Clairemont Mesa Blvd WB to 163 SB	L	2	NM	Operational
●	11	SD	163	8.93	NB	Clairemont Mesa Blvd WB to 163 NB	H	2	M	Operational
●	11	SD	163	10.81	NB	Kearny Villa Rd to 163 NB	H	1	NM	Operational
●	11	SD	163	10.93	SB	Kearny Villa Rd to 163 SB	S	3	M	Operational
	11	SD	805	0.51	SB	San Ysidro Blvd to 805 SB				Planned
	11	SD	805	0.87	NB	San Ysidro Blvd to 805 NB				Planned
	11	SD	805	2.73	SB	Palm Ave to 805 SB				Planned
	11	SD	805	3.13	NB	Palm Ave to 805 NB	S			Planned
	11	SD	805	3.52	SB	Otay Valley Rd to 805 SB				Planned
●	11	SD	805	3.85	NB	Main St to 805 NB	S	3	M	Operational
	11	SD	805	4.23	SB	Orange St to 805 SB				Planned
●	11	SD	805	4.23	SB	Olympic Pkwy/Orange Ave to 805 SB	S	3	M	Operational
●	11	SD	805	4.59	NB	Olympic Pkwy/Orange Ave to 805 NB	S	3	M	Operational
	11	SD	805	5.84	SB	Telegraph Canyon Rd to 805 SB				Planned
●	11	SD	805	6.21	NB	Telegraph Canyon Rd to 805 NB	S	2	M	Operational
	11	SD	805	7.00	SB	H St to 805 SB				Planned
●	11	SD	805	7.03	NB	H St EB to 805 NB	L	2	M	Operational
●	11	SD	805	7.08	NB	H St WB to 805 NB	H	2	NM	Operational
●	11	SD	805	7.74	SB	Bonita Rd to 805 SB	S	2	NM	Operational
●	11	SD	805	7.76	NB	Bonita Rd to 805 NB	S	2	NM	Operational
●	11	SD	805	8.52	SB	54 WB to 805 SB	C	2	NM	Operational
●	11	SD	805	8.93	SB	Sweetwater Rd/30th St 805 SB	S	2	M	Operational

● Existing Meter

High Priority





# 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
	11	SD	805	9.41	NB	805 NB from 54 EB Connector	C			Planned
	11	SD	805	9.42	NB	805 NB from 54 WB Connector	C			Planned
●	11	SD	805	10.36	NB	Plaza Blvd to 805 NB	S	2	M	Operational
●	11	SD	805	10.36	SB	Plaza Blvd to 805 SB	S	3	M	Operational
	11	SD	805	11.18	SB	47th St to 805 SB				Planned
●	11	SD	805	11.44	NB	43rd St to 805 NB	C	2	M	Operational
●	11	SD	805	11.44	NB	47th St to 805 NB	S	2	NM	Operational
	11	SD	805	12.22	SB	Imperial Ave to 805 SB				Planned
●	11	SD	805	12.35	NB	Imperial Ave to 805 NB	S	2	NM	Operational
	11	SD	805	12.85	SB	Market St to 805 SB				Planned
●	11	SD	805	13.21	NB	Market St to 805 NB	S	1	NM	Operational
	11	SD	805	13.81	SB	Home Ave to 805 SB				Planned
●	11	SD	805	13.87	NB	Home Ave to 805 NB	L	2	M	Operational
	11	SD	805	13.91	NB	805 NB from 94 WB Connector	C			Planned
	11	SD	805	13.91	SB	805 SB from 94 WB Connector	C			Planned
	11	SD	805	13.92	SB	805 SB from 94 EB Connector	C			Planned
	11	SD	805	14.77	SB	805 SB from 15 SB Connector	C			Planned
●	11	SD	805	15.38	NB	805 NB from 15 NB Connector	C			Non Op
	11	SD	805	15.73	SB	University/Boundary St to 805 SB				Planned
●	11	SD	805	15.94	NB	University Ave to 805 NB	L	2	NM	Operational
	11	SD	805	16.29	SB	El Cajon Blvd to 805 SB	S			Planned
●	11	SD	805	16.50	NB	El Cajon Blvd to 805 NB	S	2	NM	Operational
	11	SD	805	16.93	NB	Adams Ave to 805 NB				Planned
●	11	SD	805	18.49	SB	Murray Ridge Rd to 805 SB	S	2	M	Operational
●	11	SD	805	19.00	NB	Murray Ridge Rd to 805 NB	S	1	NM	Operational
●	11	SD	805	20.16	SB	Mesa College Dr to 805 SB	S	2	M	Operational
●	11	SD	805	21.15	NB	Balboa Ave EB to 805 NB	L	2	M	Operational
●	11	SD	805	21.33	NB	Balboa Ave WB to 805 NB	H	2	M	Operational
●	11	SD	805	21.47	SB	Balboa Ave EB to 805 SB	H	2	M	Operational
●	11	SD	805	21.72	SB	Balboa Ave WB to 805 SB	L	1	NM	Operational
●	11	SD	805	22.46	NB	Clairemont Mesa Blvd EB to 805 NB	L	2	M	Operational
●	11	SD	805	22.66	SB	Clairemont Mesa Blvd WB to 805 SB	L	2	NM	Operational
●	11	SD	805	22.68	SB	Clairemont Mesa Blvd EB to 805 SB	H	2	M	Operational
●	11	SD	805	22.68	NB	Clairemont Mesa Blvd WB to 805 NB	H	2	M	Operational
	11	SD	805	23.40	SB	805 SB from 52 WB Connector	C			Planned
	11	SD	805	23.55	NB	805 NB from 52 EB Connector	C			Planned
	11	SD	805	23.56	NB	805 NB from 52 WB Connector	C			Planned
●	11	SD	805	24.43	SB	Governor Dr to 805 SB	S	1	NM	Operational
●	11	SD	805	24.53	NB	Governor Dr to 805 NB	S	2	M	Operational
●	11	SD	805	25.25	SB	Nobel Dr to 805 SB	S	3	M	Operational
●	11	SD	805	25.94	SB	Miramar Rd WB to 805 SB	L	2	NM	Operational
●	11	SD	805	25.94	SB	La Jolla Village Dr to 805 SB	H	3	M	Operational
●	11	SD	805	26.02	NB	La Jolla Village Dr WB to 805 NB	L	2	M	Operational
●	11	SD	805	26.03	NB	Miramar Rd to 805 NB	L	2	M	Operational
●	11	SD	805	26.95	SB	Sorrento Valley Rd to 805 SB	H	3	M	Operational
●	11	SD	805	27.14	SB	Mira Mesa Blvd to 805 SB	H	4	NM	Operational
●	11	SD	805	27.16	NB	Vista Sorrento Pkwy to 805 NB	H	3	M	Operational
	11	SD	905	TBD	EB	905 EB from 5 SB Connector	C			Planned
	11	SD	905	TBD	EB	905 EB from 5 NB Connector	C			Planned
	11	SD	905	TBD	EB	905 EB from 805 Connector	C			Planned

● Existing Meter

High Priority



## 2015 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Operational Status
●	11	SD	905	6.55	WB	Caliente Ave to 905 WB	S	2	M	Operational
●	11	SD	905	6.91	EB	Caliente Ave to 905 EB	S	2	M	Operational
●	11	SD	905	8.63	WB	Britannia Blvd to 905 WB	S	3	M	Operational
●	11	SD	905	8.89	EB	Britannia Blvd to 905 EB	S	2	NM	Operational
●	11	SD	905	9.64	WB	La Media Rd SB 905 WB	S	2	M	Operational
●	11	SD	905	9.72	EB	La Media Rd to 905 EB	S	2	M	Operational
●	11	SD	905	9.81	WB	La Media Rd NB 905 WB	H	2	M	Operational
●	11	SD	905	11.34	WB	Siempre Viva Rd to 905 WB	S	3	NM	Operational

