

# Stanislaus County Department of Public Works

## Annual Report



**2019**

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**Mission:**

Manage and improve infrastructure through safe and efficient use of resources and assets for the benefit of our citizens.

**Vision:**

Strive to be the leading Public Works Department through innovative stewardship of infrastructure and environment.

**Leadership:**



**Dave Leamon,**  
Director

**Chris Brady,**  
Deputy Director-  
Survey, Design  
Engineering, and  
Morgan Shop

**Frederic Clark,**  
Deputy Director-  
Development  
Services, Traffic,  
and Stormwater

**Collin Yerzy,**  
Deputy Director-  
Road Operations  
and Construction  
Engineering

**Tracie Madison,**  
Senior Business  
and Finance  
Manager



**Tate Hoffman,**  
Morgan Shop  
Manager

**Amber Gomes,**  
Human  
Resources  
Manager

**Randy Avants,**  
Road Operations  
Manager

**Annette Borelli,**  
Transit Manager

They say “it takes a village,” and Public Works is no exception. There are more than 100 dedicated people working together to uphold the mission and vision of Public Works. Between the Leadership team, Surveyors, Road Maintenance Workers, Finance team, Engineers, Engineering Technicians, Administrative and Support Staff, Contracted staff, Interns, Volunteers, and Aides, it truly does take a village to get the job done.

Thanks to all the staff that made 2019 a great year in Public Works. Public Works experienced success across all of our divisions and I appreciate each and every one of you. We've built bridges this year, overlaid roads, chip sealed over 100 miles of roads, striped over a thousand miles of roads, issued 1,744 permits and environmentally cleared several large projects including 7<sup>th</sup> Street Bridge and Crows Landing Road bridge!

Roads put more miles and hours on our paver than we have in a long time, paving over 6 miles of force account roads. Euclid Avenue near Hughson, Mitchell Road south of Turlock, Zeering Road, Arnold Road and Powell Road in Denair were all overlaid by Roads crews. Another road I was super impressed with is Davis Road off Lake Road - it has not looked better, I think ever, well done!

Two of our large bridge projects hit major environmental milestones this year, 7<sup>th</sup> Street Bridge (Lion Bridge) over the Tuolumne River and Crows Landing Road Bridge over the San Joaquin River and completing the environmental phase, Project Approval and Environmental Document. For 7<sup>th</sup> Street Bridge it took us from 2012 to 2019, 7 years for an Environmental Impact Report and National Environmental Policy Act (NEPA) Finding of No Significant Impact (FONSI). Crows Landing Road Bridge has been in the environmental process for 9 years for an Initial Study and Mitigated Negative Declaration and a NEPA FONSI.

7<sup>th</sup> Street Bridge has been studied at least 3 times in the last 43 years. In 1978 or so, City Council and the Board of Supervisors on recommendation of staff decided that the replacement cost of approximately \$2 million in 1976. The current estimate to replace the bridge is \$32 million, less the intersections at 7<sup>th</sup> Street and Tuolumne Boulevard / B Street and 7<sup>th</sup> Street and Crows Landing Road. The current project has us in final design and right-of-way for 2 years or so; we hope to be under construction in Spring 2023. The final bridge will be 4-lanes, with two sidewalks, a center median and should last us 100 years.

Crows Landing over the San Joaquin River was first identified as a needed project in the mid-1990's after the Northridge earthquake in 1994. The bridge is seismically vulnerable and after the Floods of 2017, is scour critical. Crows Landing Road Bridge would likely have to be closed if another flood occurred prior to the replacement bridge, as there is only 14 feet of pile left undisturbed by scour. The replacement bridge will be a 3-lane bridge with a center turn lane for north bound traffic from Crows Landing Road to Carpenter Road. The new bridge is estimated at \$19.5 million and should be out to bid this Summer with construction starting in Fall 2020. Well done Engineering Design!

Hickman Road Bridge also was a success in 2019, Engineering Design group successfully delivered the right-of-way phase of this important project in the east County and the project received its Federal funding. The existing bridge is scour critical and was closed during the floods of 2017. The new Hickman Road Bridge will be wider and have a sidewalk, which is a major improvement over the old bridge.

I look forward to 2020 and hope it is as good of a year for Public Works as 2019 was for us. I want to thank the Board of Supervisors and the Chief Executive Office for their on-going and continued support of Public Works mission, which is to *Manage and Improve Infrastructure through Safe and Efficient Use of Resources and Assets for the Benefit of our Citizens.*

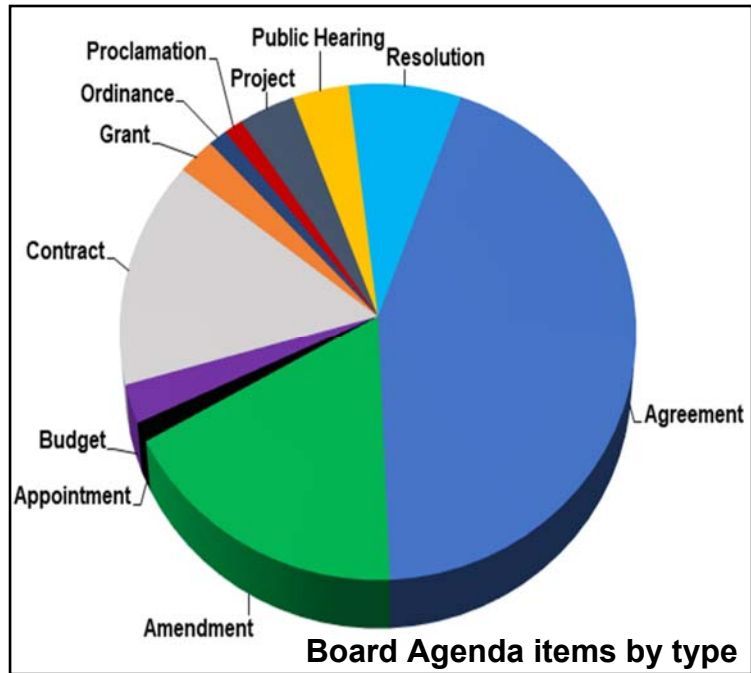
Respectfully Submitted,

David A. Leamon, PE, MPA  
Road Commissioner and Public Works Director

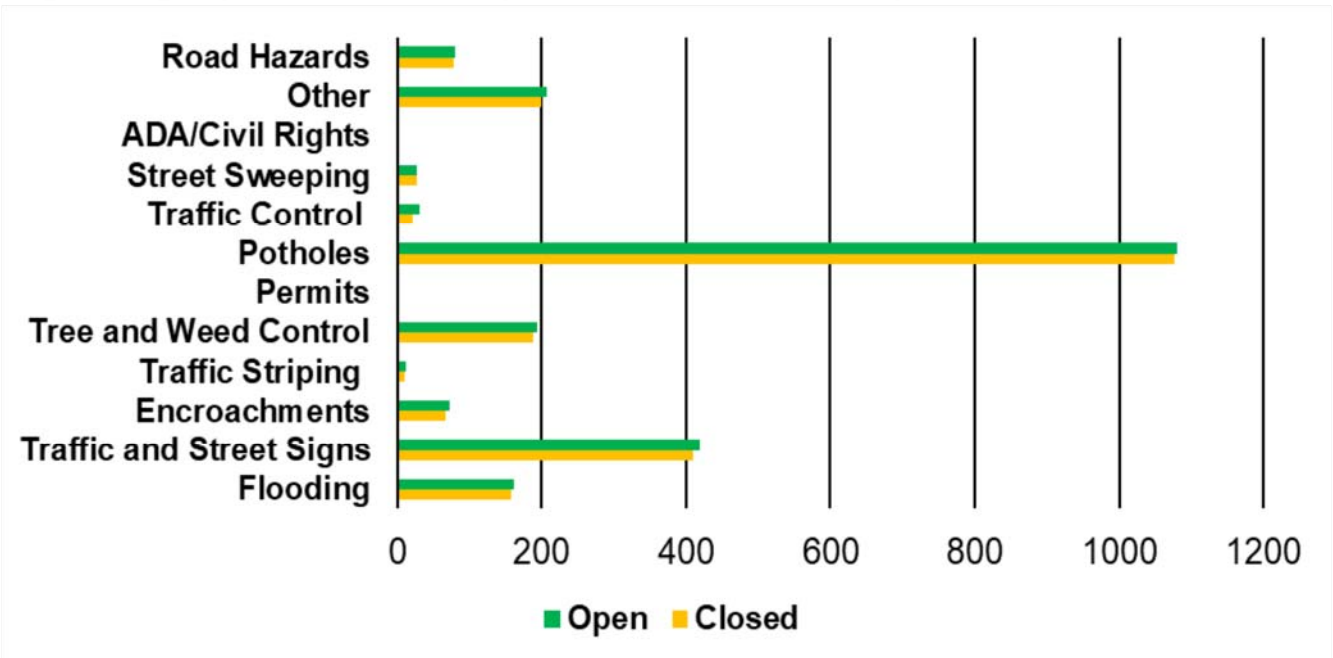
The Administration Division provides leadership, operational coordination, human resources support, safety program, and policy development for all Public Works' divisions. Human Resources is responsible for Recruitments and Onboarding, Benefits Management, Pre-Employment and Background Process, Investigations, Interactive Process and Medical Work Restriction Agreements, ADA/Civil Rights Complaints, Leave of Absence, EEO and ADA Compliance, Employee Relations, Personnel Action Forms, OSHA, Safety, and Training Compliances, and Board Agenda items.

The average Board Agenda item takes 6 weeks to adopt. Every Board Agenda Item goes through multiple levels of review before making it onto the Board of Supervisors Meeting Agenda. The Administrative Division processed 80 Board Items that were adopted.

