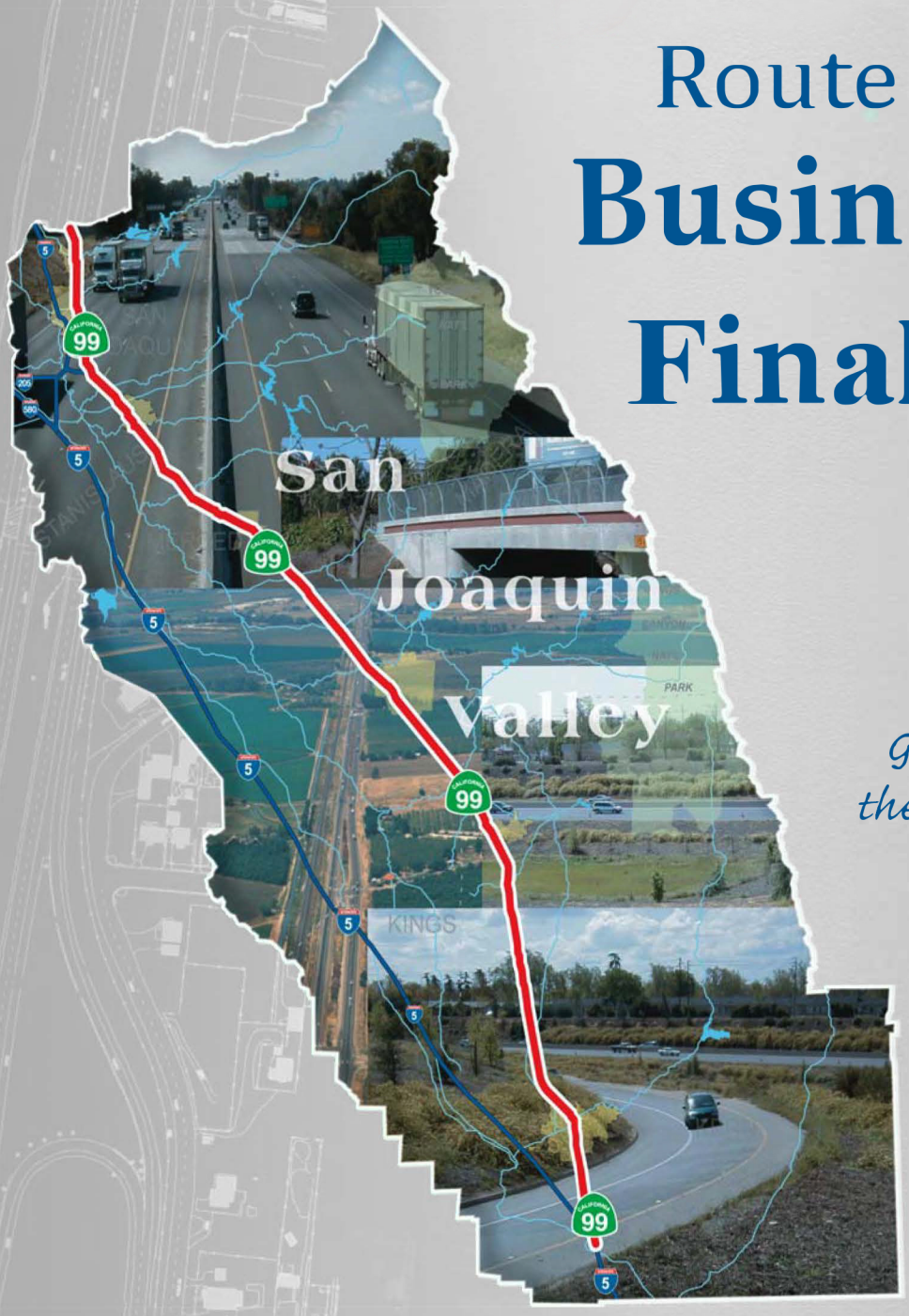
# Route 99 Business Plan Final Report




March 2020

*"Decision - Makers Guide to Improving the Route 99 Corridor"*

Fresno Council of Governments

MADERA CTC

MCAG

Caltrans

KernCOG

Kings County Association of Governments

StanCOG

TCAG

# ROUTE 99 BUSINESS PLAN: FINAL REPORT

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# Executive Summary

Various efforts have been undertaken to establish a development plan for the 274-mile segment of State Route 99 (Route) found within the San Joaquin Valley. The 2005 Route 99 Business Plan (BP) provided the first comprehensive corridor management document with consensus agreement between all eight Metropolitan Planning Organizations (MPOs) and California Department of Transportation (Caltrans) Districts 6 and 10. The BP and its 2013 Update outlined a strategic approach to achieving the functional goals of transforming the Route into a safe and efficient trade corridor.

The purpose of the BP was to clearly identify Caltrans' and the MPO's long-term goals for the Route—and a corresponding list of categorized projects to achieve those goals—thereby streamlining funding decisions for corridor improvements. Project improvements were identified through a collaborative process and grouped into four categories first by project type then by priority for construction. Major project funding came in 2006 when voters approved Proposition 1B a $19.9 billion program of which $1 billion was dedicated for Route 99. Having established a BP, Caltrans and the MPO partners in Districts 6 and 10 were able to capitalize on the new fund source. This report provides an update on the accomplishments of the SR 99 BP, and an account of the projects remaining. We have delivered over 29 projects since establishing the BP. That includes the completion of all projects in Priority Category 1 (conversion to freeway) and nearly 50 percent of the four-lane to six- or more lane widening projects identified in Priority Category 2. 67 candidate (completed PID and planned) projects remain in the BP ranging from capacity-enhancing, to operational improvements, to new interchange projects.

The Valley remains committed to constructing the remaining projects, and Caltrans will use the BP as a foundation for developing each District's Corridor Plan for the Route. These plans will serve as guiding documents for the interconnected, multi-modal, future of the Route. By seeking to integrate all modes, management strategies, and improvement types—including those identified in the BP—Corridor Plans will direct future development of the Route toward becoming a safe, sustainable, integrated and efficient component of the larger transportation system.

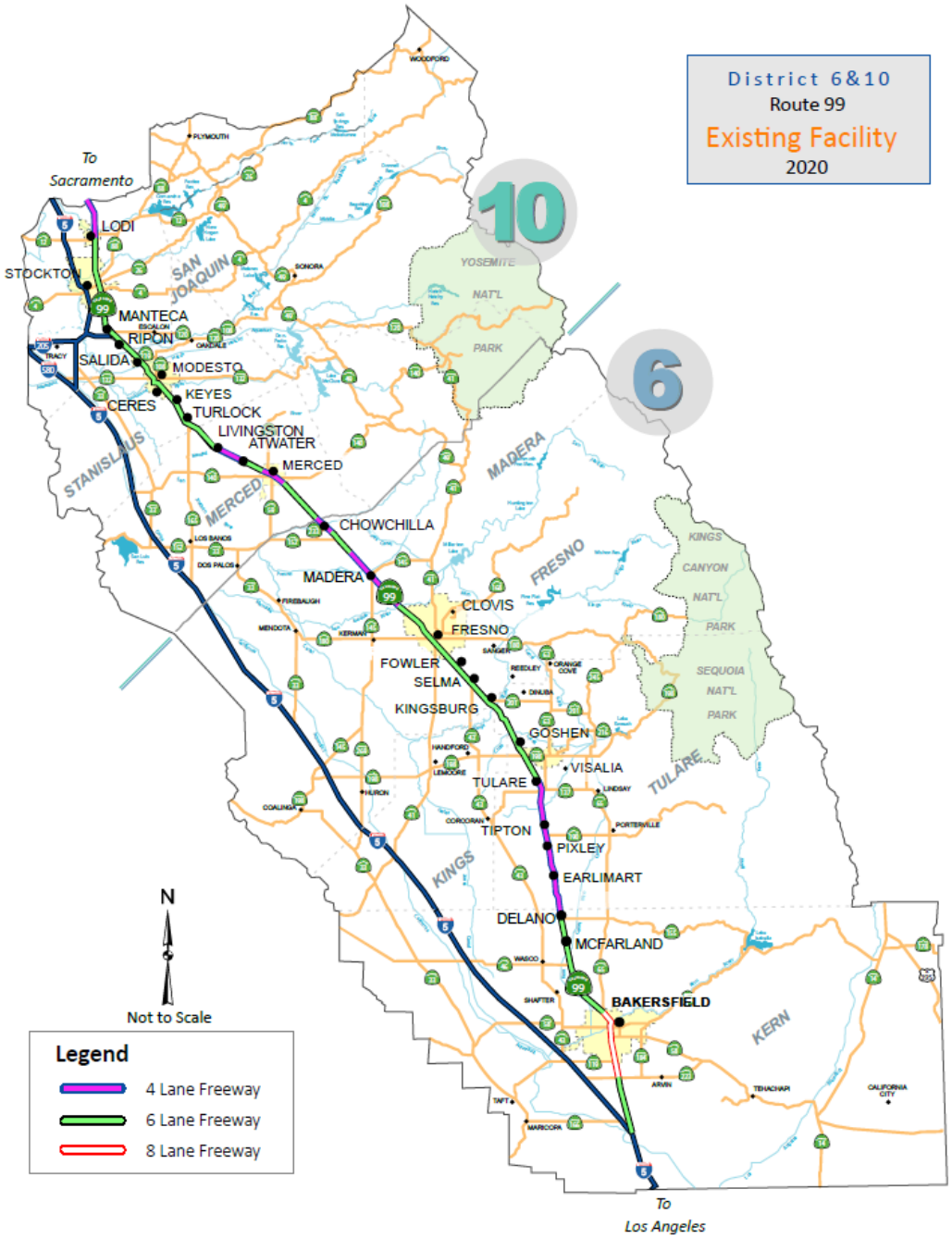
# Route 99 Business Plan: Final Report

## Introduction

Many efforts have been undertaken to develop guidance and planning documents for the improvement of the 274-mile segment of State Route 99 (Route) within the San Joaquin Valley. Route 99 is well established, together with Interstate 5 (I-5) as the backbone of transportation in the San Joaquin Valley playing a critical role in the delivery of time-sensitive agricultural goods to market. However, Route 99 has more communities and farms within its sphere of influence than I-5 by an order of magnitude. In the early 2000s it became clear that capacity on the Route was strained by an expanding population and economy. Substantial investment was necessary to maintain the corridor's ability to support development, efficient goods movement, and a growing population. The 2005 Route 99 Business Plan (BP) provided the first comprehensive corridor management document with consensus agreement between all eight MPOs and Caltrans Districts 6 and 10. The 2005 Route 99 BP was updated in 2013.

These plans identified all project improvements thought necessary to attain the primary corridor objective to better support efficient and safe transport of goods and people by achieving full freeway standards on Route 99 and followed by creating a minimum six-lane freeway through the San Joaquin Valley (see Figure 1, Existing Facility 2020).

**Figure 1. Existing Facility 2020**



Project improvements were grouped into four priority categories, according to project type. Funding came shortly thereafter in 2006 with the $19.9 billion Proposition 1B bond, of which $1 billion was dedicated to Route 99. The BP established a strategic approach to achieving the functional goals for the corridor predicated on the Interregional Transportation Strategic Plan, Transportation Concept Reports, Corridor System Management Plans and Regional Transportation Plans. The California Department of Transportation (Caltrans) Districts 6 and 10, and the eight MPOs in the San Joaquin Valley were key leaders and participants in these efforts. The purpose of the BP was to clearly state Caltrans' long-term goals—and a corresponding list of prioritized projects to achieve those goals—thereby streamlining funding decisions for corridor improvements. This report provides an update on the accomplishments of the BP, and an account of the projects remaining.

## *Business Plan Goals*

The Business Plans has focused mainly on major facility improvements that would typically be funded through the State Transportation Improvement Program (STIP) or similar federally funded programs. The 2005 BP laid out a 20-year program to achieve its ultimate goals (see Figure 2, Facility Concept for 2035). The objective of the Final Report is to summarize the accomplishments, present a status of projects, and support development of Corridor Plans setting future visions for the Route.

