Transportation Concept Report

State Route 45

District 3

March 10, 2014

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California Department of Transportation

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Further Transportation Concept Report Information:

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(Select System Planning, then Transportation Concept Reports)

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ABOUT THE TRANSPORTATION CONCEPT REPORT

System Planning is the long-range transportation planning process for the California Department of Transportation (Caltrans). The System Planning process fulfills Caltrans' statutory responsibility as owner/operator of the State Highway System (SHS) (Gov. Code §65086) by evaluating conditions and proposing enhancements to the SHS. Through System Planning, Caltrans focuses on developing an integrated multimodal transportation system that meets Caltrans' goals of safety, mobility, delivery, stewardship, and service.

The System Planning process is primarily composed of four parts: the District System Management and Development Plan (DSMDP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP), and the District System Management Plan (DSMP) Project List. The district-wide **DSMDP** is strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The **TCR** is a planning document that identifies the existing and future route conditions as well as future needs for each route on the SHS. The **CSMP** is a complex, multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. The CSMP serves as a TCR for segments covered by the CSMP. The **DSMP Project List** is a list of planned and partially programmed transportation projects used to recommend projects for funding. These System Planning products are also intended as resources for stakeholders, the public, and partner, regional, and local agencies.

TCR Purpose

California's State Highway System needs long range planning documents to guide the logical development of transportation systems as required by CA Gov. Code §65086 and as necessitated by the public, stakeholders, and system users. The purpose of the TCR is to evaluate current and projected conditions along the route and communicate the vision for the development of each route in each Caltrans District during a 20 year planning horizon. The TCR is developed with the goals of increasing safety, improving mobility, providing excellent stewardship, and meeting community and environmental needs along the corridor through integrated management of the transportation network, including the highway, transit, pedestrian, bicycle, freight, operational improvements and travel demand management components of the corridor.

STAKEHOLDER PARTICIPATION

The Department coordinated with various stakeholders throughout the development of the TCR for State Route (SR) 45. Outreach efforts involved internal and external stakeholders, tribal governments, local and regional agencies. Stakeholders were contacted for initial input related to their particular specializations, and to verify data sources that were used and as well as data accuracy. As the document was finalized, stakeholders were asked to review the document for comments, edits, and for consistency with the intent of existing plans, policies, and procedures. Written comments were received and incorporated into the final document. The process of including and working closely with stakeholders adds value to the TCR, allows for outside input, provides an opportunity for ideas to be reflected in the document, increases credibility, and helps strengthen public support and trust.

STATE AND LOCAL RESPONSIBILITY

Improvements to the SHS are the responsibility of both Caltrans and local agencies. For example, land use developments that create or contribute to direct or cumulative impacts to the State Highway may necessitate that local jurisdictions provide nexus-based, proportional fair-share funding for highway improvements to mitigate their impacts.

EXECUTIVE SUMMARY

State Route (SR) 45 is an approximately 70-mile, north-south, 2-lane conventional highway with the exception of segment 3 that has a small section of 4-lane conventional highway. The route begins at Yolo County in Knights Landing, extends northwest towards Colusa County and ends within Glenn County in Hamilton City. A route break occurs at the junction of SR 20/Steidlmayer Road and resumes at the north junction of SR 20/10th Street. SR 45 is parallel to the Sacramento River and two major routes: Interstate 5 (I-5) and SR 99. Rural low-density communities, agricultural land use, and recreational access points surround SR 45, which generate intercity traffic, agricultural traffic, and seasonal recreational traffic. Caltrans District 3 prepared the SR 45 TCR to evaluate current traffic conditions along the route using the 2011 base year and estimate future conditions for the route within the 2031 horizon year. Facility concept for the route is within the 20 year planning horizon of 2031.

Concept Summary

The SR 45 TCR evaluates current and projected future traffic conditions. Table 1 provides a summary of the existing, 20-year concept, and post 20-year concept SR 45 facility. A *facility concept* is a type of facility required to meet the concept Level of Service (LOS) standard for the route**.**

Concept Rationale

The concept LOS for SR 45 is LOS D, which is the typical concept LOS standard for rural areas in Caltrans District 3. There is no significant growth expected in the next 20 years. However, improvements such as enhancing safety, including pedestrian and bicycle facilities, road and shoulder widening, and intersection improvements are essential to maintain and enhance mobility on the route.

Table 1: SR 45 Concept Summary

Segment	Segment Description	Existing Facility	20-Year Facility Concept*	Post 20-Year Concept*
1	SR 45/SR 113 Junction to the Yolo/Colusa County line	2C	2C and Maintenance	2C, Maintenance, and Class II Bicycle Facility
2	Yolo/Colusa County line to the South Junction of SR 20/Steidlmayer Rd.	2C	2C and Maintenance	2C, Maintenance, and Class II Bicycle Facility
3	North Junction of SR 20/10th St. to Glenn County line	2C/4C	2C/4C and Maintenance	2C/4C, Maintenance, Class II Bicycle Facility, Intersection Improvements, and road widening
4	Glenn County line to the SR 32 Junction	2C	2C, Maintenance, Shoulder widening and improvements for bicycle and pedestrian facilities	2C, Maintenance, and Intersection modifications

* Some facility concepts do not apply to the entire segment. Please see Corridor Concept – Projects and Strategies, Table 11 for the exact location of the bicycle facility, pedestrian facility, intersection improvements, road widening, and intersection modification.

Proposed Projects and Strategies

There are no programmed or planned projects on SR 45, but conceptual projects have been proposed. Construction of Class II bike lanes are included in segments 1, 2, and 3 to accommodate alternative modes of transportation. Segment 3 has four other projects with one road widening project and three intersection improvements to install bulbouts and/or turn lanes. Segment 4 has two projects, one for improving and widening shoulders for bicycle and pedestrian facilities, and another for an intersection modification to include a turn lane.

CORRIDOR OVERVIEW

ROUTE SEGMENTATION

The route segments contained within SR 45 are delineated in Figure 1 below and identified in Table 2.