The Administration Division also processed and assigned 2,289 concerns or work requests opened through the Government Outreach portal. Public Works staff was able to address and close 2,242 of them. That means nearly 98% of the requests were closed! This takes a huge team effort from all department staff as requests include flooding (including spills and drains), traffic and street signs (signals, no parking zones, repairs and installation requests), encroachments (edge of pavement and shoulders), traffic striping, tree and weed control (trimming, abatement, mowing, and spraying), permits for transport and oversized trucks, potholes, traffic control (signing, speed limit requests and speed zones), street sweeping, ADA/Civil Rights, road hazards, and "other" streets and roads, permits, or engineering requests. Here's a snapshot of the work orders requested:



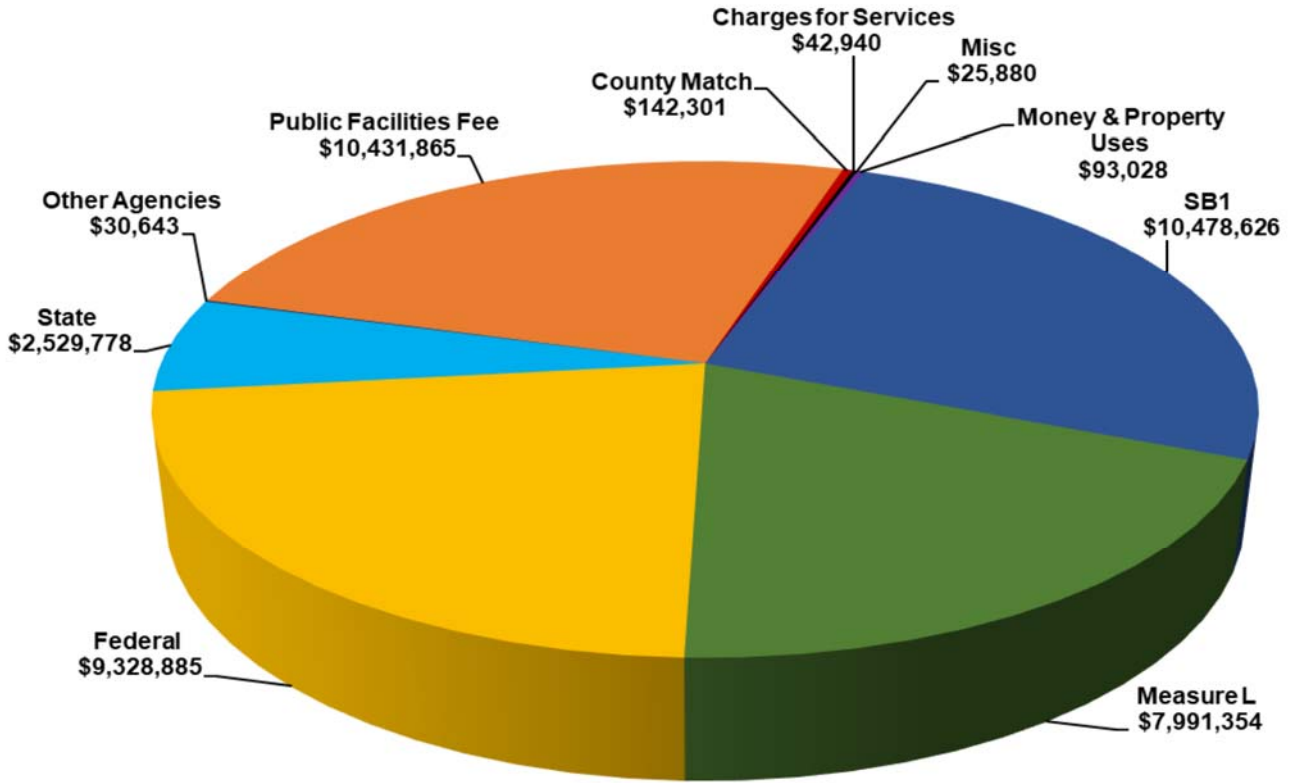
This takes a huge team effort from all department staff as requests include flooding (including spills and drains), traffic and street signs (signals, no parking zones, repairs and installation requests), encroachments (edge of pavement and shoulders), traffic striping, tree and weed control (trimming, abatement, mowing, and spraying), permits for transport and oversized trucks, potholes, traffic control (signing, speed limit requests and speed zones), street sweeping, ADA/Civil Rights, road hazards, and "other" streets and roads, permits, or engineering requests. Here's a snapshot of the work orders requested:



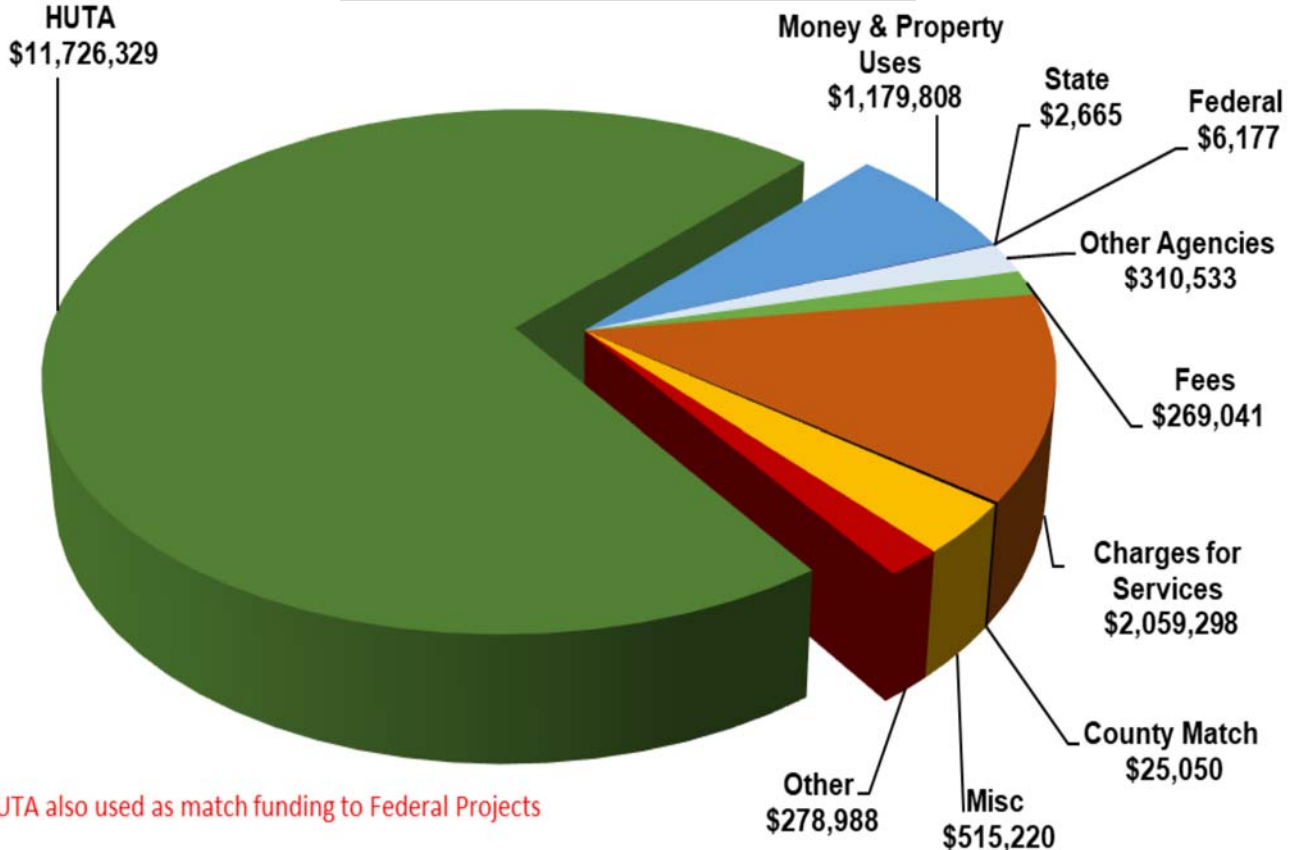
**In 2019, the Human Resources Division recruited 12 positions, processed 13 promotions and 4 retirements, and screened through 500+ applications.**

The Finance Division provides budgeting, financial, payroll and cost accounting services for each Public Works division, and is responsible for overseeing Public Works' multi-million dollar budget.

**Public Works Road Project Revenue**



**Road Operations Revenue**



HUTA also used as match funding to Federal Projects



### **Pristine Headwaters of the Tuolumne River, Yosemite National Park**

2019 was another busy year for the Stormwater division of public works. Staff maintained year-around compliance with Stanislaus County's NPDES Stormwater permit from the State Water Board. Routine work consisted of reviewing improvement plans for new development and redevelopment prior to the issuance of building permits, performing inspections at construction sites, investigating reports from residents of pollutants discharged to the County's storm drain system, and auditing our own municipal practices to ensure that they are protective of the environment.

We also completed a number of important projects that will protect water quality in our local creeks and rivers in the years to come:

In July of 2019 we completed the Stanislaus County Multi-Agency Regional Stormwater Resources Plan. The Plan supports and promotes the capture and reuse of Stormwater runoff as a resource to reduce localized flooding and increase groundwater supplies. This Plan was partially funded by State Proposition 1B funds from the State Water Board and is required for the County to obtain future grant money.

In spring of 2019, the county began work on a Prop 1 Disadvantaged Communities Involvement Grant from the Department of Water Resources. A consultant was hired for the purpose of evaluating Stormwater management and groundwater recharge projects in the Dry Creek watershed. The evaluation field work began in July 2019. This is the first step in alleviating flooding of disadvantaged communities in the lower reaches of Dry Creek and along the Tuolumne River. Phase I of the project is expected to be completed in early 2020.

Staff continued to review applications for cannabis cultivation permits and worked closely with Planning and Environmental Resources Departments to develop mitigations to protect local water quality and the county's storm drain system from pollutants associated with cannabis cultivation activities.

Staff conducted dry weather water quality monitoring in September 2019 at locations throughout the County. The lab data produced from this monitoring will help the County identify and prioritize water quality issues, and focus our efforts on the areas of greatest need.

## Santa Fe Avenue over Tuolumne River Bridge Replacement Project

The Santa Fe Avenue over Tuolumne River Bridge Replacement Project was proposed due to the structurally deficient bridge rating of 67.8, per the California Department of Transportation (Caltrans) Bridge Investigation Report (BIR). Bridges must be rated structurally deficient or functionally obsolete with a structural rating of less than 80 to be eligible candidates for rehabilitation and in special cases for replacement. The Santa Fe Avenue Bridge was constructed in 1947 as RC parabolic continuous “T” girder on RC piers all on steel piles. The bridge is approximately 495 feet in length and 28 feet wide. The bridge needed replacement because it did not meet current seismic structural standards. Caltrans had listed this bridge’s status as Functionally Obsolete and had determined that replacement is more feasible than retrofitting the bridge to meet earthquake resistance standards. The previous bridge was narrow, having a width of only 24 feet curb to curb. The new bridge provides adequate shoulder widths and includes a center turn lane to accommodate safe turning movements to and from existing driveways located at both ends of the bridge. Estimated completion of this project is May 2020.





