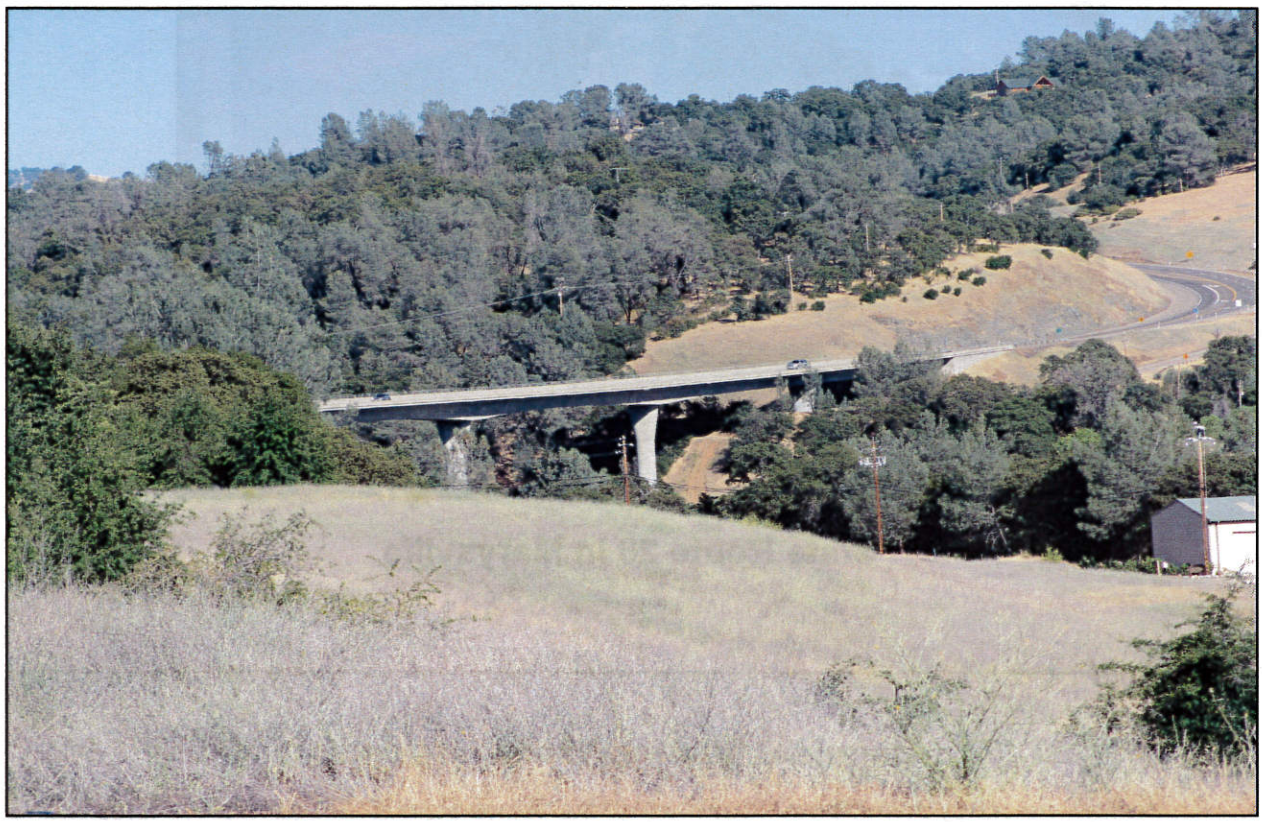
TRANSPORTATION CONCEPT REPORT STATE ROUTE 20



Transportation Concept Reports (TCR) are Caltrans' long range (20-year) planning documents for each State Highway Route. The purpose and need of each TCR 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	3/11/13	Jody Jones	3/13/13
Jeff Pulverman **District 3 Deputy Director** **Planning and Local Assistance**	**Date**	**Jody Jones** **District 3 Director**	**Date**

Transportation Concept Report Basic Data

State Route 20 in Marysville

Segment Summary Information

The following page provides a summary of the State Route 20 segments. This summary provides 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—Programmed, Planned, or Conceptual:

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 4-year State Highway Operations and Protection Plan Program.

A **Planned** Improvement or Action is a project in a long-term plan such as an approved Regional Transportation Plan (RTP or MTP) or Capital Improvement Plan. If an RTP/MTP contains the project but does not find that it can be funded within constrained funding limits, the Project may remain Conceptual (see below), requiring advocacy to bring it within financial constraint, regardless of the completion year.

A **Conceptual** Improvement or Action is a project that is needed to maintain mobility or serve multi-modal users, but is not currently included in a financially constrained list within a long-term plan and is not currently programmed.

Project Data Glossary

Highway Improvement Project Acronyms and Definitions

Information in the following 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 1st 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.

RTP/MTP Regional/Metropolitan Transportation Plan is the title given by the Regional Transportation Planning Agency (RTPA) or Metropolitan Planning Organization (MPO) to their Long-Range Transportation Plans, produced according to the guidelines adopted by the California Transportation Commission based on Federal and State requirements.

RTIP/MTIP Regional/Metropolitan Transportation Improvement Program is the title given by the RTPA and the MPO to their programming documents, which are produced according to the guidelines adopted by the California Transportation Commission.

State—Local Responsibility

Improvements to the State Highway System are the responsibility of both Caltrans and local agencies. Developments that add cumulative impacts to this route and the regional State Highway System may necessitate that local jurisdictions provide nexus based, proportional fair-share funding for future highway improvements. Developments or local circulation changes that will have significant traffic impacts to the highway should provide improvements to mitigate those impacts.

SR 20 through Nevada County east of Nevada City

State Route 20 Summary

SR 20 is an "ocean to mountains" route that begins at SR 1 near Fort Bragg and ends at Interstate 80 near Emigrant Gap. Within District 3, the route runs 122 miles west to east through Colusa, Sutter, Yuba, and Nevada counties. SR 20 is mainly a two-lane highway that serves regional, interregional, commute, commercial, agricultural, and recreational traffic. It serves as a major east-west connector to I-5 and SR 99, and interconnects with other major routes, including SR 70 and I-80.

SR 20 is part of the Interregional Transportation Strategic Plan and is classified as a High Emphasis Focus Route. A High Emphasis Focus Route is one of Caltrans' highest priority route designations for completion to at least minimum facility standards within a 20-Year planning period, assuring that a statewide trunk system is in place and complete for higher volume interregional trip movements.

"Concept Level of Service (LOS)" and "Concept Facility" have traditionally been used in Caltrans TCRs to reflect the minimum level or quality of operations acceptable for each route segment within the 20-year planning period and the highway facility needed in the next 20-years to maintain the Concept LOS. Typically, Concept LOS

standards in Caltrans District 3 are LOS “D” in rural areas and LOS “E” in urban areas. However, some heavily congested route segments now have a Concept LOS “F” because the improvements required to bring the LOS to “E” are not feasible due to environmental, right of way, financial, and other constraints. The Concept LOS and Concept Facility for SR 20 are shown on Page 10.

SR 20 from the Lake/Colusa County Line to just west of Yuba City is a two lane conventional highway with significant sight restrictions. These sight restrictions result in a lack of passing opportunities, therefore passing lanes will be needed every 5 to 7 miles and shoulders should be widened to 8 foot standard throughout the corridor where possible.

As SR 20 enters the more urban areas of Yuba City in Sutter County and Marysville in Yuba County, SR 20 widens from four to six lanes and traffic increases substantially. Traffic forecasts indicate the traffic will continue to increase over the 20-Year planning period. Operational and capacity improvements will be required so as to maintain the minimum concept LOS standard. Refer to the individual segment summaries for specific improvements.