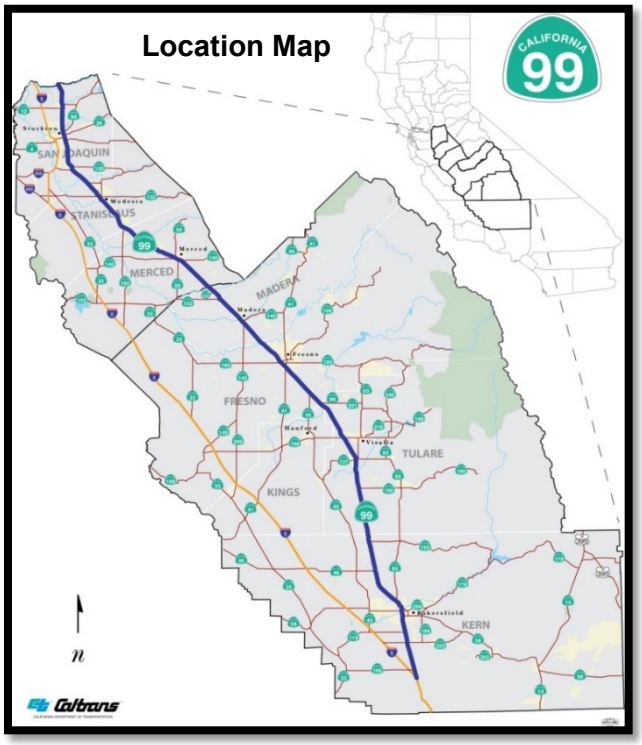
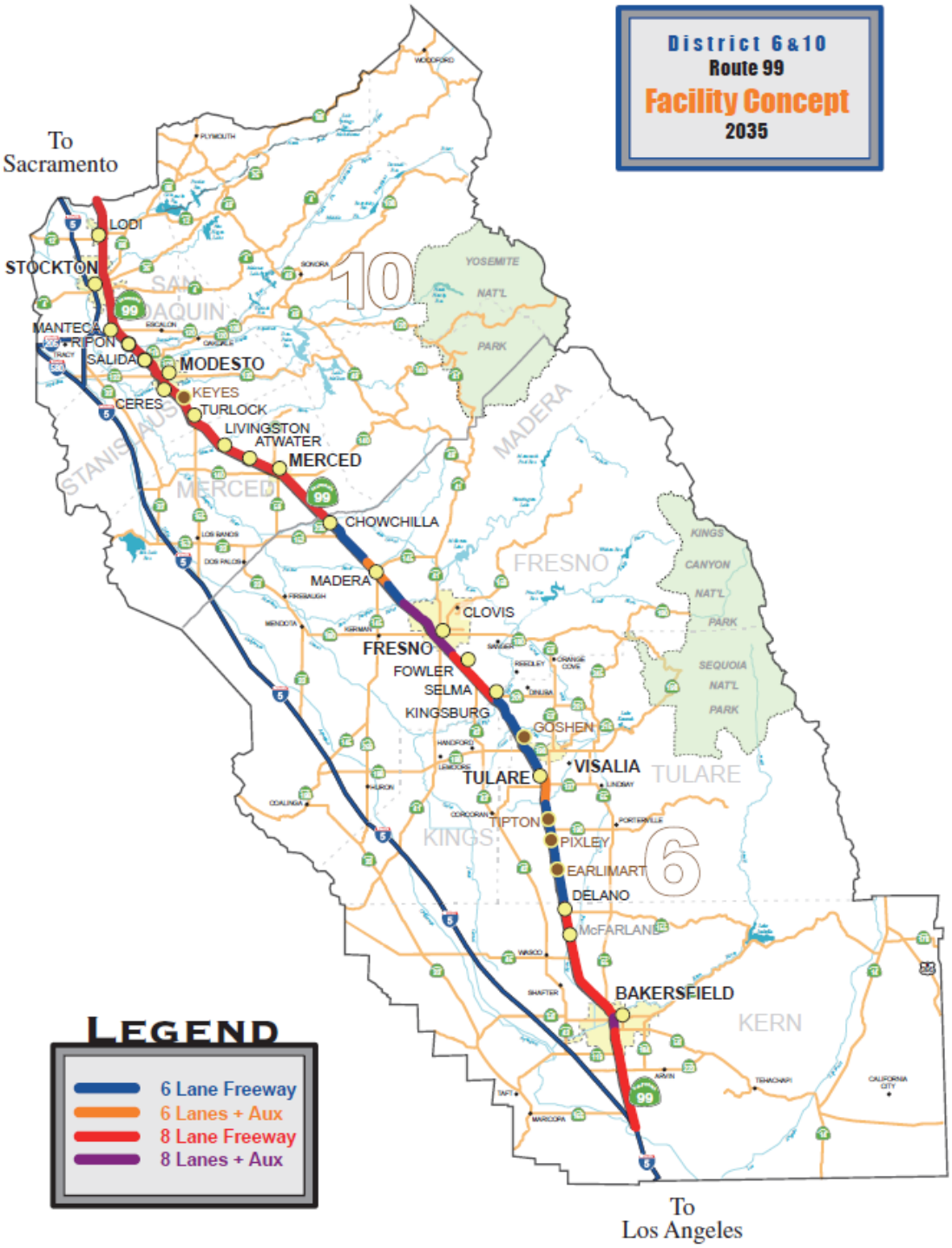


**Figure 2. Facility Concept for 2035**



Following is a list of the goals for this BP Final Report:

- Update 2013 Business Plan data and projects to year 2019 status.
- Summarize unconstrained BP project improvements.
- Provide an updated comprehensive list of proposed project improvements.

## *Project Categories in the Business Plan*

Route 99 faces many challenges, notably increases in Average Daily Traffic (ADT) including truck traffic, encroaching development, and lack of adequate funding. Current ADT through the corridor ranges from 42,000 to 165,000 trips and it is projected to increase to between 62,000 and 243,000 trips in 2040. The percentage of truck traffic ranges from between 8.25% to 27.30% of total traffic. While the major projects identified in this Business Plan focus on increasing capacity to improve reliability, safety is still the single most important consideration for Route 99. There are several segments on the Route which experience recurrent congestion as a result of bottlenecks in the system. Bottlenecks increase the likelihood of vehicle conflicts. One way to resolve them is through expanding the capacity of an impacted segment to match the capacity of better functioning segments upstream and downstream of the bottleneck. In addition to major construction and safety projects, demand management is addressed through operational improvements—including constructing new interchanges. Safety projects are typically funded through the State Highway Operation and Protection Program (SHOPP), while capacity enhancing projects and functional improvements are funded through the STIP. Projects in the BP have been grouped into four categories based on project type, then by priority for construction (according to project type), as follows:

### Priority Category 1—Freeway Conversion

Projects in this Priority Category were necessary to convert non-freeway sections of Route 99 (conventional highways) to freeways. All projects in this category are constructed as a result of the 20-year BP established in 2005.

### Priority Category 2—Capacity-Increasing Projects

Priority Category 2 focuses on widening the Route to a minimum of six-lanes throughout the corridor. While the primary goal of these projects is to meet travel demand, there are also safety benefits as well as enhancements of freight movement through the corridor. Projects in this category include capacity-increasing such as 4F to 6F and 6F to 8F/managed lanes reduce recurring congestions, relieves bottlenecks and improve travel time reliability for freight movements.

### Priority Category 3—Operational Improvements

This category focuses on projects that will improve operations and consequently improve safety, too. Projects range from constructing High-Occupancy Vehicle (HOV) or auxiliary lanes, to installing Intelligent Transportation System (ITS) architecture components, or rehabilitation of interchanges to meet current design standards.

### Priority Category 4—New Interchanges

Priority Category 4 identifies locations where the construction of new interchanges is recommended. The new interchanges will be better equipped to accommodate growth and development along Route 99.

## *Summary Status of Projects*

There were 67 projects included in the original BP. Three of the original 67 projects were split into two segments each, creating a total of 70 projects. The 2013 Business Plan update added more projects, for a total of 110. Of these, 67 projects (19-Category 2, 45-Category 3 and 3-Category 4) remain as unfunded potential projects, or candidates (refer to: Tables C, D, E and F).

Fourteen Category 2 projects have completed or have begun construction, since work began on the BP. There are nineteen Category 2 candidate projects still needed to relieve bottlenecks and recurrent congestion on the Route. These capacity-enhancing projects propose to convert 4-lane segments to 6-lanes or more lending uniformity to the Route and achieving the ultimate vision of a 6-lane minimum width facility.

Projects that propose improvements to freeway operations are in Category 3. Included in this category are interchange improvement and rehabilitation projects, HOV lane construction, ITS elements installation, and auxiliary lane construction. Twenty-three Category 3 projects are in various phases of construction and 45 are planned or proposed.

Category 4, new interchange projects, are typically prompted by a need to improve local road circulation and access due to ongoing local development. These projects vary in magnitude of scope and cost. However, new interchanges generally require a heavy outlay of capital. The Route 99 BP has proposed five new interchanges: One already constructed (Hosking Road in Kern), one programmed for construction (Veteran's Blvd. in Fresno) and three candidates are planned (Hanawalt Road in Kern, Commercial Avenue in Tulare and Ellis Avenue in Madera).

# Existing Facility

## *Facility Function*

Route 99 has two roles: to transport people and to enable commerce. Both functions are equally important, and efficiency is a key measure of success in the Route's operational performance. The Route is the principal north to south goods movement corridor in the State. Capacity and
flow are the two variables that characterize the efficiency of a highway system. Congestion occurs when either variable is impaired. During peak hours of traffic, there are segments of the Route where demand for travel regularly exceeds the available capacity and reduces the speed at which vehicles can travel; this also occurs when there are vehicle incidents on the Route. The mechanisms to address congestions due to reduced capacity include increasing the number of travel lanes, reducing the rate of flow by ramp metering or increasing multi-modal transportation options for users.

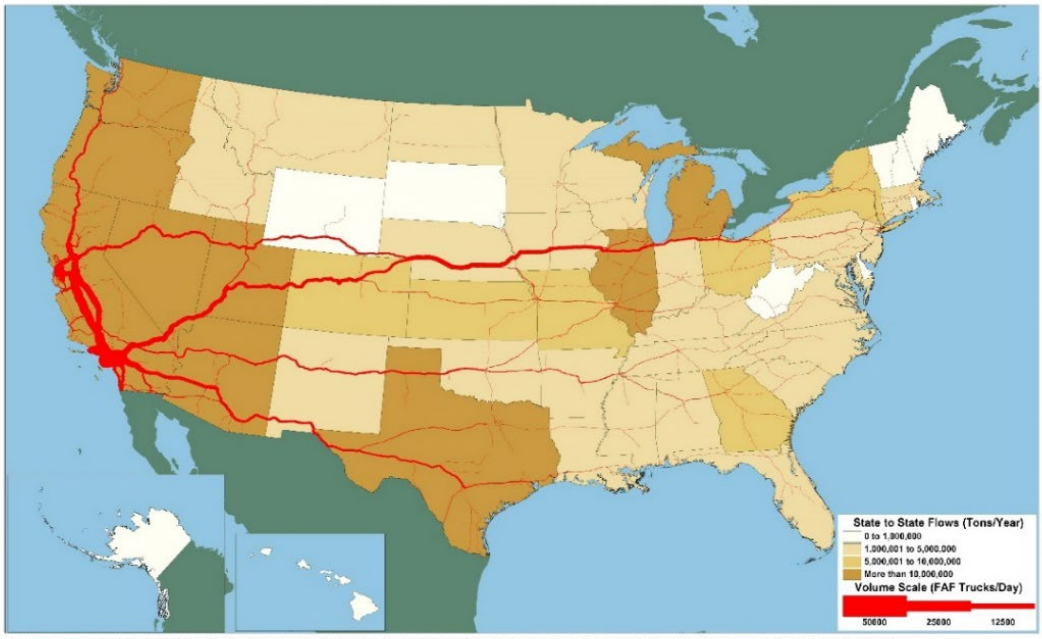
Bottlenecks are expressions of the same issues of capacity and flow on a smaller scale. They may occur at locations where an auxiliary lane ends, or traffic merges from an on ramp, or due to reduced sight distance or other geometric factors. Their impact on the system is typically experienced as travel time delay or vehicle incidents. Inadequate spacing between interchanges can also affect the flow of traffic, especially during commute hours in urbanized areas. This leads to insufficient distances for vehicles to safely and efficiently merge on and off the highway, which in turn leads to queuing and increased accidents. Where substandard spacing exists, interchange spacing should be increased or other operational features, such as auxiliary lanes, constructed to decrease the merging conflicts and improve operations. Resolving the causes of bottlenecks and congestion improves Route performance.

The observed reduction in travel time reliability and persistent bottlenecks along the Route 99 corridor are indications that the current capacity of Route 99 is not adequate to meet demand, especially during peak hours in urbanized areas. Efficient and safe travel through the San Joaquin Valley is essential to the strength of the State's economy overall. Just-in-time goods delivery systems and very large regional distribution centers locating in the San Joaquin Valley provide more responsive customer service and reduced inventory storage costs to the business community.

Route 99 capacity and operational improvements identified in this Business Plan are consistent with the "Goods Movement Action Plan" and represent a key contribution toward statewide goals. However, trucks play a different role in traffic operations than cars. The result of just-in-time delivery from a roadway perspective has been higher than historical growth in truck volumes on Route 99. Currently truck volume ranges between 9,000 to 20,000 Annual Average Daily Truck Traffic. Unlike commuter traffic, the number of trucks traveling throughout the day and evening hours may remain relatively constant. Since they are larger and heavier than cars, their maneuverability and ability to accelerate and decelerate are poorer which impact highway capacity and traffic flow negatively. Trucks further impact capacity by occupying more space; each truck is roughly equivalent to three cars. Wear and tear on the driving surface also

becomes a consideration where high traffic volumes exist-- repairs may be both more frequent and more costly compared to freeways serving commuters only.

Major Flows by Truck To, From, and Within California: 2045




Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty five FAF trucks per day and between places typically more than fifty miles apart.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 4.3, 2017.

## Facility Concerns and Needs

While the focus of the BP is improved reliability and throughput, other issues affecting the Route include:

- ITS for demand management and performance monitoring.
- Construction of new interchanges.
- Safety Roadside Rest Areas for the freight network.
- Investment in transit services on or integrated to the Route.
- Land use and quality of life.

### Intelligent Transportation Systems

Increased demand for lane space on Route 99 can, in part, be managed by means of ITS architecture. Transportation corridors often contain underutilized capacity in the form

of parallel roadways, single-occupant vehicles, and transit services that could be better leveraged to improve person throughput and reduce congestion. Many projects in Categories 2 and 3 of this BP contain ITS elements to maximize operational performance. ITS encompasses a broad range of wireless and traditional communications-based information and electronic technologies. ITS field elements such as traffic signals, ramp meters, closed-circuit television (CCTV) cameras, and vehicle detection stations transmit data to the District Transportation Management Centers. This field-to-center feedback is the basis for the Transportation Management System which allows Caltrans to centralize traffic monitoring, traffic control, incident management, lane closure operations and traveler information dissemination on state highways. Advanced communications technologies integrated with transportation infrastructure and vehicles have the potential to boost the effectiveness of ITS architectures toward improving transportation safety and mobility.

### New Interchanges

Many interchanges on Route 99 were built in the 1950's and 60's, and were designed for significantly lower traffic volumes than those occurring today. Inadequate geometrics at interchanges, as well as limited storage and merge distance all contribute to congestion on the ramps, local roads, and the freeway itself. California has one of the largest agricultural economies in the nation, with much of that located in the San Joaquin Valley. Therefore, the State depends heavily on truck transportation to move these goods from farm to market. Combined with the interstate movement of goods from the major urban centers in Los Angeles and Bay Areas, and the delivery of consumer goods to the residences and businesses nearby to SR 99, the Route carries a high volume of truck traffic. Upgrades of older Route 99 segments and interchanges are necessary to meet the truck access standards of the Federal Surface Transportation Assistance Act. This is particularly important as distribution centers and businesses continue to establish facilities or expand their operations in ways that impact the Route.