## Claribel Road at Roselle Avenue Intersection Project

The Claribel Road at Roselle Avenue Intersection Project is located in the southern city limits of Riverbank and north of the City of Modesto in Stanislaus County. The intersection was non-signalized and controlled by an all-way stop. The intersection consisted of an overhead flashing red beacon at the center of the intersection and “roll-over” curbs at all corners. The purpose of this project was to improve regional air quality by installing traffic signals to reduce stop and start movements at the Claribel Road at Roselle Avenue intersection. Improvements to the intersection consisted of demolishing existing structures, the installation of traffic signals, widening the intersection to provide for truck turn movements, addition of left turn lanes in all directions, asphalt overlay, and restriping of the roadway at Claribel Road and Roselle Avenue. This project was completed on August 29, 2019.



## Cycle 5 Highway Safety Improvement Program—High Risk Rural Roads Federal Project: West Main Street, River Road, Lake Road

In 2012, Caltrans released a “Call for Projects” for the Cycle 5 HSIP/HR3 program (Highway Safety Improvement Program/High Risk Rural Roads). The Department of Public Works prepared three applications for locations that had a history of collisions within Stanislaus County. In October 2012, the County was awarded three grants for the three locations submitted. These grants are funded up to \$252,000 for the environmental and design phase of the projects, and the remaining balance will be matched with local funds. The preliminary engineering of the three projects were combined for the purpose of project efficiency.

The HSIP/HR3 Cycle 5 Projects include highway safety improvements on three County roadways: West Main Street, River Road, and Lake Road. The scope of services will apply to all three projects independently. Each project will be concurrently engineered and administered independently of each other. This contract will include the scope of services for all three projects.

**West Main Street** is a two-lane major collector and future Class C Expressway that connects the east and west side of Stanislaus County. The road project segment on West Main Street is approximately from the San Joaquin River to 0.8 miles west of Carpenter Road. Improvements include the widening of paved shoulders and installing rumble strips with new striping on both the centerline and edge lines.

**River Road** is a two-lane major collector that connects San Joaquin County to State Highway 120 near the City of Oakdale. The road project segment on River Road is approximately from Sawyer Avenue east to Cleveland Avenue. The improvements identified are to widen the paved shoulders, and to adjust the radius and/or super elevation of the roadway.

**Lake Road** is a two-lane major collector that connects the community of Hickman to the community of La Grange and provides access to Turlock Lake. The road project segment on Lake Road is approximately from Lampley Road to Denton Road. The improvements include widening paved shoulders and installing rumble strips with new striping on the centerline and edge lines.



## Geer Road and Whitmore Avenue Intersection

The intersection of Geer Road and Whitmore Avenue is located approximately a half mile east of the City of Hughson in an unincorporated area of Stanislaus County. Existing traffic control was an all-way stop with a central flashing red signal and no segregated turning lanes at the intersection. The purpose of the project was to reduce vehicle idling time and number of stops to improve air quality, as well as to improve traffic safety and flow through the intersection. The Geer Road and Whitmore Avenue intersection was signalized and widened to accommodate existing traffic operations, including left turn lanes on all four approaches, and to provide lane transitions and needed shoulder area. Each approach was provided a through lane and a left-turn lane.



Widening and required transitions were extended from the intersection center approximately 1,000 feet north and 800 feet south along Geer Road, and approximately 800 feet east and west along Whitmore Avenue. Signalization involved the installation of foundations, poles and mast arms to support the proposed signal assemblies, street name signs and luminaires as well as control boxes and other related equipment. Equipment and material staging for the project occurred within existing County road right-of-way.



Top (Left-Right): Whitmore Avenue before and after.

Middle (Left-Right): Whitmore Avenue before and after.

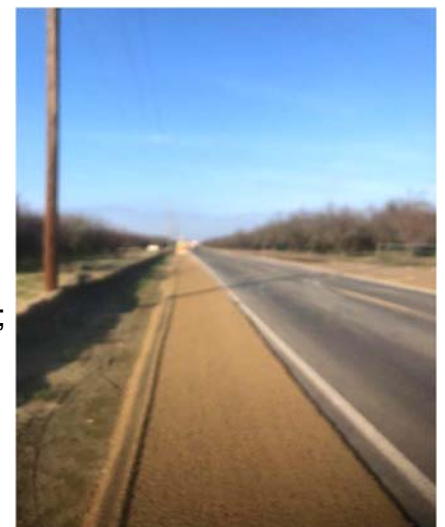
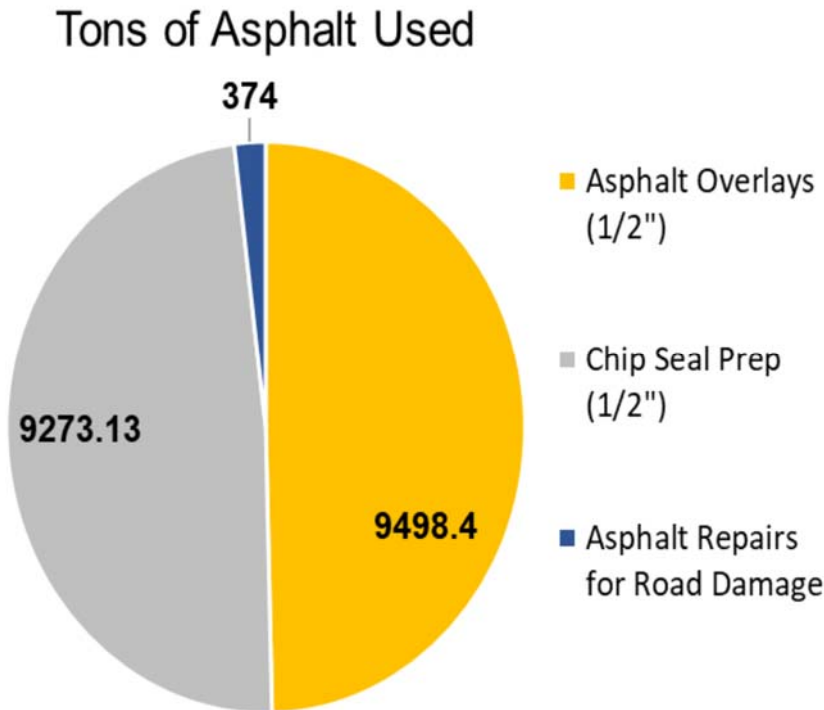
Bottom (Left-Right): Geer Road—north before and after.



Road Operations is responsible for the maintenance of the County's road system. Road maintenance typically involves the maintaining of roadway shoulder and pavement by grading the right-of-way and performing minor surface repairs. Under their many responsibilities, they provide upkeep on the traffic signals, signs, beacons, centerline road striping, and road related drainage facilities. They also benefit from an in-house garage to repair and service their own light and heavy equipment; also fabricate and design miscellaneous equipment (examples: truck bed, body hitches, yard equipment, water pumps, water towers and sand baggers).



Tim Bell Road before, during, and after paving.



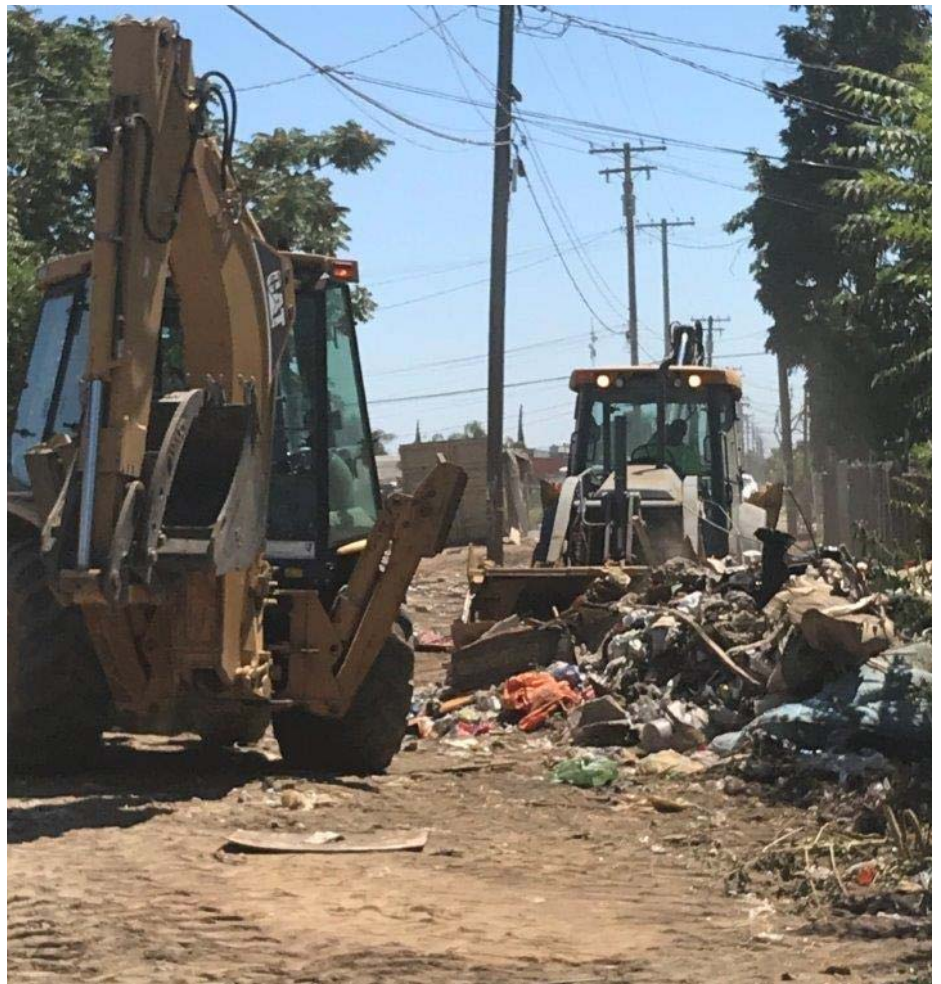
**The Bridge Crew:**

Installed **57** TDA (tire derived aggregate) Rockwell drains;  
 Replaced **14** pipes in the Warnerville Road Pipe Rehab Project;  
 Worked on **7** Co-Ops with OID;  
 Repaired or replaced over **200 feet** of guardrail;  
 Cleaned and inspected over **2100+** catch basins;  
 Swept over **3,500** miles; and  
 Repaired or replaced **11** sidewalks.



**The Traffic Crew Striped / Painted:**  
**530** centerline miles in SB1 zones 2&4;  
**93** centerline miles of chip roads;  
**337** lane miles of edge lines in SB1 zones 1&3;  
**28** lane miles of edge lines on chip roads; and,  
**124** "Stop," "Stop Ahead," "Railroad Crossing" legends.