In Nevada County, SR 20 passes through the urban centers of Grass Valley and Nevada City where it is a 4-lane freeway with auxiliary lanes between some interchanges. Beyond Nevada City the route is a two-lane conventional facility that passes through rural, mountainous Nevada County. Operational improvements will be needed, but capacity expansion is not expected to be necessary.

Looking Eastbound on SR 20 through Nevada City. SR 49 North exit just ahead.

SR 20 Aesthetic Corridor Master Plan

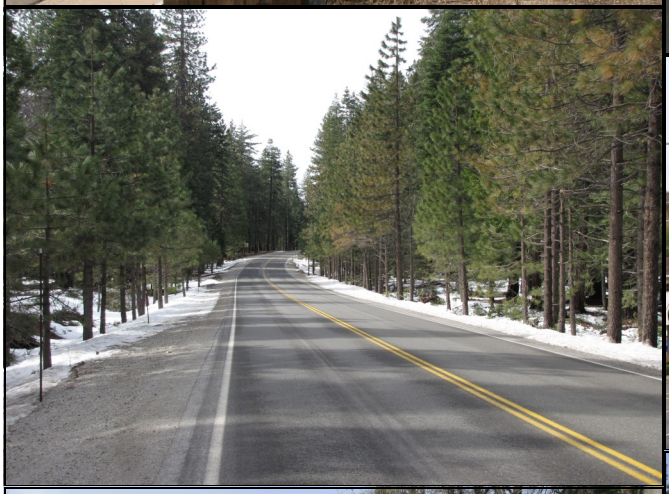
The California Department of Transportation (Caltrans) is committed to developing highway projects that consider aesthetics and integrates and balances a community's aesthetic, historic, and environmental values through a collaborative, interdisciplinary approach. The Aesthetic Corridor Master Plan (ACMP) was developed to provide aesthetic guidance to our design teams and for engaging communities along the corridor. Chapter 1 of the ACMP provides additional details about the need and purpose of the ACMP and how it relates to the SR 20 Transportation Concept Reports and the project development process.

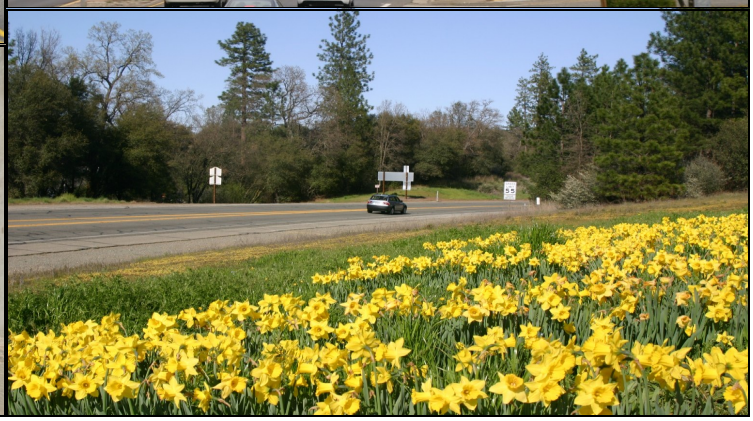
SR 20 is a west to east, "ocean to mountains" highway 214 miles long. The highway corridor has significant man-made, natural/environmental and visual resources over this long distance through the Coastal Mountains, Sacramento Valley and into the Sierra Mountains. Chapter 2 presents an overview of the highway, geography and all resources of the overall corridor. Chapter 3 divides the corridor into five segments of similar geography and character and describes these resources with charts and maps. Having a complete perspective of the corridor and resources is important background information for understanding the context and continuity of the route as it progresses across the diverse geography of the state.

Chapter 4 describes the landscape and aesthetic elements that apply when evaluating design options during project initiation or project development. The three main elements are Highway Types, Landscape Treatment Types, and Design Objectives. These high level elements provide a broad direction and concept of potential project landscape design objectives, treatments and applications.

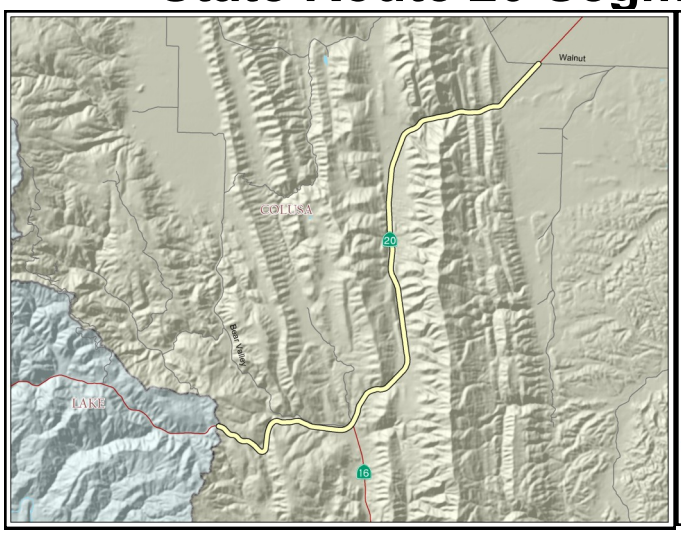
Chapter 5 is the core of the ACMP describing in more detail the corridor segments and applying the aesthetic master plan elements by post-mile in charts and profiles along the entire route. Landscape design objectives, treatments and design concept/opportunities are identified for every section of the highway. Lastly, this chapter concludes with a final summary of the corridor as a scenic, rural, agricultural and historic route as the unifying and cohesive aesthetic theme to be applied throughout the corridor.

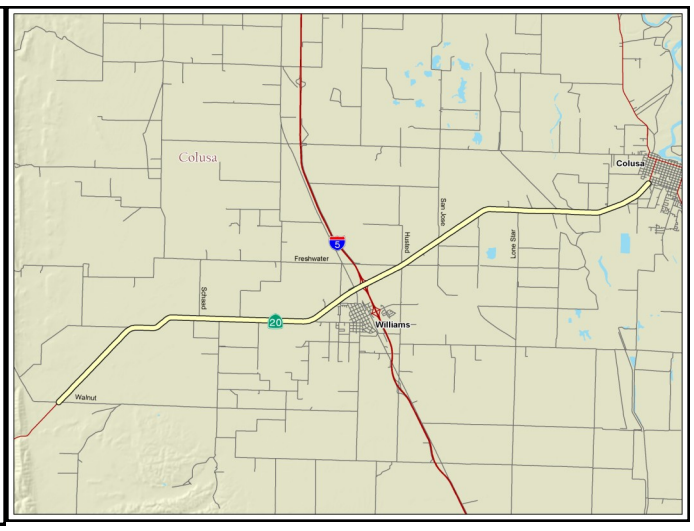
The ACMP is a high level guiding resource that would benefit from being supplemented and improved upon with community outreach and input. Since resources are limited, outreach efforts will likely have to be accomplished as part of location specific project planning, initiation and development processes. Coordination with Planning, Environmental and Project Management should be leveraged to maximize every opportunity.





State Route 20 Segments 1 & 2 Summaries





Segment 1 - Lake County Line to Walnut Drive (PM 0.0/13.03)

Segment 2 - Walnut Drive to Harris Street in Colusa (PM 13.03/30.4)

Segment 1 begins at the Lake/Colusa County line and ends at Walnut Drive. This portion of SR 20 is an undivided, rural, two-lane conventional highway with primarily ranching and agricultural lands adjacent to the highway.

This segment is severely impacted by the lack of passing opportunities and several sustained grades. Sight restrictions range from 70% to 99%. As a result, slow moving vehicles such as trucks, farm equipment and recreational vehicles often cause traffic to back up resulting in delays.

As the LOS is not expected to decline below the concept standard of LOS D within the 20-year period, no major capacity improvements are needed. However, due to limited sight distance, passing lanes should be constructed every 5 to 7 miles. In addition, shoulders should be widened where possible to 8-foot standard width.