### Safety Roadside Rest Areas

Truck parking is a national safety concern with impacts felt on parts of Route 99. Shortages in designated truck parking can lead to truckers driving out-of-route to find

parking, parking in undesignated spaces (e.g. on/off ramps, abandoned/isolated areas, shopping centers), and drivers foregoing mandatory breaks for lack of suitable rest areas. These challenges contribute to increases in VMT, unsafe conditions on roads and for resting drivers, and driver fines and penalties. As a result of these challenges Jason's Law legislative language was brought before Congress to require States to evaluate and improve the adequacy of their truck parking on a continual basis.

Jason's Law legislative language was incorporated into The Moving Ahead for Progress in the 21st Centruy (MAP-21) legislation that became effective on October 1, 2012. A 2013 Jason's Law Truck Parking Survey of truck drivers found eighty-eight percent of drivers felt unsafe while parked during mandatory rest or waiting for pickup or delivery of a load within the prior 12 months. Thirty-six percent of respondents felt safer parked at a shipper and receiver location. Drivers stated they worried during their rest period they would be asked to leave or given a citation by law enforcement. Goods movement in and through California is crucial to the economy of the state and the nation. The provision of services in support of that action will have widespread benefits.

### Transit Services

High Speed Rail (HSR), Amtrak passenger rail, Altamont Corridor Express (ACE) and local transit providers have a role to play in congestion relief on the Route. Amtrak, ACE, Modesto Area Express (MAX) and San Joaquin Regional Transit District (SJRTD) provide transit services for commuters traveling between the Central Valley to the Bay Area. The California High Speed Rail Authority (CHSRA) was established in 1996 under State law to develop and implement intercity high-speed rail service. Of particular interest is the HSR line connecting Merced to Bakersfield. The promise of HSR is to divert vehicle trips from State routes of significance (including Route 99) as a complementary system in a multimodal transportation network. This network will include traditional rail, lightrail (e.g. BART), local and interregional bus services, as well as first-mile/last-mile services like bike and pedestrian paths, and shared shuttle services. The BP strategies to add capacity, improve operations, and focus on service to the public will work in tandem with these modes of travel to contribute to safer and more efficient travel conditions.

### Land Use and Quality of Life

The appearance of Route 99 affects the quality of life for Valley residents and the perceptions of travelers, many of whom are tourists, which can have an impact on the local economy. Communities can use tools such as zoning laws and enforcement of ordinances to remediate the eyesores of abandoned or vandalized structures. Conversely, they can preserve structures—such as water towers and barns—to create a more interesting view shed. Outside of Caltrans' right-of-way, abandoned buildings, billboards, junkyards, microwave towers, and trash create unsightly views for travelers. A visually appealing transportation corridor should either blend into or complement the landscape.

Route 99 is a lifeline to urbanized communities along the corridor, improving the appearance can help reinforce a community's identity and give travelers a good impression of the community, leading them to support local economies. Despite the economic output of the region, levels of concentrated poverty are among the highest in the nation. Thoughtful land use decisions play a role in boosting regional employment rates while reducing VMT by improving access to jobs and attracting employers. Access can be improved by increasing capacity on the Route, and can be further supported by investment to expand transit services, encouraging transit-oriented developments with a variety of land uses organized for easy connections, and shortening the distance between traffic generators so that cycling and walking to destinations become viable mode choices. Improved transportation infrastructure will also contribute toward reduced air pollution by reducing vehicle idling and rates of travel that do not optimize fuel-efficiency targets.

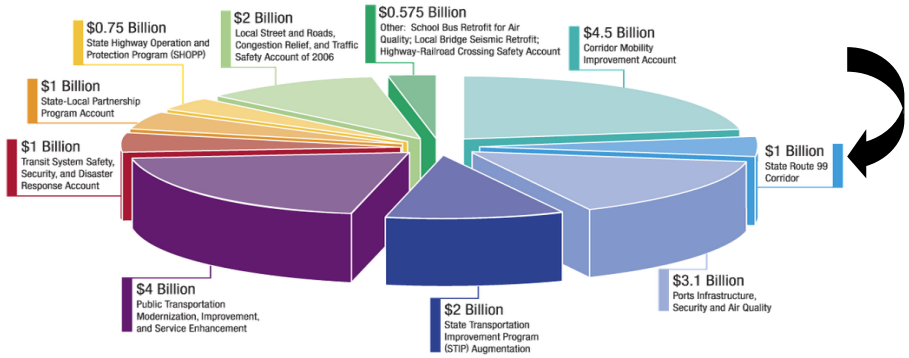
## Funding

### *Effects of Proposition 1B*

The most significant obstacle to improving the Route has been insufficient funding. Neither the STIP nor the SHOPP have had funding levels adequate to maintain, much less, improve Route 99. On November 7, 2006 voters approved a $2 billion

augmentation to the State Transportation Improvement Program (STIP) through Proposition 1B the “Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006”.

**Strategic Growth Plan Pie Chart**




| Program | Amount |
|---|---|
| Corridor Mobility Improvement Account | $4.5 Billion |
| Public Transportation Modernization, Improvement, and service Enhancement | $4 Billion |
| Ports Infrastructure, Security, and Air Quality | $3.1 Billion |
| State Transportation Improvement Program (STIP) Augmentation | $2 Billion |
| Local Streets and Roads, Congestion Relief, and Traffic Safety Account of 2006 | $2 Billion |
| State Route 99 Corridor | $1 Billion |
| State-Local Partnership Program Account | $1 Billion |
| Transit System safety, Security, and Disaster Response Account | $1 Billion |
| State Highway Operation and Protection Program (SHOPP) | $0.75 Billion |
| Other: School Bus Retrofit for Air Quality; Local Bridge Seismic Retrofit; Highway-Railroad Crossing Safety Account | $0.575 Billion |

https://bondaccountability.dot.ca.gov

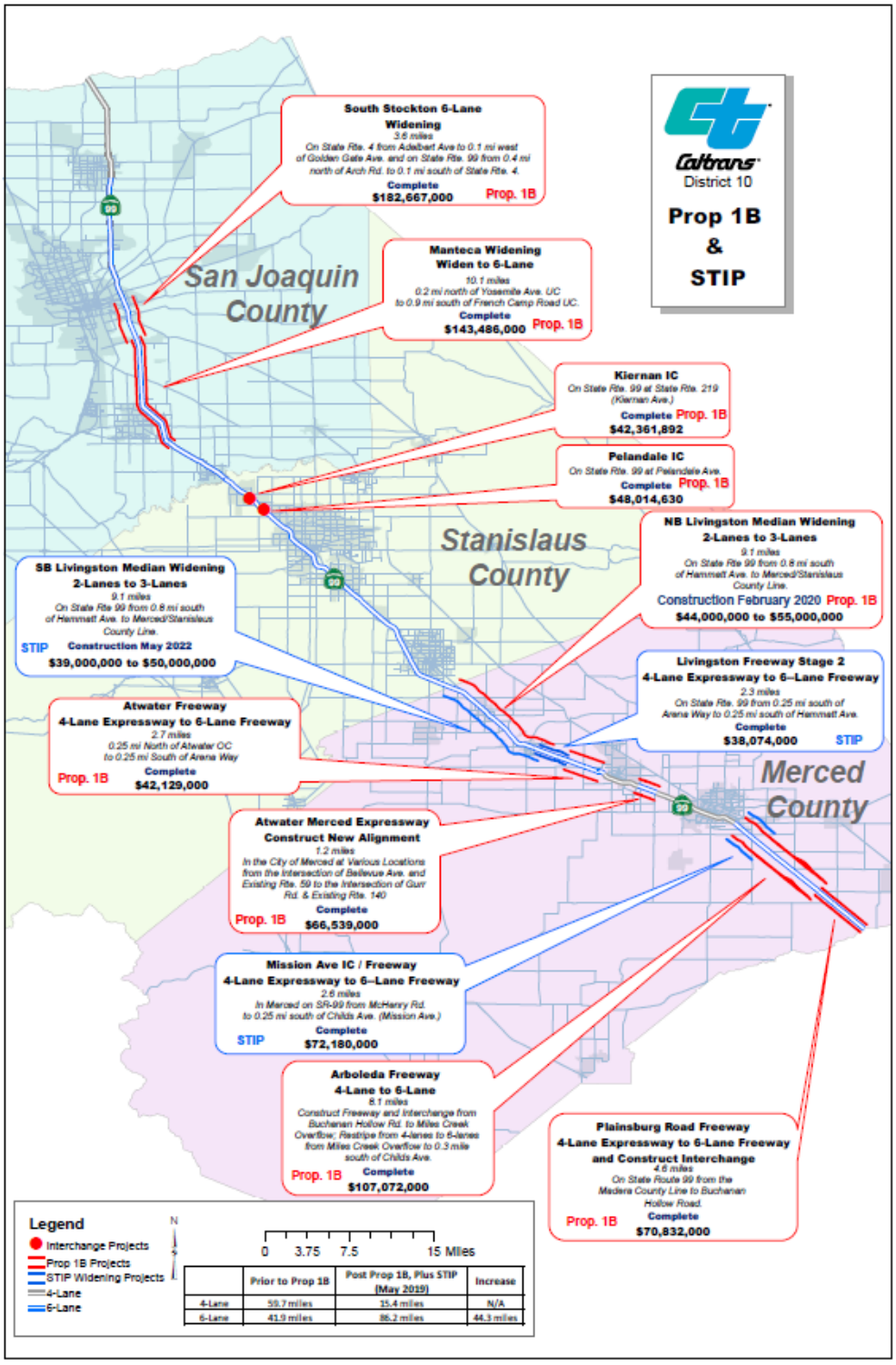
Under Proposition 1B $1 billion dollars was also made available for Route 99 as shown in the Strategic Growth Plan Pie Chart and program table above. The eight Valley MPOs and Caltrans initiated numerous projects, as illustrated in Figures 1 and 2, including route widening and interchange improvements to enhance safety, operations and improve air quality throughout the Route 99 corridor. Prop 1B bonds in combination with other fund sources—notably, STIP and measure money—financed 24 projects (20- Category 2, and 4- Category 3) in the SJV that have since been completed or are now pending construction.

In the northern three counties of District 10 (see: Figure 3), Proposition 1B was critical to the delivery of five four-lane to six-lane widening projects and two interchange improvement projects. The widening projects added 15.4 miles of six-lane freeway to Merced County (three projects) while San Joaquin County (two projects) gained 13.7 miles. The section of the Route in Stanislaus County has achieved a six-lane minimum throughout, delivering on the goal of Priority Category 2.

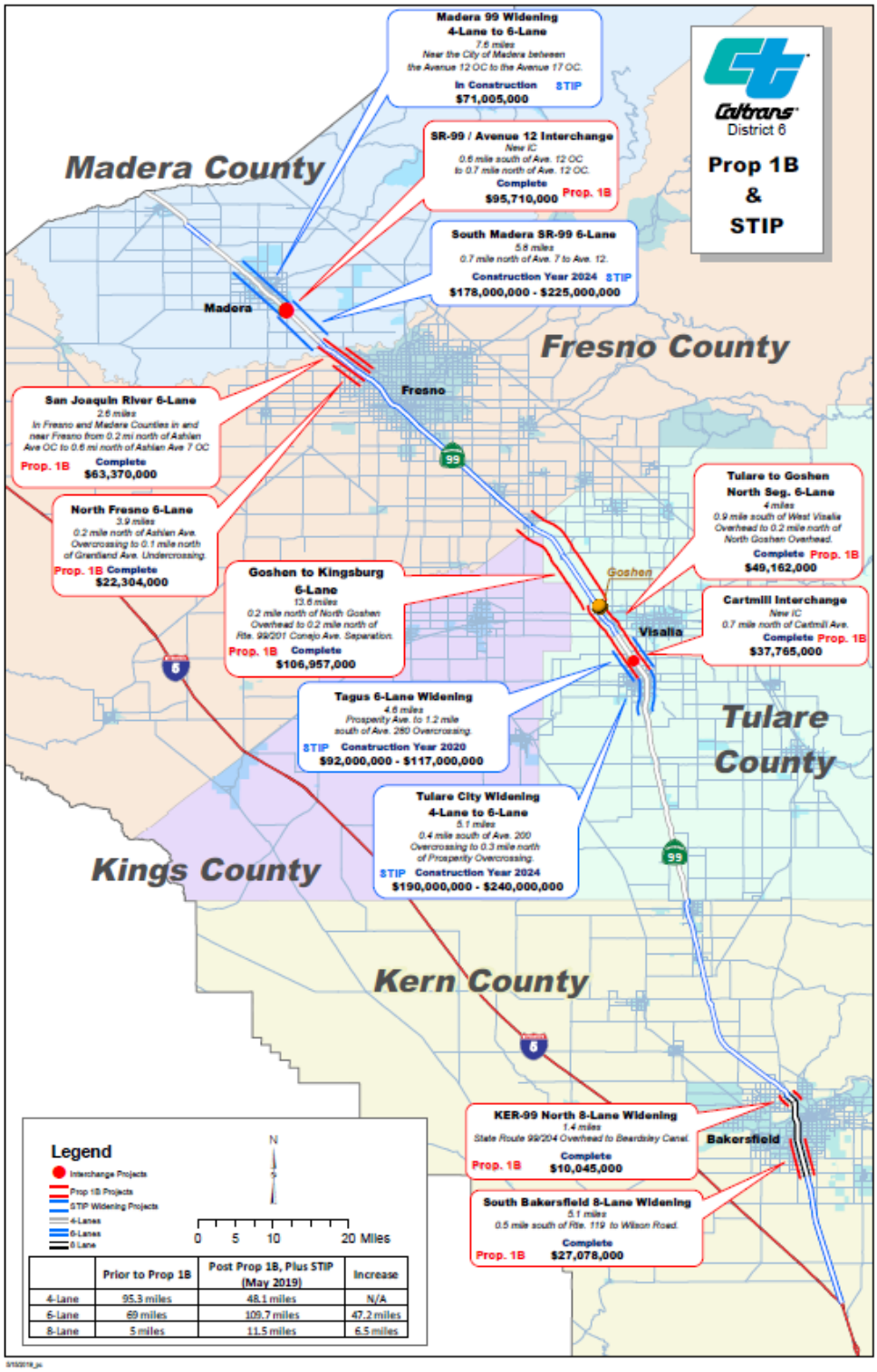
In District 6, Proposition 1B funding supported the completion of six widening projects and two interchange projects in Tulare and Madera counties. Four widening projects (four-lane to six-lane) were completed, two in Tulare, one in Fresno and one in Madera counties (see: Figure 4). These projects added a total of 24.1 lane miles to the Route. The two other widening projects increased capacity from six-lanes to eight-lanes in Kern County along 6.5 miles of the Route.