# Roads | Bridges (Cont.)



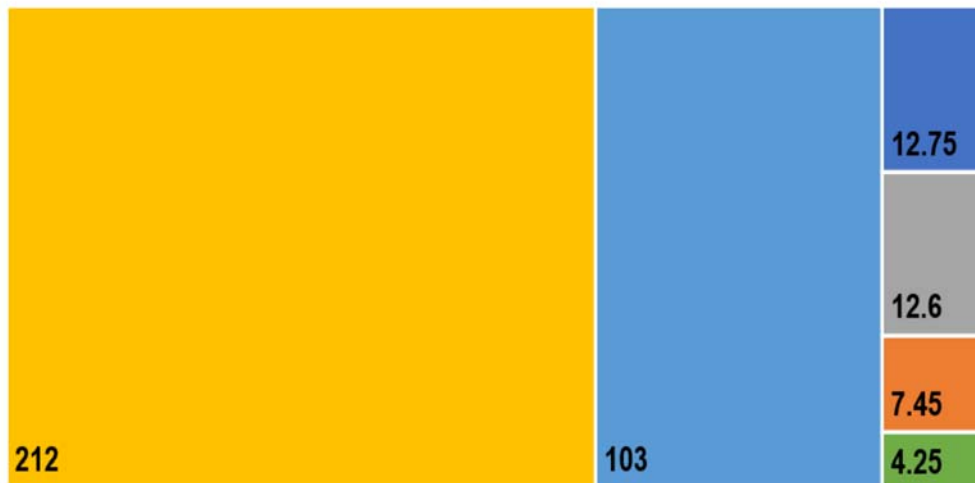
Clockwise from left: Road maintenance, chip seal on Delaware Road, alleyway clean up, and Del Puerto Canyon rockslide clean up.



Mitchell Road before and after.



Miles Graded, Overlayed, Filled, and Sealed



- Crack Seal
- Grade Dirt Roads
- Shoulder Fills
- Shoulder Grading
- Chip Seal Prep
- Asphalt Overlayes



Various tree removals and road maintenance.

**Mitchell Road Pavement Maintenance Project – Yosemite Boulevard (SR 132) to the Tuolumne River Bridge**

This \$2.3 million project resurfacing project was funded by Road Maintenance and Rehabilitation Account (RMRA) revenues, created by SB 1. Construction in the fall of 2019 and was completed in late 2019. The construction was performed by George Reed, Incorporated of Modesto.



New striping, that included a bike lane on both sides on Mitchell Road were installed. New and modified ADA compliant curb ramps were installed at appropriate locations. Traffic signal modifications were also installed at the Mitchell Road intersections of Tenaya Avenue, S. Riverside Drive, and Finch Road to comply with current ADA standards. The project also installed a head light glare screen on the raised median across the bridge over the Tuolumne River.

The roadway was resurfaced with asphalt rubber concrete that utilizes recycled tires blended with the asphalt binder. This mix produces a longer lasting pavement when compared to conventional asphalt concrete. Approximately 18,500 recycled tires were used on this project. Stanislaus County received a grant from the State of California Department of Resource Recovery and Recycling (CalRecycle) in the amount of \$139,300.



**View of project during construction**



**View of new asphalt rubber pavement, bike lanes and ADA accessible ramp**



## 2019 Urban Pavement Preservation and ADA Curb Ramp Project (Phase C)

The 2019 Urban Pavement Preservation and ADA Curb Ramp Project is funded with Measure L Local Streets and Roads proceeds in the amount of approximately \$4.5 Million. This project intends to preserve roadways in the unincorporated areas of the County. Roadway preservation measures include crack sealing, slurry seal, rubber chip seal, and multi-layer sealing. In addition to the roadway preservation, curb ramps will be upgraded to meet current Americans with Disabilities Act (ADA) standards.

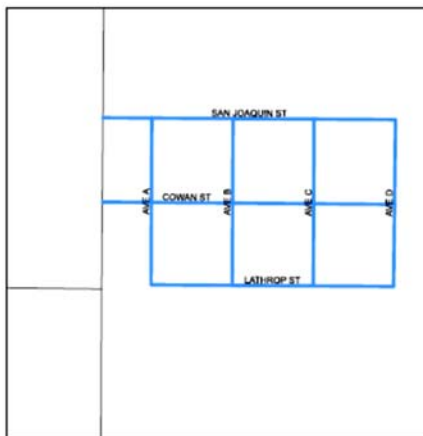


This project consists of pavement treatments to the unincorporated areas of Denair, Del Rio, and Cowen Tract and curb ramp improvements to Denair and Del Rio. Improvements include upgrading 99 curb ramps, 25 miles of pavement treatments, and re-stripping all treated pavement areas. The purpose of the pavement preservation project is to extend the life of County roads and reduce the need for a full roadway reconstruction.

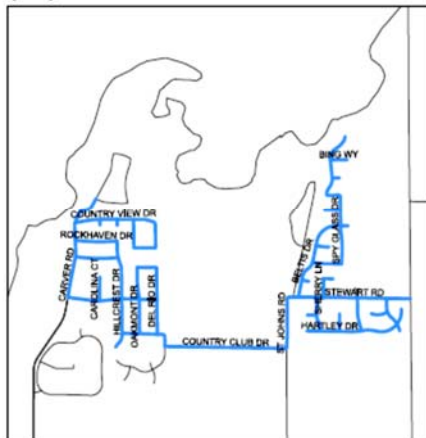
County staff is responsible for engineering, design, and delivering the project. The curb ramp improvements will be constructed in the Spring of 2020 followed by roadway preservation measures completed in Summer of 2020.



DENAIR (16)



COWEN TRACT (2)



DEL RIO (7)

**PHASE C ~ 29 MILES**



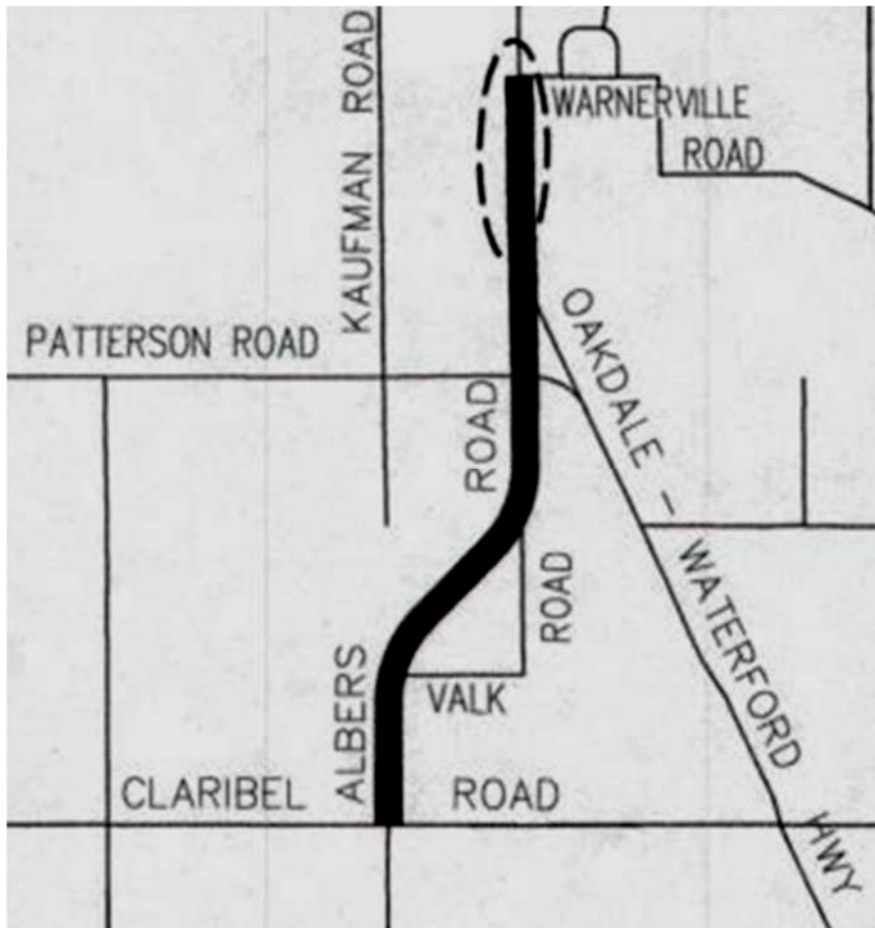
2020 Albers Road Pavement Rehabilitation Project



The 2020 Albers Road Pavement Rehabilitation Project is funded by SB1.

County's SB1 total project cost is estimated at \$4.5 million. The purpose of this project is to rehabilitate Albers Road from Claribel Road to Warnerville Road. Roadway rehabilitation measures include mill and reconstruct 6" of existing

AC within travel lanes only, crack seal areas with localized failure and use fiberglass grid to minimize propagation of cracks in the future. Once travel lanes are paved, the entire width of roadway will be treated with rubberized chip and slurry seal layer.



The County limits of this project will include pavement rehabilitation from Claribel Road to City-County line just south of Oakdale-Waterford Highway.

County staff is responsible for engineering, design, and project delivery. Project is anticipated to be in construction summer of 2020.

Top: Current View of Road  
Bottom: Project Location Map

## Keyes Road Over TID Ceres Main Canal Bridge Replacement Project

The Keyes Road Bridge was constructed in 1920 and is nearly 100 years old. The existing bridge is located between Moffett Road and Esmar Road, just west of the Keyes community. Keyes Road is a two-lane road classified as a Major Collector and is used as an east-west connector in the region with an interchange at State Route 99. The average daily traffic (ADT) along Keyes Road is 5,270 vehicles per day with approximately 10% consisting of truck traffic. Keyes Road has many extra-legal, over-size and overweight permit loads travelling on it carrying heavy construction and agricultural equipment. Due to weight restrictions and structurally deficient bridge rating of 57.2, the heavy truck traffic loads have to detour around this bridge through the back roads in this neighborhood. The existing structure is a concrete lined trapezoidal channel consisting of a continuous 2-span reinforced concrete slab supported on reinforced concrete pier walls and diaphragm abutments founded on spread footings.



The bridge is 32 feet wide and has a span of 22 feet. The existing structure has abutment asphalt cracking, delamination, spalled areas, exposed rusted rebar in the soffit, cracking, abrasion, and other damage. The existing structure will be replaced with a new cast-in-place concrete double-box culvert. Project is funded with Road Maintenance and Rehabilitation Account (RMRA) revenues, created by SB1 for a total estimated cost of \$1,250,000.

