

Stanislaus County Public Works



Annual Report
2017

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Leadership Team—Our Mission and Vision



Chris Brady, PE
Deputy Director
Design Engineering, Morgan Shop



Matt Machado, PE, LS
Public Works Director
County Surveyor & Road Commissioner

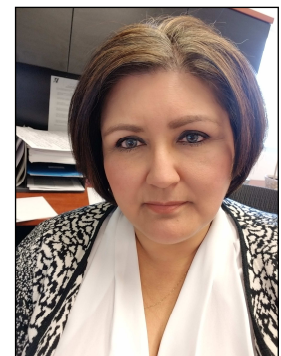


Frederic Clark, PE, LS
Deputy Director
Development Services,
Stormwater & Traffic
Engineering



David Leamon, PE
Deputy Director
Road Operations & Construction
Engineering

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



Letti Ortiz
Senior Business &
Finance Manager



Randy Avants
Road Operations
Manager



Amber Gomes
Human Resources
Manager



Tate Hoffman
Morgan Shop
Manager



Annette Borrelli
Transit
Manager

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

Letter from the Director



The 2017 National Public Works theme was “*Public Works Connects Us.*” How very true this is, whether we are discussing roads, utilities, or even the interaction with the public at our front counters. For Stanislaus County Public Works 2017 was another big year. We have spent the past decade or more discussing the need for additional road funding just to maintain the system that we are responsible for. The year 2017 was a victory for the infusion of new money into long overdue maintenance needs of our road and bridge system. Also, 2017 was a year of change for staff in Public Works. With construction of a new administration and maintenance shop building the department is able to maximize efficiencies of staff and provide an improved interaction with the public.

Since Public Works provides services for our community, it makes sense that it requires resources to maintain this asset. Measure L and Senate Bill 1 (SB1) are critical resources to our success. Measure L was approved by Stanislaus County voters on November 8, 2016. The Measure raised the sales tax in Stanislaus County on April 1, 2017, by one-half cent for a total period of 25 years to improve our local streets and roads, improve connectivity, and reduce congestion. The California Legislature passed Senate Bill 1 on April 6, 2017 raising gas taxes and vehicle fees in hopes of generating billions of dollars annually to fix, improve, and maintain state and local roads. Governor Brown signed this historic legislation on April 28, 2017. SB1 tax increases took effect November 1, 2017 and new vehicle registration fees began January 1, 2018. Fees on zero-emission vehicles will take effect July 1, 2020.

For the past nine years the Department of Public Works has worked hard to develop a plan to replace aging facilities at the Morgan Yard. This is the year that all of that hard work became a reality with the construction of an office building and maintenance shop facility. The prior facilities were nearly 60 years old and were beyond their useful life. Our new facilities are focused on fitting the environment we live in, our specific needs, and the work we perform. Innovation is everywhere in the new facility, from exceptional use of natural light to stormwater management through permeable surfaces. The Department’s new facility has been built to stand the test of time. Additionally, due to efficient use of space and consolidation of staff the new facility is set up to facilitate longer hours of operation to better serve the public. Our new facility was completed just in time to support our increased projects development and delivery goals.

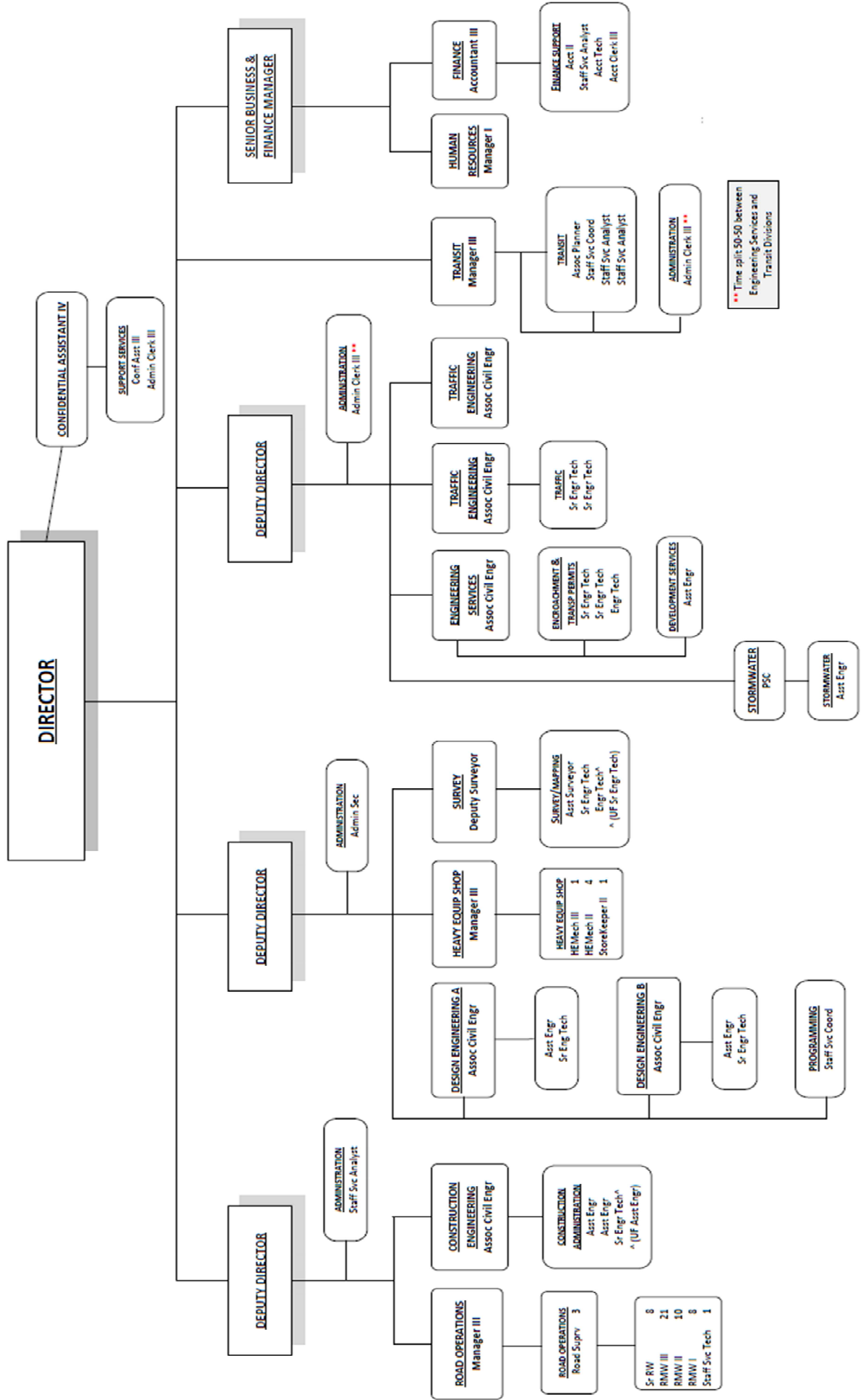
With new resources we will be in a position to make decisions for the long term health of our road and bridge network and system with a combination of fiscal responsibility and innovation. I am certain the public will see a difference immediately.

All of this progress in 2017 has been made possible by hard working staff, a supportive community, and a steady, informed, hardworking, supportive Board of Supervisors.

Stanislaus County Department of Public Works is ready, willing, and capable. Public Works does truly connect us all. *Thank you!!*

A handwritten signature in blue ink, appearing to read "Matt Cochran". The signature is fluid and cursive.

DEPARTMENT OF PUBLIC WORKS



Administration & Finance

The Administration division provides divisional support in all areas of the Public Works Department with more focus in the areas of clerical and finance. Clerical support is provided in the areas of maintaining and organizing lead staff, human resources, training, coordinating department activities, and other ongoing daily needs necessary for the smooth running of the department. Financial support is provided by the way of budgeting, payroll processing, accounts payables, and accounts receivables.

ADMINISTRATION

The Administration division provides clerical support to all Public Works' divisions. Their role includes highly necessary duties that ensure the department operates smoothly. Some duties are:

“Logged and followed up on 2,025 customer comments and/or concerns,” which is 24.7% more than last year.

- First point of contact by greeting lobby customers
- Answering the department's main phone line
- Processing all incoming mail
- Maintaining personnel records
- Training records maintenance
- Overseeing Public Works compliance regarding County policies
- Logging and following up on 2,025 customer comments/concerns submitted through the County's Customer Response Management (CRM) system
- Processing volunteer applications
- Publishing the department's quarterly newsletters "In the Works"
- Safety program strategic planning by providing daily safety tips
- Scheduling and coordinating meetings for department staff and customers
- Conducting recruitments
- Processing new employees' paperwork
- Maintaining our office supply inventory
- Coordinating janitorial and building maintenance services
- Posting traffic delay notifications and event announcements on Public Works' Facebook page
- Being the department liaison regarding Americans with Disabilities Act (ADA)
- Publishing the department's annual report

Administration & Finance (cont'd)

Administration staff was also very busy this year coordinating the relocation to the new building. The staff created the bid package, conducted vendor tours, coordinated bid openings, and selection of vendor. The staff also provided department staff with instructions for packing their items and ensuring all office furniture, file cabinets, chairs, copiers, plotters, and supplies were moved and installed. Administration team members provided floor plans to the movers and were on site to assist the movers in relocating boxes, furniture, monitors, computers, etc. to the new building.

The Administration team also coordinated work with our Strategic Business Technology (SBT) team regarding the relocation and reconnection of phones, computers, and fax units.



Pictured from left to right: Keimi Espinoza, Deborah Hawkins, and Sylvia Jones

The new Administration building move was July 15, 2017 and the Vehicle Maintenance/Roads Building move was October 7, 2017.

Administration staff also assisted in coordinating the relocation of records/maps from Pacific Records in Stockton and from the 1010 10th Street location later in the year.

"In the Works"
Serving to be the Leading Public Works Department Through Innovative Stewardship of Infrastructure and Environment

Stanislaus County Public Works
Volume 9, Issue 1
March 2017

Floods of '17
Submitted by Dave Leamon

We have had a very busy winter since the beginning of the year. We have worked a tremendous amount of overtime, approximately 2,000 hours! We managed barricades for road closures, cleaned up debris, removed downed trees, repaired roads, pumped flooded roads, repaired scour damage, and fixed at least 20,000 sand bags. We were busy!

Lake Road Scour Fix February 3-4, 2017

Public Works Staff Update

"In the Works"
Serving to be the Leading Public Works Department Through Innovative Stewardship of Infrastructure and Environment

Stanislaus County Public Works
Volume 9, Issue 3
September 2017

Transportation Funding in California— SB1 Investing and Protecting our Infrastructure
Submitted by Matt Machado

The California Legislature passed Senate Bill 1 on April 6, using gas taxes and vehicle fees in hopes of generating billions of dollars annually to be spent on transportation infrastructure. Governor Brown signed this historic legislation on April 28. The bill is accompanied by Assembly Constitutional Amendment No. 5, ACA 5 (Prop 5), which provides constitutional protections for revenues. ACA 5 will go to voters for approval in June 2018.

SB1 has provisions that will affect revenues for all new vehicle registration fees that begin January 1, 2018. Fees on out-of-state vehicles will take effect July 1, 2018. To illustrate:

- A 42 cent increase in the gasoline excise tax
- A 30 cent increase in the diesel excise tax
- An annual increase in the driver license fee
- A new vehicle fee, which will annually charge the value of the vehicle
- A \$100 annual fee on out-of-state vehicles
- Consumer Price Index (CPI) adjustment rates

The approval of SB1 brings California's gas excise tax lengths in line with the other states in which fees have already increased in full with out-of-state fee takers. This clarity has made Stanislaus County, along the defined jurisdiction.

Revenues generated by SB1 will be spent through Program guidelines as currently being developed by the California Department of Transportation (Caltrans).

- Creation of the Independent Office of Audit and Accountability
- Requiring Caltrans to update the Highway Cost Accounting Manual
- Requiring increased contract awarded to non-California contractors
- Enact the Traffic Congestion Relief Program a Congestion Relief Program to purchase the and non-revenue access improvements within the State of California Highway program that the FHWA issues and protect environmental resources

Markus, Matt. "Transportation Funding in California Infrastructure." *Stanislaus County of California*.

"In the Works"
Serving to be the Leading Public Works Department Through Innovative Stewardship of Infrastructure and Environment

Stanislaus County Public Works
Volume 9, Issue 4
December 2017

New from Transit — Integrated Technology Solutions
Submitted by Dana Rose

The Public Works Transit Division staff is eager to integrate smart, reliable and convenient Integrated Technology Solutions (ITS) throughout our service areas in order to help our passengers reach their destinations and share their transit experiences.

As part of our ITS, Transit staff is actively piloting real time technology, also known as automatic vehicle location (AVL). AVL systems are widely used in the transit industry as they track the location of the bus and give an estimated time of arrival (ETA) to passengers. In addition, passengers will have the ability to text the bus stop number to a designated phone number and get the arrival information as well. Stanislaus County Transit will also use AVL to automatically display the corresponding destination sign to each route.

Stanislaus County Transit will also implement automatic vehicle announcement (AVA) which will make local route stop announcements along the route. This is required under the federal Americans with Disabilities Act (ADA) for all transit agencies.

In addition, Smart Buses will also be equipped with automatic passenger counters (APC). 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 counter system will be able to open, counting passenger data and displaying the counts to a stop location with priority to the south of public stops on the route.

The advanced technology will allow drivers a split split to keep the ITS equipped on the vehicle including: fareboxes, automatic vehicle location (AVL), real time announcement systems, automatic passenger counters (APC), fareboxes, and more. It also provides more information, contributing to BART's goal of efficiency and improving the customer experience.

IN THIS OFFICE... WE ARE HELPFUL WE ANSWER PHONES WE HAVE FUN WE ARE KNOWLEDGEABLE WE ARE PATIENT WE ARE FRIENDS WE ARE SUCCESSFUL WE TOGETHER WORK WE ARE A TEAM

Word of the Quarter: Charity

Ethics Quotes
Felix Adler: "It was the greatest idea I thought to make their problems one's own, to see the beginning of one's real ethical development."

