

CITY OF REDLANDS
MUNICIPAL UTILITIES/PUBLIC WORKS COMMISSION
MEETING AGENDA
MONDAY, DECEMBER 4, 2023

ADEKUNLE OJO
Chairperson

STEVE STOCKTON
Vice Chairperson

ROBERT MEALS
Commissioner

VACANT
Commissioner

THOMAS BREITKREUZ
Commissioner

DAVID GARCIA
Commissioner

CHANDRASEKAR 'CV'
VENKATRAMAN
Commissioner

4:00 PM Open Public Meeting
City Council Chambers
Civic Center
35 Cajon Street
Redlands, California

JOHN R. HARRIS
Municipal Utilities
& Engineering
Director

GOUTAM K. DOBEY
City Engineer

FERNANDO MATA
Wastewater Utility
Manager

PAUL MARISCAL
Water Utility
Manager

Anyone desiring to speak on an agenda item at this meeting may do so during the consideration of that item. Due to time constraints and the number of persons wishing to give oral testimony, public comments will be limited to three (3) minutes.

- *To provide comment, simply raise your hand to speak*

The following comprises the agenda for the regular meeting of the Municipal Utilities/Public Works Commission of the City of Redlands.

CITY OF REDLANDS
MUNICIPAL UTILITIES/PUBLIC WORKS COMMISSION
MEETING AGENDA
MONDAY, DECEMBER 4, 2023

A. ATTENDANCE & CALL TO ORDER

B. PUBLIC COMMENT

(Any person wishing to provide public comment may do so at this time.)

C. APPROVAL OF MINUTES

- a. **October 2, 2023 Regular Meeting Minutes**

D. COMMUNICATIONS

- a. **Director's Report**
- b. **Water Supply Summary Presentation**

E. NEW BUSINESS

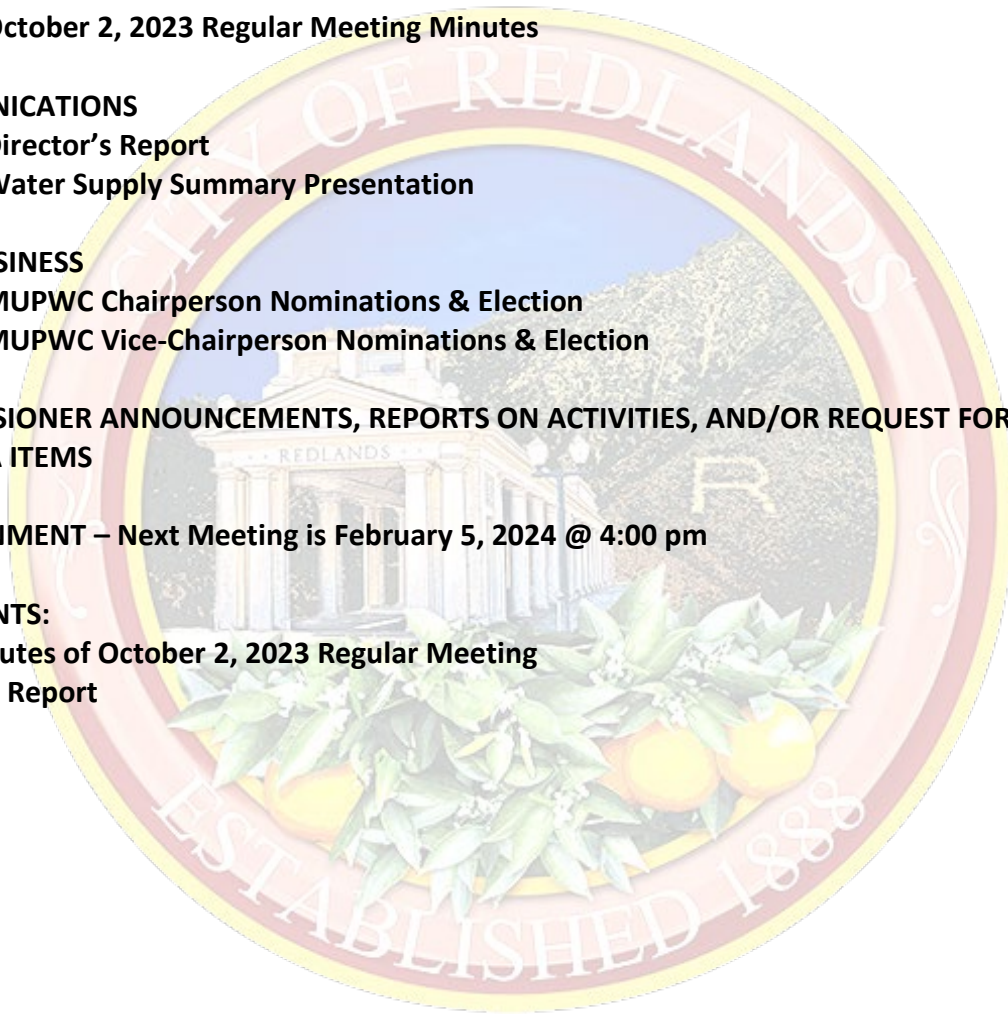
- a. **MUPWC Chairperson Nominations & Election**
- b. **MUPWC Vice-Chairperson Nominations & Election**

F. COMMISSIONER ANNOUNCEMENTS, REPORTS ON ACTIVITIES, AND/OR REQUEST FOR FUTURE AGENDA ITEMS

G. ADJOURNMENT – Next Meeting is February 5, 2024 @ 4:00 pm

ATTACHMENTS:

- 1. Draft Minutes of October 2, 2023 Regular Meeting**
- 2. Director's Report**



DRAFT
(for MUPWC review on 12/4)
MINUTES

Regular meeting of the City of Redlands Municipal Utilities/Public Works Commission on October 2, 2023 at 4:00 PM in the Council Chambers at the Civic Center, 35 Cajon Street. The meeting was an in-person meeting.

A. ATTENDANCE & CALL TO ORDER

Present: Adekunle Ojo, Chairperson
Steve Stockton, Vice Chairperson (arrived at 4:05 PM)
David Garcia, Commissioner
Thomas Breitzkreuz, Commissioner
Zachary Travis, Commissioner
Robert Meals, Commissioner

Absent: Chandrasekar 'CV' Venkatraman, Commissioner

City Council
Liaison: Mario Saucedo, City Council Member

Staff: John Harris, Municipal Utilities & Engineering Director; Goutam Dobey, City Engineer; Johana Silva, Commission Liaison/Associate Engineer; Fernando Mata, Wastewater Utility Manager; Jungjoon Park, Joint Utilities Laboratory Manager

Chairman Ojo called the meeting to order at 4:01 PM.

B. PUBLIC COMMENT

None.

C. APPROVAL OF MINUTES

On the motion by Commissioner Garcia, seconded by Commissioner Breitzkreuz, the minutes of the regular meeting of August 7, 2023, were approved.

Vote: 5 – 0 Passed

D. COMMUNICATIONS

a. Director's Report

Director Harris welcomed everyone to the meeting and provided highlights to his Director's Report.

Updates were provided on the following:

Water Meter Replacement Project: MUED applied for a BOR grant to fund the last three (3) project phases which has been consolidated into one (1) phase. BOR approved this request, providing \$2.7M. On September 5, 2023,

DRAFT
(for MUPWC review on 12/4)

MINUTES

City Council awarded a \$6.7M contract to Ferguson for the consolidated third and final phase, with BOR reimbursing \$2.7M.

WWTP P2 Project Update: MUED applied for a \$45M SRF loan before the December 31, 2022 deadline. Initially not selected for funding, it was later approved in the current SRF cycle.

Mr. Harris reported on Commissioner Garcia's inquiry regarding the water feature near the I-10 interchange, noting that it is owned by Caltrans. Mr. Harris contacted Caltrans and requested more frequent cleaning of the water feature.