Prior to Prop 1B nearly 155-miles of the 274-miles of the Route within the Valley was a 4-lane facility. As a result of the widening projects roughly half of the four-lane segments in each District (30.3-miles in District 10, and 47.2-miles in District 6) have been increased in capacity. Prop 1B was also instrumental in financing 5 interchange projects (3 in District 10, and 2 in District 6) on the Route. These projects not only increased capacity to meet demand, but they also substantially enhanced the safety and operations of Route 99 within the project limits. Safety and operational enhancement project features included shoulder widening, construction of median concrete barrier, reconstruction of interchanges (which include complete streets features for bikes and pedestrians), and the elimination of at-grade intersections (e.g. driveways and median crossings).

## Figure 3. Prop 1B & STIP Projects Constructed



## Figure 4. Prop 1B & STIP Projects Constructed




| | Prior to Prop 1B | Post Prop 1B, Plus STIP (May 2019) | Increase |
|---|---|---|---|
| 4-Lane | 95.3 miles | 48.1 miles | N/A |
| 6-Lane | 69 miles | 109.7 miles | 47.2 miles |
| 8-Lane | 5 miles | 11.5 miles | 6.5 miles |

## *Senate Bill 1*

In anticipation of the expiration of Prop 1B revenue, Senate Bill 1 (SB 1) the "Road Repair and Accountability Act of 2017" was signed into law on April 28, 2017. The SB 1 package augmented the SHOPP and the STIP funds and contained statewide grants. While the SHOPP was most greatly reinforced by SB 1, the STIP was also replenished. Before SB 1, the California Transportation Commission (CTC) needed to cut and delay $1.5 billion in STIP projects due to lack of funding. With the passage of SB 1 the funding is stabilized. Grant programming in the SB 1 package includes the Trade Corridor Enhancement Program (TCEP) that distributes $300 million annually for projects related to transportation infrastructure vital to California's trade and freight economy.

SB 1 adds $54 billion in funding over 10 years to the state's transportation budget. Caltrans will receive half of SB 1 revenue: $26 billion. The other half will go to local roads, transit agencies, and an expansion of the state's network of pedestrian and bicycle routes. Over 10 years, SB 1 will allocate $15 billion to improve the condition of the state highway system, with an additional $4 billion to fix or replace bridges and culverts. The new revenue from SB 1 gives Caltrans a massive boost in addressing safety projects, deficiencies, and deferred maintenance. Yet, according to the CTC, the program is oversubscribed by $52.1 million for counties in the San Joaquin Valley.

*Despite an anticipated $1.1 billion STIP augmentation by SB 1, 2019 STIP share balances show the program is oversubscribed by $52.1 million for counties in the San Joaquin Valley[1].*

# Business Plan Progress

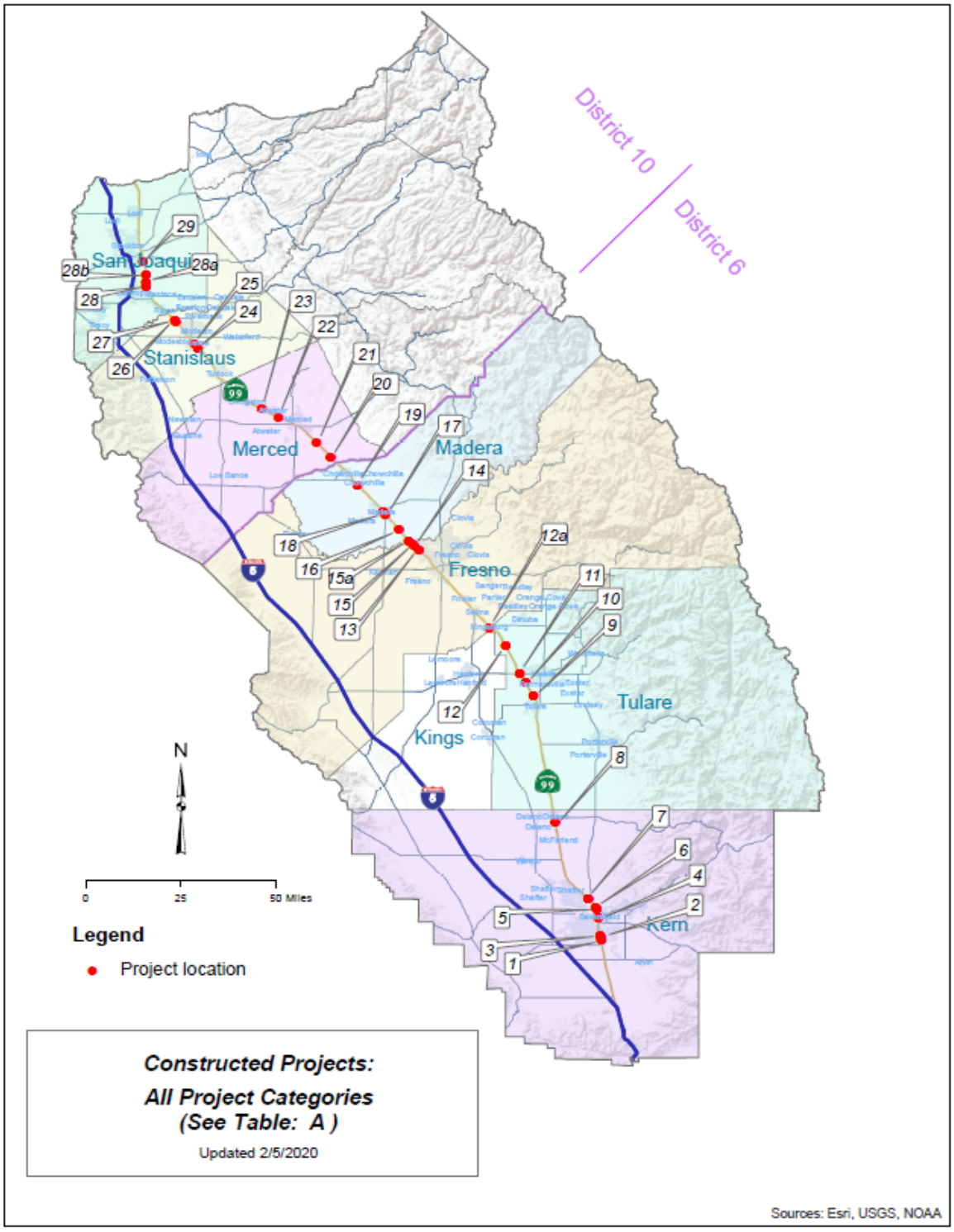
## *Constructed Projects - All Project Categories*

Since the 2013 Business Plan update, 10 projects have been completely constructed on the Route (see: Figure 3). In Kern County an interchange was built at Hosking Road and operational improvements were made at Panama Lane and California Avenue. In Tulare County the Route was widened from four-lanes to six-lanes along a two-mile segment near Caldwell Avenue and the Cartmill Avenue interchange was significantly expanded. The Fourth Street interchange in Madera County was modified to accommodate growth in the area.

The Atwater Merced expressway in Merced County was realigned near Buhach Road. The Pelandale interchange received modification, and operational improvements were made to the northbound and southbound ramps at Kiernan Avenue in Stanislaus County. In all, over $1.6 billion has been spent on implementing projects from the BP. Twenty-nine projects have been completed since 2005 including all priority category 1 projects (all at-grade intersections have been replaced with grade-separated interchanges) accomplishing the goal of converting the full length of the Route to freeway.

*After completion of all projects to widen to 6-lanes, the corridor will satisfy the facility concept design. Once this is achieved, the Department can direct funds to maintenance and preservation.*

## Figure 5. Constructed Projects: All Project Categories



# Table A - Constructed Projects: All Project Categories

TABLE A - Constructed Projects: All Project Categories (Capital Costs Greater than $1 million) December 30, 2019

| Number on map | City | PMs | EA | Project Name | Location Decription | Proj. Description | Construction Status | R/W and Construction Capital Costs (X $1,000) | Support Costs (X $1,000) | Total Costs per Project (X $1,000) | Regional Priority Category |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | KER | 17.0/22.1 | 06-0G830 | South Bakersfield 8-Lane | 0.5 mile south of SR 119 to Wilson Rd. Overcrossing | Widen from 6F to 8F | Completed | $31,500 | $6,800 | $38,300 | 2 |
| 2 | KER | 18.0/19.2 | 06-0C930 | Hosking Rd Interchange | In Bakersfield at Hosking Rd | Construct New Interchange | Completed | $27,400 | $9,000 | $36,400 | 4 |
| 3 | KER | 19.5/20.5 | 060N690 | Panama Lane Auxiliary Lane | In Bakersfield on SB 99 at Panama Lane Off-Ramp | Construct Auxiliary Lane | Completed | $1,700 | $900 | $2,600 | 3 |
| 4 | KER | 24.6 | 06-0L390 | California Avenue Onramp Improvements | In Bakersfield on SB 99 at Panama Lane Off-Ramp | Relocate Right Turn Lane | Completed | $1,500 | $1,500 | $3,000 | 3 |
| 5 | KER | 27.0/27.9 | 06-0N490 | Olive Ave Southbound Auxiliary Lane | In Bakersfield on SB 99 between SR 204 and Olive Drive | Construct SB Auxiliary Lane and widen Olive Drive On-Ramp | Completed | $2,100 | $278 | $2,378 | 3 |
| 6 | KER | 27.0/28.4 | 06-0G840 | Kern 99 North Widening | From SR 99/204 Overhead To Beardsley Canal | Widen From 6F to 8F | Completed | $9,600 | $2,900 | $12,500 | 2 |
| 7 | KER | R30.5/R31.1 | 06-43350 | 7th Standard Road Widening | In Bakersfield at 7th Standard Rd. Interchange | Modify Interchange | Completed | $18,400 | $1,100 | $19,500 | 3 |
| 8 | KER | 54.2/54.6 | 06-0G920 | Woolomes Interchange Improvements | At Woolomes Interchange | Modify Interchange | Completed | $6,300 | $617 | $6,917 | 3 |
| 9 | TUL | 31.3/32.6 | 06-33220 | Cartmill Ave Interchange | In Tulare at Cartmill Ave | Modify Interchange | Completed | $33,300 | unknown | $33,300 | 3 |
| 10 | TUL | 35.2/37.3 | 06-36023 | Middle Segment (Caldwell) 6-Lane(Combined) | 1.2 mile south of Ave 280 Overcrossing to 0.9 mile south of W. Visalia Overhead | Widen from 4F to 6F | Completed | $18,900 | $5,000 | $23,900 | 2 |
| 11 | TUL | 37.3/41.3 | 06-36021 | Tulare to Goshen North Segment 6-Lane | 0.9 mile south of West Visalia Overhead to 0.2 mile north of North Goshen Overhead | Widen from 4F to 6F | Completed | $42,000 | $10,900 | $52,900 | 2 |
| 12 | TUL | 41.3/53.9 | 06-32450 | Goshen to Kingsburg 6-Lane | N of Goshen to N of Sierra Ave Overcrossing | Widen from 4F and 5F to 6F | Completed | $78,800 | $24,000 | $102,800 | 2 |
| 12a | FRE | 0.0/1.0 | 06-32450 | Goshen to Kingsburg 6-Lane | N of Goshen to N of Sierra Ave Overcrossing | Widen from 4F and 5F to 6F | Completed | | | | |
| 13 | FRE | 26.7/30.6 | 06-44261 | North Fresno 6-Lane | In Fresno from Ashlan Avenue to 0.2 miles N of Grantland Ave Overcrossing | Widen from 4F to 6F | Completed | $17,500 | $5,700 | $23,200 | 2 |
| 14 | FRE | 30.0/30.8 | 06-0L030 | Herndon Avenue Interchange Improvements | In Fresno at Herndon Ave Interchange | Remove Off-Ramp and Intersection Improvements | Completed | $3,000 | $200 | $3,200 | 3 |
| 15 | FRE | 30.3/31.6 | 06-44262 | Island Park 6-Lane | Grantland to Avenue 7 | Widen from 4F to 6F | Completed | $42,000 | $10,900 | $52,900 | 2 |
| 15a | MAD | 0.0/1.6 | 06-44262 | Island Park 6-Lane | Grantland to Avenue 7 | Widen from 4F to 6F | Completed | " | " | " | |
| 16 | MAD | R1.7/R7.9 | 06-47100 | Avenue 12 Interchange | South of Madera at Avenue 12 | Reconstruct Interchange | Completed | $56,700 | $11,300 | $68,000 | 3 |
| 17 | MAD | 10.1/10.4 | 06-40721 | Route 145 Widening at SR99 | In Madera at Route 145 | Widen Bridge | Completed | $6,100 | $1,800 | $7,900 | 3 |
| 18 | MAD | 10.7/11.2 | 06-0J320 | Fourth Street Interchange Improvements | In Madera at Fourth Street | Modify Interchange | Completed | $5,100 | $862 | $5,962 | 3 |
| 19 | MAD | 19.5/22.8 | 06-29330 | Fairmead Freeway and Interchange | Ave 21 to the Rte 99/152 Separation | Widen 4E to 6F with Interchange at Ave 22 | Completed | $62,000 | $9,000 | $71,000 | 1 |
| 20 | MER | 0.0/4.6 | 10-41580 | Plainsburg Road Freeway | Near Chowchilla from Chowchilla River Bridge to Buchanan Hollow Road | Widen from 4E to 6F on 8 Lane R/W Alignment | Completed | $100,700 | $18,000 | $118,700 | 1 |
| 21 | MER | 4.6/10.5 | 10-41570 | Arboleda Drive Freeway | Buchanan Hollow Road to 0.3 mile north of McHenry Rd | Widen from 4E to 6F on 8 Lane R/W Alignment | Completed | $150,900 | $25,900 | $176,800 | 1 |
| 22 | MER | 19.3/20.9 | 10-0G440 | Atwater Merced Expressway (AME) | Near Atwater from 1.2 mile S Buhach Road to 0.3 mile N of Buhach Road | Construct new alignment | Completed | $54,033 | $6,977 | $61,010 | 3 |
| 23 | MER | 23.8/R26.5 | 10-41481 | Atwater Freeway | 0.4 km (0.5 mile) N. of Atwater OH to 0.4 km (0.5 mi) S of Arena Way | Widen from 4E to 6F on 8 Lane R/W Alignment | Completed | $58,200 | $12,100 | $70,300 | 1 |
| 24 | STA | R11.9 | 10-2A770 | Rte 99/Whitmore Interchange | City of Ceres from 0.5 km S Whitmore Ave. Overcrossing to 0.7 km N. | Reconstruct Interchange | Completed | $32,400 | $9,600 | $42,000 | 3 |
| 25 | STA | 21.0/22.4 | 10-47210 | Pelandale IC | State Route 99 at Pelandale Ave. | Modify Interchange | Completed | $49,317 | $4,398 | $53,715 | 3 |
| 26 | STA | R21.9/R22.3 | 10-0K700 | SR99/SR219 Kiernan Ave NB/SB Off-Ramps | At Salida at SR99/219 Separation | Widen Roadway and Ramps | Completed | $1,700 | $1,200 | $2,900 | 3 |
| 27 | STA | 13.4/13.6 | 10-0L330 | Kiernan IC | On SR 99 between SR 219 and Palandale | Construct NB and SB Auxiliary Lanes | Completed | $35,701 | $7,148 | $42,849 | 3 |
| 28 | SJ | 4.9/14.2 | 10-0E611 | Manteca Widening Mainline Phase 1 | From Austin Rd. Overcrossing to 0.4 mile S. of Arch Rd Undercrossing | Widen from 4F to 6F | Completed | $45,000 | $9,500 | $54,500 | 2 |
| 28a | SJ | 6.9/15.0 | 10-0E613 | Manteca Widening-Lathrop IC Phase 3 | In Manteca SR 99 From 0.6 mile S of Cottage Ave Rd to 0.4 mile N of Arch Rd | Lathrop Rd. Interchange Phase 3 | Completed | $105,000 | $16,100 | $121,100 | |
| 28b | SJ | 10.6/15.0 | 10-0E612 | Manteca Widening-French Camp IC Phase 2 | In Manteca SR 99 From 1.4 mile N. of Lathrop Rd to 0.4 mile N. of Arch Rd | French Camp Interchange Phase 2 | Completed | $60,700 | $12,500 | $73,200 | |
| 29 | SJ | 15.0/18.6 | 10-3A100 | South Stockton 6-Lane | 0.4 Mile N of Arch Rd to Rte 4 West to 0.1 S of Rte 4 West/SR99 N Conctr. | Widen from 4F to 6F | Completed | $214,000 | $36,500 | $250,500 | 2 |
| | | | | | | | | | Total | $1,634,231 | |

