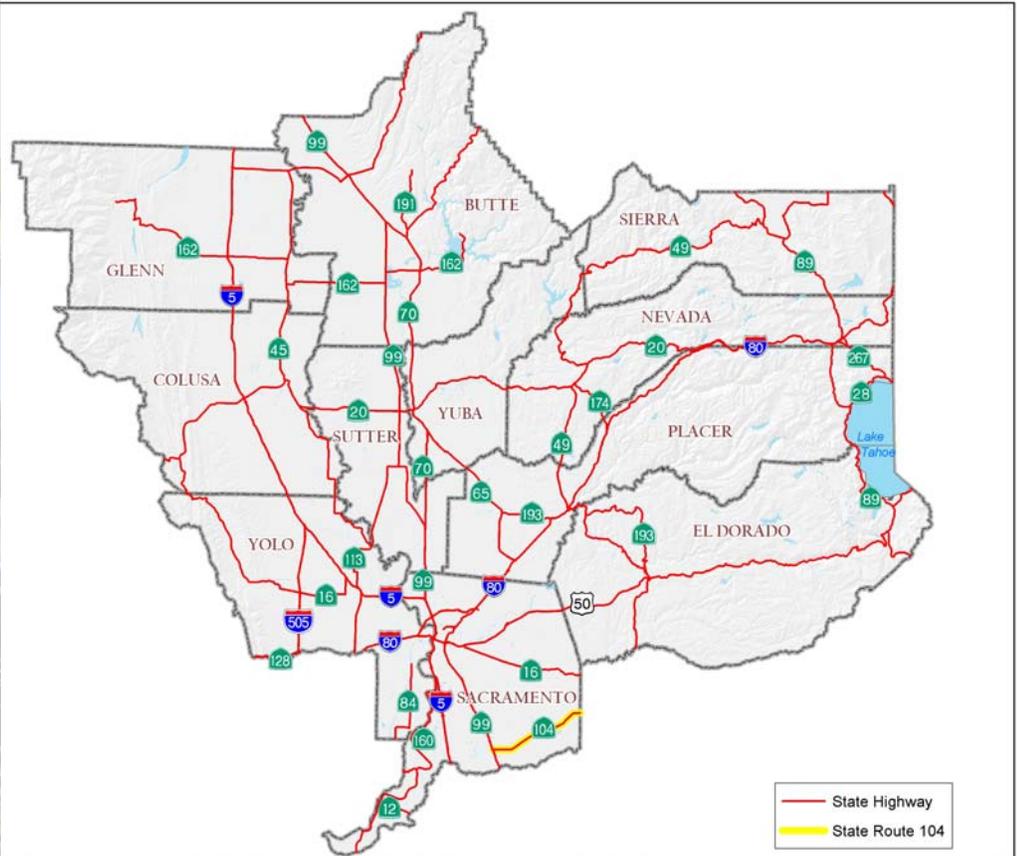




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## TRANSPORTATION CORRIDOR CONCEPT REPORT STATE ROUTE 104



The Transportation Corridor Concept Report (TCCR) is Caltrans’ long range (20-year) planning document for each State Highway Route. The purpose and need of each TCCR is to identify existing route conditions and future needs, including existing and forecasted travel data, a concept level of service (LOS) standard, and the facility needed to maintain the concept LOS and address mobility needs over the next 20 years.

### Approvals:

\_\_\_\_\_  
**Jeff Pulverman**  
 District 3 Deputy Director  
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 Date

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 District 3 Director

\_\_\_\_\_  
 Date

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## State Route 104 Summary

In District 3, State Route (SR) 104 is an undivided two-lane conventional highway in Sacramento County from the City of Galt and SR 99, through the town of Herald, to the Amador County line. SR 104 continues in Amador County in District 10 through Ione to SR 88. The western portion of the route is located in an urbanized area. The eastern portion of the route is rural residential, with the former nuclear power plant, Rancho Seco, just off the highway. Agriculture and mining uses are also present along the eastern portion of the route which generate truck traffic. SR 104 serves as a link for regional travel between SR 99 and the foothill communities of Amador County. The entire route through Sacramento County is bicycle accessible. According to the City of Galt 2030 General Plan, much of the growth within the City has occurred in the Northeast Specific Plan Area where SR 104 serves as the northern boundary and provides major transportation access. The Twin Cities Park and Ride facility is located at the intersection of East Stockton Boulevard (Blvd.) and SR 104 and is serviced by the South County Transit Sacramento Express Commuter bus route.



