

MITIGATED NEGATIVE DECLARATION

The City of Sacramento, California, a municipal corporation, does hereby prepare, declare, and publish this Mitigated Negative Declaration for the following described project:

The 24th Street Storage Pipe Project (X14170106) - The proposed project consists of the installation of approximately 2,900 linear feet of 120-inch pipe along 24th Street between H Street and N Street, and on K Street, between 24th Street and 25th Street to provide additional underground storage for the combined sewer system. Project improvements will also include an installation of a sewer pump station, asphalt concrete paving, and roadway striping.

The Lead Agency is the City of Sacramento. The City of Sacramento, Community Development Department, has reviewed the proposed project and, on the basis of the whole record before it, has determined that there is no substantial evidence that the project, with mitigation measures as identified in the attached Initial Study, will have a significant effect on the environment. This Mitigated Negative Declaration reflects the lead agency's independent judgment and analysis. An Environmental Impact Report is not required.

This Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Sections 15000 et seq. of the California Code of Regulations), the Sacramento Local Environmental Regulations (Resolution 91-892), and the Sacramento City Code.

A copy of this document and all supportive documentation is available on the City's Webpage at:

<https://www.cityofsacramento.gov/community-development/planning/environmental/impact-reports>

Environmental Services Manager, City of Sacramento,
California, a municipal corporation

By: Scott Johnson

Date: March 18, 2025

PUBLIC DRAFT

**CITY OF SACRAMENTO 24TH STREET COMBINED
SEWER SYSTEM IN-LINE STORAGE PIPE
PROJECT
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**

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March 2025



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Acronyms and Abbreviations

Acronym	Definition
°F	Fahrenheit
AB	Assembly Bill
AHPA	Archaeological and Historic Preservation Act
amsl	above mean sea level
APE	area of potential effects
Basin Plan	Water Quality Control Plan
BERD	Built Environment Resources Directory
BMPs	best management practices
CAAP	Climate Action & Adaptation Plan
CAAQS	California ambient air quality standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CEQA Guide	SMAQMD Guide to Air Quality Assessment in Sacramento County
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CFR	Code of Federal Regulations
CH ₄	methane
CHRIS	California Historical Resources Information System
City	City of Sacramento
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CSS	combined sewer system

Acronym	Definition
CSSIP	Combined Sewer System Improvement Plan
CWA	Clean Water Act
dB	decibel
DOC	Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EFH	Essential Fish Habitat
EIR	Environmental Impact Report
EO	executive orders
ESA	Endangered Species Act of 1973
FEMA	Federal Emergency Management Agency
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FIRMs	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FP	Fully Protected
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
GHG	greenhouse gases
HFCs	hydrofluorocarbons
HSC	Health and Safety Code
IO CAP	Climate Action Plan for Internal Operations
IPaC	Information for Planning and Conservation
IS/MND	Initial Study/Mitigated Negative Declaration
L_{dn}	day-night sound level
L_{eq}	equivalent sound level
L_{min} and L_{max}	minimum and maximum sound levels
LRA	Local Responsibility Area
LTCP	Long-Term Control Program
MBTA	Migratory Bird Treaty Act
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MLD	Most Likely Descendant
MRZ	mineral resource zones
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NEPA	National Environmental Policy Act

Acronym	Definition
NHPA	National Historic Preservation Act
NO ₂	nitrogen dioxide
NOAA Fisheries	National Oceanic and Atmospheric Administration Fisheries Service's
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	new source review
OHWM	ordinary high-water mark
Ozone Plan	Sacramento Regional 8-Hour Attainment and Reasonable Further Progress Plan
Pb	lead
PG&E	Pacific Gas and Electric Company
PL	Public Law
project	24 th Street combined sewer system In-Line Storage Pipe Project
RCEM	Roadway Construction Emissions Model
RCNM	Roadway Construction Noise Model
Regional Water Board	Regional Water Quality Control Board's
ROG	reactive organic gases
RPS	renewables portfolio standard
RPW	Relatively Permanent Waters
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SF ₆	sulfur hexafluoride
SFD	Sacramento Fire Department
SFNA	Sacramento Federal Nonattainment Area
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO ₂	sulfur dioxide
SPD	Sacramento Police Department
SQIP	Stormwater Quality Improvement Plan
SR 160	State Route 160
SRA	State Responsibility Area
SRCSD's	Sacramento Regional County Sanitation District's
SRF	State Revolving Fund
SRWWTP	Sacramento Regional Wastewater Treatment Plant
SSC	Species of Special Concern

Acronym	Definition
State Water Board	State Water Resources Control Board
SVAB	Sacramento Valley Air Basin
SWPPP	stormwater pollution prevention plan
System	Coastal Barrier Resources System
TAC	toxic air contaminants
THRIS	Tribal Historic Information System
TNW	Traditional Navigable Waters
UAIC	United Auburn Indian Community
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	US Geological Survey
VMT	vehicle miles traveled
WDR	waste discharge requirements
WEAP	Worker Environmental Awareness Program

Introduction and Regulatory Guidance

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the City of Sacramento (City) to evaluate potential environmental effects resulting from the 24th Street combined sewer system (CSS) In-Line Storage Pipe Project (project). The “Project Description” section presents detailed project information.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a “public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) the Initial Study shows that there is no substantial evidence...that the project may have a significant impact on the environment, or (b) the Initial Study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level.” In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

The City of Sacramento will be seeking state and federal aid for the funding of the construction of this project, which could include partial funding with a loan from the federal Clean Water State Revolving Fund (SRF) program established by the federal Water Pollution Control Act (Clean Water Act or CWA), as amended in 1987. This program is administered, nationally, by the U.S. Environmental Protection Agency, and in certain instances the administration has been delegated to the states. In California, administration of the SRF program has been delegated to the State Water Resources Control Board (State Water Board). In turn, the State Water Board requires that all projects being considered under the SRF program must comply with CEQA and certain federal environmental protection laws. Collectively, the State Water Board refers to these requirements as “CEQA-Plus.” Therefore, this IS/MND has been expanded beyond the typical content requirements of an initial study to include additional “CEQA-Plus” information. CEQA does not require consideration of alternatives in MNDs; however, an analysis of alternatives is provided to meet SRF Program requirements. Other CEQA-Plus requirements are fulfilled in the IS analysis and associated appendices (see Chapter 3, *Compliance with Federal Regulations*, for a complete list of federal laws addressing compliance with SRF Program requirements). The State Water Board, as a responsible agency for the project, would consider this CEQA document prior to any SRF loan authorization.

Purpose of this Document

As described in the environmental checklist (Chapter 2), the project would not result in any unmitigated significant environmental impacts. Therefore, an IS/MND is the appropriate document for compliance with the requirements of CEQA. This IS/MND conforms to these requirements and to the content requirements of State CEQA Guidelines Section 15071.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the project. The City is the CEQA lead agency because they are responsible for constructing, operating, and funding the project. The purpose of this document is to present to decision-makers and the public information about the environmental consequences of implementing the project. This disclosure document is being made available to the public for review and comment. Because state agencies will act as responsible or trustee agencies, the City will circulate the IS/MND to the State Clearinghouse of the Governor's Office of Planning and Research for distribution and a 30-day public review period from March 24, 2025 to April 24, 2025. A copy of the IS/MND and supporting documentation are available for review on the City's website:

<https://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports>.

Comments should be addressed to:

Tim Moresco, P.E.
Department of Utilities
City of Sacramento
1395 35th Avenue
Sacramento, CA 95822

Email comments may be addressed to: TMoresco@cityofsacramento.org.

If you have questions regarding the IS/MND, please call Tim Moresco at: (916) 808-1432. If you wish to send written comments (including via email), they must be postmarked by April 24, 2025. After comments are received from the public and reviewing agencies, the City may (1) adopt the MND and approve the project; (2) undertake additional environmental studies; or (3) abandon the project. If the project is approved and funded, the project proponent may proceed with the project.

Summary of Findings

Chapter 3, *Compliance with Federal Laws and Regulations*, of this document contains the analysis and discussion of potential environmental impacts of the project. Based on the issues evaluated in that chapter, it was determined that the project would have either no impact or a less-than-significant impact related to most of the issue areas identified in the Environmental Checklist, included as Appendix G of the State CEQA Guidelines. These include the following issue areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Land Use and Planning



Figure 1-1
Project Location

- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems
- Wildfire

Potentially significant impacts were identified for cultural resources, hazards and hazardous materials, transportation, tribal cultural resources, and wildfire; however, mitigation measures included in the IS/MND would reduce all impacts to a less-than-significant level.

Document Organization

This IS/MND is organized as follows:

Chapter 1: Introduction/Project Description. This chapter provides an introduction to the environmental review process and SRF process. It describes the purpose and organization of this document as well as presents a summary of findings. This chapter describes the purpose of and need for the project, identifies project objectives, and provides a detailed description of the project.

Chapter 2: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines whether project actions would result in no impact, a less-than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of mitigation measures.

Chapter 3: Compliance with Federal Regulations. This chapter provides a discussion of compliance with federal executive orders and regulations required for “CEQA-Plus” compliance.

Chapter 4: Alternatives. This chapter provides an analysis of alternatives to the proposed project including the No Project Alternative.

Chapter 5: References. This chapter lists the references used in preparation of this IS/MND.

Chapter 6: List of Preparers. This chapter identifies report preparers.

Project Description

Project Background and Need

Areas of the City serviced by the CSS have historically been subject to flooding or sewer outflows during heavy storm events due to insufficient piping conveyance capacity and relatively low elevations. The CSS area of Sacramento is made up of the Downtown, East Sacramento, Land Park, and Oak Park areas. The Combined Sewer System Rehabilitation and Improvement Plan EIR (SCH No. 96082013) was certified in 1997 (Resolution No. 97-123) and has been used for several of the CSS projects in the Central City Area and can be found at:

<https://www.cityofsacramento.org/Community-Development/Planning/Environmental/Impact-Reports> (with direct links to the Draft EIR, Final EIR, City Council Resolution No. 97-123, Addendum to EIR, City Council Resolution No. 2013-0186, and City Council Resolution No. 2014-0262). As a result, the City has constructed four off-line storage projects (Oak Park, McKinley Park, 42" Street and UCD Medical Center), several in-line storage projects (Tahoe Park/Broadway Parallel Sewer, Land Park Relief Sewer, and East End Project Relief Sewer), and the reconstruction of the system's two pump stations, Sump 1 and Sump 2.

In 2014, the Combined Sewer System Improvement Plan Update Report was completed which identified several storage improvement projects that would help alleviate outflows and flooding in the CSS area during a 10-year storm event and prevent structure flooding (as well as outflows) during the 100-year storm event. During large rain events such as the 10-year storm, a combination of stormwater and wastewater (combined sewage) can surcharge the system and result with outflows onto the streets and cause ponding. Water on the surface in these instances is a combination of combined sewage outflowing from the collection system that has reached maximum capacity, and stormwater runoff that cannot be drained on account of the system being full.

On August 14, 2020, the California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) issued the City's Permit specifying Waste Discharge Requirements for the City's Combined Wastewater Collection and Treatment System (Order R5-2020-0039). Among other items, the Permit requires the city to update its Long-Term Control Program (LTCP) and continue implementation of the updated CSSIP. The LTCP uses the adaptive management strategy and starts with implementation of the top 20 percent of prioritized projects from the CSSIP. In addition, Order R5-2020-0039 required that the Discharger recalculate the 5-year, 10-year, and 100-year design storm return frequencies based on current climate information and considering the effects of climate change, as appropriate. The updated design storms shall be incorporated into the LTCP and the evaluation of the prioritized projects. One of the projects identified from that list is the 24th Street CSS In-Line Storage Pipe Project (i.e., the project). This project would help to reduce the flooding and sewer outflows in the CSS area.

Project Location

The project would be located in the Downtown/Midtown area of Sacramento. Specifically, the project would be located on 24th Street from H Street to N Street, and on K Street from 24th Street to 25th Street, and on K Street and 25th Street (Figure 1-1).

Project Objectives

The project is intended to achieve the following basic objectives:

- to temporarily store peak combined sewage and storm drainage flows and reduce impacts on downstream components of the CSS,
- to alleviate outflows and flooding in the CSS area during a 10-year return frequency, six-hour storm event and prevent structure flooding and outflows during a 100-year return frequency, 24-hour duration storm event.

Proposed Project

The project includes construction of CSS pipelines and a weir structure. The new upsized pipelines and inlet weir would be located in the road right-of-way on lands that are currently developed, and topography is generally flat. The project would be located on 24th Street from H Street to N Street, on K Street from 24th Street to 25th Street, and on K Street and 25th Street (see Appendix A, 65% Design Improvement Plans). The project would include the construction of approximately 2,375 lineal feet of 120-inch-diameter pipe on 24th Street between H and N Streets. The project would also involve a tie-in pipe that measures approximately 325 lineal feet on K Street, between 24th and 25th Streets. The pipes would be constructed of precast, reinforced concrete pipe with an invert depth on the order of 10 to 20 feet below existing street grades.

Construction

Project construction would take approximately 52 weeks beginning in July 2026. All construction would be limited to the hours of 7:00 a.m. through 6:00 p.m., Monday through Friday, consistent with the City of Sacramento noise ordinance. During construction, staging areas for equipment storage, personnel vehicles, and laydown of materials would be within the project footprint. All construction equipment and truck deliveries would occur during the daytime hours. The number of construction workers onsite would vary; however, approximately 12 workers are anticipated to be onsite during construction, and there may be several deliveries for materials each day with a few additional delivery trips during construction start-up and the end of construction. Equipment used for construction would include one or more of the following: backhoe loader, loader, excavator, forklift, sweeper, generator and air compressor.

The project would include approximately 27,500 cubic yards of trench excavation (i.e., cut) and approximately 130,500 square feet of repavement. The project would involve extensive tree trimming but tree removal is not expected. The project would result in operational electricity consumption of approximately 224 kWh once every 10 years for the operation of the proposed lift station. Permanent generators are not included with the project.

The project would comply with the City of Sacramento's Grading Ordinance, which requires projects to comply with the City's Stormwater Quality Improvement Plan (SQIP). In addition, because the disturbed area exceeds 1 acre or more in size, the project would be covered under the City's National Pollutant Discharge Elimination System (NPDES) General Construction Permit. Compliance with the General Construction Permit would require erosion and sediment control plans with specific best management practices (BMPs). BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other non-point source runoff. The City's SQIP and the Stormwater Quality Design Manual for the Sacramento Region include BMPs to be implemented to mitigate impacts from new development and redevelopment projects.

In addition, during construction the construction contractor would be required to implement Sacramento Metropolitan Air Quality Management District (SMAQMD) Basic Construction Emission Control Practices for controlling fugitive PM₁₀ and PM_{2.5} dust emissions and limiting exhaust emissions from construction equipment. These measures would include the following:

- Water all exposed surfaces at least 2 times daily. Exposed surfaces include, but are not limited to, soil piles, graded areas, unpaved parking areas, staging areas, and access roads.

- Cover or maintain at least 2 feet of freeboard space on haul trucks transporting soil, sand, or other loose material on the site. Cover any haul trucks that will be traveling along freeways or major roadways.
- Use wet power vacuum street sweepers to remove any visible track-out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speed on unpaved roads to 15 miles per hour.
- All roadways, driveways, sidewalks, and parking lots to be paved will be completed as soon as possible. In addition, building pads will be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing idling time to 5 minutes (required by California Code of Regulations Title 13, Sections 2449[d][3] and 2485). Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. Equipment will be checked by a certified mechanic and determined to be running in proper condition before it is operated.

Operations and Maintenance

This project would not generate additional sewer maintenance activities relative to existing conditions. The project would maintain existing maintenance activities for most storm events and may reduce maintenance activities, such as street cleaning, during and after larger storm events. Before operation, the new pipelines would go through testing and a start-up process to determine whether they meet design specifications and are operating properly. Maintenance activities for the lift station would include visual inspection, wet well cleaning, inspection of pumps, cleaning of floats, inspect and clean check valves, and servicing and maintenance of electrical equipment.

Required Permits and Approvals

Construction of the project may be partially funded through the Clean Water State Revolving Fund loan program, which uses federal funds to reduce interest costs on funds used for clean water projects. Therefore, the project is subject to federal environmental regulations, including the Federal Endangered Species Act (Section 7), the National Historic Preservation Act (Section 106), and the General Conformity Rule for the Clean Air Act, among others. It is expected that because the disturbed area for the project exceeds 1 acre or more in size, the project could require compliance with the City's NPDES General Construction Permit (NPDES No. CAS082597), and a Sacramento Metropolitan Air Quality Management District Authority to Construct and Permit to Operate.

Chapter 2

Environmental Checklist

1. **Project Title:** 24th Street Combined Sewer System In-Line Storage Pipe Project
2. **Lead Agency Name and Address:** City of Sacramento
915 I Street
Sacramento, CA 95814
3. **Contact Person and Phone Number:** Tim Moresco, Senior Civil Engineer, 916.808.1432
4. **Project Location:** 24th Street and K Street between 24th and 25th Streets in the City of Sacramento.
5. **General Plan Designation:** See Section 2.11, *Land Use and Planning*, below.
6. **Zoning:** See Section 2.11, *Land Use and Planning*, below.
7. **Description of Project:**
See Chapter 1, *Introduction/Project Description*, above.
8. **Surrounding Land Uses and Setting:**
Land uses in the project vicinity include a mix of residences, educational, and commercial land uses and U.S. Route 50.
9. **Other Public Agencies Whose Approval is Required:**
See Chapter 1, *Required Permits and Approvals* section, above.
10. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?**
Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code Section 21082.3(c) contains provisions specific to confidentiality.
See Section 2.18, *Tribal Cultural Resources*, below.

Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

Aesthetics	Agricultural and Forestry Resources	Air Quality
Biological Resources	X Cultural Resources	Energy
Geology/Soils/ Paleontological Resources	Greenhouse Gas Emissions	X Hazards and Hazardous Materials
Hydrology/Water Quality	Land Use/Planning	Mineral Resources
Noise	Population/Housing	Public Services
Recreation	X Transportation	X Tribal Cultural Resources
Utilities/Service Systems	X Wildfire	X Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

X I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Ron Bess

Signature

Ron Bess

Printed Name

At 3:01 PM

Date

Ron Bess, Associate Planner
For

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less than Significant with Mitigation Incorporated” applies when the incorporation of mitigation measures has reduced an effect from a “Potentially Significant Impact” to a “Less-than-Significant Impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. (Mitigation measures from *Earlier Analyses*, as described in #5 below, may be cross-referenced.)
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where earlier analyses are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less than Significant with Mitigation Incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a. the significance criteria or threshold, if any, used to evaluate each question; and
 - b. the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

I. Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?				X
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?				X
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			X	

Affected Environment

The new upsized pipelines and inlet weir would be located in the road right-of-way on lands that are currently developed, and topography is generally flat. The project would be located on 24th Street from H Street to N Street, on K Street from 24th Street to 25th Street, and on K Street and 25th Street (Figure 1-1). Land uses in the project area include a mix of residential, commercial, educational, office, other related urban uses, and U.S. 50. Most structures in the area are one or two stories in height with a few taller structures. Sycamore trees line many of the roadways.

The visual character of the project area and the surrounding area is typical of Sacramento urban neighborhoods, which includes residences, businesses, roads, overhead utility lines, trees, and landscaping. Public views of the project area are available along each proposed pipeline roadway.

The Sacramento 2040 General Plan designates the American River and Sacramento River, including associated parkways, the State Capitol (as defined by the Capitol View Protection Ordinance), and important historic structures listed on the Sacramento Register of Historic and Cultural Resources, California and/or National Registers as scenic resources (City of Sacramento 2020). Many of these resources are located throughout the Downtown, Midtown and surrounding areas. The Winters House for example is located at 2324 and 2326 H Street and the Diepenbrock House is located at 2315 Capitol Avenue.

The nearest designated scenic highway is State Route 160 (SR 160), located approximately 6.5 miles south of the project site (California Department of Transportation 2018). The project area is not located within the viewshed of SR 160.

Discussion

a. Have a substantial adverse effect on a scenic vista?

The project site is in Downtown and Midtown Sacramento, which is surrounded by urban development. The Sacramento 2040 General Plan designates the American River and Sacramento River, including associated parkways, the State Capitol, and important historic structures listed on the Sacramento Register of Historic and Cultural Resources, California and/or National Registers as scenic resources (City of Sacramento 2020). The closest scenic resources are the Winters House at 2324 and 2326 H Street and the Diepenbrock House at 2315 Capitol Avenue. No scenic vistas are visible from the project area.

Construction- and demolition-related activities have the potential to temporarily modify the existing visual character and views of the project area. These effects on visual character would be temporary in nature, would be confined to the project area, and would not have a substantial effect on a scenic vista. Following construction, views of the project site would resemble existing conditions. There are no scenic vistas with views of the project area and the development would be consistent with the surrounding development. Because the project would not be visible from a scenic vista and the changes in views would be consistent with surrounding development, the project would have no impact on a scenic vista.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

The nearest designated state scenic roadway is SR 160, located approximately 6.5 miles south of the project area. The project area is not located within the viewshed of SR 160. Because there are no designated state scenic highways nearby, adjacent to, or visible from the project area, the project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. The project would have no impact on a state scenic highway.

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project is in an urbanized area and is zoned for residential and commercial development. During project construction and roadway demolition, views in the area would be modified as a result of the temporary presence of construction and demolition equipment and activities. However, the appearance of construction equipment and activities would be temporary and consistent with the developed nature surrounding the project area. Once construction activities are complete, views of the buried pipelines and weir structure would be minimal to nonexistent, and similar to existing conditions. There would be no above ground views that would block or dominate views in the area. Development of the pipelines and weir structure would be consistent with the zoning for the project area and with the surrounding visual character of existing residential and commercial development. This impact would be less than significant.

d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Construction and roadway demolition-related activities would occur during daylight hours from 7:00 a.m. through 6:00 p.m. and would not require nighttime lighting. Construction and demolition equipment are unlikely to have reflective surfaces and would not be a substantial source of glare in the area. The project pipelines and weir structure would primarily be underground and would not be constructed with materials that would create substantial glare. The project area is in a developed/urban setting. The surrounding development includes light fixtures and sources (both interior and exterior). The project would not include new sources of lighting. The project would not result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, the project would have a less-than-significant impact related to light and glare.

II. Agricultural and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
<p>In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?				X
c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?				X

Affected Environment

Farmlands are mapped by the State of California Department of Conservation (DOC) under the Farmland Mapping and Monitoring Program (FMMP). Under the FMMP, land is delineated into the

following eight categories: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban or Built-Up Land, Other Land, and Water. The project area is defined as Urban and Built-Up Land and Other Land by the DOC and therefore is not designated as Important Farmland (California Department of Conservation 2016).

The project area is surrounded by a mix of residential, commercial, educational, office, and other related urban uses. There is no farmland in the project vicinity.

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of preserving agriculture and restricting unnecessary conversion to urban uses. Under the contract, landowners received reduced property tax assessments based on the property's value for farming and open spaces as opposed to full market value. Based on Sacramento County's data base on Williamson Act lands, lands in the project area are not under a Williamson Act contract (Sacramento County 2021). In addition, there are no timberlands or forest land in the project area, and the area is not zoned for timberlands or forest land.

Discussion

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project area is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance according to the FMMP. Implementation of the project would not convert farmland to non-agricultural uses. No impact would occur.

b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

The project area is not subject to Williamson Act contract. Therefore, implementation of the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The existing zoning within the project area is not for forest land, timberland, or Timberland Production. The project would include construction of CSS pipelines and a weir structure and would not cause rezoning of forest land. No impact would occur.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

The project area is not considered forest land. The project sites do not contain any riparian or oak woodland forest and is not considered forest land. Therefore, the project would not convert forest land to non-forest uses. No impact would occur.

e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No forest or agricultural resources are located within or adjacent to the project area. As discussed above in items a) through d), the project would not involve changes in the existing environment which, because of their location or nature, could result in conversion of forest land or agricultural land. No impact would occur.

III. Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?			X	
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?			X	
c. Expose sensitive receptors to substantial pollutant concentrations?			X	
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Affected Environment

The project site is in the City of Sacramento in Sacramento County, which is within the Sacramento Valley Air Basin (SVAB). Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and particulate matter (PM₁₀ and PM_{2.5}) are commonly used as indicators of ambient air quality conditions. These pollutants are known as *criteria pollutants* and are regulated by the U.S. Environmental Protection Agency (USEPA) and California Air Resources Board (CARB) through national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS), respectively. The NAAQS and CAAQS are set with an adequate margin of safety for public health and the environment (Clean Air Act Section 109). Other pollutants of concern in the project area are nitrogen oxides (NO_x) and reactive organic gases (ROG), which are precursors to ozone, and toxic air contaminants (TAC), which can cause cancer and other human health effects.

Criteria pollutant concentrations in Sacramento County and the SVAB are measured at several monitoring stations. The nearest station to the proposed project is the Sacramento-T Street station, which is less than 1 mile west of the project site. Monitoring data show that the station experienced several violations of the ozone and particulate matter CAAQS and NAAQS during the 2019 and 2021 reporting period (California Air Resources Board 2022a). Data collected from monitoring stations throughout the region, including the Sacramento-T Street station, are used to designate Sacramento County as nonattainment, maintenance, or attainment for the NAAQS and CAAQS. Based on the most recent local monitoring data, Sacramento County is currently classified nonattainment for the federal ozone and PM_{2.5} standards, nonattainment for the state ozone and PM₁₀ standards, and maintenance for the federal PM₁₀ standard (California Air Resources Board 2022b; U.S. Environmental Protection Agency 2022).