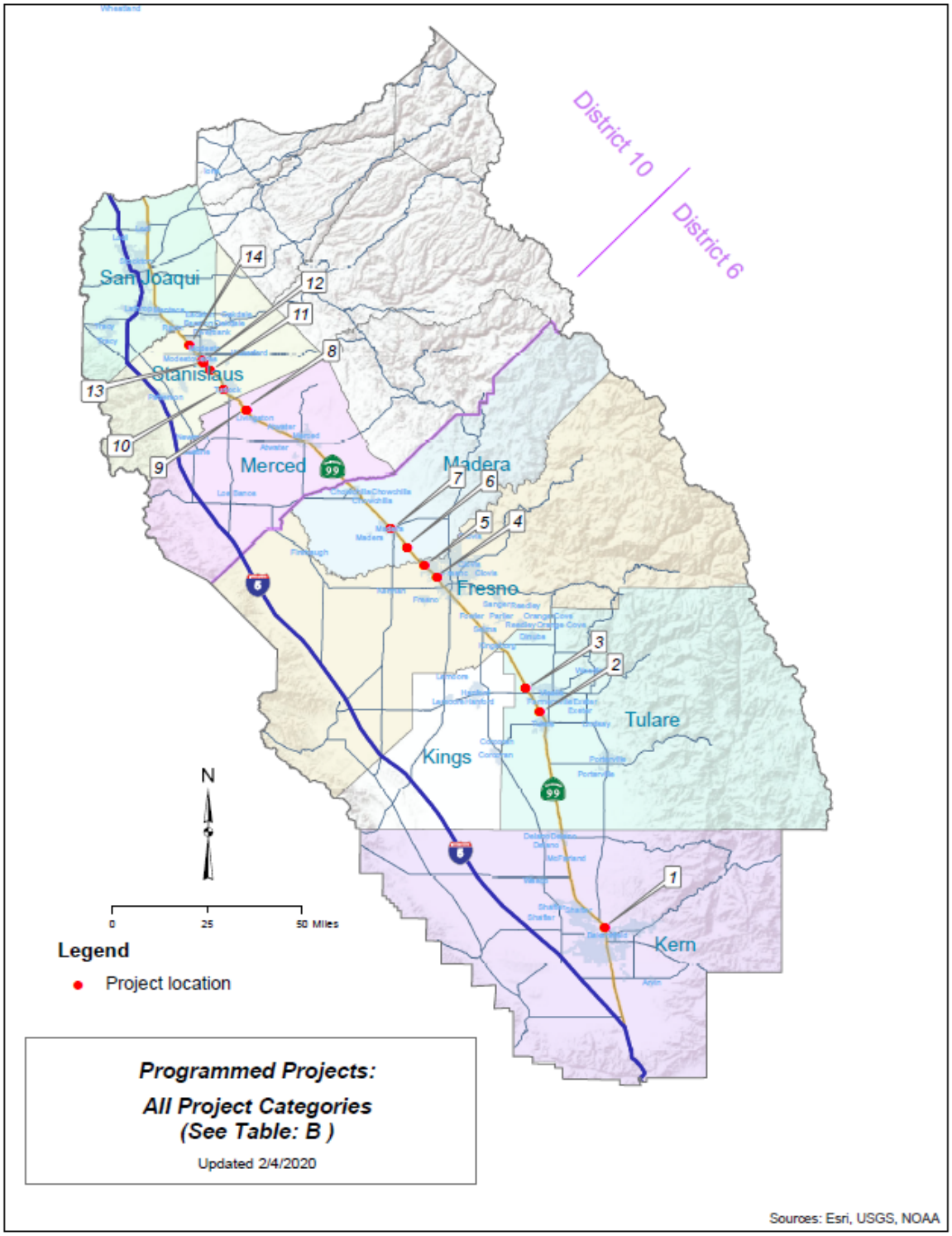
## *Programmed Projects – All Project Categories*

At the time of this writing, fourteen projects are programmed to continue delivering on the vision established in the BP. Twelve of these projects are fully funded and the others are partially funded and programmed to go to construction. Five projects are widening projects from priority category 2; eight projects are operational improvements drawn from priority category 3; and one new interchange is proposed from priority category 4. Approximately $1.1 billion in projects are programmed for construction within the next five years.

One project is programmed in Kern County: an operational improvement to extend a connection of the Route to State Route 204. There are two projects programmed in Tulare County: an interchange projects at Betty Drive, and a widening project near Tagus expanding from four-lanes to six-lanes a segment approximately six and a half miles long within the county. In Fresno County two projects are programmed: a new interchange proposed at Veteran's Boulevard, and the construction of auxiliary lanes in the northbound and southbound directions to the newly realigned segment between Clinton Avenue and Ashlan Avenue. Two widening projects are programmed in Madera County to expand the Route from four-lanes to six-lanes from Avenue 7 to Avenue 12, and from Avenue 12 to Avenue 17 with a separate project to improve the interchange at 4$^{th}$ Street.

The Livingston median widening project is programmed in Merced County. This project will widen the Route from four-lanes to six-lanes in both the northbound and the southbound directions. Five projects are programmed in Stanislaus County: interchange improvements at Fulkerth Road and Mitchell Road/Service Road, and the Route 132 West Expressway project (a new alignment of a four-lane expressway) complete with auxiliary lanes in both directions. The auxiliary lane projects have been programmed since the 2013 Business Plan update.

## Figure 6. Programmed Projects: All Project Categories



## Table B - Programmed Projects: All Project Categories

TABLE B - Programmed Projects: All Project Categories (Capital Costs Greater than $1 million) December 30, 2019

| Number on map | Cnty | PMs | EA | Project Name | Project Location | Project Description | ADVERTISE SCHEDULE | R/W and Construction Capital Costs (X $1,000) | Support Cost X $1,000 | Total Cost per Project X $1,000 | REGIONAL PRIORITY Cat. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | KER | 27.3 | 06-48450 | Hageman Road Flyover | On 99 between Golden State Ave and Airport Drive | Extention and Connection to Rte 204 | 2022 | $51,800 | $17,700 | $69,500 | 3 |
| 2 | TUL | 30.6/35.2 | 06-36024 | South Segment (Tagus) 6-Lane | From Prosperity Ave to 1.2 mile south of Ave 280 Overcrossing | Widen from 4F to 6F | 2020 | $77,600 | $19,700 | $97,300 | 2 |
| 3 | TUL | 39.6/41.3 | 06-47150 | Betty Drive Interchange | In Goshen at Betty Drive | Reconstruct Interchange | 2020 | $46,600 | $10,800 | $57,400 | 3 |
| 4 | FRE | 23.7/26.2 | 06-2HT10 | Route 99 Realignment | In Fresno from Clinton Ave to Ashlan Ave | Realign Freeway and Const. NB and SB Auxiliary Lanes | Construction | $160,000 | $19,500 | $179,500 | 3 |
| 5 | FRE | 28.8/30.1 | 06-0H360 | Veteran's Blvd Interchange | In Fresno between Shaw Ave and Herndon Ave | New Interchange | 2020 | $54,900 | $12,300 | $67,200 | 4 |
| 6 | MAD | 1.7/7.5 | 06-H220 | South Madera 6-Lane | Avenue 7 to Avenue 12 | Widen from 4F to 6F | 2023 | $159,000 | $29,000 | $188,000 | 2 |
| 7 | MAD | R7.5/15.1 | 06-47090 | Madera 6-Lane | Avenue 12 to Avenue 17 | Widen from 4F to 6F and Reconstruct Interchange | Construction | $53,000 | $9,000 | $62,000 | 2 |
| 8 | MER | 28.8/R37.3 | 10-0Q121 | NB Livingston Median Widening | In Merced County in Livingston on State Route 99 from 0.8 mile south of Hammatt Ave to Merced/Stanislaus County Line. | Lane Widening from 2 to 3 Lanes | Construction | $36,747 | $9,203 | $45,950 | 2 |
| 9 | MER | 28.8/R37.3 | 10-0Q122 | SB Livingston Median Widening | In Merced County in Livingston on State Route 99 from 0.8 mile south of Hammatt Ave to Merced/Stanislaus County Line. | Lane Widening from 2 to 3 Lanes | 2022 | $29,650 | $9,300 | $38,950 | 2 |
| 10 | STA | 4.3 | 10-0T910 | Fulkerth IC Improvements | State Route 99 at Fulkerth Road | Interchange Improvements | Construction | $14,023 | $1,296 | $15,319 | 3 |
| 11 | STA | 9.7/10.9 | 10-1A690 | Mitchell Rd / Service Rd Interchange | On 99 in Ceres, Stanislaus County from 0.5 Km S to 1.0 Km N. of Mitchell Rd | Reconstruct Interchange | 2022 | $109,500 | $24,000 | $133,500 | 3 |
| 12 | STA | R11.3/R14.7, R16.2/R17.0 | 10-40350 | Route 132 West Expressway | In Modesto on new alignment from Dakota to SR99 | Construct 4-lane Expressway on new alignment | Construction | $137,048 | $21,345 | $158,393 | 3 |
| 13 | STA | 13.4/13.8 | 10-0L870 | Stanislaus Auxiliary Lane | In Modesto between Hatch Rd Overcrossing and South Street Off-Ramp | Construct NB Auxiliary Lane | 2020 | $2,818 | $1,600 | $4,418 | 3 |
| 14 | STA | 18.5/R20.2 | 10-0V110 | SR 99 Beckwith Rd & Carpenter Rd Accel/Decel Lanes | In Modesto from Carpenter Rd/Briggsmore to Beckwith/Standiford Ave | Improve On/Off Ramps and Construct NB and SB Auxiliary Lanes | Construction | $8,317 | $4,400 | $12,717 | 3 |
| | | | | | | | | | Total | $1,130,147 | |