Segment 2 begins at Walnut Drive and ends at the western city limit of the City of Colusa (Harris Street). This portion of SR 20 is an undivided, rural, two-lane, conventional highway.

SR 20 crosses I-5 near the City of Williams which is located immediately to the southwest of the I-5/SR 20 junction. Williams is also considering a break in access within the city limits to encourage development opportunities. This would require a denomination of SR 20. The segment is currently operating at LOS D and is not expected to decline below this standard within the 20-year period. However, sight restrictions are significant (from 45% to 70%) and create a lack of passing opportunities. Therefore, passing lanes should be constructed every 5 to 7 miles and shoulders should be widened to the 8 foot standard so as to maintain the minimum LOS standard.

Highway Improvement Projects

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

Segment 1

Programmed:

- Rehab Pavement Lake Co line to approx 3 miles west of Walnut Dr. PM 0.0/10.2 ($8M; 2014)

Planned: No Planned Projects

Conceptual:

- Passing lanes every 5-7 miles
- Left-turn channelization at every county road connection
- Widen shoulders to 8-foot minimum standard

Segment 2

Programmed: No Programmed Projects

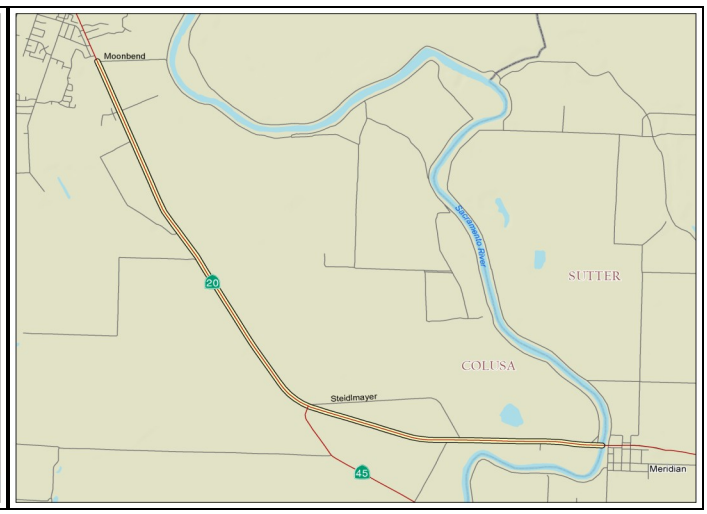
Planned:

- Install passing lanes west of Colusa to Williams ($3.0M) ITSP & Colusa County RTP
- Install passing lanes west of Williams ($3.0M) Colusa County RTP
- Install Changeable Message Signs at Eastbound (EB) off-ramp from I-5 ($0.3M; 2022) SHOPP
- New Public Road connection in the City of Williams on SR 20 east of I-5 (2030) RTP

Conceptual:

- Signalize Walnut Drive when warrants are met
- Turn lanes or channelization at every county road connection
- Widen shoulders to 8-feet (both sides)
- Improve drainage under the highway at Lone Star Road to reduce flooding
- Install left turn lane at King Rd intersection
- Improve/realign curve at Wescott Rd intersection
- Install left turn lanes at Fremont St intersection

State Route 20 Segments 3 & 4 Summaries



Segment 3 - City of Colusa, Harris Street to Moon Bend Road (PM 30.4/33.1)

Segment 3 begins at the City of Colusa's western city limit and extends to the city's eastern city limit at Moon Bend Road. The highway is a two-lane conventional facility, with a four-lane segment and on-street parking through the downtown area. The highway serves as the City's main street. Traffic on SR 20 slows through the downtown area with substantial retail and pedestrian activity.

This segment currently operates at LOS E. As the facility is expected to decline to LOS F by the year 2030, operational improvements and possible targeted capacity expansions should be studied. Consideration should be given to the expansion of existing or construction of new parallel arterials to relieve the congestion of SR 20.

Segment 4 - Moon Bend Road to Colusa / Sutter County Line (PM 33.1/39.3)

Segment 4 begins at Moon Bend Road, the City of Colusa's eastern city limit and continues to the Colusa/ Sutter County line at the Sacramento River Bridge. The character of the route is a rural, two-lane conventional highway with some passing lanes.

The facility currently operates at LOS D. This segment is expected to decline to LOS E through the 20-year planning period.

As the facility is expected to decline to LOS E, operational and capacity increasing improvements are planned.

Highway Improvement Projects

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

Segment 3

Programmed: No Programmed Projects

Planned:

- Pavement preservation in City of Colusa from Market Street to Butte Vista Way ($4.5M; 2020) SHOPP
- Install two-way left-turn channel Fremont Street to North Market Street ($2.0M; 2015) Colusa County RTP

Conceptual:

- Support the expansion of existing parallel arterials or construction of new parallel arterials designed to relieve the congestion of SR 20

Segment 4

Programmed: No Programmed Projects

Planned:

- Operational/Capacity improvements to Sutter County Line ($6.0M) Colusa County RTP

Conceptual:

- Widen shoulders to 8 foot minimum standard

State Route 20 TCR Data

Segment	Location				Forecasted Level of Service (LOS) and Facility Type					
	Description	County	From Post Mile	To Post Mile	Current LOS[1]	20-yr No-build LOS [1,2]	20-yr Concept LOS[1,3]	Existing Facility[4]	Concept Facility[4,6]	Ultimate Facility[4,7]
1	**Lake County to Walnut Drive**	COL	0.00	12.40	D	D	D	2C	2C w/ passing lanes	4E
2	**Walnut Drive to Harris Street (City of Colusa)**	COL	12.40	30.45	D	D	D	2C	2C w/ passing lanes	4E
3	**Harris Street (City of Colusa) to Moon Bend**	COL	30.45	33.12	E	F	E	2/4C	2/4C	4C
4	**Moon Bend to Colusa/Sutter County Line**	COL	33.12	39.34	D	E	E	2C	2C w/ passing lanes	4C
5	**Colusa/Sutter County Line to Humphrey Road**	SUT	0.00	10.93	D	D	D	2C	2C	4E
6	**Humphrey Road to Harter Road**	SUT	10.93	14.47	A	C	C	4E	4E to Town-ship/6E	6E
7	**Harter Road to the SR 20/SR 99 Junction**	SUT	14.47	15.60	D	E	E	4C/6C	6C	6C
8	**SR 20/SR 99 Junction to Shasta Street**	SUT	15.60	16.65	E	F	E	4C/6C	6C	6C
9	**Shasta Street to Sutter/Yuba County Line (Feather River Bridge)**	SUT	16.65	16.67	D	F	E	4C	6C	6C
10	**Sutter/Yuba County Line (Feather River Bridge) to SR 70 Junction**	YUB	0.00	0.98	E	F	E	6C	6C	6C
11	**SR 70 Junction to 22nd Street**	YUB	0.98	2.94	E	F	E	2C/2E	2C/2E	4E
12	**22nd Street to Marysville Road**	YUB	2.94	13.26	E	F	E	2C	2C	4E
13	**Marysville Road to Yuba/Nevada County Line**	YUB	13.26	21.67	E	E	E	2C	2C	4E
14	**Yuba/Nevada County Line to Penn Valley Drive**	NEV	0.00	6.60	E	E	E	2C	2C w/ passing lanes	4E
15	**Penn Valley Drive to Junction of SR 49 South**	NEV	6.60	12.30	B	D	D	2E/4E	2E/4E	4E
16	**Junction of SR 49 South to Junction of SR 49 North**	NEV	12.30	17.40	D	F	E	4F	4F	4F
17	**Junction of SR 49 North to I-80**	NEV	17.40	45.66	E	E	E	2C	2C	2C w/ passing lanes

Notes/Definitions:
1. Level of Service (LOS) - A "report card measurement with "A" being the least amount of congestion and "F" being the most congested.
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 departure rate.
2. 20-yr LOS (No Build) - The LOS that would be expected at 20 years with no improvements.
3. 20-yr Concept LOS - The minimum acceptable LOS over the next 20 years.
4. Facility Type Codes - C (Conventional Highway); E (Expressway); F (Freeway)

State Route 20 TCR Data (cont.)