Figure 1: SR 45 Segmentation Map

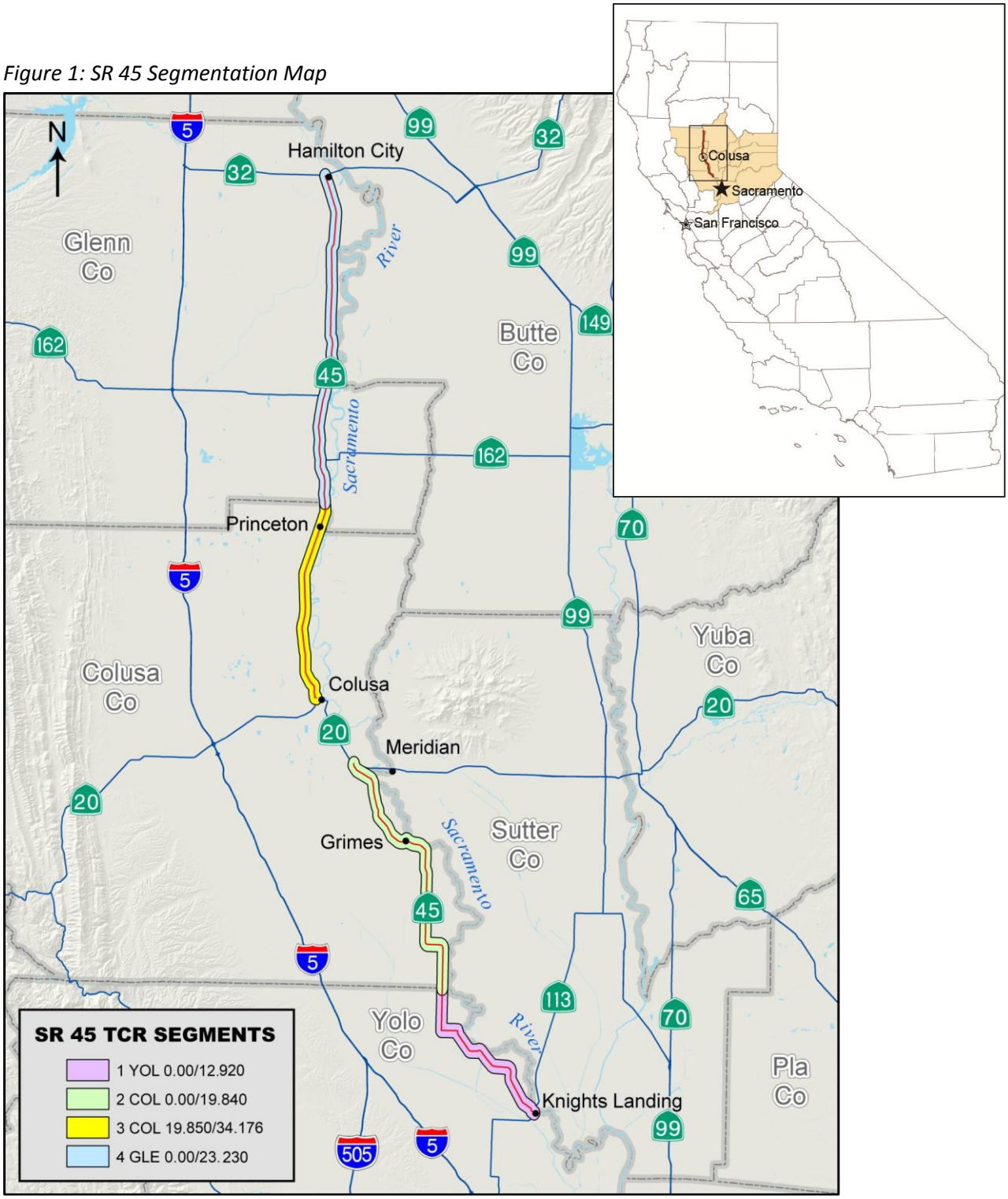


Table 2: Route Segmentation

Segment #	Location Description	County_Route_ Beginning Postmile (PM)*	County_Route_ End PM*
1	SR 45/SR 113 Junction to the Yolo/Colusa County line	YOL_45_0.000	YOL_45_12.920
2	Yolo/Colusa County line to the South Junction of SR 20/Steidlmayer Rd.	COL_45_0.000	COL_45_19.840
3	North Junction of SR 20/10th St. to Glenn County line	COL_45_19.850	COL_45_34.176
4	Glenn County line to the SR 32 Junction	GLE_45_0.000	GLE_45_23.230

*Beginning and end postmiles for each segment are derived from the Caltrans Transportation System Network (TSN) Highway Sequence Listing[1] using route breaks and district, county, and urban/rural boundaries.

ROUTE DESCRIPTION

SR 45 is located in Northern California, northwest of the City of Sacramento. This route was formerly Route 88 and was added to the State Highway System in 1933. It spans north-south Yolo County, Colusa County, and Glenn County with a distance of 70.069 miles across flat terrain parallel to Sacramento River. The route begins at its junction with SR 113 in Knights Landing, Yolo County (PM YOL_45_0.000), extends north-westerly through the community of Grimes; breaks at the junction of SR 20 and Steidlmayer Road (PM COL_45_19.840); resumes in the City of Colusa at 10th Street and Market Street (PM COL_45_19.850); traverses northerly through the community of Princeton in Colusa County; and ends at the junction of SR 32 in the community of Hamilton City in Glenn County (PM GLE_45_23.230). It also connects SR 162 from County Road 61 near Codora (PM GLE_45_3.059) to Biggs-Willows Road in Glenn (PM GLE_45_7.527). This route is also parallel with two major routes: I-5 to the west and SR 99 to the east.

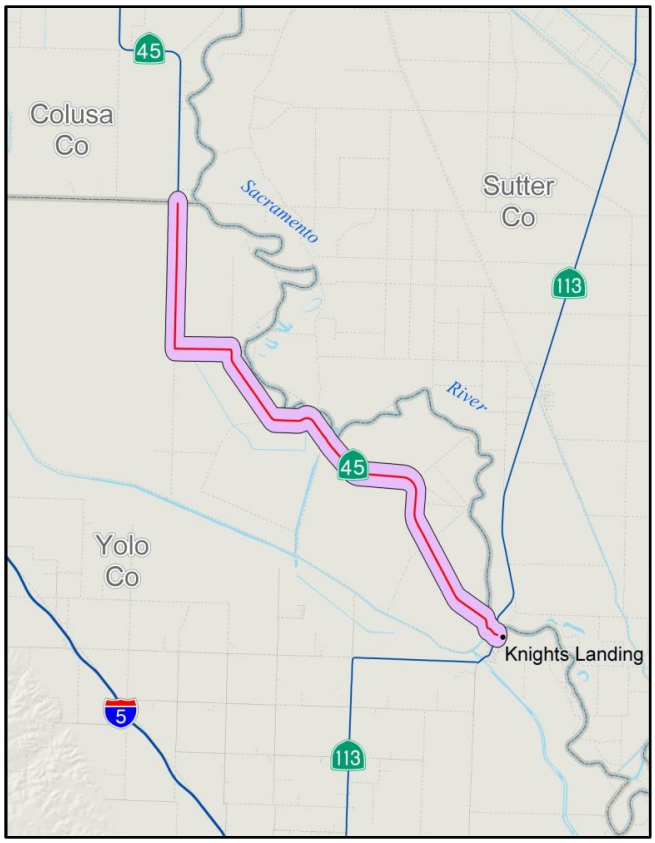


Figure 2: Segment 1 Map. This segment begins at Knights Landing in Yolo County to Yolo/ Colusa County line

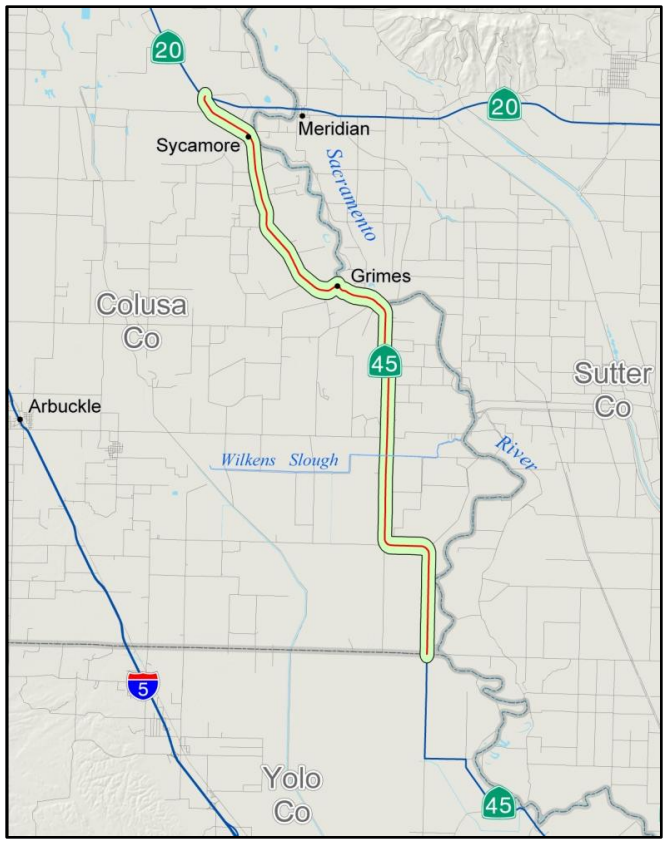


Figure 3: Segment 2 Map. This segment begins at the Yolo/ Colusa County line to the Junction of SR20 where the route breaks.

