Volume 6, Issue 1

January–February–March 2016

Caltrans Update Fresno Council of Governments

CALTRANS MISSION:

Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability



Inside this issue:	Page	a th
Intelligent Transporta-	1	
tion Systems and Au-		Αı
tonomous Vehicles		Cr
		de
Caltrans Orders 14	5	dı
New Diesel-Electric		bl
Locomotives for		US.
Amtrak Pacific		
Surfliner Route		n
		du du
Nearly \$154 Million	7	u
Allocated to Improve		0
and Maintain Califor-		
nia's Multi-modal		0
Transportation System		ef
		dı
Caltrans Launches New	9	de
Website - State Route)	Sa
99 Realignment project		pi
		a
		8
Update on Fresno	10	T۱
County Projects		ct
		0
		- UC
		- 10

Intelligent Transportation Systems and Autonomous Vehicles

Intelligent Transportation Systems (ITS) include such technologies as vehicle detection, video cameras, weather stations, changeable message signs, and wireless communication systems. About 7 years ago, District 6 constructed the Fog Detection and Warning System (FDWS) on a 12-mile section of Route 99 at the Fresno-Tulare county line using these technologies to enhance traveler safety.

Automakers have embraced technology and actively market automated crash avoidance safety systems such as emergency brake assist or lane departure warning. Fully autonomous vehicles, also known as selfdriving vehicles, use these technologies and are expected to be available in about 5 years according to some automakers. Highways could be used more efficiently by having vehicles travel closer together and at unified speeds. Fuel consumption could be increased by having vehicles not accelerating unnecessarily to stops and by reducing aerodynamic drag by having vehicles travel close together in platoons.

<u>Connected Corridors</u> – Integrated Corridor Management (ICM) involves operating a freeway and a parallel coordinated arterial to maximize the efficiency and capacity. Traffic can be rerouted between the facilities during incidents or events. It requires a freeway to have ample roadway detection for vehicle speeds and counts, numerous changeable message signs, and ramp meters integrated with the signal systems. Initial pilot projects are on Interstate 80 in the Bay Area between Emeryville and Richmond and I-210 in the San Gabriel Valley. For the \$79 million I-80 project, the primary parallel arterial is Route 123, San Pablo Avenue. Two highly visible components of the project are gantries, which are structures over the lanes that can show advisory speeds or arrows that can indicate closed lanes, and traffic information boards, which show travel times and red, yellow, and green bands indicating vehicle speeds.

Caltrans®, the California Department of Transportation® and the Caltrans logo are registered service marks of the California Department of Transportation and may not be copied, distributed, displayed, reproduced or transmitted in any form without prior written permission from the California Department of Transportation.

Intelligent Transportation Systems and Autonomous Vehicles, Continued

A Connected Corridor envisioned for District 6 in the future is Route 41 in the Metropolitan Fresno Area.

Connected Vehicles - V2V is shorthand for vehicle-tovehicle communications. All vehicles will be required by the National Highway Traffic Safety Administration (NHTSA) to have DRSC, or dedicated short-range communications. to communicate to each other. Phase-in is expected to begin within 5 vears. Vehicles with DRSC will be transmitting a Basic Safety Message, which includes vehicle heading, speed, and location. Numerous applications for V2V are



Above and right: The I-80 Smart Corridor in the Bay Area is undergoing testing and is expected to go live early next year.

envisioned, including Left Turn Assist (LTA) and Intersection Movement Assist (IMA). LTA would warn a driver when it is not safe to turn left in front of an oncoming vehicle, and IMA would warn a driver when there is a high probability of a collision when entering into an intersection. DRSC will also be used for communications for vehicles to infrastructure, or V2I. For instance, traffic signals can transmit signal indication and timing information to vehicles. Such information is already available using a phone application in some cities, such as Walnut Creek.