Health & Safety Note: Safety is an accident!

NO JOB IS SO IMPORTANT & NO SERVICE IS SO URGENT THAT WE CANNOT TAKE TIME TO PERFORM OUR WORK SAFELY.

"In the Works"
Serving to be the Leading Public Works Department Through Innovative Stewardship of Infrastructure and Environment

Stanislaus County Public Works
Volume 9, Issue 2
June 2017

Geer Road and Santa Fe Avenue Intersection Signalization
Submitted by Chaseth Ahvany

The existing intersection of Geer Road and Santa Fe Avenue is located in Stanislaus County, about 1.5 miles southeast of the City of Highway. Existing traffic control at all-way stop signs with a center flashing red signal. A railroad grade crossing is located south of Santa Fe Avenue, which is controlled with flashing red warning signals and cross-ticks on both directions. There are existing signalized intersections on the west side of Geer Road, including the intersection with Santa Fe Avenue. The intersection of Geer Road and Santa Fe Avenue will be upgraded to a four-way intersection. The intersection will be upgraded to a four-way intersection. The intersection will be upgraded to a four-way intersection. The intersection will be upgraded to a four-way intersection.

Signalization will involve the installation of foundations, poles, and mast arms to support the proposed signal equipment, street name signs, and luminaires as well as control boxes and other related equipment. Multi-phase control will be provided to accommodate anticipated turning movements on all four approaches. The intersection roadway sections would be resurfaced and signed in accordance with county and state standards. The project also includes some related crossing improvements, such as a change in cross area. Equipment and materials staging for the project will occur within existing County road right-of-way. No new right-of-way acquisition is required.

Word of the Quarter: Patience

Ethics Quotes
Nicholas Sparks: "In the end, you should always do the right thing, even if it's hard."

Health & Safety Note: Safety is an accident!

Word of the Quarter: Charity

Ethics Quotes
Felix Adler: "It was the greatest idea I thought to make their problems one's own, to see the beginning of one's real ethical development."

Administration & Finance (cont'd)

Finance Division of Public Works provides budgeting, financial, payroll and cost accounting services. They are responsible for budget preparation and monitoring, contracting, lighting districts, accounts payable, accounts receivable, purchasing, payroll, and inventory, (just to name a few) for all divisions. Five full time employees in Finance ensure that the department is following all County financial policies and safeguards public funds. In short, they oversee Public Works' \$104 million plus budget under the direction of the Finance Manager.



Pictured left to right: Olivia Tanner, Julie Serrano, Elena Locarnini, Bianca Rodriguez, and Sharon Andrews



"I love to organize data and make it valuable information for users."

Elena Locarnini, Accountant II

Just a few tasks that involve

- ◆ Budget Journals
- ◆ MasterCard Reconciliation
- ◆ Timecards
- ◆ Board Items
- ◆ CAP Charges
- ◆ Fixed Assets/Inventory
- ◆ Accident Billing
- ◆ Purchasing
- ◆ CSA, LLD, and Lighting Districts
- ◆ SJVAPD and BOE Compliance
- ◆ Rental Rates for Heavy Equipment
- ◆ Engineering Contracts Oversight
- ◆ County Related Travel

Administration & Finance (cont'd)



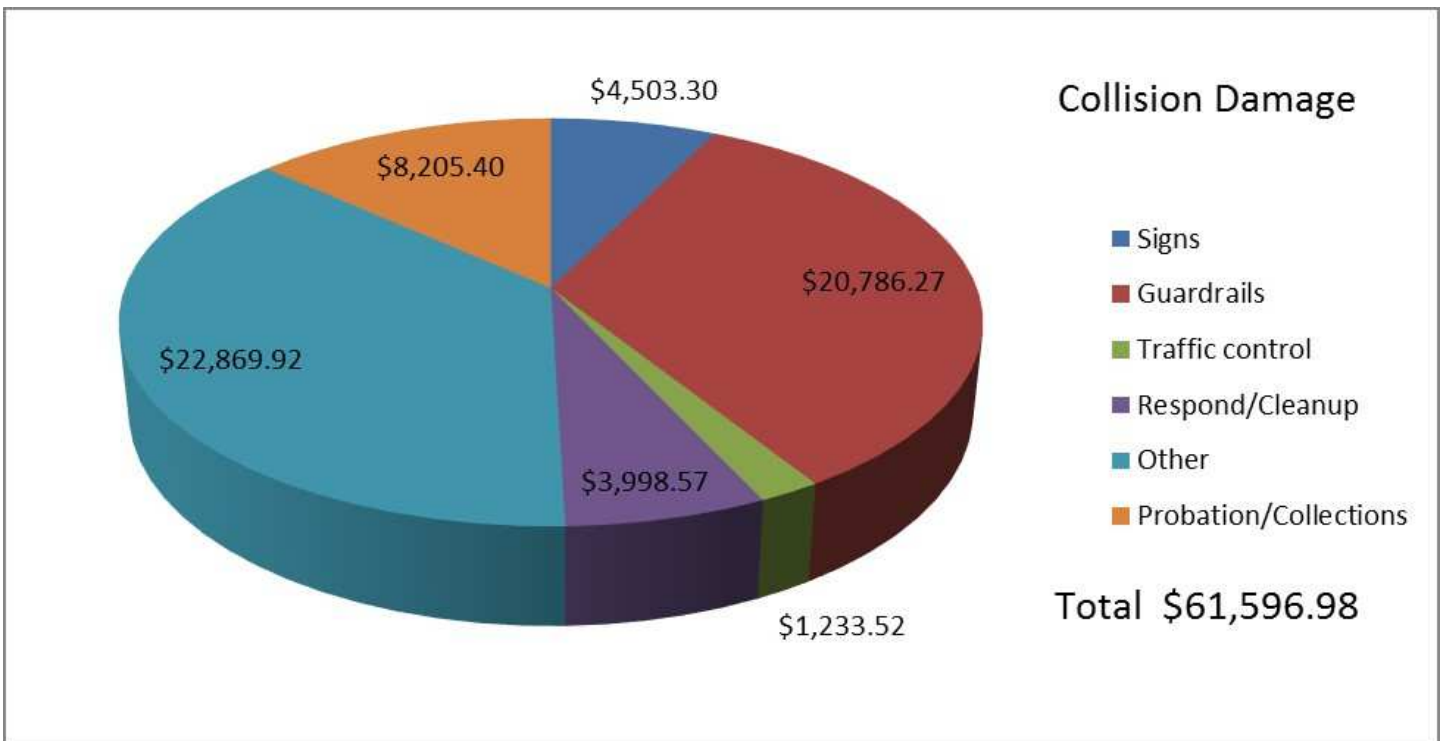
Collision Damage Recovery

By Sharon Andrews, Accounting Technician

One of the unfortunate aspects of life is: Stuff Happens. But what happens when the stuff that's happening, happens to Public Works stuff? I receive an average of 180 CHP Collision Reports per month. That includes all the traffic collisions from all County areas. I read the report and determine if our property was involved. If so, I collect the information on how much it cost Public Works for Road Maintenance Worker labor, materials or contract labor, and materials to repair or replace it. Then, using the insurance information from the CHP Report, I send a demand for restitution to the insurance company. I've gotten checks in as little as 5 days or as long as 2 years from the date the claim was presented. Occasionally, the responsible party (usually the driver or owner of a company vehicle) wants to be billed directly.

If they have no insurance coverage, the driver isn't covered, or the insurance company is unresponsive, the claim then goes to Probation or Revenue Recovery (Collections), which can take years to collect. In fact, the check we got from Probation this year was for a collision that occurred in 1996! Signs are the most frequent casualty of collisions, then response and/or cleanup is next, followed by guardrails and traffic control. Then there's the "other" category. Barricades broken, tractor/disc harrow road damage, and the destroyed "Welcome to Denair" archway all fit into that category.

In 2017, Public Works received \$61,596.98 in restitution: \$53,391.58 from Insurance and private parties, \$395.31 from Probation and \$7,810.09 from Revenue Recovery.



Administration & Finance (cont'd)



Fruit Road Levee Breach



Brian England, Road Supervisor



Julie Serrano, Accountant III

One of the biggest projects for Finance in 2017 was claiming reimbursements for the floods of 2017. Below is a chart from the County Auditor's office that details the amount Public Works received. This took an enormous amount of time and was not possible without the great teamwork of Julie Serrano, Accountant III Supervisor, and Brian England, Roads Supervisor.

Flood of 2017 - Claim Reimbursements Payments

	State of CA payment - CK#09-200199 (CalOES share)	Deposit Coding Structure (MISC-000220)	State of CA payment - CK#09-200249 (FEMA share)	Deposit Coding Structure (MISC-000220)	TOTAL
	\$ 74,361.00		\$ 277,899.00		\$ 352,260.00
Public Works - Category B	\$ 35,888.86	1101-0040300-24000	\$ 130,503.61	1101-0040300-27800	\$ 166,392.47
Sheriff - Category B	\$ 17,812.18	0100-0028210-24000	\$ 64,770.90	0100-0028210-27800	\$ 82,583.08
Environmental Resources - Category B	\$ 44.96	0100-0035201-24000	\$ 163.49	0100-0035201-27800	\$ 208.45
Environmental Resources - Category G	\$ 20,615.00	0100-0035201-24000	\$ 82,461.00	0100-0035201-27800	\$ 103,076.00
TOTAL DISTRIBUTION	\$ 74,361.00		\$ 277,899.00		\$ 352,260.00
	\$ -		\$ -		\$ -

Deposit Date: 2/5/2018
DP#: 380891

Deposit Date: 2/5/2018
DP#: 380892

TEAM WORK



Elena Locarnini, Accountant II, with Sharon Andrews, Accounting Technician

Elena's tasks for 2017 included:

- ⇒ Entering 1,870 utility invoices for payment for Special Districts, Roads, and Morgan Shop.
- ⇒ Working with a total of 66 Special Districts including County Service Areas (CSA), Lighting, Landscape, Storm Drain, and Landscape Assessment Districts.
- ⇒ Preparing annual budget, Engineering reports, expenditure monitoring, annual assessment documents, reconciliation of the parcels for each district, annexation and formation process (including writing of Board Items and attending Public Hearings).

Bianca's tasks for 2017 include:

- ⇒ Processing 74 Road Tax Assessments
- ⇒ Processing 1,134 invoices for Roads
- ⇒ Processing payroll for the Roads division
- ⇒ Crew sheets
- ⇒ Deposits for Public Works
- ⇒ Purchasing for Roads division
- ⇒ Credit card reconciliation for the Roads division



Bianca Rodriguez, Account Clerk III, with Randy Avants, Roads Superintendent

Administration & Finance (cont'd)



Olivia Tanner, Staff Services Analyst

Olivia's primary responsibility is the Morgan Shop Division. Some of her tasks include:

- Board Items
- Budget review
- CAP Charges for Morgan Shop
- Accounts Receivable
- Accounts Payable
- Credit Card Reconciliation
- Rental Rates

"I have admiration and respect for the gentlemen who work in Morgan Shop. Their trade is extremely complex which makes my job enjoyable: It is a constant learning process. Jumping in and out of tractors is exciting too." - Olivia Tanner

THE BATTERY IN THE CALCULATOR

Leticia Ortiz, Business and Finance Manager



A leader's job is not to do the work for others, it's to help others figure out how to do it themselves, to get things done, and to succeed beyond what they thought possible."

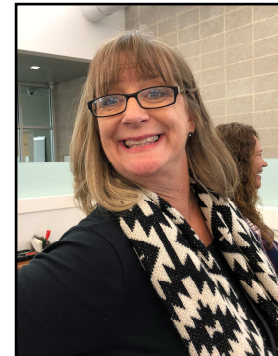
Simon Sinek

"Welcome to the Finance Department, where everybody counts."

Human Resources



Amber Gomes



Deborah Hawkins

The Human Resources Division provides support to the 100 plus employees at Public Works. The Human Resources division is staffed by Amber Gomes, Human Resources Manager, and Deborah Hawkins, Confidential Assistant III. Together the team initiates, plans, and manages the departments recruitment and staffing process. This includes job advertisement, screening applicants, test administration, and coordinating interviews.

The Human Resources division provides Public Works with structure and the ability to meet business needs through managing our most valuable resource – our employees. Some of the duties performed by HR are:

New Recruitment – Provide recruiting and staffing services and develop the workforce.

Job Safety – Provide workplace safety training and maintain compliance with OSHA and management of workers compensation injuries. Deborah Hawkins handles the scheduling and presentation of our quarterly safety meetings as well as the popular safety incentive, bingo program.

Employee Relations – Provide employee/employer relations through job satisfaction, employee engagement and resolving workplace conflict.

Compensation and Benefits – Provide employees with enrollment information and support on health benefits, life insurance and deferred compensation plans. HR also ensures compliance with laws such as FMLA and CFRA.

Labor Law Compliance – Provide compliance for the department on EEOC guidelines, Title VII of the Civil Rights Act, The Fair Labor Standards Act and many other rules and regulations.

Training and Development – Provide oversight and ensure compliance with mandated trainings for the department as well as encourage employees to attend professional development courses.

Construction Engineering

The Construction Division manages all construction related elements of the Public Works Department's capital improvement projects, which includes roadway, utility, and bridge improvements. Through contract administration and construction inspection, it is the goal of the Division to ensure that each project is built according to the plans, specifications, on schedule, and within budget.

The division successfully delivered eight projects throughout the year, totaling \$19.8 million of improvements. With an inspection staff of only four individuals, it was imperative for the Division to utilize on-call construction management services to deliver all the projects this year. Harris & Associates, Drake Haglan and Associates, HDR, and NV5 successfully supplemented the Division's staff, managing the daily inspection and administration duties for the various projects.