Abundant agriculture surrounds the route, therefore making it an integral agricultural and intercity route to the communities of the three Counties. Segments 1 and 2 function as a major collector route and serve local and agricultural transportation. From Knights Landing in Yolo County to Grimes-Arbuckle Road in Colusa County, Caltrans designates this route as a California Legal Advisory, wherein only California Legal trucks up to a maximum length of 30 feet kingpin-to-rear-axle (KPRA) distance are advised to travel this route (see Appendix A for more information on California Legal trucks)[2]. A portion of Segment 2 from Grimes-Arbuckle Road to the end of the segment at the junction of SR 20 has a California Legal Network designation that allows any California Legal trucks to travel on this route.

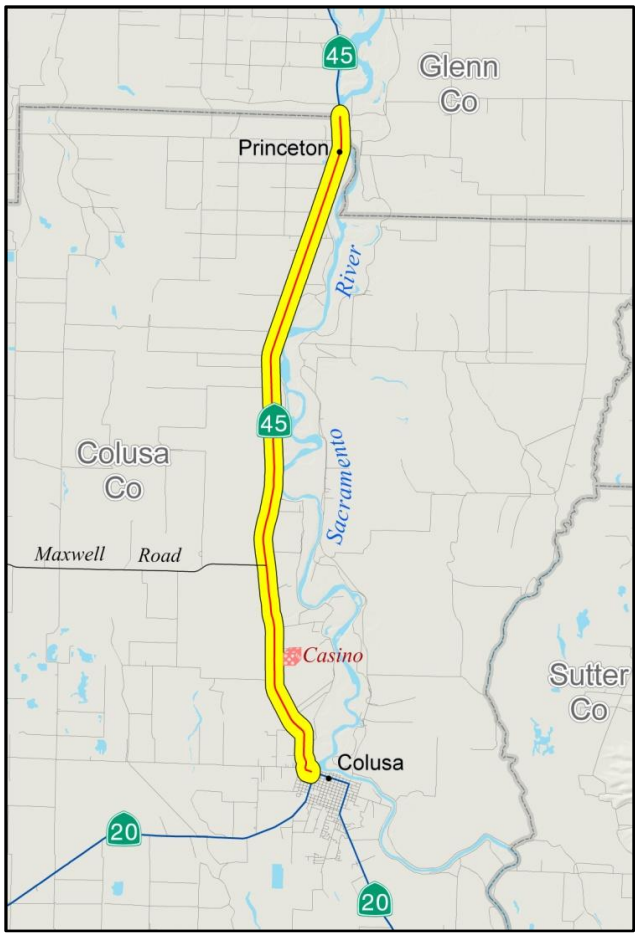


Figure 4: Segment 3 Map. This route begins at the end of the route break on 10th Street to Glenn County line

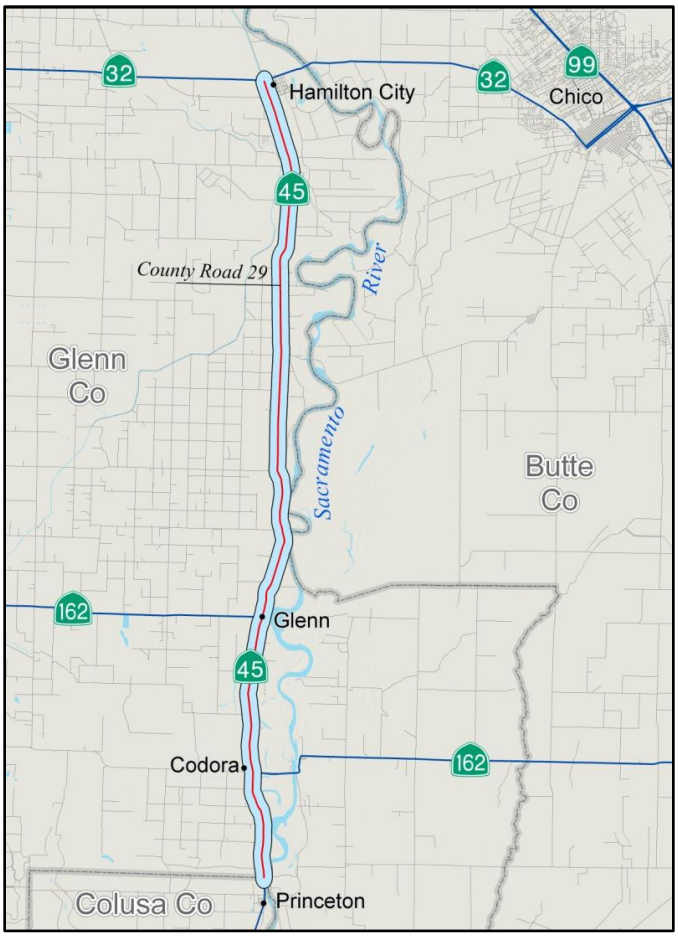


Figure 5: Segment 4 Map. This route begins at Glenn County line to the SR 32 Junction

Segments 3 and 4 function as a minor arterials and are designated as freeway and expressway by the California Streets and Highways Code Section 250-257. Segment 3 is designated as a Terminal Access (TA) route. A Terminal Access route includes state or local routes that meet the Surface Transportation Assistance Act (STAA) of 1982 design standards and can accommodate both California Legal trucks and STAA trucks. STAA trucks are generally larger and heavier trucks compared to the California Legal trucks that have more restrictive requirements (see Appendix A for more information on STAA trucks and California Legal trucks). Segment 4 is designated as a California Legal Network wherein it can only accommodate California Legal trucks. Traffic on all four segments is generated by intercity and agricultural traffic. However, Segments 3 and 4 generate seasonal recreational traffic due to the recreational access points to the Sacramento River, Ord Bend, and Colusa Casino located along these segments. In addition, SR 45 has never been closed during periods of high flooding. All Counties within the route identified SR 45 as a primary emergency evacuation route.

The route designations and characteristics of SR 45 are identified in Table 3.

Table 3: Route Designations and Characteristics

Segment #		1	2	3	4
Freeway & Expressway		No	No	Yes	Yes
National Highway System		No	No	No	No
Strategic Highway Network		No	No	No	No
Scenic Highway		No	No	No	No
Interregional Road System		No	No	No	No
High Emphasis		No	No	No	No
Focus Route		No	No	No	No
Federal Functional Classification		5-Major Collector	5-Major Collector	4-Minor Arterial	4-Minor Arterial
Goods Movement Route		No	No	No	No
Truck Designation		CA Legal Advisory	CA Legal Advisory/ CA Legal Network	Terminal Access (STAA)	CA Legal Network
Rural/Urban/Urbanized		Rural	Rural	Urban Cluster	Rural
Metropolitan Planning Organization (MPO)		Sacramento Area Council of Governments (SACOG)	N/A	N/A	N/A
Regional Transportation Planning Agency (RTPA)		SACOG	Colusa County Transportation Commission (CCTC)	CCTC	Glenn County Transportation Commission (GCTC)
Congestion Management Agency (CMA)		Yolo County Transportation District	N/A	N/A	N/A
County Transportation Commission (CTC)		N/A	CCTC	CCTC	GCTC
Local Agency		Yolo County	Colusa County	Colusa County, City of Colusa	Glenn County
Tribes		N/A	N/A	Cachil Dehe Band of Wintun Indians (Colusa Rancheria)	N/A
Air District		Yolo-Solano Air Quality Management District	Colusa Air Pollution Control District	Colusa Air Pollution Control District	Glenn Air Pollution Control District
Terrain		Flat	Flat	Flat	Flat

COMMUNITY CHARACTERISTICS AND LAND USE

Low-density residential and agricultural communities surround SR 45. Rural and unincorporated communities along the route include Knights Landing, Grimes, Princeton, and Hamilton City. The population in these unincorporated communities' range from 303 to 1,759 people.[3] SR 45 also serves as a main street through the City of Colusa, an urban cluster with a population of 5,971 people.[4]

Figure 6: Low-density residential areas along State Route 45, Knights Landing, Yolo County

Population in the communities along the route consists of a variety of ethnic background such as White, Hispanics, and Native Americans.[5] A significant number of Native Americans reside in Colusa County. Facilities and businesses of the tribe of Cachil Dehe Band of Wintun Indians (Colusa Rancheria) such as the Cachil Dehe Village and Colusa Casino are located on SR 45 within the Colusa Tribal land and near the city limits of the City of Colusa.

