

DEPARTMENT OF TRANSPORTATION
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October 11, 2016

EL DORADO COUNTY
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TRANSPORTATION

Mr. Steve Pedretti
Community Development Agency
County of El Dorado
2850 Fairlane Court
Placerville, CA 95667

US Highway 50 (US 50) Traffic Volumes and Level of Service (LOS) Meetings Summary

Dear Mr. Pedretti:

Thank you for meeting with us on September 1, 2016 and September 14, 2016 to discuss traffic volumes and LOS on US 50.

In the meeting on September 1, Caltrans provided the County peak hour traffic volumes for Westbound (WB) US 50 from the Caltrans Performance Measurement System (PeMS) to show the differences between current volumes and volumes used by both the County and Caltrans in planning documents. The goal was to come to a consensus on how US 50 is currently operating in El Dorado County. Caltrans provided Tuesday – Thursday 7:00 am mixed flow volumes for the WB US 50 segment between El Dorado Hills Blvd/Latrobe Rd and Scott Rd from the spring of 2015 (Attachment 1). The PeMS data provided by Caltrans was supplied by mainline detector #316993 – east of Scott Rd. The data showed peak hour mixed average traffic volumes of about 3,800 vehicles per hour (vph) and 85th percentile volumes of about 4,000 vph. Data from the upstream mainline detector, west of Latrobe Rd #316653, was not used because Caltrans speculated that the detector location was not counting vehicles merging from the El Dorado Hills Blvd onramp to WB US 50, thus providing lower than expected volumes.

In a subsequent meeting on September 14, the County provided an updated LOS Analysis using the current volumes provided by Caltrans (Attachment 2). The analysis showed that the current LOS on WB US 50 between El Dorado Hills Blvd/Latrobe Rd and Scott Rd is LOS E using both the average and 85th percentile volumes. Caltrans accepted and agreed with the results of the updated LOS analysis. The County also confirmed that the west of Latrobe detector (#316653) is excluding vehicles merging from the El Dorado Hills Blvd onramp to WB US 50 because of an extension of the acceleration lane in 2011, allowing vehicles to bypass the detectors.

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Caltrans and the County agreed to use the average volume for this particular dataset because of the limited data availability. Caltrans is also working on improving PeMS detector health throughout the District, including in El Dorado County, in order to have more robust data sets available.

Please note that in response to Senate Bill 743, Caltrans is shifting its focus for our Local Development-Intergovernmental Review program from auto delay based metrics to those focused on reducing Vehicle Miles Traveled (VMT). While we may still provide technical comments related to LOS on the State Highway System for documents shared with us for our review, our primary focus of letters and requested mitigation will be to reduce project generated VMT.

Again, we appreciate meeting with you and coming to consensus on the process and data used for this section of US 50. If you have any questions regarding this memo comments or require additional information, please contact me or Eric Fredericks at 916-274-0635 or by email at: eric.fredericks@dot.ca.gov.

Sincerely,



MARLON FLOURNOY
Deputy District Director
Division of Planning and Local Assistance

Attachments

Mainline VDS 316993 - E of Scott Rd

Spring 2015

Tuesday - Thursday 7:00AM

Good Detection days only

Sorted Highest to Lowest

Hour	Flow (Veh/Hour)	# Lane Points	% Observed
5/26/2015 7:00	4,107	24	100
3/5/2015 7:00	4,100	24	100
3/4/2015 7:00	4,039	24	100
5/19/2015 7:00	4,032	24	100
3/12/2015 7:00	4,026	24	100
3/18/2015 7:00	3,959	24	100
3/10/2015 7:00	3,958	24	100
3/17/2015 7:00	3,955	24	100
3/19/2015 7:00	3,947	24	100
3/25/2015 7:00	3,885	24	100
3/26/2015 7:00	3,784	24	92
3/24/2015 7:00	3,749	24	100
4/1/2015 7:00	3,597	24	92
4/7/2015 7:00	3,551	24	92
4/2/2015 7:00	3,459	24	100
3/11/2015 7:00	3,302	24	92
3/31/2015 7:00	3,252	24	100

VDS 316993	Average	85th Percentile
Tue- Thurs 7AM	3,806	4,032

Phone: Fax:
E-mail:

-----Operational Analysis-----

Analyst: KAJ
 Agency or Company: CDA
 Date Performed: 08/11/16
 Analysis Time Period: AM Peak Hr
 Freeway/Direction: US 50 WB
 From/To: EDH-Latrobe/Countyline
 Jurisdiction: EDC
 Analysis Year: 2015
 Description: Average of Spring 2015 PeMS data from VDS 316993

-----Flow Inputs and Adjustments-----

Volume, V	3806	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1012	v
Trucks and buses	4	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fhv	0.943	
Driver population factor, fp	1.00	
Flow rate, vp	2146	pc/h/ln

-----Speed Inputs and Adjustments-----

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	-	mi/h
Lateral clearance adjustment, flc	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	70.0	mi/h

-----LOS and Performance Measures-----

Flow rate, vp	2146	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	59.6	mi/h
Number of lanes, N	2	
Density, D	36.0	pc/mi/ln
Level of service, LOS	E	

Phone: Fax:
E-mail:

----- Operational Analysis -----

Analyst: KAJ
Agency or Company: CDA
Date Performed: 08/11/16
Analysis Time Period: AM Peak Hr
Freeway/Direction: US 50 WB
From/To: EDH-Latrobe/Countyline
Jurisdiction: EDC
Analysis Year: 2015
Description: 85th Percentile of Spring 2015 PeMS data from VDS 316993

----- Flow Inputs and Adjustments -----

Volume, V	4032	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1072	v
Trucks and buses	4	%
Recreational vehicles	0	%
Terrain type:	Rolling	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	2.5	
Recreational vehicle PCE, ER	2.0	
Heavy vehicle adjustment, fHV	0.943	
Driver population factor, fp	1.00	
Flow rate, vp	2273	pc/h/ln

----- Speed Inputs and Adjustments -----

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	2	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	70.0	mi/h

----- LOS and Performance Measures -----

Flow rate, vp	2273	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	56.6	mi/h
Number of lanes, N	2	
Density, D	40.1	pc/mi/ln
Level of service, LOS	E	