Exciting for 2017 is the construction of the Morgan Road Heavy Equipment Shop/Administration Building Project, which involves 9.5 acres of the 15-acre site and consists of: new buildings to replace the existing maintenance shop, sign shop, carpenter shop, trailers, and administration building; a mixture of permeable paver and asphalt parking lots; utility services from existing adjacent sources; and improvements to the adjacent frontage of Morgan Road. The existing improvements all date from 1958 and were run down and dilapidated. The Administration Building was occupied in August of 2017. This is a \$15.7 million project which is anticipated to be complete in 2018.

RSTP L:

Improvements: Roadway Reconstruction

- Full-Depth Reconstruction of Howard Road from the Westley Triangle to one mile west of Stark Road, 1.6 miles
- Full-Depth Reclamation of Carpenter Road from Robertson Road to Chicago Avenue
- Full-Depth Reclamation of W. Hatch Road from Carpenter Road to Monticello Lane

Bid Amount: \$1,990,736

Start Date: August 11, 2017

Estimated Completion Date: April 15, 2018 (Delayed due to the additional work for bridge deck grinding)

Contractor: Knife River Construction

Resident Engineer/Construction Inspector: Peter Song



Top Photo: Howard Road Paving
Bottom Photo: Soil Mixing on Hatch Road

Construction Engineering (cont'd)

HATCH ROAD AT SANTA FE AVENUE INTERSECTION WIDENING PHASE 3:

Improvements: Roadway widening and reconstruction including installation of concrete islands, traffic signals, and asphalt concrete overlay

Bid Amount: \$1,449,515

Start Date: July 11, 2016

Completion Date: November 6, 2017 (Delayed due to Burlington Northern Santa Fe railroad improvements at the intersection).

Contractor: George Reed, Inc.

Resident Engineer/Construction Inspector: Peter Song



Hatch Road
(Looking West)
Left: **BEFORE**
Right: **AFTER**

Bradbury and Central Avenue Highway Safety Improvement Project

Improvements: Construction of flashing beacon, street lights, pavement markings, striping, and widening shoulders.

Bid Amount: \$428,780

Start Date: October 30, 2017

Completion Date: January 2018

Contractor: George Reed, Inc.

Resident Engineer/Construction Inspector:
Mark Hamblin

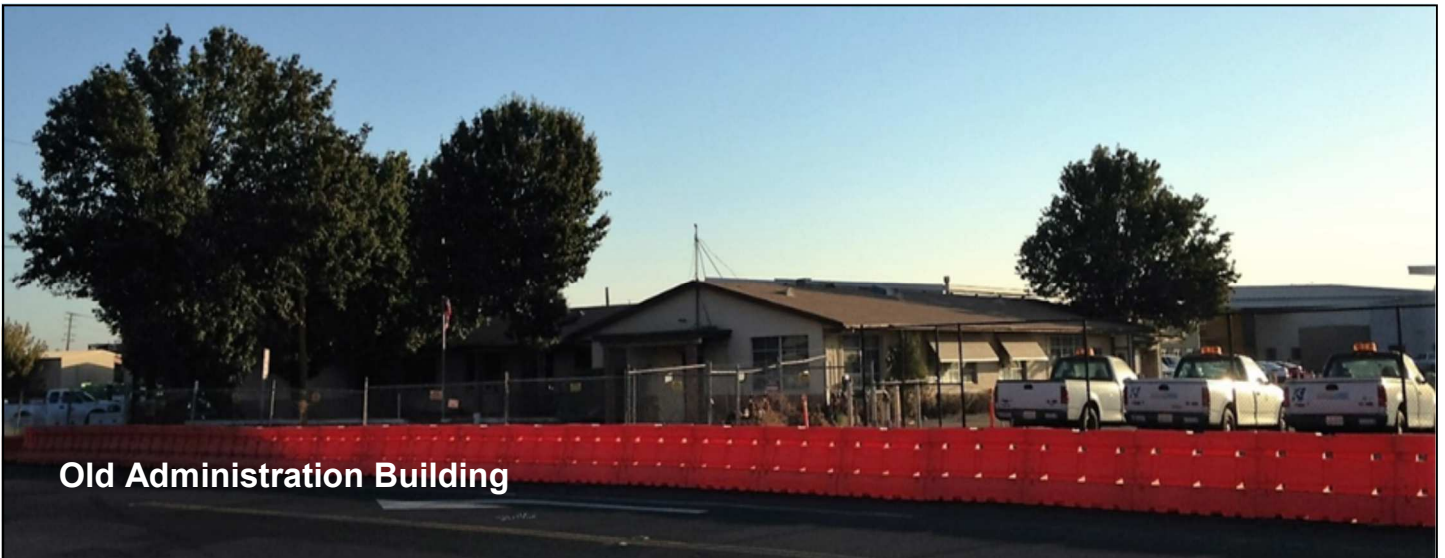


South Walnut Road looking south towards
Bradbury Road

Construction Engineering (cont'd)

- **PUBLIC WORKS SHOP AND ADMINISTRATION BUILDINGS:**

- Improvements: New shop and administration building to replace 60-year old substandard buildings
- Bid Amount: \$14,739,903
- Start Date: February 23, 2016
- Dedication Date: May 2018
- Contractor: Diede Construction
- Resident Engineer/Construction Inspector: Bryan Voyles



Construction Engineering (cont'd)

Airport Neighborhood – Phase 2

Improvements: Construction to provide sewer service to 362 parcels in South Modesto in the Airport Neighborhood. Project includes new pavement and striping.

Bid Amount: \$4,720,840

Start Date: February 2, 2017

Completion Date: April 2018

Contractor: George Reed, Inc.

Resident Engineer/Construction Inspector: Barlow Taylor



On the left—Tenaya Drive at Kerr Avenue Under Construction



On the right—Tenaya Drive at Empire Avenue After Construction

Construction Engineering (cont'd)

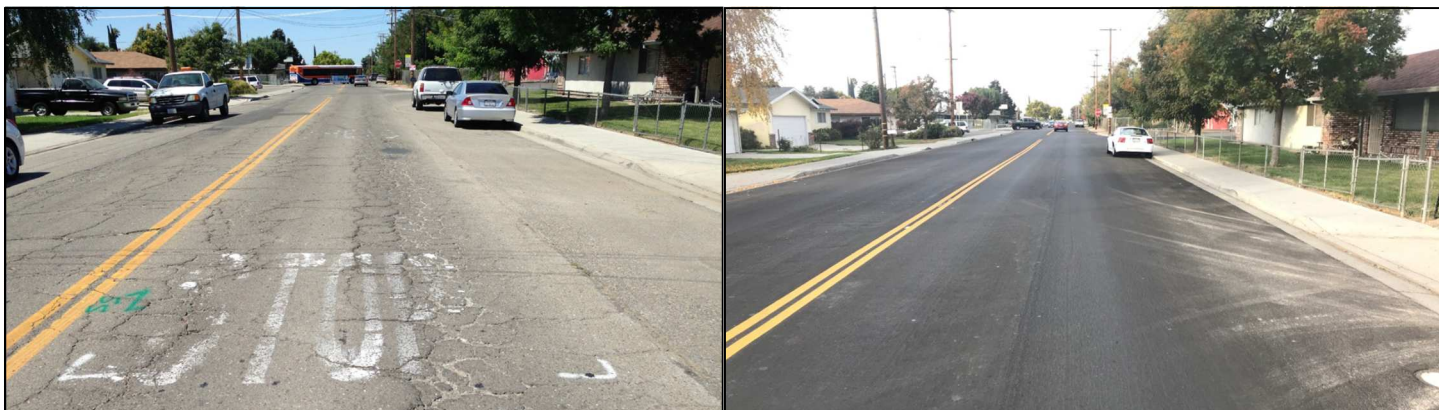
Salida Sidewalk Project Phase 2

- Improvements: Fix trip hazards from tree damage
- Bid Amount: \$161,815.70
- Start Date: June 5, 2017
- Completion Date: July 31, 2017
- Contractor: Taylor Backhoe Services
- Resident Engineer/Construction Inspector: Peter Song



Salida Slurry Project

- Improvements: Pavement preservation project with slurry seal, asphalt rubberized chip seal and micro-surfacing
- Bid Amount: \$1,479,000
- Start Date: July 17, 2017
- Completion Date: September 22, 2017
- Contractor: Valley Slurry Seal, Inc.
- Resident Engineer/Construction Inspector: Peter Song



Finney Road looking north towards Salida Elementary School
Before (Left) and After (Right)

Construction Engineering (cont'd)

Santa Fe Bridge over the Tuolumne River

Improvements: Replace seismically deficient bridge over the Tuolumne River. New bridge will be wider with 8-foot shoulder 2-lanes with a center turn lane for turn movements, just off the bridge.

Bid Amount: \$11,440,070

Start Date: August, 2017

Completion Date: Summer 2019

Contractor: Meyers and Sons, Inc.

Resident Engineer/Construction Inspector: Mark Hamblin

Pile driving on the north abutment



View of project looking north. Project is new in that we have live webcams out there on both ends of the bridge providing new pictures of the project progress at:

<http://santafebridgeproject.com/>

Road Operations

The Road & Bridge division of Public Works provides the maintenance of the roads and road rights-of-way which includes:

- Shoulder grading
- Grading of dirt roads
- Paving
- Pothole repair
- Chip Seal program
- Street light maintenance
- Tree trimming and emergency response
- Roadway striping and traffic legends
- Traffic sign maintenance and installation
- Road closures and detours
- Bridge repair
- Storm drain installations
- Underground pipe installation
- Drain installation and maintenance
- Managing of storm drainage system including pumps and drainage basins



Bridge Crew Accomplishments

During 2017 we continued our collaboration with the neighboring irrigation districts. The Bridge crew did nine co-ops with Central California Irrigation District (CCID), Oakdale Irrigation District (OID), Turlock Irrigation District (TID), and West Stanislaus Irrigation District (WSID). With these co-ops, we supply most of the materials including paving while the irrigation districts supply the labor.

The Bridge crew had the job of repairing the inlet structure pipes along Frankenheimer Road for Woodward Lake in Oakdale. The repairs included two 48" high-density polyethylene (plastic) pipes and a 72" corrugated metal pipe. By replacing sections of pipe and 9.5 yards of slurry, the repairs should allow for many years of dependable water flow.

The storms of 2017 created many problems including potholes and sink holes. As the water finds its way through rodent holes, around drainage pipes, and through weakened pipes the water causes a myriad of problems. One of these problems occurred in the community of Knights Ferry. On Ellen Street the water found its way down a retaining wall causing its collapse. The dirt and debris were removed and a new retaining wall was built in place. An asphalt dike was also installed along the roadway to divert storm water ensuring the same problem doesn't continue.

In addition to other repairs, the Bridge crew accomplishments are:

- 9 Co-ops
- 14 Rock Wells locations
- 12 Sink holes repaired
- 21 Cross pipes replaced
- 18 Guard rail repairs
- 16 Sidewalk repairs
- 23 Storm days

Road Operations (cont'd)



Traffic Crew Accomplishments

The Traffic crew added a new striper, which has a shorter wheel-base that will allow for better maneuvering on curves and narrow roads. With the addition of black paint, it will also make the yellow centerline stand out for better visibility.

The Traffic crew accomplishments are:

- 4,124 Traffic sign repairs
- 71 New sign installations
- 245 Street lights repaired/replaced
- 520 Miles of centerline striping
- 131 Miles of edge line striping
- 382 Stop and Stop Ahead legends painted
- 77 School and Crosswalks repainted
- 12 Railroad legends



General Maintenance Crew

In 2017 the General Maintenance Crew (GMC) concentrated on dirt roads, chip seal preparation, chip seal, and pothole patching. In addition to chip sealing 84.5 miles of roadway, the GMC also applied:

- 487 tons of asphalt for pothole patching
- 552 tons of hydro patch for pothole patching
- 1,032 tons of asphalt for blade patching
- 261 tons of base rock on dirt roads
- 27 miles regrading dirt roads
- 13 miles of shoulder grading



Road Operations



Design Engineering

The Design Engineering division provides oversight and design services for infrastructure improvement projects as defined in the Capital Improvement Program from the planning phase through the award of the construction contract. This division oversees the environmental phase, utility coordination and relocation, right-of-way acquisition, and the preparation of the final plans, specifications and estimates for the construction contract.

The division provides in-house engineering design services for maintenance projects and smaller improvement projects such as signalization of an intersection. Typically for complex projects, for example bridge replacement projects, consulting firms are retained through the Request for Proposal (RFP) or Request for Qualifications (RFQ) processes. The division staff oversees the work of such consultants throughout the delivery of the project from planning to construction and provides technical support.

This division also provides project consultant selection, along with design and construction oversight services to other County departments such as Environmental Resources, Parks, and the Planning and Community Development Department.

Additionally, this division is responsible for securing, administering, and overseeing all the Federal and State funds that make it possible to continue the delivery of projects. It also oversees the Disadvantaged Business Enterprise (DBE) program under the oversight of Caltrans and the Federal Highway Administration (FHWA). This program is mandated for all federally funded contracts on any phase of a project.