Housing units in the unincorporated communities within the route range from 145 to 539 units, and the City of Colusa has a total of 2,282 housing units. No significant growth and major developments are expected along SR 45. Hence, no significant changes in the highway capacity are expected on SR 45.

According to the Glenn County and Colusa County Regional Transportation Plans (RTP), and Yolo County General Plan, the primary means of transportation in these Counties are through private automobile. Many residents commute to work, mainly to employment opportunities in nearby urban areas.

Agricultural land use dominates the corridor of SR 45. Low-density rural residential, commercial and a few industrial uses exist within the City of Colusa and the unincorporated areas along the route. Some of the agricultural uses that sustain the economy of the communities along SR 45 include row crops, rice, corn, orchards and vines. The route also offers recreational access to the Sacramento River, and a few sites of interests such as the Our Lady of Sorrows Shrine, historically the site wherein the first Catholic mass was held in Colusa County.

Figure 7: Sites of Interests, recreational access points and activities on State Route 45. Left: Knights Landing Fishing Access, Yolo County. Right: Our Lady of Sorrows Shrine, Colusa County.

SYSTEM CHARACTERISTICS

SR 45 is a conventional highway characterized with an undivided striped median. The entire route is divided into four segments based on logical termini including intersections, jurisdiction, route breaks, and changes in land use. With the exception of Segment 3, all segments are a two-lane conventional highway. Segment 1 contains 12.92 centerline miles and a total of 25.84 lanes miles. Segment 2 contains 19.84 centerline miles with a total of 39.68 lane miles. A portion of Segment 3 is a four-lane road from PM COL_45_19.850 to COL_45_20.059, thus this segment contains 14.326 centerline miles and a total of 29.07 lane miles. Lastly, Segment 4 is the longest segment on the route that contains 23.23 centerline miles and a total of 46.46 lane miles.

Since there are no significant growth and major developments expected along the communities of SR 45, there are no future plans on changing the facility type and designations for this State Route. Future expansions includes bicycle and pedestrian improvements, and widening the road on some portions of SR 45 in the City of Colusa to provide a left or right turn lanes. Table 4 identifies the System Characteristics and Concept Facility.

Table 4: SR 45 System Characteristics and Concept Facility

Segment #		1	2	3	4
Existing Facility					
Facility Type		Conventional	Conventional	Conventional	Conventional
General Purpose Lanes		2	2	2 entire segment; except 4 from PM COL_45_19.850 to COL_45_20.059	2
Lane Miles		25.84	39.68	29.07	46.46
Centerline Miles		12.92	19.84	14.326	23.23
Median Characteristics		Undivided/Striped	Undivided/Striped	Undivided/Striped	Undivided/Striped
Concept Facility					
Facility Type		Conventional	Conventional	Conventional	Conventional
General Purpose Lanes		2	2	2 entire segment; except 4 from PM COL_45_19.850 to COL_45_20.059	2
Lane Miles		25.84	39.68	29.07	46.46
Centerline Miles		12.92	19.84	14.326	23.23

BICYCLE FACILITIES

Bicycle access is permitted on SR 45. Caltrans District 3 recently produced a *State Highway Bicycle Facility Plan* (SHBFP) that assesses the existing bicycle facilities, evaluates current local bicycle plans and studies, and recommends conceptual bicycle facility improvements on the SHS in District 3. There are three typical bikeway classifications in the District: Class I-Bike Path, Class II-Bike Lane, and Class III-Bike Route (see Appendix A for more information). Currently, there are no bikeway designations along the route. Bicyclists use the shoulders or share the road with automotive and pedestrian traffic. Shoulder width varies from 0-6 feet wide and paved shoulders only exist on certain sections of each segment. Future bicycle projects are planned in communities with larger population such as downtown Colusa, Knights Landing, Grimes, and Hamilton City (see Corridor Concepts). Table 5 summarizes the existing conditions of bicycle facilities on SR 45.

Table 5: SR 45 Bicycle Facilities Existing Conditions

Segment #	Post Mile	Location Description	Bicycle Access Prohibited	Facility Type	Outside Paved Shoulder Width
1	YOL_45_0.000/ 12.920	SR 45/SR 113 Junction to the Yolo/Colusa County line	No	No Bikeway Designation	Varies from 0-6 feet
2	COL_45_0.000/ 19.840	Yolo/Colusa County line to the South Junction of SR 20/Steidlmayer Rd.	No	No Bikeway Designation	Varies from 2-6 feet
3	COL_45_19.850/ 34.176	North Junction of SR 20/10th St. to Glenn County line	No	No Bikeway Designation	Varies from 2-6 feet
4	GLE_45_0.000/ 23.230	Glenn County line to the SR 32 Junction	No	No Bikeway Designation	Varies from 0-8 feet

PEDESTRIAN FACILITIES

As identified in Table 6, pedestrian access is permitted along this State Route. Caltrans District 3 is currently in the process of creating the District 3 Complete Streets Implementation Plan that implements Deputy Directive DD-64-R1 Complete Streets. DD-64-R1 directs the Department to "view all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California and recognize bicycle, pedestrian, and transit modes as integral elements of the transportation system." Pedestrian facilities on SR 45 exist only in the City of Colusa, Knights Landing, Princeton and Hamilton City specifically in residential and commercial areas. Sidewalks are intermittent on the route and range from approximately 6 to 12 feet wide. Crosswalks are important traffic control features near schools, commercial areas and areas with high pedestrian traffic. The majority of pedestrian crosswalks are in Segment 3 within the community of Princeton in the intersections of SR 45/State Street (in front of Princeton High School), SR 45/Center Street, and in front of Al Ranch Supply Store. All crosswalks in Princeton are non-signalized at-grade pedestrian crosswalk with advisory signage. Other non-signalized crosswalks along SR 45 exist at Junction SR 113/SR 45 and north junction of SR 162. An at-grade signalized crosswalk exists on the north junction of SR 20/10th Street in the City of Colusa and junction of SR 32/SR 45 near Hamilton Union High School in Hamilton City.

Moreover, the District coordinated with the City of Colusa in creating a *Market Street/SR 20 & 45 Complete Streets Concept Plan*. This collaboration identified the needs and assessed the feasibility of design improvements on the SR 20 and 45 corridor that will improve usuability for pedestrians and other modes of travel.[6] The *Market Street/SR 20 & 45 Complete Streets Concept Plan* are identified in the Corridor Concept Section of this TCR. Should projects for pedestrian facility improvements be implemented, it should be compliant with Americans with Disabilities Act of 1990 (ADA).