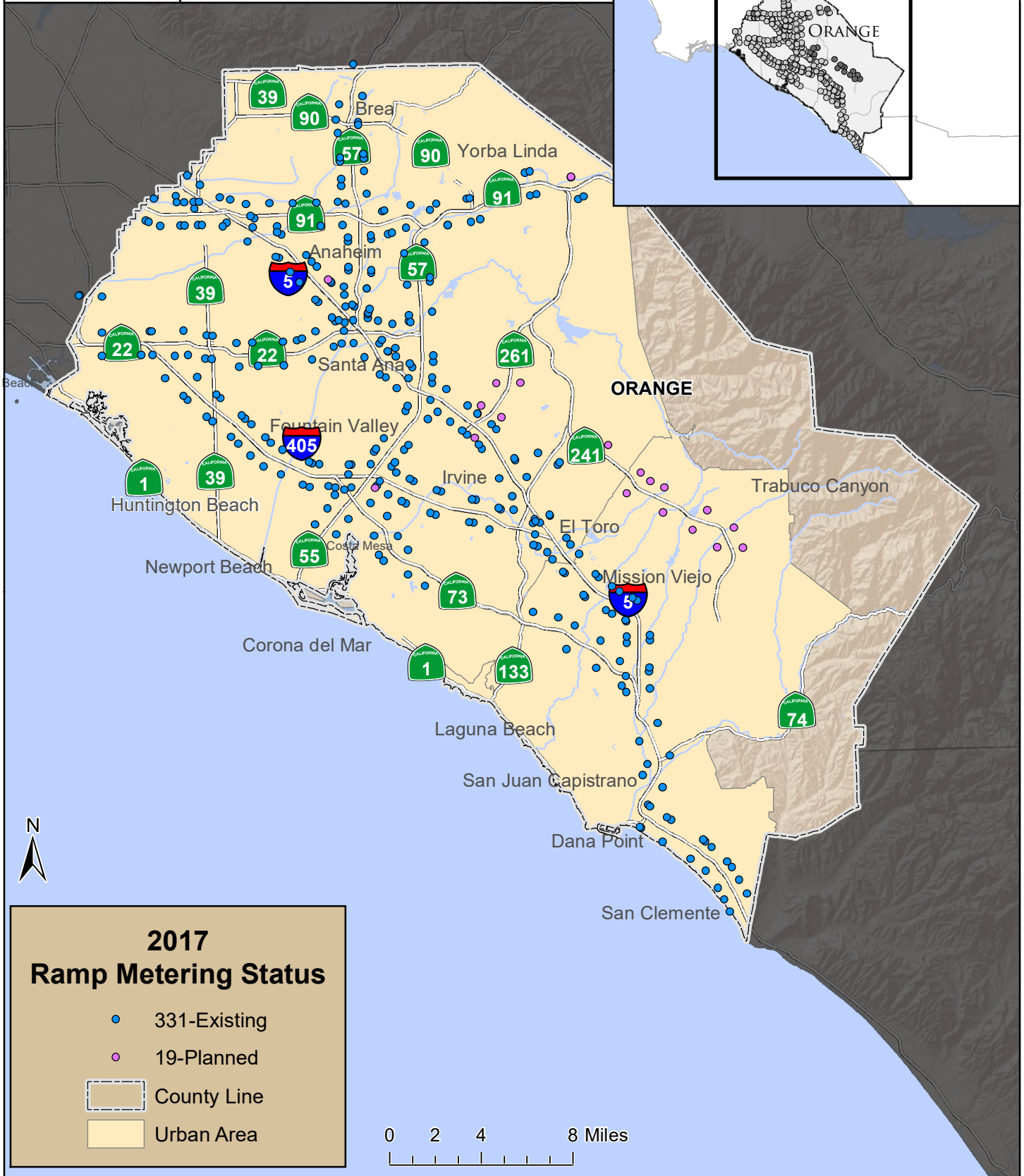
This page is intentionally left blank

# DISTRICT 12

# District 12

Ramp Metering Development Plan

Division of Traffic Operations  
Data by: Office of Traffic Management  
Map by: Office of Performance



Disclaimer: This information is for discussion and planning purposes, and does not represent a commitment by Caltrans or others to install or operate ramp meters at these locations.

## **DISTRICT 12**

The District maintains and operates 278 centerline miles and 2,066 total lane miles of highway. The District and its transportation partners have gone to great lengths to relieve freeway congestion by doubling freeway lanes miles and building the most complete High Occupancy Vehicle lanes network in California which consist of 268 miles.

### Current or Planned Ramp Meter Routes:

The following routes have or are planned to have ramp metering:  
I-5, I-405, I-605, SR 22, SR 55, SR 57, SR 73, SR 90, SR 91, SR 133, SR 241, and SR 261.

District 12 has 331 existing metered ramps and 19 planned metered ramps for a projected total of 350 metered ramps for the ten-year period covered by the 2017 RMDP. Currently, there are no proposed high priority locations in District 12. Ramp meter locations are illustrated on the District 12 RMDP map.

### Congestion Challenges

Orange County has developed into a major employment center where people from Los Angeles, Riverside and San Bernardino Counties commute to work. This has created congestion on I-5, at the Orange/Los Angeles County line, SR 91 and the interchange of SR 22/SR 57/I-5.

Solutions proposed are congestion pricing, auxiliary lanes and freeway expansion. The expansion approach should be considered after a careful analysis and after all other viable options are exhausted. In 2011, a study was done by Cambridge Systematics, Inc. with the Automobile Club of Southern California showing that the cost per person of delay in Orange and Los Angeles Counties was \$892 annually.

### District Ramp Metering Strategies

District 12 continues to use ramp metering as a traffic management strategy during am and pm peak periods to maintain the freeway system, as well as to increase safety. Ramp metering has been successful for the on-ramp flow so that the mainline downstream slows down the bottlenecks in the highway system. The concept is to facilitate mainline throughput and reduce congestion for both mainline and on-ramp traffic during the peak periods. With ramp meters, only an identified number of vehicles per minute can merge with mainline flow, which allows for a smoother and safer merging operation. Some ramp metering locations have a high occupancy vehicle preferential lane that provides carpoolers, buses and motorcycles to bypass the ramp meter queue.



District 12 currently has several ramp metering improvement projects in development. The projects include upgrading all ramp metering controllers from older model 170 to the newer model ATC 2070. The controller upgrade should be complete by the end of 2018. Converting all multi-lane ramp meters from simultaneous release to staggered release will take place over a ten year period. Upgrading Meter-On signs at the entrance to all ramps to meet federal guidelines should be completed by 2020.

#### Supporting Documents

- District 12 TCRs, CSMPs, and DSMP and other planning documents  
<http://www.dot.ca.gov/d12/planning/>
- Southern California Association of Governments (SCAG):  
<http://www.scag.ca.gov>