A discussion ensued regarding alternative funding avenues for the WWTP P2 project, clarification on the timeline and routes for water meter replacements, the nature of maintenance supported by the Groundwater Council, and clarification regarding the status and extent of the Sidewalk Repair Project.

b. San Bernardino Valley Municipal Water District Annual Update

Mr. Harris introduced Heather Dyer, Executive Director of San Bernardino Valley. Ms. Dyer gave an overview of the San Bernardino Valley service area. She emphasized the need for drought preparedness, focusing on planning for the future and maximizing atmospheric rivers and efficient water storage, along with the importance of regional collaboration. Ms. Dyer emphasized the importance of diversity in water supply sources, including demand management, the State Water Project, stormwater capture, and recycled water. She provided insights into the State Water Project (SWP), and the SWP 2023 Plan for San Bernardino Valley.

Direct water deliveries to various entities and efforts related to recharge were discussed, including challenges and opportunities in these areas. She also mentioned the successful finalization of the Upper Santa Ana River Watershed Infrastructure Financing Authority (WIFIA) loan. Regional recycled water initiatives and achievements in expanding recharge infrastructure were noted, along with an overview of ongoing recharge projects. Ms. Dyer discussed the Headwater Resiliency Partnership, highlighting the need to scale up forest management efforts to protect water supply, water quality, infrastructure, and habitats. Lastly, Ms. Dyer expressed her support for SB 366: California Water For All Act.

Dennis Bell, resident, voiced his frustrations regarding approved legislative bills and the perceived lack of action on them.

E. NEW BUSINESS

None.

F. COMMISSIONER ANNOUNCEMENTS, REPORTS ON ACTIVITIES, AND/OR REQUESTS FOR FUTURE AGENDA ITEMS

Items requested for the next regular Commission meeting agenda were as follows:

Water Supply Overview – Comprehensive review of City's water supply.

DRAFT
(for MUPWC review on 12/4)
MINUTES

Reservoir Contaminants – Discussion on reservoir contaminants.

WWTP Cogeneration System – Update on the cogeneration system at the wastewater plant.

Caltrans & SBCTA Projects – Upcoming Caltrans & SBCTA projects within the City.

G. ADJOURNMENT – Next regular meeting is December 4, 2023 at 4:00 PM

There being no further business the meeting adjourned at 5:26 PM. The next regular meeting of the City of Redlands Municipal Utilities/Public Works Commission is scheduled for December 4, 2023.

DRAFT



City of
REDLANDS
Incorporated 1888
Municipal Utilities & Engineering Department

JOHN R. HARRIS
Director

MEMORANDUM

TO: Adekunle Ojo, Municipal Utilities/Public Works Commission Chair

FROM: John R. Harris, Municipal Utilities & Engineering Department Director

DATE: November 27, 2023

SUBJECT: December 4, 2023 Director's Report

Hello and thank you for serving the Redlands community as a Municipal Utilities/Public Works Commissioner (MUPWC)! City of Redlands Municipal Code Chapter 2.38 establishes the responsibilities of the MUPWC as follows:

"The commission is a resource for the City Council and City staff and buffer with the general public. In its advisory capacity, the commission shall be knowledgeable of all public works, utilities and engineering programs. The commission shall, through the individual and collective expertise of its members, provide advice to the Public Works and Municipal Utilities Departments regarding the public acceptability of proposed plans, programs and projects."

Upcoming City Council Meeting Agenda Items

- Cajon Street/Cypress Avenue Traffic Signal Bid Rejection (December 19)
- Annual Contractor List Adoption (December 19)
- DIF Study Agreement Amendment – Time Extension (December 19)
- Waterline Replacement Project Amendment – Time Extension (December 19)
- Hinckley WTP Sludge Press Project Amendment – Time Extension (December 19)
- South Mountain Water Company Shares Sale (December 19)
- California/Redlands Intersection Improvement Project Amendment – Time Extension (December 19)

City Grove Irrigation Update

Engineering plans to extend a recycled water distribution pipeline south of I-10 on California Street are being developed in-house and are nearly complete. Once finalized, the plans will have to be reviewed and approved by CalTrans to receive permits for construction. The goal of this project is to transition the City's California Grove and West Gateway Grove from potable water

irrigation to recycled water irrigation. This will be the first expansion of the recycled water distribution system south of I-10.

WWTP P2 Project Update

Parsons Engineering continues to develop and refine the WWTP Improvement Project Phase 2 design, and has made significant progress toward completion of the following design elements:

Task 1 – Conduct Facility Condition Assessment	P1 = 100%/P2 = 99%
Task 2 – Develop Multipurpose Project Report/Implementation Plan	100% Complete
Task 3 – Provide Engineering Design Services	P1 = 100%/P2 = 99%
Task 4 – PM, Communication, QC	P1 = 100%/P2 = 99%

Parsons is finalizing the engineering plans and is anticipated to complete their work in December. MUED staff and SWRCB staff participated in a kick-off meeting for the acceptance and use of a \$45M State Revolving Fund (SRF) loan to construct these improvements. We learned that the timeline for development of a Financing Agreement, which includes additional technical, environmental, and legal reviews, is approximately two (2) years. MUED staff has provided all requested documentation to expedite this process. Parsons recently provided a Class 1 Construction Cost Estimate with the 90% design plans for all project elements totaling approximately \$110M, which includes indirect costs, direct costs, and allowances. MUED is carefully evaluating the Parsons plan set to identify the best approach for maximizing the SRF loan.

Water Meter Replacement Project

MUED is implementing a multi-year year project to replace all potable and non-potable water meters within the Redlands service area. Ferguson Waterworks was selected to supply and install the water meters, meter box lids, and Automated Metering Infrastructure (AMI) water meter hardware for use in the future. Ferguson recently completed Phase 2 of the project, which focused on residential and small diameter commercial water meter replacements and AMI hardware retrofits. The water savings value associated with the completion of Phase 2 will be evaluated during the next year.

In July 2022, MUED staff submitted a BOR grant application to partially fund the three (3) remaining project phases. BOR recently approved this funding request and will provide approximately \$2.7M to complete the project. MUED staff submitted a BABA waiver request, which is currently being evaluated by BOR, to purchase and install Neptune water meters since no known AMI capable water meter manufacturers meet the BABA requirements. On September 5, 2023, the City Council awarded a new contract to Ferguson for the third and final phase of this project, which consolidates phases 3 – 5 into a single phase. The cost to complete this final project

phase is approximately \$6.7M, of which approximately \$2.7M will be reimbursed by BOR. A project location map is provided as Attachment “B”.

PMP Update

Match Corporation was awarded a \$4.9M Construction Contract for the FY 22/23 project and mobilized on May 15, 2023. The project is currently on-budget and on-schedule, with an anticipated completion in late-December. A project location map is provided as Attachment “C”. MUED staff is currently developing the FY 23/24 PMP plans and specifications.

Cogeneration Facility

In November 2002, the WWTP began operating a Cogeneration (Cogen) System to convert gaseous emissions from the City’s landfill into thermal energy. This landfill gas fueled a 1 MW power unit to provided thermal energy to heat the WWTP digesters. The Cogen Project was partially funded by the DOE and the CPUC Self-Generation Incentive Program.

In 2009, the SCAQMD revised its emission standards and the Cogen system struggled to consistently meet the new standards. For this reason, operation of the Cogen system was terminated later that year. Recently, the WWTP boilers and gas conditioning system were replaced with equipment that is operated exclusively with biogas. The Parsons WWTP Phase 2 Improvement Project design includes plumbing that will allow the City to reintroduce an expanded Cogen system in the future, potentially transitioning the WWTP into a resource recovery center.