Table 6: SR 45 Pedestrian Facilities Existing Conditions

Segment	Post mile	Location Description	Pedestrian Access Prohibited	Sidewalk Present	Sidewalk Width	Facility Description
1	YOL_45_0.000 /12.920	SR 45/SR 113 Junction to the Yolo/Colusa County line	No	Varies	Varying from 0 to approx. 8 ft.	-Intermittent shoulders and sidewalks -Non-signalized at-grade pedestrian ladder crosswalk in Junction SR 113 -Emergency Roadside Call Boxes approximately every 2-5 miles
2	COL_45_0.000/ 19.840	Yolo/Colusa County line to the South Junction of SR 20/Steidlmayer Rd.	No	No	N/A	-Intermittent shoulders
3	COL_45_19.850/ 34.176	North Junction of SR 20/10th St. to Glenn County line	No	Varies	Varying from 0 to approx. 12 ft.	-Intermittent shoulders and sidewalks -Signalized and ADA accessible at-grade pedestrian crosswalk at the intersection of Junction 20/10th Street/Market Street -Non-signalized at-grade pedestrian crosswalk on the intersections of SR 45/ State Street, SR 45/Center Street and in front of Alder Ranch Supply Store/SR45.
4	GLE_45_0.000/ 23.230	Glenn County line to the SR 32 Junction	No	Varies	Varying from 0 to approx. 8 ft.	-Intermittent shoulders and sidewalks -Non-signalized at-grade pedestrian crosswalk at the north Junction of SR 162 -Signalized at-grade pedestrian crosswalk at Junction of SR 45/SR 32

TRANSIT FACILITIES

Transit facilities along SR 45 are highlighted in Table 7 on the next page. Colusa County Transit operates along SR 45. Colusa County Transit provides dial-a-ride service that offers transportation to the City of Colusa, and the unincorporated communities of Grimes, Meridian, and Princeton. Nearby transit services, such as Yolobus Route 216 in Yolo County pass through the intersection of Junction SR 113 and SR 45 (4th Street) in Knights Landing, while Glenn Ride Bus in Glenn County operates along a small portion of SR 45 in Hamilton City. Yolobus Route 216 serves the community of Knights Landing to Woodland, while Glenn Ride Bus serves the community of Hamilton City travelling on SR 32 towards the City of Chico. Communities along SR 45 mostly use their own private vehicles for transportation due to the rural and agricultural conditions of the area. However, due to the increasing aging population, Counties have identified a need for improved transit services for retirees, seniors, and the disabled population in the County who may need services to and from their medical appointments.[7] Most of the Counties provide Paratransit services to accommodate this need.

Table 7: SR 45 Transit Facilities Existing Conditions

Segment	Mode & Collateral Facility	Name	Route End Points	Operating Period	Bikes Allowed on Transit
1	Traditional Bus	Yolobus	Knights Landing to Woodland	Mondays, Wednesdays, Fridays from 9:00 AM - 3:30 PM and every 2nd Saturday of the Month from 9:00 AM - 4:30 PM	Yes (Capacity: 3)
2	Dial-a-Ride (Intercity Paratransit with fixed time routes)	Colusa County Transit	Deviated fixed routes from Colusa, Grimes and Meridian	Weekdays from 7:00 AM to 5:00 PM	Yes
3	Dial-a-Ride (Intercity Paratransit with fixed time routes)	Colusa County Transit	Deviated fixed routes from Colusa, Maxwell, Williams and Princeton	Weekdays from 7:00 AM to 5:00 PM	Yes
4	Traditional Bus/Express Bus	Glenn Ride	Willows, Artois, Orland, Hamilton City and Chico	Weekdays from 5:00 AM to 7:00 PM and Saturdays from 8:00 AM to 6:00 PM	Yes (Capacity: 2)

FREIGHT

The economic vitality of the communities along SR 45 depends on the timely transport of goods. Although the majority of the goods are moved on I-5 or SR 99, existing freight movement on SR 45 is comprised primarily of truck traffic that transports agricultural commodities grown and processed around the area. SR 45 is not considered a goods movement alternate route for I-5; however, since SR 45 is parallel and within proximity to I-5, SR 45 may occasionally experience the region-wide problem with "(STAA trucks) using non-STAA routes and causing damage to local roadway pavements."[8]

Moreover, communities along the route have raised issues regarding significant truck travel along the route; especially during the peak harvest season from June to July and September to early January. If the number of large and heavy trucks is significant, more frequent highway maintenance may be required.

Trucks with 5 or more (5+) axles are relatively larger and heavier trucks that have the most impact on the road. Both California Legal trucks and STAA trucks may have a trailer of two or more axles. There are no weight restrictions on SR 45. However, STAA trucks are generally larger trucks than California (CA) Legal trucks, and STAA trucks can only legally access segments designated as Terminal Access (see Appendix A for more information on STAA trucks). Also, California Legal trucks extending more than 30 feet KPRA distance are advised not to use Segment 1 and a portion of Segment 2 that is designated as a CA Legal Advisory route. The corridor performance report shows less than 10 percent of AADT on all segments of SR 45 is from 5+ axle truck use, and the use is concentrated on Segment 2, a CA Legal Advisory/CA Legal Network route, and Segment 3, a Terminal Access route. The percentage of 5+ axle truck traffic on the route is not enough evidence to determine severe deterioration to the road. Therefore, further study is recommended to address the issue of significant truck travel causing increased highway deterioration and evaluate the effect of seasonal truck traffic along the route. Additionally, the Glenn County 2009/10 Regional Transportation Plan designated County Road V as an alternative route to SR 45 for north-south truck traffic for the agricultural community.[9]

Table 8 summarizes the existing conditions of freight facilities along SR 45.

Table 8: SR 45 Freight Facilities Existing Conditions

Facility Type/ Freight Generator	Location	Mode	Name	Major Commodity/Industry	Comments/Issues
Highway	Junction SR 113, Yolo County to Grimes-Arbuckle Rd., Colusa County	Truck	SR 45 (CA Legal Advisory)	Agriculture	-Varying shoulder width from 0-6 feet -30 feet KPRA Advisory -Emergency Roadside Call Boxes approximately every 2-5 miles
Highway	Grimes-Arbuckle Rd. to Junction 20 on Steidlmayer Rd., Colusa County	Truck	SR 45 (CA Legal Network)	Agriculture	-Varying shoulder width from 2-6 feet
Highway	Junctions SR 20 on Market & 10th Street to Colusa County Line, Colusa County	Truck	SR 45 (Terminal Access)	Agriculture, Manufactured Products	-Varying shoulder width from 2-6 feet
Highway	Glenn County	Truck	SR 45 (CA Legal Network)	Agriculture	-Varying shoulder width from 0-8 feet

District 3 Goods Movement Plan

In 2013, Caltrans District 3 was fully underway in creating a district-wide Goods Movement Plan. The Plan will synthesize the findings of other goods movement related plans in the District and State, conduct a district-wide assessment of the District 3 Goods Movement network, propose a prioritization framework to identify and prioritize projects, and propose a list of prioritized projects for potential funding that will sustain or improve goods movement throughput. The plan will require significant outreach, collaboration, and consensus with stakeholders, including public agencies such as the Sacramento Area Council of Governments (SACOG), and the private sector entities such as the California Trucking Association. Findings from the study will be included in the Statewide Freight Mobility Plan, and will be transferrable to other Caltrans Districts statewide for implementation. The District 3 Goods Movement Plan is scheduled to be finished in 2015. More information can be found at: https://sites.google.com/site/d03goodsmovement/.

CORRIDOR PERFORMANCE

Table 9 below indicates corridor performance data for SR 45. SR 45 has low to medium traffic volumes. Existing traffic conditions of the route were evaluated using the 2011 traffic data (as the base year) and a horizon year of 2031 for projections (please see table below). Level of Service (LOS) was defined in each segment. LOS is a qualitative measure describing operational conditions within a traffic stream and perception of condition by users. Operational conditions are defined in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. LOS is defined into six levels with letter designations from A to F. LOS A represents the best operating conditions wherein there is ample maneuverability, no speed restrictions and no delays, while LOS F represents the worst operating conditions with traffic congestions, significant delays and little maneuverability (please see Appendix A for more information including data sources).