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
●	12	Ora	5	0.90	SB	Calafia	H	1		Non Op
●	12	Ora	5	1.26	NB	Avenida Magdalena	H	1		Operational
●	12	Ora	5	1.49	SB	El Camino Real	S	2		Non Op
●	12	Ora	5	1.83	NB	El Camino Real	S	2		Operational
●	12	Ora	5	2.14	SB	Avenida Presidio	S	1		Non Op
●	12	Ora	5	2.47	NB	Avenida Presidio	S	2		Operational
●	12	Ora	5	2.80	NB	Palizada	S	2		Operational
●	12	Ora	5	3.23	SB	Avenida Pico 1	S	2		Non Op
●	12	Ora	5	3.56	NB	Avenida Pico 2	S	2		Operational
●	12	Ora	5	4.02	NB	Hermosa 1	L	2		Operational
●	12	Ora	5	4.10	NB	Hermosa 2	H	2		Operational
●	12	Ora	5	4.10	SB	Hermosa 2	L	1		Non Op
●	12	Ora	5	5.59	SB	Estrella	S	2		Non Op
●	12	Ora	5	5.73	NB	Camino De Estrella 1 (EB)	L	1		Operational
●	12	Ora	5	5.89	NB	Camino De Estrella 2 (WB)	S	2		Operational
●	12	Ora	5	6.67	SB	Rte 1	H	1		Non Op
●	12	Ora	5	6.82	SB	Las Ramblas	L	1		Non Op
●	12	Ora	5	6.91	NB	Las Ramblas	L	2		Operational
●	12	Ora	5	7.54	NB	Capistrano	S	2		Operational
●	12	Ora	5	8.60	SB	San Juan Creek	H	2		Non Op
●	12	Ora	5	8.64	NB	San Juan Creek	H	2		Operational
●	12	Ora	5	9.42	SB	Ortega Hwy 1	S	2		Non Op
●	12	Ora	5	9.69	NB	Ortega Hwy 2	S	2		Operational
●	12	Ora	5	10.73	SB	Junipero Serra	S	2	NM	Operational
●	12	Ora	5	11.11	NB	Junipero Serra	S	2	NM	Operational
●	12	Ora	5	12.80	SB	Avery Pkwy 1	S	2	NM	Operational
●	12	Ora	5	13.05	NB	Avery Pkwy 2	S	2		Operational
●	12	Ora	5	13.60	SB	Crown Valley Pkwy 1	S	2		Operational
●	12	Ora	5	13.72	NB	Crown Valley2 (WB)	L	2		Operational
●	12	Ora	5	13.99	NB	Crown Valley1 (EB)	H	2		Operational
●	12	Ora	5	15.03	SB	Oso Pkwy 1 (EB)	H	2		Operational
●	12	Ora	5	15.13	NB	Oso Pkwy 1 (EB)	L	2		Operational
●	12	Ora	5	15.30	SB	Oso Pkwy 2 (WB)	L	2	NM	Operational
●	12	Ora	5	15.35	NB	Oso Pkwy 2 (WB)	H	2		Operational
●	12	Ora	5	16.37	SB	La Paz 1 (EB)	S	2	NM	Operational
●	12	Ora	5	16.50	SB	La Paz 2 (WB)	L	2	NM	Operational
●	12	Ora	5	16.55	NB	La Paz 1 (EB)	L	2	NM	Operational
●	12	Ora	5	16.69	NB	La Paz 2 (WB)	S	2		Operational
●	12	Ora	5	17.26	SB	Alicia Pkwy 1 (EB)	H	2	NM	Operational
●	12	Ora	5	17.43	NB	Alicia 1 (EB)	L	2		Operational
●	12	Ora	5	17.49	SB	Alicia Pkwy 2 (WB)	L	2		Operational
●	12	Ora	5	17.76	NB	Alicia 2 (WB)	H	2		Operational
●	12	Ora	5	18.54	SB	El Toro 1 (EB)	S	2	NM	Operational
●	12	Ora	5	18.62	NB	El Toro 1 (EB)	L	2		Operational
●	12	Ora	5	18.63	SB	El Toro 2 (WB)	H	2		Operational
●	12	Ora	5	18.82	NB	El Toro 2 (WB)	H	2		Operational
●	12	Ora	5	19.80	SB	Lake Forest 1 (EB)	S	2		Operational
●	12	Ora	5	19.90	SB	Lake Forest 2 (WB)	L	2	NM	Operational
●	12	Ora	5	20.00	NB	Lake Forest 2 (WB)	L	2		Operational
●	12	Ora	5	20.59	NB	Bake Parkway 1	L	2		Operational
●	12	Ora	5	20.60	SB	Bake Parkway 1	H	2		Operational
●	12	Ora	5	20.94	NB	Bake Parkway 2	H	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
●	12	Ora	5	20.97	SB	Bake Parkway 2	L	2	NM	Operational
●	12	Ora	5	21.92	SB	Alton Pkwy 1	H	2		Operational
●	12	Ora	5	22.14	NB	Alton Pkwy 2	L	2		Operational
●	12	Ora	5	22.20	NB	Alton Pkwy 3	S	2		Operational
●	12	Ora	5	27.43	SB	Jamboree 1 (EB)	H	2		Operational
●	12	Ora	5	27.55	NB	Jamboree 1 (EB)	L	2	NM	Operational
●	12	Ora	5	27.56	NB	Jamboree 2 (WB)	H	2	NM	Operational
●	12	Ora	5	27.70	SB	Jamboree 2 (WB)	L	2	NM	Operational
●	12	Ora	5	28.10	NB	Tustin Ranch	H	2		Operational
●	12	Ora	5	28.35	SB	Tustin Ranch	L	2		Operational
●	12	Ora	5	29.80	NB	NEWPORT COAST	S	2		Operational
●	12	Ora	5	30.90	SB	1St	S	2		Operational
●	12	Ora	5	31.27	NB	4Th/Mabury	S	2		Operational
●	12	Ora	5	31.93	NB	Grand 2	L	2		Operational
●	12	Ora	5	32.00	SB	Grand 3	L	2		Operational
●	12	Ora	5	32.25	SB	17Th 1	H	2		Operational
●	12	Ora	5	32.50	NB	17th 2	L	2		Operational
●	12	Ora	5	32.60	NB	17th 3	S	2		Operational
●	12	Ora	5	33.00	SB	Main/Bufalo	H	2		Operational
●	12	Ora	5	33.20	NB	Main 2	H	2		Operational
●	12	Ora	5	34.60	SB	Chapman 1	S	2		Operational
●	12	Ora	5	35.00	NB	Chapman 2	S	1		Operational
●	12	Ora	5	35.10	NB	State College	L	2		Operational
●	12	Ora	5	35.20	SB	State College	L	2		Operational
●	12	Ora	5	35.40	SB	Orangewood 1	S	2		Operational
●	12	Ora	5	36.31	SB	Katella	H	2		Operational
●	12	Ora	5	36.40	NB	Orangewood 2	S	2		Operational
●	12	Ora	5	36.48	NB	Katella	S	1		Operational
●	12	Ora	5	36.48	SB	Anaheim 1	S	2		Operational
●	12	Ora	5	36.60	NB	Anaheim 2	S			Planned
●	12	Ora	5	37.39	NB	Harbor (NB)	L	1		Operational
●	12	Ora	5	37.48	SB	Harbor (SB)	L	2		Operational
●	12	Ora	5	37.73	NB	Ball	S	2		Operational
●	12	Ora	5	38.09	SB	South 1	H	1		Operational
●	12	Ora	5	38.10	NB	South 2	H	2		Operational
●	12	Ora	5	39.00	SB	Lincoln	H	2		Operational
●	12	Ora	5	39.24	NB	Lincoln	L	2		Operational
●	12	Ora	5	39.30	SB	Euclid 1	H	2		Operational
●	12	Ora	5	39.60	NB	Euclid 2	S	2		Operational
●	12	Ora	5	40.53	SB	Brookhurst 1	S	2		Operational
●	12	Ora	5	40.74	NB	Brookhurst 2	L	2		Operational
●	12	Ora	5	40.98	NB	La Palma	S	2		Operational
●	12	Ora	5	41.78	SB	Magnolia	S	2		Operational
●	12	Ora	5	42.52	NB	Orangethorpe (WB)	S	1		Operational
●	12	Ora	5	43.35	SB	Beach 1	S	2		Operational
●	12	Ora	5	43.60	NB	Beach 2	S	2		Operational
●	12	Ora	5	44.20	SB	Artesia	S	2		Operational
●	12	Ora	5	44.35	NB	Artesia	L	2		Operational
●	12	Ora	5	R23.69	SB	Sand Canyon 1	S	2		Operational
●	12	Ora	5	R24.05	NB	Sand Canyon 2	S	2		Operational
●	12	Ora	5	R24.83	SB	Jeffrey 1	L	2	NM	Operational
●	12	Ora	5	R25.08	NB	Jeffrey 1	H	2		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
●	12	Ora	5	R25.15	NB	Jeffrey 2	L	2	NM	Operational
●	12	Ora	5	R26.35	SB	Culver 1 (EB)	H	1		Operational
●	12	Ora	5	R26.56	NB	Culver 1 (EB)	L	2		Operational
●	12	Ora	5	R26.66	SB	Culver 2 (WB)	L	1		Operational
●	12	Ora	5	R26.81	NB	Culver 2 (WB)	H			Operational
●	12	Ora	5	R29.02	SB	Red Hill	S	2		Operational
●	12	Ora	5	R29.24	NB	Red Hill	S	2		Operational
●	12	Ora	22	L9.70	EB	The City Drive	L	2		Operational
●	12	Ora	22	R0.89	WB	Valley View 1 (NB)	L	1		Operational
●	12	Ora	22	R1.00	WB	Valley View 2 (SB)	S	1		Operational
●	12	Ora	22	R1.08	EB	Valley View 2	H	2		Operational
●	12	Ora	22	R10.12	WB	Bristol	L	2		Operational
●	12	Ora	22	R10.14	EB	Bristol	S	2		Operational
●	12	Ora	22	R11.23	WB	Main	H	2		Operational
●	12	Ora	22	R11.25	EB	Main	H	2		Operational
●	12	Ora	22	R11.68	WB	Glassell 1 /Grand	S	2		Operational
●	12	Ora	22	R12.01	EB	Glassell 2 /Grand	S	2		Operational
●	12	Ora	22	R12.79	WB	Tustin	S	2		Operational
●	12	Ora	22	R2.49	WB	Knott 1	S	2		Operational
●	12	Ora	22	R2.88	EB	Knott 2	S	2		Operational
●	12	Ora	22	R3.44	EB	Beach 1 /Rte 39 (SB)	L	2		Operational
●	12	Ora	22	R3.45	WB	Beach 1 /Rte 39 (SB)	H	2		Operational
●	12	Ora	22	R3.73	EB	Beach 2 /Rte 39 (NB)	H	2		Operational
●	12	Ora	22	R3.73	WB	Beach 2 /Rte 39 (NB)	L	2		Operational
●	12	Ora	22	R4.58	WB	Magnolia 1	S	2		Operational
●	12	Ora	22	R4.99	EB	Magnolia 2	S	2		Operational
●	12	Ora	22	R5.57	WB	Brookhurst 1	L	2		Operational
●	12	Ora	22	R5.80	EB	Brookhurst 2	H	2		Operational
●	12	Ora	22	R6.94	EB	Euclid	S	2		Operational
●	12	Ora	22	R6.94	WB	Euclid	L	2		Operational
●	12	Ora	22	R7.72	WB	Harbor 1 (SB)	S	2		Operational
●	12	Ora	22	R7.93	WB	Harbor 2 (NB)	L	2		Operational
●	12	Ora	22	R8.02	EB	Harbor 2	S	2		Operational
●	12	Ora	22	R8.68	WB	Gardengrove 1	S	2		Operational
●	12	Ora	22	R9.08	EB	Gardengrove 2	S	2		Operational
●	12	Ora	22	R9.6	WB	The City Drive	S	2		Operational
●	12	Ora	55	R2.77	SB	Victoria 1	S	1		Operational
●	12	Ora	55	R3.07	NB	Victoria 2	S	2		Operational
●	12	Ora	55	R3.66	SB	Fair Dr 1	S	1		Operational
●	12	Ora	55	R3.97	NB	Fair Dr 2	S	2		Operational
●	12	Ora	55	R4.70	SB	Baker	S	1		Operational
●	12	Ora	55	R5.87	NB	Paularino 2	S	1		Operational
●	12	Ora	55	6.10	NB	Airport	S	1		Operational
●	12	Ora	55	R6.89	SB	Macarthur 1 (EB)	S	1		Operational
●	12	Ora	55	R6.94	NB	Macarthur 1 (EB)	L	1		Operational
●	12	Ora	55	R7.03	SB	Macarthur 2 (WB)	S	2		Operational
●	12	Ora	55	R7.16	NB	Macarthur 2 (WB)	L	1		Operational
●	12	Ora	55	R7.62	SB	Dyer 1	S	2		Operational
●	12	Ora	55	R7.85	NB	Dyer 1	L	1		Operational
●	12	Ora	55	R8.12	NB	Dyer 2	S	2		Operational
●	12	Ora	55	R9.19	SB	Edinger 1	S	2		Operational
●	12	Ora	55	R9.41	NB	Edinger 2	H	2		Operational