Redlands Country Club Drainage Study Update

Watearth, Inc. recently completed a drainage study on and around the Redlands Country Club (RCC). The objective of the project was to develop a focused drainage study that considers pre-development and post-development runoff patterns to identify alternatives for improving existing drainage conditions. Peak flows and volumes for various development milestone dates were compared to the baseline year of 1960 and present day to determine the increase of peak flows and total volume of water flowing into the golf course over the years. Although the increased runoff is minimal, the City Engineer and Watearth discussed the following potential mitigation concepts to address peak flow increases, erosion, and sedimentation:

- Repurposing the Irrigation Pond near Outfall 1
- Stream Stabilization Improvements near Outfall 1
- Alternative Stream Improvements near Outfall 1
- Paving the Dirt Walking Path (Garden Mariposa Trail) near Outfall 1
- Sediment Trap Repair and Addition Sediment Basins Located at Outfall 1
- Additional Sediment Basins near Outfalls 3 and 4
- Removing the Curb along Sierra Vista Drive/Elder Road near Outfalls 3 and 4
- Installing a Tree Box near Outfall 2A
- Enforce Existing Erosion Control Guidelines Throughout the Project Area

Currently, RCC is evaluating opportunities to implement some of the projects on-site and will coordinate with MUED for joint project proposals. The link below contains a full report of the study:

https://www.dropbox.com/home/RCC?preview=Final+Technical+Memo+RCC_08312023.pdf

Water System Contaminants

Surface and groundwater sources are routinely monitored as conditions of our regulatory agency permits issued by the SWRCB. Perchlorate, which is related to industrial and agriculture activity, and PFAS compounds, which is a set of emerging constituents closely related to landfill operations, military installations, and widely used industrial applications, are notable contaminants and are monitored regularly. If a known contaminant exceeds a MCL DLR, it is reported annually in each community water systems CCR. For more information on the City's water quality reporting, please visit the link below.

<https://www.cityofredlands.org/post/water-quality>

Caltrans/SBCTA Projects

Considering the extensive list of ongoing Caltrans District 8 and SBCTA projects, it is not practical to summarize them all in this report. Below are brief summaries of a few planned and/or ongoing Caltrans District 8 projects near Redlands. Additional information about these and other projects is available at:

Caltrans District 8 - <https://dot.ca.gov/caltrans-near-me/district-8/district-8-current-projects>

SBCTA - <https://www.gosbcta.com/projects/>

Bridge Deck Repairs (Caltrans D8)

San Bernardino, CA – The California Department of Transportation (Caltrans) is alerting the public that construction contractors will perform night work on Interstate 15 in San Bernardino. Weather permitting. Work performed will include deck rehabilitation, polyester concrete overlay, methacrylate, replace bridge rail, replace joint seals, approach slabs, repair soffit. All work is dependent on contractor receiving proper materials for each job function. It can be changed or canceled at any time.

Construction will start mid-August 2023 and end summer 2024. Work will occur Monday through Friday, from 7:00 p.m. to 5 a.m., Friday work will end Saturday morning. The project will be conducted on the following areas:



- Interstate 15 from State Route 210 to Summit Ave.
- Interstate-15 from Cleghorn Rd to Oakie Flats Rd.
- Interstate 15 North-Bound to State Route 138
- Interstate 15 South-Bound to State Route 138 West -Bound & East Bound
- State Route 210 East-Bound and West Bound Beech Ave
- Interstate 215-Truck Bypass

Additional, work will also occur on the following connectors, which will result in the same schedule listed above:

- SB 15 to EB 210-Connector Closure.
- SB 15 to WB 210-Connector Closure.
- EB 210 to NB 15- Connector Closure.
- WB 210 to NB 15-Connector Closure.
- SB 15 to WB 210-Connector Closure

I-15 Pavement Rehab (Caltrans D8)

Project Description

The project will rehabilitate and repave 59 lane miles and ramps and upgrade drainage systems on Interstate 15 (I-15) in San Bernardino County. The project spans from Oak Hill Road in Hesperia to just south of Bear Valley Road in Victorville.

Project Need

The purpose of this project is to improve the safety performance and smoother roadway on Interstate 15 from Oak Hill Road to just south of Bear Valley Road in Victorville. Drainage systems will be upgraded for better water flow. All work is anticipated to be complete by Spring 2025, weather dependent. Caltrans, District 8 is advising the traveling public to anticipate potential lane and ramp closures for the duration of the project.

Traffic Impact

There will be lane and ramp closures, northbound and southbound, throughout the construction zone for the duration of the project. Connector closures may occur at the I-15 to US 395. Depending on the scope of work these lane and ramp closures will change accordingly with the possibility of reducing lanes to one available in each direction. Delays throughout the project area are anticipated.

Construction Schedule

Construction hours will be 6 p.m. to 6 a.m., going southbound and 9 p.m. to 9 a.m. going northbound, Monday through Friday. Schedules can change due to inclement weather. All work is anticipated to be complete by Spring of 2025.

SR-18 Culvert Repair Big Bear (Caltrans D8)

San Bernardino, CA – The California Department of Transportation (Caltrans) will begin work on a \$11 million culvert repair project on State Route 18 (SR 18) from Big Bear Dam in Big



Bear to Cactus Rd in Lucerne Valley. This project is anticipated to begin September 7, 2023, weather permitting.

This project will repair, realign or replace various culverts on the SR 18. The work is scheduled to begin on Wednesday, September 6 through Friday, September 8 from 7:00 a.m. to 3:00 p.m. Daytime work will allow crews to place signage and perform culvert replacement work involving hot mix asphalt and structural minor concrete. The contractor will begin at Postmile 44.1 near Big Bear dam. Project work is anticipated to be completed by late Spring 2025. Closures are dependent on contractor receiving proper materials for each job function. They can be changed or canceled at any time. Weather permitting.

Culvert work will involve one-way flagging operations at various locations along the project zone, however to reduce traffic wait times, only one location will be done at a time. Drivers should anticipate traffic delays and recommended to seek alternate routes such as State Route 38 (SR-38) through Fawnskin. Drivers please be mindful of construction signage and operations underway. Slow for the cone zone to keep our crews, other drivers, and roadway safe. This is an active work zone causing lane closures and traffic delays. PLAN AHEAD and drive safely being mindful of closures and alternate routes.

Semi-trucks and oversized vehicles: Drive safely being mindful of no truck signage on alternate routes, clearance, and low width zones.

SR-38 Emergency Repair Project (Caltrans D8)

SAN BERNARDINO, CA – The California Department of Transportation (Caltrans) is alerting the public that construction contractors will begin a \$11.6 million emergency project on State Route 38 (SR-38) to repair embankment, slopes, clear drainage and significant structural damage sustained by Tropical Storm Hilary.

Crews have been in the area performing excavation, water diversion, rip rap and embankment fill work. **SR-38 from East Jenks Lake Rd to Rainbow Lane will re-open to all on Friday, November 17 at 12:00 pm, with one-lane flagging operations in place.** This reopening is subject to change, both weather and material dependent.

Flagging will continue weekly from Monday through Friday from 6:00 am to 4:00 pm. Drivers should expect delays as one-lane flagging will occur at various points to allow crews to continue repair work, including work at the Santa Ana River Bridge. Traffic will be at a free flow on Saturdays and Sundays with no construction work happening, unless an emergency situation occurs and crews must perform weekend work - this is not anticipated at this time. Please adhere to roadway signage and slow for the safety of crews and public. Traffic holds are anticipated, if needed, traffic may be held up to 30 minutes or longer. Repair work is expected to continue through spring 2024.

No wide loads permitted at this time. Please adhere to road closure signage to allow for safe transport of equipment and crews. Flagging operations will occur weekly for traffic in both directions from Monday through Friday. Traffic holds are anticipated to allow for safe equipment transport and to allow crews to continue repair work. Drivers are encouraged to take alternate routes to avoid delays.

I-10/Cedar Avenue (SBCTA)



The San Bernardino County Transportation Authority (SBCTA), the County of San Bernardino, City of Fontana, and City of Rialto will improve Cedar Avenue between Bloomington Avenue and Orange Street in the unincorporated community of Bloomington. As a major north-south arterial that experiences high levels of traffic congestion resulting in low levels of service, the project is designed to relieve congestion, enhance safety, and improve traffic operations. The project will:

- Widen Cedar Avenue from six lanes to 10 lanes
- Provide new bridge railings and sidewalks on Cedar Avenue
- Replace Cedar Avenue over the train tracks
- Add additional lanes at the on- and off-ramps

The Cedar Avenue Bridge over the I-10 and the railroad tracks will be widened in two stages. Crews partially demolished the east side of the bridge over the I-10 freeway in April 2023 and are working to reconstruct and widen bridge through March 2024.