In 2017, the division received over \$15.4M in authorized federal funding through the following programs:

- Highway Bridge Program (HBP) - \$13M
- Congestion Mitigation and Air Quality Program (CMAQ) - \$1M
- Highway Safety Improvement Program (HSIP) - \$0.4M
- Surface Transportation Block Grant Program (STBGP) - \$1M



Santa Fe & Hatch Signalization Ribbon Cutting Ceremony

Design Engineering (cont'd)

In 2017, the division delivered the following projects to construction:

Project Name	Total Cost
2017 Salida Pavement Preservation - Measure L	\$1,700,000
2017 Chip Seal - Measure L	\$778,000
Intersections of Bradbury Road at Walnut Road and Central Avenue at Grayson Road Improvements	\$495,600
Santa Fe Avenue over Tuolumne River Bridge Replacement	\$15,982,620
Keyes Road at Faith Home Road Intersection Signalization	\$1,535,875
RSTP Road Resurfacing Program Phase L	\$2,540,000
Airport Neighborhood Sewer Improvement Project	\$5,230,000
Salida Sidewalk Repair Project Phase II	\$195,000

Total \$28,457,095

Currently, the design team is working to deliver the following projects in 2018:

2018 Construction Outlook	Engineer's Estimate
Geer Road and Santa Fe Avenue Intersection Improvements	\$1,800,000
Denair Amtrak Station Parking Lot	\$300,000
Newman Waterline	\$300,000
Geer Road and Whitmore Avenue Intersection Improvements	\$1,340,000
ADA Curb Rumps Improvement	\$500,000
2018 Pavement Preservation - Measure L	\$2,000,000
Claribel Road at Roselle Avenue Intersection Improvement	\$2,880,000
Warnerville Road and Bentley Road	\$4,000,000
Tegner Road over TID Lateral No. 5 Bridge Replacement	\$1,560,000
Shiells Road over CCID Main Canal Bridge Replacement	\$1,290,000
Keyes Road at SR99 Ramp Signals	\$700,000
St. Francis Road over MID Bridge Replacement	\$1,433,000

Total \$18,103,000

Design Engineering (cont'd)

Hickman Road over Tuolumne River Bridge Replacement



Stanislaus County Department of Public Works, in coordination with the City of Waterford, is planning to replace the Hickman Road Bridge over the Tuolumne River. The existing bridge was built in 1964. Since its construction, the channel of the Tuolumne River has degraded during high river flow events causing erosion to occur at the bridge foundation. In November of 2004, emergency repair work was done to slow down the erosion of the bridge foundations. Because of ongoing channel degradation, the existing bridge has been closed during high flow events due to public safety concerns, most recently in February 2017. The existing bridge is also too narrow for a road with its current traffic count of 7,700 vehicles per day, and does not accommodate pedestrian or bicycle facilities to allow safe access across the Tuolumne River.



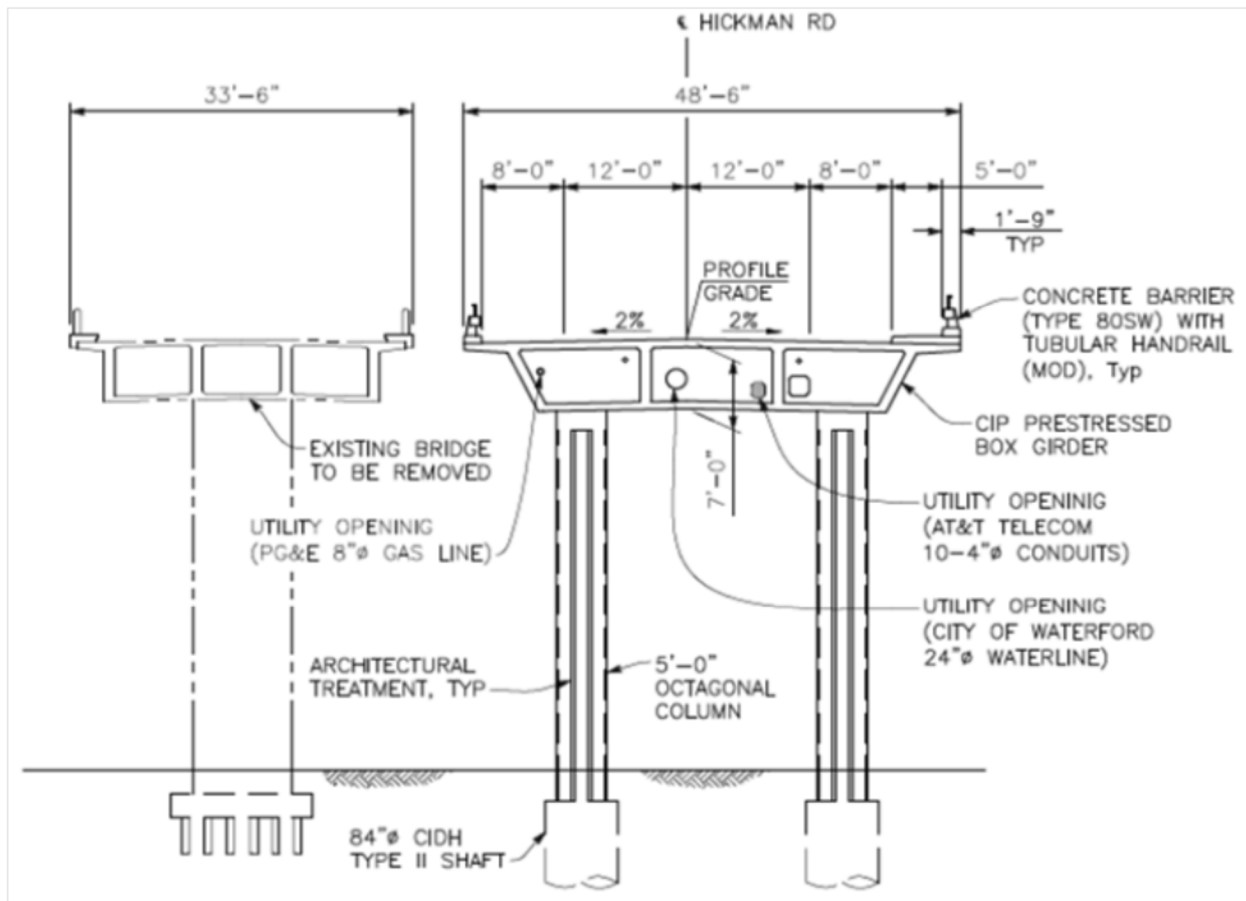
After the January/February 2017 storms, erosion formed a new hole at Pier 4 (photo on left) and caused damage to the existing scour protection system (photo on right).

Design Engineering (cont'd)

This project will replace the existing bridge with a new bridge that is wide enough to accommodate two lanes of vehicular traffic plus safe pedestrian and bike access. The new bridge will be supported on a deep drilled-pile foundation to address the ongoing degradation of the Tuolumne River channel. The new bridge will be placed upstream of the existing bridge to allow the new bridge to be constructed while the existing bridge continues to provide public access across the Tuolumne River. The existing bridge will be removed once the construction of the new bridge and approaches are complete.

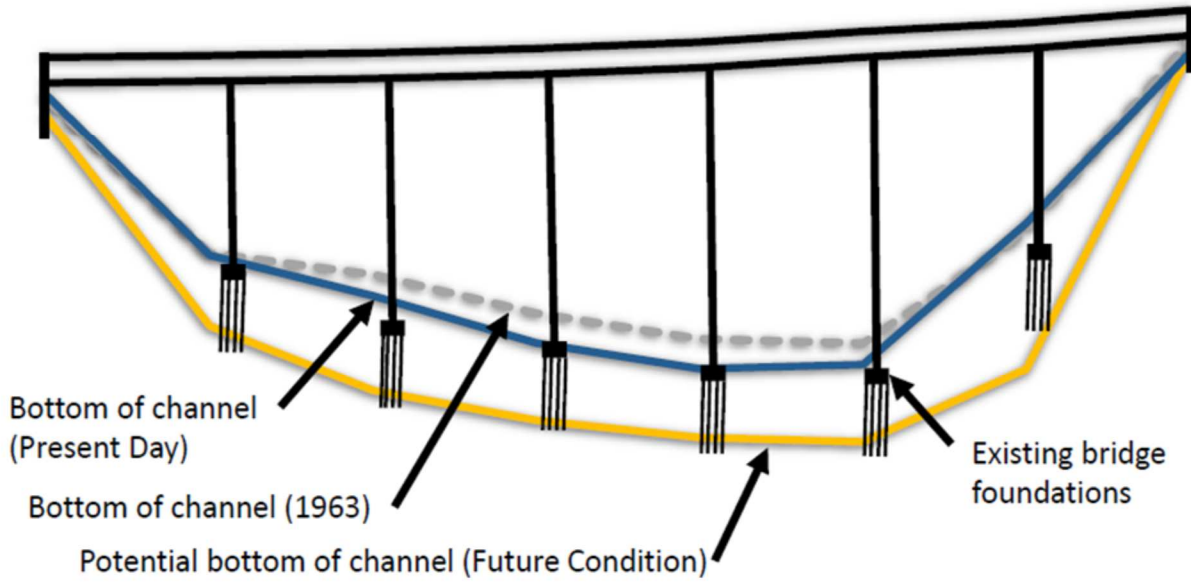
The design as well as the environmental assessment, clearance, and permitting are underway. The project design is 65% complete. The road alignment and bridge type, as well as the aesthetic features, have been set. The project environmental document has been released for public review.

The project is being funded by the Federal Highway Bridge Program, State Local Bridge Seismic Safety Retrofit Program, and a local match from both Stanislaus County and the City of Waterford.

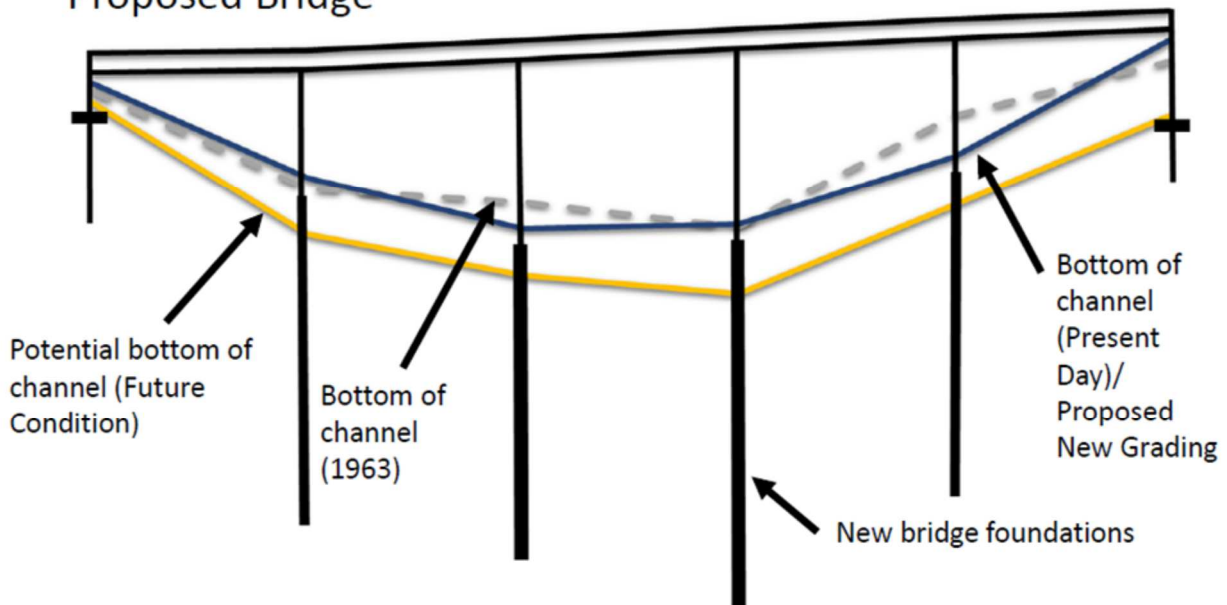


Design Engineering (cont'd)

Existing Bridge



Proposed Bridge



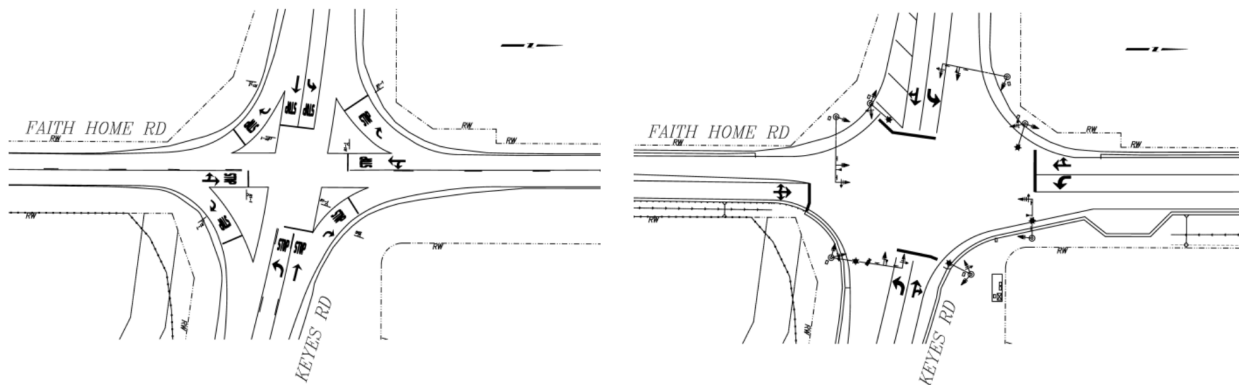
Design Engineering (cont'd)

Keyes Road and Faith Home Road Intersection Signalization

The Keyes Road and Faith Home Road intersection is located in Stanislaus County, south of the City of Ceres and north of the City of Turlock. The project limits are from 0.25 mile east and west of Faith Home Road to 0.25 miles north and south of Keyes Road.

The intersection is currently controlled by an all-way stop. The heavily used intersection has an average daily traffic count of 10,694 vehicles with a truck traffic percentage of 26.47% and out of 10,694 vehicles, 5,327 going through the intersection during peak hours (7:00 a.m.– 9:00 a.m., 4:00 p.m.— 6:00 p.m.). The intersection currently has an overhead flashing beacon.

The Keyes Road at Faith Home Road intersection is funded with Federal Congestion Mitigation Air Quality Program (CMAQ) funds and a local match portion. The project, in general consists of the installation of traffic signals and road widening to add left turn lane on southbound direction of Faith Home Road. The purpose of the project is to improve air quality, reduce traffic congestion, accommodate future traffic, improve safety and promote non-motorized modes of transportation on County roads.