<u>Research in California</u> – Many of the major automakers are conducting research on autonomous driving in Silicon Valley. On Route 82, El Camino Real, through Palo Alto, the Caltrans Division of Research and Innovation and System Information (DRISI) has partnered with researchers, universi-



ties, and industry to set up a test bed consisting of four existing and an additional seven planned signalized intersections with the radio communications. Former Caltrans Director Randy Iwasaki, now Executive Director of the Contra Costa Transportation Authority, has converted the former Concord Na-

Intelligent Transportation Systems and Autonomous Vehicles, Continued

val Air Station into an autonomous and connected vehicle test facility called GoMentum Station, where automakers and other researchers can test vehicles in a closed environment to mimic realworld driving in both high-speed rural and low-speed urban situations.

<u>Vehicle Platooning</u> – Cooperative Adaptive Cruise Control (CACC) allows multiple vehicles to become linked to accelerate and brake in unison. Truck platooning technology is already commercially available by Peloton Technologies. Two trucks can link together, with the following vehicle having automated acceleration and braking. The driver of the following truck has a video display of the driver's view in the lead truck. The company claims increased fuel economy of about 5% for the lead truck and 10% for the following truck. The technology is currently available for linking only two trucks, but that will be increased to three trucks. To prevent difficulties for other motorists entering and exiting freeway ramps, the company says that the technology is used primarily on freeways with three or more lanes in each direction.

<u>Google</u> – Google has a fleet of Lexus SUVs driven by employees. The vehicles use cameras, lidar, radar sensors, and GPS data to navigate. The vehicles can identify pedestrians and bicyclists and even the flaggers in a work zone. Google has a fleet of prototype low-speed electric vehicles operating in Mountain View and in Austin, Texas. The vehicles are intended to be operated without a steering wheel or pedals, but those have been installed to be street-legal in California. The vehicles communicate with each other to provide additional traffic information. For instance, if one vehicle encounters a construction zone, that information becomes available to other Google vehi-



cles. Google already uses GPS information from enabled users of Google Maps to provide real-time traffic information. In California, the Google Self-Driving Car is considered a Neighborhood Electric Vehicle (NEV), which is legal to operate on streets with a posted speed limit of 35 mph or lower.

Intelligent Transportation Systems (ITS), including automated vehicle technologies, may impacts the transportation system network profoundly in the near and distant future. There are also challenges for vehicles to operate fully autonomously on public streets and highways.

<u>Highway Striping</u> – Striping in good condition has been the primary request by automakers. This helps not only the future autonomous vehicles but also the current vehicles that have lane departure warning systems. District 6 has been using tape with contrast treatment, with a black border around the white stripe, on concrete pavement because of issues of adherence of thermoplastic onto concrete. Epoxy and polyurea products can be used in harsher environments, such as in snow areas. There has been some test applications of these products in District 6. The cost is currently high with these products, but the cost would become more competitive to thermoplastic

Intelligent Transportation Systems and Autonomous Vehicles, Continued

striping as local striping contractors become equipped to apply the products. Headquarters is also considering projects where the striping is warrantied for the life of the striping. However, the cost is expected to be significantly higher than without a warranty. Edgelines that are 6 inches wide instead of 4 inches for increased visibility have been installed on Route 99 in Fresno and Tulare Counties on a trial basis. The State of Nevada has used 8 inch striping extensively instead of 4 inch striping. The striping is highly visible, though the wider stripe is more expensive to place.

Increase in ITS Field Elements in the Near Term – Additional ITS field elements, such as changeable message signs (CMSs), microwave vehicle detection systems (MVDS), and wireless communication systems add inventory that needs to be maintained and eventually replaced. District 6 received three additional Electrician positions this year for maintaining the growing electrical inventory. Our experience with the Fog Detection and Warning System (FDWS) on Route 99 in southern Fresno and northern Tulare Counties shows that leading edge technology can be very expensive to maintain.