During reconstruction, traffic has been shifted to the opposite side (west half) of the bridge to allow crews to safely widen the structure. To accommodate this shift, one lane has been reduced in each direction on Cedar Avenue between Orange Street and Valley Boulevard. Traffic delays should be expected during bridge reconstruction, please allow extra time to reach your destination and use caution when traveling through work zones. Alternate routes will include Slover Avenue or Valley Boulevard to Riverside Avenue to the east and Sierra Avenue to the west. Following the reconstruction of the east side of the bridge, crews will perform the same activities on the west side of the bridge.

While the east side of the Cedar Avenue bridge is being widened, motorists on Orange Street will be prohibited from making a right turn onto NB Cedar Avenue. This configuration will be in place through March 2024.

I-10 Express Lanes (SBCTA)

SBCTA's Interstate 10 Corridor Project is comprised of three phases of improvements to benefit the movement of both people and goods on this facility that is important to both San Bernardino County residents and to the local and national economy. The first phase, stretching 10 miles from the Los Angeles County line to I-15, is currently under construction. The second phase, stretching 11.1 miles from I-15 to Pepper Avenue in Colton, is in design and the final funding components are being sought to enable construction to begin in 2024. The third and final future phase of 12 miles will be from Pepper Avenue to Ford Street in Redlands.

Mt. Vernon Avenue Bridge (SBCTA)

Since opening to the public in 1934, the Mt. Vernon Avenue Bridge has been an iconic structure, bridging San Bernardino communities to the north and south and serving as a vital link for



residents, visitors, students and businesses. The community, like the bridge, has seen a great deal of change over the past 86 years.

To ensure the safety and longevity of the bridge, the City of San Bernardino and the California Department of Transportation (Caltrans) partnered with the San Bernardino County Transportation Authority (SBCTA) to rebuild the bridge. The bridge closed to the public in December 2020 and disassembly was completed in April 2021. Reconstruction of the new bridge is anticipated to begin in late 2023 and the new structure is anticipated to open in 2025.

SR 210 Lane Addition/Base Line Interchange (SBCTA)

The SR 210 Lane Addition/Base Line Interchange project, designed to provide increased traffic flow throughout this corridor, will be built as one project. To eliminate the existing bottleneck and provide lane continuity, the SR 210 will be widened from Sterling Avenue to San Bernardino Avenue in the cities of San Bernardino, Highland, and Redlands, as well as an unincorporated portion of San Bernardino County. Base Line Interchange will also be widened from Buckeye Street to Seine Avenue in the City of Highland.

The SR 210 Lane Addition and Base Line Interchange Project is entering its final months of construction. Crews have striped the SR 210 lanes to their final configuration between Del Rosa Avenue and the I-10 freeway, adding one mixed-flow lane in each direction between Highland Avenue and San Bernardino Avenue, auxiliary lanes (merge lanes) between Base Line and 5th Street/Greenspot Road, and an acceleration lane at the 5th Street/Greenspot Road eastbound ramp.

Q3 Capital Improvement Project Update

The MUPWC is charged with, among other things, “*annually reviewing the City CIP under the purview of the Public Works and Municipal Utilities Departments*” (Municipal Code 2.38.030). However, during the December 7, 2020 MUPWC meeting, the Commission asked the MUED staff to provide quarterly CIP updates. A summary and status of CIP projects is provided in Attachment “D”. Highlights of current projects are provided below:

1. Multi-Year Well Rehabilitation & Booster Pump Replacements – Five (5) potable water wells and three (3) non-potable water wells are being rehabilitated in FY 23/24. This work is prioritized to occur during our typical low water demand season. Four (4) of these seven (7) wells are currently being rehabilitated and three (3) wells are scheduled for rehabilitation by March 2024. All wells will be returned to service before the end of 2024. Following is a short list of specific groundwater wells scheduled for rehabilitation with this project:
 1. Church Street Well (potable)
 2. Mentone #2 Well (potable)
 3. Airport #2 Well (potable)
 4. Mill Creek 2A Well (potable)

5. Rees Well (potable)
 6. Mill Creek #4 Well (non-potable)
 7. Redlands Heights Well (non-potable)
-
2. Recycled Water Reservoir Engineering – This project is underway and Carollo Engineers recently submitted a 90% Plans, Specifications, and Construction Cost Estimate for construction of a single 2.5 MG concrete reservoir and several distribution system improvements. MUED staff reviewed these plans and submitted minor comments back to Carollo.
 3. Tate WTP Raw Water Influent Pipeline Engineering – This project is underway and Carollo Engineers recently submitted the 60% design plans for review. MUED staff reviewed these plans and submitted comments back to Carollo.
 4. Hinckley WTP Sludge Press Engineering – This project is underway and Dudek recently submitted the 60% design plans for review. MUED staff reviewed these plans and submitted comments back to Dudek.
 5. Well Perchlorate Treatment Evaluation – This project is underway and Dudek is developing 30% design plans and recently submitted a Preliminary Design Report for review. A recent detection of PFAS will not require design revisions.
 6. Automated Metering Infrastructure (AMI) – Ferguson Enterprises was awarded a contract to install twenty-six (26) gateway collector stations throughout the City to remotely read water meters. To date, four (4) gateways have been installed and are now operational.
 7. FY 22/23 Waterline Replacement Project – A Construction Contract was awarded to Tryco General Engineering and construction is anticipated to end in early-2024. A Project Location Map is provided as Attachment “E”.
 8. Phase II & III Water Distribution SCADA Upgrade - Materials have been ordered. Installations began recently and will continue into 2024.
 9. Alley Paving Project – The FY 22/23 project was awarded to Onyx Paving and construction began in early-June. Construction is anticipated to end in late-December. A project location map is provided as Attachment “F”.
 10. Sewerline Replacement Project – The FY 22/23 project was awarded to CEM and construction began in July. Construction is anticipated to end in late-January. A project location map is provided as Attachment “G”.

As always, feel free to contact me anytime to discuss MUED issues, programs, projects, or concerns.

John R. Harris

jharris@cityofredlands.org

(909) 725-1963

Attachments:

A – Acronym List

B – Citywide Water Meter Replacement Project Phase 3 Location Map

C – FY 22/23 PMP Location Map



D – CIP Status List

E – FY 22/23 Waterline Replacement Project Location Map

F – FY 22/23 Alley Paving Project Location Map

G – FY 22/23 Sewerline Replacement Project Location Map

ACRONYMS

AACE	Association for the Advancement of Cost Engineering
AF	Acre-Feet
AFD	Acre-Feet per Day
AFY	Acre-Feet per Year
ADD	Average Day Demand
AMI	Advanced Metering Infrastructure
AMR	Automated Meter Reader
APWA	American Public Works Association
ASCE	American Society of Civil Engineers
ASL	Above Sea Level
AWWA	American Water Works Association
BABA	Build America Buy American
BOD	Biological Oxygen Demand
BOR	Bureau of Reclamation
BVMWC	Bear Valley Mutual Water Company
CalOSHA	California Division of Occupational Safety and Health Agency
CalWARN	California's Water/Wastewater Agency Response Network
CCR	Consumer Confidence Report
CIP	Capital Improvement Program
Cogen	Cogeneration
CPUC	California Public Utilities Commission
CWC	Crafton Water Company
DDW	Division of Drinking Water
DIF	Development Impact Fees
DLR	Detection Limit for Purposes of Reporting
DOE	Department of Energy
DU	Dwelling Unit
EDU	Equivalent Dwelling Unit
EOPC	Engineer's Opinion of Probable Cost
EPA	Environmental Protection Agency
EPS	Extended Period Simulation
ERNIE	Emergency Response Network of the Inland Empire
ES	Equalizing Storage
EVWD	East Valley Water District
FCS	Facilities and Community Services Department
FPS	Feet Per Second