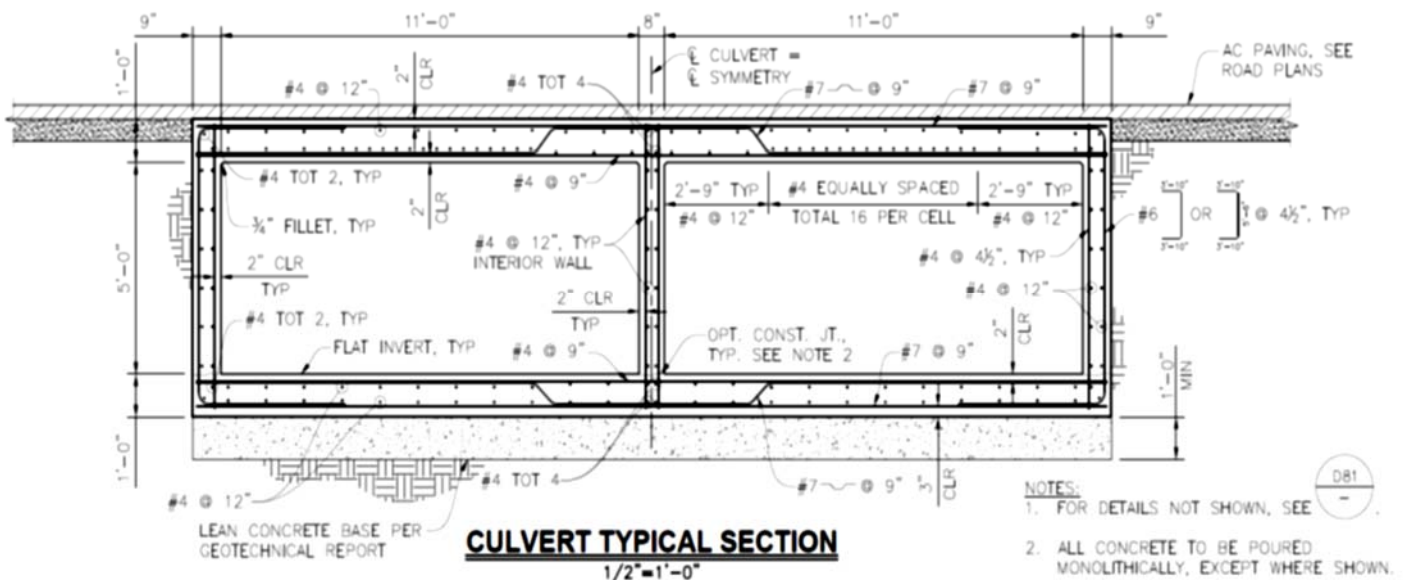


**Existing view of Keyes Road at TID Ceres Main Canal**

This is the Public Works' first locally funded new bridge construction project in approximately 20 years. This is only possible because of Measure L and SB1-RMRA funding.

Improvements to the structure will increase the vehicular load limit, increase the sufficiency rating, improve the safety of motorist, and minimize vehicular accidents. The approach traffic lanes and bridge deck will be designed and constructed to current standards to help enhance public safety.

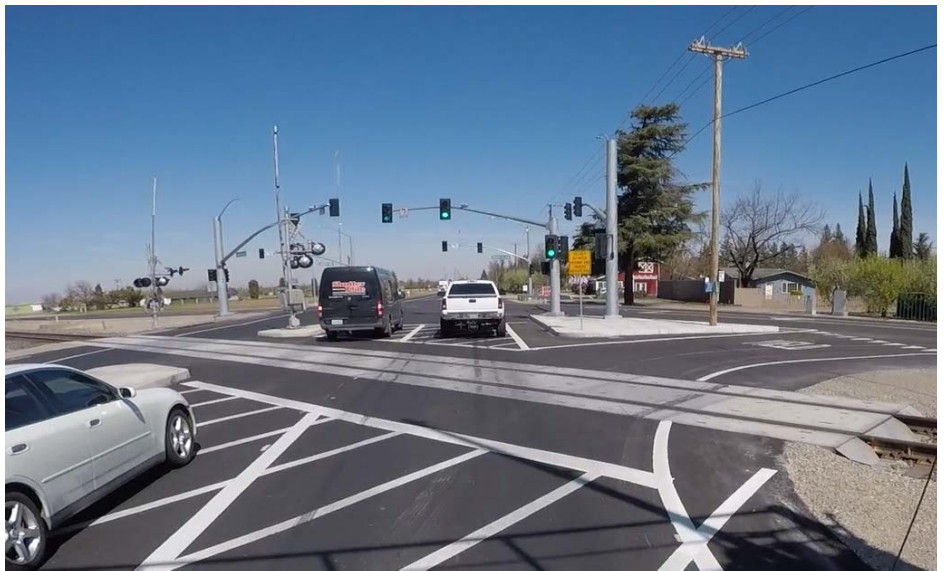
Construction plans, project specifications, and construction estimates for this project are at 100% complete and will be ready to advertise for bidding in mid-June of 2020. Construction of this bridge is planned for November 1, 2020.



**Proposed view of Cast-in-Place Double Box Concrete Culverts**

### Geer Road and Santa Fe Avenue

Improvements were made to the existing intersection of Geer Road and Santa Fe Avenue. The intersection is located approximately 1.5 miles southeast of the City of Hughson in an unincorporated area of Stanislaus County. The project consisted of the installation of a traffic signal, widening of both Geer Road and Santa Fe Avenue to include a left turn pocket at each approach, regrading of both roads, widening and other improvements at the railroad crossing on Geer Road south of the intersection, and relocation of power poles. The improvements occurred on a total of approximately 3,500 feet of roadway. Construction involved the installation of foundations, poles and mast arms to support the signal assemblies, street name signs and luminaires as well as control boxes and other related equipment. Multi-phase control was provided to accommodate anticipated turning movements on all four approaches. The improved roadway sections were restriped and signed in accordance with County and State standards. The project also involved some railroad crossing improvements by changing crossing arms.



## Warnerville Road and Bentley Road

The Senate Bill (SB1) Roadway Reconstruction Project proposed the reconstruction of Bentley Road from Patterson Road to Milnes Road and Warnerville Road from Tim Bell Road to Crabtree Road. Bentley Road is a north/south 2-lane local rural road south of the City of Oakdale and Warnerville Road is an east/west 2-lane minor collector east of the City of Oakdale. Bentley Road and Warnerville Road was reconstructed using a Full Depth Reclamation (FDR) process, which mixes, treats and compacts the existing material in place. FDR is a best practice for recycling existing materials and using them in place. Bentley Road was treated with cement and then capped with asphalt concrete pavement. Warnerville Road was treated using a LithTec agent, with a double chip seal on top as a riding surface. Lithification happens naturally as rocks and minerals naturally compress together creating a natural cement-like compound over the course of many years. The LithTec agent works to speed up this compounding process and has been used successfully in New Mexico and Utah. This is the first California project utilizing this product.



# Shop

The Morgan Road Shop provides equipment and vehicles to other Public Works divisions, primarily the Road & Bridge Division, and also provides vehicle and equipment maintenance to other County departments as requested.

The Shop also provides compressed natural gas (CNG), unleaded, bio-diesel and diesel fueling to County departments and CNG fueling to other local jurisdictions.

This year, the Shop also ordered five new CNG crew trucks.

The Shop also ordered two new Ford F350 4x4 on-call trucks that will come with utility beds mounted with all of the items needed on the road. The specs on these new on-call trucks will allow staff to readily handle the equipment or vehicle emergencies they respond to.

The Shop also ordered a new hot asphalt truck that is being built. It will be diesel powered with a five ton load capacity.



(Photos - clockwise from top of left page.)

**Kubota farm tractor:**

The Parks department needed maintenance on this Kubota farm tractor that is primarily used for weed control at the Modesto reservoir. The Shop rebuilt the engine to get this tractor back up and working right.

**CNG Compressor:**

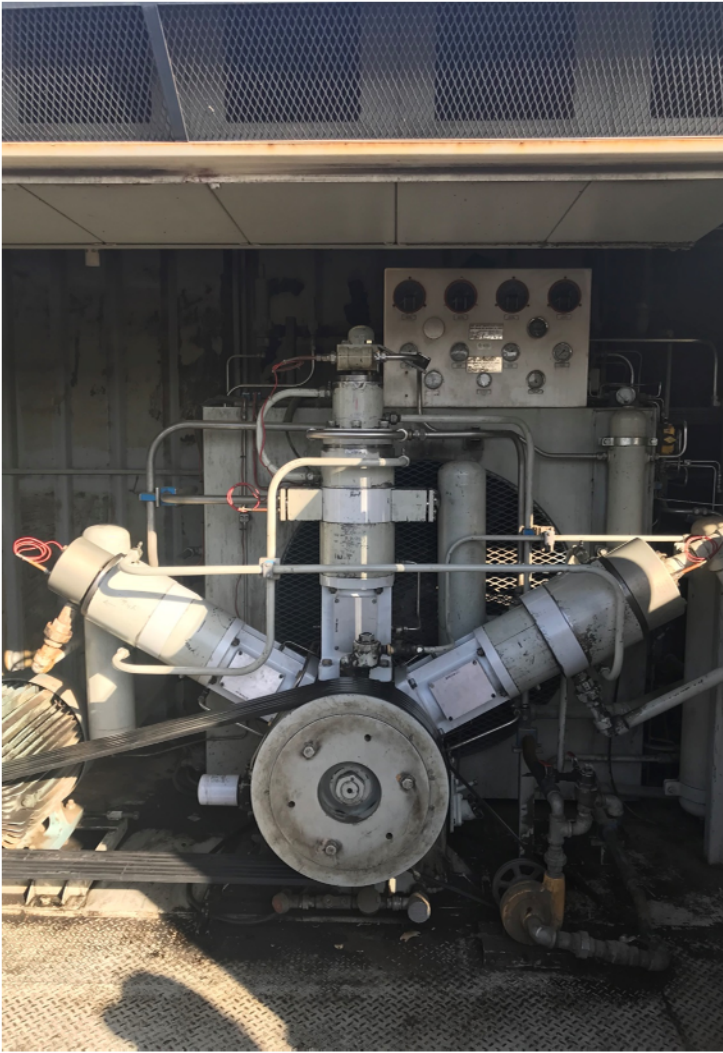
This is CNG Compressor number two which the Shop had completed a lower and upper complete rebuild on this year. This was the first total rebuild Shop has had to perform on this compressor and it should now have many more unobstructed running hours.

**Tree Chipper:**

A new Morbark Eager Beaver tree chipper was purchased as a replacement to meet emissions compliances. This new machine comes with a TIER 4 FINAL engine which is the highest standard measured in emissions today.

**Cone Trucks:**

The Shop had two new cone trucks built this year with the capability to tow attenuator trailers. The trucks are outfitted with a roof mount arrow board and extra hazard lights for safety.