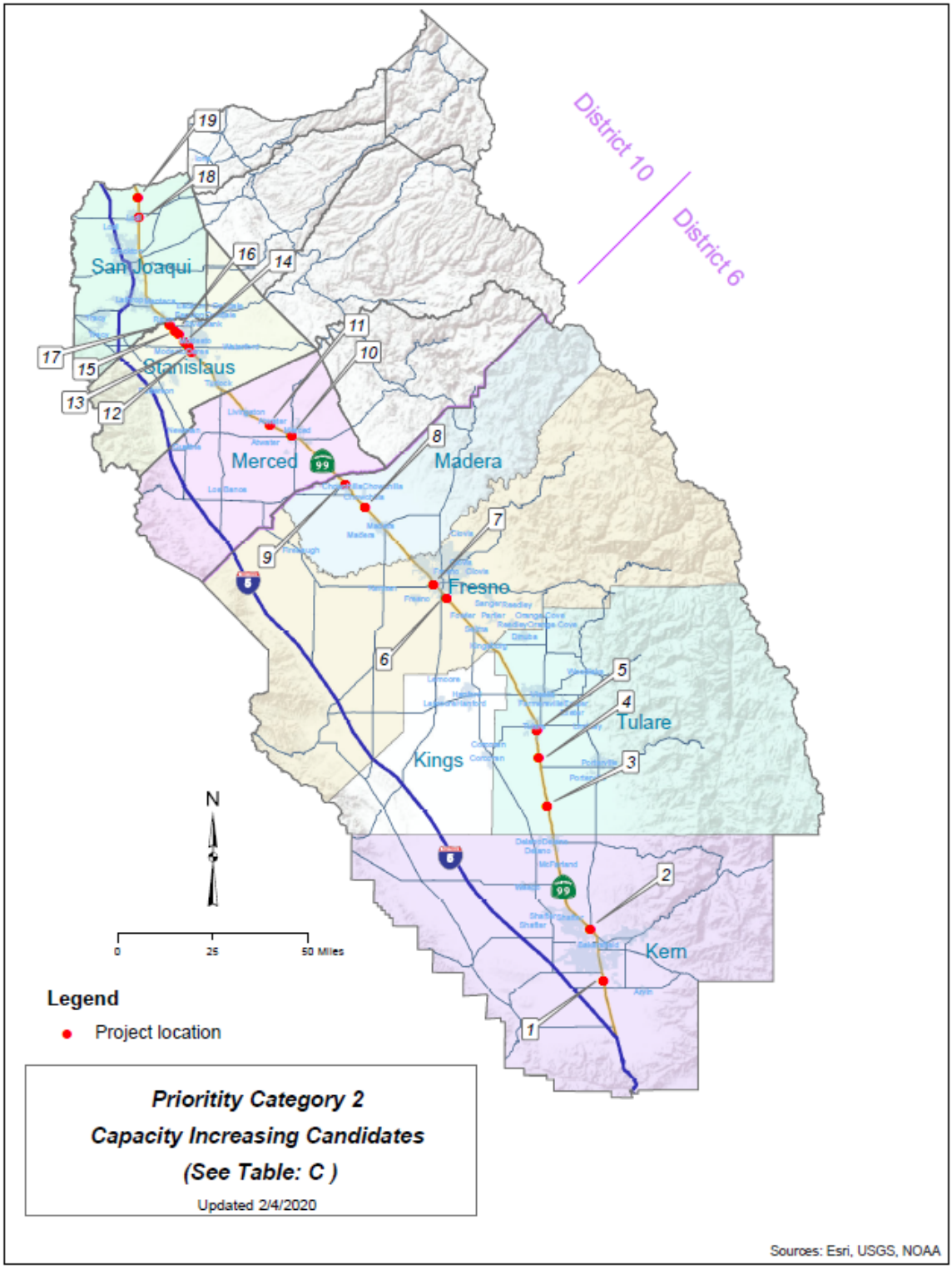
Note: Shaded = Fully Funded; Unshaded = Partially Funded

## *Candidate Projects*

### Priority Category 2: Capacity-Increasing Candidate Projects

While much has been accomplished since the release of the 2013 Business Plan update there is still much work to do. The candidate projects in Category 2 are unfunded capacity-enhancing projects necessary to implement the ultimate design concept for Route 99. Nineteen widening projects remain to be constructed (some projects have been combined over multiple phases). Of these, ten projects are proposed to expand the Route to an eight-lane facility in the most populous regions (Kern, Fresno, San Joaquin, and Stanislaus counties). Significantly, eight candidate projects are identified to satisfy one of the major goals of the BP, increasing the capacity of any segments containing fewer than six-lanes. The total estimated cost to construct the candidate Category 2 projects is $4.3 billion.

## Figure 7. Priority Category 2: Capacity Increasing Candidates



## Table C - Priority Category 2: Capacity Increasing Candidates

Table C - Priority Category 2: Capacity Increasing Candidates — December 30, 2019

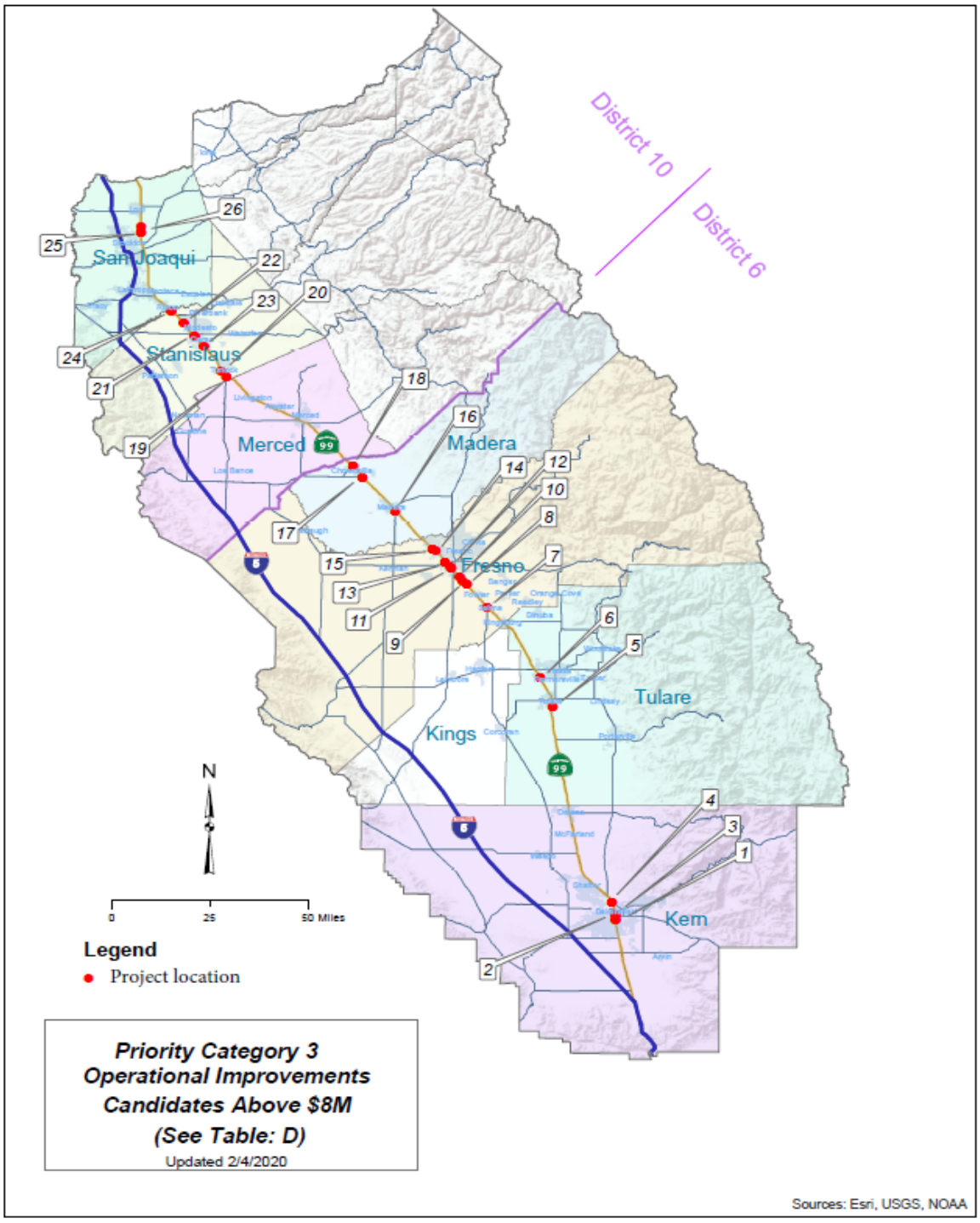
| Number on Map | Cnty | PMs | EA | Project Name | Project Location | Project Description | CONSTRUCT CAPITAL COST X $1,000 | R/W CAPITAL COST X $1,000 | SUPPORT COST X $1,000 | TOTAL COSTS PER PROJECT X $1,000 | PID DELIVERY STATUS | RTP STATUS C=CONSTRAINED NC=NOT CONSTRAINED | REGIONAL PRIORITY CATEGORY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | KER | 13.4/17.0 | N/A | N/A | Bear Mountain Blvd to SR 119 | Widen from 6F to 8F | $40,000 | $0 | $12,000 | $52,000 | Need PID | In RTP - C | 2 |
| 2 | KER | 28.4/31.1 | 06-0Q600K | Kern 99 North Widening Phase II | Beardsley Canal to 7th Std Rd (Phase 2) | Widen from 6F to 8F | $25,000 | $2,000 | $9,000 | $36,000 | PID Completed | In RTP - C | 2 |
| 3 | TUL | 0.0/16.0 | N/A | N/A | Kern Co Line to south of Tipton | Widen from 4F to 6F | $143,000 | $1,000 | $45,000 | $195,000 | Need PID | In RTP - NC | 2 |
| 4 | TUL | 16.0/25.5 | N/A | N/A | South of Tipton to Avenue 200 | Widen from 4F to 6F | $105,000 | $1,000 | $31,500 | $137,500 | Need PID | In RTP - C | 2 |
| 5 | TUL | 25.4/30.5 | 06-48950K | Tulare City Widening | Avenue 200 to Prosperity Ave | Widen from 4F to 6F | $124,000 | $47,000 | $29,150 | $200,150 | PID Completed | In RTP - C | 2 |
| 6 | FRE | 15.8/18.5 | N/A | N/A | Central Ave to Jensen Ave | Widen from 6F to 8F | N/A | N/A | N/A | N/A | Need PID | Removed | 2 |
| 7 | FRE | 18.5/26.6 | N/A | N/A | Jensen Ave to Ashlan Ave | Widen from 6F to 8F | N/A | N/A | N/A | N/A | Need PID | Removed | 2 |
| 8 | MAD | 15.1/20.5 | 06-0Y360 | North Madera 99 Widening | Avenue 17 to Avenue 21 1/2 | Widen from 4F to 6F | $134,000 | $14,500 | $17,100 | $165,600 | PID Completed | In RTP - NC | 2 |
| 9 | MAD | 22.5/29.4 | N/A | N/A | SR 152 Interchange to Merced Co Line | Widen from 4F to 6F | N/A | N/A | N/A | N/A | Need PID | In RTP - NC | 2 |
| 10 | MER | 12.8/19.3 | 10-0U230K | Merced 99 Widening | S of Childs Ave to Weber Canal | Widen from 4F to 6F | $1,280,000 | $236,000 | $16,000 | $1,532,000 | PID Completed | In RTP - NC | 2 |
| 11 | MER | 20.9/R23.8 | 10-1J350 | MER 99 Atwater Applegate IC | 1.9 mi south of Applegate Rd OC to 1.04 mi north of Applegate Rd OC | Widen from 4F to 6F | $700,000 | $100,000 | $10,000 | $770,000 | PID Completed | In RTP - NC | 2 |
| 12 | STA | R10.9/R13.2 | 10-0E560K | Ceres/Modesto 8-Lane Feasibility Study | Mitchell Road to Hatch Road | Widen from 6F to 8F | $67,500 | $20,000 | $25,000 | $138,400 | Need PID | In RTP - C | 2 |
| 13 | STA | R13.2/R15.1 | 10-0E560K | Ceres/Modesto 8-Lane Feasibility Study | Hatch Road to Tuolumne Blvd | Widen from 6F to 8F | $55,000 | $0 | $20,000 | $93,000 | Need PID | In RTP - C | 2 |
| 14 | STA | R15.1/R16.8 | 10-0E560K | Ceres/Modesto 8-Lane Feasibility Study | Tuolumne Blvd to Kansas Avenue | Widen from 6F to 8F | $49,000 | $10,000 | $20,000 | $97,000 | Need PID | In RTP - C | 2 |
| 15 | STA | R16.8/R18.5 | 10-0E560K | Ceres/Modesto 8-Lane Feasibility Study | Kansas Avenue to Carpenter Road | Widen from 6F to 8F | $35,000 | $10,000 | $10,000 | $67,700 | Need PID | In RTP - C | 2 |
| 16 | STA | R18.5/R24.7 | 10-0E560K | Ceres/Modesto 8-Lane Feasibility Study | Carpenter Road to San Joaquin County Line | Widen from 6F to 8F | $48,100 | $0 | $18,000 | $81,300 | Need PID | In RTP - C | 2 |
| 17 | STA/SJ | R22.5/R24.8, 0.0/6.7 | 10-1J900 | STA/SJ 99 HOV | SR-219 to SR-120 | Construct HOV Lane | $518,000 | $125,000 | $15,000 | $658,000 | PID Completed | In RTP-NC | 2 |
| 18 | SJ | 28.3/31.6 | 10-1F070 | Lodi 99 Widening | Harney Road to Turner Road | Widen from 4F to 6F | $50,000 | $1,000 | $3,000 | $54,000 | PID Completed | In RTP - NC | 2 |
| 19 | SJ | 31.6/38.8 | N/A | North Lodi Widening | Turner Road to Sacramento County Line | Widen from 4F to 6F | $70,000 | $20,000 | $5,000 | $77,000 | Need PID | In RTP - NC | 2 |
| | | | | | | | | | Total | $4,354,650 | | | |

**Note: These projects are not funded. Data in this table should not be used to program projects.**

## Priority Category 3: Operational Improvement Candidate Projects – Capital Costs Above $8 Million

Candidate projects in Category 3 are potential operational improvements and are sub-categorized according to estimated individual project cost. The first sub-category contains those projects estimated to cost greater than $8 million each and the second sub-category contains projects estimated to cost less than $8 million. There are 26 projects that will cost more than $8 million each to build. The majority of these projects (22) propose to modify existing interchanges while four projects propose adding auxiliary lanes to the Route. Total estimated cost to construct all 26 projects is over $1.6 billion.