Table 9: SR 45 Corridor Performance Measures

Segment #		1	2	3	4
Basic System Operations					
Average Annual Daily Traffic (AADT) - Base Year (BY)*		860	2,000	7,000	2,550
AADT - Horizon Year (HY)*		1,075	2,500	8,750	3,188
LOS Method		HCM	HCM	HCM	HCM
LOS (BY)		A	B	D	B
LOS (HY)		A	B	D	C
LOS Concept		D	D	D	D
Vehicle Miles Traveled (VMT) (BY)		10,037	30,673	100,136	53,705
VMT (HY)		12,546	38,341	125,170	67,131
Truck Traffic					
Total Average Annual Daily Truck Traffic (AADTT) (BY)		145	247	723	139
Total Trucks (% of AADT) (BY)		16.86%	12.35%	10.33%	5.56%
5+ Axle Average Annual Daily Truck Traffic (AADTT)(BY)		74	173	164	66
5+ Axle Trucks (as % of AADT)(BY)		8.60%	8.65%	2.09%	2.64%
Peak Hour Traffic Data					
Peak Hour Volume (BY)		130	180	690	280
Peak Hour Directional Split (BY)		60/40	60/40	60/40	55/45
Peak Hour Directional Split (HY)		60/40	60/40	60/40	55/45
Peak Hour VMT (BY)		1,411	2,799	9,844	5,634
Peak Hour VMT (HY)		1,764	3,499	12,305	7,043
Peak Hour V/C (BY)		0.06	0.08	0.28	0.11
Peak Hour V/C (HY)		0.07	0.1	0.35	0.14

* Corridor Performance Measures table is based on 2011 traffic data and estimates a horizon year of 2031.

Typical Concept LOS standard in Caltrans District 3 is LOS D in rural areas and LOS E in urban areas. However, these standards may vary depending on the unique corridor conditions. A local agency may set a higher LOS threshold standard consistent with community wishes and other local concerns. However, since the Caltrans Concept LOS defines the minimum acceptable level of service established by Caltrans as the owner and operator of the facility, the threshold standard LOS established by the local agency should not be lower than the Caltrans Concept LOS.[10]

Segment 1 has the lowest volume of traffic with an annual average daily traffic (AADT) of 860 for the 2011 base year and a projected AADT of 1,075 for the 2031 horizon year. Of the 860 trips carried by this segment, 16.86 percent is associated with truck travel and 8.60 percent are from 5+ axle trucks. The base year peak hour volume/capacity (V/C) is 0.06 and the projected V/C is 0.07. The free flow traffic condition and the low number of AADT in this segment maintain its operating condition of LOS A from the base year to the horizon year. Therefore, there is no need for capacity improvements in this segment.

Segment 2 carried an AADT of 2,000 for the 2011 base year, wherein 12.35 percent is associated with truck travel and 8.65 percent of which are by 5+ axle trucks. This segment has the highest AADT for 5+ axle trucks on SR 45, an AADT of 173. The majority of truck travel along this route is from 5+ axle trucks. The base year peak hour V/C is 0.08 and the projected V/C is 0.1. This segment currently operates at LOS B and will remain constant for the 2031 horizon year. Therefore, there is no need for capacity improvements along this segment.

Segment 3 has the highest volume of traffic within the route with an AADT of 7,000 for the 2011 base year and a projected 8,750 AADT for the 2031 horizon year. This segment also has the highest truck AADT of 723. Of the 10.33 percent of trucks travelling this route, only 2.09 percent are 5+ axle trucks. Existing peak hour V/C is 0.28 and projected V/C is 0.35. Currently this segment operates at LOS D. This can be attributed to the recreational activities along this route and local travel going to and from the City of Colusa. In addition, this segment generates periodic recreational traffic during summer and weekends. Horizon year LOS will remain as LOS D, but with needed road widening and intersection improvements to install turn lanes on Reservation Road and Wintun Road.

Segment 4 carried an AADT of 2,550 for the 2011 base year, wherein 5.56 percent is associated with truck travel and 2.64 percent of which are by 5+ axle trucks. The base year peak hour V/C is 0.11 and the projected V/C is 0.14. This segment currently operates at LOS B. LOS for the 2031 horizon year is expected to decrease to LOS C. However, there are no identified capacity improvements for this segment because the LOS remains better than the Concept LOS (D) for a rural conventional highway.

KEY CORRIDOR ISSUES

Improving the mobility and accommodating different modes of transportation are key goals for SR 45. The flat terrain and rural characteristics of the route offers an ideal feature for bicycle and pedestrian facilities. However, the intermittent bicycle and pedestrian facilities disconnects the communities along SR 45 from using alternative modes of transportation. Most of these facilities are concentrated in communities with larger population such as Knights Landing, the City of Colusa and Hamilton City. An effort to include a comprehensive bicycle facility has been expressed in planning documents from each County.[11] In general, SR 45 has a low volume of bicycle and pedestrian users because of its rural characteristic and longer distance travel from one community to another.[12] As a result, the low volume of users can prevent constructing a comprehensive interconnected bicycle and pedestrian facility along the route. Maintenance and improvements on bicycle and pedestrian access are also one of the key corridor issues on SR 45. Some Counties have expressed in their planning documents the need to coordinate with Caltrans in maintaining the shoulders for aesthetic and functional improvements.[13]

Recreational access points and activities bring in visitors from the region and generate additional periodic traffic along Segments 3 and 4. Although there are no significant bottlenecks on SR 45, there is a high volume of vehicle AADT specifically on Segment 3. Almost all types of truck designations are allowed in Segment 3 that can be a factor for having a high volume and AADT. In addition, the Colusa Casino is located in this segment, which has a high volume of incoming and outgoing traffic. A road widening project is recommended to accommodate the existing and future travel demands, and to ensure adequate level of performance from Wintun Road to Reservation Road.

Although SR 45 is not an official reliever route for either I-5 or SR 99, communities have expressed concerns about significant volume of truck travel and an increase in large and heavy trucks using this route. Being that SR 45 is in close proximity to I-5, it may occasionally experience the region-wide problem with the heaviest, most impactful (STAA) trucks using non-STAA routes and causing damage to local roadway pavements.[14] Since a low volume of trucks are expected to use SR 45, an increase in truck volumes including additional STAA trucks using a non-STAA SR 45, can degrade the pavement at an increased rate. Significant truck travel along the route can also be associated with the peak harvest season from June to July and September to early January. 5+ axle trucks are relatively larger and heavier trucks that have the most impact on the road. The corridor performance report shows less than 10 percent of the AADT on the route are 5+ axle trucks. Segments 2 and 3 have the highest AADTT of 5+ axle trucks with an AADTT of 164-173. Segment 1 only has 145 AADT, but majority of the truck travels are from 5+ axle trucks. Although the percentage of 5+ axle truck traffic on the route is not enough evidence to determine severe deterioration to the road, further study is recommended to address the issue of significant truck travel causing increased highway deterioration and to evaluate the effect of seasonal truck traffic along the route.

Lastly, other issues such as maintenance and improvements of the existing highway system to ensure adequate level of performance are identified in the RTP's and DSMDP.

CORRIDOR CONCEPT

CONCEPT RATIONALE

SR 45 is located in the boundaries of Yolo, Colusa and Glenn Counties. The route is functionally classified as a major collector in Segments 1-2 and a minor arterial in Segments 3-4. The concept LOS for SR 45 is LOS D, which is the typical concept LOS standard for rural areas in Caltrans District 3. There is no significant growth expected in the next 20 years. However, improvements such as enhancing safety, including pedestrian and bicycle facilities, road widening, and intersection improvements are essential to maintaining and enhancing mobility on the route. The concept of Complete Streets should be considered and possibly be implemented in future design and construction of improvements to the SR 45 Corridor, whenever feasible, particularly in the urban cluster and small communities. If projects for pedestrian facility improvements will be implemented, it should be compliant with the Americans with Disabilities Act of 1990 (ADA). More information on Complete Streets related documents can be located in the Caltrans District 3 Planning and Local Assistance website at http://www.dot.ca.gov/dist3/departments/planning/communityplanning1.htm.

Table 10 below shows the facility concept for year 2031 and beyond. The 20-Year Facility Concept includes all projects expected to be completed within the 20-year horizon (2031), while the Post-20 Year Concept includes all projects with an expected completion year beyond the 20-year horizon. Projects have been identified below as *Projects and Strategies*.