Segment	Current Traffic Data 2010					Future Traffic Data 2030 Projections		
	% of Trucks	Directional Split[8]	Peak Hour Traffic[9]	Avg. Annual Daily Traffic[10]	Volume over Capacity[11]	Peak Hour Traffic[9]	Avg. Annual Daily Traffic[10]	Volume over Capacity[11]
1	11%	54%	790	5,200	0.33	987	6,500	0.38
2	11%	55%	780	7,900	0.29	1,014	10,270	0.37
3	7%	55%	2,850	25,000	0.97	3,705	32,500	1.24
4	8%	55%	960	9,800	0.36	1,344	13,720	0.50
5	8%	55%	720	7,700	0.27	1,008	10,780	0.37
6	5%	65%	1,450	17,000	0.29	2,538	29,750	0.50
7	6%	65%	3,100	34,500	N/A	5,425	60,375	N/A
8	5%	60%	4,250	43,000	N/A	7,438	75,250	N/A
9	5%	60%	3,850	41,000	0.70	6,776	72,160	1.22
10	7%	60%	3,750	35,000	N/A	6,000	56,000	N/A
11	9%	64%	2,450	28,000	N/A	3,430	39,200	N/A
12	10%	64%	1,500	17,000	0.65	2,100	23,800	0.90
13	7%	66%	820	8,200	0.38	1,189	11,890	0.55
14	7%	60%	1,100	13,000	0.46	1,595	18,850	0.67
15	7%	59%	2,250	24,900	0.45	3,825	42,330	0.76
16	7%	59%	5,200	48,000	0.85	7,800	72,000	1.23
17	11%	57%	1,600	6,100	0.64	2,240	8,540	0.88

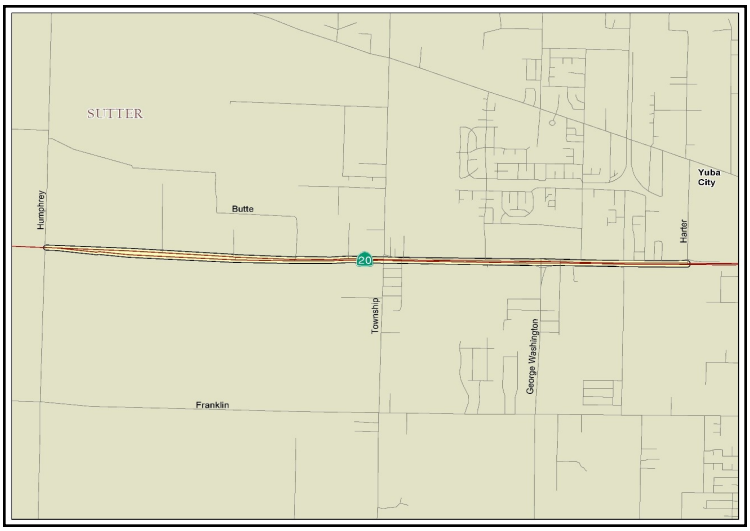
5. **Operational Improvements** are included in future facilities for all segments. Examples of operational improvements include Traffic Operations Systems Improvements and Auxiliary Lanes.
6. **Concept Facility** - The future roadway with improvements needed in the next 20 years. If LOS F, no further 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. **Peak Hour Traffic** - Peak Hour volumes indicate the volume in both directions during the most congested hour of the day.
10. **Average Annual Daily Traffic (AADT)** - The average number of vehicles per day in both directions.
11. **Volume over Capacity (V/C)** - The volume of traffic compared to the capacity of the roadway.
Volume over Capacity does not determine LOS for two– or three-lane facilities, or segments with intersection delay; Highway Capacity Software (HCS+) is used to determine LOS for these facilities.

State Route 20 Segments 5 & 6 Summaries

Segment 5 - Colusa/Sutter County Line to Humphrey Road (PM 0.0/10.9)

Segment 5 is from the Colusa/Sutter County line to Humphrey Road near Yuba City. The route is a rural, two-lane conventional highway and includes the Sutter Causeway.

This segment currently operates at LOS D. As this facility is not expected to fall below concept standard of LOS D, no major capacity improvements will be required. However, as shoulder widths vary along this segment, SR 20 should be brought up to meet the 8-foot standard shoulder width.



Segment 6 - Humphrey Road to Harter Parkway in Yuba City (PM 10.9/14.4)

Segment 6 begins at Humphrey Road and ends at Harter Parkway. In this segment, SR 20 is a four-lane expressway as it enters Yuba City.

SR 20 along this segment currently operates at LOS A which is expected to decline to LOS C by 2030. However, as the level of service is not expected to exceed the concept standard LOS D, no capacity enhancements will be required.

The Western Parkway will be a new arterial serving the new residential area just east of Township Road. A signalized intersection at Western Parkway and SR 20 is being proposed by the City of Yuba City. A project study report/ project report (PSR/PR) and plans, specifications and estimates work (PS&E) are currently underway. The cost of the preliminary studies is to be paid for in part by developer fees.

Highway Improvement Projects

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

Segment 5

Programmed:

- Widen Shoulders and Rehab Pavement from Sutter Bypass to Humphrey Road PM 5.4/11.1 ($17.5M; 2014) SHOPP

Planned: No Programmed Projects

Conceptual:

- Widen shoulders to 8 foot minimum standard

Segment 6

Programmed: No Programmed Projects

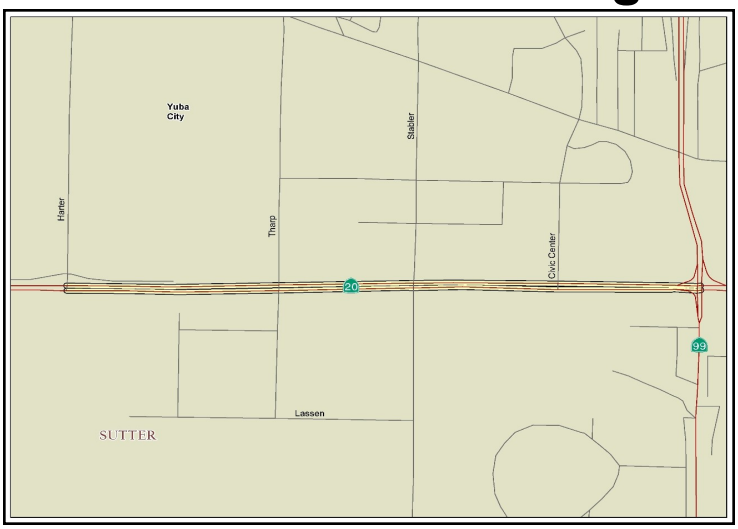
Planned:

- Construct Western Parkway intersection ($3.7M; 2020) SACOG MTP

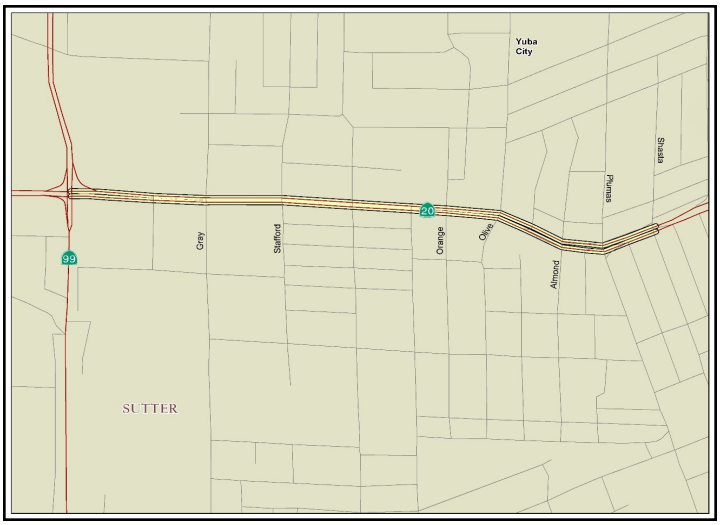
Conceptual:

- Upgrade highway to six-lanes from Township to Harter Road PM 14.83
- Consider installing signal at El Margarita Road when warranted (part of fee program) PM 14.09

State Route 20 Segments 7 & 8 Summaries



Segment 7 - Harter Parkway to the SR 20/SR 99 Jct. in Yuba City (PM 14.4/15.6)



Segment 8 - SR 99 to Shasta Street in Yuba City (PM 15.6/16.6)

Segment 7 runs from Harter Road to the SR 20/SR 99 junction. This portion of SR 20 is a four-lane conventional highway with turn pockets.