Decrease in ITS Field Elements in the Long-Term – As vehicles become connected to the infrastructure through dedicated short-range communications (DRSC), there could be less of a need for Changeable Message Signs (CMSs), Highway Advisory Radios (HARs), and other types of warning devices. Warnings could be transmitted directly to vehicles onto dashboards or as audible warnings. However, there would be additional costly communication equipment to maintain. It is estimated that the cost to equip a signal controller with DRSC equipment is \$20,000.

<u>Changes in Streets in Urban Areas</u> – Fully autonomous neighborhood electric vehicles may allow lanes to be narrowed from a typical 10 to 12 foot width to just 6 feet. This could reshape the urban core of cities by reallocating pavement to other uses, such as bicycle and pedestrian facilities. Car-sharing programs, such as Zip Car, and ridesharing services, such as Uber and Lyft, decrease the need for automobile ownership and the need for garages or street parking. It is estimated that 30% of traffic in downtown areas is from drivers for parking spaces. With increased car-sharing and ridesharing, and with the availability of parking mobile apps, traffic may decrease in downtown areas, with a corresponding potential decease in the number of traffic lanes.

<u>Challenges to Implementing Fully Autonomous Vehicles</u> – Snow and other inclement weather, such as heavy rain, are be problematic for fully autonomous vehicles, which primarily use lidar and radar sensors for positioning. The identification of potholes and roadway hazards is also difficult. Cybersecurity is a major concern. There may be ethical dilemmas if a collision is unavoidable. For instance, if a head-on collision with a large truck was imminent, but an avoidance maneuver could be made by striking a bicyclist or pedestrian, how would the software be programmed? The legal, regulatory, and privacy concerns are still being sorted out.

Caltrans Orders 14 New Diesel-Electric Locomotives for Amtrak Pacific Surfliner Route

In an effort to provide cleaner and faster travel for Pacific Surfliner rail passengers, Caltrans will be purchasing an additional 14 high-performance, diesel-electric locomotives from Siemens, with deliveries beginning in late 2018. This purchase adds to the original 2014 order for six locomotives from Siemens that will be delivered in 2016.

"With these new state-of-the art, energy-efficient *Charger* locomotives, California can continue its goal to offer more alternative and sustainable transportation choices," said Caltrans Director Malcolm Dougherty. "Not only will these new locomotives promote increased passenger rail ridership, but they will have environmental benefits by reducing the amount of automobile traffic."

The next-generation *Charger* locomotives will be powered by a 4,400 horsepower-rated diesel engine that complies with the U.S. Environmental Protection Agency's strict, Tier 4 emissions standards, which reduces emissions by approximately 85 percent compared with most existing locomotives in Pacific Surfliner service. The locomotives will also meet performance requirements for diesel-electric passenger locomotives set by the Next-Generation Equipment Committee, a coalition of government and industry experts promoting safe and efficient passenger rail in the United States.

The states of California, Illinois, Washington and Maryland have cumulatively placed orders totaling 69 Charger locomotives, and the production of these locomotives will support hundreds of skilled and high-wage manufacturing jobs in California. Each locomotive will be built at the Siemens rail manufacturing facility in Sacramento, and are the first Tier 4 locomotives to be built in the United States. The plant, which has been in operation for nearly 30 years, currently employs 850 workers and is powered primarily by solar energy. Through this contract, Siemens will continue to grow its already comprehensive and diverse base of U.S. rail suppliers – including many California businesses – that will be leveraged as part of the development of the *Charger* locomotives.

"The partnership between Caltrans and Siemens will generate new California manufacturing jobs and help the state meet our goal of reducing emissions through the use of innovative new technology," said Panorea Avdis, Director of the Governor's Office of Business and Economic Development. "Products made in California are changing the future of goods movement while improving our environment and companies like Siemens are contributing to California's continued growth in manufacturing jobs."