Existing Intersection

Proposed Improvements

Project design team started working on this project in August of 2016 with a challenge to deliver the project within a year and have the federal construction funds authorized by July of 2017. Due to the way funds were programmed for this project, the funds needed to be authorized in that Federal Fiscal Year, otherwise the County could've lost the funds. The team started the environmental phase immediately and began the Request for Proposal process to hire a consultant team to deliver the environmental phase of the project. The consultant selection process was completed and the Board of Supervisors awarded a contract to First Carbon Solutions on November 1, 2016. With the help of First Carbon Solutions, the design team was able to receive the National Environmental Policy Act (NEPA) clearance on January 25, 2017. With the environmental phase out of the way, the team focused on utility relocation coordination and right-of-way phases. It was determined that, due to the lengthy process of right of way acquisition, any acquisition of right-of-way will likely jeopardize the entire \$1,000,000 of federal funds. In addition to a short timeline to deliver the project, the team had to design all of the new improvements within the existing right-of-way.

Design Engineering (cont'd)

The design team coordinated with County Surveyor's Office for the topographic and boundary survey and with the Traffic Division regarding the signal design. County Surveyor's Office used a LIDAR scanning system to perform the topographic survey that provided more detailed information to the design team. The Traffic division took the lead in the signal design and pole locations selection.

In the meantime, design team took the lead regarding utility coordination of existing Turlock Irrigation District's electrical overhead lines and underground irrigation pipeline as well as AT&T's overhead and underground communication lines and other private owners of irrigation facilities. First Carbon Solutions contracted out the potholing of utility facilities including PG&E gas lines and provided depths of existing utilities to avoid any conflicts during construction.

After the completion of utility coordination and right-of-way phase, Caltrans issued the Right-of-Way Certification on June 8, 2017.

The design team quickly submitted the request for authorization of federal funds for construction and Caltrans issued that authorization on June 22, 2017.

It should be noted that the project team updated the County boiler plate language to use Caltrans latest version of the specifications, 2015 Standard Specifications and 2015 Standard Plans.

With the construction funds secured and the plans, specifications, and estimates finalized, the team advertised the project in October. The bid opening was held in November. Currently, the project is scheduled to be awarded to George Reed, Inc. on January 9, 2018. The construction phase is expected to be completed in the spring of 2018.



Morgan Shop

Morgan Shop is an Internal Service Fund (ISF) whose chief function is to maintain and repair a large array of equipment and vehicles operated by the Road Operations division. Morgan Shop also supplies technical and mechanical services to other County departments and municipalities. In addition, Morgan Shop maintains fuel stations that supply bio-diesel, diesel, unleaded, and compressed natural gas to its customers.



Pictured left to right: Tate Hoffman, Roger Nelson, Brett Ernest, Eddie Soares, Rick McElligott, Curtis Van Laar, Phil Harley, and Dave Stacy



About 2017...
“Full of anticipation.”
Dave Stacy,
Heavy Equipment
Mechanic II

Mission Statement:

We will provide prompt quality maintenance and repair of our County customers’ equipment to keep them running efficiently. We will provide useful equipment for our customers to do their jobs effectively.



Morgan Shop ~ A mixture of the old and new.
Upper left: old Shop. Back center: new Shop.

Morgan Shop (cont'd)



About 2017...

TEAMWORK followed by one of my favorite quotes:

“I not only use the brain I have, but all that I can borrow.”

Woodrow Wilson

Tate Hoffman, Manager III



Tate Hoffman, Morgan Shop Manager, consulting with Randy Avants and Rick McElligott

Future Goals 2018 and 2019		
No.	Goal	Deadline
1.	Move into new Shop and set up new processes and procedures to best use this new space.	End of 2018
2.	To establish WIFI in the new Shop and go cordless with each technician having his own laptop.	July 2018
3.	To label and map all stock parts in our computer software program: AssetWorks.	End of 2018
4.	Implement technician training in an array of areas including both software and mechanical.	July of 2019
5.	Creation of new invoicing document for outside customers, custom designed by AssetWorks for our needs and our customers' needs.	December 2018
6.	Create new equipment parking map for the newly designed yard at Morgan Road.	February 2019
7.	Create new process for key assignments where Morgan Shop assigns and collects all equipment keys each day.	December 2018
8.	Cover steam rack equipment with a sound structure to prevent environmental damage.	July 2019

Morgan Shop (cont'd)



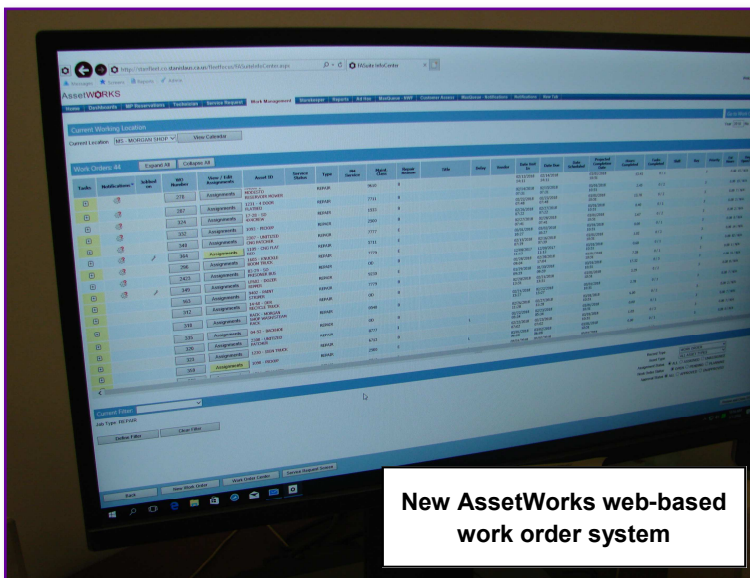
About 2017...

“Home away from home: work, work, work. This year has been trials, tribulations, and errors. A whole new learning experience which makes us stronger as a team and a benefit to the services that we provide to our customers.”

Olivia Tanner, Staff Services Analyst



Olivia Tanner, Staff Services Analyst



New AssetWorks web-based work order system



2017 Scorpion Attenuator

Accomplishments for 2017

- Going live with the new web based AssetWorks work order system in partnership with General Services Agency (GSA) Fleet.
- Moving into the office side of the new maintenance building.
- Assisting with the Public Works Administration staff settling into the new building.
- Programming and distributing the new Lenel cards for the new security entry system at Public Works.
- Installation of new lifts in the new Morgan Shop maintenance building.
- Purchase and preparation of four new safety attenuators for use by the Road Operations and Engineering divisions.

Morgan Shop (cont'd)



Rick McElligott processing paperwork in old Morgan Shop office



About 2017...

“A productive year with many changes made for Shop organization including implementation of the web based AssetWorks work order system. We have improved our record keeping.”

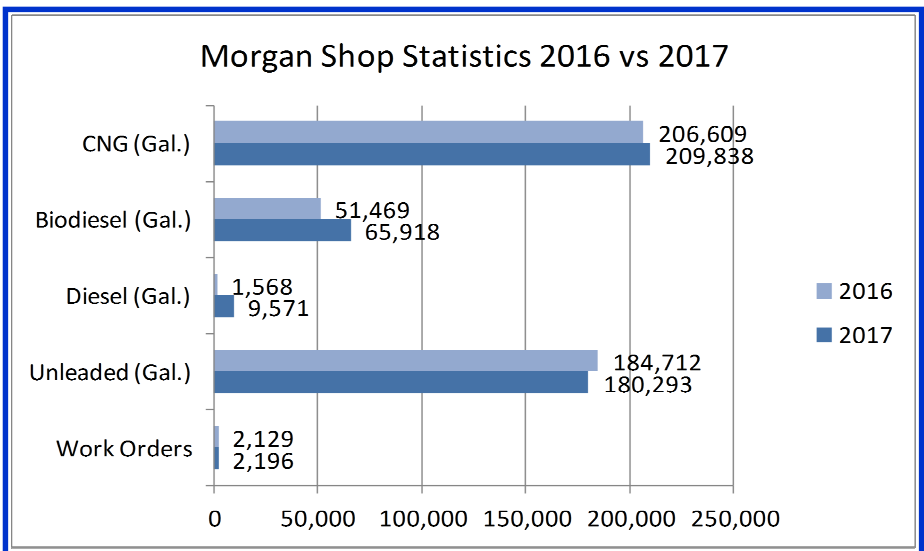
Rick McElligott, Heavy Equipment Mechanic III



About 2017...

“Big Transition: Move, web-based upgrade, waiting, and patience.”

Phil Harley, Storekeeper II



Statistics for 2017	
Number of work orders closed:	2,196
Gallons of fuel issued:	
• Unleaded	180,293
• Biodiesel	65,918
• Diesel	9,571
• Compressed Natural Gas	209,838



Phil Harley procuring parts for Morgan Shop equipment

Morgan Shop (cont'd)



Eddie Soares working on the City of Waterford vector replacing rodder hose



About 2017...

“Anticipation of spending the next year in the new Shop and excitement about the changes with the new technology.”

Eddie Soares, Heavy Equipment Mechanic II



About 2017...

“Excitement about new Shop and working in the environmentally friendly larger space.”

Roger Nelson, Heavy Equipment Mechanic II



Roger Nelson fine tuning a retrofit on the bitsy spray system from trailer to truck operation



Brett Ernest replacing a heater core and evaporator on a Dodge pickup for DER Parks



About 2017...

“It’s all about the transition from the old Shop to the new Shop and all the excitement that comes with it.”

Brett Ernest, Heavy Equipment Mechanic II

Morgan Shop (cont'd)

Safety . . .

Morgan Shop processed a total of 610 Preventative Maintenance (PM) work orders in 2017.



Morgan Shop contains a lube room which specializes in a Preventative Maintenance (PM) program called Basic Inspection of Terminals (BIT) inspection. BIT inspections reduce the chances of our customers unanticipated breakdowns or accidents. In addition, it helps to keep our vehicles safe on the road for our drivers and the public. BIT inspections include but are not limited to:

- Brake adjustments
- Brake system components and leaks
- Steering and suspension systems
- Tires and wheels
- Vehicle connecting devices

Assembly Bill 529 was signed by Governor Edmund G. Brown on October 3, 2013 which created the BIT inspection program. This program ensures the safe use of regulated vehicles by motor carriers and is enforced by the California Highway Patrol. For additional information on the BIT inspection program, please visit:

<https://www.chp.ca.gov/CommercialVehicleSectionSite/Documents/O%20chp800h.pdf>



Roger Nelson performing maintenance on a road grader in Oakdale off Warnerville Road



Dave Stacy locating a filter needed for a vehicle in the Morgan Shop lube room

County Surveyor's Office

The County Surveyor's Office is a section of the Engineering division and provides the following services:

- Field work includes:
 - Monument preservation
 - Data gathering for topography surveys
 - Right-of-way establishment/staking
 - Construction staking
- Map checking
- Legal description writing, checking, and recording
- Drafting services
- Road Abandonments
- Certificates of Compliance
- Review of all Lot Line Adjustments
- Indexing includes:
 - Benchmarks
 - Certificates of Correction
 - Corner Records
 - Deeds and easements
 - Record of Surveys
 - Parcel Maps
 - Subdivision Maps

In addition, the survey team is a public resource. Survey provides customer assistance to the public on a continuous basis.

2017 Accomplishments

OFFICE

- Filed 93 corner Records
- Processed two Road Abandonments
- Checked and recorded 8 Subdivision and Parcel Maps
- Verified 40 Lot Line Adjustment applications
- Checked and Recorded 42 Records of Survey
- Processed six Certificates of Compliance
- Easement and Illegal Offer of Dedication (IOD) descriptions written/verified/recorded
- Continue to electronically archive survey records

FIELD

- Topography survey of the Oakdale yard
- Additional global positioning system (GPS) control for Fink Road Landfill
- Topography Survey for the Salida Americans with Disabilities Act (ADA) project
- Set wells for Monument Preservation
- Various right-of-way staking

County Surveyor's Office (cont'd)

New in Survey:

- We added David Hohu, Engineering Technician, to our Surveying staff
- Purchased an eBee Unmanned Aircraft System (UAS) fixed wing aircraft, sometimes called a drone
- Relocated all of our record data into our new vault from the Tenth Street Place vault
- Provided contract surveying assistance for our local roads projects utilizing the Master Agreement we have with local engineering firms

2018 Goals:

- Perform our first UAS flight project
- Add Senior Tech Party Chief to our crew
- Update training for our team members in Autocad and Pix4D
- Streamline our survey support for construction projects
- Develop our field crew capacity



David Hohu working on the Salida ADA Improvements



David Hohu digging a section corner



New vault



eBee unmanned aircraft system (UAS)

Development Services

ENCROACHMENT PERMITS:

The Encroachment Permits section of Development Services issues permits for construction activities in all County road right-of-ways.

The Encroachment Permit staff perform a variety of job functions that include the following:

- Over the Counter customer service;
- Plan reviews;
- Permit Fee determination;
- Lane & road closures;
- Field inspections;
- Maintenance Agreements; and,
- Stormwater Quality Assurance & Enforcement Program for the NPDES Construction General Permit and MS4 Phase II Permit Requirements.

During the 2017 calendar year, 512 encroachment permits were issued. The total amount collected for encroachment permits during this period was approximately \$699,160.



Pictured from left to right: Paul Saini, Rich Brown, Steve Song, Maria Hermenegildo, Angie Halverson, Dhyhan Gilton, Frederic Clark, Les Stachura, and Ben Kozlow.

Development Services (cont'd)

TRANSPORTATION PERMITS:

The Transportation Section of Development Services issues annual and daily transportation permits. The transportation permits enables the County to regulate the movement of oversize loads over County bridges and roads. This helps to ensure vehicle safety and to protect public bridges and roads.