The facility is currently operating at LOS D and is expected to decline to LOS E by the year 2030.

In order to maintain the minimum standard LOS E, this segment needs to be widened to a six lane conventional highway or have operational improvements implemented as identified under Planned and Conceptual Improvements below.

Segment 8 runs through Yuba City from the SR 20/ SR 99 junction to Shasta Street near the Feather River Bridge. This portion of SR 20 is a six-lane conventional highway, with turn pockets, and pedestrian facilities.

The facility is currently operating at LOS E, but is expected to decline to LOS F.

Planned improvements include the construction of an urban interchange at the junction of SR 20 and SR 99 near the end of the planning period. Operational improvements are also needed.

Highway Improvement Projects

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

Segment 7

Programmed: No Programmed Projects

Planned:

- Widen from four to six lanes, from Walton Avenue to Rocca Way ($4M; 2035 SACOG MTP 2035)

Conceptual:

- Consider installation of gateway enhancements and landscaping, where feasible

Segment 8

Programmed: No Programmed Projects

Planned:

- Construct urban interchange at SR 99/SR 20 ($104M plus $41M R/W; 2035) SACOG MTP 2035

Conceptual:

- Widen right-turn lane to northbound Live Oak Boulevard (PM 16.33)
- Eliminate left-turns at all non-signalized intersections between Gray Avenue and Shasta Street
- Improve turn radius for trucks at Clark Avenue
- Install right-ins/right-outs with raised islands at Orange Street
- Consider installation of gateway enhancements and landscaping, where feasible

State Route 20 Segments 9 & 10 Summaries

Segment 9 - Shasta Street to Sutter/Yuba County Line (PM 16.65/16.67)

Segment 10 – Sutter/Yuba County Line to SR 70 Junction in Marysville (PM 0.0/0.98)

Segment 9 runs from Shasta Street in Yuba City, to the Sutter/Yuba County line in the center of the Feather River Bridge. The bridge is a divided four-lane conventional highway with sidewalks for bicycles and pedestrians and operates at LOS D. By the year 2030, the operation of this segment is expected to decline to LOS F.

The Feather River Bridge is one of only two crossings of the Feather River in the Yuba City/Marysville area. The other crossing is the Fifth Street Bridge, which is a narrow, two-lane structure with sidewalks for bicycles and pedestrians. If either the Feather River Bridge or Fifth Street Bridge experiences a traffic accident, the entire system sometimes come to a stop. Therefore, widening of both bridges is critical to the continued mobility of the Yuba/Sutter area and, particularly, to this segment of SR 20.

Segment 10 of SR 20 runs from the county line at the center of the bridge to the SR 70 Junction. This segment is a divided six-lane conventional highway without left-turn pockets and currently operates at peak hour at LOS E.

Capacity increases do not appear to be feasible, so it will be necessary to maximize the benefits of operational improvements. The programmed project to install left-turn lanes and modify the signals will increase throughput preventing a decline in the LOS from E to F.

Highway Improvement Projects

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

Segment 9

Programmed: No Programmed Projects

Planned:

- Feather River crossing project to reconstruct/ modify the existing 5th Street Bridge and railroad trestle to provide a four lane crossing of the Feather River between Yuba City and Marysville (50.5M; 2014) SACOG MTP 2035
- Widen 10th Street Bridge to 6 lanes ($60M; 2035) SACOG MTP 2035
- Construct Feather River Expressway Phase 1 ($75M; 2035)

Conceptual: No Conceptual Projects

Segment 10

Programmed:

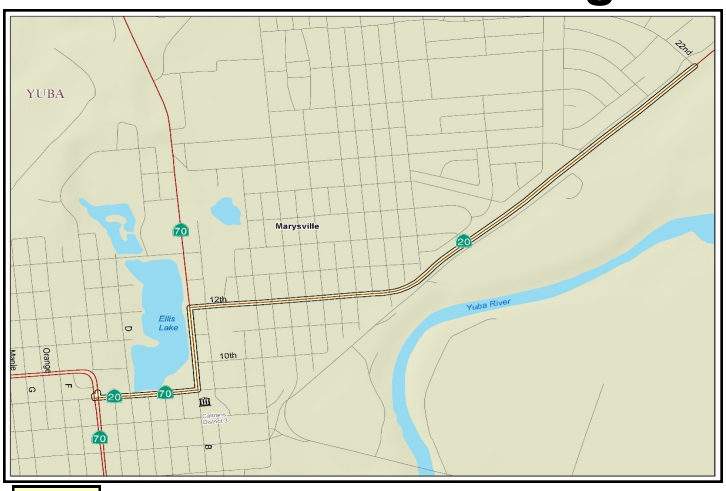
- In Marysville, from I Street to F Street; also on SR 70 from 4th Street to 5th Street, install left turn pockets and modify signals. ($5.6 M; 2015) SHOPP

Planned: No Planned Projects

Conceptual:

- Install raised median curb on 9th Street between E Street and B Street to prevent left-turns PM 0.9 / 1.2
- Widen turn radius at 9th/E Street (northeast corner) for trucks PM 0.9
- Feather River Expressway Phases 2and 3 (See Page 16)

State Route 20 Segments 11 & 12 Summaries



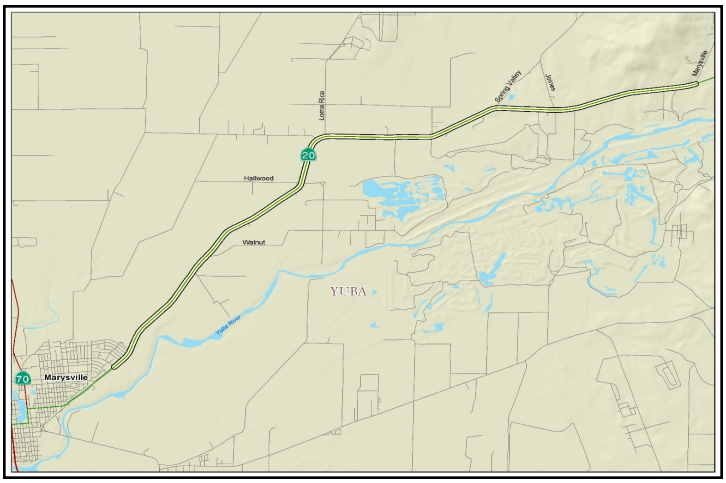
Segment 11 - Junction of SR 70 to 22nd Street (PM 0.98/2.94)

Segment 11 begins at the junction of SR 70 in Marysville and proceeds to 22nd Street. This segment transitions from a two-lane conventional highway to a two-lane expressway.

The segment currently operates at LOS E. By the year 2030, the operation of the facility is expected to decline to LOS F if no improvements are made.

Capacity increases do not appear to be feasible, so it will be necessary to maximize the benefits of the conceptual operational improvement projects listed below.