**Figure 8. Priority Category 3: Operational Improvement Candidates – Capital Costs Above $8 Million**



## Table D - Priority Category 3: Operational Improvement Candidates – Capital Costs Above $8 Million

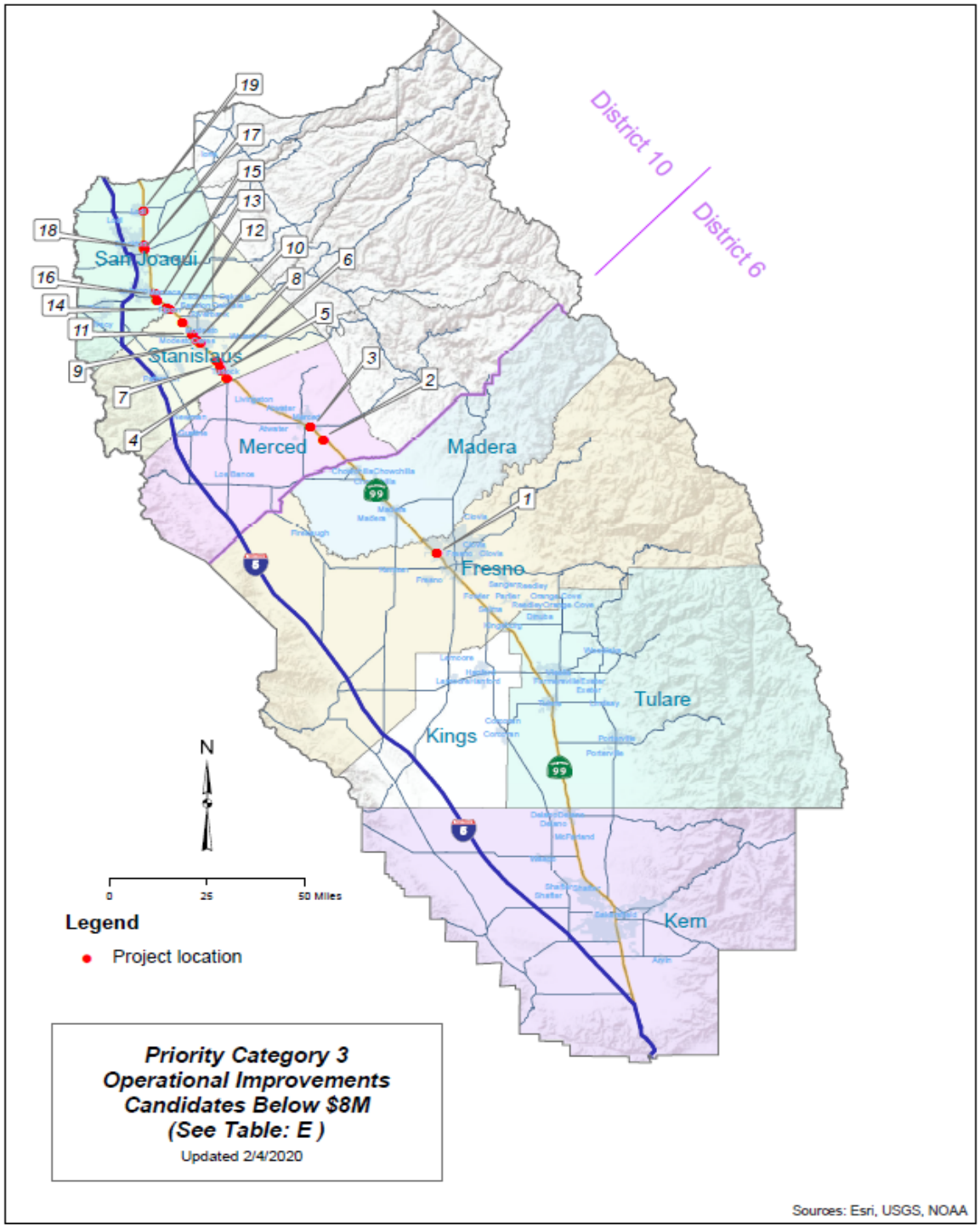
Table D - Priority Category 3: Operational Improvement Candidates-Capital Costs Above $8M — December 30, 2019

| NO | CNTY | ROUTE 99 POSTMILE | EA | PROJECT NAME | PROJECT LOCATION | PROJECT DESCRIPTION | CONSTRUCT CAPITAL COST X $1,000 | R/W CAPITAL COST X $1,000 | SUPPORT COST X $1,000 | TOTAL COSTS PER PROJECT X $1,000 | PID DELIVERY STATUS | RTP STATUS C=CONSTRAINED NC=NOT CONSTRAINED | REGIONAL PRIORITY CATEGORY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | KER | 22.6/25.6 | N/A | N/A | At SR 99/58 Interchange | Freeway to Freeway Connector | 150,000 | 20,000 | 15,000 | $185,000 | Need PID | In RTP - C | 3 |
| 2 | KER | 22.7/23.2 | 06-46011K | Ming Auxiliary Lane | Ming Ave to SR58 | Construct N/B Auxiliary Lane | $19,000 | $1,100 | $4,300 | $24,400 | PID Completed | In RTP - C | 3 |
| 3 | KER | 23.9/24.6 | 06-46012K | California Auxiliary Lane | 58/Stockdale to California Ave | Construct S/B Auxiliary Lane | $21,800 | $2,200 | $4,800 | $28,800 | PID Completed | In RTP - C | 3 |
| 4 | KER | 27.8/28.1 | 06-49710K | Olive Drive Interchange | Olive Dr. Interchange | Expand Interchange | $7,700 | $300 | $2,600 | $10,600 | Need PID | In RTP - C | 3 |
| 5 | TUL | 27.6/28.0 | 06-33990K | Page Ave Interchange | Paige Ave Interchange | Reconstruct Interchange | $38,000 | $6,000 | $10,000 | $54,000 | PID Completed | In RTP - C | 3 |
| 6 | TUL | 36.1/36.8 | 06-48740K | Caldwell Interchange | Caldwell Interchange | Reconstruct Interchange | $25,000 | $4,500 | $7,300 | $36,800 | PS&E | In RTP - C | 3 |
| 7 | FRE | 6.5 | 06-0H410K | Floral Rd/SR 43 Interchange | Floral Rd/SR 43 Interchange | Replace Bridge Structure and Floral Rd | $10,000 | $0 | $3,000 | $13,000 | Need PID | In RTP - C | 3 |
| 8 | FRE | 14.1/14.9 | 06-0H240 formally 06-0H230K | South Fresno Interchange Project Formally American Ave Interchange | In and near Fresno from 0.4 mi south of American Ave Over-crossing to 0.4 mi north of North Ave Over-crossing | Modify Interchange | $21,000 | Unknown | $6,900 | $27,900 | Need PID | In RTP - C | 3 |
| 9 | FRE | 15.8 | N/A | Central Ave/Chestnut Ave Interchange | Central Ave/Chestnut Ave Interchange | Interchange Improvements | $42,000 | $20,000 | $12,600 | $74,600 | Need PID | In RTP - NC | 3 |
| 10 | FRE | 16.7/17.5 | 06-0H240K | Cedar Ave/North Ave Interchange | Cedar Ave/North Ave Interchange | Interchange Improvements | $50,000 | $18,000 | $14,700 | $82,700 | PA&ED | In RTP - C | 3 |
| 11 | FRE | 20.3 | N/A | Ventura Ave Interchange | Ventura Ave Interchange | Interchange Improvements | $42,000 | $20,000 | $12,600 | $74,600 | Need PID | Not in RTP | 3 |
| 12 | FRE | 20.7/24.4 | 06-39210K | Roeding Auxiliary Lane | Fresno St to Clinton Ave | Add NB and SB Auxiliary Lanes | $37,000 | $69,000 | $19,000 | $125,000 | PID Completed | In RTP - NC | 3 |
| 13 | FRE | 20.5/21 | N/A | N/A | Toulumne St to Stanislaus St | Interchange Improvements | $10,000 | $0 | $3,000 | $13,000 | Need PID | Not in RTP | 3 |
| 14 | FRE | 23.0/30.4 | 06-0K290K | Southbound 99 Ramp Metering | Belmont Ave to Herndon Ave | Ramp Metering and Auxiliary Lanes | $5,997 | $3,627 | $9,624 | $19,248 | In Construction | Not in RTP | 3 |
| 15 | FRE | 27.3/28.3 | 06-442700 | Shaw Ave Interchange | N/A | Interchange Improvements | $29,000 | $25,000 | $8,700 | $62,700 | PID Completed | In RTP - NC | 3 |
| 16 | MAD | 9.7/10.7 | N/A | N/A | Route 99/145 | Reconstruct Interchange | $32,000 | $7,200 | $7,500 | $46,700 | Need PID | Not in RTP | 3 |
| 17 | MAD | 21.7/23.7 | N/A | N/A | SR 152 Interchange | Reconstruct Interchange and Rail Crossing | $69,400 | $3,200 | $18,200 | $90,800 | Need PID | In RTP - NC | 3 |
| 18 | MAD | 26.2/26.9 | 06-0C910K | Chowchilla 99/233 Interchange | Route 99/233 | Reconstruct Interchange | $49,700 | $2,600 | $7,000 | $59,300 | PID Completed | In RTP - C | 3 |
| 19 | STA | R1.4 | N/A | Lander I/C | SR99 @ SR165 (Lander Ave) | Modify Interchange | $35,000 | $5,000 | $12,000 | $52,000 | Need PID | In RTP - C | 3 |
| 20 | STA | R3.2/R4.0 | 10-0F410K | Main Street I/C | West Main Street | Reconstruct Interchange | $11,900 | $6,700 | $2,000 | $20,600 | PID Completed | In RTP - C | 3 |
| 21 | STA | R11.3 | 10-0E560K | Pine St. I/C | Pine Street | Reconstruct Interchange | $50,000 | $25,000 | $15,000 | $90,000 | PID Completed | Not in RTP | 3 |
| 22 | STA | R14.9/R15.6 | 10-0H770K | SR132/99 I/C | SR99 @ SR132 to SR132 East | New Freeway to Freeway Interchange | $70,000 | $6,000 | $20,000 | $96,000 | Need PID | In RTP - C | 3 |
| 23 | STA | R19.9 | N/A | Staniford I/C | SR99 @ Standiford | Modify Interchange | $75,000 | $10,000 | $20,000 | $105,000 | Need PID | In RTP - C | 3 |
| 24 | STA | R23.9/R25.1 | 10-0L3200 | Sta-99 @ Hammett Rd | Between 0.4 mile S of Hammett Rd OC and 0.8 mile N of Hammett Rd OC | Reconstruct Interchange | 2013 | $43,600 | $13,700 | $59,313 | PID Completed | In RTP - C | 3 |
| 25 | SJ | 23.5/24.5 | 10-0L1400 | Morada/99 Interchange | At Morada Lane in Stockton | Reconstruct Interchange | 2017 | $88,000 | $13,000 | $103,017 | PID Completed | In RTP - C | 3 |
| 26 | SJ | 24.9/25.9 | 10-0L1300 | Eight Mile/99 Interchange | At Eight Mile Rd in Stockton | Reconstruct Interchange | 2017 | $63,000 | $10,000 | $75,017 | PID Completed | In RTP - C | 3 |
| | | | | | | | | | Total | $1,630,095 | | | |

## Priority Category 3: Operational Improvement Candidate Projects – Capital Costs Below $8 Million

There are 19 candidate projects to address operational improvements on the Route, estimated to cost less than $8 million each. All of these projects are in District 10 except for one in Fresno County and range from constructing auxiliary lanes to implementing ramp improvements. The estimated total cost for this sub-category is nearly $109 million.

**Figure 9. Priority Category 3: Operational Improvement Candidate Projects – Capital Costs Below $8 Million**



## Table E – Priority Category 3: Operational Improvement Candidate Projects Below $8 Million

Table E - Priority Category 3: Operational Improvement Candidates-Capital Costs Below $8M — December 30, 2019