FSS	Fire Suppression Storage
FY	Fiscal Year
GC	Groundwater Council
GIS	Geographical Information System
GPCD	Gallons per capita day
GPD	Gallons per day
GPM	Gallons per minute
Hinckley WTP	Horace P. Hinckley Water Treatment Plant
HP	Horsepower
HSIP	Highway Improvement Safety Program
I-10	Interstate 10
I-210	Interstate 210
MCL	Maximum Contaminate Level
MDD	Maximum Day Demand
MG	Million Gallons
MGD	Million Gallons per Day
mg/L	Milligrams per Liter
MUED	Municipal Utilities and Engineering Department
NPW	Non-Potable Water
NTU	Nephelometric Turbidity Unit
O&M	Operations and Maintenance
OS	Operational Storage
PFAS	Per- & Polyfluoroalkyl Substances
PHD	Peak Hour Demand
PMP	Pavement Management Program
PPM	Parts Per Million
PRS	Pressure Reducing Stations
PSI	Pounds per Square Inch
PW	Potable Water
RW	Recycled Water
SAR	Santa Ana River
SB	Stand-by Storage
SBBA	San Bernardino Basin Area
SBV	San Bernardino Valley (formerly San Bernardino Valley Municipal Water District)

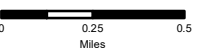
SCADA	Supervisory Control and Data Acquisition
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SGMA	Sustainable Groundwater Management Act
SOC	Synthetic Organic Compounds
SOP	Standard Operating Procedure
SWP	State Water Project
SWRCB-DDW	State Water Resources Control Board – Division of Drinking Water
Tate WTP	Henry Tate Water Treatment Plant
TBD	To be determined
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
TTHM	Trihalomethanes
U.S.	United States
UWMP	Urban Water Management Plan
VOC	Volatile Organic Compounds
WD	Water Distribution
WP	Water Production
WSCP	Water Shortage Contingency Plan
WSMP	Water System Master Plan
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

FY23/24 Meter Routes

Potable Water Meter
Change-Out CIP

- Route 24 - 282
- Route 25 - 492
- Route 26 - 329
- Route 27 - 344
- Route 28 - 301
- Route 31 - 271
- Route 32 - 268
- Route 33 - 314
- Route 34 - 324
- Route 45 - 159
- Route 47 - 254
- Route 48 - 221
- Route 51 - 341
- Route 52 - 355
- Route 53 - 310
- Route 54 - 335
- City of Redlands

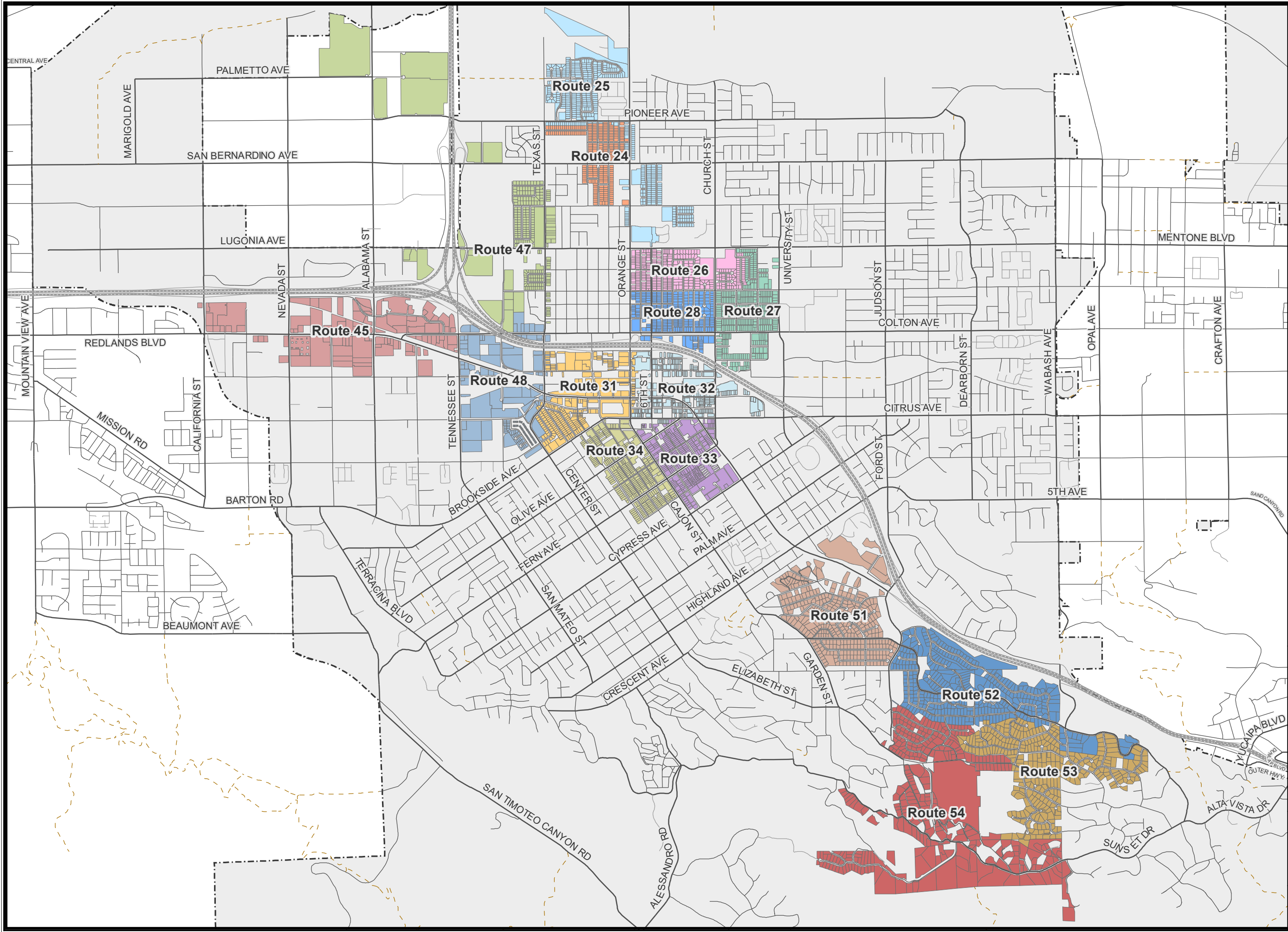
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June 14, 2022

FY23_24Potable.mxd



FY24/25 Meter Routes

Potable Water Meter
Change-Out CIP

- Route 35 - 325
- Route 36 - 278
- Route 37 - 357
- Route 38 - 261
- Route 41 - 339
- Route 42 - 255
- Route 43 - 275
- Route 55 - 341
- Route 56 - 350
- Route 57 - 351
- Route 58 - 249
- Route 61 - 343
- Route 62 - 359
- Route 63 - 455
- Route 64 - 442
- City of Redlands