Alternatives to mitigate impacts from the high volumes of interregional travel on SR 20 and SR 70 through Marysville are currently being explored. Refer to the ongoing Feather River Expressway Project Study Report on Pg 16.



Segment 12 - 12th and "B" Streets to Marysville Road (PM 1.4/13.3)

Segment 12 runs from 22nd Street to Marysville Road. It is a two-lane conventional highway that traverses through the small community of Hallwood. Currently, this segment operates at LOS E. By the year 2030 operation of this segment is expected to decline to LOS F. In order to maintain LOS E on this segment, improvements such as passing lanes and other operational improvements will be needed.

A locally funded four-lane expressway has been proposed by Yuba County. The expressway, if constructed, would parallel SR 70 from the SR 65/70 Interchange near Olivehurst and ultimately connect to SR 20 near Plantz Road eliminating the need to travel through the City of Marysville, for trips from south of Marysville connecting to eastbound SR 20.

Highway Improvement Projects

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

Segment 11

Programmed:

- No Programmed Projects

Planned:

- No Planned Projects

Conceptual:

- Convert westbound SR 20 at 9th Street to dual right turn lanes with one through lane on B Street PM 1.2
- Improve turn radius at southeast and northeast corners of 12th / B Streets PM 1.4
- Feather River Expressway Phases 2 and 3 (See Page 16)

Segment 12

Programmed:

- Roadway Rehab from 0.1 mi east of Loma Rica Road to 0.2 mi west of Spring Valley Road ($6M; 2014) SHOPP

Planned:

- Construct EB and Westbound (WB) passing lanes from Loma Rica to Spring Valley Road ($3.5M; 2035) ITSP & SACOG MTP
- Install traffic signal at SR 20/Loma Rica Road ($0.3M; 2035) SACOG MTP

Conceptual:

- Extend acceleration lanes WB & EB at 17th Street and 22nd Street PM R2.6, R2.9
- Construct WB acceleration lanes for left-turns at Plantz Road PM R4.8
- Construct WB acceleration lanes for left-turns at Walnut Avenue PM R5.2
- Install shoulders, left-turn channelization, & passing lanes from Kibbe Road to Spring Valley Road PM 9.3/10.9

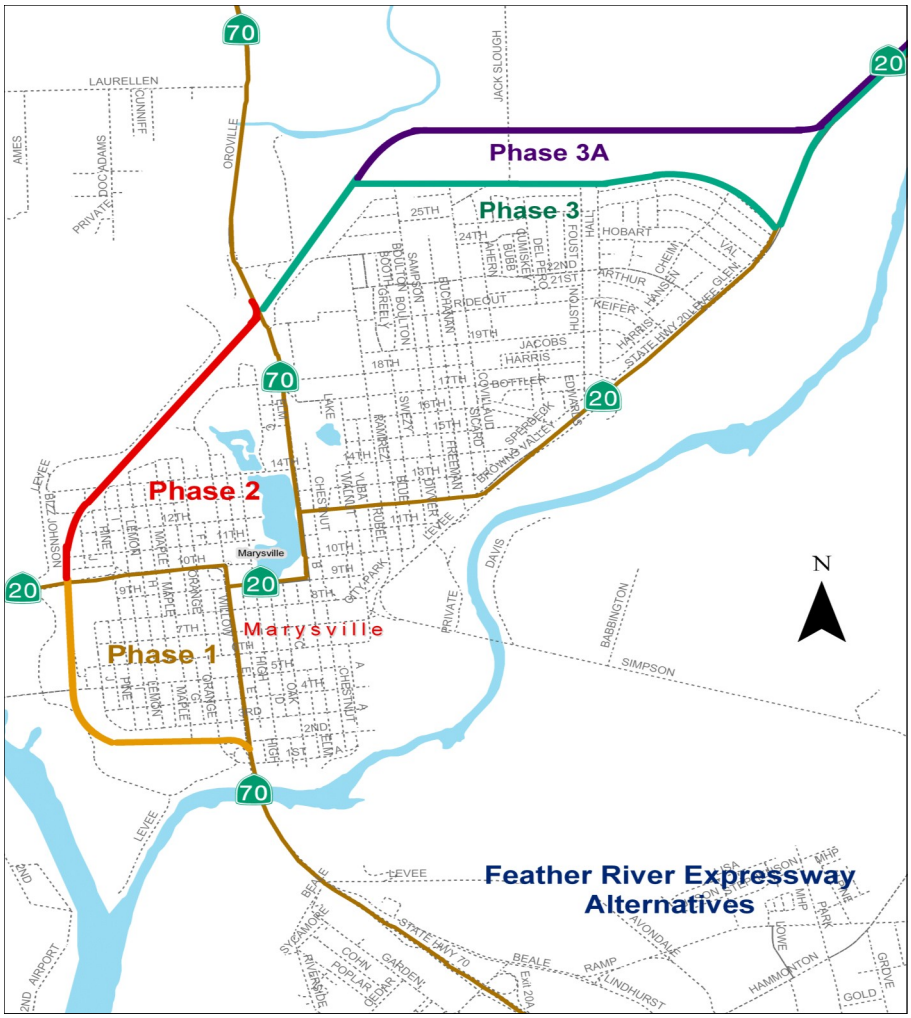
Feather River Expressway

The Feather River Expressway is being designed to improve mobility by providing an expressway around the west side of Marysville. Mobility will be improved by providing a free flow route around Marysville as well as re-routing truck traffic, destined for other locations, from downtown Marysville. Monitoring of traffic conditions during the peak commute periods has shown a steady increase in both duration and severity of congestion on SR 70 and SR 20 that hinders access to the downtown area. The City of Marysville would also like to improve pedestrian access to the downtown center and Ellis Lake. Bypassing the downtown area will significantly reduce congestion at signals and provide safer pedestrian crossings from one side of E Street (SRs 70/20) to the other. Caltrans recognizes a need for alternative routes south, north and around the City of Marysville to alleviate congestion experienced through the City. This project is a part of the effort in reducing congestion and improving mobility.

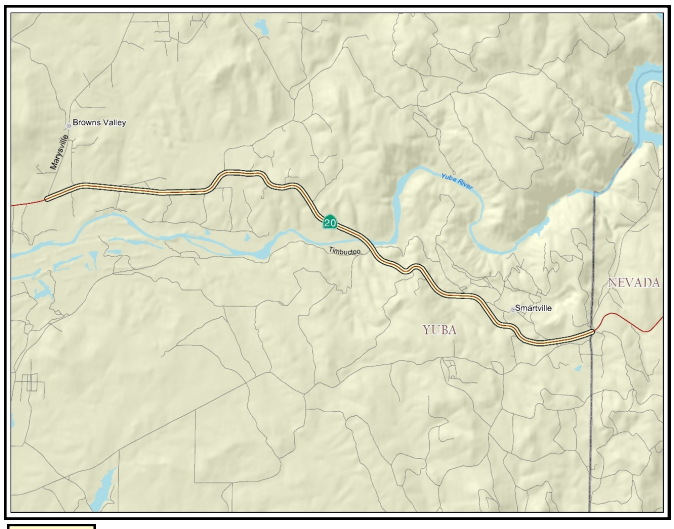
1. Phase 1 of this project will, on a new alignment, construct a two-lane expressway from SR 70 south of Marysville to SR 20 at the 10th Street Bridge.
2. Phase 2 will continue from the 10th Street Bridge, proceeding north easterly along the levee system, and terminate at SR 70 north of Marysville.
3. Phase 3 and/or 3A, considered as a possible future phase, is proposed as a new two-lane expressway from SR 70 north of Marysville to SR 20 east of Marysville using existing and proposed levees.

All connections to State Routes will be standard interchange connector ramps. All expressways will have 12 foot lanes and 8 foot shoulders with the potential to add one lane in each direction in the future.