"I am very happy to see newer, cleaner, and faster locomotives being put onto our rails in order to further reduce greenhouse gas emissions," said Senator Hannah-Beth Jackson, who chairs the Senate Select Committee on Passenger Rail. "More and more people are going to

Caltrans Orders 14 New Diesel-Electric Locomotives for Amtrak Pacific Surfliner Route, Continued

forego their cars to take the train when they realize that taking the train is faster than driving and provides a stress-free commute that allows them to be more productive, or even just relax and have a cup of coffee and read the newspaper."

Caltrans funds three of the busiest intercity rail routes in the nation: the Pacific Surfliner, which operates between San Luis Obispo and San Diego (3rd busiest in the nation); the Capitol Corridor service, extending from Auburn to San Jose (ranked 4th); and the San Joaquin, operating between Oakland/Sacramento and Bakersfield (ranked 6th). Combined, the routes provide rail services to more than 5.4 million passengers statewide per year. Additionally, Caltrans owns 119 rail vehicles in California.

"We applaud Caltrans' commitment to modern, efficient and clean public transportation and are grateful for their continued trust and confidence in our ability to serve as their technology partner," said Michael Cahill, president of Siemens Rolling Stock for North America. "These new, diesel-electric passenger rail locomotives will be built in America using renewable energy and will provide more efficient, reliable and faster transportation options for Californians."

Caltrans purchased the 14 locomotives and related spare parts for \$101.9 million as an option, funded entirely through Proposition 1B, the 2006 voter-approved infrastructure bond. These 14 locomotives are expected to be delivered and put into service between July 2018 and Feb. 2019.

The purchase of these new locomotives fits within the goals laid out by Governor Brown in his 2014 Five-Year Infrastructure Plan. Caltrans continues to improve the mobility and sustainability of California's transportation system by doing its part to foster the state's long-term economic growth.

For more information on the 2014 Five-Year Infrastructure Plan, please see: http://www.ebudget.ca.gov/2014-Infrastructure-Plan.pdf

For more information on Caltrans' efforts to reduce greenhouse gas emissions and combat climate change, read the 2013 Caltrans Activities to Address Climate Change report located at: http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/documents/Caltrans_ClimateChangeRprt-Final_April_2013.pdf

Nearly \$154 Million Allocated to Improve and Maintain California's Multimodal Transportation System

The California Transportation Commission (CTC) has adopted 27 projects, valued at nearly \$154 million, to support needed upkeep on California's aging roads and bridges, alleviate traffic delays and encourage use of alternative forms of transportation, including biking, walking and transit.

"Caltrans is making sure every dollar counts when it comes to building California's transportation infrastructure: repairing aging freeways, making highways and bridges safer and promoting bicycling and walking," said Caltrans Director Malcolm Dougherty. "All these investments will benefit Californians now and for decades to come."

The newly allocated funding includes \$25.5 million from the State Highway Operation and Protection Program (SHOPP) for five "fix it first" projects that will repair bumpy pavement, preserve roads that are in good condition from deteriorating and upgrade bridges to make them safer and stronger. Most of California's highways are more than a half-century old, and they carry nearly half of the nation's container freight—heavy loads that pound California's highways more than any other state.

The allocations also include \$53.3 million from Proposition 1B, a transportation bond approved by voters in 2006. To date, more than \$18 billion in Proposition 1B funds have been put to work statewide for transportation purposes.

Other allocations include:

- \$42.8 million for Transit and Intercity Rail Program projects; and
- \$2.5 million towards Active Transportation Program projects—just the most recent active transportation investment as part of the nation's largest program of its kind; and
- \cdot \$1.2 million for five capital improvement projects both on and off the state highway system as part of the State Transportation Improvement Program (STIP)

The remaining funding allocations came from assorted transportation accounts funded by state and federal dollars.