The SMAQMD is responsible for ensuring that the NAAQS and CAAQS are met within Sacramento County. SMAQMD manages air quality through a comprehensive program that includes long-term planning, regulations, incentives for technical innovation, education, and community outreach. For example, SMAQMD supported development of the *2017 Sacramento Regional 8-Hour Attainment and Reasonable Further Progress Plan* (2017 Ozone Plan), which outlines strategies to achieve the federal ozone standard throughout the entire Sacramento Valley region, inclusive of the project area. SMAQMD, alongside other air districts in the Sacramento Valley region, have also prepared the *PM_{2.5} Implementation/Maintenance Plan and Resignation Request for Sacramento PM_{2.5} Nonattainment Area* (PM_{2.5} Plan). SMAQMD also prepared the *PM₁₀ Implementation/Maintenance Plan and Redesignation Request for Sacramento County* (PM₁₀ Plan) in October 2010. Beyond air quality plans, SMAQMD adopts rules and regulations applicable to individual projects and emissions generating sources within its jurisdiction. Specific rules applicable to the project may include but are not limited to Rule 402 (Nuisance), Rule 403 (Fugitive Dust), Rule 404 (Particulate Matter), Rule 412 (Stationary Internal Combustion Engines), and Rule 453 (Cutback and Emulsified Asphalt Paving).

SMAQMD's (2021) *Guide to Air Quality Assessment in Sacramento County* (CEQA Guide) provides guidance for evaluating project-level air quality impacts, including thresholds to assist lead agencies in evaluating the significance of project-generated criteria pollutant and precursor emissions. The thresholds have been developed to prevent further deterioration of ambient air quality, which is influenced by emissions generated by projects within a specific air basin. The project-level thresholds therefore represent the maximum emissions a project may generate before it would result in a cumulatively considerable adverse contribution to existing air quality conditions.

Table 2-1 presents SMAQMD's thresholds applicable to construction-period emissions. The NO_x threshold is based on emissions reduction targets that were set for new development projects in consideration of regional ozone attainment goals. The particulate matter thresholds align with the new source review (NSR) permit offset levels, which are designed to prevent new emissions sources from affecting attainment progress with the NAAQS and CAAQS.

Table 2-1. Sacramento Metropolitan Air Quality Management District's Construction-Period Criteria Pollutant and Precursor Thresholds

Pollutant	Threshold
NO _x	85 pounds per day
PM ₁₀	80 pounds per day and 14.6 tons per year ^a
PM _{2.5}	82 pounds per day and 15.0 tons per year ^a

Source: Sacramento Metropolitan Air Quality Management District 2020a

NO_x = nitrogen oxides

PM₁₀ = particulate matter 10 microns or less in diameter

PM_{2.5} = particulate matter 2.5 microns or less in diameter

^a Threshold applicable with implementation of all feasible dust control best management practices pursuant to SMAQMD's *Guide to Air Quality Assessment in Sacramento County*.

SMAQMD (2020a) has also adopted a threshold to evaluate receptor exposure to TAC. The "substantial" TAC threshold defined by the SMAQMD is the probability of contracting cancer for the maximum exposed individual exceeding 10 in a million. This risk threshold is used by SMAQMD to evaluate potential risks for both existing and new sources.

As discussed in Chapter 1, *Introduction/Project Description*, general sewer maintenance activities with implementation of the project would be similar to existing conditions. The project does not

include any new stationary sources of emissions, such as diesel-powered pumps or generators. It likewise would not change capacity or operation of citywide CSS facilities. As such, the following impact discussion focuses on construction activities because there would be no long-term operational air quality impacts associated with the project.

Discussion

a. Conflict with or obstruct implementation of the applicable air quality plan?

SMAQMD is required, pursuant to the NAAQS and CAAQS, to reduce emissions of criteria pollutants for which the district is in nonattainment. The most recent SMAQMD air quality attainment plans applicable to the project area are the 2017 Ozone Plan, PM_{2.5} Plan, and PM₁₀ Plan. The simplest test to assess project consistency is to determine if the project proposes development that is consistent with the growth anticipated by the relevant land use plans (e.g., General Plans) that were used in the formulation of the air quality attainment plans; if so, then the project would be consistent with the attainment plans.

The purpose of the proposed project is to reduce flooding and sewer outflows in the CSS area. It would support existing infrastructure and does not propose new development. The project, therefore, would not directly induce growth in the City or result in long-term development that would conflict with the City's general plan growth forecast. Accordingly, the proposed project would not conflict with or obstruct the implementation of SMAQMD's air quality attainment plans. This impact would be less than significant, and no mitigation is required.

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?

The predominant pollutants associated with construction of the proposed project are fugitive dust (PM₁₀) from earthmoving activities and combustion pollutants, particularly ROG and NO_x, from heavy equipment and trucks. ROG would also be generated from repaving activities.

Construction of the project would be short term, occurring between July 2026 and July 2027. Criteria pollutants and precursors generated by construction were quantified using the California Emission Estimator Model (version 2022) and construction activity data provided by the project engineers (Brown pers. comm.). CalEEMod incorporates the Roadway Construction Emissions Model (RCEM), which is recommended by SMAQMD to quantify emissions from roadway and other linear projects, such as pipelines.

Table 2-2 summarizes the results of the emissions modeling and compares emissions to the SMAQMD's thresholds. Note that the annual estimates are based on a constant daily activity profile that assumes concurrent equipment operation over the entire alignment and maximum daily vehicle trips. Construction activity would fluctuate over the 12-month period, with activities being more limited at the beginning of construction, peaking after a few months, and then winding down near the end of construction (Brown pers. comm.). However, because the exact phasing of construction is not currently known, this assessment applies the maximum daily operating assumptions to every day of the construction period to ensure annual emissions are not underrepresented. In this regard, the estimates presented in Table 2-2 are a conservative representation of annual emissions. Refer to Appendix B for the modeling output.

Table 2-2. Estimated Maximum Daily and Annual Criteria Pollutant Emissions from Project Construction

Year	Maximum Daily Emissions (lb/day) ^a			Annual Emissions (tpy)	
	NO _x	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
2023	30.5	3.22	1.26	0.10	0.04
2024	28.9	3.18	1.22	0.31	0.12
SMAQMD Threshold ^b	85	80 ^c	82 ^c	14.6 ^c	15.0 ^c

Source: ICF modeling

NO_x = nitrogen oxides

PM₁₀ = particulate matter 10 microns or less in diameter

PM_{2.5} = particulate matter 2.5 microns or less in diameter

lb = pounds

tpy = tons per year

^a The emissions intensity of vehicles can differ in summer and winter. CalEEMod generates summer and winter period emissions, where summer emission factors are used for activities occurring between April and September and winter emission factors are used for activities occurring between October and March. The higher of the two estimates are presented above.

^b In developing these thresholds, SMAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

^c With application of best management practices.

As shown in Table 2-2, construction of the proposed project would not generate NO_x, PM₁₀, or PM_{2.5} emissions above SMAQMD's thresholds. The construction contractor would be required to implement SMAQMD's Basic Construction Emission Control Practices for controlling fugitive PM₁₀ and PM_{2.5} dust emissions and limiting exhaust emissions from construction equipment, as described in Chapter 1, *Introduction/Project Description*. Therefore, construction of the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is designated as nonattainment under an applicable federal or state ambient air quality standard. This impact would be less than significant, and no mitigation is required.

c. Expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are facilities that house or attract children, the elderly, and people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. Within the project area, there are several homes along 24th Street and the surrounding side-streets within 1,000 feet of the construction area. There are medical facilities just over 1,000 feet of project area along 24th Street. The nearest school within 0.25 mile of the project area is the Fremont Adult Education Center at 2420 N Street. The closest public school in the project area, approximately 0.3 mile to the north, is Washington Elementary School at 520 18th Street.

The primary pollutants of concern with respect to health risks to sensitive receptors are criteria pollutants (regional and local) and TAC. Ozone precursors (ROG and NO_x) and particulate matter are considered regional pollutants because they affect air quality on a regional scale. Localized pollutants are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. The localized pollutants of concern that

would be generated by the project are particulate matter (fugitive dust) and diesel particulate matter (DPM).¹

Regional Criteria Pollutants

SMAQMD develops region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. Recognizing that air quality is a cumulative problem, SMAQMD typically considers projects that generate criteria pollutants and ozone precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. As described under response “b” above, construction of the project would not generate NO_x, PM₁₀, or PM_{2.5} emissions above SMAQMD’s thresholds. As such, the project would not be expected to contribute a significant level of air pollution that would degrade long-term, regional air quality within the SVAB. No mitigation is required.

While regional criteria pollutant emissions generated by implementation of the project would not result in a significant impact, consistent with *Sierra Club v. County of Fresno* (6 Cal. 5th 502), Table 2-3 provides a conservative estimate of potential health effects associated with these emissions. The estimates were developed using SMAQMD’s Minor Project Health Screening Tool (version 2). The Minor Project Health Screening Tool was developed by SMAQMD, in partnership with other regional air districts in the Sacramento Federal Nonattainment Area (SFNA) (Ramboll 2020). SMAQMD conducted photochemical and health effects modeling of hypothetical projects throughout the five-air-district SFNA region with NO_x, ROG and PM_{2.5} emissions at 82 pounds per day, which corresponds to the highest daily emissions threshold of all SFNA air districts. The tool outputs the estimated health effects at the 82 pound per day emissions rate by spatial interpolating the health effects from the hypothetical projects based on user inputs for the latitude and longitude coordinates of a project.

The results presented in Table 2-3 are conservative for two reasons. First, they are based on a source generating 82 pounds per day of ROG, NO_x, and PM_{2.5}. Daily emissions generated by construction of the project are well below 82 pounds (see Table 2-2). Second, the results assume the source would generate emissions annually for 365 days per year. Construction of the project would be short term, occurring for 12 months between July 2026 and July 2027. For these reasons, any increase in regional health risks associated with project-generated emissions would be less than those presented in Table 2-3, which are already very small increases over the background incident health effect.

¹ Minor amounts of CO, NO₂, and SO₂ may be generated by construction. These emissions are of less concern because construction activities associated with development projects are not likely to generate substantial quantities of these criteria pollutants (Sacramento Metropolitan Air Quality Management District 2021:3-2). Lead emissions are typically associated with industrial sources, which are not included as part of the project. Sacramento County also currently attain the CAAQS and NAAQS for CO, NO₂, SO₂, and lead.

Table 2-3. Conservative Estimate of Increased Regional Health Effect Incidence Resulting from Implementation of the Project (cases per year)

Health Endpoint	Age Range ^b	Annual Mean Incidences (model domain and 5-District Region) ^c	% of Background Incidence (and 5-District Region) ^d	Total # of Health Incidence (and 5-District Region) ^e
PM2.5 Emissions – Respiratory				
Emergency Room Visits, Asthma	0–99	1	<1%	18,419
Hospital Admissions, Asthma	0–64	<1	<1%	1,846
Hospital Admissions, All Respiratory	65–99	<1	<1%	19,644
PM2.5 Emissions – Cardiovascular				
Hospital Admissions, All Cardiovascular ^f	65–99	<1	<1%	24,037
Acute Myocardial Infarction, Nonfatal	18–24	<1	<1%	4
Acute Myocardial Infarction, Nonfatal	25–44	<1	<1%	308
Acute Myocardial Infarction, Nonfatal	45–54	<1	<1%	741
Acute Myocardial Infarction, Nonfatal	55–64	<1	<1%	1,239
Acute Myocardial Infarction, Nonfatal	65–99	<1	<1%	5,052
PM2.5 Emissions – Mortality				
Mortality, All Cause	30–99	2	<1%	44,766
ROG and NOX Emissions – Respiratory				
Hospital Admissions, All Respiratory	65–99	<1	<1%	19,644
Emergency Room Visits, Asthma	0–17	<1	<1%	5,859
Emergency Room Visits, Asthma	18–99	1	<1%	12,560
ROG and NOX Emissions – Mortality				
Mortality, Non-Accidental	0–99	<1	<1%	30,386

Source: Sacramento Metropolitan Air Quality Management District 2020b.

Note: The analysis point is alignment the project alignment 38.574132, -121.475027.

ROG = reactive organic gases; NO_x = nitrogen oxides; PM2.5 = particulate matter less than 2.5 microns in diameter; SMAQMD = Sacramento Metropolitan Air Quality Management District.

^a Importantly, outputs from SMAQMD's tools only include health effects of NO_x, ROG, and PM2.5 that have been researched sufficiently to be quantifiable. As noted in SMAQMD's guidance, research has identified other health effects for both PM2.5 and ozone precursors (ROG and NO_x) (Ramboll 2020). For example, exposure to PM2.5 at certain concentrations can alter metabolism, leading to weight gain and diabetes; cause cognitive decline, brain inflammation, or reduced brain volume; and affect gestation, resulting in low birthweight or preterm birth (Ramboll 2020). Likewise, at high enough doses, exposure to ozone can increase lung permeability, increasing susceptibility to toxins and microorganisms (Ramboll 2020). These and other effects have been documented, but a quantitative correlation to project-generated emissions cannot be accurately established based on published studies (Ramboll 2020).

^b Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the EPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.

^c Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are across the Northern California model domain and 5-air-district region (rounded values are equivalent).

^d The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, these background incidence rates cover the 5-air-district region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the

government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP, as reported in SMAQMD's Minor Project Health Screening Tool, version 2.

^e The total number of health incidences across the 5-air-district region is calculated based on modeling data, as reported in SMAQMD's Minor Project Health Screening Tool, version 2. The information is presented to assist in providing overall health context.

^f Less Myocardial Infarctions.

Localized Fugitive Dust

Exposure to fugitive dust at certain concentrations can irritate the respiratory system, especially for people who are naturally sensitive or susceptible to breathing problems. The primary source of localized fugitive dust under the proposed project is trenching (excavation) and material movement. These emissions would be controlled through adherence to SMAQMD's Basic Construction Emission Control Practices, as described in Chapter 1, *Introduction/Project Description*. As shown in Table 2-2, construction of the project would not generate PM10 or PM2.5 (which includes fugitive dust) emissions above the analysis thresholds. Moreover, fugitive dust emissions generated during construction would be spread over the entire project alignment, as opposed to concentrated at a single location. Accordingly, the proposed project would not expose sensitive receptors to substantial fugitive dust concentrations. This impact would be less than significant, and no mitigation is required.

Diesel Particulate Matter

DPM is a TAC generated by diesel-fueled equipment and vehicles. Exposure to DPM can increase the risk of developing some cancers. Diesel combustion during construction would be limited to equipment and vehicle use over the 12-month construction duration. Receptor exposure to construction DPM would therefore be well below the 30-year exposure period typically associated with chronic cancer health risks. Moreover, as noted above, diesel emissions would be spread over the entire project alignment, as opposed to concentrated at a single location. Accordingly, the proposed project would not expose sensitive receptors to substantial DPM concentrations. This impact would be less than significant, and no mitigation is required.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Although offensive odors rarely cause any physical harm, they can be unpleasant, leading to citizen complaints to local governments and air districts. Diesel-powered equipment operating during construction and repaving activities may generate odors that are evident in the immediately surrounding area. These activities would be intermittent and temporary in duration and, therefore, would not result in nuisance odors. Once installed, the CSS pipeline would be subsurface and therefore would not contribute to ambient odors. The project does not meet any of the facility types identified by SMAQMD (2021:7-2) as odor-generating. Accordingly, the proposed project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant, and no mitigation is required.

IV. Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?				X

Affected Environment

Methods

The biological resources setting information and associated impact analysis is based on a review of existing and available information and a field survey conducted on March 28, 2023. The following sources of information were reviewed to support this biological resources section.

- A list of sensitive species from the California Natural Diversity Database (CNDDB) records search of the U.S. Geological Survey (USGS) 7.5-minute quadrangles (California Department of Fish and Wildlife 2023).

- California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Plants of California* for these same USGS quadrangles (California Native Plant Society 2023).
- A list obtained from the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC) (U.S. Fish and Wildlife Service 2023).
- Recent and historical aerial photography using Google Earth Pro 2017.
- Western Bat Working Group information.
- City of Sacramento Sacramento 2040 Technical Background Report (City of Sacramento 2020).
- County of Sacramento Soil Survey (NRCS 2023).

This information was used to develop lists of special-status species, natural communities of special concern, waters of the United States/waters of the State, and other sensitive biological resources that could be present in the project vicinity.

A field survey of the project site and surrounding area (study area) was conducted on March 28, 2023, by ICF biologist Hannah Kang. The biologist walked the study area and documented the following:

- Existing baseline conditions and landcover types. A list of all plant and wildlife species observed during the field survey was compiled.
- Presence of natural communities, waters of the United States, and waters of the State.
- Potential habitat for special-status species, including suitable habitat for migratory birds, raptors, and special-status bats.
- Identify trees that may be subject to the City's tree ordinance.

Environmental Setting

Existing Biological Conditions

The project site is in downtown Sacramento and is characterized by urban streets, residential housing units, and disturbed and developed parcels dominated by ruderal species and landscaped lawns. Developed areas surrounding the project site include local and chain restaurants, an elementary school, and other buildings.

Disturbed habitat includes areas that have been subject to significant ground disturbance and are reestablished by opportunistic, primarily nonnative species that often limit the re-establishment of native vegetation. Dominant vegetation within this landcover type on the project site consists primarily of stinkwort (*Dittrichia graveolens*) and nonnative grasses such as wild oat (*Avena fatua*), soft chess (*Bromus hordeaceus*), and Bermuda grass (*Cynodon dactylon*) including other invasive forbs such as yellow star thistle (*Centaurea solstitialis*), filaree (*Erodium* spp.), and curly dock (*Rumex crispus*).

Ornamental vegetation is present primarily among residential buildings. The ornamental vegetation includes landscaped trees such as ginkgo (*Ginkgo biloba*), liquidambers (*Liquidambar styraciflua*), London plane trees (*Platanus × acerifolia*), and magnolias (*Magnolia* sp.). The ornamental trees ranged between 10–20 DBH and 12–40 feet tall.

Wildlife habitat on the project site and surrounding area is marginally suitable for various wildlife species due to the disturbed nature of the project site and surrounding land uses. Species common to disturbed vegetation communities described above that were observed during the survey include turkey vulture (*Cathartes aura*), Northern mockingbird (*Mimus polyglottos*), and acorn woodpecker (*Melanerpes formicivorus*).

Special-Status Species

For the purpose of this CEQA Plus document, the term “special-status plants and animals” are those species in any of the categories listed below.

- Species officially listed by the State of California or the federal government as endangered, threatened, or rare.
- Candidates for state or federal listing as endangered or threatened.
- Taxa (i.e., taxonomic categories or groups) that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines.
- Species identified by CDFW as species of special concern.
- Species listed as Fully Protected under the California Fish and Game Code.
- Species afforded protection under local or regional planning documents.
- Taxa considered by CDFW to be “rare, threatened, or endangered in California” and assigned a California Rare Plant Rank (CRPR). The CDFW system includes six rarity and endangerment ranks for categorizing plant species of concern, which are summarized as follows:
 - CRPR 1A – Plants presumed to be extinct in California
 - CRPR 1B – Plants that are rare, threatened, or endangered in California and elsewhere
 - CRPR 2A – Plants presumed to be extinct in California, but more common elsewhere
 - CRPR 2B – Plants that are rare, threatened, or endangered in California, but more common elsewhere
 - CRPR 3 – Plants about which more information is needed (a review list)
 - CRPR 4 – Plants of limited distribution (a watch list)

The CNDDDB (California Department of Fish and Wildlife 2023) quad search identified recorded occurrences in the project region for Swainson’s hawk (*Buteo swainsoni*), yellow billed cuckoo (*Coccyzus americanus occidentalis*), bank swallow (*Riparia riparia*), song sparrow—Modesto population (*Melospiza melodia*), steelhead—Central Valley population (*Oncorhynchus mykiss irideus*), vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardii*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). These species occur along the river corridor and in undeveloped open space areas in the region. None of these species were identified as occurring on or adjacent to the project site.

While there are large landscape trees adjacent to the project work area, it is unlikely that the trees would provide habitat or nesting habitat for migratory bird species and roosting habitat for bat species given the developed nature of the area and ambient noise levels. In addition, the project would not involve the removal of mature trees and therefore, nesting habitat for migratory bird species and roosting habitat for special-status bat species is not an issue for this project.

Sensitive Natural Communities

No sensitive natural communities were observed on the project site. The entire project site is disturbed and/or developed and lacks native vegetation communities onsite.

Waters of the United States/Waters of the State

As mentioned previously, the entire project site is developed and lacks natural habitat conditions. No waters of the States (wetlands and non-wetland waters) or waters of the State were observed on the project site.

Discussion***a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?***

Based on a review of existing information, including CNDDDB occurrences (California Department of Fish and Wildlife 2023), CNPS occurrences (California Native Plant Society 2023), USFWS species list (U.S. Fish and Wildlife Service 2023) and baseline conditions observed during the March field survey, no special-status species have the potential to occur on the project site. No special-status species have been previously recorded on the site and none were observed during the March field survey. Therefore, the project would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. There would be no impact.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The project site is located in a developed urban area that does not support riparian habitat or sensitive natural communities. There would be no impact.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

There are no state or federally protected wetlands on the project site. There would be no impact.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project site is in an urban setting that does not support established native wildlife nursery sites or a wildlife movement corridor. Additionally, the project would not alter any existing wildlife corridor and would not interfere with the movement of migratory fish species. There would be no impact.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Goal ER 2.1 (Biological Resources) in the City's General Plan requires that applicants for projects that have the potential to negatively affect special-status species to conduct a biological resources assessment and consult with the City of Sacramento and the CDFW or the USFWS for further consultation and development of avoidance and or mitigation measures consistent with state and federal law. The project would not conflict with this local polity because no special-status species would be affected by the project.

The City's tree ordinance (Ordinance No. 2016-0026) states that tree permits are required and issued by the City of Sacramento for regulated work (including tree removal). The permit application may require an arborist report, tree protection plans, and other supporting documents to the City Council. Currently, the project does not involve removal or trimming of any trees subject to the City's tree ordinance. However, if trees would need to be removed, trimmed, or work done within the root zone, the City would obtain City Council approval, pursuant to Sacramento City Code Section 12.56.040. Because the City would comply with this ordinance, there would be no conflict and therefore, no impact.

f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

There are no habitat or natural community conservation plans covering the project site; therefore, there would be no impact.

V. Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?				X
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c. Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

Affected Environment

The City of Sacramento and the surrounding area are known to have been occupied by Native American groups for thousands of years prior to settlement by non-Native peoples. Archaeological materials, including human burials, have been found throughout the city.

Human burials outside of formal cemeteries often occur in prehistoric contexts. Areas of high sensitivity for archaeological resources, as identified in the 2040 General Plan Background Report, are located within close proximity to the Sacramento and American Rivers and moderate sensitivity was identified near other watercourses. The project site is not adjacent to these high or moderate sensitivity units shown in the 2040 General Plan Background Report.

The 2040 General Plan land use diagram designates a wide swath of land along the American River as Parks, which limits development and impacts on sensitive prehistoric resources. High sensitivity areas may be found in other areas related to the ancient flows of the rivers, with differing meanders than found today. Recent discoveries during infill construction in downtown Sacramento have shown that the downtown area is highly sensitive for both historic- and prehistoric-period archaeological resources. Native American burials and artifacts were found in 2005 during construction of the New City Hall and historic period archaeological resources are abundant downtown due to the evolving development of the area and, in part, to the raising of the surface street level in the 1860s and 1870s, which created basements out of the first floors of many buildings.

In November 2021, a California Historical Resources Information System (CHRIS) records search was conducted by the North Central Information Center (NCIC) to determine whether prehistoric archaeological, historic-period archaeological, or built-environment historical resources have been previously recorded within the project area for this project and the forthcoming 25th Street project, the extent to which the project area has been previously surveyed, and the number and type of cultural resources within a 0.25-mile radius of the project area (NCIC File No. SAC-21-221). The results reported no recorded resources in the project area and three recorded resources within the 0.25-mile study area radius. The previously recorded resources include two historic-era structures,

and a historic artifact deposit consisting of glass, metal, and ceramic materials dating from the 1880s to the early 1900s.

In addition to the CHRIS records search, ICF reviewed the publicly available Sacramento City local register of historic resources and the Office of Historic Preservation Built Environment Resources Directory (BERD) for Sacramento County. At the time of drafting, ICF found 51 built-environment resources recorded previously within the project's study area and the forthcoming 25th Street project's study area.

Discussion

a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

The new upsized pipelines and inlet weir would be located in the road right-of-way on lands that are currently developed. The project has no potential to contribute individually to any criterion of eligibility for listing in the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR), or to the significance of larger historic properties. Therefore, the road right-of-way are not considered resources under CEQA. Therefore, there would be no impact to historical resources.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

The records search prepared for the proposed project determined that no prehistoric or historic-period archaeological resources were found within the project area or in the immediate vicinity. The report also determined that based on the results of the NCIC records search, and prior disturbance by urban development, roadways, and utilities during the last 100 years, the sensitivity of the project area for buried prehistoric or historic-era archaeological resources is considered low. Nevertheless, the possibility remains that archaeological materials could be encountered during construction-related ground-disturbing activities. This impact would be potentially significant; therefore, the following mitigation is included.

Mitigation Measure CUL-1: In the Event that Cultural Resources or Tribal Cultural Resources are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources

If cultural resources or tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered in the project area during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to cultural resources and tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including:

- Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.

- Recommendations for avoidance of cultural resources and tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural, and environmental considerations and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project area to avoid cultural resources or tribal cultural resources, modification of the design to eliminate or reduce impacts to cultural resources or tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource.
- Native American representatives from interested culturally affiliated Native American tribes will be invited to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.
- If the discovered cultural resource or tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a cultural resource or a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be invited to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.
- The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an “Environmentally Sensitive Area.”