● Existing Meter

High Priority

# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
●	12	Ora	55	R9.78	SB	Mcfadden	S	2		Operational
●	12	Ora	55	R10.00	NB	Mcfadden	H	2		Operational
●	12	Ora	55	10.84	SB	Fourth St 1	S	1		Operational
●	12	Ora	55	11.10	NB	Fourth St 2	S	2		Operational
●	12	Ora	55	11.62	SB	17th 1	S	2		Operational
●	12	Ora	55	11.74	NB	17th 1 (EB)	L	2		Operational
●	12	Ora	55	12.00	NB	17th 2 (WB)	S	2		Operational
●	12	Ora	55	13.51	SB	Chapman 1(EB)	S	2		Operational
●	12	Ora	55	13.75	SB	Chapman 2 (WB)	L	2		Operational
●	12	Ora	55	13.90	NB	Chapman 2	H	3		Operational
●	12	Ora	55	15.11	SB	Katella	S	3		Operational
●	12	Ora	55	15.22	NB	Katella 1	L	2		Operational
●	12	Ora	55	15.40	NB	Katella 2	S	1		Operational
●	12	Ora	55	16.72	SB	Lincoln 1	S	2		Operational
●	12	Ora	55	17.12	NB	Lincoln 2	L	3		Operational
●	12	Ora	57	11.08	SB	Chapman 1 (WB)	S	1		Operational
●	12	Ora	57	11.22	NB	Chapman 1	L	1		Operational
●	12	Ora	57	11.39	NB	Chapman 2	S	1		Operational
●	12	Ora	57	11.55	SB	Orangewood	H	1		Operational
●	12	Ora	57	11.69	NB	Orangewood 1	L	1		Operational
●	12	Ora	57	11.78	NB	Orangewood 2	S	1		Operational
●	12	Ora	57	12.41	SB	Katella 1 (EB)	L	1		Operational
●	12	Ora	57	12.50	NB	Katella 1	L	1		Operational
●	12	Ora	57	12.58	SB	Katella 2 (WB)	S	2		Operational
●	12	Ora	57	12.74	NB	Katella 2	S	1		Operational
●	12	Ora	57	13.27	SB	Ball 1 (EB)	L	1		Operational
●	12	Ora	57	13.38	NB	Ball 1	L	1		Operational
●	12	Ora	57	13.45	NB	Ball 2	S	1		Operational
●	12	Ora	57	13.56	SB	Ball 2 (WB)	S	2		Operational
●	12	Ora	57	14.65	SB	Lincoln 1 (EB)	L	1		Operational
●	12	Ora	57	14.73	NB	Lincoln 1	L	1		Operational
●	12	Ora	57	14.83	SB	Lincoln 2 (WB)	L	1		Operational
●	12	Ora	57	14.90	NB	Lincoln 2	S	2		Operational
●	12	Ora	57	16.46	SB	Orangethorpe	S	2		Operational
●	12	Ora	57	16.57	NB	Orangethorpe	S	1		Operational
●	12	Ora	57	17.18	SB	Chapman 3	S	1		Operational
●	12	Ora	57	17.41	SB	Nutwood	L	2		Operational
●	12	Ora	57	17.75	NB	Nutwood	S	2		Operational
●	12	Ora	57	18.19	SB	Yorba Linda 1 (EB)	L	2		Operational
●	12	Ora	57	18.30	NB	Yorba Linda 1	L	1		Operational
●	12	Ora	57	18.38	SB	Yorba Linda 2 (WB)	S	2		Operational
●	12	Ora	57	18.49	NB	Yorba Linda 2	S	1		Operational
●	12	Ora	57	19.73	SB	Imperial 1 (EB)	L	1		Operational
●	12	Ora	57	19.81	NB	Imperial 1	L	1		Operational
●	12	Ora	57	19.95	SB	Imperial 2 (WB)	L	1		Operational
●	12	Ora	57	20.00	NB	Imperial 2	S	2		Operational
●	12	Ora	57	20.74	SB	Lambert	S	2		Operational
●	12	Ora	57	21.16	NB	Lambert	L	2		Operational
●	12	Ora	57	22.20	SB	Tonner Canyon	S	1		Operational
●	12	Ora	73	11.64	SB	Greenfield	S	2		Non Op
●	12	Ora	73	12.10	NB	Greenfield 2	S	2		Non Op
●	12	Ora	73	12.83	SB	Moulton Pkwy	S	2		Non Op