Nearly \$154 Million Allocated to Improve and Maintain California's Multimodal Transportation System, Continued

Projects in Fresno County that received funding were:

- Fresno Council of Governments: Planning, Programming and Monitoring. \$322,000.
- California State University, Fresno: Construct bike lane on north side of Barstow Avenue (University owned) from Cedar Avenue to Chestnut Avenue; approximately one mile. Includes widening road and new vehicle right-turn lane at northeast corner of Barstow and Cedar Avenues. \$650,000.
- County of Fresno: Installation of paved pedestrian walkway/bikeway along the north side of Mount Whitney Avenue between Grantland and Garfield Avenues. \$50,000.

The Commission also approved the 2015-16 STIP Allocation Plan. Due to the decrease in revenue from the price-based excise tax on gasoline, approximately \$150 million in STIP projects that were programmed in FY 2015-16 may not have funds allocated in the current year.

The price-based excise tax replaced the statewide sales tax on gasoline and its rate is adjusted annually by the California Board of Equalization (for 2015-16, the rate is 12 cent per gallon, down from 18 cents the previous fiscal year). The revenue is used to backfill weight fees that are diverted to the Transportation Debt Service Fund. After backfilling weight fees, the remaining funds are allocated between local agencies (44 percent), new construction projects (STIP, 44 percent) and highway maintenance and operations (SHOPP, 12 percent).

In the past decade technology has advanced immensely for both vehicles and the transportation infrastructure. The cost for building new or expanded freeways is increasingly becoming prohibitive, or the environmental impacts are being deemed excessive. Therefore using technology is seen as being one of the most feasible ways to increase highway capacity and optimize the investment in the built highway system. Technology is also seen as being able to improve traffic safety, particularly when applied to vehicles to lessen the occurrence of driver error.

Caltrans Launches New Website - State Route 99 Realignment Project

The California Department of Transportation (Caltrans-Fresno) announces its NEW website for the *State Route 99 Realignment project* in Fresno County. Caltrans and Granite Construction invite you to visit http://99realignment.blogspot.com/ Please subscribe in order to receive the latest information regarding this project.

Highlights of our new website include the latest Caltrans Commuter Alerts, Granite Construction Public Notices, project fact sheet, aerial footage, videos, closure information of local roads, conFor more information, please see the webpage located at: http://99realignment.blogspot.com/

Or: Call the Project Information Line at: (866) 740-9230

> Or: Send an e-mail to: caltrans.d6.hsr@dot.ca.gov

nectors and on/off ramps etc. Maps of the various detour phases are also available for the upcoming complete closure of the Clinton Avenue Interchange scheduled to begin construction spring 2016. (Schedule subject to change).

For the latest recorded information, please call our *State Route 99 Realignment Project Information Line* at 1-866-740-9230 for various closure information related to this improvement project. You may also email your comments or concerns to Caltrans.d6.hsr@dot.ca.gov

Caltrans and Granite Construction appreciate your patience during construction operations and encourage you to visit our webpage often for the most up-to-date information related to construction.





Update on Fresno County Projects

Signal Countdown/ Accessible Pedestrian Signals: Install signal countdown heads/ accessible pedestrian signs in Fresno, Kern, Kings, Madera and Tulare at various locations. Funding: SHOPP. In construction; estimated completion early 2016. Curt Hatton, Project Manager, (559) 243-3445.

Panoche Overlay: Pavement Rehabilitation on I-5 from south of the Panoche Road overcrossing to north of the Russell Road Funding: overcrossing. SHOPP. Project awarded to Security Paving Company, Inc.; in construction. Gardner. Chris Project Manager, (559)243-3444.

I-5 Cable Barrier: Install high tension cable barrier on I-5 from PM 21.5 in Kings County to PM 2.25 in Fresno County and from the El Dorado Avenue overcrossing to the I-5/SR 198 separation. Funding: SHOPP. Ready to List spring 2016. Scott Friesen, Project Manager, (559) 243-3436. Seismic **Restoration-Var:** Seismic restoration of SRs 33, 41, 43, and 233/152 Fresno. Kings, in and Madera Counties, Funding: SHOPP. Ready to list spring 2016; award late 2016; begin construction fall 2016. Jeannie Wiley, Project Manager, (559) 243-3432.