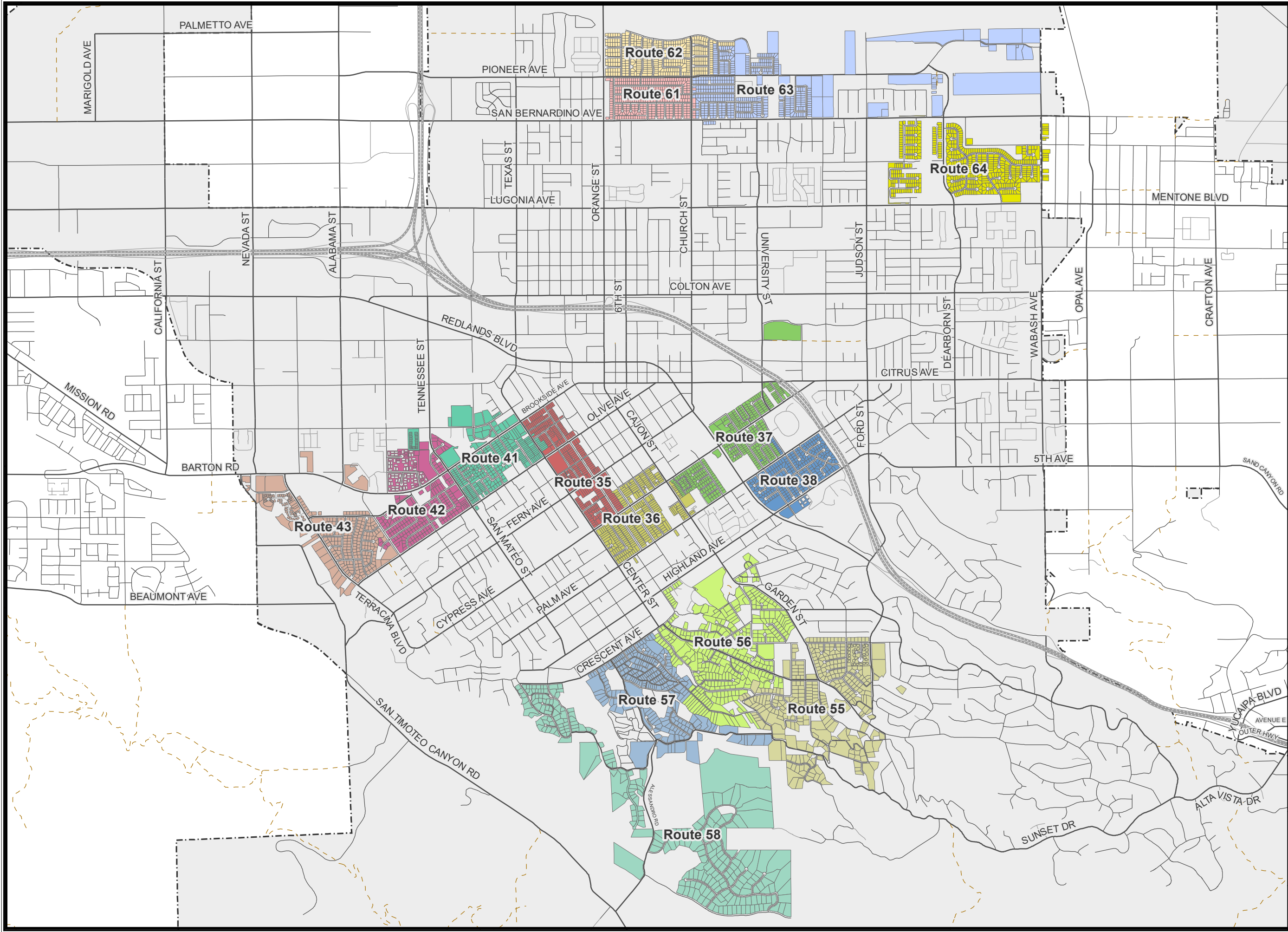
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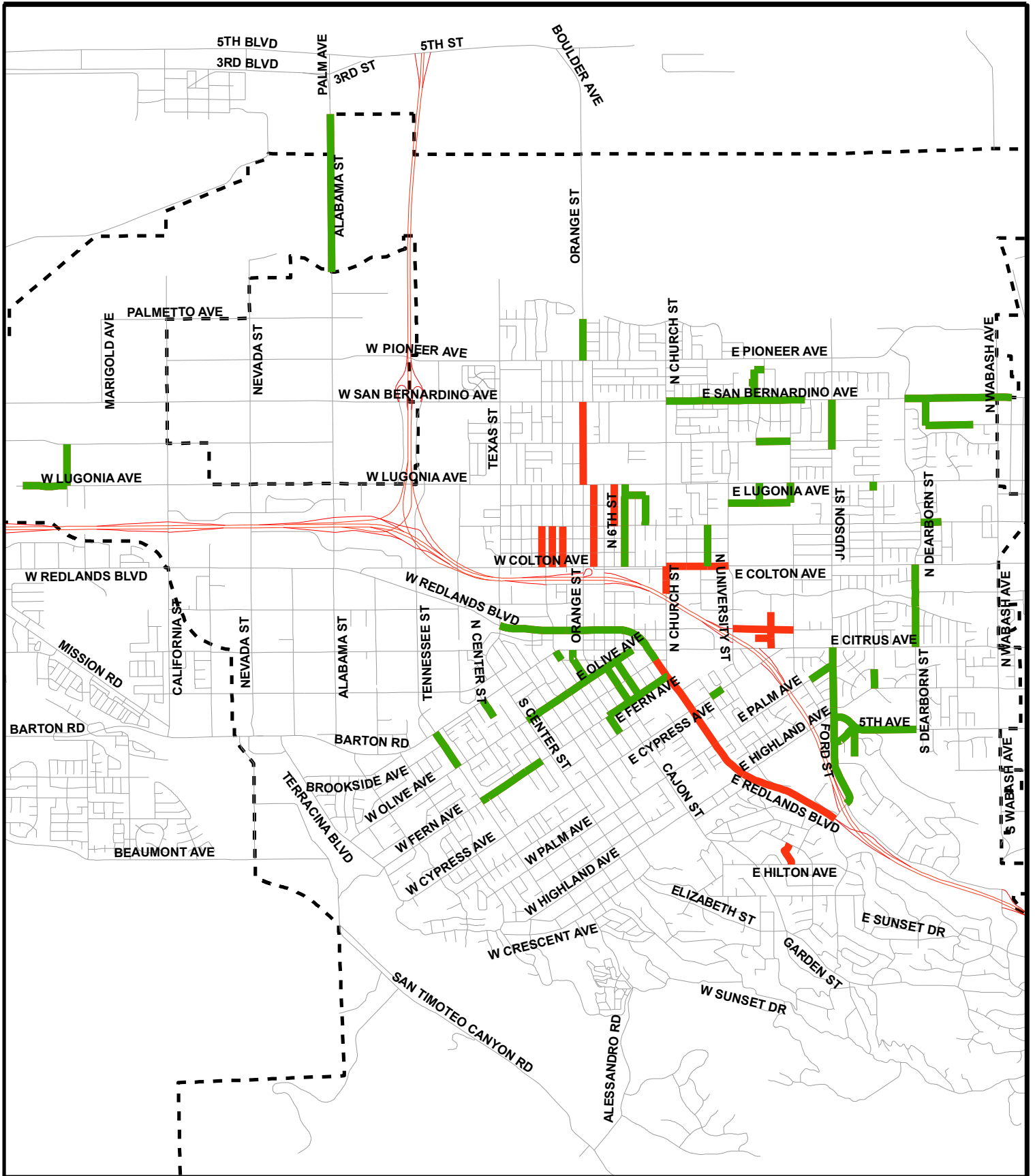