If a cultural resource or a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of cultural resources or tribal cultural resources:

- Each resource will be evaluated for California Register of Historical Resources (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes, as applicable.

If a cultural resource or a tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City will coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City’s invitation. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potentially impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations will be provided to the City representative by the qualified archaeologist. These

recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

Native American representatives from interested culturally affiliated Native American Tribes and the City representative will also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation will be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property. To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.

If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less than significant may be reached:

- Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context to incorporate the resources with culturally appropriate protection and management criteria.
- Treat the resource with culturally appropriate dignity taking into account the Tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - Protect the cultural character and integrity of the resource.
 - Protect the traditional use of the resource.
 - Protect the confidentiality of the resource.
- Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
- Protect the resource.

Implementation of Mitigation Measures CUL-1 would reduce potential impacts to archaeological resources discovered during project construction activities to a less-than-significant level because workers would be trained on identification of and proper handling of cultural resources. In addition, the measures would require the performance of professionally accepted and legally compliant procedures for the discovery of previously undocumented significant historical or archaeological resources.

c. Disturb any human remains, including those interred outside of dedicated cemeteries?

There are no known past cemeteries or burials within the project area. However, because earthmoving activities associated with project construction would occur, there is potential to encounter buried human remains or unknown cemeteries in areas with little or no previous disturbance. This impact would be potentially significant; therefore, the following mitigation is included.

Mitigation Measure CUL-2: Implement Protection Procedures in the Event of Inadvertent Discovery of Human Remains

If an inadvertent discovery of human remains is made at any time during project-related construction activities, the following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to, or destruction of human remains. In accordance with the California Health and Safety Code (HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]).

If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the HSC Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.

If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.

Implementation of Mitigation Measure CUL-2 would reduce potential impacts related to human remains to a less-than-significant level by requiring work to stop if suspected human remains are found, communication with the county coroner, and the proper identification and treatment of the remains consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act.

VI. Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Affected Environment

California relies on a regional power system composed of a diverse mix of energy sources, including:

Petroleum: Petroleum products (gasoline, diesel, jet fuel) are consumed almost exclusively by the transportation sector, which is responsible for 85 percent of the petroleum consumed in the state (U.S. Energy Information Administration 2021a). In 2015, a total of 15.1 billion gallons of gasoline were sold in California (California Energy Commission 2021). To meet CARB regulations, all gasoline and diesel fuel sold in California for motor vehicles is refined to be a specific blend of motor gasoline called California Reformulated Gasoline (U.S. Energy Information Administration 2021a).

Natural gas: While the majority of natural gas consumers in California are residential and small commercial users, these users consume only about 33 percent of natural gas in the state. Larger volume gas consumers, such as utilities for electricity generation and industrial consumers, although fewer in number, consume the remaining 67 percent of natural gas used in the state (U.S. Energy Information Administration 2021b).

Electricity and renewables: In 2002, Senate Bill 1078 established a renewables portfolio standard (RPS) program. The program is jointly implemented by the California Public Utilities Commission and the California Energy Commission and requires all load-serving entities to procure 60 percent of their total electricity retail sales from renewable energy sources by 2030. All electricity retail sellers had an annual target to serve at least 31 percent of their electric load with RPS eligible resources by December 31, 2019. In general, retail sellers either met or exceeded the 31 percent interim RPS target and most are on track to achieve their 2017-2020 compliance period requirements (California Public Utilities Commission 2020). Sacramento Municipal Utility District (SMUD) is the primary electricity supplier, and Pacific Gas and Electric Company (PG&E) is the primary natural gas supplier for the City of Sacramento and the project area.

Alternative fuels: Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels (e.g., biodiesel, hydrogen, electricity). Use of alternative fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, Assembly Bill 32 Scoping Plan).

Discussion

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Energy would be consumed during project construction to operate and maintain construction equipment and transport construction materials. It also would be consumed for workers commuting to and from the project site. Approximately 432 gallons of gasoline and 34,495 gallons of diesel would be used in 2023 and 1,260 gallons of gasoline and 101,257 gallons of diesel would be used in 2024. Levels of construction-related fuel consumption were calculated using equipment assumptions consistent with the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (CalEEMod) (California Air Pollution Control Officers Association 2016) and fuel consumption factors derived from the California Air Resources Board's Emission Factor (California Air Resources Board 2021). See Appendix B for detailed calculations. Gasoline and diesel would be consumed during project construction, accounting for both onsite equipment use and offsite vehicle travel for worker commutes and haul trips. This one-time energy expenditure required to construct the project would be nonrecoverable. However, energy needs for project construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy.

Project operation would require operational electricity consumption of approximately 224 kWh once every 10 years for the operation of the proposed lift station. Permanent diesel generators are not included with the project. All new equipment would be required to meet the latest California code requirements and the project would comply with the latest building permit requirements. The project would generate minimal vehicle trips during operation because the project would not involve any land use development or require an increase in employees. Thus, the project would not increase the amount of gasoline used for employee trips during operation. For these reasons, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy resources during project construction or operation. This impact would be less than significant.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As discussed above, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy resources. Furthermore, all new equipment used for project operation would be required to meet the latest California code requirements and permitting requirements. The project would be consistent with City General Plan Policy ERC-5.4, which calls for the improvement in energy efficiency of city facilities. Thus, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. No impact would occur.

VII. Geology, Soils, and Paleontological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
2. Strong seismic ground shaking?			X	
3. Seismic-related ground failure, including liquefaction?			X	
4. Landslides?			X	
b. Result in substantial soil erosion or the loss of topsoil?			X	
c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?				X
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Affected Environment

Seismicity

The project area is not located within the vicinity of an Alquist-Priolo zone. The Sacramento 2040 General Plan Master EIR identifies the City of Sacramento as being subject to potential damage from earthquake ground shaking at a maximum intensity of VII on the Modified Mercalli scale. The closest

potentially active faults to the project area include the Foothills Fault System, located approximately 23 miles from Sacramento; the Great Valley fault, located 26 miles from Sacramento; and Concord-Green Valley Fault, located approximately 38 miles from Sacramento. The Foothills Fault System is considered capable of generating an earthquake with a Richter-Scale magnitude of 6.5; the Great Valley Fault is capable of generating an earthquake with a magnitude of 6.8; and the Concord-Green Valley fault is capable of generating an earthquake with a magnitude 6.9. A major earthquake on any of these faults could cause strong ground shaking in the project area.

Regional Geology

The project area is located in the City of Sacramento in the southern end of the Sacramento Valley portion of the Great Valley Geomorphic Province. The Great Valley is bordered to the north by the Cascade and the Klamath Ranges, to the west by the Coast Ranges, to the east by the Sierra Nevada Mountain Range, and to the south by the transverse ranges. The valley formed by tilting of Sierran Block with the western side dropping to form the valley and the eastern side being uplifted to form the Sierra Nevada Mountain Range. The valley is characterized by a thick sequence of sediments derived from erosion of the adjacent Sierra Nevada Mountain Range to the east and the Coast Range to the west. The geologic units in the project area are generally Quaternary basin (alluvium) deposits (California Division of Mines and Geology 1981).

Topography

The topography of the project area is generally level with elevations ranging from approximately 14 to 17 feet above sea level.

Soils

A geotechnical investigation was conducted within the CSS service area for the *City of Sacramento Combined Sewer System Rehabilitation and Improvement Plan Draft EIR* (City of Sacramento 1996) to establish the character of the soils at depths of up to 120 feet below the surface. The results of that investigation indicated a mixture of thin layers of unconsolidated saturated silts and clays with some sands.

Paleontological Resources

Significant nonrenewable vertebrate and invertebrate fossils and unique geologic units have been documented throughout California. The fossil yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource. Pleistocene or older (older than 11,000 years) continental sedimentary deposits are considered as having a high paleontological potential while Holocene-age deposits (less than 10,000 years old) are generally considered to have a low paleontological potential because they are geologically immature and are unlikely to have fossilized remains of organisms. The City of Sacramento is not located in an area considered highly sensitive for paleontological resources present in fossil-bearing soils and rock formations (City of Sacramento 2020).

Discussion

a.1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most

recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The Alquist-Priolo Act (Public Resources Code Sections 2621–2630) was passed in 1972 to mitigate the hazard of surface faulting to structures designed for human occupancy. The purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The project area is not located within a fault zone as delineated on an Alquist-Priolo Fault Zoning Map (California Geologic Survey 2021), and the project area is not located within a seismically-active area. In addition, the project would not include any buildings for human occupancy. No impact would occur.

a.2. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

No known faults are mapped as crossing or trending toward the project area; therefore, the potential for surface rupture within the project area is considered low. Moderate ground motion could occur as a result of faults in the surrounding region; however, the proposed pipelines and weir structure would be constructed in accordance with the City of Sacramento Building Code and per the recommendations in the Geotechnical Engineering Report prepared for the project (Wallace Kuhl & Associates 2022). Therefore, the project would comply with the California Building Code (CBC) as the City implements the CBC through the building permit process. Chapter 18 of the CBC provides regulations regarding site excavations, foundations, retaining walls, and grading, including, but not limited to, requirements for seismically resistant design, foundation investigation, stable cut and fill slopes, and excavation, shoring, and trenching. Because the project would be designed in accordance with the most recent provisions of the CBC and per the recommendations in the Geotechnical Engineering Report, the project's seismic hazard impacts would be less than significant.

a.3. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

Liquefaction is possible in areas of loose, sandy soils with a high water content. Soils within the project area range from poorly drained to well drained, and groundwater depths in the area are between 8 and 18 feet below ground surface (Sacramento Groundwater Authority 2016). As part of the permit process, a Geotechnical Investigation is required to be submitted with the permit application and implemented via the plan review process prior to issuance of the permit. The Geotechnical Engineering Report includes site-specific recommendations for general construction procedures; recommendations for foundation design; seismic design; shoring, bracing, and backfill; corrosion potential; and dewatering at the project site and review of final plans and specifications to ensure that the recommendations within the investigation are implemented as part of the project. The project would also be required to comply with the City of Sacramento Building Code and the CBC. Implementation of the Sacramento City Code, which requires preparation and implementation of the site-specific Geotechnical Engineering Report and compliance with the CBC, would reduce potential impacts related to liquefaction to a less-than-significant level.

a.4. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?

The project area is located in a generally flat area. In general, landslide susceptibility is very low where slopes are low, even in weak ground material. Because slopes are generally flat in the project

vicinity, landslide susceptibility for the project would be low. Therefore, this impact would be less than significant.

b. Result in substantial soil erosion or the loss of topsoil?

Grading and excavation during project construction would result in exposure of soil to potential wind and water erosion until the project area is effectively stabilized and revegetated. The project would disturb more than 1 acre of land that is primarily paved, and construction projects disturbing 1 acre or more need to obtain coverage under the State Water Resources Control Board's General Construction Stormwater Permit. The general construction permit requires preparation of a detailed stormwater pollution prevention plan (SWPPP) for the construction site that includes BMPs to prevent and control erosion. The general construction permit also requires regular inspections of BMPs before, during, and after storm events.

Compliance with state requirements for controlling construction-related pollution and preparation and implementation of a SWPPP and associated BMPs would reduce project-related erosion impacts to a less-than-significant level.

c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Slope instability could include landslides, debris flows, and rock fall. The city is considered as having low potential for landslides. In addition, the topography of the project area is relatively flat, and landslides and debris flows are not anticipated. Therefore, project-related impacts related to unstable soils would be less than significant.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Substantial risk to life or property would generally occur to habitable buildings, which could experience compromised structural integrity because of expansive soils. However, if expansive soils are encountered onsite it could result in damage to the proposed pipelines and weir structure. Expansive soils are addressed through standardized foundation engineering practices, and the project would be constructed in compliance with applicable CBC regulations and other City requirements, in addition to the recommendations in the Geotechnical Engineering Report, to address expansive soils. Therefore, this impact would be less than significant.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

The project would not include the use of septic tanks or alternative wastewater disposal systems; therefore, there would be no impact.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Although ground-disturbing activities in fossil-bearing soils and rock formations have the potential to damage or destroy paleontological resources that may be present below the ground surface, a UC Museum of Paleontology records search identified no fossils from the project area (UC Museum of Paleontology Specimens 2021), and the project area is mapped as being underlain by Quaternary

basin (alluvium) deposits with a low paleontological potential (California Division of Mines and Geology 1981). Therefore, paleontological resources are not expected to be encountered during project construction. This impact would be less than significant.

VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Affected Environment

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by greenhouse gases (GHG). Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect, and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (Intergovernmental Panel on Climate Change 2018). Rising atmospheric concentrations of GHGs more than natural levels result in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (Intergovernmental Panel on Climate Change 2018). Large-scale changes to Earth's system are collectively referred to as *climate change*.

The principle anthropogenic (human-made) GHGs contributing to global warming are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated compounds, including sulfur hexafluoride (SF₆), hydrofluorocarbons (HFC), and perfluorocarbons (e). Unlike criteria air pollutants, which occur locally or regionally, the long atmospheric lifetimes of these GHGs allow them to be well mixed in the atmosphere and transported over distances. Within California, transportation is the largest source of GHG emissions (41 percent of emissions in 2019), followed by industrial sources (24 percent) (California Air Resources Board 2022a).

Several federal executive orders (EO) have recently been signed by President Joe Biden related to GHG emissions and climate resiliency, including EO 13990 that sets a national goal to achieve a 50 to 52 percent reduction from 2005 levels in economy wide net GHG pollution in 2030. California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. Of particular importance are Senate Bill (SB) 32 and Assembly Bill (AB) 1279, which outline the state's GHG reduction goals of achieving a 40 percent reduction

below 1990 emissions levels by 2030 and net zero GHG emissions (i.e., reach a balance between the GHGs emitted and removed from the atmosphere) no later than 2045. AB 1279 also mandates an 85% reduction in statewide GHG emissions (from 1990 levels) by 2045.

As discussed in Section 3, *Air Quality*, the SMAQMD has the primary responsibility for air quality management in Sacramento County. The air district has adopted a construction emissions threshold of 1,100 metric tons carbon dioxide equivalent (CO₂e) (Sacramento Metropolitan Air Quality Management District 2020). The City of Sacramento adopted a climate action plan (CAP) in 2012 to reduce communitywide GHG emissions by 15 percent below 2005 levels by 2020, 38 percent below 2005 levels by 2030, and 83 percent below 2005 levels by 2050 (City of Sacramento 2012). Building off of the 2012 CAP the City adopted a *Climate Action & Adaptation Plan* (CAAP), in February 2024 (City of Sacramento 2024). The CAAP sets new ambitious communitywide GHG targets for the City of 63 percent below 1990 levels by 2030 and carbon neutrality by 2045. The city also has a *Climate Action Plan for Internal Operations* (IO CAP), that was last updated in 2016. The IO CAP outlines 2035 and 2050 GHG reduction targets for municipal operations of 49 percent and 83 percent below 2005 levels, respectively (City of Sacramento 2016:3-1).

As discussed in Chapter 1, *Introduction/Project Description*, general sewer maintenance activities with implementation of the project would be similar to existing conditions. The project does not include any new stationary sources of emissions, such as diesel-powered pumps or generators. It likewise would not change capacity or operation of citywide CSS facilities. As such, the following impact discussion focuses on construction activities because there would be no long-term operational GHG impacts associated with the project. Consistent with SMAQMD (2020) guidance, construction of the project would result in a significant GHG impact if it generates more than 1,100 metric tons CO₂e per year.

Discussion

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction of the proposed project would generate emissions of CO₂, CH₄, N₂O, and HFCs from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust and refrigerants (i.e., fugitive losses from vehicle air conditions equipment). Emissions were estimated using the methods described in Section 3, *Air Quality*; the results are summarized in Table 2-4. As noted in Section 3, *Air Quality*, the annual estimates are based on a constant daily activity profile that assumes concurrent equipment operation over the entire alignment and maximum daily vehicle trips. Construction activity would fluctuate over the 12-month period, with activities being more limited at the beginning of construction, peaking after a few months, and then winding down near the end of construction (Brown pers. comm.). However, because the exact phasing of construction is not currently known, this assessment applies the maximum daily operating assumptions to every day of the construction period to ensure annual emissions are not underrepresented. In this regard, the estimates presented in Table 2-4 are a conservative representation of annual emissions. Refer to Appendix B for the model output.

Table 2-4. Estimated Greenhouse Gas Emissions from Project Construction

Year	CO ₂	CH ₄	N ₂ O	HFCs	CO ₂ e ^a
2023	355	<0.1	<0.1	0.3	371
2024	1,042	<0.1	0.1	0.8	1,088
SMAQMD Threshold	-	-	-	-	1,100

^a Refers to carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each GHG.

CH₄ = methane

CO₂ = carbon dioxide

N₂O = nitrous oxide

HFC = hydrofluorocarbon

As shown in Table 2-4, construction of the proposed project would not generate CO₂e emissions above SMAQMD's threshold. Therefore, construction of the project would not generate GHG emissions that would have a significant impact on the environment. This impact would be less than significant, and no mitigation is required.

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City's IO CAP does not include reduction measures or targets relevant to construction activities (City of Sacramento 2016:4-1). The City's CAAP outlines reduction measures by sector to address emissions from the built environment, mobility, waste, water and wastewater, and carbon sequestration (City of Sacramento 2024:70-71). It does not include any specific measures applicable to construction activities. At the state-level, the CARB recently released the *Draft 2022 Scoping Plan Update* to provide a framework for the state to achieve carbon neutrality by 2045. The draft Scoping Plan Update identifies electrification of construction equipment as an action that will support attainment of the state's climate change goal (California Air Resources Board 2022b:61). It is anticipated that electric-powered equipment would be utilized, to the extent feasible, but the specific mix of equipment has not yet been determined (Brown pers. comm.). As described in Chapter 1, *Introduction/Project Description*, the construction contractor would be required to implement SMAQMD's Basic Construction Emission Control Practices, which includes provisions for maintaining diesel equipment in proper working condition and limiting idling time. Moreover, as determined under impact criteria "a," construction of the project would not generate GHG emissions that would have a significant impact on the environment. Accordingly, the project would not conflict with an applicable plan, policy or regulation regarding GHG emission. This impact would be less than significant, and no mitigation is required.

IX. Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?				X
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?			X	

Affected Environment

The project area is located in an urbanized area of Downtown and Midtown Sacramento consisting of residential, commercial, educational, office, other related urban uses, and U.S. 50. A data search of various agency lists (i.e., Cortese List) was conducted for the project area to identify potential hazardous contamination sites. There are several active and former sites within 0.25 mile of the project area. Active sites in the project area from the California Department of Toxic Substances Control (DTSC) EnviroStor database include Ken's Buff and Plating (70000051) at 1816 21st Street, and Sacramento Plating Inc. (34370014) at 2809 S Street (DTSC 2021). There are five leaking underground storage tank cleanup sites within 0.25 mile of the project area. Former Red Feather Dry Cleaners (SL0606789259) at 2500 J Street, Chrome Craft Facility (Former) (SL0606709398) at

1819 23rd Street, Sacramento Plating (SLT5S2483287) at 2809 S Street, Orchard Supply (SLT5S2063245) at 1731 17th Street, and Former Alta Plating Facility (T10000016703) at 1733 S Street (State Water Resources Control Board 2021a). There are no solid waste disposal sites identified by the State Water Resources Control Board (State Water Board) with waste constituents above hazardous waste levels outside the waste management unit within the project area (State Water Resources Control Board 2021b). There are no active State Water Board Cease and Desist Orders and Cleanup and Abatement Orders sites in the project area (State Water Resources Control Board 2021c).

The nearest airport is Sacramento McClellan Airport, which is a public airport located approximately 10 miles from the project area. The nearest school within 0.25 mile of the project area is the Fremont Adult Education Center at 2420 N Street. The closest public school in the project area, approximately 0.3 mile to the north, is Washington Elementary School at 520 18th Street.

The California Department of Forestry and Fire Protection (CAL FIRE) maintains fire hazard severity zone (FHSZ) maps for the Local Responsibility Area (LRA) and State Responsibility Area (SRA). These areas are mapped based on fuels, terrain, weather, and other relevant factors. The project area is located within the LRA and is not categorized as a "Very High" FHSZ (CAL FIRE 2021).

Discussion

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction of the project would involve the routine transport, use and handling of hazardous substances such as diesel fuels, lubricants, and solvents. Handling and transport of these materials could result in the exposure of workers to hazardous materials. Construction workers would be required to use, store, and transport hazardous materials in accordance with local, state, and federal regulations, including California Occupational Safety and Health Administration (Cal/OSHA) and DTSC requirements and manufacturer's instructions, during project construction. No hazardous materials would be stored onsite for operation of the pipelines and weir structure. The project would be required to implement and comply with existing hazardous materials regulations; therefore, the project would not create significant hazards to the public or environment through the routine transport, use, and disposal of hazardous materials. Therefore, this impact would be less than significant.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

There are no reported or anticipated sources of hazardous material contamination within or adjacent to the project sites. Operation of the pipelines and weir structure would not introduce new hazardous materials into the area. However, it is possible that hazardous materials such as fuels, oils, grease, and lubricants from equipment could be accidentally released during construction. Therefore, construction in the project area, including demolition and excavation of soils, could potentially result in disturbance of previously unknown contaminants. These actions could result in the exposure of construction workers to hazardous materials. Therefore, this impact would be potentially significant, and the following mitigation is incorporated.

Mitigation Measure HAZ-1: Prepare and Implement a Health and Safety Plan

The contractor shall prepare a Health and Safety Plan, which shall be reviewed and approved by the City before initiating any demolition, grading, or other earthmoving activities. This plan shall require measures that will be employed during all demolition and construction activities to protect construction workers and the public from exposure to hazardous materials. These measures could include, but would not be limited to, posting notices, limiting access to the site, air monitoring, and watering. Contractors will be required to comply with state health and safety standards for all demolition work. If necessary, this shall include compliance with the federal OSHA and Cal/OSHA requirements. In addition, the plan shall include procedures to follow in the event that contaminated soil and/or groundwater or other hazardous materials are generated or encountered during construction. Such procedures could include, but would not be limited to, the following:

- all work shall be halted in the affected area and the type and extent of the contamination shall be determined;
- the project contractor shall notify the City if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during excavation;
- any contaminated areas shall be remediated in accordance with recommendations made by RWQCB and DTSC; and
- remediation activities could include but would not be limited to the excavation of contaminated soil areas and hauling of contaminated soil materials to an appropriate offsite disposal facility, mixing of onsite soils, and capping (i.e., paving or sealing) of contaminated areas.

Implementation of Mitigation Measure HAZ-1 would reduce the potential for the project to create hazards by requiring remediation upon discovery of unknown contaminants on the site. Therefore, this impact would be reduced to a less-than-significant level.

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

As stated above, there are no schools within 0.25 mile of the project area; therefore, there would be no impact.

d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Hazardous Waste and Substances Sites List (Cortese List) is a planning document used by the State, local agencies, and developers to comply with the CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of Cortese List data.

As discussed above, review of regulatory agency databases indicated that there are several active and former sites within 0.25 mile of the project area; however, no records of any hazardous materials were identified for the project sites. In addition, the project area is not identified on the Cortese list or other State or county hazardous materials lists. No impact would occur.

e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?

The nearest airport is Sacramento McClellan Airport, which is a public airport located 10 miles from the project area. There are no public airports within 2 miles of the project area, and the project area is not within an airport land use plan area. The project does not include any tall structures that would affect navigable airspace. No impact would occur.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City has adopted an Emergency Operations Plan (City of Sacramento 2018). However, the project would not physically interfere with this, or any other emergency response plan. Trucks and equipment traveling to the project area would use various roadways in Midtown and Downtown Sacramento. Construction vehicles would stage within the project footprint, and they would not stage near or block any evacuation routes. However, construction in project site roadways could temporarily interfere with traffic or result in lane/road closures, which has the potential to reduce emergency access. This impact would be potentially significant; therefore, the following mitigation is incorporated.

Mitigation Measure TRA-1: Traffic Control Plan

The City will require the contractor(s) to prepare a Traffic Control Plan in accordance with City requirements and professional engineering standards prior to construction. The Traffic Control Plan could include the following requirements:

- Emergency services access to local land uses shall be maintained at all times for the duration of construction activities. Local emergency service providers shall be informed of proposed construction activities and identified haul routes.
- Access to driveways during construction activities shall be maintained.
- Limit traffic delays to no more than 20 minutes.
- Roadside safety protocols shall be complied with to reduce the risk of accident.
- Use flaggers to direct traffic as necessary.

Implementation of Mitigation Measure TRA-1 would reduce impacts associated with emergency access during construction to a less-than-significant level because it would require that emergency access and access for local land uses be maintained.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The project area is not in an area designated as having a high potential for wildland fires. Vehicles and other equipment would be used during construction, but the project would adhere to spark-

arresting and fire extinguishing requirements. In the long-term, the project would result in construction of pipelines and a weir structure, which would not increase the fire risks. In addition, the project would not introduce new residents into a high fire severity zone. Therefore, the project would not expose people or structures to a significant loss, injury, or death involving wildland fires. This impact would be less than significant.

X. Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			X	
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
1. Result in substantial erosion or siltation on or offsite;			X	
2. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or offsite;			X	
3. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
4. Impede or redirect flood flows?			X	
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Affected Environment

Groundwater

The project area is within the South American Groundwater Subbasin, which is part of the larger Sacramento Valley Groundwater Basin. Ground water elevation in the project area is generally 10 to 20 feet below mean sea level. Sources of groundwater recharge include active river and stream channels, inflow of groundwater from outside the policy area, deep percolation of applied surface water and precipitation. (City of Sacramento 2020:4-33)

Surface Water

The City of Sacramento is located at the confluence of the Sacramento and American Rivers within the Sacramento River Basin. The Sacramento River Basin encompasses about 27,000 square miles and is bounded by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the San Joaquin River Delta to the southeast. The Sacramento River Basin is the largest river basin in California, capturing, on average, approximately 22 million acre-feet of annual precipitation (City of Sacramento 2020:6-36). The project area is located approximately 0.85 mile south of the American River, and approximately 1.5 miles east of the Sacramento River.

Water Quality

The City operates under a Phase I NPDES permit for stormwater municipal discharges to surface waters (NPDES No. CAS082597). The permit requires that the City impose water quality and watershed protection measures for all development projects. The intent of the waste discharge requirements in the permit is to attain water quality standards and protection of beneficial uses consistent with the Central Valley Regional Water Quality Control Board's (Regional Water Board) Basin Plan. The NPDES permit prohibits discharges from causing violations of applicable water quality standards or resulting in conditions that create a nuisance or water quality impairment in receiving waters. A key component of the NPDES permit is the implementation of the SQIP, which includes the following implementation activities 1) program management, 2) construction, 3) illicit discharge, 4) commercial/industrial, 5) municipal operations and facilities, 6) planning and new development, 7) public education and outreach, 8) watershed stewardship, and 9) program effectiveness assessment and reporting. In addition, the City's Land Grading and Erosion Control Ordinance and Stormwater Management and Discharge Control Code provide additional regulation and guidance to prevent degradation of water quality (City of Sacramento 2020:4-20, 6-47).

Flooding

The project area is within an area with reduced flood risk (Zone X) as identified on Federal Emergency Management Agency (FEMA) flood maps (Federal Emergency Management Agency 2012/2015).

Discussion

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Drainage from the project area flows into the City of Sacramento storm drain system and is discharged into the Sacramento River, which is located within the Sacramento River Basin. As such, the applicable water quality standards are listed in the Fifth Edition of the Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins (California Regional Water Quality Control Board 2018). Construction of the project would occur within the City of Sacramento in Downtown and Midtown and would disturb more than 1 acre of land. Therefore, the applicable waste discharge requirements (WDR) are the Municipal Separate Storm Sewer (MS4) stormwater NPDES permit (Order No. R5-2002-0206 and NPDES No. CAS082597 [MS4 Stormwater NPDES Permit]) and the Statewide Construction General NPDES Permit for stormwater runoff (Order No. 99-08-DWQ and NPDES No. CAS000002 [Construction General NPDES Permit]).

To reduce or eliminate construction-related water quality effects, the City of Sacramento's Grading Ordinance requires projects to comply with the City's SQIP. In addition, because the disturbed area exceeds 1 acre or more in size, the City would obtain coverage under the NPDES Construction General Permit and include erosion and sediment control plans with specific BMPs prior to the start of construction. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other non-point source runoff. The City's SQIP and the Stormwater Quality Design Manual for the Sacramento Region include BMPs to be implemented to mitigate impacts from new development and redevelopment projects. Construction BMPs that implement the SQIP and Construction General NPDES Permit may include but are not limited to preparation of an erosion and sediment control plan and a SWPPP. Compliance with these permitting requirements would reduce this impact to a less-than-significant level.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project area is underlain by the South American Groundwater Subbasin, which is part of the larger Sacramento Valley Groundwater Basin. No groundwater would be withdrawn during project construction or operation; therefore, the project would not impede sustainable groundwater management of the basin. Project implementation is not expected to result in substantial impacts to groundwater or groundwater recharge. For these reasons, there would be a less-than-significant impact on groundwater supplies and groundwater recharge.

c.1. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Result in substantial erosion or siltation on or off site?

Project construction and demolition activities would involve excavation and movement of soil, which could result in erosion and siltation. These activities have the potential to cause or increase soil erosion and could accidentally discharge wastes into waterways in runoff. Compliance with existing requirements associated with the Stormwater Management and Control Code, the Grading, Erosion and Sediment Control Ordinance, as well as the MS4 Stormwater NPDES Permit and the Construction General NPDES Permit would reduce potential erosion and siltation so that the project would not result in substantial long-term effects on water quality. In compliance with the Construction General NPDES Permit, the project would require preparation and implementation of a SWPPP and an erosion and sediment control plan. The project demolition and construction would include BMPs that would reduce and avoid the likelihood of substantial on- or offsite erosion and siltation or discharge of polluted runoff. As a result, this impact would be less than significant.

c.2. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

The new pipelines and weir structure would be within the existing road rights-of-way as under existing conditions. The project would not result in a substantial net increase in impervious surfaces that would result in flooding on or offsite. In addition, Sacramento City Code Section 13.08.145 addresses drainage impacts and requires that when a property contributes drainage to the City's storm drain system, all storm water and surface runoff drainage impacts resulting from the development be reduced to a level such that the development does not affect the function of the

storm drain system, and that there is no increase in flooding that adversely affects individuals, streets, structures, infrastructure, or property. Additionally, the project area is located within an area with reduced flood risk (Zone X) and is not subject to frequent flooding (Federal Emergency Management Agency 2012/2015). Therefore, this impact would be less than significant.

c.3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The project would include upsizing of CSS pipelines and construction of a weir structure, which would reduce the flooding and sewer outflows in the CSS area. The project would not result in a substantial increase in impervious surfaces as the CSS pipelines would be under ground in the road right-of-way as under existing conditions. In addition, Sacramento City Code Section 13.08.145 addresses drainage impacts and requires that when a property contributes drainage to the City's storm drain system, all storm water and surface runoff drainage impacts resulting from the development be reduced to a level that would not affect the function of the storm drain system. Therefore, the project would not exceed existing or planned stormwater capacity or create a substantial increase in runoff. This impact would be less than significant.

c.4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Impede or redirect flood flows?

The project would include construction of new upsized pipelines and weir structure; however, the project area is located in an area designated as having a reduced flood risk (Zone X) (Federal Emergency Management Agency 2012/2015). The proposed pipelines and weir structure would not result in disturbance to any waterway. Therefore, the project would not impede or redirect flows of any waterways. This impact would be less than significant.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The project area is located within an area of reduced flood risk (Zone X) (FEMA 2012/2015). Additionally, the project is in an area of mostly flat terrain with no large open bodies of water. For these reasons, the project area would not be inundated by a tsunami or seiche. No impact would occur.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Project construction would be subject to the City's water quality and watershed protection measures as described in the Construction General NPDES Permit and implemented through the SQIP. During operation, the project would not generate additional wastewater or stormwater, rather it would accommodate increased flows, so there would be no conflict with or obstruction of a water quality control plan during project operation. Project operation would not require the use of groundwater. The project would not conflict with or obstruct implementation of the water quality control plan or sustainable groundwater management plan. No impact would occur.

XI. Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?				X
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

Affected Environment

The project area is within the City of Sacramento. The project area includes a mix of residential, commercial, educational, office, other related urban uses, and U.S. 50. The area is surrounded by similar urban uses. The Sacramento General Plan designates the project area and surrounding area as Neighborhood and Residential Mixed-Use (City of Sacramento 2024). The zoning is Multi-Family (R-3A), Residential-Office (RO), Single or Two-Family (R-1B), General Commercial (C-2), and Transportation Center (TC) (City of Sacramento 2021). Public utility uses such as the project would be primarily located within the road right-of-way and are an allowed use.

Discussion

a. Physically divide an established community?

The project area is in Downtown and Midtown Sacramento. No aspect of the project would physically divide the community. No impact would occur.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The existing land uses within the project area are consistent with the land use designation and zoning. The project would include construction of CSS pipelines and weir structure. The project would not result in any changes to the existing land uses or zoning designations that would conflict with the existing land use or zoning designations for the project area. No impact would occur.

XII. Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X

Affected Environment

Existing mineral extraction activities in and around Sacramento include fine (sand) and coarse (gravel) construction aggregates, as well as clay. Other mineral resources include gold. Construction aggregates come from two different sources, hardbed rock sources and river channel (alluvial) sources. Generally, sand, gravel, and clay are used as fill and for construction of highways and roads, streets, urban and suburban developments, aqueducts, canals, and pond linings. There are no active mining operations within the City (City of Sacramento 2020:6-92).

The Department of Conservation, Division of Mines and Geology has guidelines for the classification and designation of mineral lands, known as mineral resource zones (MRZ). The project area is designated as MRZ-1 meaning it is an area with a low likelihood of containing significant mineral deposits (City of Sacramento 2020:6-93).

Discussion

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The project area is not located within an area of known mineral resources, and the project area is already developed. The project would include construction of CSS pipelines and a weir structure. No parcels in the project area are used or zoned as a mineral resource area. There would be no change to the roadways within the project area. Therefore, construction of the project would not affect the availability of known mineral resources that would be of value to the region and the residents of the state, and no impact would occur.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

There are no locally important mineral resource recovery sites delineated on a local general plan, specific plan, or other land use plan that include the project area. The project area is designated as MRZ-1 meaning it is an area with a low likelihood of containing significant mineral deposits (City of Sacramento 2020). Therefore, development of the project would have no effect on the availability of known mineral resources, and no impact would occur.

XIII. Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?			X	
b. Generate excessive groundborne vibration or groundborne noise levels?			X	
c. Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?				X

Affected Environment

Noise is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, an evaluation of noise is necessary when considering the environmental impacts of a proposed project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor for characterizing the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called "A-weighting," written as "dBA" and referred to as "A-weighted decibels."

In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases, respectively.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L_{10} , L_{20}), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such.

For a point source, such as a stationary compressor or a piece of construction equipment, sound attenuates (lessens in intensity), based on geometry, at a rate of 6 dB per doubling of distance. For a line source, such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance perpendicular to the source (California Department of Transportation 2013). Atmospheric conditions, including wind, temperature gradients, and humidity, can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travels over a hard surface such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers such as buildings or topographic features that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Noise generated by the proposed project, located in the City of Sacramento, would generally be restricted to the noise limits and governed by the noise regulations contained in the City of Sacramento 2040 General Plan and in the City of Sacramento Municipal Code. Note that the project would result in construction activity, and therefore, construction noise. In addition, a single lift station with two submersible pumps would be installed under the project that could generate noise. However, maintenance activities would not change as a result of project implementation so there would be no noise or vibration impacts related to maintenance activities once construction is complete.

City of Sacramento General Plan

Relevant policies for the proposed project from the City of Sacramento General Plan include:

Policy ERC-10.1: Exterior Noise Standards. The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table 2-5, to the extent feasible.

Policy ERC-10.3: Interior Noise Standards. The City shall require new development to include noise attenuation to assure acceptable interior noise levels appropriate to the land use, as follows:

- 45 dBA Ldn for residential, transient lodgings, hospitals, nursing homes, and other uses where people normally sleep; and
- 45 dBA Leq (peak hour with windows closed) for office buildings and similar uses.

Policy ERC-10.5: Interior Vibration Standards. The City shall require construction projects that are anticipated to generate significant vibration levels to use appropriate methods (i.e., type of equipment, low-impact tools, modifying operations, increasing setback distance, vibration monitoring) to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.

Policy ERC-10.6: Effects of Vibration. The City shall consider potential effects of vibration when reviewing new residential and commercial projects that are proposed in the vicinity of rail lines or light rail lines.

Policy ERC-10.7: Vibration. The City shall consider the potential for vibration-induced damage associated with construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites. Where there is potential for substantial vibration-induced damage, the City shall require preparation of a Pre-Construction Survey and Vibration Management and Monitoring Plan, prepared by a qualified historic preservation specialist or structural engineer to document existing conditions, present appropriate methods to avoid or reduce potential vibration damage, monitor for excessive vibration, and ensure any damage is documented and repaired.

Policy ERC-10.9: Construction Noise Controls. The City shall limit the potential noise impacts of construction activities on surrounding land uses through noise regulations in the City Code that address permitted days and hours of construction, types of work, construction equipment, and sound attenuation devices. (City of Sacramento 2024)

Noise thresholds and regulations pertaining to noise from construction activities as well as operational equipment (among noise other sources) are also contained in the City Municipal code.

Table 2-5. General Plan Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure regarded as “Normally Acceptable” ^a (L _{dn} ^b or CNELE ^c)
Residential—Low Density Single Family, Duplex, Mobile Homes	60 dBA ^{d, e}
Residential—Multi-family ^f	65 dBA
Urban Residential Infill ^g and Mixed-Use Projects ^{h, i}	70 dBA
Transient Lodging—Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buildings—Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Source: City of Sacramento 2024.

^a As defined in the Governor’s Office of Planning and Research Guidelines, “Normally Acceptable” means that the “specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements.”

^b L_{dn}, or day night average level, is an average 24-hour noise measurement that factors in day and night noise levels.

^c CNELE, or community noise equivalent level, measurements are a weighted average of sound levels gathered throughout a 24-hour period.

^d Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

^e dBA, or A-weighted decibel scale, is a measurement of noise levels.

^f Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private year yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments). These standards do not apply to balconies or small attached patios in multistoried multi-family structures.

^g With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).

^h All mixed-use projects located anywhere in the city of Sacramento.

ⁱ All mixed-use projects located anywhere in the city of Sacramento.

^j See notes d and g above for definition of primary open space areas for single-family and multi-family developments.

Sacramento City Code Noise Ordinance

Chapter 8.68 of the Sacramento City Code governs noise and vibration within the city. Noise thresholds from the Sacramento City Code that are relevant to the proposed project are presented below.

8.68.060 Exterior Noise Standards

- A. The following noise standards unless otherwise specifically indicated in this article shall apply to all agricultural and residential properties.
 - 1. From 7 a.m. to 10 p.m. the exterior noise standard shall be 55 dBA.
 - 2. From 10 p.m. to 7 a.m. the exterior noise standard shall be 50 dBA.
- B. It is unlawful for any person at any location to create any noise which causes the noise levels when measured on agricultural or residential property to exceed for the duration of time set forth following [shown in Table 2-6], the specified exterior noise standards in any 1 hour by:

Table 2-6. City of Sacramento Noise Ordinance Cumulative Intrusive Sound Limits

Cumulative Duration of the Intrusive Sound	Allowable Decibels
Cumulative period of 30 minutes per hour	0
Cumulative period of 15 minutes per hour	+5
Cumulative period of 5 minutes per hour	+10
Cumulative period of 1 minute per hour	+15
Level not to be exceeded for any time per hour	+20

Source: Sacramento City Code, Chapter 8.68, Section 8.68.060, 2009.

- C. Each of the noise limits specified in subsection B of this section shall be reduced by five dBA for impulsive or simple tone noises, or for noises consisting of speech or music.
- D. If the ambient noise level exceeds that permitted by any of the first four noise limit categories specified in subsection B of this section, the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category. (Prior code § 66.02.201)

Per section 8.68.080, *Exemptions*, of the City municipal Code, construction noise is considered exempt from the local quantitative noise standards as long as it takes place during the daytime hours of 7:00 a.m. to 6:00 p.m., weekdays and Saturdays, and 9:00 a.m. to 6:00 p.m. on Sunday provided that equipment is outfitted with suitable exhaust and intake silencers which are in good working order.

Discussion

- a. ***Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?***

Construction

The project would include the construction and installation of approximately 2,375 linear feet of 120-inch-diameter pipe on 24th Street between H and N Streets. The project would also involve a tie-in pipe that measures approximately 325 lineal feet on K Street, between 24th and 25th Streets. The pipes would be constructed of precast, reinforced concrete pipe with an invert depth on the order of 10 to 20 feet below existing street grades.

Project construction would take approximately 52 weeks beginning in July 2026. All construction would be limited to the hours of 7:00 a.m. through 6:00 p.m., Monday through Friday, consistent with the City of Sacramento Noise Ordinance.

Construction and demolition activities would generate noise and temporarily increase noise levels at nearby land uses. The level of noise generated would depend on the types of construction equipment used, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Potential construction noise impacts are typically more substantial when construction occurs during noise-sensitive times of the day (i.e., early morning, evening, or nighttime hours) in areas immediately adjoining noise-sensitive land uses or for extended periods of time. As described above, construction would be limited to the daytime hours of 7:00 a.m. to 6:00 p.m. weekdays. In addition, construction activities would not take place throughout the entire project site simultaneously; rather, construction activities would generally move linearly along the project alignment. Therefore, construction would not be occurring very close to the same receptors each day during the project construction window.

The construction schedule and a list of construction equipment expected to be used for the project were provided by the project sponsor. Noise impacts associated with onsite demolition and construction were evaluated using construction equipment noise data in the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). The data include the A-weighted L_{max} , measured at a distance of 50 feet from the construction equipment and the utilization factors for the equipment. The utilization factor is the percentage of time each piece of construction equipment is typically operated at full power over the specified time period. It is used to estimate L_{eq} values from L_{max} values. For example, the L_{eq} value for a piece of equipment that operates at full power over 50 percent of the time is 3 dB less than the L_{max} value. Estimated noise levels from individual equipment proposed for use with the project are shown in Table 2-7 below.

Table 2-7. Source Noise Levels for Construction Equipment

Equipment	L_{max} at 50 feet	Acoustical Use Factor	L_{eq} at 50 feet
Backhoe	78	40%	74
Loader	79	40%	75
Excavator	81	40%	77
Forklift	84	40%	80
Vacuum Street Sweeper	82	10%	72
Generator	81	50%	78
Compressor (air)	78	40%	74

Source: Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment. FTA Report 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: April 20, 2023.

Combined overall construction noise during construction was conservatively estimated by using the FHWA RCNM noise calculation methods, assuming the loudest three pieces of equipment that could be operating simultaneously during construction were operating at the same time and close to one another on the project site. Refer to Table 2-8 below for the conservatively estimated combined construction noise levels based on the assumptions described above.

Table 2-8. Combined Project Construction Noise Levels at Various Distances (L_{\max} and L_{eq})^a

Source Data	Maximum Sound Level (dBA)	Utilization Factor (%)	L_{eq} Sound Level (dBA)
Construction Stage: Site Preparation and Demolition			
Source 1: Forklift ^c - Sound level (dBA) at 50 feet =	84	40%	80.0
Source 2: Generator - Sound level (dBA) at 50 feet =	81	50%	78.0
Source 3: Excavator - Sound level (dBA) at 50 feet =	81	40%	77.0
Calculated Data			
All Sources Combined— L_{\max} sound level (dBA) at 50 feet =			88 L_{\max}
All Sources Combined— L_{eq} sound level (dBA) at 50 feet =			84 L_{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB) ^a	Calculated L_{\max} Sound Level (dBA) ^b	Calculated L_{eq} Sound Level (dBA) ^b
25	6	93	89
50	0	87	83
75	-4	83	80
100	-6	81	77
200	-12	75	71
300	-16	71	68
500	-20	67	63
1,000	-26	61	57
2,000	-32	55	51

Source: Federal Highway Administration (FHWA). 2006. *FHWA Roadway Construction Noise Model User's Guide*.

FHWA-HEP-05-054. January. Available:

https://www.gsweventcenter.com/Draft_SEIR_References/2006_01_Roadway_Construction_Noise_Model_User_Guide_FHWA.pdf. Accessed: April 20, 2023.

Notes:

a Geometric attenuation based on 6 dB per doubling of distance.

b This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.

Although construction would temporarily increase ambient noise levels in the vicinity of the project, construction noise would be limited to the exempt daytime hours for construction defined in the City Municipal Code. In addition, people are generally considered to be less sensitive to noise during daytime hours than they are during nighttime hours, when people typically sleep. Further, note that project construction activities would move linearly along the project alignment, and would not take place near the same specific noise-sensitive receptors for the duration of the 52-week construction period. For these reasons, temporary noise increases associated with project construction would not conflict with local applicable thresholds; construction noise impacts would be less than significant.

Operations

Regarding project operations, most of the project would be passive in nature after the completion of project construction. During periods with large volumes of storm water, water runoff would flow into the system under gravity. The only noise-generating equipment proposed as part of the project would be two submersible pumps (located below ground) associated with the lift station. Noise

from these pumps would not be substantial, and would likely be inaudible at noise-sensitive receptors for the following reasons:

- The lift station equipment would be subterranean, which would help contain pump noise.
- The access openings to the pump stations would be covered by a heavy metal access hatch which would remain closed except for occasional maintenance and repairs and would serve to minimize noise propagating out of the access opening.
- The pumps would be submersible pumps located at the bottom of the lift station. The pumps would only operate when submerged under water, and only when needed as a result of a heavy storm event. Air and water are two media with very different acoustical properties (i.e., there is a substantial acoustical impedance mismatch between the two) noise transfer from the water to the air above would be very limited.

In addition, pump operation would be temporary and intermittent, only occurring during storm events or time periods when water volumes exceed the capacity of the treatment plan. For the reasons described above, temporary, and intermittent noise from the submersible pumps associated with the project lift station would be less than significant.

b. Generate excessive groundborne vibration or groundborne noise levels?

Construction of the proposed project would require equipment that could generate groundborne vibration; however, most of the proposed equipment types generate relatively low vibration levels. Typical vibration levels associated with heavy-duty construction equipment at a reference distance of 50 feet are shown in Table 2-9. No pile drivers or hoe rams are proposed for project construction. The proposed pieces of equipment for project construction with the greatest potential to generate vibration are ground-disturbing equipment such as an excavator. This equipment typically generates vibration levels similar to that of a large bulldozer. A large bulldozer would generate vibration levels of approximately 0.089 PPV inches per second at a distance of 25 feet.

Table 2-9. Vibration Source Levels for Construction Equipment

Equipment	PPV at 15 Feet	PPV at 25 Feet	PPV at 50 Feet	PPV at 100 Feet
Large bulldozer	0.191	0.089	0.0315	0.011
Loaded trucks	0.164	0.076	0.0269	0.010
Small bulldozer	0.006	0.003	0.0011	0.0004

Source: Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment. FTA Report 0123. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed: April 20, 2023.

Tables 2-10 and 2-11 summarize the guidelines developed by the California Department of Transportation (Caltrans) for damage and annoyance potential from the transient and continuous vibration that is usually associated with construction activity.

Table 2-10. Vibration Damage Potential Threshold Criteria Guidelines

Structure and Condition	Maximum PPV (inches per second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed April 20, 2023.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 2-11. Vibration Annoyance Potential Criteria Guidelines

Human Response	Maximum PPV (inches per second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual*. April. Available: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>. Accessed April 20, 2023.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Damage to Structures

The nearest existing structures to project construction activities are residential buildings located along the project alignment. Construction activities with larger equipment (e.g., large excavators) would be expected to occur at least 15 feet from these structures. Usually, more intensive construction work would actually occur further than 15 feet from these homes.

The residential homes located along the project alignment would likely be categorized as older residential structures, according to the Caltrans vibration damage criteria shown in Table 2-10. These types of buildings have a vibration threshold for continuous or frequent/intermittent vibration sources (such as construction) of 0.3 PPV inches per second. A large bulldozer would generate an estimated vibration level of 0.19 PPV in/sec at a distance of 15 feet, which is below the 0.3 PPV in/sec potential damage threshold for older residential structures. Vibration-related damage impacts from project construction would be less than significant.

Annoyance-related Vibration Impacts

Regarding annoyance-related vibration impacts, a significant vibration impact related to sleep disturbance could occur when nighttime construction activities generate vibration levels that are strongly perceptible at locations where people sleep for a prolonged period of time. All construction for the project would be limited to the hours of 7:00 a.m. through 6:00 p.m., Monday through Friday, consistent with the City of Sacramento Noise Ordinance. No construction activities are proposed for nighttime hours when people generally sleep. Therefore, annoyance-related vibration impacts from project construction would be less than significant.

c. Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?

The project site is not located within 2 miles of a public airport or public use airport. The nearest public use airport to the project site is Sacramento Executive Airport, located approximately 3.5 miles south of the project site. In addition, there are no private airstrips in the project vicinity. Moreover, the proposed project would not include the development of uses for human occupation. For these reasons, the proposed project would not expose people working or residing in the project area to excessive noise levels from a private airstrip or a public airport or public use airport. There would be no impact related to public airports or private airstrips.

XIV. Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				X
b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Affected Environment

According to the U.S. Census Bureau, the City of Sacramento's population totaled 524,943 in 2020 (U.S. Census Bureau 2020a). Total housing units in 2020 were 202,231 with 192,560 occupied and 9,671 vacant (U.S. Census Bureau 2020b). The 2040 General Plan Master EIR projects that the city will have approximately 266,765 housing units by 2040 (City of Sacramento 2020:3-25). The project area is surrounded by a mix of residential, commercial, educational, office, and other related urban uses.

Discussion

a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

The project does not include the construction of new homes or businesses, nor does it extend roads or infrastructure that would lead to population growth. The project would include construction of CSS pipelines and a weir structure. Therefore, there would be no impact on population growth.

b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?

Implementation of the project would not require the removal of any homes causing the construction of replacement housing. The project would not displace any residences and would primarily take place in the road right-of-way. No people would be displaced due to implementation of the project. No impact would occur.

XV. Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

Affected Environment

Fire Protection

The Sacramento Fire Department (SFD) provides fire protection services to the project area, as well as the entire city. The project area is within the response zone of Fire Station #4 (Sacramento Fire Department 2012). Fire Station #4 is located at 3145 Granada Way, approximately 0.5 mile east of the project area.

Police Protection

The Sacramento Police Department (SPD) is principally responsible for providing police protection services in the City of Sacramento, including the project area. The project area is primarily located within the Central Command and beat 3B (Sacramento Police Department 2016:8). The Central Command is located at 300 Richards Boulevard, approximately 1.7 miles northwest of the project area.