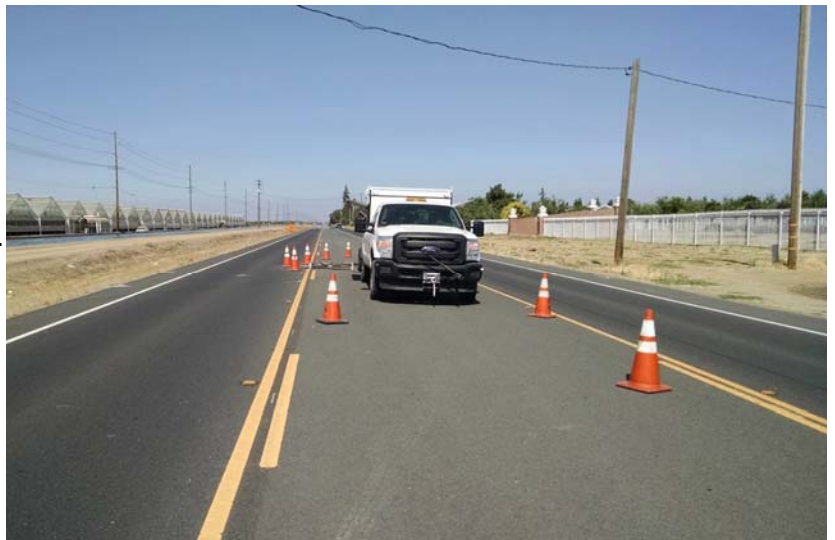
# Survey

The County Surveyor's Office is responsible for maintaining the Survey System of Lands Checking and Recording of Parcel Maps, Subdivision Maps, Records of Survey, Right-of-Way Deeds, Corner Records, Certificates of Compliance, County Surveys, and other related documents. The County Surveyor's Office is also charged with conducting surveys as required by the Board of Supervisors and the Courts, working with the State Land Commission. The County Surveyor is ex-officio deputy recorder for this purpose.



**In 2019, the Surveyors checked:**  
48 Records of Survey;  
10 Parcel Maps;  
29 Lot Line Adjustments;  
3 Road Abandonments;  
4 Certificates of Compliance; and,  
44 Irrevocable Offers of Dedication.

**Top (Left to Right):** Dave setting up the TotalStation, Chad at Confluence Corner, Staking done at Beckwith/Dakota Roads  
**Center:** Alderson Road Staking  
**Bottom:** Hatch Road Monument Well Preservation



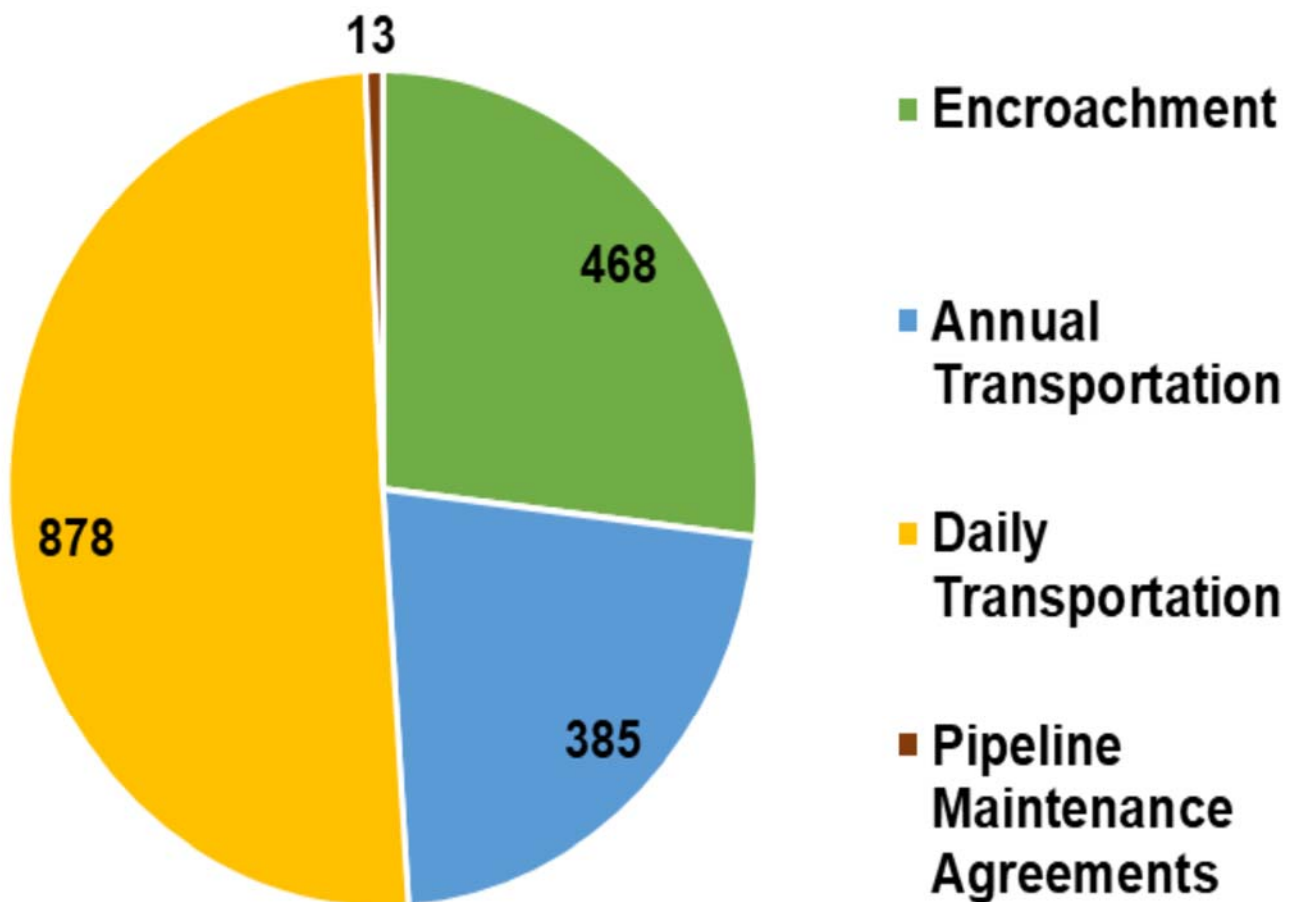


The Encroachment Permits section of Development Services issues permits for construction activities in all County road right-of-ways. During 2019, there were 468 encroachment permits issued, which brought in \$490,278.50 in collected revenue.

The Transportation section of Development Services issues Annual and Daily Transportation Permits, which enables the County to regulate the movement of oversized loads over County roads and bridges. This regulation helps ensure vehicle safety and protects public roads and bridges. In 2019, there were 878 Daily and 385 Annual Transportation Permits issued, which collected \$47,888 in revenue. Nine of the issued permits were exempt from permit fees, which is typical for irrigation districts and other governmental agencies.

Pipeline Maintenance Agreements allow the County to monitor work or activities within County road right-of-ways by private parties. The agreement holds the owner of the pipeline responsible for any damage that may occur to the County road if the pipeline fails. The Pipeline Maintenance Agreement is a recorded document that is transferred to any new owners of the property or as long as the pipeline exists. Development Services issued 13 Pipeline Maintenance Agreements, which accrued \$3,705 in revenue.

Development Services also reviews and issues special event permits for parades and other activities that may block the roadways. They also review and issue permits related to land development, such as off-site improvement plans, building permit plan reviews and inspections, grading permits, rezone applications, parcel maps, staff approvals and use permits.



Stanislaus Regional Transit (StaRT) is changing the face of public transit in the region to better accommodate our community. We are honored to help the people in Stanislaus County keep moving forward.

StaRT recognizes the rapidly changing technological landscape with public transportation and the increased expectations of passengers for readily accessible, instant information before and during their trip. As a result, StaRT is transforming and modernizing the bus system while simultaneously giving our riders a state-of-the-art experience by deploying an Intelligent Transportation System (ITS) on the County's buses and in transit centers.

StaRT successfully completed the installation and testing during its pilot project on specific buses and has completed the installation of the ITS system fleet wide.

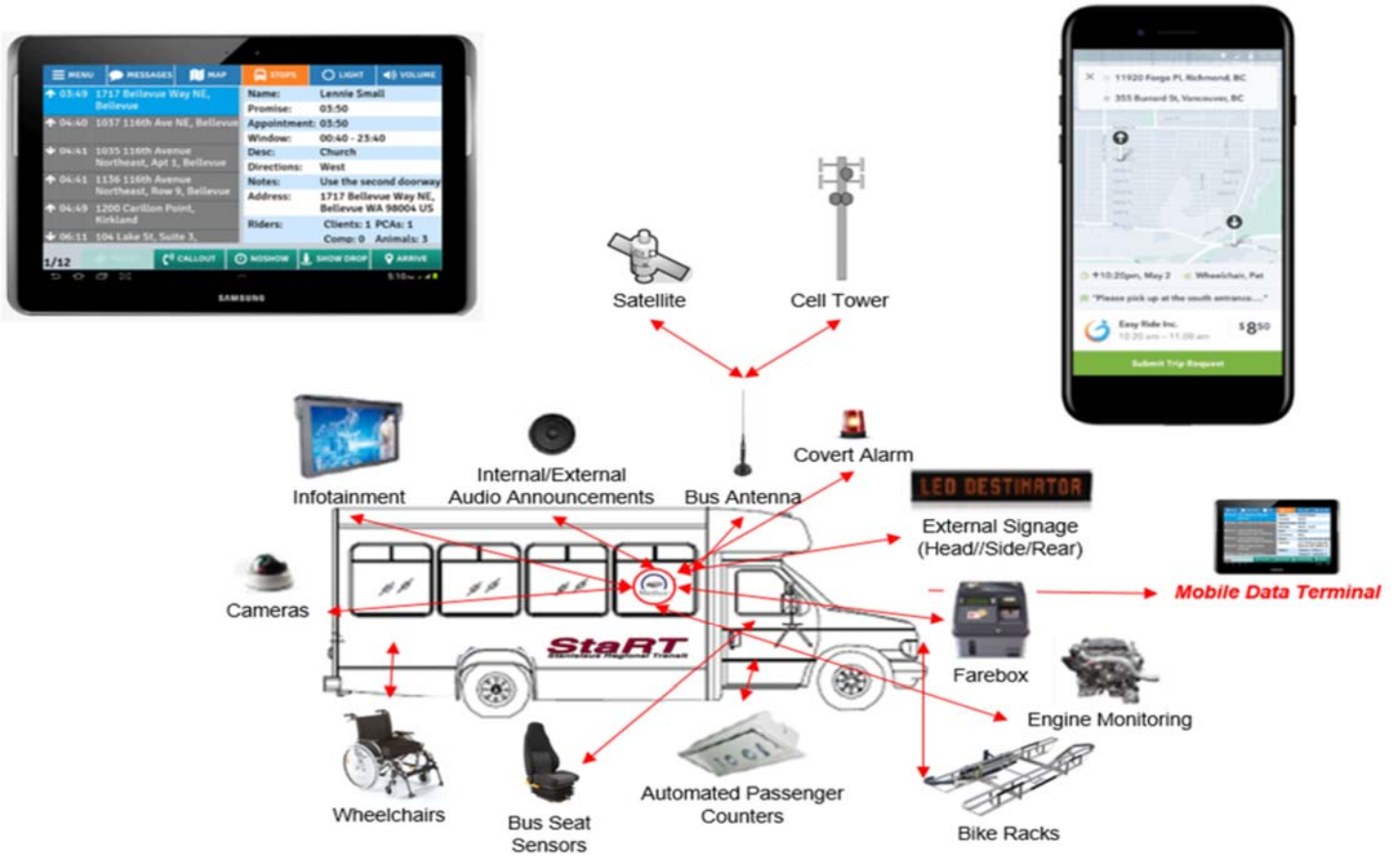
StaRT's ITS features several major components:

- Passenger Information Network.
- Automated Vehicle Location System for vehicle location and tracking which will produce Real Time Arrival Information for StaRT's riders.
- Automated Passenger Counters (APC's); APC systems electronically count the number of passengers that board and alight at every bus stop allowing Transit Staff to make informed decisions when planning route changes. The APC controller senses when the doors are open, counting passenger data and assigning the counts to a stop location which provides a wealth of usable data on ridership.
- Demand Response Vehicle Mobile Data Terminals (MDT's). MDT's on the demand response vehicles allow drivers to receive real-time manifest updates. Real-time updates improve the County's demand response service efficiencies. In addition, the system provides turn-by-turn navigation to the drivers to aid them in finding rider locations.
- Automatic Voice Announcement makes fixed route stop announcements along the route, which is required under the federal Americans With Disabilities Act, making transit more accessible for everyone.
- Infotainment screens on board buses display information to assist the visually impaired and hearing challenged passengers. Additionally, the split-screen format provides a combination of information and advertising. This will save time and money spent making onboard signage and will allow the opportunity for vendor advertising which will generate revenue to assist with farebox.

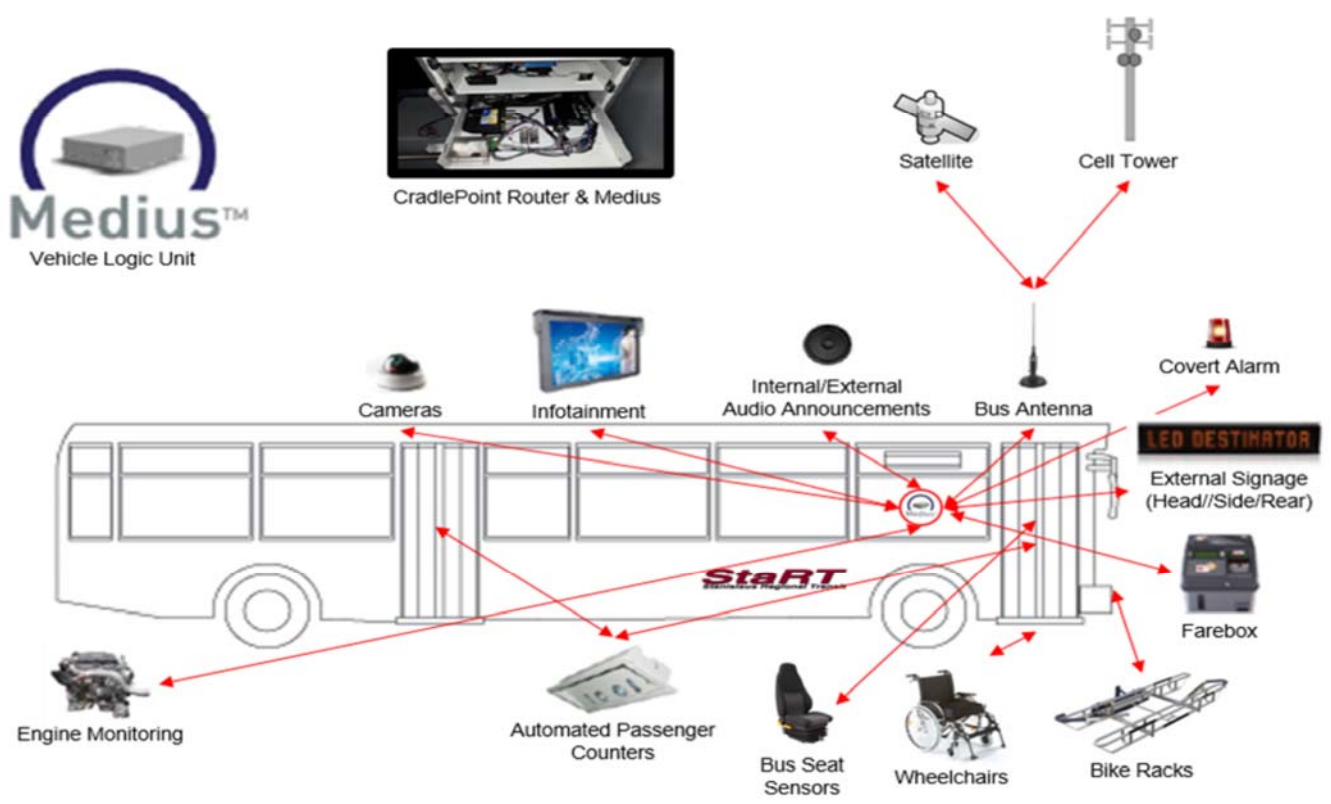


Top to bottom: The installation and setup of new ITS equipment; Infotainment center; and Installation of bike racks.

# Demand Response Bus Components



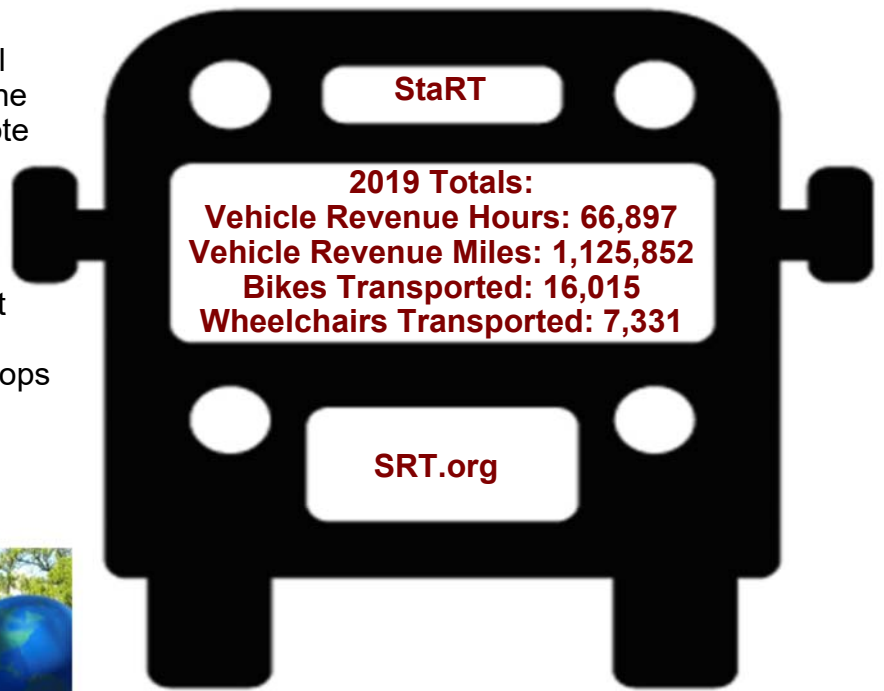
# Fixed Route Bus Components



## StaRT Events

Stanislaus County Transit Staff continues to participate in several events County-wide throughout the year to educate riders and promote StaRT's Transit Services. Major events attended during the year included:

- Healthy Aging Summit
- Oakdale SEAPA Senior Event
- Modesto Earth Day Event
- Unmet Transit Needs Workshops
- Bike to Work Day
- Turlock SEAPA Senior Event
- Spring Festival
- Parent Resource Day



Top: Modesto Earth Day Event, Turlock and Oakdale SEAPA Senior Events.  
Bottom: Bike to Work Day and the Healthy Aging Summit.



### Riverbank 3<sup>rd</sup> & Patterson Bus Stop

The Transit Division improved access and egress to the bus stop on 3<sup>rd</sup> & Patterson in Riverbank. Overgrown shrubbery made it difficult for riders to access the stop. Shrubbbery was removed and a new sidewalk as well as curb & gutter, was installed. This improvement has made service more efficient for passengers, especially for our riders with disabilities needing to use walkers and/or a wheelchair. Here are pictures of the stop before, during, and after.



### Bus Procurement

The Transit Division Procured (5) new compressed natural gas (CNG) buses that will be used for fixed routes. The new buses will meet riders' needs more effectively by providing more reliability, fewer breakdowns and modern technological conveniences.

The Traffic Engineering division strives to make sure the roadway system in Stanislaus County runs safely and efficiently through use of signs, striping, infrastructure, and technology. The Traffic Engineering division also provides project support to Design and Construction Engineering. Although housed at the Morgan Road site, the Traffic Team plays an integral role in the development process with the Development Services team at the 1010 10th Street office.

### New Employee

In March, Danny Mauricio was added to the Traffic Engineering division. Danny started as an Engineering Aide with us while completing his degree in Mechanical Engineering at UC Merced in 2018. We are happy to have kept him around!

### Traffic Signal System

In 2019, we continued to modernize our traffic signal system through the use of new technologies and adding three new traffic signals to our network, which included the Geer Road at Santa Fe Avenue Intersection and the Geer Road at Whitmore Avenue Intersection.

The Geer Road / Albers Road corridor is now fully signalized from the City of Turlock to the City of Oakdale. The Carpenter Road at Whitmore Avenue and Crows Landing Road at Grayson Road intersections are currently under construction for signalization.