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June 14, 2022

FY24_25Potable.mxd





 PMP 2022 STREETS COMPLETE

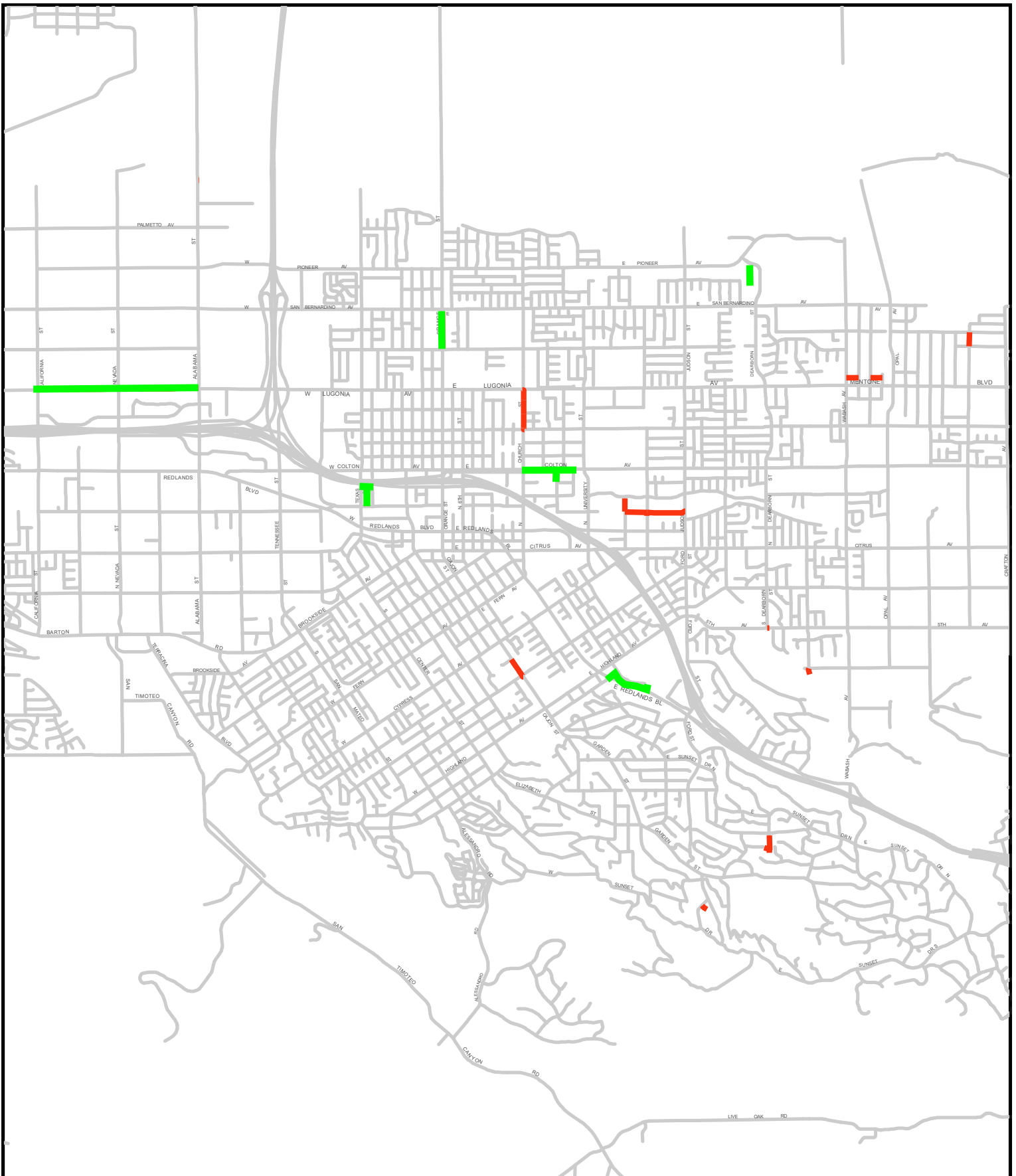
 PMP 2022 STREETS

PMP 2022 STREET RESURFACING PROJECT LOCATION MAP



**MUNICIPAL UTILITIES AND ENGINEERING DEPARTMENT
CIP PROJECTS LIST**

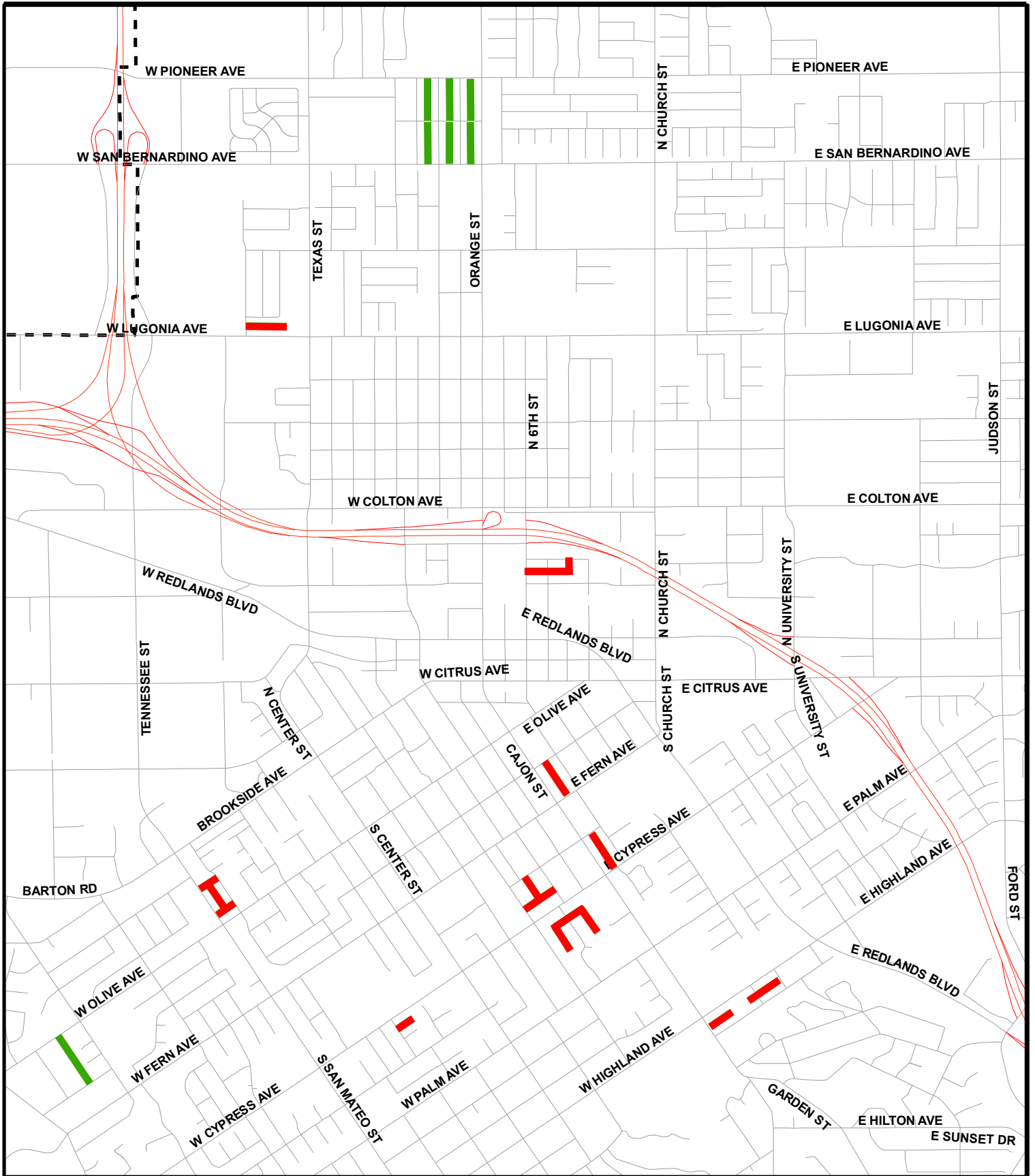
PLANNING		Org Key	PL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	FY 2022-23	FY 2023-24
P1	WATER	501910	501019	HAWC Booster Pump Rehabilitation	PLANNING	0%				\$500,000.00
P2	WATER	501910	501059	Seismic Assessment Improvements - Texas Grove Reservoir	PLANNING	0%				\$2,900,000.00
P3	WATER	501910	501055	Sunset Reservoir Replacement	PLANNING	0%				\$6,000,000.00
P4	WATER	501910	501058	Tate Clarifier Coating & Covers	PLANNING	0%				\$2,560,000.00
P5	ARTERIAL	252400		California Street Widening at Lugonia Ave	PLANNING	0%				\$800,000.00
P6	WATER	501910	501057	WTP Mechanical & Electrical Equipment Replacement	PLANNING	0%				\$180,000.00
P7	WATER	501910	501007	Agate #2 Well Rehabilitation	PLANNING	20%		Paul	\$175,000.00	
P8	WATER	501910	501042	Tank Mixers	PLANNING	15%		Paul	\$150,000.00	\$150,000.00
Planning Projects - Cost Summary									\$325,000.00	\$13,090,000.00
DESIGN		Org Key	PL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	Current Budget	
D1	WATER	501910	501063	2023 CIP Water Pipeline & Highline Replacement	DESIGN	5%	TKE Engineering	Goutam		\$4,400,000.00
D2	GENERAL	101400	400025	2023 Citywide Sidewalk & ADA Ramp Replacement	DESIGN	40%		Elva		\$1,000,000.00
D3	PMP	211910	211008	PMP 2023 Street Resurfacing Project	DESIGN	75%		Gerard		\$4,000,000.00
D4	GENERAL/PMP	101/211	211009	2023 Alley Paving Improvements	DESIGN	65%		Elva		\$2,100,000.00
D5	WASTEWATER	521910	521030	2023 CIP Sewer Pipeline Replacement	DESIGN	40%		Johana		\$3,000,000.00
D6	WATER	501910	501028	Fixed Generators - Agate, 5th, Texas & Country Club	DESIGN	85%	Brady & Associates	Paul/Veronica	\$507,549.00	
D7	HSIP C10	200400	S400021	Wabash & Highland Ave Enhanced Crosswalk	DESIGN	20%		Veronica	\$250,000.00	
D8	GENERAL FUND	101400	01544	Live Oak Canyon Creek & Oakmont Park Restoration	DESIGN	95%	Huitt-Zollars, Inc.	John	\$1,800,000.00	
D9	WATER	501910	501040	Tate Transmission Line Replacement	DESIGN	60%	Carollo Engineers, Inc.	Paul/John	\$835,549.00	\$1,900,000.00
D10	NON-POTABLE	531910		WWTP Recycled Water Reservoirs Design	DESIGN	90%	Carollo Engineers, Inc.	John	\$734,839.00	
D11	WATER	501910		Hinckley WTP Sludge Press	DESIGN	60%	Dudek	Paul/John	\$700,000.00	
D12	ARTERIAL	252400		California Street Widening at Redlands Blvd	DESIGN	65%	CASC Engineering and Consulting	Gerard	\$231,930.00	
D13	TDA	241400	S241005	2021 Transit Stop Improvement	DESIGN	95%		Veronica/Johana	\$46,340.00	
D14	CRP	240400	C400005	Highland/Redlands Regional Connector - South	DESIGN	95%	KOA Consultants	Veronica	\$752,600.00	
D15	ARTERIAL	252400	252001	Citrus Avenue Widening Project	DESIGN	95%		Elva	\$900,000.00	
Design Projects - Cost Summary									\$6,758,807.00	\$16,400,000.00
BID & AWARD		Org Key	PL	Project Name	Project Phase	Progress	Consultant/Contractor	PM/Engineer	Current Budget	
Bid & Award Project - Cost Summary									\$0.00	\$0.00
CONSTRUCTION		Org Key	PL	Project Name	Project Phase	Progress	Contractor	PM/Inspector	Contract Amount	
C1	WATER	501910	C501064	Water Meter Replacement (Potable/Non-potable) Project	CONST	1%	Ferguson Enterprises, LLC	John/Aaron/Chris		\$6,747,257.96
C2	STORM DRAIN	405400	405003	Mission Zanja Channel Improvements Project	CONST	40%	Harbor Coating & Restoration	Gerard/Chris		\$381,799.00
C3	HSIP C9	200400	F400003	Pedestrian In-Roadway Lights - Alabama/Tennessee	CONST	1%	California Professional Engineering	Veronica/Chris		\$259,245.00
C4	WASTEWATER	521910	521029	2022 CIP Sewer Pipeline Replacement	CONST	40%	CEM Construction Corp	Johana/Daniel	\$3,314,268.00	
C5	GENERAL/PMP/MT	101/211	211007	2022 Alley Paving Improvements	CONST	70%	Onyx Paving Company, Inc.	Elva/James	\$2,082,000.00	
C6	PMP	211910	211006	PMP 2022 Street Resurfacing Project	CONST	80%	Matich Corporation	Gerard/Frannie	\$4,970,068.00	
C7	WATER	501910	501062	2022 CIP Water Pipeline Replacement	CONST	50%	Tryco General Engineering	Gerard/Daniel	\$4,744,111.00	
C8	WATER	501910	501006	Water System SCADA Design & Integration - Phase 2 & 3	CONST	45%	TESCO Controls, Inc.	Paul/Daniel	\$5,579,420.00	
C9	WATER	501910	501006	Automated Metering Infrastructure Project	CONST	20%	Ferguson Enterprises, LLC	Paul/Aaron/Chris	\$783,356.96	
Construction Projects - Cost Summary									\$21,473,223.96	\$7,388,301.96
Project Total Dollars									\$28,557,030.96	\$36,878,301.96