Schools

The project area is served by the Sacramento City Unified School District. The closest public school in the project area, approximately 0.3 mile to the north, is Washington Elementary School at 520 18th Street.

Parks and Other Public Facilities

The closest parks to the project area include Sutter's Fort State Historic Park, Winn Park, Marshall Park and Fremont Park. These parks are all within 0.5 mile of the project area and include a variety of park amenities. The parks are maintained by the City of Sacramento (City of Sacramento 2021). The closest public library to the project area is the Colonial Heights Library at 4799 Stockton Boulevard just south of the project area.

Discussion

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?

Implementation of the project would not increase demand for SFD fire protection services because the project would not generate new residences or businesses, which is the driving factor for fire protection services. Because the project would not increase demand for fire protection services, no construction of new or expansion of existing fire service facilities would be required. Therefore, the project would have no impact on fire protection services.

Police protection?

Implementation of the project would not increase demand for SPD police protection services because the project would not generate new residences or businesses, which is the driving factor for police protection services. Because the project would not increase demand for police protection services, no construction of new or expansion of existing police service facilities would be required. Therefore, the project would have no impact on police facilities.

Schools?

The project would not provide any new housing that would generate new students in the community nor result in an increase in employment opportunities that could indirectly contribute new students to the local school district. Therefore, the project would have no impact on school services and facilities.

Parks and Other public facilities?

The project would not provide any new structures that could result in additional residents/employees, which could necessitate new or expanded park or library facilities. Therefore, the project would have no impact on parks or libraries.

XVI. Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

Affected Environment

The closest parks to the project area include Sutter's Fort State Historic Park, Winn Park, Marshall Park and Fremont Park. These parks are all within 0.5 mile of the project area and include a variety of park amenities. The parks are maintained by the City of Sacramento (City of Sacramento 2021).

Discussion

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The project would not include any new housing or businesses that would increase the population in the project area. Therefore, use of existing neighborhood and regional parks or other recreational facilities would not change as a result of the project. Because the project would not result in the physical deterioration of public recreational facilities, no impact would occur.

b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The project would not increase the population in the project vicinity. Therefore, the project would not require construction of new homes or infrastructure, including parks and recreational facilities. No impact would occur.

XVII. Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b. Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?			X	
c. Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d. Result in inadequate emergency access?		X		

Affected Environment

Regional access to the project area is provided via Business 80, U.S. 50, and SR 99. The project site would be accessed from a number of roadways that intersect with 24th Street and K Street in Downtown and Midtown Sacramento. The roadways in the project vicinity are primarily 2-lane residential roadways.

Discussion

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Project construction could temporarily interfere with existing vehicle, transit, bicycle, and pedestrian circulation as it would result in a temporary increase of vehicles on surrounding roadways attributed to worker commutes and materials delivery, which may result in additional traffic or congestion. Project construction could also result in the partial temporary closure of crosswalks and travel lanes. Overall operations and maintenance activities for the upsized pipelines and weir structure are anticipated to be less than under existing conditions because the facilities would require less maintenance. Project operation would not generate an increased amount of vehicle, transit, pedestrian, or bicycle use in comparison to existing conditions, so there would be no conflicts with programs, plans, ordinances, or policies related to circulation. Project construction would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and therefore, this impact would be less than significant.

b. Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?

Temporary demolition and construction activities would result in a slight increase in vehicle trips associated with worker commutes and materials delivery. However, these additional trips would

only occur during the short demolition and construction period. During operation, vehicle trips would be similar to existing conditions. Because the project would not change the amount of development projected for the area, the project would be consistent with the population growth and vehicle miles traveled (VMT) projections in regional and local plans and would have only a slight increase in VMT during construction, therefore, this impact would be less than significant.

c. Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Project operation would not result in any changes in road geometry or new uses. The roadways would be rebuilt consistent with City roadway design and safety standards. The project would not result in any geometric design features (e.g., sharp curves or dangerous intersections) therefore, impacts to traffic hazards would be less than significant.

d. Result in inadequate emergency access?

Trucks and equipment traveling to the project area would use a variety of different roadways in Downtown and Midtown Sacramento. Construction vehicles would stage within the project footprint and would not stage near or block any evacuation routes. However, construction could temporarily interfere with traffic or result in lane/road closures, which has the potential to reduce emergency access. This impact would be potentially significant; therefore, the following mitigation is incorporated.

Mitigation Measure TRA-1: Traffic Control Plan

The City will require the contractor(s) to prepare a Traffic Control Plan in accordance with City requirements and professional engineering standards prior to construction. The Traffic Control Plan could include the following requirements:

- Emergency services access to local land uses shall be maintained at all times for the duration of construction activities. Local emergency service providers shall be informed of proposed construction activities and identified haul routes.
- Access to driveways during construction activities shall be maintained.
- Limit traffic delays to no more than 20 minutes.
- Roadside safety protocols shall be complied with to reduce the risk of accident.
- Use flaggers to direct traffic as necessary.

Implementation of Mitigation Measure TRA-1 would reduce impacts associated with emergency access during construction to a less-than-significant level because it would require that emergency access and access for local land uses be maintained.

XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Affected Environment

Please reference the Cultural Resources Section for the Ethnohistory of the historic indigenous groups that occupied the region. This section focuses on the contemporary tribal communities and tribal cultural resources as they pertain to AB52.

This section analyzes and evaluates the potential impacts of the project on tribal cultural resources, both identified and undiscovered. Tribal cultural resources, as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code (PRC) Section 21074, are sites, features, places, cultural landscapes, sacred places and objects, with cultural value to a Tribe. A Tribal cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.

The unanticipated find of Native American human remains would also be considered a Tribal cultural resource and are therefore analyzed in this section. The proposed project area is situated within the lands traditionally occupied by the Valley Nisenan, or Southern Maidu. Many descendants of Valley Nisenan throughout the larger Sacramento region belong to the United Auburn Indian Community, Shingle Springs, Ione Band, Colfax-Todds Valley, and Wilton Rancheria Tribes. The Tribes actively participate in the identification, evaluation, preservation, and restoration of tribal cultural resources.

Data Sources and Methodology

Under PRC section 21080.3.1 and 21082.3, the City must consult with tribes traditionally and culturally affiliated with the project area that have requested formal notification and responded with a request for consultation. The parties must consult in good faith. Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource when one is present or when a party concludes that mutual agreement cannot be reached. Mitigation measures agreed on during the consultation process must be recommended for inclusion in the environmental document.

On June 16, 2023, the City of Sacramento sent AB52 Consultation notification letters that the project was being addressed under CEQA, as required by PRC 21080.3.1, to the Native American tribes that had previously requested such notifications. Notifications were sent to United Auburn Indian Community (UAIC), Wilton Rancheria, Shingle Springs Band of Miwok Indians, and Buena Vista Rancheria. UAIC responded on July 18, 2023, and requested to consult on the project. Based on the nature of the project and the potential resources to be affected, they requested inclusion of the unanticipated discoveries mitigation measure and a paid tribal monitor during excavation of the project area. On June 16, 2023, Wilton Rancheria requested consultation on the project and requested inclusion of inadvertent discoveries mitigation and a paid tribal monitor during excavation of the project area and closed consultation on August 14, 2023. The Shingle Springs Band of MiWok Indians and the Buena Vista Band of MeWuk Indians did not respond to the AB52 notification.

In response to the City's notification of the project to UAIC, UAIC conducted a records search for the identification of tribal cultural resources for this project which included a review of pertinent literature and historic maps, and a records search using UAIC's Tribal Historic Information System (THRIS). UAIC's THRIS database is composed of UAIC's areas of oral history, ethnographic history, and places of cultural and religious significance, including UAIC Sacred Lands that are submitted to the Native American Heritage Commission (NAHC). The THRIS resources shown in this region also include previously recorded indigenous resources identified through the California Historic Resources Information System Center (CHRIS) as well as historic resources and survey data.

Discussion

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

The project area contains no tribal cultural resources that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources. There would be no impact.

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial

evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

The UAIC and Wilton Rancheria both requested to consult on the project and based on the nature of the project and the potential resources to be affected, requested inclusion of the unanticipated discoveries mitigation measure and a paid tribal monitor during excavation of the project area. The Shingle Springs Band of MiWok Indians and the Buena Vista Band of MeWuk Indians did not respond to the AB52 notification. Therefore, this impact is potentially significant, and the following mitigation is included.

Mitigation Measure TCR-1a: In the Event that Tribal Cultural Resources are Discovered During Construction, Implement Avoidance and Minimization Measures to Avoid Significant Impacts and Procedures to Evaluate Resources

If tribal cultural resources (such as structural features, unusual amounts of bone or shell, artifacts, or human remains) are encountered at the project site during construction, work shall be suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction contractor shall immediately notify the project's City representative. Avoidance and preservation in place is the preferred manner of mitigating impacts to tribal cultural resources. This will be accomplished, if feasible, by several alternative means, including:

- Planning construction to avoid tribal cultural resources, archaeological sites and/or other cultural resources; incorporating cultural resources within parks, green-space or other open space; covering archaeological resources; deeding a cultural resource to a permanent conservation easement; or other preservation and protection methods agreeable to consulting parties and regulatory authorities with jurisdiction over the activity.
- Recommendations for avoidance of tribal cultural resources will be reviewed by the City representative, interested culturally affiliated Native American tribes and other appropriate agencies, in light of factors such as costs, logistics, feasibility, design, technology and social, cultural and environmental considerations, and the extent to which avoidance is consistent with project objectives. Avoidance and design alternatives may include realignment within the project site to avoid tribal cultural resources, modification of the design to eliminate or reduce impacts to tribal cultural resources or modification or realignment to avoid highly significant features within a cultural resource or tribal cultural resource.
- Native American representatives from interested culturally affiliated Native American tribes will be notified to review and comment on these analyses and shall have the opportunity to meet with the City representative and its representatives who have technical expertise to identify and recommend feasible avoidance and design alternatives, so that appropriate and feasible avoidance and design alternatives can be identified.
- If the discovered tribal cultural resource can be avoided, the construction contractor(s), will install protective fencing outside the site boundary, including a 100-foot buffer area, before construction restarts. The boundary of a tribal cultural resource will be determined in consultation with interested culturally affiliated Native American tribes and tribes will be notified to monitor the installation of fencing. Use of temporary and permanent forms of protective fencing will be determined in consultation with Native American representatives from interested culturally affiliated Native American tribes.

- The construction contractor(s) will maintain the protective fencing throughout construction to avoid the site during all remaining phases of construction. The area will be demarcated as an “Environmentally Sensitive Area”.

If a tribal cultural resource cannot be avoided, the following performance standard shall be met prior to continuance of construction and associated activities that may result in damage to or destruction of tribal cultural resources:

- Each resource will be evaluated for California Register of Historical Resources (CRHR) eligibility through application of established eligibility criteria (California Code of Regulations 15064.636), in consultation with consulting Native American Tribes, as applicable.

If a tribal cultural resource is determined to be eligible for listing in the CRHR, the City will avoid damaging effects to the resource in accordance with California PRC Section 21084.3, if feasible. The City shall coordinate the investigation of the find with a qualified archaeologist (meeting the Secretary of the Interior’s Professional Qualifications Standards for Archeology) approved by the City and with interested culturally affiliated Native American tribes that respond to the City’s notification. As part of the site investigation and resource assessment, the City and the archaeologist shall consult with interested culturally affiliated Native American tribes to assess the significance of the find, make recommendations for further evaluation and treatment as necessary and provide proper management recommendations should potential impacts to the resources be determined by the City to be significant. A written report detailing the site assessment, coordination activities, and management recommendations shall be provided to the City representative by the qualified archaeologist. These recommendations will be documented in the project record. For any recommendations made by interested culturally affiliated Native American tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

Native American representatives from interested culturally affiliated Native American Tribes and the City representative will also consult to develop measures for long-term management of any discovered tribal cultural resources. Consultation will be limited to actions consistent with the jurisdiction of the City and taking into account ownership of the subject property.

To the extent that the City has jurisdiction, routine operation and maintenance within tribal cultural resources retaining tribal cultural integrity shall be consistent with the avoidance and minimization standards identified in this mitigation measure.

If the City determines that the project may cause a significant impact to a tribal cultural resource, and measures are not otherwise identified in the consultation process, the following are examples of mitigation capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to the resource. These measures may be considered to avoid or minimize significant adverse impacts and constitute the standard by which an impact conclusion of less-than significant may be reached:

- Avoid and preserve resources in place, including, but not limited to, planning construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

- Treat the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
- Protect the cultural character and integrity of the resource.
- Protect the traditional use of the resource.
- Protect the confidentiality of the resource.
- Establish permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places.
- Protect the resource.

Mitigation Measure TCR-1b: Implement Protection Procedures in the Event of Inadvertent Discovery of Human Remains

If an inadvertent discovery of human remains is made at any time during project-related construction activities or project planning, the following performance standards shall be met prior to implementing or continuing actions such as construction, which may result in damage to or destruction of human remains. In accordance with the California Health and Safety Code (HSC), if human remains are encountered during ground-disturbing activities, the City shall immediately halt potentially damaging excavation in the area of the remains and notify the Sacramento County Coroner and a professional archaeologist to determine the nature of the remains. The Coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (HSC Section 7050.5[b]).

If the human remains are of historic age and are determined to be not of Native American origin, the City will follow the provisions of the HSC Section 7000 (et seq.) regarding the disinterment and removal of non-Native American human remains.

If the Coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (HSC Section 7050[c]). After the Coroner's findings have been made, the archaeologist and the NAHC-designated Most Likely Descendant (MLD), in consultation with the landowner, shall determine the ultimate treatment and disposition of the remains. The responsibilities of the City for acting upon notification of a discovery of Native American human remains are identified in California PRC Section 5097.9 et seq.

Mitigation Measure TCR-1c: Tribal Monitoring

The applicant shall contract for a Native American Tribal Monitor (monitor) at the project site. The monitor shall possess the knowledge, skills, abilities, and experience established by the NAHC's Guidelines for Native American Monitors.

The applicant shall provide 48-hour advance notice to the monitor prior to initial site excavation. Reasonable access to the project site shall be provided to the monitor during initial ground-disturbing activities and may be extended should the area be determined to require monitoring of deeper sediments. During the course of the monitoring, the applicant and monitor may adjust the frequency—from continuous to intermittent—based on the conditions and professional judgment regarding the potential to impact cultural and tribal cultural resources.

The monitor will be compensated for his/her time. The mechanism for reimbursing the tribal monitor will be at the discretion of the applicant/developer and may include: individual monitor being hired by the applicant's contractor as a temporary/on-call worker; or the monitor being temporarily employed through a staffing agency.

Implementation of Mitigation Measures TCR 1a through TCR-1c would reduce impacts to tribal cultural resources to a less-than-significant level by requiring preconstruction worker Tribal Cultural Resources Awareness Training and, in the case of a discovery, appropriate treatment (including options for data recovery, mapping, capping, or avoidance) and proper care of significant tribal cultural resources.

XIX. Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?			X	
c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Affected Environment

Water

The City provides water service in the project area. The City supplies domestic water from a combination of surface water and groundwater sources. Two water treatment plants supply domestic water by diverting water from the American River and Sacramento River. In addition to the surface water diverted from the two rivers, the City operates groundwater supply wells (City of Sacramento 2020:4-24).

Wastewater

Water collected by the CSS is transported to the Sacramento Regional County Sanitation District's (SRCSD's) Sacramento Regional Wastewater Treatment Plant (SRWWTP), where it is treated prior to discharge into the Sacramento River. During dry weather, approximately 25 million gallons per day (mgd) are transported to the SRCSD's SRWWTP. For smaller storms, the City sends up to 60 mgd of wastewater to the SRWWTP. All piping, drains, basins and pumps connected to the CSS are

maintained and operated by the City of Sacramento Utilities Department. When the flows in the CSS exceed 60 mgd, flows are routed to Pioneer Reservoir, a 28-million-gallon storage and primary treatment facility located near the intersection of I-5 and US 50 in the City. Once capacity of Pioneer Reservoir has been reached, an additional volume of stormwater, up to 350 mgd, can receive primary treatment with disinfection and be discharged to the Sacramento River (City of Sacramento 2020:6-39).

Stormwater

Stormwater runoff within the project area flows into the CSS. Water collected by the CSS is transported to the SRCSD's SRWWTP, where it is treated prior to discharge into the Sacramento River.

Solid Waste

The City collects all residential solid waste for customers within the city. Solid waste collected in the north region of the City is transported to the Sacramento County North Area Recovery Station. Refuse is then hauled to the Sacramento County Kiefer Landfill (City of Sacramento 2020). Kiefer Landfill is currently sized to satisfy all county landfill disposal needs between the years 2052 to 2085 (City of Sacramento 2020:4-45).

Electricity and Natural Gas

PG&E supplies natural gas to the Sacramento area, including the project area. SMUD provides electrical service to customers located within the project area.

Discussion

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The project would include construction of new upsized pipelines and a weir structure to reduce the flooding and sewer outflows in the CSS area. The project would not result in additional water or wastewater treatment facilities, nor would expansion of other existing facilities be required. The project would not result in increased electricity or natural gas usage. Therefore, the project would not result in an increase in energy usage such that construction of new or expanded electrical facilities would be required. The project would have no effect on telecommunication service or facilities nor require new or expanded telecommunication facilities. The project would not result in a substantial net increase in impervious surfaces; therefore, the project would not result in a substantial increase in runoff from the project area or require construction of new storm drain facilities outside of the project footprint. This impact would be less than significant.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

This project would not require new or additional water supplies for operation. The project may require a small short-term increase in water use during construction. This impact would be less than significant.

c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The project would include upsizing of CSS pipelines and construction of a weir structure. The project would not result in an increase in wastewater demand. Therefore, the project would not result in inadequate wastewater capacity to serve the project. This impact would be less than significant.

d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

During construction, there would be minimal solid waste generated that would require disposal at a landfill. Spoil (soil and rock) excavated during construction would either be reused onsite for backfill or disposed of properly. Spoil not suitable for reuse would be temporarily stored at staging areas until characterized, and then hauled away to the proper disposal site (e.g., landfill). Additional solid waste would be generated by construction crews within the project area, which would need to be hauled offsite for disposal. Solid waste generated during construction, including spoil that cannot be reused, would be delivered to the Kiefer Landfill. This landfill is currently sized to satisfy all county landfill disposal needs between the years 2052 to 2085 (City of Sacramento 2020:4-45). Therefore, the project would not generate solid waste in excess of state or local standards. This impact would be less than significant.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The disposal of waste as described in item d) above would be in compliance with federal, state, and local laws and regulations related to solid waste. This impact would be less than significant.

XX. Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?		X		
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?				X
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

Affected Environment

As discussed in Section 2.9, *Hazards and Hazardous Materials*, the project area is located within a LRA that is not designated as a “Very High” FHSZ (CAL FIRE 2021).

Discussion

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

See Section 2.9, *Hazards and Hazardous Materials*, item f). Construction within and adjacent to project site roadways could temporarily interfere with traffic or result in lane/road closures, which has the potential to reduce emergency access. This impact would be potentially significant; therefore, the following mitigation is incorporated.

Mitigation Measure TRA-1: Traffic Control Plan

Implement Mitigation Measure TRA-1 above.

Implementation of Mitigation Measure TRA-1 would reduce impacts associated with emergency access during construction to a less-than-significant level because it would require that emergency access and access for local land uses be maintained.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project would not exacerbate wildfire risks or include construction of structures that would be inhabited. In addition, the project area is generally flat and is not located within a wildfire hazard zone. Therefore, the project would not exacerbate wildfire risks in the project area. No impact would occur.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?

The project includes construction of CSS pipelines and a weir structure. Therefore, the project does not require the installation of infrastructure that could exacerbate fire risk. The project would not require construction of new roads, fuel breaks, emergency water sources, or power lines. No impact would occur.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project is in an urbanized area and an area of flat terrain and would not involve the changing of slopes that could expose people to risks of flooding from post-fire slope instability. Implementation of the project would not result in an increase in impervious surfaces. Therefore, there would be no substantial runoff or drainage changes that would expose people or structures to significant risks that would increase the likelihood of wildfires. No impact would occur.

XXI. Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Discussion

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As discussed in Section 2.5, *Cultural Resources*, of this Initial Study, the project would result in potentially significant impacts and could degrade the quality of the environment. However, adoption and implementation of mitigation measures described in this Initial Study would reduce these individual impacts to less-than-significant levels.

Although no documented cultural resources are located within the project area, the potential exists to encounter previously undiscovered archaeological resources during construction-related ground-disturbing activities. However, adoption and implementation of Mitigation Measures CUL-1 and CUL-2 would reduce this potential impact to a less-than-significant level because these measures would require the performance of professionally accepted and legally compliant procedures for the discovery of previously undocumented significant archaeological resources and training of construction workers to identify cultural resources.

No evidence suggests that any prehistoric or historic-era marked or unmarked interments are present within or on the project area. However, there is a possibility that unmarked previously unknown graves of Native American or Euro-Americans could be present within the project area. Potential disturbance of previously undiscovered human remains during project construction would be a potentially significant impact. Implementation of Mitigation Measure CUL-3 would reduce the project's potential for disturbance of human remains to a less-than-significant level because actions would be implemented to avoid, move, record, or otherwise treat the remains appropriately, in accordance with pertinent laws and regulations.

Although there are no known tribal cultural resources within the project area, it is possible that yet-undiscovered tribal cultural resources could be encountered or damaged during ground-disturbing construction activities. Implementation of Mitigation Measures CUL-1 through CUL-3 would reduce impacts to tribal cultural resources to a less-than-significant level by requiring preconstruction worker Tribal Cultural Resources Awareness Training and, in the case of a discovery, appropriate treatment (including options for data recovery, mapping, capping, or avoidance) and proper care of significant tribal cultural resources.

b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Cumulative environmental effects are multiple individual effects that, when considered together, would be considerable or compound or increase other environmental impacts. Individual effects may result from a single project or a number of separate projects and may occur at the same place and point in time or at different locations and over extended periods of time. The purpose of the project is to reduce flooding and sewer outflows in the CSS area. The project would not increase population growth either directly or indirectly beyond what has been planned for in the City's General Plan. Implementation of the mitigation measures proposed in this Initial Study would reduce the project's impacts to a less-than-significant level. The project's contribution to environmental impacts would be less than cumulatively considerable.

c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

As identified in this Initial Study, the project could have impacts associated with cultural resources, hazards and hazardous materials, transportation, and wildfire. Impacts on cultural resources would not directly affect human beings and would be reduced to a less-than-significant level with mitigation. All other impacts would be temporary and would be mitigated to a less-than-significant level. Therefore, implementation of the proposed project would not result in substantial adverse effects on human beings, either directly or indirectly. With implementation of mitigation, this impact would be less than significant.

Chapter 3

Compliance with Federal Laws and Regulations

This chapter summarizes the federal environmental laws and regulations that apply to the project and describes the project's compliance with those laws and regulations. The federal regulations addressed in this section are based on guidance from the State Water Resources Control Board (State Water Board) for CEQA-Plus environmental review related to State Revolving Fund loans.

Clean Air Act

Regulatory Background

The project area is in the City of Sacramento, within the SVAB. Air quality within the project area is regulated by the USEPA and the CARB at the federal and state levels, respectively, and locally by the SMAQMD.

At the federal level, USEPA implements the national air quality programs. USEPA's air quality mandates are drawn primarily from the federal CAA, enacted in 1970. The most recent major amendments were made by Congress in 1990. The CAA requires USEPA to establish NAAQS. USEPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, CO, NO₂, SO₂, particulate matter (i.e., respirable particulate matter with an aerodynamic diameter less than or equal to 10 microns [PM₁₀] and fine particulate matter with an aerodynamic diameter less than or equal to 2.5 microns [PM_{2.5}]), and lead. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. Each state's SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. USEPA reviews all state SIPs to check for consistency with the mandates of the CAA and its amendments and to determine whether implementing them will achieve air quality goals. If USEPA determines a SIP to be inadequate, a Federal Implementation Plan that imposes additional control measures may be prepared for nonattainment areas. If the state fails to submit an approvable SIP or to implement the plan within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basins.

On November 30, 1993, USEPA promulgated the general conformity regulations, which were established to ensure that federal actions do not cause or contribute to new violations of the NAAQS, do not worsen existing violations of the NAAQS, and do not delay attainment of the NAAQS. These regulations apply to a proposed federal action, except actions covered by federal transportation conformity, in an area designated as a nonattainment or maintenance area with respect to the NAAQS if the total direct and indirect emissions of the relevant criteria pollutant and precursor emissions caused by the proposed action would be equal to or exceed specified *de minimis* amounts. Thus, requiring the federal agency to make a determination regarding general conformity. The manner in which this regulatory information applies to the project is discussed below.

Affected Environment

USEPA designates each county (or portions of counties) within California as attainment, maintenance, or nonattainment based on the area's ability to maintain ambient air concentrations below the applicable NAAQS. Areas are designated as attainment if ambient air concentrations of a criteria pollutant or precursor are below the NAAQS. Areas are designated as nonattainment if ambient air concentrations exceed the NAAQS. Areas previously designated as nonattainment that subsequently demonstrated compliance with the NAAQS are designated as maintenance areas. Sacramento County is currently designated as nonattainment (severe-15) for the 2008 8-hour ozone NAAQS, nonattainment (moderate) for the 2006 24-hour PM_{2.5} NAAQS, and maintenance (moderate) for the 1987 PM₁₀ NAAQS (United States Environmental Protection Agency 2022).