● Existing Meter

High Priority

# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
●	12	Ora	73	13.36	NB	La Paz 1/Moulton	L	2		Non Op
●	12	Ora	73	14.40	SB	Aliso Creek 3	L	2		Non Op
●	12	Ora	73	14.70	NB	Aliso Creek 1	L	2		Non Op
●	12	Ora	73	15.26	NB	Glenwood	L	2		Non Op
●	12	Ora	73	16.40	NB	El Toro/Rte 133	L	1		Non Op
●	12	Ora	73	21.50	SB	Newport Coast	L	2		Non Op
●	12	Ora	73	22.50	SB	Bonita Cyn	H	2		Non Op
●	12	Ora	73	22.80	NB	Bonita Cyn	L	2		Non Op
●	12	Ora	73	23.50	SB	Bison 1	S	2		Non Op
●	12	Ora	73	23.70	SB	Macarthur 1	H	2		Non Op
●	12	Ora	73	24.10	NB	Macarthur 2	L	2		Non Op
●	12	Ora	73	24.72	SB	Jamboree1	S	2		Operational
●	12	Ora	73	24.78	NB	Jamboree 2	L	2		Operational
●	12	Ora	73	25.77	NB	Bristol/Campus	S	2		Operational
●	12	Ora	73	27.19	SB	Bear	S	2		Operational
●	12	Ora	73	27.44	NB	Bear	S	2		Operational
●	12	Ora	73	27.72	SB	Fairview	L	1		Operational
●	12	Ora	91	R0.43	WB	Orangethorpe (WB)	S	2		Operational
●	12	Ora	91	R0.45L	EB	Magno Lia	S	2		Operational
●	12	Ora	91	R0.60	EB	Orangethorpe (EB)	S	2	NM	Operational
●	12	Ora	91	R1.01	EB	Valley View	S	2		Operational
●	12	Ora	91	1.11	WB	Brookhurst	S	2		Operational
●	12	Ora	91	1.37	EB	Brookhurst	S	2		Operational
●	12	Ora	91	R1.69	WB	Knott 1 (SB)	S	1		Operational
●	12	Ora	91	R1.81	EB	Knott 1 (SB)	L	2		Operational
●	12	Ora	91	R1.99	EB	Knott 2 (NB)	L	1		Operational
●	12	Ora	91	R1.99	WB	Knott 2 (NB)	L	1		Operational
●	12	Ora	91	2.11	WB	Euclid	S	2		Operational
●	12	Ora	91	R2.40	WB	Beach 1 (SB)	S	2		Operational
●	12	Ora	91	2.43	EB	Euclid	S	2		Operational
●	12	Ora	91	R2.58	EB	Beach 1 (SB)	L	2	NM	Operational
●	12	Ora	91	R2.65	WB	Beach 2 (NB)	L	2		Operational
●	12	Ora	91	R2.76	EB	Beach 2 (NB)	S	2		Operational
●	12	Ora	91	3.13	WB	Harbor 1	S	2		Operational
●	12	Ora	91	R3.87L	WB	Mag No Lia	S	2		Operational
●	12	Ora	91	R3.91R	EB	Lemon	S	2		Operational
●	12	Ora	91	4.18	WB	East	S	2		Operational
●	12	Ora	91	4.35	EB	East	S	2		Operational
●	12	Ora	91	5.14	WB	State College	S	2		Operational
●	12	Ora	91	5.35	EB	State College	S	2		Operational
●	12	Ora	91	7.30	EB	Glassell 1	L	2	NM	Operational
●	12	Ora	91	7.31	WB	Kraemer 1 (SB)	S	2		Operational
●	12	Ora	91	7.40	WB	Kraemer 2 (NB)	L	2	NM	Operational
●	12	Ora	91	7.48	EB	Glassell 2	S	2	NM	Operational
●	12	Ora	91	8.36	WB	Tustin	S	2		Operational
●	12	Ora	91	8.38	EB	Tustin	L	2		Operational
●	12	Ora	91	R9.95	WB	Lakeview 1 (NB)	S	1		Operational
●	12	Ora	91	R10.08	EB	Lakeview 1 (SB)	L	2	NM	Operational
●	12	Ora	91	R10.10	EB	Lakeview 2 (NB)	S	2		Operational
●	12	Ora	91	R10.27	WB	Lakeview 2 (SB)	S	2		Operational
●	12	Ora	91	R11.38	WB	Imperial 1 (NB)	S	2		Operational
●	12	Ora	91	R11.49	EB	Imperial 1 (SB)	L	2	NM	Operational

● Existing Meter

High Priority





# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
●	12	Ora	91	R11.59	WB	Imperial 2 (SB)	S	2	NM	Operational
●	12	Ora	91	R11.70	EB	Imperial 2 (NB)	S	2		Operational
●	12	Ora	91	R14.26R	WB	Weir Canyon 1 (NB)	S	2		Operational
●	12	Ora	91	R14.3R	EB	Weir Canyon 1 (SB)	L	2		Operational
●	12	Ora	91	R14.5R	WB	Weir Canyon 2 (SB)	L	2		Operational
●	12	Ora	91	R14.6R	EB	Weir Canyon 2 (NB)	S	2		Operational
●	12	Ora	91	R16.40	EB	Gypsum Canyon 1 (NB)	L	2		Operational
●	12	Ora	91	R16.40	WB	Gypsum Canyon 1 (SB)	L	2		Operational
●	12	Ora	91	R16.60	EB	Gypsum Canyon 2 (SB)	S	2		Operational
	12	Ora	91	16.45	WB	Gypsum Canyon 2 (NB)	S	2		Planned
●	12	Ora	133	8.90	NB	Barranca 1	S	2	NM	Non Op
●	12	Ora	133	9.00	SB	Barranca 2	L	2	NM	Non Op
●	12	Ora	133	9.10	NB	Barranca 2	H	1		Non Op
●	12	Ora	133	11.70	SB	Irvine Blvd 1	S	2		Non Op
●	12	Ora	133	11.85	NB	Irvine Blvd 1	L	2		Non Op
●	12	Ora	133	12.05	NB	Irvine Blvd 3	H	2		Non Op
	12	Ora	241	17.80	NB	Antonio 2	H			Planned
	12	Ora	241	18.30	SB	Santa Margarita	H			Planned
	12	Ora	241	18.70	NB	Santa Margarita	H			Planned
	12	Ora	241	19.76	NB	Los Alisos 2	S			Planned
	12	Ora	241	20.13	SB	Los Alisos 1	S			Planned
	12	Ora	241	21.61	SB	Portola S1	H			Planned
	12	Ora	241	21.93	NB	Portola S2	H			Planned
	12	Ora	241	22.61	NB	Lake Forest	H			Planned
	12	Ora	241	23.20	SB	Alton 1	H			Planned
	12	Ora	241	23.54	NB	Alton 2	H			Planned
	12	Ora	241	25.15	NB	Portola N2	S			Planned
	12	Ora	261	0.31	NB	Walnut 2	S			Planned
	12	Ora	261	1.35	SB	Irvine Blvd 1	S			Planned
	12	Ora	261	1.75	NB	Irvine Blvd 2	S			Planned
	12	Ora	261	2.71	SB	Portola Pkwy1	S			Planned
	12	Ora	261	3.17	NB	Portola Pkwy2	S			Planned
●	12	Ora	405	0.77	SB	Irvine Center 1 (NB)	H	1		Operational
●	12	Ora	405	0.93	NB	Irvine Center 1 (NB)	H	2		Operational
●	12	Ora	405	0.96	SB	Irvine Center 2 (SB)	L	1		Operational
●	12	Ora	405	1.11	NB	Irvine Center 2 (SB)	H	2		Operational
●	12	Ora	405	2.88	SB	Sand Canyon	L	2		Operational
●	12	Ora	405	2.89	NB	Sand Canyon 1	L	2		Operational
●	12	Ora	405	2.99	NB	Sand Canyon 2	H	2		Operational
●	12	Ora	405	3.84	SB	Jeffrey 1 (NB)	H	2		Operational
●	12	Ora	405	3.86	NB	Jeffrey 1 (NB)	L	1		Operational
●	12	Ora	405	4.03	NB	Jeffrey 2 (SB)	H	2		Operational
●	12	Ora	405	4.03	SB	Jeffrey 2 (SB)	L	1		Operational
●	12	Ora	405	5.46	SB	Culver 1 (NB)	S	2		Operational
●	12	Ora	405	5.55	NB	Culver 1 (NB)	H	2		Operational
●	12	Ora	405	5.69	SB	Culver 2 (SB)	L	1		Operational
●	12	Ora	405	5.74	NB	Culver 2 (SB)	H	2		Operational
●	12	Ora	405	6.79	SB	Jamboree	H	3		Operational
●	12	Ora	405	6.87	NB	Jamboree 1 (NB)	L	2		Operational
●	12	Ora	405	7.01	SB	Jamboree 2 (SB)	L	2		Operational
●	12	Ora	405	7.07	NB	Jamboree 2 (SB)	L	3		Operational
●	12	Ora	405	7.69	SB	Macarthur 1	H	3		Operational