— PROPOSED WATER PIPELINE REPLACEMENT
— WATERLINE COMPLETED
2022 CIP WATER PIPELINE REPLACEMENT PROJECT

LOCATION MAP

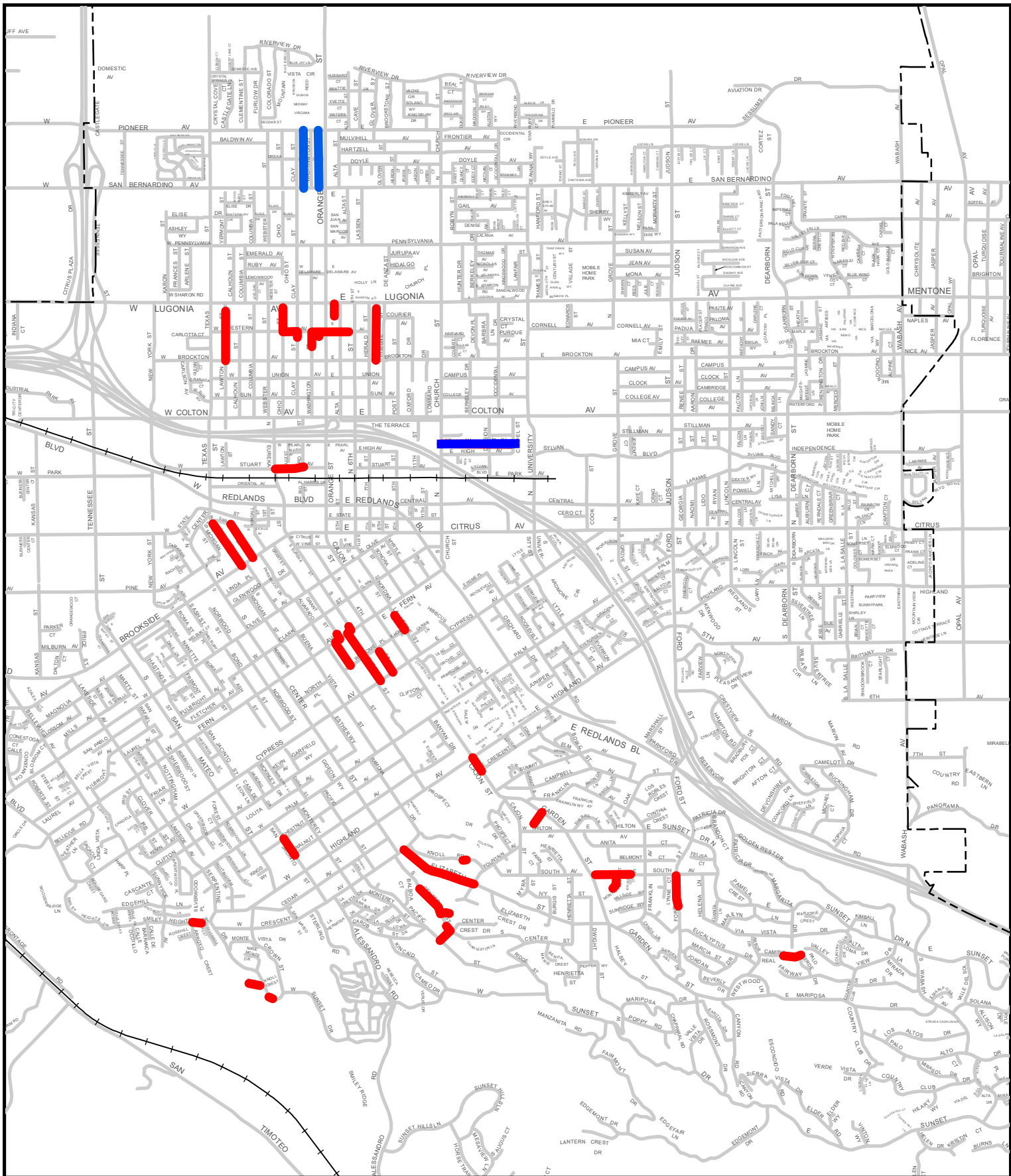




- PROPOSED ALLEYS
- PAVING COMPLETED

2022 ALLEY PAVING PROJECT LOCATION MAP





2022 CIP SEWER PIPELINE REPLACEMENT PROJECT LOCATION MAP

- Proposed
- Completed