As mentioned above, a general conformity determination is required if a federal action results in the generation of air pollutants for which the total of direct and indirect emissions equals or exceeds the *de minimis* criteria. Different *de minimis* levels apply to different locations. Table 3-1 shows the *de minimis* levels that apply in Sacramento County. It should be noted that because ozone is a secondary pollutant (i.e., it is not emitted directly into the atmosphere, but formed in a photochemical reaction in the atmosphere involving ozone precursors and sunlight), its *de minimis* level is based on the primary emissions of precursor pollutants: NO_x and VOC.

Table 3-1. De Minimis Criteria for Determining Applicability of General Conformity Requirements for Federal Actions in the Sacramento Valley Air Basin (tons per year)

Pollutant	<i>De Minimis</i> Criteria
VOC	25
NO _x	25
PM ₁₀	100
PM _{2.5}	100
SO ₂	100 ^a

Source: 40 CFR Section 93.153

VOC = volatile organic compounds

NO_x = nitrogen oxides

PM₁₀ = particulate matter 10 microns or less in diameter

PM_{2.5} = particulate matter 2.5 microns or less in diameter

SO₂ = sulfur dioxide

^a Although the project area is in attainment for sulfur dioxide (SO₂), because SO₂ is a precursor for PM_{2.5}, the PM_{2.5} general conformity *de minimis* thresholds are used.

Project Emissions

As discussed in Chapter 1, *Introduction/Project Description*, general sewer maintenance activities with implementation of the project would be similar to existing conditions. The project does not include any new stationary sources of emissions, such as diesel-powered pumps or generators. It likewise would not change capacity or operation of citywide CSS facilities. As such, there would be no long-term operational air quality effects associated with the project. No further analysis of the operational-period emissions is necessary for this general conformity evaluation.

Construction emissions were calculated using CalEEMod and construction activity data provided by the project engineering team (Brown pers. comm.). Table 3-2 summarizes the modeled emissions of

VOC, NO_x, PM₁₀, PM_{2.5}, and SO₂ from project construction. The modeling assumed a constant daily activity profile with concurrent equipment operation and maximum daily vehicle trips. Construction activity would fluctuate over the 12-month period, with activities being more limited at the beginning of construction, peaking after a few months, and then winding down near the end of construction (Brown pers. comm.). However, because the exact phasing of construction is not currently known, this assessment applies the maximum daily operating assumptions to every day of the construction period to ensure annual emissions are not underrepresented. In this regard, the estimates presented in Table 6 are a conservative representation of annual emissions. Refer to Appendix B for the model output.

Table 3-2. Annual Emissions of Criteria Air Pollutants and Precursors for Project Construction

Year	VOC	NO _x	PM ₁₀	PM _{2.5}	SO ₂ ^a
2023	<0.1	1.0	0.1	<0.1	<0.1
2024	0.1	2.8	0.3	0.1	<0.1
<i>de minimis threshold</i> ^b	25	25	100	100	100

^a Although the project area is in attainment for SO₂, because SO₂ is a precursor for PM_{2.5}, the PM_{2.5} general conformity *de minimis* thresholds are used.

^b *de minimis* thresholds (40 CFR Section 93.153) are based on the most serious attainment status of the project area, which is severe-15 nonattainment for the 2008 8-hour ozone standard, moderate nonattainment for the 2006 24-hour PM_{2.5} standard, and moderate maintenance for the 1987 PM₁₀ standard.

VOC = volatile organic compounds

NO_x = nitrogen oxides

PM₁₀ = particulate matter 10 microns or less in diameter

PM_{2.5} = particulate matter 2.5 microns or less in diameter

SO₂ = sulfur dioxide

As shown in Table 3-2, annual estimated VOC, NO_x, PM₁₀, PM_{2.5}, and SO₂ emissions are considerably less than the applicable *de minimis* levels established in the General Conformity Rule (75 Fed. Reg. 17255). Therefore, a general conformity determination is not required for the project. There would be no adverse effect.

Coastal Barriers Resources Act

The Coastal Barrier Resources Act (PL 97-348) designated various undeveloped coastal barrier islands, depicted by specific maps, for inclusion in the Coastal Barrier Resources System (System). Areas so designated were made ineligible for direct or indirect federal financial assistance that might support development, including flood insurance, except for emergency life-saving activities. Exceptions for certain activities, such as fish and wildlife research, are provided, and National Wildlife Refuges and other, otherwise protected areas are excluded from the System. The System includes relatively undeveloped coastal barriers along the Atlantic and Gulf coasts, as well as the Great Lakes and Puerto Rico and the Virgin Islands.

The project is located within the City of Sacramento, and the project area and surrounding lands are not located within the System. Therefore, compliance with this Act is not applicable.

Coastal Zone Management Act

The Coastal Zone Management Act (PL 92-583), administered by National Oceanic and Atmospheric Administration Fisheries Service's (NOAA Fisheries) Office of Ocean and Coastal Resource Management, provides for management of the nation's coastal resources, including the Great Lakes, and balances economic development with environmental conservation.

The Act outlines two national programs, the National Coastal Zone Management Program and the National Estuarine Research Reserve System. The 34 coastal programs aim to balance competing land and water issues in the coastal zone, while estuarine reserves serve as field laboratories to provide a greater understanding of estuaries and how humans impact them. The Act's overall program objectives remain balanced to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone."

The project area and surrounding lands are not located within California's coastal zone, which generally extends 1,000 yards inland from the mean high tide line; therefore, compliance with the Coastal Zone Management Act is not applicable.

Endangered Species Act

Pursuant to the federal ESA (PL 93-205), the USFWS and NOAA Fisheries have regulatory authority over federally listed species. Under ESA, a permit to "take" a listed species is required for any federal action that may harm an individual of that species. Take is defined under ESA Section 9 as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under federal regulation, take is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. ESA Section 7 outlines procedures for federal interagency cooperation to conserve federally listed species and designated critical habitat. Section 7(a)(2) requires federal agencies to consult with USFWS and/or NOAA Fisheries to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species.

As discussed in Section 2.4, *Biological Resources*, of this Initial Study, the project area does not contain habitat for federally listed species and would not directly or indirectly affect federally listed species, and therefore, no consultation with USFWS or NOAA Fisheries is needed for this project.

Environmental Justice

EO 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" (59 Federal Register 7629 [1994]), directs federal agencies to identify and address disproportionately high and adverse health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The EO directs each federal agency to develop a strategy for implementing environmental justice. EO 12898 is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

The Council on Environmental Quality (CEQ) has oversight of the federal government's compliance with EO 12898. To facilitate compliance, CEQ prepared and issued, in consultation with EPA, Environmental Justice Guidance under the National Environmental Policy Act (NEPA) (CEQ 1997). According to the CEQ's Environmental Justice Guidance, the first step in conducting an environmental justice analysis is to define minority and low-income populations. Based on these guidelines, a minority population is present in a project area if either (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population. By the same rule, a low-income population exists if the project area consists of 50 percent or more people living below the poverty threshold, as defined by the U.S. Census Bureau, or is significantly greater than the poverty percentage of the general population.

The second step of an environmental justice analysis requires a finding of a high or adverse effect. The CEQ guidance indicates that when determining whether the effects are high and adverse, agencies are to consider whether the risks or rates of impact "are significant (as employed by NEPA) or above generally accepted norms." The final step requires a finding that the effect on the minority or low-income population be disproportionately high and adverse. The CEQ offers a non-quantitative definition stating that an effect is disproportionate if it appreciably exceeds the risk or rate to the general population.

The following population characteristics are considered in this analysis:

- race and ethnicity per the 2014–2018 American Community Survey 5-Year Estimates, and
- per capita income as it relates to the federal poverty threshold.

To make a finding that disproportionately high and adverse effects would likely fall on a minority or low-income population, three conditions must be met simultaneously: (1) there must be a minority or low-income population in the affected area, (2) a high and adverse effect must exist, and (3) the effect must be disproportionately high and adverse on the minority or low-income population.

For purposes of this analysis, information on demographics and income and poverty status was obtained for the City of Sacramento and Sacramento County. The data is estimated for 2014–2018 by the U.S. Census Bureau, which, for purposes of this analysis, is considered "existing conditions."

Demographics

Table 3-3 presents the demographics per the 2014–2018 American Community Survey 5-Year Estimates for the City of Sacramento and Sacramento County. During this 5-year range, it is estimated that approximately 47 percent of the population in the project area identified themselves as white; approximately 13 percent identified themselves as Black; less than 1 percent identified themselves as American Indian/Alaska Native; and almost 19 percent identified themselves as Asian. Approximately 29 percent of the City's population identified themselves as Hispanic or Latino, which is similar to the County's estimate of 23 percent (U.S. Census Bureau 2018a).

Table 3-3. Demographics: City of Sacramento and Sacramento County

	City of Sacramento		Sacramento County	
	Number	% of Total Population	Number	% of Total Population
Total Population	495,011	100.0	1,510,023	100.0
Race				
White	233,820	47.2	962,327	63.7
Black or African American	66,484	13.4	188,692	12.5
American Indian and Alaska Native	3,720	0.8	34,102	2.3
Native Hawaiian and Other Pacific Islander	8,524	1.7	27,331	1.8
Some Other Race	54,211	11.0	134,906	8.9
Two or More Races	34,683	7.0	107,565	7.1
Hispanic or Latino (of any race)				
Hispanic or Latino	141,828	28.7	347,025	23.0
Not Hispanic or Latino	353,183	71.3	1,162,998	77.0

Source: U.S. Census Bureau 2018a,b

Income and Poverty Status

Table 3-4 presents household income, per capita income, and poverty status for the City of Sacramento and Sacramento County per the 2014–2018 American Community Survey 5-Year Estimates. Median household income was \$58,456 in the City, and \$63,902 in Sacramento County (U.S. Census Bureau 2018c,d). In 2018, the weighted average federal poverty threshold was \$12,784 for one person and \$19,985 for a three-person family (U.S. Census Bureau 2018e). Approximately 16.6 percent of individuals in the City were below the poverty level, which was similar to that of the County (approximately 12.6 percent of individuals) (U.S. Census Bureau 2018f).

Table 3-4. Income and Poverty Status: City of Sacramento and Sacramento County

	City of Sacramento		Sacramento County	
	Number	% of Total Population	Number	% of Total Population
Households	183,106	100.0	536,029	100.0
Less than \$10,000	11,345	6.2	29,236	5.5
\$10,000 to \$14,999	11,781	6.4	27,434	5.1
\$15,000 to \$24,999	17,138	9.4	45,253	8.4
\$25,000 to \$34,999	16,203	8.9	46,057	8.6
\$35,000 to \$49,999	22,474	12.3	63,279	11.8
\$50,000 to \$74,999	32,536	17.8	93,941	17.5
\$75,000 to \$99,999	22,921	12.5	69,723	13.0
\$100,000 to \$149,999	26,702	15.0	85,746	16.0
\$150,000 to \$199,999	11,375	6.2	40,791	7.6
\$200,000 or more	10,622	5.8	34,569	6.5
Median Household Income	\$58,456	--	\$63,902	--
Per Capita Income	\$30,487	--	\$31,311	--
Poverty Status – Individuals ^a	--	16.6	--	12.6

Source: U.S. Census Bureau 2018c, d

^a2019 data

Impact Evaluation

(1) Is there a Minority or Low-Income Population in the Affected Area?

As described above, in the 2014–2018 American Community Survey, approximately 29 percent of the City’s population identified themselves as Hispanic or Latino, which is similar to the County’s average (approximately 23 percent) (U.S. Census Bureau 2018a,b). Therefore, for purposes of this analysis, a disproportionately high minority population is not present in the project area or the area served by the project.

Approximately 16.6 percent of individuals in the City were below the poverty level, which was similar to that of the County (approximately 12.6 percent of individuals). Therefore, for purposes of this analysis, a disproportionately high low-income population is not present in the project area or the area served by the project. According to the EPA, either the county or state percentages can be used when considering the scope of the “general population.” A definition of “meaningfully greater” is not given by the CEQ or EPA, although the EPA notes that any affected area that has a percentage of minorities that is above the State’s percentage is potentially a minority community and any affected area with a minority percentage at least double that of the state is definitely a minority community under Executive Order 12898.

As discussed above, the percentage of persons of other races, including African Americans and persons of Hispanic origin within the City is slightly higher than the percentages for Sacramento County, but is not meaningfully greater than the county percentage. In addition, median household income and poverty levels within the project area and the area served by the project are similar to income and poverty levels within the overall county. Therefore, no minority or low-income populations have been identified that would be adversely impacted by the project as determined

above. Therefore, in accordance with the provisions of EO 12898 and Federal Highway Administration Order 6640.23, no further Environmental Justice analysis is required.

(2) Is there a High and Adverse Effect? and (3) Is the Effect Disproportionately High and Adverse on the Minority Population?

The project would help to reduce the flooding and sewer outflows in the CSS area. Temporary construction impacts associated with the project would occur within the project site road right-of-way and along roadways in the project area. Nearby residences could be subject to construction-related impacts, including increased noise and traffic. However, these impacts would be short term, and construction would take place when most residents are not expected to be home (i.e., during working hours). In addition, the operation of the CSS pipelines and weir structure would not affect residences in surrounding neighborhoods. Therefore, construction and operation of the project would not have a disproportionately high and adverse effect on the minority population.

Farmland Protection Policy Act

The purpose of the federal Farmland Protection Policy Act (FPPA) of 1981 (Public Law 97-98) is to minimize federal contributions to the conversion of farmland to non-agricultural uses by ensuring that federal programs are administered in a manner compatible with state government, local government, and private programs designed to protect farmland. The Natural Resources Conservation Service (NRCS) is the agency primarily responsible for implementing the FPPA.

U.S. Department of Agriculture (USDA) Regulations (7 Code of Federal Regulations [CFR] Part 658) implementing the FPPA requires federal agencies to conduct a farmland conversion impact rating (using USDA Form AD-1006) when a project may convert farmlands to non-agricultural uses. This impact rating should be done when the impacts of a project will affect farmlands in the following categories:

- prime farmland: the highest quality land for food and fiber production having the best chemical and physical characteristics for producing.
- unique farmland: land capable of yielding high value crops such as citrus fruits, olives, and
- farmlands designated as important by state and local governments, with the approval of the Secretary of Agriculture.

Neither the Act nor the regulations apply if:

- the project site does not contain farmland in categories identified above.
- the project is on prime farmland that is already “committed” to urban development or water storage (applies to prime farmland only; refer to 7 CFR 658.2(a)).
- projects were beyond the planning stage prior to August 6, 1984.
- projects involve grants, loans, or mortgage insurance for purchase or rehabilitation of existing structures.

As discussed in Section 2.2, *Agricultural Resources*, of this Initial Study, the project facilities would be located within Downtown and Midtown Sacramento which include a mix of residential, commercial, educational, office, and other related urban uses. These lands are designated as Urban and Built-up

Land and Other Land pursuant to the FMMP of the California Department of Conservation. The project would have no impact related to conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. Consultation with NRCS (including submittal of the Farmland Conservation Impact Rating form) does not apply to project sites that do not contain farmland in categories identified above, and therefore is not required for the project.

Floodplain Management

EO 13690, “The Federal Flood Risk Management Standard” (January 30, 2015) revises EO 11988, “Floodplain Management” (May 24, 1977), and directs federal agencies to take the appropriate actions to reduce risk to federal investments, specifically to “update their flood-risk reduction standards.” The goal of this directive is to improve the resilience of communities and federal assets against the impacts of flooding and recognizes the risks and losses due to climate change and other threats.

The FEMA Flood Insurance Rate Maps (FIRMs) are used to determine whether properties are located within Special Flood Hazard Areas. As explained in Section 2.10, “Hydrology and Water Quality,” of this Initial Study, the project area is within the reduced flood risk (Zone X) as designated by FEMA. In addition, the project area is not located in a Special Flood Hazard Area, as identified on FIRM panels 06067C0180J and 06067C0190H, dated June 16, 2015, and August 16, 2012, respectively (Federal Emergency Management Agency 2012/2015). Furthermore, the project would not include any new residences. Therefore, the project would not result in any additional exposure of people or structures to risk of flooding, and the project would have no impact related to a 100-year flood hazard area or risk of flooding.

National Historical Preservation Act

Federal protection of resources is legislated by (a) the National Historic Preservation Act (NHPA) of 1966 as amended by 16 U.S. Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historical Preservation. These laws and organizations maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Federal and federally-sponsored programs and projects are reviewed pursuant to Section 106 of the NHPA. Section 106 of the NHPA requires federal agencies to consider the effects of proposed federal undertakings on historic properties. NHPA requires federal agencies to initiate consultation with the State Historic Preservation Officer as part of the Section 106 review process.

Determination of Effects

The area of potential effects (APE) is within land disturbed by urban development for more than 100 years and has a low sensitivity for discovery of buried archaeological deposits. There are several historic-period archaeological features identified within the APE; however, because the project activities would occur primarily within the road right-of-way the project would have No Effect on Historic Properties.

Archaeological and Historic Preservation Act

Passed and signed into law in 1974, the Archaeological and Historic Preservation Act (AHPA) amended and expanded the Reservoir Salvage Act of 1960. The AHPA provides for the preservation of historical and archaeological data that might otherwise be irreparably lost or destroyed as the result of (1) flooding, the building of access roads, the erection of workmen's communities, the relocation of railroads and highways, and other alterations of the terrain caused by the construction of a dam by any agency of the United States, or by any private person or corporation holding a license issued by any such agency or (2) any alteration of the terrain caused as a result of any federal construction project or federally licensed activity or program.

According to the Advisory Council on Historic Preservation, if a project will affect historic properties that have archaeological value, the AHPA may impose additional requirements on an agency. The project would include upsizing of CSS pipelines and construction of a weir structure within the road right-of-way and would not affect any historic properties; therefore, the AHPA does not apply.

Magnuson-Stevens Fishery Conservation and Management Act

In response to growing concern about the status of United States fisheries, Congress passed the Sustainable Fisheries Act of 1996 (Public Law [PL] 104-297) to amend the Magnuson-Stevens Fishery Conservation and Management Act (PL 94-265), the primary law governing marine fisheries management in Federal waters of the United States. The Magnuson-Stevens Conservation and Management Act, as amended (U.S.C. 180 et seq.), requires that Essential Fish Habitat (EFH) be identified and described in federal fishery management plans. Federal agencies must consult with NOAA Fisheries on any activity which they fund, permit, or carry out, that may adversely affect EFH. NOAA Fisheries is required to provide EFH conservation and enhancement recommendations to the federal agencies. EFH is defined as those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity.

As discussed in Section 2.4, *Biological Resources*, of this Initial Study, the project area does not include any waterways. Therefore, implementation of the project would not affect fisheries or waters nor the substrates necessary for fisheries.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S.C. Section 703, et seq.), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. The current list of species protected by the MBTA can be found in Title 50 of the CFR, Section 10.13 (50 CFR 10.13). The list includes nearly all birds native to the United States.

As discussed in Section 2.4, *Biological Resources*, of this Initial Study, while there are large landscape trees adjacent to the project work area, it is unlikely that the trees would provide habitat or nesting habitat for migratory bird species and roosting habitat for bat species given the developed nature of

the area and ambient noise levels. In addition, the project would not involve the removal of mature trees and therefore, nesting habitat for migratory bird species and roosting habitat for special-status bat species is not an issue for this project. There would be no impact.

Protection of Wetlands

The purpose of EO 11990 (May 24, 1977) is to “minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands.” To meet these objectives, EO 11990 requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. EO 11990 applies to: acquisition, management, and disposition of federal lands and facilities construction and improvement projects which are undertaken, financed, or assisted by federal agencies; and federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

As discussed in Section 2.4, *Biological Resources*, of this Initial Study, implementation of the project would result in no impact to federally protected wetlands because there are no wetlands in the project area. Therefore, no impact would occur.

Fish and Wildlife Conservation Act

The Fish and Wildlife Conservation Act of 1980 (16 USC 2901 et seq.) encourages federal agencies to conserve and promote conservation of nongame fish and wildlife species and their habitats. In addition, the Fish and Wildlife Conservation Act (16 USC 661 et seq.) requires federal agencies undertaking projects affecting water resources to consult with the USFWS and the state agency responsible for fish and wildlife resources whenever the waters of any stream or other body of water are proposed or authorized to be impounded, diverted, the channel deepened, or the stream or other body of water will otherwise be controlled or modified for any purpose whatsoever, including navigation and drainages. The 1988 amendment (Public Law 100-653, Title VIII) to the Fish and Wildlife Conservation Act requires the Secretary of the Interior, through the USFWS, to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973.” The project would not affect or modify any stream or water body; therefore, compliance with this Act is not applicable.

Safe Drinking Water Act, Sole Source Aquifer Protection

The Safe Drinking Water Act (42 USC Section 300f et seq.) was established to protect the quality of drinking water in the United States. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to the Act require that EPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments, which can be approved to implement these rules for EPA, also encourage attainment of secondary standards (nuisance-

related). Under the Act, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids.

The project and surrounding lands are not located within a sole source aquifer, as designated by EPA Region 9 (U.S. Environmental Protection Agency 2021). The project would have no effect on any public water systems or other drinking water sources.

Wild and Scenic Rivers Act

The Wild and Scenic Rivers Act (16 USC Section 1271 et seq.) establishes a National Wild and Scenic Rivers System for the protection of rivers with important scenic, recreational, fish and wildlife, and other values. Rivers are classified as wild, scenic, or recreational. The act designates specific rivers for inclusion in the System and prescribes the methods and standards by which additional rivers may be added.

The nearest designated wild and scenic river is the Lower American River, located approximately 0.8 miles north of the project area; however, the project area is not visible from the river.

Climate Change

Vulnerability

Increases in GHG concentrations in the atmosphere have led to increased global average temperatures (climate change) through the intensification of the greenhouse effect, and associated changes in local, regional, and global average climatic conditions. These changes may translate into a variety of issues and concerns that may affect the project area. The key climate risks expected for the greater Sacramento region, include but not limited to the following (City of Sacramento 2024:11-22).

- Temperature Increase.
- Extreme Hot Days.
- Heat Waves.
- Heat-Related Illnesses.
- Urban Heat Islands and Tree Canopy.
- Heat-Related Infrastructure Impacts.
- Changes in Precipitation Patterns.
- Flooding.
- Storms.
- Changes in Winter Snowpack.
- Drought.
- Groundwater Supply.

- Water and Soil Quality.
- Wildfire.
- Air Quality.
- Sea Level Rise.

Although uncertainty exists as to the precise levels of these impacts, there is consensus regarding the range, frequency, or intensity of these impacts that can be expected. The project could be subject to potential hazards that could be exacerbated by climate change, such as changes in the amount of wastewater, timing and amount of runoff, and the increased risk of flooding associated with changes to precipitation.

Increases in intense storm events could result increases in effluent related to stormwater runoff. However, as explained in Section 2.10, *Hydrology and Water Quality*, of this Initial Study, the project area is within the reduced flood risk (Zone X) as designated by FEMA. In addition, the project area is not located in a Special Flood Hazard Area, as identified on FIRM panels 06067C0180J and 06067C0190H, dated June 16, 2015, and August 16, 2012, respectively (Federal Emergency Management Agency 2012/2015). Therefore, the potential for climate change-related impacts from increased risk of flooding associated with changes to precipitation patterns to affect the project facilities is low.

Adaptation

Adaptation measures are measures taken in direct response to vulnerabilities to climate change. The CSS pipelines and weir structure would be more efficient than the existing smaller diameter pipelines and would be designed to provide adequate stormwater facilities in the event of storms.

Mitigation

Effects of climate change on the project facilities would not be adverse. No mitigation is required.

Introduction

This chapter includes a discussion of alternatives to the project in compliance with State Water Board CEQA-Plus requirements related to State Revolving Fund loans and per U.S. Environmental Protection Agency guidance for environmental information documents related to Special Appropriation Fund Grants. These alternatives are provided to meet the CEQA-Plus requirements and are not required for compliance with CEQA. The project is described in Chapter 1, Project Description, and evaluated throughout this Initial Study and therefore is not discussed below.

Alternative 1: No Project Alternative

Under the No Project Alternative, the City would continue to utilize the existing undersized CSS pipelines, which during large rain events a combination of stormwater and wastewater (combined sewage) can surcharge the system and result with outflows onto the streets and cause ponding. No roadway demolition would occur on project site streets and no upsized pipelines or weir structure would be constructed. With this alternative, no construction-related impacts would occur and the proposed pipelines and weir structure would not be installed. The No Project Alternative would not achieve any of the project objectives, would result in greater long-term operational impacts, and would result in increased operations and maintenance costs.

Summary

In summary, the project would achieve all of the project objectives and all potentially significant impacts would be reduced to less than significant with mitigation. Because the alternatives discussed above either do not meet all of the project objectives or result in greater environmental impacts compared to the project, the project as described in Section 1. Project Description section of Chapter 1, was selected as the preferred alternative.