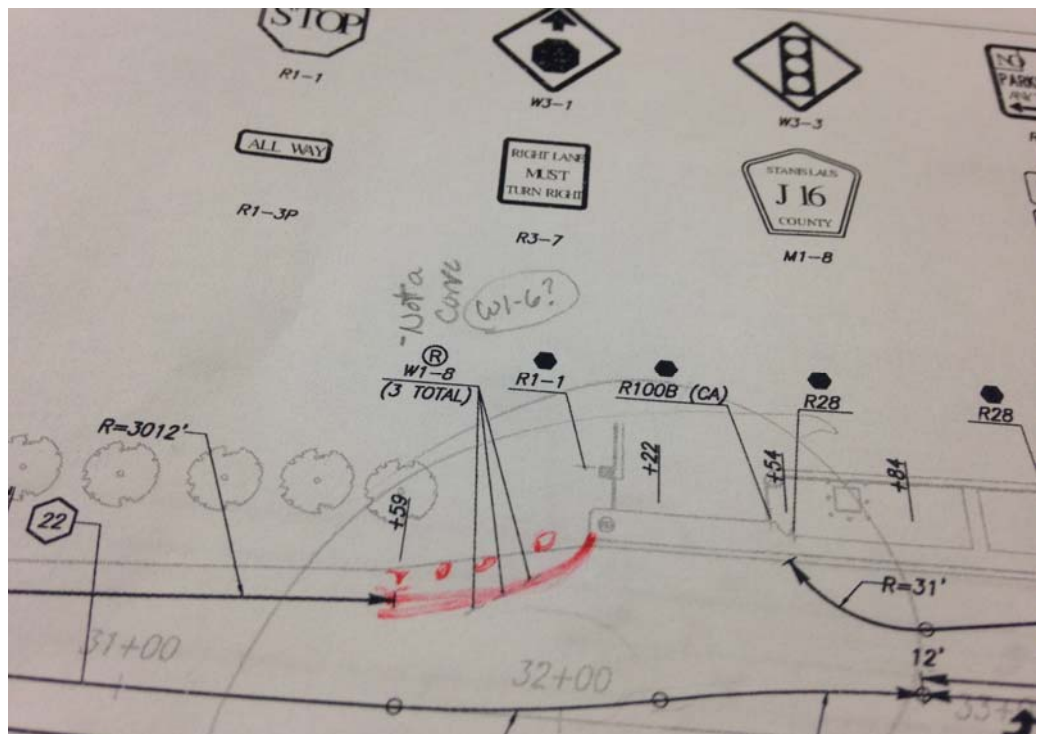


### Signal System Modernization

There were significant strides toward modernizing the traffic signal system in 2019. We upgraded 10 intersections with new Advanced Signal Controllers and have continued to install new detection systems as well. We are continuing to implement new technologies and are primarily working towards a communications system for remotely monitoring signal locations for better response times. We are currently in the process of procuring communications devices through the Congestion, Mitigation, and Air Quality (CMAQ) funding program to bring four corridors data back to the office for monitoring and optimization.

### Goals

This coming year, traffic engineering plans on continuing the modernization of our traffic signal system by continuing to use new and emerging technologies.



At the employee appreciation event, Public Works acknowledges the service year milestones for County service and departmental service. This year, Public Works staff celebrated 23 milestones and 3 retirements!

**1 year with Stanislaus County**

Amanda Leung (Volunteer)

**5 years with Public Works**

James Spoonemore (Roads & Bridges)

**5 years with Stanislaus County and Public Works**

- Francis Baldonado (Traffic)
- Les Stachura (Development Services)
- James DeJong (Development Services)
- Barlow Taylor (Construction)
- Tate Hoffman (Shop)
- Brian Conroy (Roads & Bridges)
- Patrick Brunn (Roads & Bridges)
- Matt Lester (Roads & Bridges)

**10 years with Stanislaus County**

- James Spoonemore (Roads & Bridges)
- Marco Valadez (Roads & Bridges)

**10 years with Stanislaus County and Public Works**

- Jason Lundquist (Roads & Bridges)

**15 years with Public Works**

- Sharon Andrews (Finance)
- Keith Wilcox (Roads & Bridges)

**15 years with Stanislaus County and Public Works**

- Fred Arroyo (Roads & Bridges)
- Eric Moore (Roads & Bridges)
- Wayne McConnell (Roads & Bridges)
- Brett Ernest (Shop)

**20 years with Stanislaus County / Public Works**

- Linda Allsop (Construction)

**25 years with Stanislaus County / Public Works**

- Brian England (Roads & Bridges)
- Jorge Molina (Roads & Bridges)
- Scott Pendleton (Roads & Bridges)

**Retirees**

- Sylvia Jones (Administration)
- Steve Song (Development Services)
- Angie Halverson (Development Services)



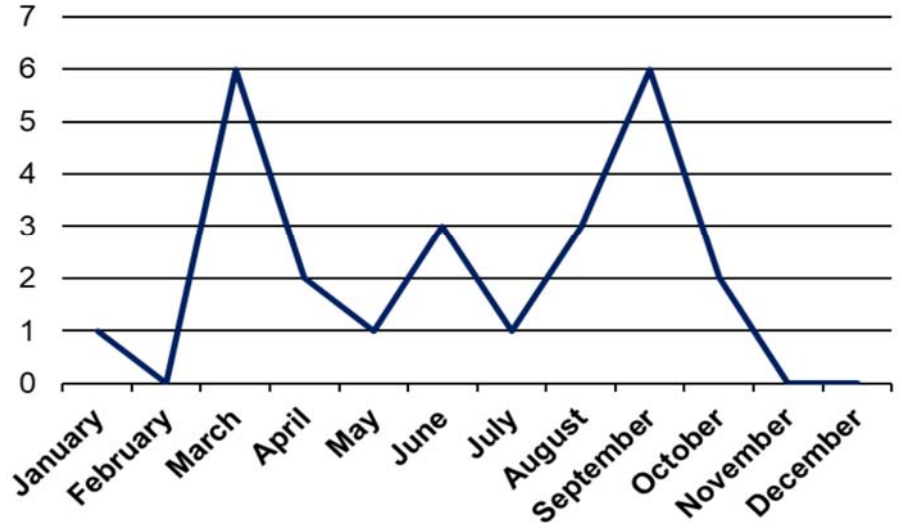
# Safety | Employee Appreciation | Awards (Cont.)



Each division of Public Works meets for a division-specific safety “tailgate” meetings bi-weekly, at a minimum. Public Works holds a mandatory all-staff safety meeting each quarter. The Quarterly Safety Meeting topics presented in 2019 were:

- Injury Illness Prevention Program (presented by Stanislaus County Risk Management)
- Heat Safety (presented by American Medical Response, Inc.)
- New Evacuation Procedures (presented by Public Works staff)
- Safety in the Workplace: Run, Hide, Fight (presented by the Stanislaus County Office of Emergency Services)

**Incidents and Accidents**







**Top Row:**  
 Kristin Olsen  
 (Vice Chairman), District 1

Vito Chiesa, District 2

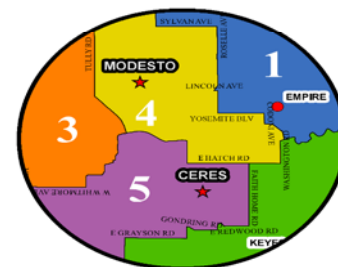
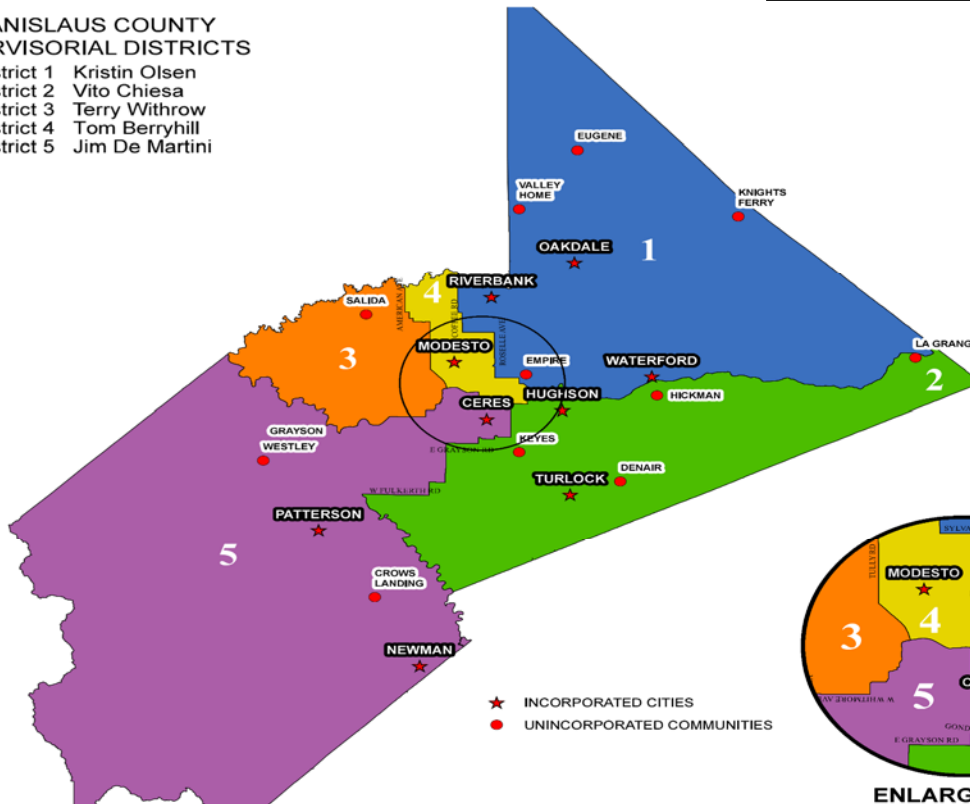
Terry Withrow (Chairman),  
 District 3

**Bottom Row:**  
 Tom Berryhill, District 4

Jim DeMartini, District 5

**STANISLAUS COUNTY  
 SUPERVISORIAL DISTRICTS**

- District 1 Kristin Olsen
- District 2 Vito Chiesa
- District 3 Terry Withrow
- District 4 Tom Berryhill
- District 5 Jim De Martini



**ENLARGEMENT**

# Contact Information



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Development Services | Encroachment Permits | Transportation Permits | Transit



1716 Morgan Road, Modesto, CA 95358 | [www.stancounty.com/publicworks](http://www.stancounty.com/publicworks)  
(209) 525-4130 | (209) 541-2509 Fax  
Administration | Construction Engineering | County Surveyor's Office | Finance  
Design Engineering | Traffic Engineering | Morgan Shop | Roads and Bridges

**You may also contact us by submitting your questions or concerns online at [www.stancounty.com/customercenter](http://www.stancounty.com/customercenter) or Stanislaus County's Assistance Hotline at 1 (877) 2Assist / 1 (877) 227-7478**