

Caltrans, experts in transportation, and committed to improving mobility across California. The District 12 Orange County office employs over 800 employees in 64 classifications, and brings 7,576 man-years of engineering experience, which helps make Caltrans the largest and most diverse engineering firm in the state and makes us a major transportation leader in Orange County.

The development or upgrade of a state highway involves extensive Planning. Effective transportation planning provides California with a multimodal transportation system that:

- Increases system capacity and consumer choice
- Improves safety
- Enhances quality of life
- Supports economic vitality

For Caltrans, these objectives are achieved by innovation, good stewardship, and great partnerships, which enhance multimodal transportation, interregional connectivity and freight movement.

Caltrans is constantly evaluating and implementing emerging technologies to increase system performance. This is especially significant as funding for transportation projects will not meet all of the needs. As we strive to squeeze even greater performance out of the existing system, District 12 has Corridor System Management Plans that use micro-simulation modeling to measure corridor performance and identify causes of traffic congestion. The CSMPs take into consideration current and future projects and population growth and movement, and allows us to make sound transportation investments. Orange County is the only district in the State to have Corridor System Management Plans for all of its major highways.

As we develop projects, Caltrans' internationally-respected team of transportation professionals, along with our partners at OCTA and consultant groups, weigh in with multidisciplinary expertise. Project Engineers find solutions that will be acceptable to all parties. It takes a combination of artistry and visualization to produce plans in two dimensions that represent a three-dimensional world with context-sensitive design. They must take into account that motorists' safety and lives depend on the skill and accuracy of the plan, not to mention taxpayer investments. In 2012, District 12 achieved many milestones related to project development from Right of Way Certifications to Environmental reports and Traffic Safety reviews.

With the wide variety of activities we are involved in, Caltrans' performance is measured in many different ways. In the area of Project Delivery, we had another outstanding year. For the sixth year in a row, District 12 has achieved 100% Contract for Delivery

projects valued at \$688 million. In the last fiscal year, our contract for delivery projects were valued at \$48 million.

Caltrans District 12 Construction is a 24 hour a day, 7 day a week operation that is delivering current and ongoing projects totaling over \$486 million. These projects also help boost the local economy providing jobs for construction workers, materials providers and engineers. You cannot drive far on an Orange County freeway and not see a major construction project.

In the last year, we had 61 newly awarded projects, and 41 projects with a total value of \$99.5 million that were completed and accepted.

Every Caltrans project delivered adds to the inventory of highway assets and additional responsibility for Maintenance and Operations. About 1/3 of all District 12 staff are maintenance. While maintenance staff is most visible performing litter and debris removal, they also do so much more to preserve and maintain infrastructure to complement Orange County's unique feature as a world-class destination. Caltrans evaluates the maintenance condition of the highways with Level of Service (LOS) scores, which measure our ability to keep up with maintenance demands even as resources are constrained. LOS goals are established as part of Caltrans' Strategic Plan. District 12 consistently exceeds the statewide goals.

In 2012, four projects totaling \$32 million were completed to pave 260 lane-miles. District 12 has been recognized in the past with a Perpetual Pavement Award. District 12 has also increased its usage of rubberized asphalt, which is more durable and leads to a quieter ride for the motorist.

District 12 is responsible for maintaining bridge structures in the county, and adds to its inventory of culverts inspected in the county every year. Culvert inspections identify drainage and structural deficiencies that if left unchecked, could lead to the sudden washout of the highway, posing potential safety hazards to the traveling public and workers.

Caltrans also responds quickly to calls for emergency projects. Emergency repairs minimize damage, protect facilities, reduce potential loss and mitigate interruptions to life safety and essential public services. A prime example of an emergency project is the shear pile wall on State Route 73 which was completed in December.

District 12 completes a number of ADA projects that have brought state facilities such as curb ramps and pedestrian facilities to current ADA standards.

In addition to preserving our physical infrastructure, Caltrans also ensures mobility by managing the traffic flow. This requires a highly-technical communication backbone of

fiber optics, microwave communication, and field elements such as vehicle detection and traffic signalization. Our state-of-the art Transportation Management Center in Irvine verifies and responds to incidents and unusual occurrences in coordination with the California Highway Patrol.

There are a total of 467 traffic signals under District 12's control. As part of Caltrans' performance strategies to continuously evaluate efficiencies in the system, testing for managing and controlling the traffic signals remotely is underway utilizing our fiber optic backbone. District 12's Electrical Systems branch is continuously upgrading our communications backbone to the latest in IP technology. Internet protocol networks have the ability to simultaneously transport voice, data and video. This upgraded design has provisions for redundancy where in the event of a catastrophic failure of the fiber optic system, microwave wireless links will provide essential baseline services. Furthermore, District 12 is moving towards complete asset management from a central location. As field data is encoded at hubs throughout the county and transmitted to the traffic management center, internet protocol field elements such as sprinkler controllers will tell us when components have failed and require maintenance or replacement.

Bandwidth requirements continue to climb, so District 12 is finishing a communications upgrade that will provide adequate bandwidth for current and future needs. Intelligent Transportation Systems (ITS) rely on the data carried by our network infrastructure, and will allow District 12 to interconnect with other districts and city intelligent transportation systems to expand the sharing of data and multicast video streams.

As we move forward, District 12 looks to the future. A pilot program that is successfully in effect is the Office of Right of Way "Sign within 60" Incentive. Right of Way acquisitions can take many months and tremendous amounts of support and capital resources. This program is a part of Caltrans' Program Review initiatives to improve performance and realize efficiencies.

There are also noteworthy projects that will be underway in 2013, as Caltrans, OCTA, FHWA and other stakeholders continue to pave the way for transportation improvements.

In addition to expanding the system to meet the new demand, Caltrans has the responsibility to protect, preserve and efficiently operate the existing system. This is accomplished through the State Highway Operations and Protection Program (SHOPP) in order to ensure that the California investment is protected.

The 2012 SHOPP is a four-year program of projects that provides \$2 billion per year to the state. District 12 is receiving about \$50 million per year all designed to maintain our existing infrastructure.

Caltrans District 12. Excellence in engineering and innovation in transportation into the 21st century and beyond.