● Existing Meter

High Priority



# 2017 Ramp Metering Development Plan

Status	District	County	Route	Postmile	Direction	Location	Ramp Type	# of Lanes	HOVPL	Comment
●	12	Ora	405	7.73	NB	Macarthur 1	L	2		Operational
	12	Ora	405	8.40	SB	Paularino	S	1		Planned
●	12	Ora	405	8.70	NB	Anton	H	2		Operational
●	12	Ora	405	9.54	NB	Bristol 1 (NB)	L	1		Operational
●	12	Ora	405	9.54	SB	Bristol 2	L	2		Operational
●	12	Ora	405	9.65	NB	Bristol 2 (SB)	H	2		Operational
●	12	Ora	405	10.29	SB	Fairview	S	1		Operational
●	12	Ora	405	10.93	NB	Fairview	S	2		Operational
●	12	Ora	405	11.29	SB	Harbor 1 (NB)	H	2		Operational
●	12	Ora	405	11.44	NB	Harbor 1 (NB)	L	2		Operational
●	12	Ora	405	11.50	SB	Harbor 2 (SB)	L	2		Operational
●	12	Ora	405	11.60	NB	Hyland	S	2		Operational
●	12	Ora	405	12.55	SB	Euclid	H	2		Operational
●	12	Ora	405	12.87	NB	Euclid	S	2	NM	Operational
●	12	Ora	405	13.36	SB	Talbert	S	2		Operational
●	12	Ora	405	13.63	NB	Brookhurst 1 (SB)	L	1		Operational
●	12	Ora	405	13.98	NB	Brookhurst 2 (NB )	H	2	NM	Operational
●	12	Ora	405	13.98	SB	Brookhurst 2 (SB )	L	1		Operational
●	12	Ora	405	14.72	SB	Warner (EB)	S	2		Operational
●	12	Ora	405	14.82	NB	Warner	H	2	NM	Operational
●	12	Ora	405	15.16	SB	Magnolia 1 (SB)	L	1		Operational
●	12	Ora	405	15.17	NB	Magnolia 1 (SB)	L	1		Operational
●	12	Ora	405	15.39	NB	Magnolia 22 (NB)	L	2	NM	Operational
●	12	Ora	405	16.26	SB	Edinger (EB)	S	2		Operational
●	12	Ora	405	16.52	NB	Beach 1/ Rte 39 (NB)	L	1		Operational
●	12	Ora	405	16.60	SB	Beach 1/ Rte 39 (SB)	H	2		Operational
●	12	Ora	405	16.76	NB	Beach 2/ Rte 39 (SB)	S	2	NM	Operational
●	12	Ora	405	17.66	SB	Bolsa	L	1		Operational
●	12	Ora	405	17.92	SB	Golden West	L	1		Operational
●	12	Ora	405	17.98	NB	Golden West (NB)	L	1		Operational
●	12	Ora	405	19.01	SB	Westminster	H	2	NM	Operational
●	12	Ora	405	19.29	NB	Westminster	H	2		Operational
●	12	Ora	405	20.69	SB	Bolsa Chica	L	1		Operational
●	12	Ora	405	22.54	SB	Seal Beach 1	S	2		Operational
●	12	Ora	405	22.55	NB	Seal Beach 1	L	2		Operational
●	12	Ora	605	R1.26	SB	Katella 1 (WB)	S	1		Operational
●	12	Ora	605	R1.49	SB	Katella 2 (EB)	L	1		Operational
●	12	Ora	605	R1.55	NB	Katella 2 /WILLOW	S	2	NM	Operational

This page is intentionally left blank

# APPENDICES

## GLOSSARY

ALA/CC	Alameda/Contra Costa
ALINEA	Linear ramp metering control (Asservissement line'aire d'entre'e autoroutie`re)
ATMS	Advanced Transportation Management System
C	Freeway-to-freeway Connector
Caltrans	California Department of Transportation
CCT	Closed-Circuit Television
CEQA	California Environmental Quality Act
CHP	California Highway Patrol
CMA	Congestion Management Agencies
CMS	Changeable Message Signs
CP	Corridor Plan
CRM	Coordinated Ramp Metering
CSMP	Corridor System Management Plans
D	Collector/Distributor
DP	Director Policy
DD	Deputy Directive
DRISI	Division of Research, Innovation and System Information
DSMP	District System Management Plans
EB	Eastbound
FPI	Freeway Performance Initiative
GIS	Geographic Information Systems
H	Hook
HAR	Highway Advisory Radio
HDM	Highway Design Manual
HERO	Heuristic Ramp Metering Coordination
HOVPL	High Occupancy Vehicle Preferential Lane
I	Interstate
ITS	Intelligent Transportation System
L	Loop
LD-IGR	Local Development-Intergovernmental Review
M	Metered HOVPL
MOU	Memorandum of Understanding
MPH	Miles Per Hour
MPO	Metropolitan Planning Organization
MPR	Mobility Performance Report
MTC	Metropolitan Transportation Commission
NB	Northbound

NM	Non-metered HOVPL
Non Op	Non Operational
OCRMS	Orange County Ramp Metering System
Part Const	Partially Constructed
PATH	California Partners for Advanced Transportation Technology
REV8	San Diego Ramp Metering System Revision 8
RMDM	Ramp Metering Design Manual
RMDP	Ramp Meter Development Plan
RMIS	Ramp Metering Information System
RTPA	Regional Transportation Planning Agency
S	Slip or diagonal
SATMS	Semi-Automatic Traffic Management System
SB	Southbound
SDRMS	San Diego Ramp Metering System
SHOPP	State Highway Operation and Protection Program
SHS	State Highway System
SR	State Route
SWARM	System Wide Adaptive Ramp Metering
TCR	Transportation Concept Reports
TCCR	Transportation Corridor Concept Reports
TMC	Transportation Management Center
TMS	Transportation Management Systems
TOS	Traffic Operations System
TSDP	Transportation System Development Plans
URMS	Universal Ramp Metering Software
UC	University of California
US	United States
VDS	Vehicle Detection Stations
WB	Westbound

## **ACKNOWLEDGEMENTS**

The 2017 Ramp Metering Development Plan was prepared by a joint effort of the Division of Traffic Operations and the Division of Transportation Planning, led by Terry L. Thompson and Juvenal Alvarez. Assistance from the 2017 RMDP Statewide Taskforce is recognized and acknowledged.