Chapter 1. Introduction/Project Description

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XVII. Transportation

N/A

XVIII. Tribal Cultural Resources

N/A

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XXI. Mandatory Findings of Significance

N/A

Compliance with Federal Laws and Regulations

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West Yost

Robert Reid, Principal Engineer

Scott Greenwood, Senior Engineer

Appendix A

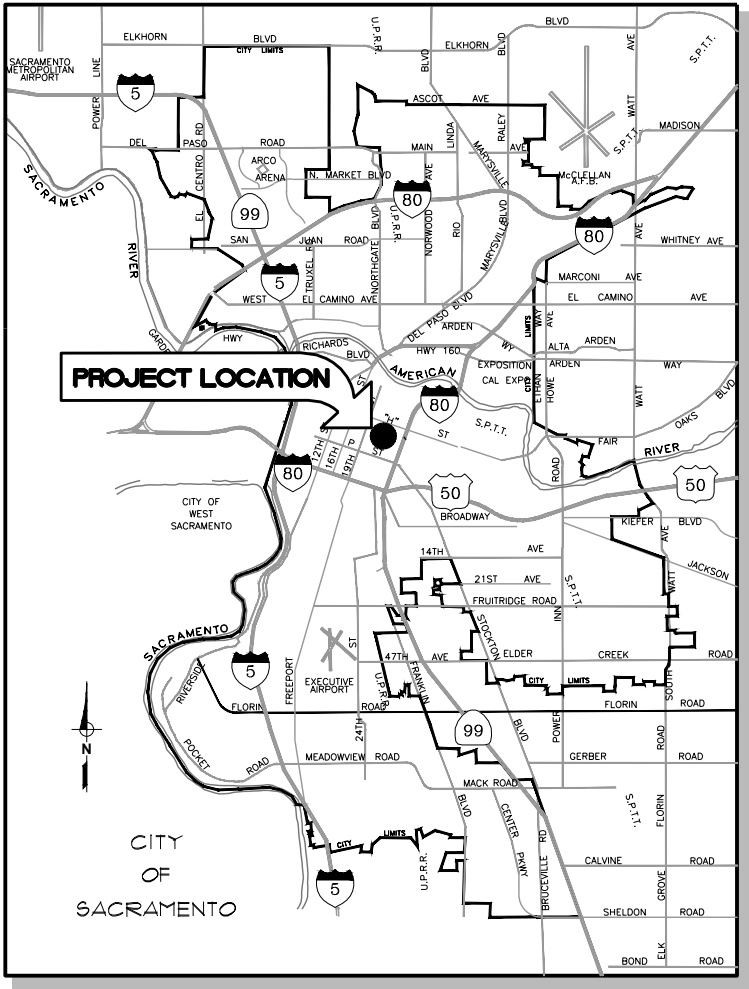
65% Design Improvement Plans

CITY OF SACRAMENTO

IMPROVEMENT PLANS FOR

COMBINED SEWER SYSTEM (CSS) IMPROVEMENTS 24TH AND K STORAGE FACILITY

65% JANUARY 2023



VICINITY MAP
NOT TO SCALE

APPROVED BY: _____
XXXX R.C.E. XXXX
WASTEWATER SUPERVISING ENGINEER
DEPARTMENT OF UTILITIES

DATE _____

APPROVED BY: _____
TIM LLOYD
UTILITY OPERATIONS AND MAINTENANCE
SUPERINTENDENT
DEPARTMENT OF UTILITIES

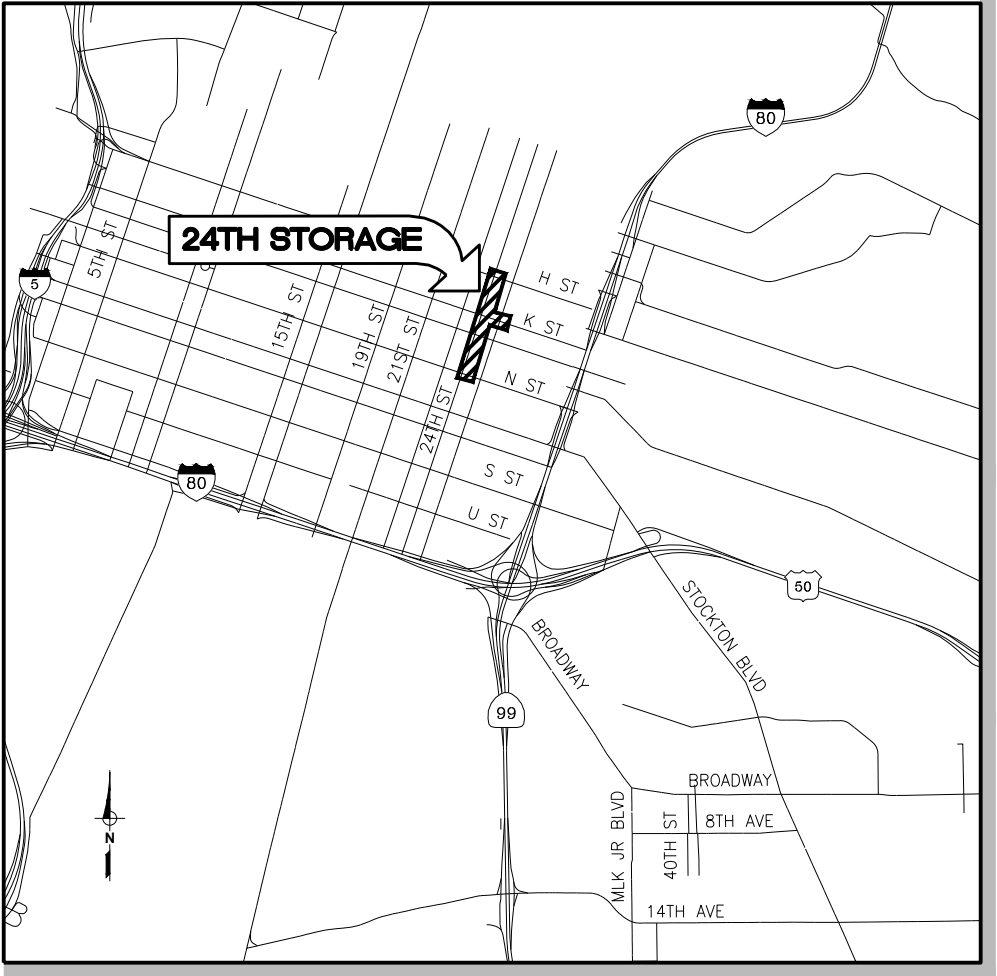
DATE _____

APPROVED BY: _____
TIMOTHY MORESCO R.C.E. 84913
SENIOR CIVIL ENGINEER
DEPARTMENT OF UTILITIES

DATE _____

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G04	KEYMAP AND SURVEY CONTROL
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C101	STA 14+50 TO STA 19+00
C102	STA 19+00 TO STA 23+00
C103	STA 23+00 TO STA 28+00
C104	STA 28+00 TO STA 33+00
C105	STA 33+00 TO STA 34+90
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E-2	ONE LINE DIAGRAM
P-1	INSTRUMENTATION SYMBOLS & ABBREVIATIONS
P-2	AUXILIARY SYSTEMS P&ID
P-3	PUMP STATION P&ID



LOCATION MAP
NOT TO SCALE

PN: X14170106

THIS LINE IS 1 INCH AT FULL SCALE IF NOT SCALE ACCORDINGLY			
NO.	DESCRIPTION	DATE	BY
1			
2			
3			
4			

BENCH MARK	ELEV. 19.756
DESCRIPTION:	
BENCHMARK 297-F41: RAMSET IN X-TIE TO CLRC	
SW CORNER OF 26TH ST. & K ST. D.B.	

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES

DRAWN BY: ESE/RSM	DESIGNED BY: ALB/SMG/DM	CHECKED BY: RR
DATE: 1/2023	R.C.E. NO. DATE: 1/2023	R.C.E. NO. DATE: 1/2023



IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
TITLE SHEET AND PROJECT LOCATION

PN: X14170106	DWG. NO. G01
	SHEET 1 OF 24

ABBREVIATIONS

AB	AGGREGATE BASE	FIG	FIGURE
AB	ANCHOR BOLT	FLR	FLOOR
ABT	ABOUT	FL	FLOW LINE
AC	ASPHALT CONCRETE	FLG	FLANGE
ADPTR	ADAPTER	FLEX	FLEXIBLE
AGGR	AGGREGATE	FM	FORCE MAIN
AHD	AHEAD	FOC	FACE OF CONCRETE
AFF	ABOVE FINISHED FLOOR	FT	FEET OR FOOT
AL	ALUMINUM	FTG	FOOTING
ALTN	ALTERNATE	FTNG	FITTING
APPROX	APPROXIMATE	GA	GAUGE
ARR	ARRANGEMENT	GAF	GALVANIZED AFTER FABRICATION
ASSY	ASSEMBLY	GAL	GALLON
BC	BOLT CIRCLE	GALV	GALVANIZED
BTWN	BETWEEN	GB	GRADE BREAK
BF	BLIND FLANGE	GE	GROOVED END
BLDG	BUILDING	GND	GROUND
BLK	BLOCK	GPM	GALLONS PER MINUTE
BM	BEAM	GR	GRADE
BOT	BOTTOM	GRTG	GRATING
BOW	BACK OF WALK	GRVD	GROOVED
CAP	CAPACITY	GS	GALVANIZED STEEL
CFS	CUBIC FEET PER SECOND	GSP	GALVANIZED STEEL PIPE
CI	CAST IRON	HB	HOSE BIBB
CJ	CONSTRUCTION JOINT	HDR	HEADER
CL	CENTER LINE	HGR	HANGER
CL	CLEAR	HGT	HEIGHT
CLS	CLASS	HORIZ	HORIZONTAL
CMP	CORRUGATED METAL PIPE	HP	HORSEPOWER
CMPNT	COMPONENT	HR	HANDRAIL
CMU	CONCRETE MASONRY WALL	HMAC	HOT MIX ASPHALT CONCRETE
CND	CONDUIT	HVAC	HEATING, VENTILATION, A.C.
COL	COLUMN	HWL	HIGHWATER LEVEL
COMP	COMPLETE	HYD	HYDRANT
CONC	CONCRETE	HYDR	HYDRAULIC
CONN	CONNECTION	ID	INSIDE DIAMETER
CONSTR	CONSTRUCTION	IE	INVERT ELEVATION
CONT	CONTINUOUS	IN	INCHES
CONT	CONTROL	INSTL	INSTALLATION
COR	CORNER	INSTM	INSTRUMENTATION
CORP	CORPORATION	INT	INTERIOR
CP	CATHODIC PROTECTION	INV	INVERT
CPLG	COUPLING	IPS	IRON PIPE SIZE
CS	COMBINED SEWER	JT	JOINT
CSS	COMBINED SEWER SYSTEM	LB	POUND
CTR	CENTER	LEN	LENGTH
CYL	CYLINDER	LG	LONG
DBL	DOUBLE	LLV	LONG LEG VERTICAL
DET	DETAIL	LT	LEFT
DG	DECOMPOSED GRANITE	LS	LIFT STATION
DIA, Ø	DIAMETER	LSH	LEVEL SWITCH HIGH
DIAG	DIAGONAL	LSL	LEVEL SWITCH LOW
DIM	DIMENSION	LWL	LOW WATER LEVEL
DISCH	DISCHARGE	MACH	MACHINE
DN	DOWN	MATL	MATERIAL
DR	DRAIN	MAX	MAXIMUM
DWG	DRAWING	MB	MACHINE BOLT
DWL	DOWEL	MCC	MOTOR CONTROL CENTER
(E)	EXISTING	MECH	MECHANICAL
EA	EACH	MFR	MANUFACTURER
ECC	ECCENTRIC	MGD	MILLION GALLONS PER DAY
EF	EACH FACE	MH	MANHOLE
EL & ELEV	ELEVATION	MI	MALLEABLE IRON
ELB	ELBOW	MJ	MECHANICAL JOINT
ELEC	ELECTRIC	ML	MATCH LINE
ENC	ENCASEMENT	MIN	MINIMUM
EP	EDGE OF PAVEMENT	MIPT	MALE IRON PIPE THREAD
EQPT	EQUIPMENT	NIC	NOT IN CONTRACT
EW	EACH WAY	NO	NUMBER
EXST, EX	EXISTING	NOM	NOMINAL
EXP	EXPANSION	NPT	NATIONAL PIPE THREAD
EXT	EXTENSION	NTS	NOT TO SCALE
EXT	EXTERIOR	OC	ON CENTER
FA	FOUL AIR	OD	OUTSIDE DIAMETER
FAB	FABRICATE	OPNG	OPENING
F&C	FRAME & COVER	OPP	OPPOSITE
FC	FLEXIBLE COUPLING	P&ID	PROCESS & INSTRUMENTATION
FCA	FLANGED COUPLING ADAPTER	PCC	PORTLAND CEMENT CONCRETE
FD	FLOOR DRAIN	PE	PLAIN END
FDN	FOUNDATION	PEN	PENETRATE
FDR	FEEDER	PG	PROPOSED GRADE
FF	FINISHED FLOOR	PL	PROPERTY LINE
FFE	FINISHED FLOOR ELEV.	PL	PROPERTY LINE
FG	FINISHED GRADE	PRV	PRESSURE REDUCING VALVE
FH	FIRE HYDRANT	PSI	POUNDS PER SQUARE INCH
		PT	POINT

RC	REINFORCED CONCRETE PIPE
RD	ROUND
RECM	RECOMMEND
RED	REDUCE
RELOC	RELOCATE
REINF	REINFORCED
REQD	REQUIRED
RPMP	REINFORCED POLYMER MORTAR PIPE
RT	RIGHT
R/W	RIGHT OF WAY
S	SLOPE
SCH	SCHEDULE
SEC	SECTION
SDCO	STORM DRAIN CLEANOUT
SVCE	SERVICE
SHT	SHEET
SHLDR	SHOULDER
SIM	SIMILAR
SLP & S	SLOPE
SLDR	SOLDER
SLTD	SLOTTED
SP	SPACE
SP	SPOOL
SPCG	SPACING
SPD	SUMP PUMP DISCHARGE
SPEC	SPECIFICATION
SQ	SQUARE
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
STF	STIFFENER
STL	STEEL
STR	STRAIGHT
STRUC	STRUCTURE
SPRT	SUPPORT
SYMM	SYMMETRICAL
T&B	TOP & BOTTOM
TEMP	TEMPERATURE
THD	THREAD
THK	THICK
THKNS	THICKNESS
T.O.	TOP OF
TOC	TOP OF CONCRETE
TOT	TOTAL
TRANS	TRANSFORMER
TYP	TYPICAL
UD	UNDER DRAIN
UON	UNLESS OTHERWISE NOTED
VCP	VITRIFIED CLAY PIPE
W/	WITH
WSP	WELDED STEEL PIPE
WT	WEIGHT
WTR & W	WATER
WWF	WELDED WIRE FABRIC
XMTR	TRANSMITTER
VB	VALVE BOX
WM	WATER METER

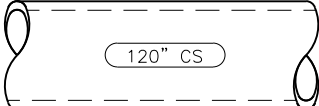
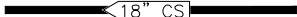
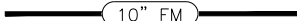
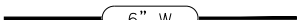
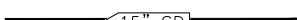
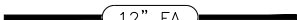


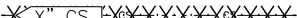



PIPING SYSTEM ABBREVIATIONS

CS	COMBINED SEWER
BD	BUILDING DRAIN
D	DRAIN
IRR	IRRIGATION
OF	OVERFLOW
PD	PUMPED DRAIN
PFD	PERFORATED DRAIN
SL	SAMPLE LINE
SD	STORM DRAIN
SS	SANITARY SEWER
V	VENT
W	WATER

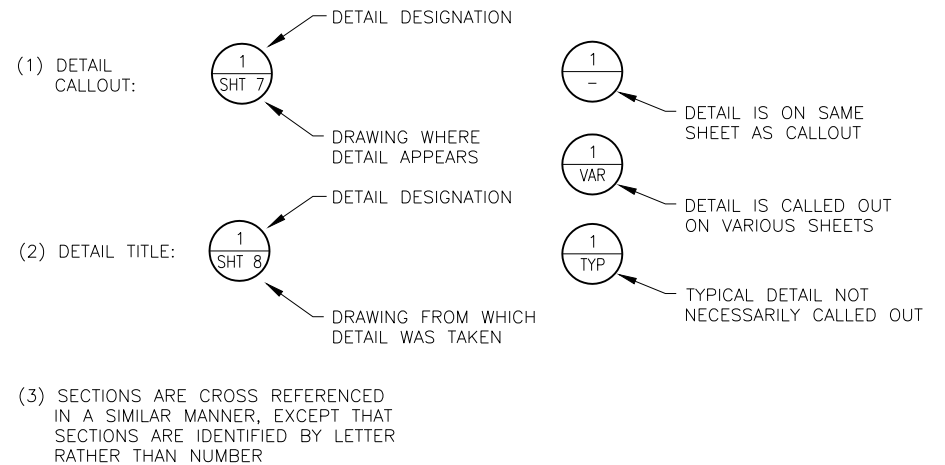
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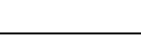
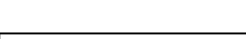
	WATER LINE
	COMBINED SEWER (LESS THAN 24"φ)
	COMBINED SEWER (24"φ AND LARGER)
	SANITARY SEWER
	STORM DRAIN
	GAS LINE
	IRRIGATION LINE
	PETROLEUM LINE
	FIBER OPTIC CABLE
	TELECOM LINE
	OVERHEAD LINE
	ELECTRICAL LINE
	DRAINAGE SWALE
	PROPERTY LINE
	EDGE OF PAVEMENT/SIDEWALK
	ROAD CENTERLINE
	FENCE
	CMU WALL
	POWER POLE
	PULL BOX
	STREET LIGHT
	MANHOLE
	TELEPHONE/COMM MANHOLE
	FIRE HYDRANT
	WATER VALVE
	WATER METER
	CATCH BASIN
	SPRINKLER
	SEWER LATERAL W/ CLEANOUT
	SEWER LATERAL
	TREE
	SURVEY CONTROL POINT

PROPOSED

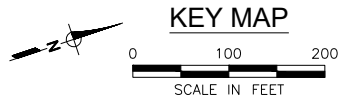
	NEW 120" COMBINED SEWER STORAGE PIPING
	NEW 18" COMBINED SEWER
	NEW 10" COMBINED SEWER FORCE MAIN
	NEW 6" WATER
	NEW 15" STORM DRAIN
	NEW 12" FOUL AIR VENT PIPING
	NEW CATCH BASIN
	NEW MANHOLE
	REMOVE/RELOCATE COMBINED SEWER
	REMOVE COMBINED SEWER FOR CONSTRUCTION AND REPLACE IN KIND
	DECOMPOSED GRANITE WALK
	NEW ASPHALT CONCRETE PAVEMENT

SECTION AND DETAIL DESIGNATIONS



THIS LINE IS 1 INCH  AT FULL SCALE IF NOT SCALE ACCORDINGLY				PVMT PAVEMENT PWR POWER R RADIUS R.C. RELATIVE COMPACTION																											
REVISIONS <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>DATE</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				NO.	DESCRIPTION	DATE	BY																					BENCH MARK ELEV. 19.756 DESCRIPTION: BENCHMARK 297-F41: RAMSET IN X-TIE TIE CLRC SW CORNER OF 26TH ST. & K ST. D.B.		FIELD BOOK 1477 SCALE: H: AS SHOWN V: AS SHOWN	
NO.	DESCRIPTION	DATE	BY																												
CITY OF SACRAMENTO DEPARTMENT OF UTILITIES						 																									
IMPROVEMENT PLANS FOR: COMBINED SEWER SYSTEM IMPROVEMENTS 24TH AND K STORAGE FACILITY ABBREVIATIONS AND LEGEND						DWG. NO. G02 SHEET 2 OF 24 PN: X14170106																									

PN: X14170106 24TH AND K STORAGE FACILITY N:\Clients\038 Soc City\30-20-59 24th & 25th CSS\CAD\Production\24th ST\03830-2059-604.dwg



SITE SURVEY PROVIDED BY CITY OF SACRAMENTO:
LAND SURVEY PERFORMED FOR 24TH STREET BETWEEN N
ST AND H ST, AND K STREET BETWEEN 24TH STREET AND
25TH STREET
FB: 1477
JN: X14170106

HORIZONTAL CONTROL:
DATUM BASED ON THE CALIFORNIA COORDINATE SYSTEM OF
1983, ZONE II UTILIZING COORDINATES FROM RECORD OF
SURVEY, XXXXXXXX POINTS: G3501, G3504, G3404, G3303,
G3302, G3402, AND G3401; US SURVEY FEET. CONTROL
POINTS ARE GRID, ALL OTHERS ARE GROUND DISTANCES.

VERTICAL CONTROL:
ELEVATIONS IN CITY OF SACRAMENTO NGVD29 DATUM
BM 297-F41 ELEVATION: 19.756'
RAM SET IN X-TIE TOC CLRC SW CORNER OF 26TH ST. &
K ST. D.B.

POINT NUMBER	NORTHING	EASTING	POINT ELEVATION	FULL DESCRIPTION
106	1970945.524	6711586.173	20.017	RP106 SW 24TH & L ST
107	1971780.93	6711866.196	20.302	RP107 NW 24TH & J ST
118	1972117.292	6712001.666	20.947	RP118 M&T LS6078 ?
125	1972362.747	6712101.451	20.587	RP125 MAG
133	1971137.815	6711691.3	19.683	RP133 MAG SE ALLEY
134	1970743.224	6711557.605	18.853	RP134 MAG SE ALLEY
175	1971245.093	6712161.494	19.244	RP175 XTIE NE 25TH & K ST
176	1971342.913	6711719.71	19.392	RP176 MAG SW 24TH & K ST

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK	ELEV. 19.756
DESCRIPTION:	
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC	
SW CORNER OF 26TH ST. & K ST. D.B.	

FIELD BOOK
1477
SCALE:
H: AS SHOWN
V: AS SHOWN

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES			
DRAWN BY: ESE/RSM	DESIGNED BY: ALB/SMG/DM	CHECKED BY: RR	
DATE: 1/2023	R.C.E. NO. DATE: 1/2023	R.C.E. NO. DATE: 1/2023	

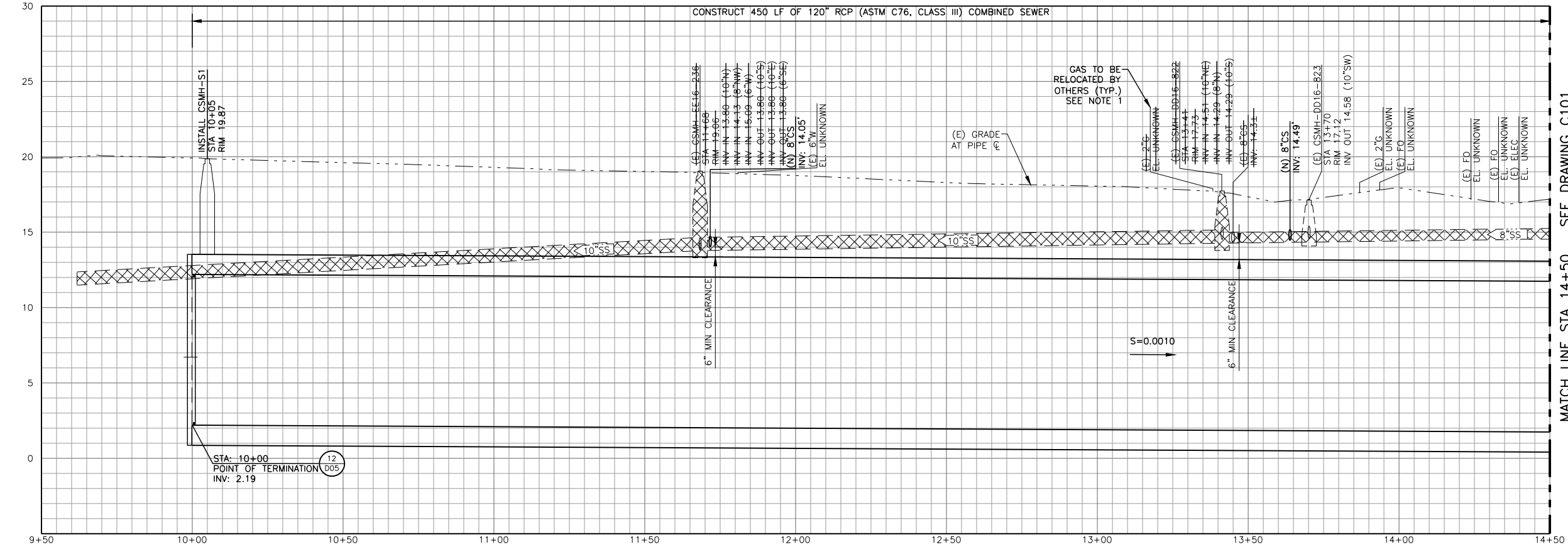


IMPROVEMENT PLANS FOR:		PN: X14170106	DWG. NO. G04 SHEET 4 OF 24
COMBINED SEWER SYSTEM IMPROVEMENTS			
24TH AND K STORAGE FACILITY			
KEYMAP AND SURVEY CONTROL			

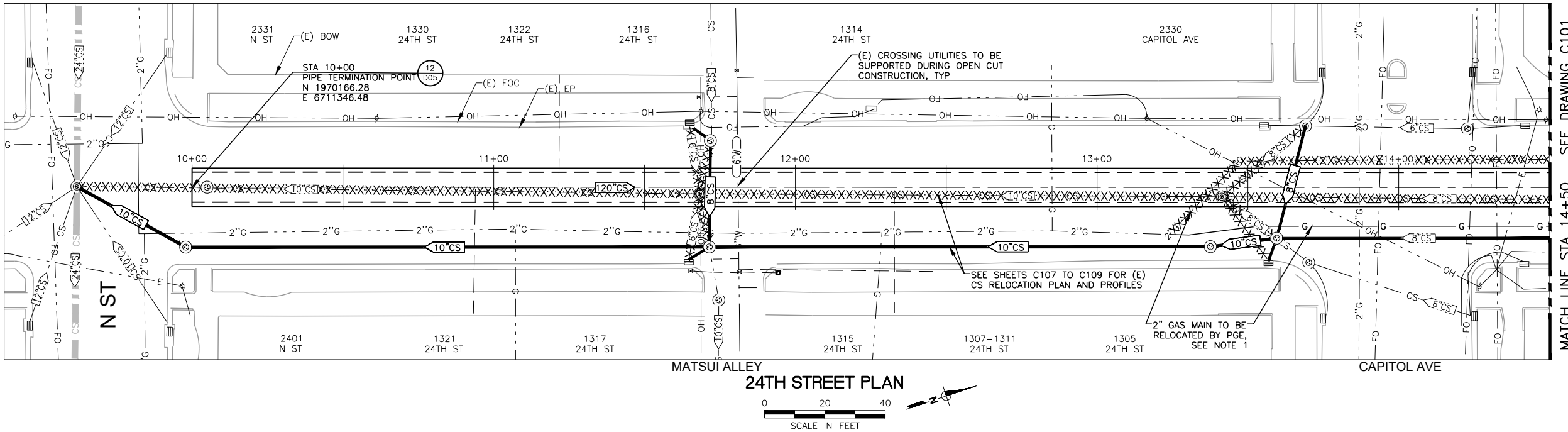
PN: X14170106

PN: X14170106

24TH AND K STORAGE FACILITY
N:\Clients\039 Soc City\30-20-59-24th & 25th CSS\CAD\Production\24th STA 10+00 to 14+50-C100.dwg



PROFILE
SCALE: H: 1"=20', V: 1"=4'



24TH STREET PLAN
SCALE IN FEET

NOTES:
1. PG&E WILL RELOCATE (E) 2" GAS MAIN. CONTRACTOR TO COORDINATE SCHEDULE AS REQUIRED. SEE SPECIAL PROVISION SECTION X.XX ORDER OF WORK.