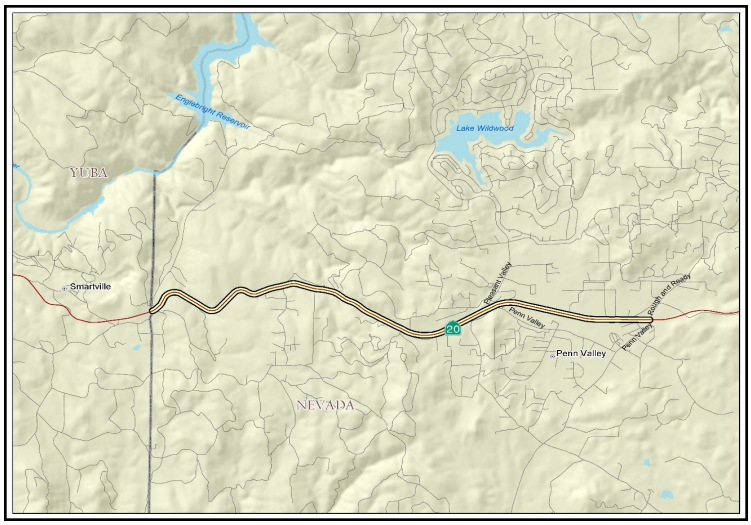
Alternative phase selections and final development of the preferred alternative will be determined through a cooperative planning effort with our local transportation partners.



State Route 20 Segments 13 & 14 Summaries



Segment 13 - Marysville Road to Yuba/ Nevada County Line (PM 13.3/21.6)



Segment 14 - Yuba/Nevada County Line to Penn Valley Drive (PM 0.0/6.6)

Segment 13 runs from Marysville Road to the Nevada County line. It is a two-lane conventional highway.

At Post Mile 21.2 Hammonton-Smartsville Road connects with SR 20 and acts as a bypass for through traffic traveling between Nevada City and the urbanized area south of Marysville and Beale Air Force Base.

This segment currently operates at LOS E.

In order to meet the minimum LOS D standard, passing lanes should be constructed every 5 to 7 miles, shoulders should be added where currently not up to the 8 foot standard, and curve improvement projects from Parks Bar to Smartsville Road should also be implemented.

Segment 14 begins at the Yuba/Nevada County line and ends at Penn Valley Drive. This segment of SR 20 is a two-lane conventional highway that traverses through primarily hilly, forested terrain.

This segment currently operates at LOS E.

In order to improve to the LOS D standard over the planning period, improvements such as widening SR 20 from Pleasant Valley Drive to Penn Valley to four lanes will be necessary.

Highway Improvement Projects

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

Segment 13

Programmed:

- Widen shoulder and realign curves Parks Bar to Smartsville PM 18.19/20.1 ($19.7M; 2014) SHOPP

Planned:

- Widen, curve improvements, & left-turn lanes EB & WB from Marysville Road to Sicard Flat Road PM 13.3/16.9 ($5.5M; 2035) SACOG MTP
- Shoulder widening and curve improvements from 0.3 mi east of McGanney Lane to Yuba/Nevada County line. PM 20.1/21.6 (17.49M; 2015) SACOG MTP
- Roadway Rehab from Yuba River Bridge to 0.3 mi east of Lower Smartsville Road ($9.793M;2018) SHOPP

Conceptual:

- Passing lanes every 5 to 7 miles
- Install turn pockets and 8-foot shoulders for entire segment where necessary PM 13.3/21.6

Segment 14

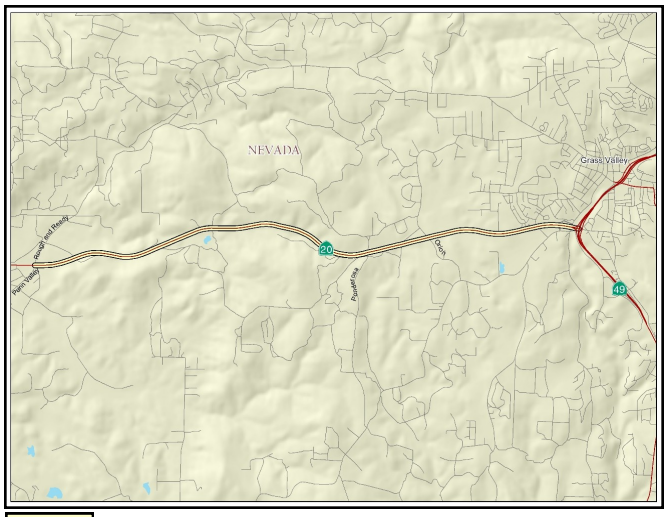
Programmed: No Programmed Projects

Planned:

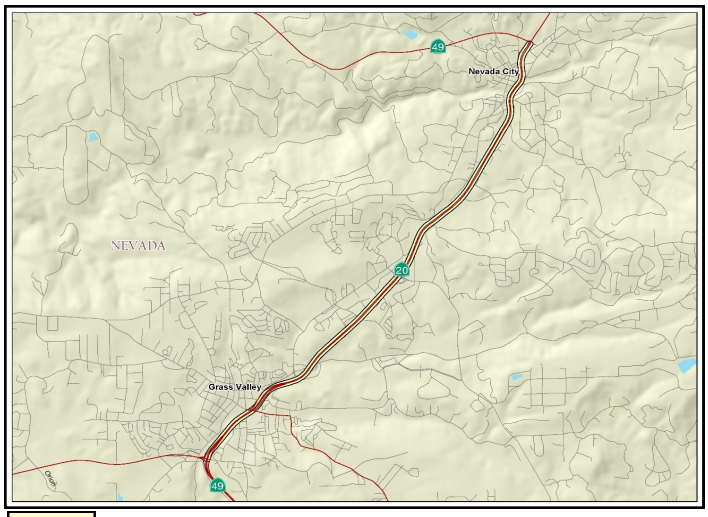
- Improve to 4 lanes, Pleasant Valley Road to SR 49 ($11.4M; 2020) ITSP & Nevada County RTP

Conceptual Projects: No Conceptual Projects

State Route 20 Segments 15 & 16 Summaries



Segment 15 - Penn Valley Drive to Junction State Route 49 South (PM 6.6/12.3)



Segment 16 - Junction SR 49 South to the Junction SR 49 North (PM 12.3/17.3)

Segment 15 begins at Penn Valley Drive and ends at the junction of SR 49 South. This segment begins as a two-lane expressway with passing lanes, then transitions to a four-lane expressway.

The segment currently operates at LOS D. By the year 2030, the operation of the segment is expected to decline to LOS F.

In order to improve the LOS over the planning period, improvements such as widening SR 20 to four lanes from Pleasant Valley Road to SR 49 will be necessary.

In Segment 16, from the junction of SR 49 South to the Junction of SR 49 North, the route changes to a four-lane freeway. In this segment SR 174 and SR 49 join SR 20. This explains the significant change in AADT from the previous segment.

This segment is currently operating at LOS D. By the year 2030, the operation is expected to drop to LOS F.

In order to improve the LOS over the planning period, improvements such as roundabouts, signal and ramp improvements and interchange improvements will be necessary.