## COUNTY ABBREVIATIONS

COUNTY	COUNTY ABBREVIATION
Alameda	Ala
Alpine	Alp
Amador	Ama
But	But
Calaveras	Cal
Colusa	Col
Contra Costa	CC
Del Norte	DN
El Dorado	ED
Fresno	Fre
Glenn	Gle
Humboldt	Hum
Imperial	Imp
Inyo	Iny
Kern	Ker
Kings	Kin
Lake	Lak
Lassen	Las
Los Angeles	LA
Madera	Mad
Marin	Mrn
Mariposa	Mpa
Mendocino	Men
Merced	Mer
Modoc	Mod
Mono	Mno
Monterey	Mon
Napa	Nap
Nevada	Nev

COUNTY	COUNTY ABBREVIATION
Orange	Ora
Placer	Pla
Plumas	Plu
Riverside	Riv
Sacramento	Sac
San Benito	SBt
San Bernardino	SBd
San Diego	SD
San Francisco	SF
San Joaquin	SJ
San Luis Obispo	SLO
San Mateo	SM
Santa Barbara	SB
Santa Clara	SCl
Santa Cruz	SCr
Shasta	Sha
Sierra	Sie
Siskiyou	Sis
Solano	Sol
Sonoma	Son
Stanislaus	Sta
Sutter	Sut
Tehama	Teh
Trinity	Tri
Tulare	Tul
Tuolumne	Tuo
Ventura	Ven
Yolo	Yol
Yuba	Yub

Use the above list for the correct abbreviation of each county. Use upper and lower case lettering as shown.

# Deputy Directive

*Number:* DD-35-R1  
*Refer to  
Director's Policy:* 08-Freeway System  
Management  
*Effective Date:* January 6, 2011  
*Supersedes:* DD-35 (1-3-95)

*TITLE* Ramp Metering

---

*POLICY*

The California Department of Transportation (Department) is committed to using ramp metering as an effective traffic management strategy to maintain an efficient freeway system, and protect the investment made in constructing freeways by keeping them operating at or near capacity.

Each district that currently operates, or expects to operate, ramp meters within the next ten years, shall prepare a Ramp Metering Development Plan (RMDP). RMDP shall contain a list of each ramp meter location that is currently in operation or planned for operation within the next ten years. Each district shall update its RMDP biennially and ensure that future ramp meter locations are included in the local Congestion Management Plans.

Provisions for ramp metering shall be included in any project that proposes additional capacity, modification of an existing interchange, or construction of a new interchange, within the freeway corridors identified in the RMDP, regardless of funding source. These provisions, at each onramp, may include procurement of additional right of way, changes to ramp geometry to accommodate queue storage, installation of High Occupancy Vehicle (HOV) preferential lanes, deployment of electrical and communication systems, and construction of California Highway Patrol (CHP) enforcement areas and maintenance vehicle pullouts.

The guidelines, policies and procedures, and standards contained in the Ramp Metering Design Manual (RMDM), together with the design criteria in the Highway Design Manual (HDM), shall be applied when planning and designing ramp meters.

HOV preferential lanes shall be provided wherever ramp meters are installed, and each HOV preferential lane should be metered. Each district shall provide justification for deviation from the HOV preferential lane installation policy and obtain concurrence from the Headquarters Traffic Operations District Liaison.

### *DEFINITION/BACKGROUND*

Ramp metering is a traffic management strategy that utilizes a system of traffic signals at freeway entrance, and connector ramps to regulate the volume of traffic entering a freeway corridor in order to maximize the efficiency of the freeway, and thereby minimize the total delay in the transportation corridor.

Ramp metering has been an effective tool in reducing congestion and overall travel time on California freeways and local streets since the late 1960s. The added benefits include the reduction of both congestion-related collisions and air pollution.

The Department has installed over 2,200 ramp meters throughout the State. Installation of ramp meters on all urban freeway entrance ramps, including freeway-to-freeway connectors will be considered as a Departmental best practice, where ramp metering will maintain or improve effective operations along freeway corridors.

RMDM is a comprehensive document containing ramp meter design standards, design procedural requirements, and operational policies adopted statewide. RMDM is used to guide the Department's designers, as well as consulting engineers, and city/county engineers performing design work on freeways.

### *RESPONSIBILITIES*

#### Chief, Division of Traffic Operations:

- Develops, implements, and maintains statewide policies, manuals, and guidelines for ramp metering.
- Provides direction and assistance to district staff on ramp metering activities, as well as resources for training district staff.
- Ensures and supports the inclusion of ramp meters in projects within freeway segments containing any of the locations listed in RMDP.
- Ensures consistency among different districts on the development and implementation of ramp metering projects.
- Provides direction, training and assistance to district Traffic Operations staff on the development of the RMDP in partnership with the Division of Transportation Planning.
- Leads the development of statewide RMDP.
- Maintains a statewide inventory of planned, programmed, and constructed ramp meters.

#### Chief, Division of Transportation Planning:

- Works collaboratively with Chief, Division of Traffic Operations in the development of statewide RMDP.



- Ensures consistency among different districts on the development of their respective RMDP.
- Provides direction, training, and assistance to district Planning staff on the development of the RMDP in partnership with the Division of Traffic Operations.
- Work collaboratively with the Division of Traffic Operations in the development, implementation, and maintenance of statewide policies, manuals, and guidelines for ramp metering.

Chiefs, Divisions of Design and Construction:

- Ensure that Division policies and manuals support the current ramp metering policies. These policies include making provisions for ramp meters in project development, accommodating HOV at onramps, and construction of CHP enforcement areas and maintenance vehicle pullouts at ramp meters.
- Ensure that staff and practices support ramp metering policies.

Chief, Divisions of Maintenance:

- Leads the development of acceptance procedures to hand-off ramp meter systems to the Division of Maintenance.

District Directors:

- Ensure the provision of resources for the entire life cycle of ramp metering activities. These activities include ramp metering planning, design, construction, operations, and maintenance.
- Establish local agency support for ramp metering.
- Assign lead responsibility for development, maintenance, and implementation of RMDP in the District.

Deputy District Directors, Planning:

- In coordination with District Traffic Operations, develop and maintain the district RMDP, program funding and implement ramp metering projects with the affected local and regional transportation stakeholders.
- Submits all future ramp metering locations contained in the RMDP for inclusion in local Congestion Management Plans, Regional Transportation Plans, Department System Planning documents and other applicable planning documents developed by other agencies or the Department.
- Ensures consistency of ramp metering plans with neighboring Districts' ramp metering plans.
- Provides traffic forecasting for development of RMDP in coordination with Traffic Operations.

Deputy District Directors, Construction, Design, and Project Management:

- Ensure that provisions for ramp metering are included in all projects involving interchange modification and freeway improvements at locations identified in RMDP.

- Ensure that each existing ramp meter affected by construction projects remains operational throughout the construction period.

Deputy District Directors, Operations:

- In coordination with District Planning, develop and maintain the district RMDP.
- Develop an inventory of planned, programmed and constructed ramp meters.
- Assist Deputy District Directors, Planning to coordinate with local and regional transportation stakeholders, on the implementation of ramp metering projects and document the efforts made toward coordination and record any concurrence obtained.
- Provide district personnel with technical assistance and support on the design and operation of ramp metering systems.
- Coordinate with CHP regarding enforcement issues at ramp meters.
- Implement ramp metering policies and procedures.
- Provide justification for deviation from established ramp metering policies. Ensure consistency of ramp metering practices with neighboring Districts.

Deputy District Directors, Maintenance:

- Ensure that each ramp meter is operational.
- Ensure regular inspection of each ramp meter.
- Ensure the minimization of traffic delay when repairing existing ramp meters.

District Project Managers:

- Ensure that ramp meters are included in the earliest stage of project development and are not eliminated during the project delivery process.
- Identify necessary project resources for the installation of ramp meters.
- Work closely with district Traffic Operations to ensure that ramp metering requirements are satisfied.
- Ensure the approval of Fact Sheet for exception to ramp metering policies.

District Ramp Metering Staff:

- Support the development and maintenance of the district RMDP.
- Review ramp metering plans and specifications, and coordinate with Design, Construction and Maintenance to design, construct, operate, and maintain ramp meters.
- Work with District Construction to ensure that each existing ramp meter affected by construction projects remains operational throughout the construction period.
- Prepare, review, and implement ramp metering rates that will maintain effective operations along freeway corridors.