The staff in Transportation Permitting division provides a wide range of services that include:

- Issuing annual and daily transportation permits. These permits are for legally oversized loads moving across County roads and bridges.
- Perform field inspection duties in support of transportation permit issuances.
- Work with other jurisdictions and agencies (including the California Highway Patrol).
- Provide over-the-counter customer support.
- Provide general information related to transportation permit requirements.
- Update and maintain the County Bridge Map and Addendums to include current bridge ratings and provide online web-based GIS map bridge information.
- Coordinate with transportation permitting companies in setting up and maintaining trust accounts.

These permits assure that oversize loads are moved over bridges and roads that can handle the dimensions of the load. They also address safety considerations unique to the assigned route. In addition to issuing daily transportation permits, our staff also issues annual blanket transportation permits.

During the 2017 calendar year, approximately 915 daily transportation and 356 annual transportation permits were issued. The total amount collected for transportation permits during this period was approximately \$14,640 for daily transportation permits, and \$31,230 for annual transportation permits. The total amount collect for annual transportation permits excluding nine permits that were exempt from the \$90 permit fee. This exemption is typical for irrigation district and other local governmental agencies.

Development Services (cont'd)

PIPELINE MAINTENANCE AGREEMENTS

Pipeline Maintenance Agreements allow the County to monitor work or activities within County road rights-of-way 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 agreement is a recorded document that is transferred to any new owners of the property or as long as the pipeline exists.

The Pipeline Maintenance Agreement assures that the work or activities performed will be done in accordance to the latest Public Works Standard Designs and Specifications. Any cost of any repair or damage to County right-of-way is placed upon the owner of the pipeline and not on the public.

During the 2017 calendar year, approximately 19 pipeline maintenance agreements were issued. The total amount collected for pipeline maintenance agreements during this period was approximately \$5,415.

Permits Issued

Year	Encroachment		Annual Transportation		Daily Transportation		Pipeline Maintenance Agreement	
	#	Dollars	#	Dollars	#	Dollars	#	Dollars
2017	512	\$756,751	358	\$31,590	915	\$14,640	19	\$5,415
2016	420	\$327,652	340	\$29,880	798	\$12,768	17	\$4,845
Difference	92 22%	\$429,099	18 5%	\$1,710	117 15%	\$1,872	2 12%	\$570

GRADING PERMITS:

The purpose of regulating grading activities is to safeguard the health, safety, property and public welfare. By regulating grading and earthwork construction activities in the unincorporated areas of Stanislaus County, we insure that newly exposed soil subjected to the elements (i.e., rainstorms or windstorms) cannot erode easily. Erosion can tear out sections of land, damaging property, roadways, and even structures.

The Development Services division reviews construction site plans, grading transitions, design calculations, and cut and fill quantities for grading permit issuance. Grading activities in the County is reviewed in conformance to the planning regulations that are governed by the County's General Plan, Specific Plans, Land Use Plan, Zoning Plan, Subdivision Map Act, and the Stanislaus County Code.

During the 2017 calendar year, approximately 14 grading permit applications were received and reviewed. Of these, five were issued and nine were pending and ready to be issued for inspection. The total amount of fees collected for grading permit applications that were issued during this period was approximately \$16,975.

Development Services (cont'd)

DEVELOPMENT PERMITS:

The Land Development section ensures that all development improvements will provide the best benefits to the public. They do this by applying Stanislaus County Department of Public Works Standards and Specifications and all applicable laws.

The Land Development section of Public Works offers the following services:

- Provides customer assistance to the public for Discretionary (Parcel Maps, Use Permits, Staff Approvals, and Rezones) and Ministerial (Building) permits
- Reviews improvement plans for industrial, commercial, and residential building permits and grading permits
- Supports the Building Permits Division by answering questions on over-the-counter issues
- Reviews road classifications and coordinates Irrevocable Offers of Dedications (IOD) for ultimate rights-of-way
- Writes Conditions of Approval for discretionary approval
- Reviews the National Pollution Discharge Elimination Detection System (NPDES) stormwater requirements
- Participates in and attends Planning Commission meetings
- Participates in the Environment Review Committee meetings
- Performs field services
- Verifies that Subdivision Plans, Parcel Maps and Improvement Plans meet the Conditions of Approval approved by the County Planning Commission and Board of Supervisors
- Indexes records, such as Improvement Plans, Subdivision Improvement Plans, Financial Guarantees, and Street Improvement Agreements
- Updates County Ordinances relating to Land Development Services
- Reviews Off-site Improvement Plans for street, curb, gutter, sidewalk, storm drainage, and water and sewer service to ensure compliance to current County standards.

During 2017, the following number of improvement plans/permits were reviewed and completed:

- 7 Off-site Improvement Plan reviews
- 353 Building permit plan review & inspections. 234 of these permits were in the County's NPDES regulatory 'Red Zone.' These permits required enhanced Erosion and Sediment Control Plan (ESCP) review and inspections.
- 14 Grading Permits with 9 permits in the County's NPDES regulatory 'Red Zone.' These permits required enhanced ESCP review and inspections.
- 4 Rezone applications
- 7 Parcel Maps
- 10 Staff Approvals
- 7 Use Permits

Stormwater

Stormwater Program 2017 Activities & Accomplishments

It's been a very busy year in the Public Works Stormwater Program!

In February 2017, we received the Stanislaus County Board of Supervisors' Seventh Annual Effective Partnership Recognition for our Stanislaus Multi-Agency Regional Storm Water Resource Plan. (See photo on the right).

In March 2017, the County received an order from the Central Valley Regional Water Board to join and pay a \$20,000 annual fee to the Delta Regional Monitoring Program. This fee will be combined with fees from other local municipalities to study water quality in the Delta.

In June 2017, the County received a second order from the State Water Board to install trash capturing devices at several of our storm drain outfalls to the Tuolumne and Stanislaus rivers. The devices must capture trash as small as a cigarette butt. Stormwater Program staff began developing maps of the storm drain system as required by the order and made the first submittal of preliminary maps to the Water Board ahead of the deadline.

In July and August 2017, staff completed the Year 4 Annual Report to the State Water Board on the status of the County's Stormwater Program. The Annual Report contained data collected from many County departments and included a summary of the effectiveness of the Stormwater Program. The County remained in full compliance with its discharge Permit from the State Water Board in 2017, and the Year 4 Annual Report was submitted to the Water Board ahead of the deadline.

In September 2017 the Stormwater Program conducted its annual Dry Weather Sampling of the County's storm drain outfalls. The purpose of this sampling was to identify the pollutants present in non-stormwater discharges, such as irrigation runoff and car washing.

In December 2017, the Board of Supervisors approved a Cost Share Agreement and Memorandum of Understanding (MOU) to update the East Stanislaus Region Integrated Regional Water Management Plan (ESIRWMP). The ESIRWMP update was required for the County to obtain future State grant funding for stormwater, groundwater recharge, flood control, and other Public Works projects.

In between these major projects, the Stormwater Program handled construction inspections, investigations and enforcement actions in response to violations of the County's Stormwater Ordinance. We held stormwater trainings for staff and coordinated inter-department activities. We provided support for the County's Prop 1 grant to develop a Stormwater Resources Plan, and we worked with Disadvantaged Communities to develop a list of projects to better serve the County's economically distressed areas.



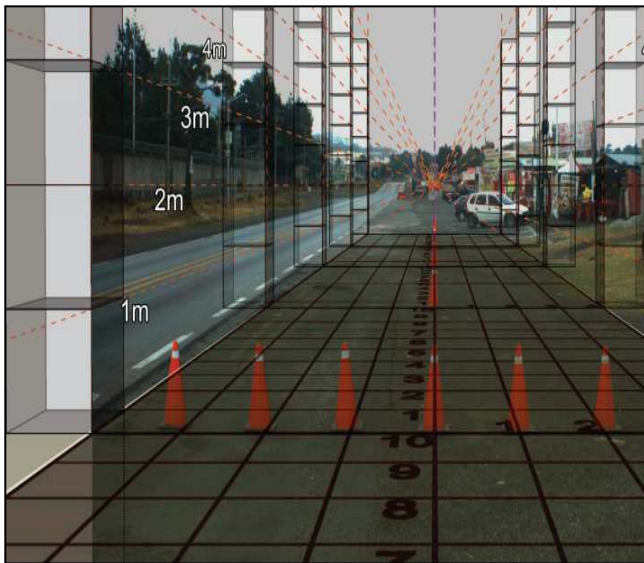
Traffic Engineering

Predicting Collisions and Reducing Injuries

The Traffic Engineering division received \$450,000 from the State of California and \$300,000 from the Chief Executive Office to develop a program to identify roads and intersections that have increased exposure to risk for drivers. Through the use of the Highway Safety Manual's (HSM) predictive method, staff will be able to better understand local driver behavior and focus our safety efforts on roadways and work towards our goal of eliminating serious injury and fatal collisions on all County roads.

VISION ZERO is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, and equitable mobility for all.

We have chosen to take a proactive approach to safety for the project in which we will collect roadway attributes on all County roads, create a software tool to evaluate the features and safety performance, and then establish safety goals and programs. The County has hired the consultant team led by Kittelson & Associates to perform the work.



First, roadway data must be collected county-wide using the Model Inventory for Roadway Elements as published by the Federal Highway Administration.

The consultant team will utilize equipment that will take 360 degree panoramic imagery throughout the County and will digitize roadway attributes. These attributes include pavement width, slope, shoulder width, lane width, sidewalk presence, median presence, etc...

By collecting such an extensive amount of information about our roadway network, we will be able to better understand the relationship between roadway attributes and collisions. The performance of each

attribute will be taken into consideration, and we will establish goals and programs to implement corrective actions to reduce overall exposure to injury for our traveling public.

GRIDSMART System

As part of the Carpenter Road pavement reconstruction that occurred in the Summer of 2017, the detection system at the intersection of Carpenter Road and Beverly Drive was upgraded to a video detection system. The traditional system that was specified uses one camera on each leg to provide input to the signal controller to ensure that each vehicle is served. During the installation of the system, it was found that the conduit under the newly reconstructed road was broken and therefore the new pavement would need to be torn up to replace the conduit to install cameras on all four approaches.

Traffic Engineering (cont'd)

In lieu of removing and patching the brand new roadway, a new system was procured which utilizes a single unit camera system which we were able to install on one corner of the intersection. Each unit combines four cameras into a single fisheye image which allows all four approaches to be monitored at once.

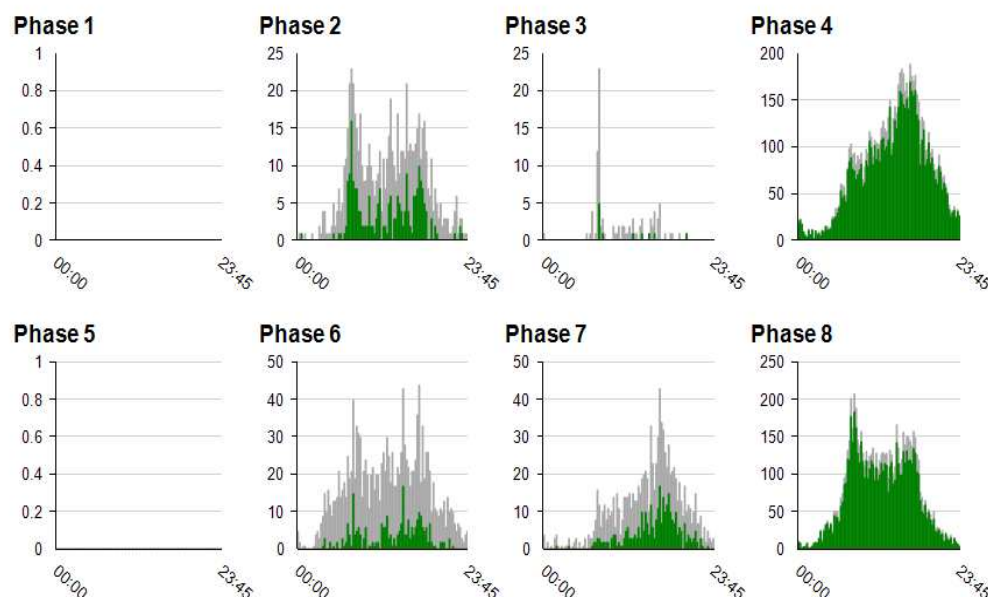
Traffic Signal Metrics

The Percent Arrivals on Green (PAoG) performance metric allows engineering staff to optimize the operation of the traffic signal controller to keep more vehicles through the intersection without stopping.

At right, phases 4 and 8 are shown to have a high PAoG, which are the thru movements, indicating good movement on Carpenter Road.

GRIDSMART Intersection Carpenter & Beverly
Date 2/15/2018

Volume & Percent Arrivals on Green



Not only does the system provide standard vehicle detection, it also provides various performance metrics to allow the engineering team to evaluate and adjust the signal timing. Metrics provided include metrics such as turn movement counts, approach volumes, vehicle speed, and Percent Arrivals on Green (PAoG).



Traffic Engineering Team:

Andrew Malizia, PE, Associate Civil Engineer
Francis Baldonado, Senior Engineering Technician
Vacant*, Senior Engineering Technician

*Del Gann left the division in October 2017

Transit

The Public Works Transit Division completed several transit projects in 2017 as well as service improvements throughout the County's service area. As part of our ongoing efforts to improve performance measures, system efficiencies, and to meet the increased mandated farebox ratio, consolidation of trips with low utilization were implemented in August 2017 on several fixed routes as well as the elimination of Route 70 (Modesto/Merced) due to continued decreased ridership over the last few years. In addition, the schedule times of Route 10 & Route 15 (Modesto/Ceres/Keyes/Turlock) were modified to compensate for increased traffic patterns. Additionally, Stanislaus Regional Transit (StaRT) began charging for transfers to neighboring transit agencies. All the changes were designed to increase ridership and decrease per trip costs, resulting in an improved overall farebox ratio.