## Segment Summary Information

The following pages provide summaries of SR 104. These summaries provide a segment overview, traffic analysis data, and a list of future projects. Reference maps are also provided. Needed improvement projects appear in one of three categories – Planned, Programmed, or Conceptual

- A **Planned** improvement or action is a project in a long-term financially constrained plan such as an approved Regional Transportation Plan (RTP or MTP) or Capital Improvement Plan.
- A **Programmed** improvement or action is a project in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program or the State Highway Operations and Protection Program (SHOPP).
- A **Conceptual** improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a financially constrained plan and is not currently programmed.

## Project Data Glossary

The Segment Summaries may contain the following acronyms, defined here for your reference:

- **COMPLETE STREETS** Complete streets are designed and operated to enable safe and efficient access for all legal users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities should be able to move safely along and across corridors. This applies in rural, suburban, and urban areas. The Department's policy in regard to Complete Streets is expressed in its document, Deputy Directive 64 R1 "The Department 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."
- **STIP** Refers to the State Transportation Improvement Program, which is a biennial document adopted no later than April 1 of each even numbered year. Each STIP includes a five year period and adds two new years of programming capacity. Each new STIP includes projects carried forward from the previous STIP plus new projects and reserves from among those proposed by regional agencies in their regional transportation improvement programs (RTIPs) and by Caltrans in its Interregional Transportation Improvement Program (ITIP).
- **SHOPP** Refers to either the 4-year "State Highway Operations and Protection Program" of Highway Maintenance or Improvement projects or to the associated 10-Year SHOPP Plan.
- **MTP** Metropolitan Transportation Plan is the title given by the Sacramento Area Council of Governments (SACOG) to their Long-Range Transportation Plans, produced according to guidelines adopted by the California Transportation Commission based on Federal and State requirements.
- **MTIP** Metropolitan Transportation Improvement Program is the title given by SACOG to their programming documents, which are produced according to guidelines adopted by the California Transportation Commission.

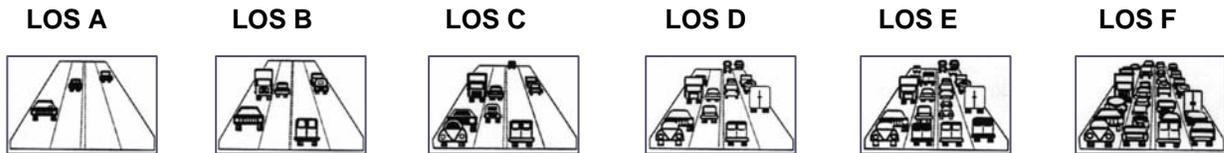
## State – Local Responsibility

Improvements to the State Highway System are the responsibility of both Caltrans and partner agencies. Developments affecting this State Route and the regional State Highway System may necessitate local jurisdictions to provide nexus-based proportional fair-share funding for future highway improvements and other transportation system improvements.

Location					Forecasted LOS and Facility Type					
Segment	Description	County	Post Mile From	Post Mile To	Current LOS <sup>1</sup>	20-Year LOS (No Build) <sup>2</sup>	20-Year Concept LOS <sup>3</sup>	Existing Facility <sup>4,5</sup>	Concept Facility <sup>6</sup>	Ultimate Facility <sup>7</sup>
1	SR 99 to Marengo Road	SAC	0.00	1.65	E	F	E	2C	4C	4C
2	Marengo Road to the East intersection of Clay Station Road	SAC	1.65	9.22	D	E	D	2C	2C	2C
3	East intersection of Clay Station Road to Amador County Line	SAC	9.22	17.69	C	C	D	2C	2C	2C

**Notes/Definitions**

1. **Level of Service (LOS):** A “report card” measurement with “A” being the least amount of congestion and “F” being the most congestion.



- LOS A - Free Flowing Conditions.
- LOS B - Speeds at or near free-flow speed, but presence of other users begins to be noticeable.
- LOS C - Speeds at or near free-flow speed, but freedom to maneuver is noticeably restricted.
- LOS D - Speeds begin to decline slightly with increasing flow; freedom to maneuver is more restricted.
- LOS E - Operating conditions at or near roadway capacity. Even minor disruptions to the traffic stream can cause delay.
- LOS F - Breakdown in vehicle flow. Queues form quickly behind point in the roadway where the arrival flow rate temporarily exceeds the departure rate.