District Design Engineers and Office Engineers:


- In coordination with district Traffic Operations, identify and incorporate the need for ramp meters and HOV preferential lanes in the Project Study Report, Project Report, and Environmental Documents.
- Provide Standard Special Provisions and Contract Plans for ramp metering elements, including system integration needs such as communications, and compatibility of software.
- Provide Fact Sheet for exception to ramp metering policies.

District Construction Engineers (Electrical and Civil), Resident Engineers, and Encroachment Permit Inspectors:

- Ensure that ramp metering elements are installed according to the Standard Special Provisions, Standard Specifications, and Contract Plans.
- Ensure that each ramp meter affected by construction projects remains operational throughout the construction period unless otherwise specified in the contract documents.
- Immediately notify district Traffic Operations personnel of any change in status of each ramp meter affected by construction projects.
- Ensure that each ramp meter affected is fully reviewed, tested, and operational prior to accepting a contract and closing the project ID number.

*APPLICABILITY*

All Department employees involved with ramp metering activities.

  
MALCOLM DOUGHERTY  
Chief Deputy Director, Interim

  
Date Signed



This page is intentionally left blank

---

# Deputy Directive

<i>Number:</i>	DD-64-R2
<i>Refer to Director's Policy:</i>	DP-22 Context Sensitive Solutions DP-05 Multimodal Alternatives DP-06 Caltrans Partnerships DP-23-R1 Energy Efficiency, Conservation and Climate Change
<i>Effective Date:</i>	10/17/14
<i>Supersedes:</i>	DD-64-R1 (10/2/2008)
<i>Responsible Program:</i>	Planning and Modal Programs

<i>TITLE</i>	Complete Streets - Integrating the Transportation System
--------------	--

---

## *POLICY*

The California Department of Transportation (Caltrans) provides for the needs of travelers of all ages and abilities in all planning, programming, design, construction, operations, and maintenance activities and products on the State highway system. Caltrans views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

Caltrans develops integrated multimodal projects in balance with community goals, plans, and values. Addressing the safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating “complete streets” beginning early in system planning and continuing through project delivery and maintenance and operations. Developing a network of “complete streets” requires collaboration among all Department functional units and stakeholders to establish effective partnerships.

## *DEFINITION/BACKGROUND*

Complete Street - A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders, and motorists appropriate to the function and context of the facility.

The intent of this directive is to ensure that travelers of all ages and abilities can move safely and efficiently along and across a network of “complete streets.”

State and federal laws require Caltrans and local agencies to promote and facilitate increased bicycling and walking. California Vehicle Code (CVC) sections 21200-21212, and Streets and Highways Code (sections 890-894.2) identify the rights of bicyclists and pedestrians, and establish legislative intent that people of all ages using all types of mobility devices are able to travel on roads. Bicyclists, pedestrians, and non-motorized traffic are permitted on all state facilities, unless prohibited (CVC, section 21960). Therefore, the Department and local agencies have the duty to provide for the safety and mobility needs of all who have legal access to the transportation system.

Department manuals and guidance outline statutory requirements, planning policy, and project delivery procedures to facilitate multimodal travel, which includes connectivity to public transit for bicyclists and pedestrians. In many instances, roads designed to Caltrans’ standards provide basic access for bicycling and walking. This directive does not supersede existing laws. To ensure successful implementation of “complete streets,” manuals, guidance, and training will be updated and developed.

## *RESPONSIBILITIES*

### Chief Deputy Director:

- Establishes policy consistent with Caltrans’ objectives to develop a safe and efficient multimodal transportation system for all users.
- Ensures management staff is trained to provide for the needs of bicyclists, pedestrians, and transit users.

### Deputy Directors, Planning and Modal Programs and Project Delivery:

- Include bicycle, pedestrian, and transit modes in statewide strategies for safety and mobility, and in system performance measures.
- Provide tools and establish processes to identify and address the needs of bicyclists, pedestrians, and transit users early and continuously throughout planning and project development activities.
- Ensure districts document decisions regarding bicycle, pedestrian, and transit modes in project initiation and scoping activities.
- Ensure departmental manuals, guidance, standards, and procedures reflect this directive, and identify and explain Caltrans’ objectives for multimodal travel.
- Ensure an Implementation Plan for this directive is developed.

Deputy Director, Maintenance and Operations:

- Provides tools and establishes processes that ensure regular maintenance and operations activities meet the safety and mobility needs of bicyclists, pedestrians, and transit users in construction and maintenance work zones, encroachment permit work, and system operations.
- Ensures departmental manuals, guidance, standards, and procedures reflect this directive and identifies and explains Caltrans' objectives for multimodal travel.

District Directors:

- Promote partnerships with local, regional, and state agencies to plan and fund facilities for integrated multimodal travel and to meet the needs of all travelers.
- Identify bicycle and pedestrian coordinator(s) to serve as advisor(s) and external liaison(s) on issues that involve the district, local agencies, and stakeholders.
- Ensure bicycle, pedestrian, and transit needs are identified in district system planning products; addressed during project initiation; and that projects are designed, constructed, operated, and maintained using current standards.
- Ensure bicycle, pedestrian, and transit interests are appropriately represented on interdisciplinary planning and project delivery development teams.
- Provide documentation to support decisions regarding bicycle, pedestrian, and transit modes in project initiation and scoping activities.

Deputy District Directors, Planning, Design, Construction, Maintenance, and Operations:

- Ensure bicycle, pedestrian, and transit user needs are addressed and deficiencies identified during system and corridor planning, project initiation, scoping, and programming.
- Collaborate with local and regional partners to plan, develop, and maintain effective bicycle, pedestrian, and transit networks.
- Consult locally adopted bicycle, pedestrian, and transit plans to ensure that state highway system plans are compatible.
- Ensure projects are planned, designed, constructed, operated, and maintained consistent with project type and funding program to provide for the safety and mobility needs of all users with legal access to a transportation facility.
- Implement current design standards that meet the needs of bicyclists, pedestrians, and transit users in design, construction and maintenance work zones, encroachment permit work, and in system operations.
- Provide information to staff, local agencies, and stakeholders on available funding programs addressing bicycle, pedestrian, and transit travel needs.

Chiefs, Divisions of Aeronautics, Local Assistance, Rail and Mass Transportation, Transportation Planning, Research, Innovation and System Information, and Transportation Programming:

- Ensure incorporation of bicycle, pedestrian, and transit travel elements in all Caltrans transportation plans and studies.
- Support interdisciplinary participation within and between districts in the project development process to provide for the needs of all users.
- Encourage local agencies to include bicycle, pedestrian, and transit elements in regional and local planning documents, including general plans, transportation plans, and circulation elements.
- Promote land uses that encourage bicycle, pedestrian, and transit travel.
- Advocate, partner, and collaborate with stakeholders to address the needs of bicycle, pedestrian, and transit travelers in all program areas.
- Support the development of new technology to improve safety, mobility, and access for bicyclists, pedestrians, and transit users of all ages and abilities.
- Research, develop, and implement multimodal performance measures.
- Provide information to staff, local agencies, and stakeholders on available funding programs to address the needs of bicycle, pedestrian, and transit travelers.

Chiefs, Divisions of Traffic Operations, Maintenance, Environmental Analysis, Design, Construction, and Project Management:

- Provide guidance on project design, operation, and maintenance of work zones to safely accommodate bicyclists, pedestrians, and transit users.
- Ensure the transportation system and facilities are planned, constructed, operated, and maintained consistent with project type and funding program to maximize safety and mobility for all users with legal access.
- Promote and incorporate, on an ongoing basis, guidance, procedures, and product reviews that maximize bicycle, pedestrian, and transit safety and mobility.
- Support multidisciplinary district participation in the project development process to provide for the needs of all users.

Employees:

- Follow and recommend improvements to manuals, guidance, and procedures that maximize safety and mobility for all users in all transportation products and activities.
- Promote awareness of bicycle, pedestrian, and transit needs to develop an integrated, multimodal transportation system.
- Maximize bicycle, pedestrian, and transit safety and mobility through each project's life cycle.

*APPLICABILITY*

All Caltrans employees.

*Original signed by:*

*10/16/14*

---

KOME AJISE  
Chief Deputy Director

---

Date Signed