Stanislaus County Transit staff participated in several events County-wide throughout the year to promote and market StaRT's Transit Services which included attendance at:

- Healthy Aging Summit
- Oakdale Senior event
- Modesto Earth Day event
- Public Works Day
- EDD Veterans Job Fair
- Central Valley Veterans Job Fair
- Bike to Work Day
- Senior Awareness Day
- SEAPA SAFE Seminar event
- Oakdale Senior event
- Modesto Earth Day event
- Public Works Day



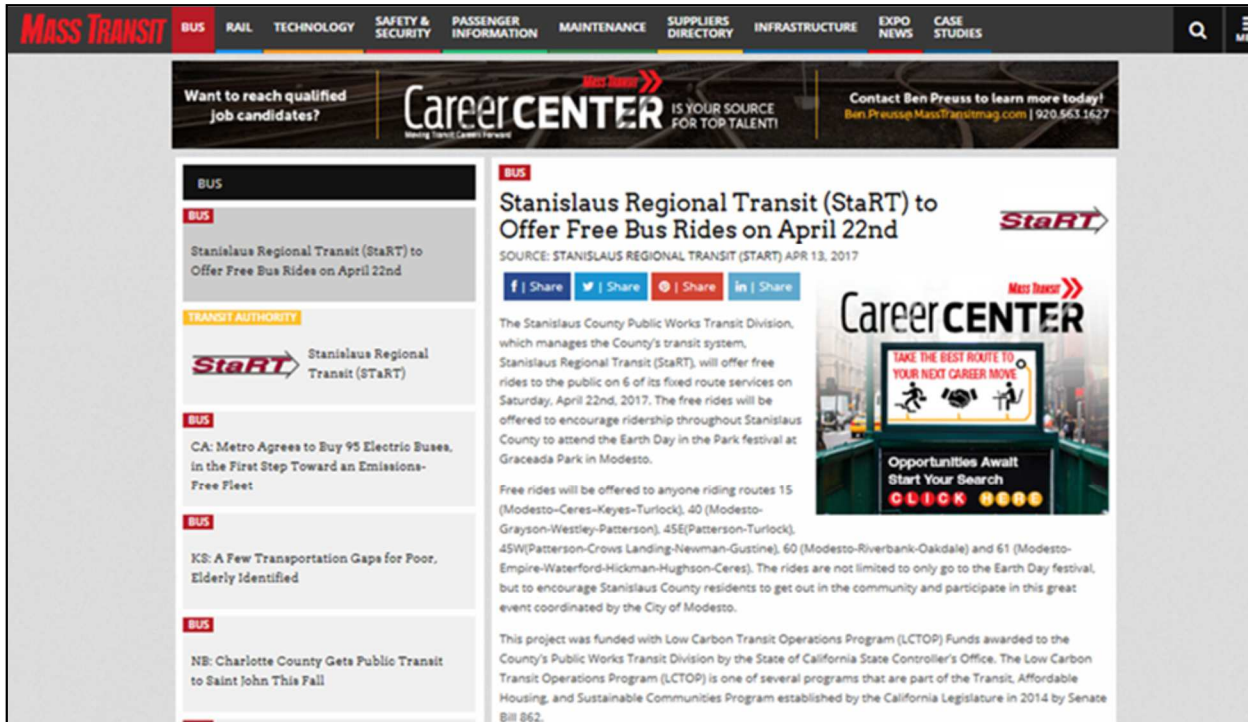
Modesto Earth Day event
information booth —
April 2017

Modesto Earth Day event
bus tours — April 2017



Transit (cont'd)

Stanislaus Regional Transit was featured in Mass Transit Publication



Public Works Day
2017

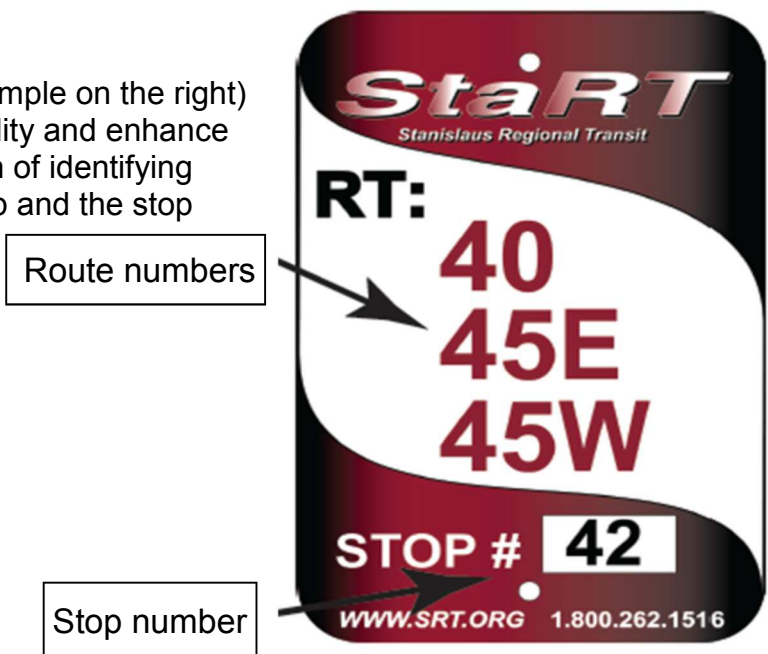
Healthy Aging Summit
2017



Transit (cont'd)

Notable 2017 Transit accomplishments:

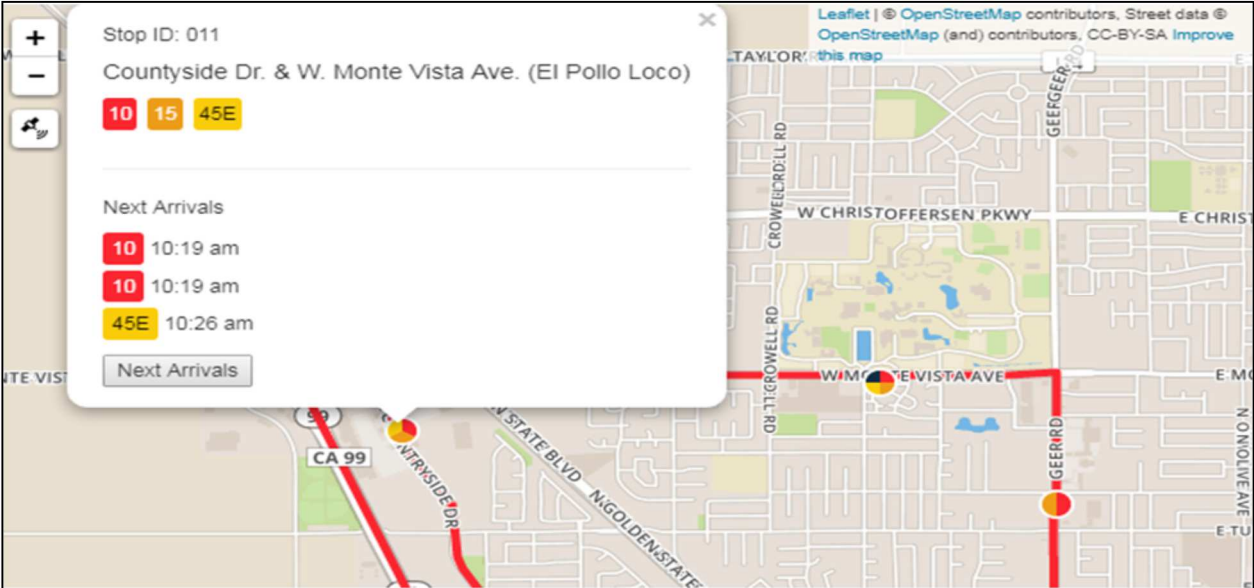
- Completion and submission of grant applications and reports to federal and state agencies, as well as submission of the National Transit Database (NTD) Report to the Federal Transit Administration and Caltrans;
- Participated in the annual Unmet Transit Needs public meetings and hearings held by the Stanislaus Council of Governments (StanCOG);
- Completed the Annual Transportation Development Act Audit and the Annual State Controllers Report;
- Conducted research and evaluation of available Intelligent Transportation System (ITS) program options for a system-wide plan to include: Automatic Vehicle Locator, Automatic Passenger Counter, Automatic Vehicle Announcer, to name a few;
- Completed assignment of stop numbering in order to provide a unique identification number for each bus stop system-wide, which will be used in the future for real time bus tracking;
- Conducted research and explored feasibility options of implementing an advertising program which would include advertising in StaRT's Ride Guide, website, and shelter locations;
- Began design work to rehabilitate an existing County-owned facility in the City of Oakdale, which will allow StaRT buses from the eastside to operate daily out of this yard, resulting in decreased mileage and vehicle hours as well as reduced costs.
- Designed new bus stop signage (example on the right) with design features to improve visibility and enhance transit services, including the addition of identifying each route number servicing that stop and the stop number; and, (see next page)



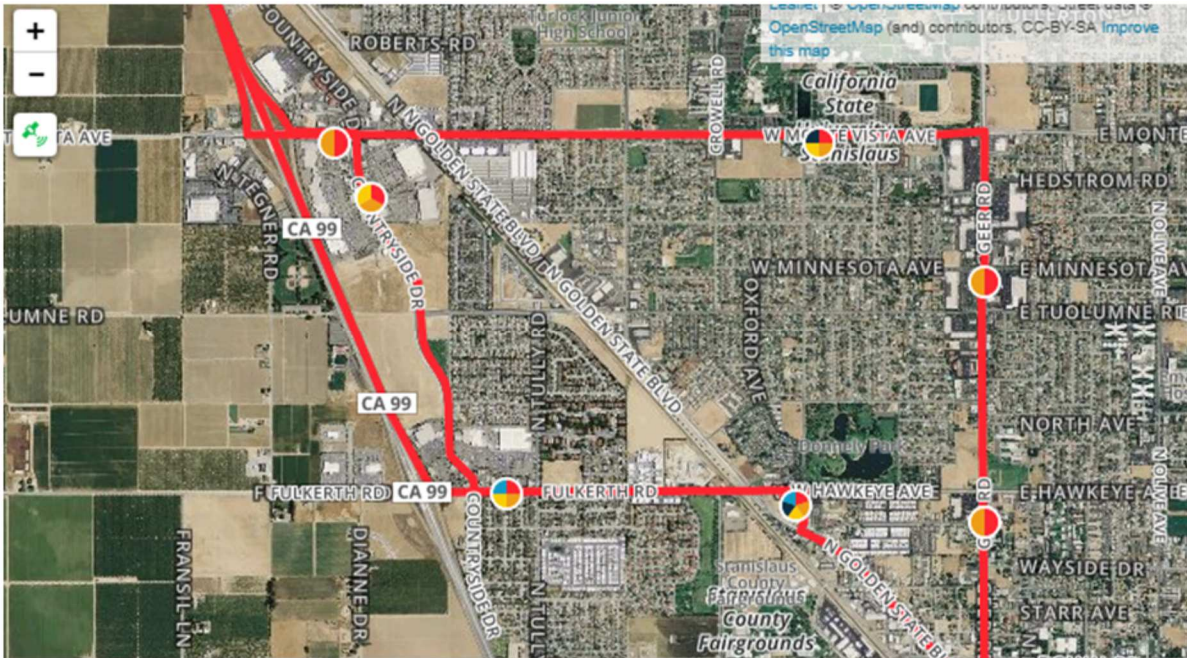
Transit (cont'd)

- Design and completion of interactive maps (examples below) featured on StaRT’s website at www.srt.org, allowing passengers the ability to see routes that are servicing the stop location (by toggling to see a street view of the area) as well as next arrival times.

Interactive Map Route and Arrival Time information



Interactive Map Street View



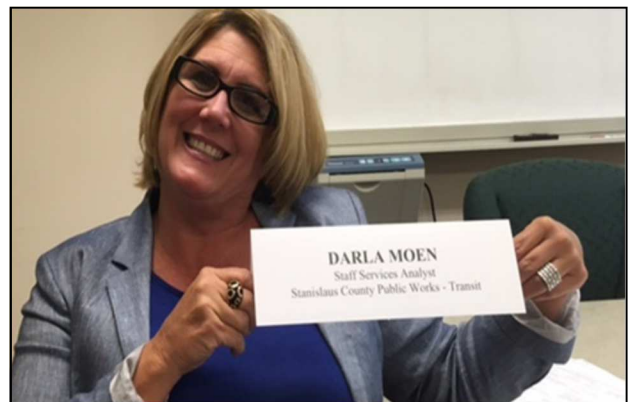
Transit (cont'd)

Goals for 2018:

- Implementation of system-wide Intelligent Transportation System (ITS) program;
- Install new bus shelters with solar lighting and advertising displays;
- Completion of existing county facility remodel;
- Continue improvements to service efficiencies throughout the service area;
- Installation of new bus stop signage system-wide;
- Implement new regional Americans with Disabilities Act (ADA) complementary paratransit service eligibility processing;
- Begin implementation of advertising program; and,
- Research piggyback options to Procurement new fixed route buses.

Public Works Employee Promotion: Darla Moen

In August of 2017, Darla Moen was promoted to the full-time position of Staff Services Analyst (Mobility Coordinator) in the Transit Division. Darla has worked in the Public Works Department since 2014 as the Administrative Clerk III for both the Transit division and the Development Services division. Darla enjoys bike riding, traveling, and spending time with her family.



Public Works New Employee: Maria Hermenegildo

Maria joined the Public Works team in October of 2017. She is the Administrative Clerk III for both the Development Services division and Transit division. Maria enjoys reading, playing volleyball, and camping with her family.