Table 10: Facility Concept Summary

Segment	Segment Description	Existing Facility	20-Year Facility Concept*	Post 20-Year Concept*
1	SR 45/SR 113 Junction to the Yolo/Colusa County line	2C	2C and Maintenance	2C, Maintenance, and Class II Bicycle Facility
2	Yolo/Colusa County line to the South Junction of SR 20/Steidlmayer Rd.	2C	2C and Maintenance	2C, Maintenance, and Class II Bicycle Facility
3	North Junction of SR 20/10th St. to Glenn County line	2C/4C	2C/4C and Maintenance	2C/4C, Maintenance, Class II Bicycle Facility, Intersection Improvements, and road widening
4	Glenn County line to the SR 32 Junction	2C	2C, Maintenance, Shoulder widening and improvements for bicycle and pedestrian facilities	2C, Maintenance, and Intersection modifications

* Some facility concepts do not apply to the entire segment. Please see Corridor Concept – Projects and Strategies, Table 11 for the exact location of the bicycle facility, pedestrian facility, intersection improvements, road widening, and intersection modification.

PROJECTS AND STRATEGIES

Projects and strategies to achieve the facility concept have two categories of funding status: fiscally constrained and fiscally unconstrained.

Fiscally constrained projects and strategies are projects that can be implemented using committed, available, or reasonably available revenue sources.[15]

Fiscally unconstrained projects and strategies are conceptual transportation improvements without an identified funding source and may be funded if reasonable additional resources become available.[16]

In addition to the funding status categories, there are three types of transportation improvements or actions: programmed, planned, and conceptual. Projects and strategies to achieve SR 45 facility concept are grouped into (1) planned and programmed projects, and (2) conceptual projects.

Planned and Programmed Projects and Strategies

A ***programmed improvement or action*** is a project listed in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program (STIP) or the State Highway Operations and Protection Program (SHOPP).

A ***planned improvement or action*** is a project listed in a fiscally constrained section of a long-term plan, such as an approved Regional or Metropolitan Transportation Plan (RTP or MTP), Capital Improvement Plan or measure.

No fiscally constrained projects along SR 45 have been identified that will be planned nor programmed, but maintenance, rehabilitation, and safety projects for the route will be conducted when necessary.

Conceptual Projects and Strategies

Conceptual improvement or action is a project that is needed to maintain mobility or serve multimodal users, but is not currently included in a fiscally constrained plan and is not currently programmed. Conceptual projects in Table 11 are all fiscally unconstrained projects derived from documents such as local and regional General Plans, and Caltrans System Planning Documents.

Bicycle Facility projects identified in local plans are superseded by the *District 3 SHBFP* to be consistent with the allowable use of the SHS due to safety, right-of-way, environmental, financial, and maintenance. However, local jurisdictions have the option to implement their preferred bicycle facility pursuant to identification of funding sources. Also, the *City of Colusa Market Street/SR 20 & 45 Complete Streets Concept Plan* identified two project options. Similarities for both project options are indicated on the table below. Tables 11 includes projects from the *City of Colusa Market Street/SR 20 & 45 Complete Streets Concept Plan, District 3 SHBFP, DSMP Project List, Colusa County RTP, Glenn County RTP,* and Draft *Caltrans District 3 ITS/Ops Plan*.

Lastly, Caltrans District 3 is currently developing the *Caltrans District 3 Intelligent Transportation Systems/Operational Improvement (ITS/Ops) Plan.* This plan will provide critical guidance to optimize the State Highway System within the District by identifying and managing ITS and other operational strategies that yield a very high return on investment. Further information on the planning and deployment of ITS and operational improvements within District 3 can be reviewed in the District 3 ITS/Ops Plan (forthcoming) and the District 3 Concept of Operations plan (expected to be complete in 2015). For more information visit: http://www.dot.ca.gov/dist3/departments/planning/.

All projects are considered a priority for the SR 45 corridor pursuant to identification of funding sources.

Table 11: Conceptual Projects and Strategies

Seg. #	Description	Location, County, Postmile	Lead Agency	Source*	Purpose	Total Cost Estimate* (x $1,000)	Proposed Completion Year*
1	Construct Class II Bike Lane	SR 45 from junction SR 113 to Rd. 108, YOL_45_0.00 /2.68	Caltrans	Caltrans District 3 SHBFP, 2013; DSMP Project list 2013	Gap Closure and System Management	$960	2035
2	Construct Class II Bike Lane	SR 45 from Faxon Rd. to Grimes-Arbuckle Rd., COL_45_11.223/ 12.867	Caltrans	Caltrans District 3 SHBFP, 2013; DSMP Project list 2013	Gap Closure and System Management	$480	2035
3	Intersection Improvements such as bulbouts, allow left turns	SR 45/10th Street, COL_45_19.850	Caltrans	City of Colusa Market Street/SR 20 & 45 Complete Streets Concept Plan, December 2010	Operational and Safety Improvements	N/A	N/A
3	Widen road from Wintun Rd to PM COL_45_22.975 and (on the intersection of Wintun Rd) install right turn lane from SR 45 to Wintun Rd	SR 45/Wintun Rd, COL_45_22.780/ 22.975	Cachil Dehe Band of Wintun Indians	Colusa County RTP, 2008/09; DSMP Project list 2013	Operational and Safety Improvements	$1,000	2035
3	Intersection improvements and (on Reservation Access Rd.) install turn lane	SR 45/Reservation Access Rd., COL_45_25.900	Cachil Dehe Band of Wintun Indians	Colusa County RTP, 2008/09; DSMP Project list 2013	Operational and Safety Improvements	$1,000	2035
3	Construct Class II Bike Lane	SR 45 from the junction of SR 20 to North Av., COL_45_19.840/ 20.464	Caltrans	Caltrans District 3 SHBFP, 2013; DSMP Project list 2013	Gap Closure and System Management	$480	2035
3	Intersection modification. On SB SR 45, provide left turn lane to County Rd. 48 or widen shoulder to provide left turn bypass	SR 45/County Rd. 48 (Pear Ave.), GLE_45_8.471	Caltrans	Caltrans District 3 ITS/Ops Plan (draft)	Operational Improvements	N/A	N/A
4	Improve and widen shoulders for bicycle/pedestrian facilities	SR 45 from COLUSA/GLENN County line to Junction SR 32, GLE 45_0.00/23.230	Glenn County Transportation Commission	Glenn County RTP Update, 2009/2010; DSMP Project list 2013	Gap Closure and System Management	$7,693	2030
4	Intersection modification. On NB SR 45, provide right turn lane to County Rd. 32; SB SR 45, provide left turn lane to County Rd. 32 or widen shoulder to provide left turn bypass	County Rd. 32 (Ord Ferry Rd), GLE_45_15.185	Caltrans	Caltrans District 3 ITS/Ops Plan (draft)	Operational Improvements	N/A	N/A

***** Total Cost Estimate and Proposed Completion Year are from listed source. Additional project details and programming information can be found in the listed source. Note, RTPs included separate fiscally unconstrained section. Please see appendix B-Resources for more information regarding the listed source.