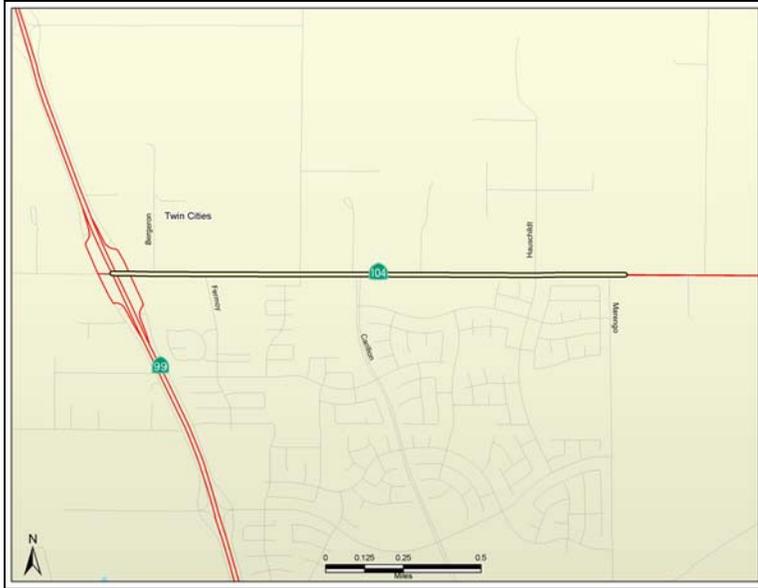
- 2. **20-Year LOS (No Build):** The LOS that would be expected at 20 years with no improvements.
- 3. **20-Year Concept LOS:** The minimum acceptable LOS over the next 20 years.
- 4. **Facility Type Codes:** C (Conventional Highway); E (Expressway); F (Freeway); HOV (High Occupancy Vehicle lanes); and Aux (Auxiliary lanes).
- 5. **Operational Improvements** are included in future facilities for all segments. Examples of operational improvements include Traffic Operations Systems improvements and Auxiliary Lanes.
- 6. **Concept Facility:** the future roadway with improvements needed in the next 20 years. If LOS F, no further degradation of service from existing F is acceptable, as indicated by delay performance measurement
- 7. **Ultimate Facility:** The future roadway with improvements needed beyond a 20 year timeframe.
- 8. **Peak Directional Split:** The percentage of total traffic in the heaviest traveled direction during the peak hour.
- 9. **Average Annual Daily Traffic (AADT):** The average number of vehicles per day in both directions.
- 10. **Volume over Capacity (V/C):** The volume of traffic compared to the capacity of the roadway.
- 11. **Volume over Capacity does not determine LOS** for two- or three- lane facilities, or segments with intersection delay.

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Current Traffic Data – 2010					Future Traffic Data – 2030 No Build			Future Traffic Data – 2030 Build		
% of Trucks	Directional Split <sup>8</sup>	Peak Hour Traffic	Average Annual Daily Traffic <sup>9</sup>	Volume Over Capacity <sup>10, 11</sup>	Peak Hour Traffic	Average Annual Daily Traffic <sup>9</sup>	Volume Over Capacity	Peak Hour Traffic	Average Annual Daily Traffic <sup>9</sup>	Volume Over Capacity <sup>10, 11</sup>
8%	65%	1,467	14,500	0.64	2,494	24,650	1.09	2,583	24,772	0.63
8%	65%	680	5,800	0.30	1,088	9,280	0.47	N/A	N/A	N/A
8%	63%	290	2,400	0.13	464	3,840	0.20	N/A	N/A	N/A



## State Route 104 Segment 1 Summary



Segment 1 - SR 99 to Marengo Road (PM 0.00/1.65)



City of Galt: The existing and projected land uses along this segment are primarily commercial and residential.