Safety

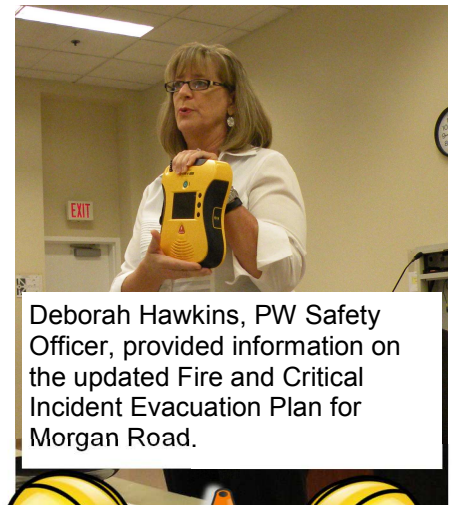
This year's Quarterly Safety Meetings featured presentations from various Public Works staff, Les Putnam, a Public Safety Specialist with PG&E, and Arthur DeLoach from the CEO's Risk Management Team.



Les Putnam, PG&E
Public Safety Specialist



Arthur DeLoach,
CEO Risk Management



Deborah Hawkins, PW Safety Officer, provided information on the updated Fire and Critical Incident Evacuation Plan for Morgan Road.



Charity & Events

Floods of 2017



The National Guards were sent to help prepare sandbags for the impending storm.

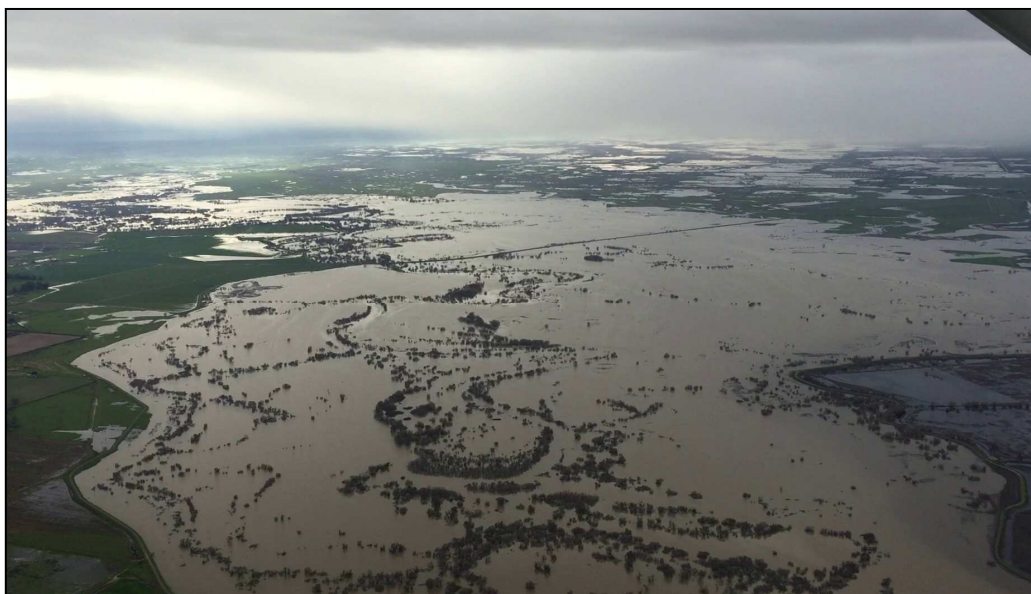


Photo on the left is the San Joaquin River looking towards Los Banos and Merced County. David Leamon, Public Works Deputy Director, flew in the Sheriff's plane on February 16, 2017 as part of an Emergency Operations Center (EOC) flight to look at levees and flooding condition along the San Joaquin River. No levee breaches were found on this day.



Photo on the left is debris and rockfalls in Del Puerto Canyon.

Photo below is debris on Spencer and Welty Roads at Hospital Creek.

Public Works Quick Statistics January 2017

- Road closures—25
- Tree calls— 45
- Rock & mudslides—17 days of response; multiple slides per response
- Sandbags—8,000



Charity & Events (cont'd)

32nd Annual Public Works Secretarial Seminar

The Department of Public Works is about building and maintaining infrastructure through innovation and collaboration for the betterment of the communities we serve. Every year, the County Engineer's Association of California (CEAC) chooses a different Public Works department from one of the 58 counties around the State of California to host the annual "Public Works Secretarial Seminar" (PWSS). At this seminar, participants gather from different county and city agencies for an opportunity to network with peers within the same field, make contacts, visit local businesses, and receive insightful training.

In late April, Stanislaus County and Merced County Public Works co-hosted the 32nd Annual PWSS in Modesto, which was the first time for both of our counties. Our theme was "Better Together" emphasizing the strength and importance of counties and cities working together. We had 52 attendees from as far south as Imperial County and as far north as Humboldt County.

Chairman Vito Chiesa, Stanislaus County Board of Supervisors, gave affirmative opening remarks at our welcome dinner. It was a wonderful way to kick-off our seminar. We would like to recognize our executives who allowed us to take charge of our seminar; Matt Machado, Stanislaus County Public Works Director and County Surveyor, and Richard Schwarz, Merced County Assistant Director of Public Works. Our PWSS committee members from Merced County were Janet Resch and Kristie Williams, and from Stanislaus County were Denae Davis and Keimi Espinoza.



Chairman Chiesa



PWSS Committee from left to right:
Denae Davis, Keimi Espinoza,
Kristie Williams, and Janet Resch.

"Better Together"

*"Alone we can do
so little,
together we can
do so much."*

Helen Keller



Charity & Events (cont'd)

2017 Annual Campaign—United Way

United Way has partnered with Stanislaus County, City of Modesto, and Health Plan of San Joaquin to create **The Power of Four**. This campaign began on October 27th and concluded on November 8th. Public Works employees donated **\$1,604**. Every dollar helps!



2017 Annual Holiday Project—Community Hospice Foundation

Annually, the Public Works department has a holiday project. This year, we took a vote and selected to donate to the Community Hospice Foundation. Their mission is to provide compassionate and quality care, education and support to terminally ill patients and their families, regardless of ability to pay. Public Works employees donated **\$1,480**. Way to go!



Bring Your Child to Work Day—From left to right: Del & Del Gann, and Mason & Francis Baldonado



Promoting Stanislaus County's Modesto Nuts Night—From left to right: Denis Bazyuk, Nate Tumminello, Shelly the Pistachio, Del Gann, Denae Davis, and Shoab Ahray



The Salida Pavement Preservation Project groundbreaking ceremony with golden push brooms was held on July 8th.

This was the first project to be funded by Measure L, which was approved by Stanislaus County voters.

Service Awards & New Employees

Stanislaus County Service Awards

5 Years

Jonathan Freeman, Road Maintenance Worker III
Chad Johnson, Assistant Surveyor
Casey Roberts, Road Maintenance Worker III

10 Years

Richard Brown, Engineering Technician
Denae Davis, Administrative Secretary
Steuart Holt, Road Maintenance Worker III
David Leamon, Deputy Director
Matt Machado, Public Works Director
Joe Melo, Road Maintenance Worker III
Eddie Soares, Heavy Equipment Mechanic II
Kevin Thatcher, Road Maintenance Worker III
Bryan Voyles, Assistant Engineer

15 Years

Annette Borrelli, Manager IV
Keimi Espinoza, Confidential Assistant IV
Larry Fontana, Associate Surveyor
Elliot Lea, Road Maintenance Worker III
David Stacy, Heavy Equipment Mechanic II
Charles Vasquez, Staff Services Coordinator
Keith Wilcox, Senior Road Maintenance Worker

20 Years

Julie Serrano, Accountant III
Olivia Tanner, Staff Services Analyst

25 Years

Mark Hamblin, Associate Civil Engineer
Roger Nelson, Heavy Equipment Mechanic II
Jeff Rufo, Road Supervisor



New Employees

David Hohu, Engineering Technician, 2/21/17
Luis Camarillo, Road Maintenance Worker I, 3/6/17
Brian Baca, Road Maintenance Worker, 3/20/17
Kyle Bizzini, Road Maintenance Worker I, 5/30/17
Kevin Riggs, Road Maintenance Worker I, 5/30/17
Matt Slusher, Road Maintenance Worker I, 5/30/17
Andrew Slusky, Road Maintenance Worker I, 7/20/17
Letti Ortiz, Manager IV, 8/5/17
Roland Milan Aguilar, Road Maintenance Worker I, 10/2/17
Maria Hermenegildo, Administrative Clerk III, 10/16/17

TEAMWORK
coming together is a beginning
keeping together is progress
working together is success

- Henry Ford

Service Awards



Chad Johnson (left) 5 years with
Chris Brady (right)



Rich Brown (left) 10 years with
Frederic Clark (right)



David Leamon (left) 10 years with
Matt Machado (right)



Matt Machado (left) 10 years with
David Leamon (right)



Eddie Soares (left) 10 years with
Tate Hoffman (right)



Kevin Thatcher (right) 10 years with
Randy Avants (left)



Bryan Voyles (right) 10 years with
David Leamon (left)

Service Awards (cont'd)



Annette Borrelli (left) 15 years
with Matt Machado (right)



Randy Avants (left) with
Elliot Lea (right) 15 years



Larry Fontana (left) 15 years
with Chris Brady (right)



David Stacy (left) 15 years
with Tate Hoffman (right)



Charles Vasquez (left) 15 years
with Chris Brady (right)



Keith Wilcox (left) 15 years
with Randy Avants (right)



Roger Nelson (left)
25 years
with Tate Hoffman
(right)

Out with the Old....

Demolition of the administration office building



Demolition of the Roads crews' offices



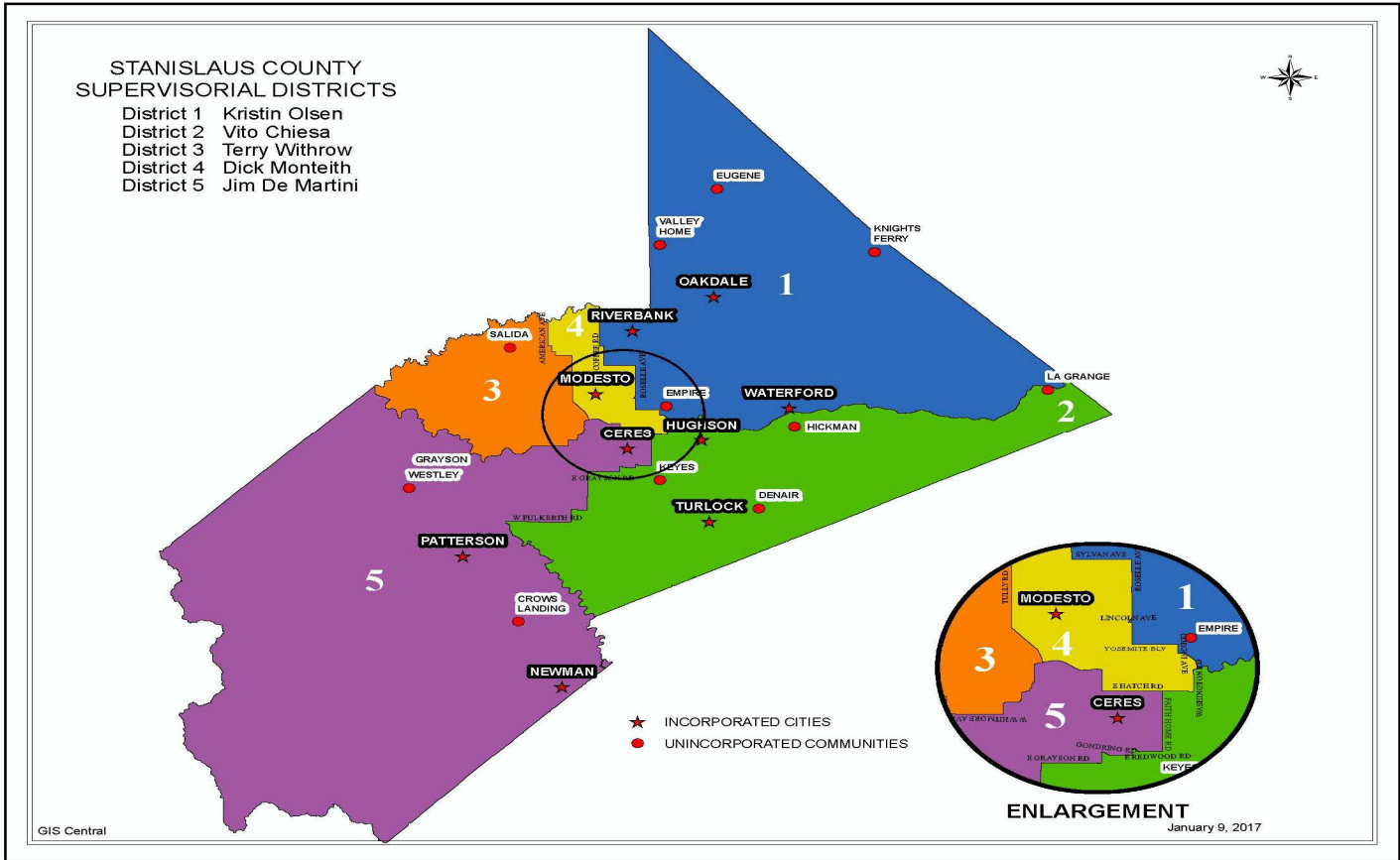
Demolition of the Morgan Shop



Board of Supervisors



From left to right: Chairman Vito Chiesa, Vice Chairman Jim DeMartini, Terry Withrow, Kristin Olsen, and Dick Monteith



Contacts



[www.stancounty.com/
publicworks](http://www.stancounty.com/publicworks)



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- Development Services
- Encroachment Permits
- Transportation Permits
- Transit



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(209) 525-4130
(209) 541-2505 Fax

- Administration
- Construction Engineering
- County Surveyor's Office
- Design & Traffic Engineering
- Finance
- Morgan Shop
- Roads & Bridges

You may also contact us by submitting your questions or concerns online at:
www.stancounty.com/customercenter
or
Stanislaus County's assistance hotline at
1 (877) 2ASSIST / 1 (877) 227-7478