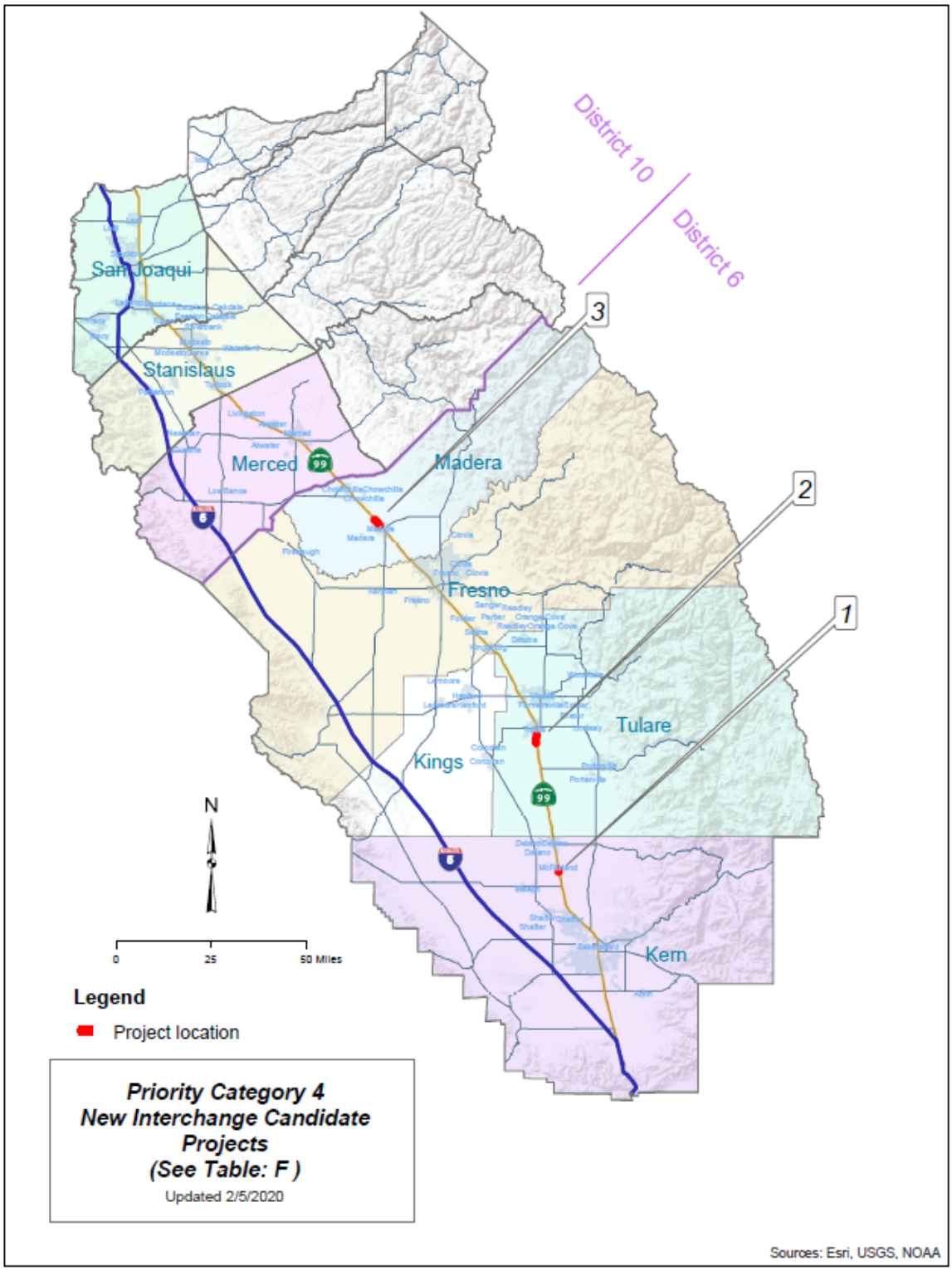
| NO | CNTY | ROUTE 99 POSTMILE | EA | PROJECT NAME | PROJECT LOCATION | PROJECT DESCRIPTION | CONSTRUCT CAPITAL COST X $1,000 | R/W CAPITAL COST X $1,000 | SUPPORT COST X $1,000 | TOTAL COSTS PER PROJECT X $1,000 | PID DELIVERY STATUS | RTP STATUS C=CONSTRAINED NC=NOT CONSTRAINED | REGIONAL PRIORITY CATEGORY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | FRE | 26.2/26.6 | 06-46140 | *NB Ramp Upgrade* | In Fresno at Ashlan Ave NB Off-Ramp | Construct Additional Lane for Off-Ramp | $3,000 | $0 | $1,000 | $4,000 | PID Completed | N/A | 3 |
| 2 | MER | 5.1/11.4 | N/A | N/A | South of Merced | Construct NB and SB Acceleration/Deceleration Lanes at 13 Locations | $3,200 | $0 | N/A | $3,200 | Need PID | N/A | 3 |
| 3 | MER | 12.9/13.3 | N/A | N/A | In Merced on the SR99/Child Interchange | Improve NB and SB On/Off Ramps | $1,000 | $0 | N/A | $1,000 | Need PID | N/A | 3 |
| 4 | STA | R1.3/R2.2 | N/A | N/A | In Turlock at Central Turlock/SR 165 (Lander Ave) | Improve NB and SB On/Off Ramps | $1,000 | $0 | N/A | $1,000 | Need PID | N/A | 3 |
| 5 | STA | R3.7/R4.3 | N/A | N/A | In Turlock from West Main St to Fulkerth Ave | Construct NB Auxiliary Lane | $3,800 | $0 | N/A | $3,800 | Need PID | N/A | 3 |
| 6 | STA | R4.7/R5.5 | N/A | N/A | In Turlock from Fulkerth Rd to Monte Vista Rd | Construct NB and SB Auxiliary Lanes | $4,500 | $0 | N/A | $4,500 | Need PID | N/A | 3 |
| 7 | STA | R5.3/R7.9 | N/A | N/A | In Turlock from Monte Vista Rd to Taylor Rd | Construct NB and SB Auxiliary Lanes | $7,900 | $0 | N/A | $7,900 | Need PID | N/A | 3 |
| 8 | STA | R6.9/R8.0 | N/A | N/A | In Turlock at SR 99/Keyes Rd Interchange | Improve NB On/Off Ramps | $1,000 | $0 | N/A | $1,000 | Need PID | N/A | 3 |
| 9 | STA | R13.3 | N/A | N/A | In Modesto at SR 99/Hatch Rd Interchange | Improve NB and SB On/Off Ramps | $1,000 | $0 | N/A | $1,000 | Need PID | N/A | 3 |
| 10 | STA | R14.6/R15.1 | N/A | N/A | From Crowslanding Rd to Toulumne Blvd/B St | Improve NB and SB On/Off Ramps and Construct Auxiliary Lanes | $7,100 | $0 | N/A | $7,100 | Need PID | N/A | 3 |
| 11 | STA | R16.8 | N/A | N/A | In Modesto | Improve NB and SB On/Off Ramps and Construct Auxiliary Lanes | $3,200 | $0 | N/A | $3,200 | Need PID | N/A | 3 |
| 12 | STA | R20.5/21.5 | N/A | N/A | In Modesto from Beckwith/Staniford Ave to Pelandale Ave | Improve On/Off Ramps and Construct NB and SB Auxiliary Lanes | $7,900 | $0 | N/A | $7,900 | Need PID | N/A | 3 |
| 13 | SJ | 0.6/1.4 | N/A | N/A | In Ripon from Main St to Milgeo Ave | Improve NB and SB On/Off Ramps at Main St and Construct Auxiliary Lane | $37,100 | $0 | N/A | $37,100 | Need PID | N/A | 3 |
| 14 | SJ | 1.4/2.1 | N/A | N/A | In Ripon from Milgeo Ave to Jacktone Rd | Improve NB and SB On/Off Ramps at Milgeo Ave and Construct Auxiliary Lane | $5,900 | $0 | N/A | $5,900 | Need PID | N/A | 3 |
| 15 | SJ | 5.0/5.4 | N/A | N/A | Near Manteca from Austin Rd to Jct SR 120 West | Improve NB and SB On/Off Ramps at Milgeo Ave and Construct Auxiliary Lanes | $3,800 | $0 | N/A | $3,800 | Need PID | N/A | 3 |
| 16 | SJ | 6.8/7.1 | N/A | N/A | In Manteca at the Jct of SR 120 East (Yosemite Ave) | Improve NB and SB On/Off Ramps | $1,200 | $0 | N/A | $1,200 | Need PID | N/A | 3 |
| 17 | SJ | 19.4/20.2 | N/A | N/A | In Stockton between Freemont St and Waterloo Rd | Construct NB and SB Auxiliary Lanes | $6,100 | $0 | N/A | $6,100 | Need PID | N/A | 3 |
| 18 | SJ | 20.5/20.9 | N/A | N/A | In Stockton from Waterloo Rd to Cherokee Rd | Construct NB Auxiliary Lane | $2,000 | $0 | N/A | $2,000 | Need PID | N/A | 3 |
| 19 | SJ | 29.7/ 30.7 | N/A | N/A | Between SR 12 (Kettleman Ln) and SR 12 East to San Andreas | Construct NB and SB Auxiliary Lanes | $7,000 | $0 | N/A | $7,000 | Need PID | N/A | 3 |
| | | | | | | | | | Total | $108,700 | | | |

Note: These projects are not funded. Data in this table should not be used to program projects.

## Priority Category 4: New Interchange Candidate Projects

Remaining Priority Category 4 projects exist in District 6 only. One new interchange is proposed in each of Kern (Hanawalt Road), Tulare (Commercial Avenue), and Madera (Ellis Avenue) counties. The individual construction costs for new interchanges can pose a significant challenge to materialization. The total estimated cost for the three Priority Category 4 projects is $189 million.

## Figure 10. Priority Category 4: New Interchange Candidate Projects



# Table F – Priority Category 4: New Interchange Candidate Projects

| Table F - Priority Category 4: New Interchange Candidate Projects | | | | | | | | | | | December 30, 2019 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NO | CNTY | PMs | EA | PROJECT LOCATION | PROJECT DESCRIPTION | CONSTRUCT CAPITAL COST X $1,000 | R/W CAPITAL COST X $1,000 | SUPPORT COST X $1,000 | TOTAL COSTS PER PROJECT X $1,000 | PID DELIVERY STATUS | RTP FINANCIALLY CONSTRAINED? | REGIONAL PRIORITY CATEGORY |
| 1 | KER | 48.4/48.9 | N/A | At Hanawalt Road | Construct New Interchange | $50,000 | $10,000 | $10,000 | $70,000 | Need PID | In RTP - NC | 4 |
| 2 | TUL | 25.4/27.6 | 06-43040K | at Commercial Avenue at Agri-Center | Construct New Interchange | $36,000 | $3,000 | $5,000 | $44,000 | Need PID | In RTP - C | 4 |
| 3 | MAD | R12.3/R14.3 | 06-48920K | at Ellis Avenue | Construct New Interchange | $46,000 | $9,000 | $20,000 | $75,000 | PID Completed | In RTP - NC | 4 |
| | | | | | | | | Total | $189,000 | | | |

Note: These projects are not funded. Data in this table should not be used to program projects.

## Conclusion

Primarily, the focus of the BP was to build enough capacity on the Route to accommodate the safe and efficient movement of goods and people to enhance California's economy and livability. Several four-lane segments still exist throughout the corridor awaiting a significant funding source. Within District 6, there are three gaps in capacity totaling nearly 37 miles where bottlenecks regularly occur. One is a large 25.4-mile segment from southern Tulare County line to Tulare City, and there are two additional gaps in Madera County. District 10 contains three gaps covering a total of 22.2 miles in the City of Merced, near the City of Atwater, and in San Joaquin County from the south side of the City of Lodi to the northern county line (details of these projects are shown in Table C).

Importantly, operational improvements work in tandem with the capacity enhancing projects to deliver safety, traffic reduction, improved air quality, and travel time reliability on the Route. Operational improvements range from shoulder widening, to installation of median concrete barrier, to reconfiguration of existing interchanges. Many of the interchanges on Route 99 were built in the 1950's and 60's and were designed for significantly lower volumes than those encountered today. Inadequate geometrics, as well as limited storage and merge distance all contribute to congestion on the ramps, local roads, and the highway itself. There is a need to modify or replace these interchanges to improve the safety and operation of the Route.

*As a result of the BP, all at-grade intersections have been replaced with grade-separated interchanges, bolstering safety outcomes for motorists on the Route.*

## *Long-Range Plans for Route 99*

To better align with the Department's modern mission and vision, going forward, Caltrans Districts will manage the Route through a comprehensive planning approach. Corridor Planning is a multimodal transportation planning approach that recognizes transportation needs are based on the sum of geographic, demographic, economic, and social characteristics of communities. Regional variation, including the different conditions between rural and urban areas, shape the character of the Route, so Corridor Plans will be developed in each District together with adjoining jurisdictions to ensure those nuances are addressed. By seeking to integrate all modes, management strategies, and improvements—including those identified in the BP—Corridor Plans will direct future development of the Route to be a safe, sustainable, integrated and efficient component of the larger transportation system. The Corridor Plans will carry forward the objective of the BP to enhance the Route's functionality as a trade corridor and improve the mobility of all users by connecting the projects in the BP to new multimodal strategies that can transform the way people and freight are transported. Overriding considerations will be needed to create a viable trade corridor to enhance the economy and livability of the Valley. The end goal is to build upon the foundation of the BP and provide one unified concept for managing, operating, preserving, and improving the Route in a wholistic manner.

# List of Abbreviated Terms

| | |
|---|---|
| AADT | Annual Average Daily Traffic |
| AADTT | Annual Average Daily Truck Traffic |
| AASHTO | American Association of State Highway and Transportation Officials |
| AC | Asphalt concrete |
| ADA | Americans with Disabilities Act |
| ADT | Average Daily Traffic |
| Caltrans | California Department of Transportation |
| CE | Categorical Exceptions/Exemptions |
| CEQA | California Environmental Quality Act |
| CHSRA | California High Speed Rail Authority |
| CSMP | Corridor System Management Plan |
| CTC | California Transportation Commission |
| DED | Draft Environmental Document |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| FED | Final Environmental Document |
| FHWA | Federal Highway Administration |
| FONSI | Finding of No Significant Impact |
| HES | Hazard Elimination and Safety Program |
| HBRR | Highway Bridge Replacement/Rehabilitation Program |
| HDM | Highway Design Manual |
| IIP | Interregional Improvement Program |
| ISTEA | Intermodal Surface Transportation Efficiency Act |
| ITS | Intelligent Transportation Systems |
| HOV | High Occupancy Vehicle |
| HSR | High speed Rail |
| ITIP | Interregional Transportation Improvement Program |
| ITSP | Interregional Transportation Strategic Plan |
| LOS | Level of Service |
| MAP-21 | Moving Ahead for Progress in the 21st Century |

| | |
|---|---|
| MPO | Metropolitan Planning Organization |
| NEPA | National Environmental Policy Act |
| ND | Negative Declaration |
| NHS | National Highway System |
| PA&ED | Project Approval and Environmental Documentation |
| PCC | Portland cement concrete |
| PID | Project Initiation Document |
| PM | Particulate Matter |
| PM | Post mile |
| PSR | Project Study Report |
| PS&E | Plans, Specifications, and Estimates |
| PSSR | Project Scope Summary Report |
| REMI | Regional Economics Models, Inc |
| RIP | Regional Improvement Program |
| RTIP | Regional Transportation Improvement Program |
| RTP | Regional Transportation Plan |
| R/W | Right-of-way |
| SAFETEA-LU | Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users |
| SHOPP | State Highway Operation and Protection Program |
| SJV | San Joaquin Valley |
| SRRA | Safety Roadside Rest Area |
| STIP | State Transportation Improvement Program |
| TAP | Transportation Alternatives Program |
| TCR | Transportation Concept Report |
| TCRP | Transportation Congestion Relief Program |
| TE | Transportation Enhancement |
| TIFIA | Transportation Infrastructure Finance and Innovation Act |
| TMS | Transportation Management System |
| VMT | Vehicle Miles Traveled |

# List of Figures and Tables

## Resources

Jason's Law - https://ops.fhwa.dot.gov/freight/infrastructure/truck_parking/jasons_law/truckparkingsurvey/ch1.htm

Poverty - https://www.citylab.com/equity/2019/09/affordable-housing-fresno-california-home-real-estate-rent/598840/?utm_medium=offsite&utm_source=yahoo&utm_campaign=yahoo-non-hosted&yptr=yahoo

1. SB1 Program Demands based on CTC's "Summary of STIP Share Balances Through June 30, 2019".