Highway Improvement Projects

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

Segment 15

Programmed: No Programmed Projects

Planned:

- Improve to 4 lanes, Pleasant Valley Road to SR 49 ($11.4M; 2010-2030) Nevada County RTP
- Restripe SB approach to Pleasant Valley Road to include a left turn lane with receiving lane ($.6M) 2020-2030 NCTC RTP
- Install roundabout or signal at EB ramps McCourtney Road ($1.2M) 2020-2030 NCTC RTP
- Install signal at WB ramp at Mill Street ($.6M) 2020-2030 NCTC RTP

Conceptual: No Conceptual Projects

Segment 16

Programmed:

- Construct Interchange at Dorsey Drive, Phase 1 ($25.0M; 2013)

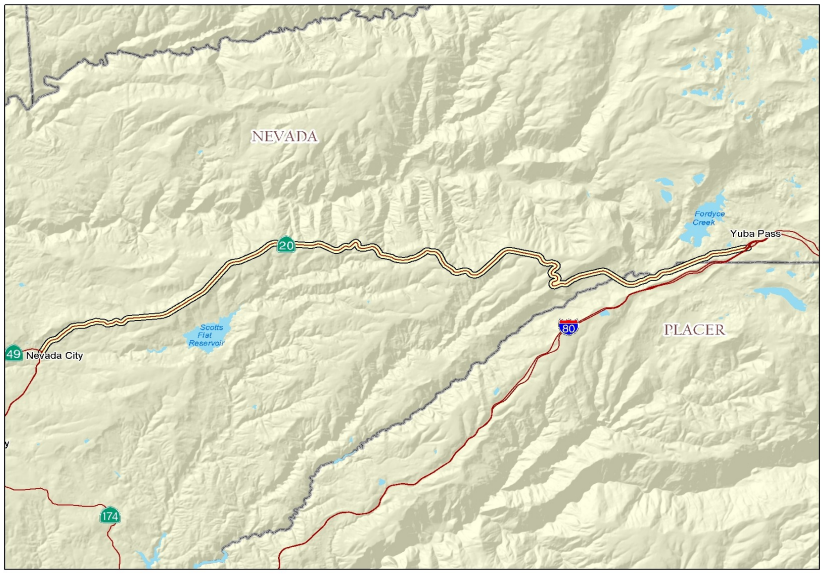
Planned:

- Install intersection improvements: roundabout or signals at Ridge Road/Gold Flat Road NB and SB ramps ($4.0M; 2027) NCTC RTP
- Improve operation of SB ramps at Brunswick Road (0.9M) 2020-2030 NCTC RTP
- Install signals and ADA compliance at NB & SB ramps at Bennett Street ($.6M & .7M) 2020-2030 NCTC RTP
- Install signal at SR 49/20 & Auburn St NB ramps ($.9M) 2020-2030 NCTC RTP
- Install coordinated signals at ramps and Railroad Ave at Idaho Maryland IC. ($1.1) 2020-2030 NCTC RTP

Conceptual Projects:

- Consider intersection improvements to the SR 20/ SR 49N intersection PM R17.3

State Route 20 Segment 17 Summary



Segment 17— Junction SR 49 North to I-80 (PM 17.3/45.6)

Segment 17 is a two-lane conventional facility, beginning at the junction of SR 49 North at Uren Street and ending at the SR 20/I-80 junction .

This segment currently operates at LOS E and is expected to remain LOS E throughout the 20-year period. Sight restrictions severely limit the opportunity to pass on this segment. Shoulders on this segment range from 0' to 4' and do not meet the 8 foot standard.

Physical constraints due to the mountainous terrain limit the feasibility of widening shoulders and adding capacity. However, where it is feasible to widen shoulders, add passing lanes, and make other operational and safety improvements, those improvements should be made.

Highway Improvement Projects

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

Segment 17

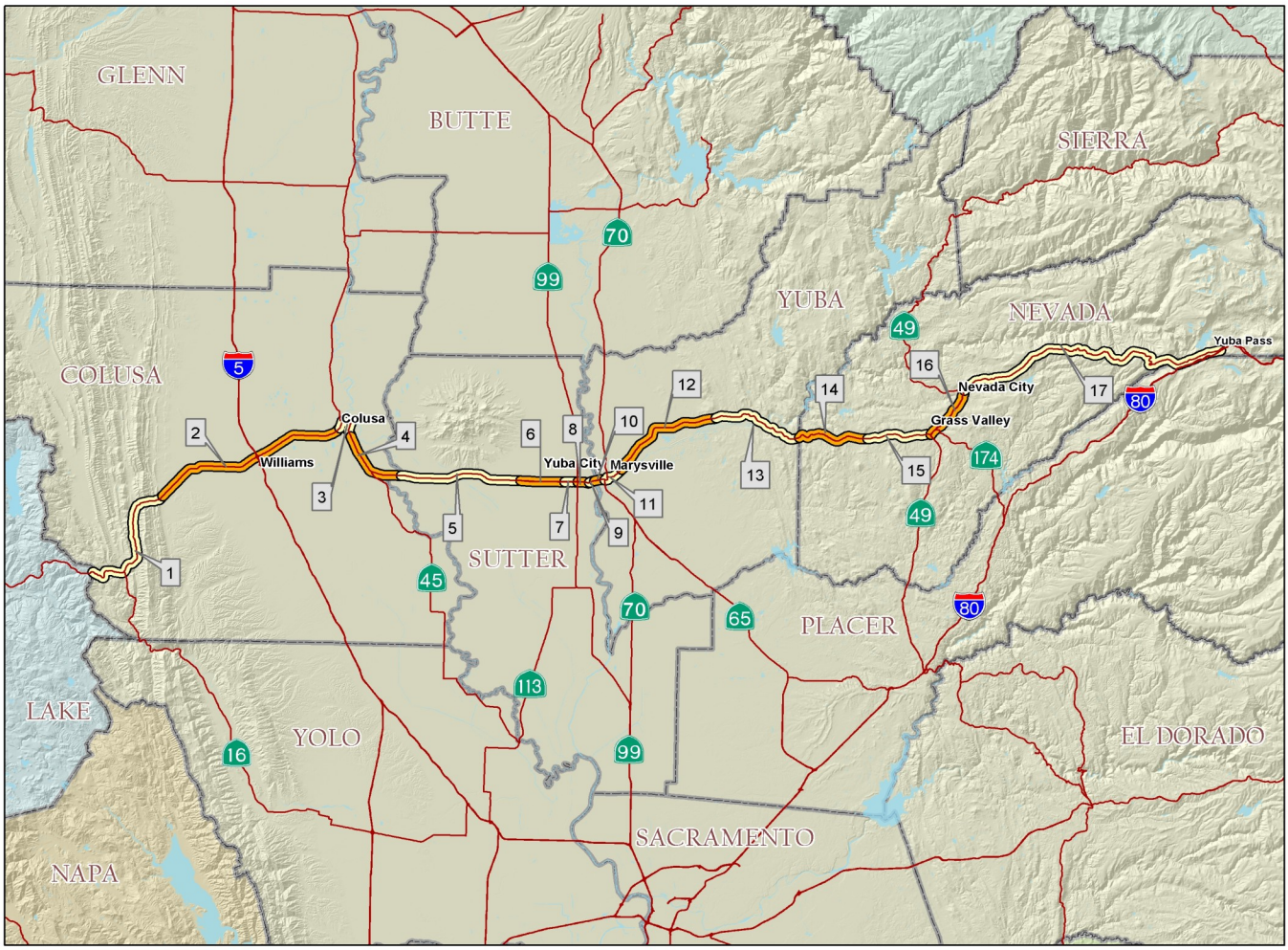
Programmed: No Programmed Projects

Planned: No Programmed Projects

Conceptual:

- Construct passing and truck climbing lanes, near Washington Ridge Road ($1.5M) ITSP
- Add passing lanes between Nevada City and SR 20/I 80 junction ($1.5M; 2020)
- Widen shoulders to 8 foot standard, where feasible
- Construct passing and truck climbing lanes, near Bowman Lake Road ITSP

STATE ROUTE 20 SEGMENT MAP



Please contact for questions and concerns about this Transportation Concept Report.

Caltrans District 3
Office of Transportation Planning
703 B Street
Marysville, CA 95901
Email: D3_Office_of_System_Planning@dot.ca.gov

Further Transportation Concept Report Information:
Caltrans District 3 Website - http://www.dot.ca.gov/dist3/
(Select Divisions, then Planning & Local Assistance, and then System Planning)