APPENDICES

APPENDIX A
GLOSSARY OF TERMS AND ACRONYMS

Acronyms

AADT- Annual Average Daily Traffic
ADA – Americans with Disabilities Act of 1990
ADT- Average Daily Traffic
BY- Base Year
CALTRANS – California Department of Transportation
CCTC – Colusa County Transportation Commission
CLA – California Legal Advisory
CLN – California Legal Network
CMA – Congestion Management Agencies
COL – Colusa
CSMP – Corridor System Management Plan
CT – Caltrans
CTC – County Transportation Commission
DSMP – District System Management Plan
DSMDP – District System Management and Development Plan
GCTC – Glenn County Transportation Commission
GLE – Glenn
HCM – Highway Capacity Manual
HY – Horizon Year
ITS/Ops – Intelligent Transportation Systems/Operational Improvement
KPRA – Kingpin-to-rear-axle
LOS – Level of Service
MPO- Metropolitan Planning Organizations
N/A – Not Applicable
NB – Northbound
PM – Post Mile
RTP- Regional Transportation Plan
RTPA- Regional Transportation Planning Agencies
SACOG – Sacramento Area Council of Governments
SB – Southbound
SCS- Sustainable Community Strategies
SHBFP – State Highway Bicycle Facility Plan
SHOPP- State Highway Operation Protection Program
SHS – State Highway System
SR- State Route
STAA – Service Transportation Assistance Act of 1982
STIP – State Transportation Improvement Program
TA – Terminal Access
TCR – Traffic Concept Report
TSN- Transportation System Network
V/C – Volume Capacity
VMT – Vehicle Miles Traveled
YOL – Yolo

Definitions

AADT – Annual Average Daily Traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Traffic counting is generally performed by electronic counting instruments moved from location throughout the state in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

Base year – The year that the most current data is available to the Districts.

Bikeway Class I (Bike Path) – Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

Bikeway Class II (Bike Lane) – Provides a striped lane for one-way bike travel on a street or highway.

Bikeway Class III (Bike Route) – Provides for shared use with pedestrian or motor vehicle traffic.

Bottlenecks – A bottleneck is a location where traffic demand exceeds the effective carrying capacity of the roadway. In most cases, the cause of a bottleneck relates to a sudden reduction in capacity, such as a lane drop, merging and weaving, driver distractions, a surge in demand, or a combination of factors.

California Legal Truck – A truck tractor-semitrailer (or double) that can travel on virtually any route in California, as described below:

<u>California Legal Truck Tractor – Semitrailer</u>
Semitrailer length: no limit
KPRA : 40 feet maximum for two or more axles,
38 feet maximum for single-axle trailers
Overall length : 65 feet maximum

<u>California Legal Truck Tractor - Semitrailer - Trailer (Doubles)</u>
Option A
Trailer length : 28 feet 6 inches maximum (each trailer)
Overall length : 75 feet maximum
Option B
Trailer length : 28 feet 6 inches maximum (each trailer)
Overall length : 75 feet maximum

Capacity – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

Concept LOS – The minimum acceptable LOS over the next 20 years

Conceptual Project– 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 fiscally constrained plan and is not currently programmed. It could be included in a General Plan or in the unconstrained section of a long-term plan.

Corridor – A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included as informational purposes and not analyzed in the TCR.

Facility Concept – Describe the facility and strategies that may be needed within 20 years. This can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility, Non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, Transportation Demand Management and Incident Management.

Facility Type – The facility type describes the State Highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

Fiscally Constrained Projects and Strategies – A project or strategy that can be implemented using committed, available, or reasonably available revenue sources.

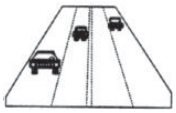
Fiscally Unconstrained Projects and Strategies – A project or strategy without an identified funding source and may be funded if reasonable additional resources become available.

Freight Generator – Any facility, business, manufacturing plant, distribution center, industrial development, or other location (convergence of commodity and transportation system) that produces significant commodity flow, measured in tonnage, weight, carload, or truck volume.

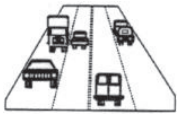
Headway – The time between two successive vehicles as they pass a point on the roadway, measured from the same common feature of both vehicles.

Horizon Year – The year that the future (20 years) data is based on.

LOS – Level of Service is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience. Six levels of LOS can generally be categorized as follows:



LOS A describes free flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only by the geometric features of the highway.



LOS B is also indicative of free-flow conditions. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.

LOS C represents a range in which the influence of traffic density on operations becomes marked. The ability to maneuver with the traffic stream is now clearly affected by the presence of other vehicles.

LOS D demonstrates a range in which the ability to maneuver is severely restricted because of the traffic congestion. Travel speed begins to be reduced as traffic volume increases.

LOS E reflects operations at or near capacity and is quite unstable. Because the limits of the level of service are approached, service disruptions cannot be damped or readily dissipated.

LOS F a stop and go, low speed conditions with little or poor maneuverability. Speed and traffic flow may drop to zero and considerable delays occur. For intersections, LOS F describes operations with delay in excess of 60 seconds per vehicle. This level, considered by most drivers unacceptable often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection.

Multi-modal – The availability of transportation options using different modes within a system or corridor, such as automobile, subway, bus, rail, or air.

Peak Hour – The hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between 6 percent and 10 percent of the ADT. The lower values are generally found on roadways with low volumes.

Peak Period – Is a part of the day during which traffic congestion on the road is at its highest. Normally, this happens twice a day, once in the morning and once in the evening; the time periods when the most people commute. Peak Period is defined for individual routes, not a District or statewide standard.

Planned Project– A planned improvement or action is a project in a fiscally constrained section of a long-term plan, such as an approved Regional or Metropolitan Transportation Plan (RTP or MTP), Capital Improvement Plan, or measure.

Post 20-Year Concept – In general, the Post 20-Year concept could provide the maximum reasonable and foreseeable roadway needed beyond a 20-year horizon. The post 20-year concept can be used to identify potential widening, realignments, future facilities, and rights-of-way required to complete the development of each corridor.

Post Mile – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route within a count to the next county line. The milepost values start over again at each county line. Milepost values usually increase from south to north or west to east depending upon the general direction the route follows within the state. The milepost at a given location will remain the same year after year. When a section of road is relocated, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the reminder of the route within the county will remain unchanged.

Programmed Project– A programmed improvement or action is a project listed in a near-term programming document identifying funding amounts by year, such as the State Transportation Improvement Program (STIP) or the State Highway Operations and Protection Program (SHOPP).

Route Designation –A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards should apply during project development and design. Typical designations include but not limited to National Highway System (NHS), Interregional Route System (IRRS), Scenic Highway System,

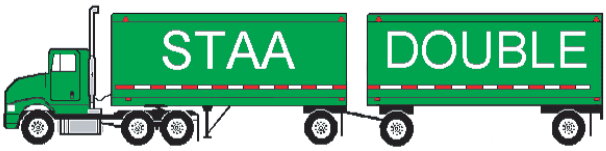
Rural – Fewer than 2,500 in population designates a rural area. Limits are based upon population density as determined by the U.S. Census Bureau

Segment – A portion of a facility between two points.

(Interstate) STAA Truck – A truck tractor-semitrailer (or double) that conforms to the requirements of the STAA, as described below:

<u>Interstate "STAA" Truck Tractor – Semitrailer</u>
Semitrailer length: 48 feet maximum
KPRA : no limit
Overall length : no limit

Semitrailer length: over 48 feet up to 53 feet maximum
KPRA : 40 feet maximum for two or more axles,
: 38 feet maximum for single-axle trailers
Overall length : no limit



<u>Interstate "STAA" Truck Tractor–Semitrailer–Trailer (Doubles)</u>
Trailer length : 28 feet 6 inches maximum (each trailer)
Overall length : no limit

Urban Cluster– 2,500 to 49,999 in population designates an urban cluster. Limits are based upon population density as determined by the U.S. Census Bureau.

Urbanized Area – 50,000 or more in population designates an urbanized area. Limits are based upon population density as determined by the U.S. Census Bureau.

VMT – Is the total number of miles traveled by motor vehicles on a road or highway segments.

APPENDIX B
RESOURCES

California Department of Transportation, District 3, *Caltrans District 3 Freight Planning Fact Sheet*, June 2012.

California Department of Transportation, District 3, *City of Colusa Market Street/SR 20 & 45 Complete Streets Concept Plan.* December 2010. Website: http://www.dot.ca.gov/dist3/departments/planning/communityplanning1.htm

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