Segment 1 is a two-lane conventional highway. The route begins at the SR 99 and SR 104 interchange on Twin Cities Road within the City of Galt. The entire segment is bordered by urbanized Galt to the south and rural Sacramento County to the north. This segment is straight with an 8-foot shoulder, sidewalk, and Class II bike lane on the eastbound side. The westbound portion contains an 8-foot shoulder with no sidewalk, and many access points (e.g., residential driveways) on the north side. The City of Galt Bicycle Plan identifies the installation of Class II bike lanes on the north side of the westbound portion of this segment as part of future road widening efforts. Segment 1 also includes a two-way left-turn lane with occasional right-turn lanes for the eastbound lane. The segment currently operates at LOS E. In 2010, the Average Annual Daily Traffic (AADT) was 14,500 and the 2030 AADT is expected to increase to 24,650, degrading to LOS F. In the 20-year planning horizon to maintain the current LOS, we anticipate the need for a combination of a two-lane and four-lane conventional highway facility with a continuous turn lane and signalization or other control measures at major intersections. If urbanization expands significantly, there may be need for a six-lane facility which is identified in the City of Galt 2030 General Plan. Segment 1 is a candidate for relinquishment and Caltrans will be working with the City of Galt to study possible relinquishment of this portion of SR 104. Reconstruction of the SR 99/SR 104 interchange is important to the City of Galt due to the fact that it facilitates both local and foothill regional travel and a large portion of future development is planned for the area. As an interim solution, an interchange modification will be constructed at the juncture of SR 99/SR 104/East Stockton Blvd/West Stockton Blvd replacing the signalized intersections with roundabouts to improve traffic operations and incorporate ADA, bicycle and pedestrian improvements. The City will explore the installation of a second westbound lane from Fermoy Way to SR 99 in conjunction with roundabout construction to accommodate future commercial development in the corridor.

### Highway Improvement Projects

(Construction Cost in Millions (M); Construction Completion Year)

#### Planned Projects:

- SR 104/SR 99 Interchange Improvements Roundabouts, PM 0.00 (2012-2015 City of Galt CIP, \$5, 2013)
- Marengo Rd. Install Traffic Signal/Pedestrian Crossing, PM 1.65 (2012-2015 City of Galt CIP, \$0.5, 2020)
- Interchange Replacement/Realignment widen from 2 to 4 lanes, PM 0.00 (2010-2015 City of Galt CIP, \$50, 2035)
- Install Westbound Class II Bike Lanes, PM 0.00/1.65 (2011 City of Galt Bicycle Transportation Plan)

#### Programmed Projects:

- E. Stockton Blvd/W. Stockton Blvd. Intersection Pedestrian Improvements, PM 0.00/0.01 (2012 SHOPP, \$1, 2015)

#### Conceptual Projects:

- Implement Complete Streets strategies where appropriate
- Maintenance and Operational Improvements

## State Route 104 Segment 2 & 3 Summaries



**Segment 2 - Marengo Road to the East intersection of Clay Station Road (PM 1.65/9.22)**

Segment 2 is a two-lane conventional highway that runs easterly from Marengo Road to the east intersection of Clay Station Road. This segment is primarily rural residential, and passes through the rural community of Herald. It is narrow, sometimes lacking shoulders, and has frequent access points (e.g., residential driveways). Union Pacific Railroad facilities parallel this segment with crossings at Herald Road and Borden Road. Segment 2 currently operates at LOS D. In 2010 the AADT was 5,800 and the 2030 AADT is expected to increase to 9,280, degrading to LOS E. Caltrans will explore and analyze conceptual operational improvements to maintain LOS D on this segment. The 20 year vision and ultimate concept for Segment 2 is a two-lane conventional facility.

### SR 104 in the Sacramento County Community of Herald



### Highway Improvement Projects

#### Planned Projects:

Class II Bike Lanes (2011 Sacramento County Bicycle Master Plan)

#### Programmed Projects:

None

#### Conceptual Projects:

Operational Improvements



**Segment 3 - East intersection of Clay Station Road to Amador County Line (PM 9.22/17.69)**

Segment 3 is a two-lane conventional highway that runs easterly from the east intersection of Clay Station Road to the Sacramento-Amador County line. This segment is mostly rural residential with some public utility and recreational uses. The segment passes through the community of Clay, near the Cosumnes Power Plant and the Rancho Seco Recreational Area. Segment 3 has more curves and uneven grades than segments 1 and 2, however they are minimal. Curves, low grades, narrow or no shoulders, and many access points (e.g., residential driveways) are common along the route. Trucks slow traffic flow within the segment. This segment currently operates at LOS C. While the segment ends at the Amador County line, the route continues on to SR 88 in Ione. In 2010 the AADT was 2,400 and the 2030 AADT is expected to increase to 3,840, maintaining the existing LOS. The 20 year vision and ultimate concept for Segment 3 is a two-lane conventional facility.



vision and ultimate concept for Segment 3 is a two-lane conventional facility.

### Rancho Seco Power Plant and Recreational Area

### Highway Improvement Projects

#### Planned Projects:

Class II Bike Lanes (2011 Sacramento County Bicycle Master Plan)

#### Programmed Projects:

None

#### Conceptual Projects:

None



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**Please contact us for questions and concerns about this TCCR:**  
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<http://www.dot.ca.gov/dist3/departments/planning/systemplanning.html>