Mendota Intersection Improvement: Construct a roundabout in Fresno County in the City of Mendota, on SR 33 at SR 180. Funding: CMAQ and Measure C. Implementing Agency-City of Mendota. Ready to list summer 2016. Chris Gardner, Project Manager, (559) 243-3444.

FRE HI Friction: Install high friction surface treatment on freeway ramps at various locations in Fresno on Routes 41, 99, 168, and 180. Funding: SHOPP. Ready to List spring 2016. Jeannie Wiley, Project Manager, (559) 243-3432.

McKinley 41 NB Ramp Guardrail: Replace MBGR with concrete guardrail on SR 41 northbound onramp from McKinley Avenue. Funding: Minor A. In construction. Chris Gardner, Project Manager, (559) 243-3444.

Ramp Meter Replacement Planting: Replacement planting on SR 41 between Ashlan Avenue overcrossing to Herndon Avenue undercrossing in the City of Fresno. Funding: SHOPP. In construction and on schedule: complete construction summer 2016. Anand Kapoor, Project Manager, (559) 243-3588.

FRE/MAD Roadside Safety: Roadside safety improvements in Fresno and Madera Counties on SR 41 at various locations. Funding: SHOPP. Ready to list spring 2016. Jeannie Wiley, Project Manager, (559) 243-3432.

Fresno 41 Bridge Seismic Retrofit: Bridge seismic retrofit on old Route 41 Bridge between Madera County and Fresno County near the Community of Friant. Funding: SHOPP. Ready to list spring 2016; construction to start 2016. Anand Kapoor, Project Manager, (559) 243-3588.

Update on Fresno County Projects, Continued

Goshen to Kingsburg 6-Lane. Widen SR 99 in and near the City of Kingsburg between the North Goshen overhead to the SR 99/SR 201 interchange. Funding: Prop 1B Bond. The project is open to traffic. Jim Bane, Project Manager, (559) 243-3469.

Fresno Southbound 99 Ramp Metering: Install ramp metering in the City of Fresno at the southbound Shaw Avenue and southbound Ashlan Avenue onramps, and an auxiliary lane from Olive to Belmont. Funding: SHOPP. Ready to List late spring 2016: end construction late 2018. Anand Kapoor, Project Manager, (559)243-3588.

Olive Avenue Signals: At SR 99/Olive on- and offramps in the City of Fresno; ramp metering included. Funding Minor A. Project is in construction. Anand Kapoor, Project Manager, (559) 243-3588.

SR 99 Realignment for HST: Realignment of SR 99 to accommodate the High Speed Train System from south of Clinton Avenue in the City of Fresno to Ashlan Ave. Funding: CHSRA (ARRA). PS&E/RW; Ready to List early 2016. Garth Fernandez, Project Manager, (559) 243-8012.

San Joaquin River 6-Lane: Replace the SR 99/San Joaquin River Bridge and widen SR 99 from Grantland Avenue overcrossing in the City of Fresno to north of the Avenue 7 overcrossing in Madera County. Funding: Prop 1B Bond. In construction; construction complete summer 2015. The new lanes opened to 2015. traffic June Jim Project Manager. Bane. (559) 243-3469.

Blvd. Veterans Interchange: New interchange on SR 99 between Herndon Avenue and Shaw Avenue on Veterans Boulevard in the City of Fresno. Funding: Measure, local. Project design progressing. Begin construction 2016 pending funding approval. Jim Bane. Project Manager, (559) 243-3469.

168 Pull Outs: Construct freeway maintenance ac-

cess in the Cities of Fresno and Clovis on State Route 168 from the 180/168 separation to Shepherd Avenue. Funding: SHOPP. Ready to list late 2016; advertise early 2017; begin construction spring 2017. Jeannie Wiley, Project Manager, (559) 243-3432.

Prather Curve Correction: Realign the curve on SR 168 and Auberry Road near the community of Prather. Funding: SHOPP. Construction contract approved October 2015. Jeannie Wiley, Project Manager, (559) 243-3432.

Auberry Road Roundabout: Intersection improvements at the SR 168/Auberry Road intersection near the community of Prather. Funding: SHOPP. Ready to list January 2016; advertise spring 2016; begin construction summer 2016; complete construction 2017. Jeannie Wiley. Project Manager, (559)243-3432.

Munger Point: Enhance Maynard Munger vista point on SR 168 east of the community of Prather.

Update on Fresno County Projects, Continued

Funding: STIP, TE. Project is in construction. Jeannie Wiley, Project Manager, (559) 243-3432.

180 West Freeway Landscape: Highway planning on SR 180 in and near the City of Fresno from west of Brawley Avenue to Teilman Avenue. Funding: STIP. Ready to list spring 2016; end construction fall 2020. Chris Gardner, Project Manager, (559) 243-3444.

80 Braided Ramps Landscaping Project: Freeway landscaping in the City of Fresno from west of the Route 180S/Route 41 separation to east of the Peach Avenue overcrossing. Funding: Measure. Project advertised in February 2015; project awarded in March 2015; began construction August 2015. Neil Bretz, Project Manager, (559) 243-3465.

Kings Canyon Expressway Segment 3: SR 180 from Smith Rd. to Alta Main Canal near the community of Centerville. Funding: RIP, Measure. Design completed in June 2015; construction will be delayed at least one year due to lack of available funding. Neil Bretz, Project Manager, (559) 243-3465.

Cali Aqueduct Deck Replacement: Replace the California Aqueduct bridge deck on SR 198 near the City of Huron. Funding: SHOPP. Ready to list spring 2016; advertise summer 2016; begin construction late summer 2016; complete construction summer 2017. Jeannie Wiley, Project Manager, (559) 243-3432.

Fre-Tul Sign Panel Upgrade: Upgrade sign panels in Fresno County on Routes 41, 168, 180, and in Tulare County on Route 198. Funding: SHOPP. In construction. Work will begin January 2016 once sign panels have been delivered from supplier. Emad Abi-Rached, Project Manager, (559) 243-3460.

Fresno Co. Drought Relief: Repair irrigation systems and replace booster pumps in Fresno County at various locations. Funding: SHOPP. In construction. Victor Shaw, Project Manager, (559) 243-3441.

Fresno ITS Freeway Crossings: City of Fresno will design and construct an Intelligent Transportation System (ITS) project to help synchronize traffic signals along freeway crossings. Funding: Minor A, CMAQ. Ready to List summer 2016: advertise late 2016. Anand Kapoor, Project Manager. (559)243-3588.

Tulare Madera VDS: Install Vehicle Detection systems on SR 99 in Fresno County from PM 18.7 to PM 22.5; in Tulare County from PM 0.1 to PM 28.0: in Madera County from PM 16.4 to PM 26.5. Funding: Minor A. Ready to List February advertise 2016: April 2016: award contract summer 2016. Jeannie Wilev. Project Manager, (559)243-3432.

Caltrans Update Fresno Council of Governments



Caltrans District 6 Gail Miller Deputy District Director Planning & Local Programs P.O. Box 12616 1352 West Olive Avenue Fresno, CA 93778-2616 Phone: 559-488-4115 Fax: 559-488-4195 E-mail: gail_miller@dot.ca.gov

PRESENTATION 1

Volume 6, Issue 1

Page 13

The California Department of Transportation (Caltrans) District 6 is headquartered in Fresno. This geographically diverse district is the second largest of the 12 Districts statewide, stretching from the southernmost part of Yosemite National Park in the north to the Mojave Desert. It includes Madera, Fresno, Tulare, Kings and Kern counties. Interstate 5 and State Route 99 run the length of District 6, serving as the main north-south arteries for not just the Central Valley, but for the entire state as well.



Visit District 6 on the web at www.dot.ca.gov/dist6/