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1			
2			
3			

BENCH MARK	ELEV. 19.756
DESCRIPTION:	
BENCHMARK 297-F41: RAMSET IN X-TIE TO CLRC	
SW CORNER OF 26TH ST. & K ST. D.B.	

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

DRAWN BY:	ESE/RSM
DATE:	1/2023

CITY OF SACRAMENTO	DEPARTMENT OF UTILITIES
DESIGNED BY:	ALB/SMG/DM
R.C.E. NO.	
DATE:	1/2023

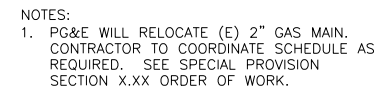
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DATE:	1/2023



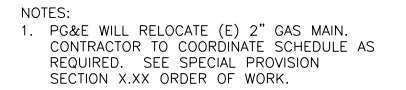
IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
STA 10+00 TO STA 14+50

PN: X14170106	DWG. NO. C100
	SHEET 5 OF 24

PN: X14170106



PN: X14170106	DWG. NO.
	C101
	SHEET
	6
	OF
	24



SCALE: H: 1"=20', V: 1"=4'

BENCH MARK ELEV. 19.756
DESCRIPTION:
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC
SW CORNER OF 26TH ST. & K ST. D.B.

DRAWN BY: ESE/RSM
DATE: 1/2023

DRAWN BY: ESE/RSM
DATE: 1/2023

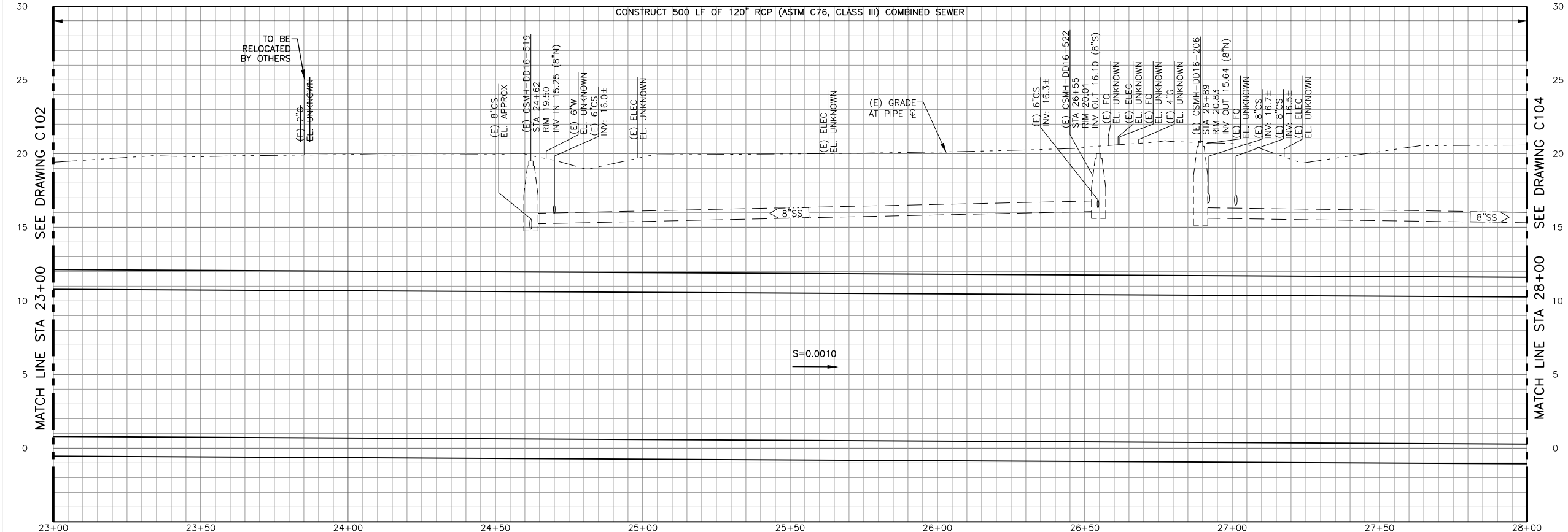
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R.C.E. NO. _____ DATE: 1/2023



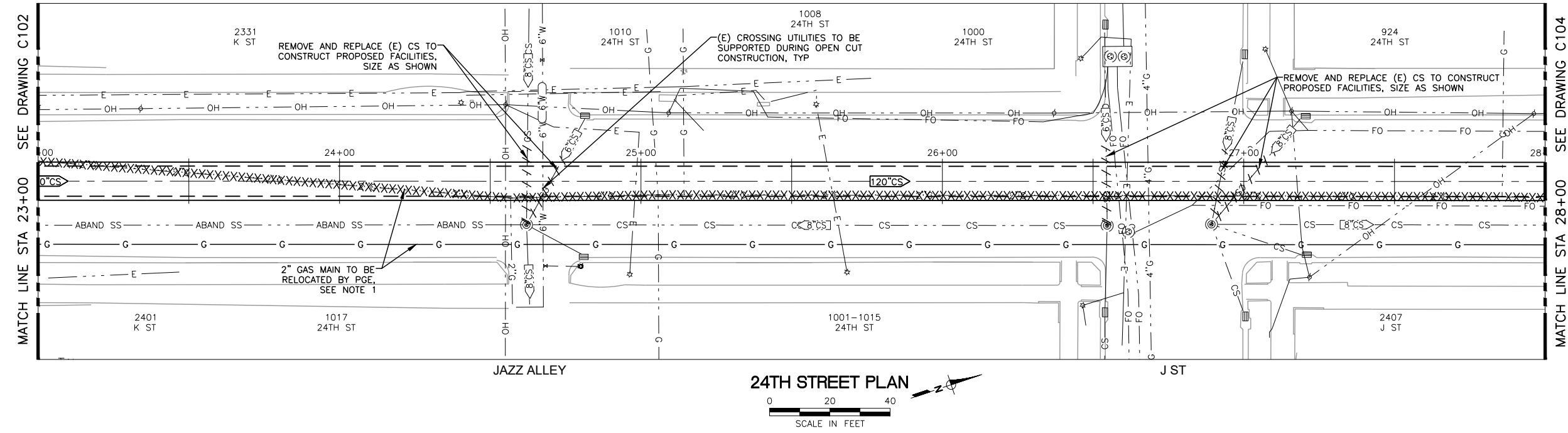
DWG. NO.
C102
SHEET
7
OF
24

N:\Clients\039 Soc City\30-20-59 24th & 25th CSS\CAD\Production\24th ST\03830-2059-C100-C106.dwg

PN: X14170106



PROFILE
SCALE: H: 1"=20', V: 1"=4'



- NOTES:
- PG&E WILL RELOCATE (E) 2" GAS MAIN. CONTRACTOR TO COORDINATE SCHEDULE AS REQUIRED. SEE SPECIAL PROVISION SECTION X.XX ORDER OF WORK.

THIS LINE IS 1 INCH
AT FULL SCALE
IF NOT SCALE ACCORDINGLY

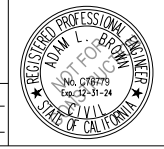
REVISIONS			
NO.	DESCRIPTION	DATE	BY
1			
2			
3			

BENCH MARK	ELEV.	19.756
DESCRIPTION:		
BENCHMARK 297-F41: RAMSET IN X-TIE TO CLRC		
SW CORNER OF 26TH ST. & K ST. D.B.		

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

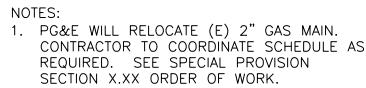
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DATE: 1/2023	R.C.E. NO. DATE: 1/2023	R.C.E. NO. DATE: 1/2023



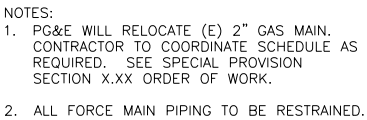
IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
STA 23+00 TO STA 28+00

PN: X14170106	DWG. NO.	C103
	SHEET	8
	OF	24

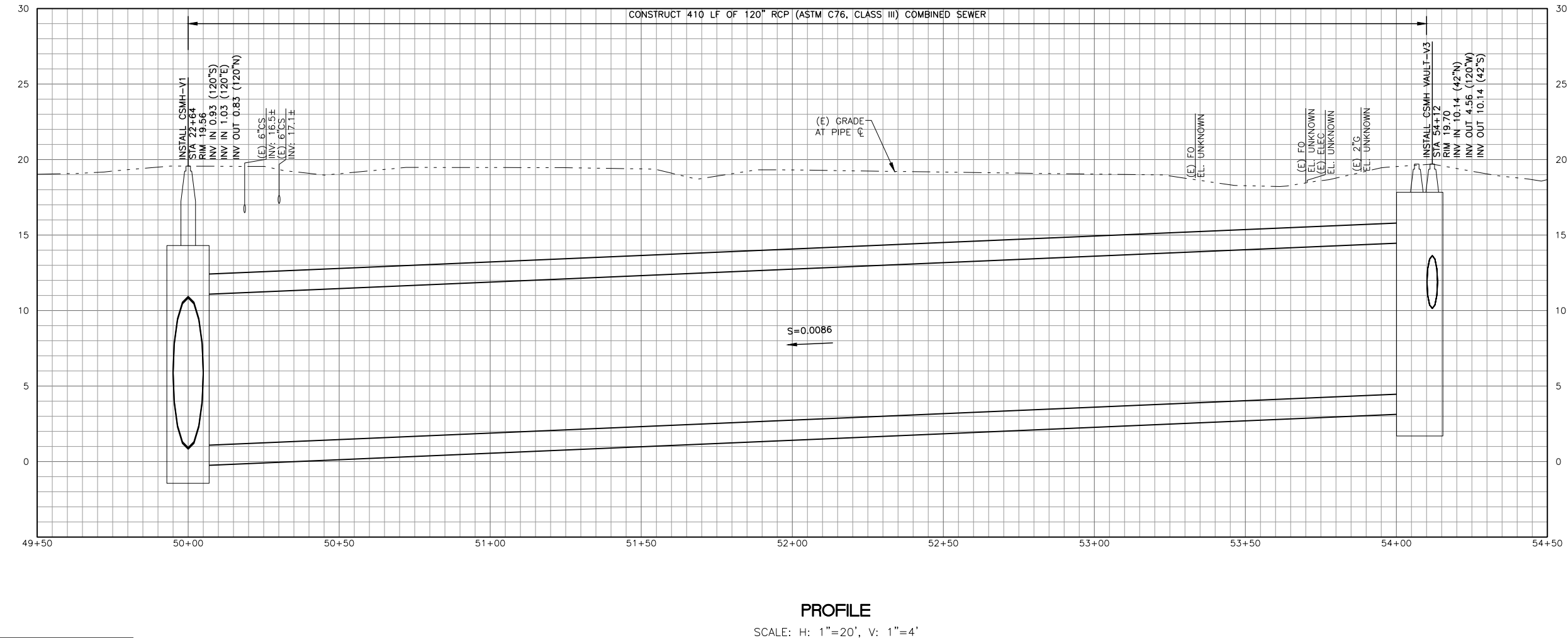
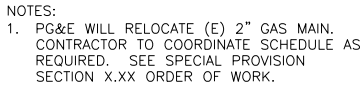
PN: X14170106








IMPROVEMENT PLANS FOR: COMBINED SEWER SYSTEM IMPROVEMENTS 24TH AND K STORAGE FACILITY STA 28+00 TO STA 33+00		DWG. NO. C104 SHEET 9 OF 24
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PN: X14170106	DWG. NO.
	C105
	SHEET
	10
	OF
	24



THIS LINE IS 1 INCH

 AT FULL SCALE
 IF NOT SCALE ACCORDINGLY

NO.	DESCRIPTION
	
	
	
	

BENCH MARK	ELEV.	19.756
DESCRIPTION:		
<u>BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC</u>		
<u>SW CORNER OF 26TH ST. & K ST. D.B.</u>		

FIELD BOOK
1477
SCALE:
H: AS SHOWN
V: AS SHOWN

<h1 style="margin: 0;">CITY OF SACRAMENTO</h1> <h2 style="margin: 0;">DEPARTMENT OF UTILITIES</h2>		
DRAWN BY: <u>ESE/RSM</u> DATE: <u>1/2023</u>	DESIGNED BY: <u>ALB/SMG/DM</u> R.C.E. NO. _____ DATE: <u>1/2023</u>	CHECKED BY: <u>RR</u> R.C.E. NO. _____ DATE: <u>1/2023</u>



IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
STA 50+00 TO STA 54+10

PN: X14170106
DWG. NO.
C106
SHEET
11
OF
24

N:\Clients\039 Soc City\30-20-59 24th & 25th CSS\CAD\Production\24th ST\03830-2059-C107-110.dwg

PN: X14170106

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK	ELEV.	19.756
DESCRIPTION:		
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC		
SW CORNER OF 26TH ST. & K ST. D.B.		

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

DRAWN BY: ESE/RSM
DATE: 1/2023

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES

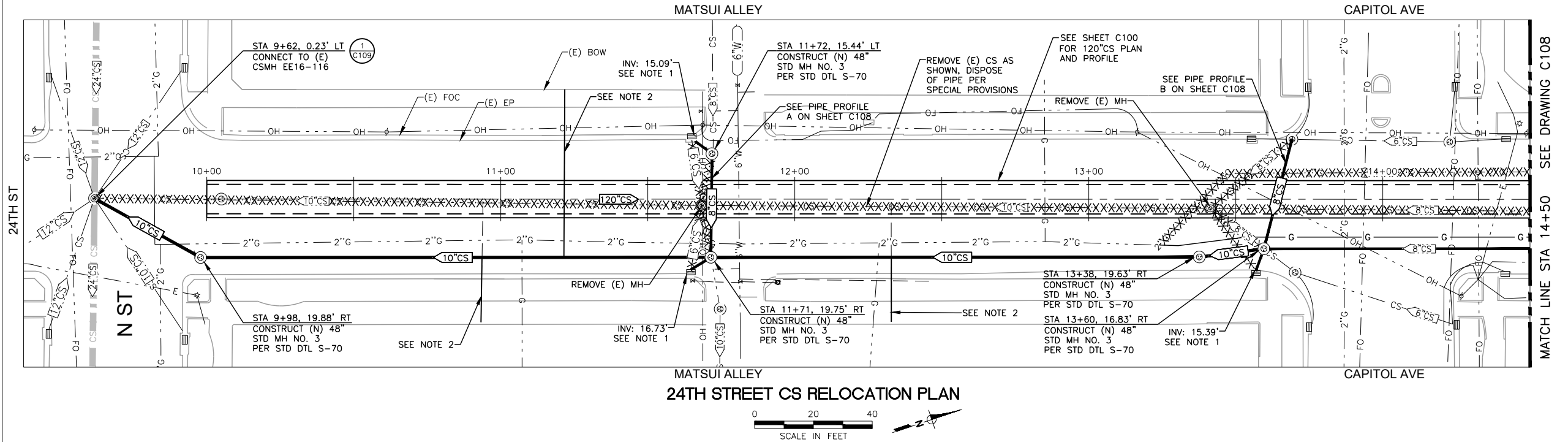
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R.C.E. NO. DATE: 1/2023

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R.C.E. NO. DATE: 1/2023

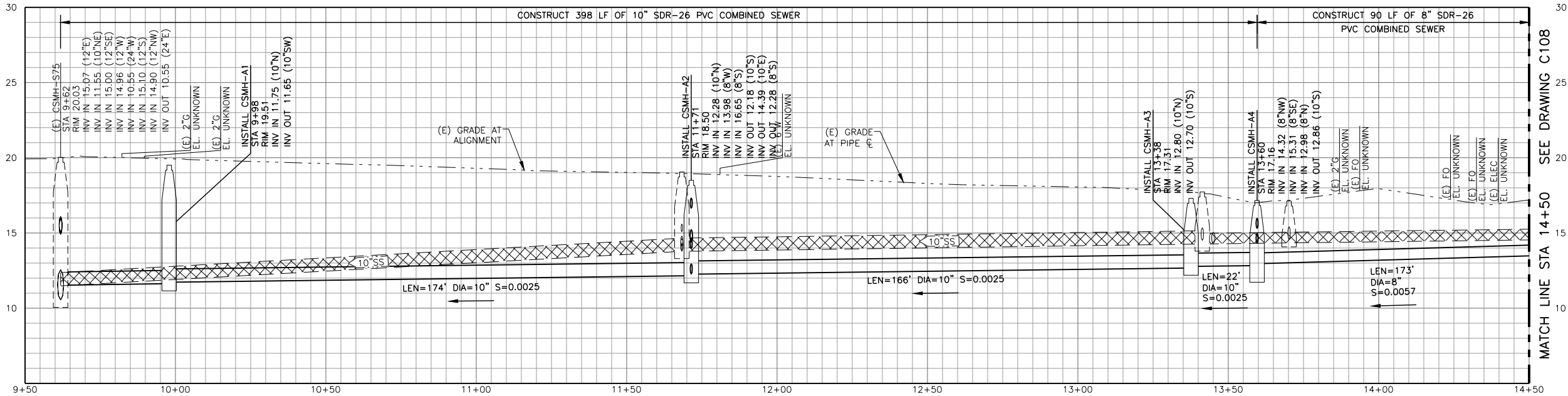


IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
UTILITY RELOCATION PLAN 1

PN: X14170106
DWG. NO. **C107**
SHEET
12
OF
24



- NOTES:
1. REMOVE AND REPLACE (E) CATCH BASIN PER STD DTL S-20.
 2. RECONSTRUCT LOWER LATERAL TO (N) CS MAIN AND INSTALL CLEANOUT PER STD DTLS S-260 AND S-265.



24TH STREET CS RELOCATION PROFILE

SCALE: H: 1"=20', V: 1"=4'

N:\Clients\039 Soc City\30-20-59-24th & 25th CSS\CAD\Production\24th ST\03830-2059-C107-110.dwg

PN: X14170106

THIS LINE IS 1 INCH
AT FULL SCALE
IF NOT SCALE ACCORDINGLY

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1			
2			
3			

BENCH MARK	ELEV. 19.756
DESCRIPTION:	
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC	
SW CORNER OF 26TH ST. & K ST. D.B.	

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

DRAWN BY:	ESE/RSM
DATE:	1/2023

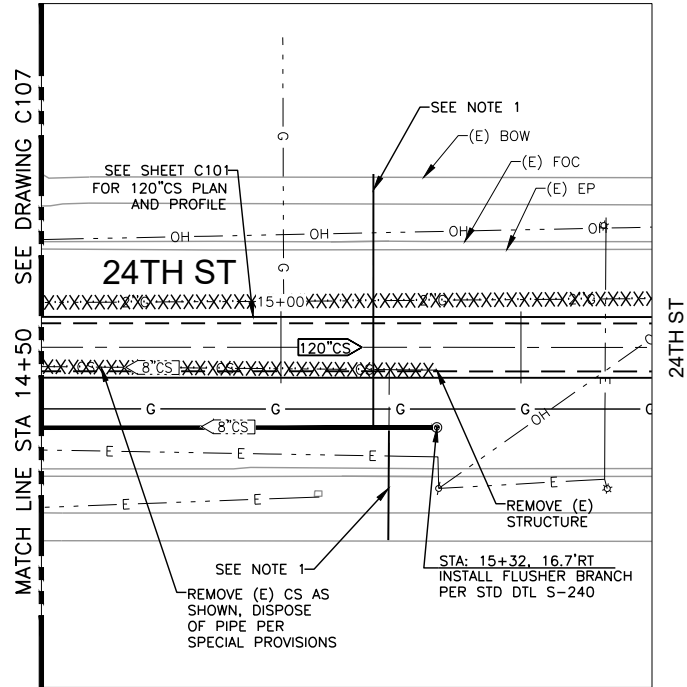
CITY OF SACRAMENTO	
DEPARTMENT OF UTILITIES	
DESIGNED BY:	ALB/SMG/DM
R.C.E. NO.	DATE: 1/2023

CHECKED BY:	RR
R.C.E. NO.	DATE: 1/2023



IMPROVEMENT PLANS FOR:	
COMBINED SEWER SYSTEM IMPROVEMENTS	
24TH AND K STORAGE FACILITY	
UTILITY RELOCATION PLAN 2	

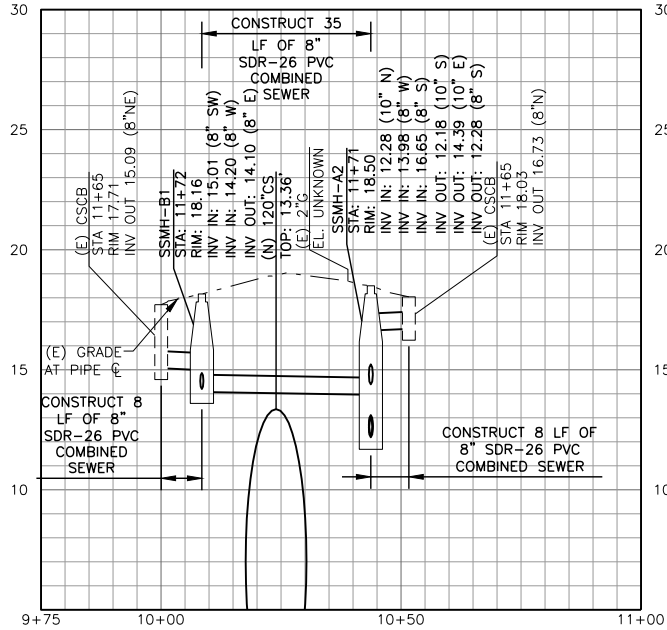
PN: X14170106	DWG. NO.
	C108
	SHEET
	13
	OF
	24



24TH STREET CS RELOCATION PLAN

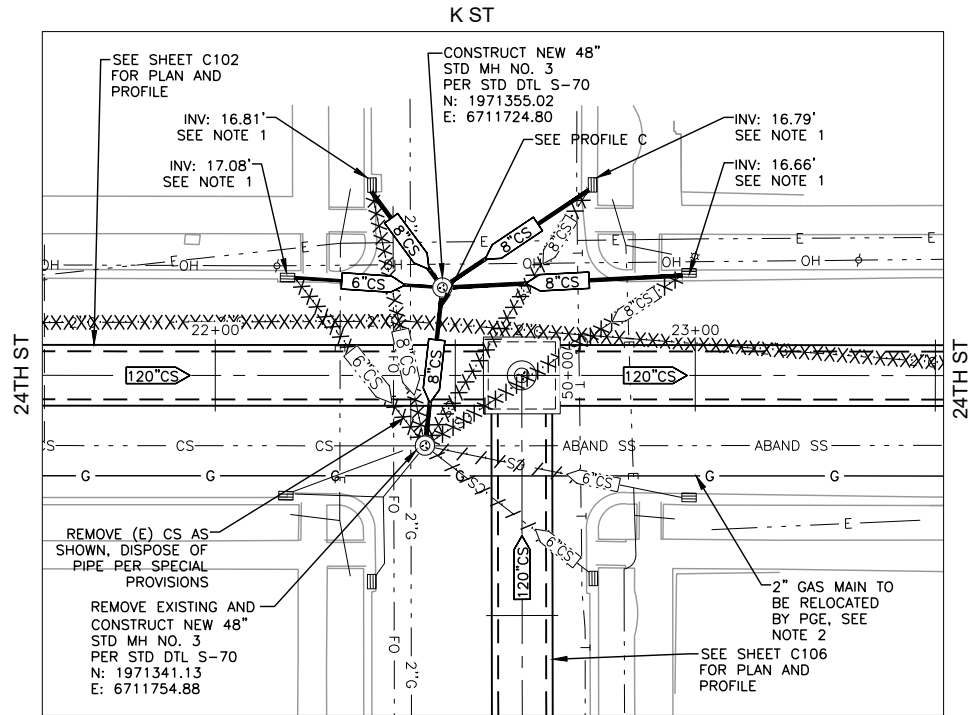


- NOTES:
1. RECONSTRUCT LOWER LATERAL TO (N) CS MAIN AND INSTALL CLEANOUT PER STD DTL S-260 AND S-265.



PROFILE A

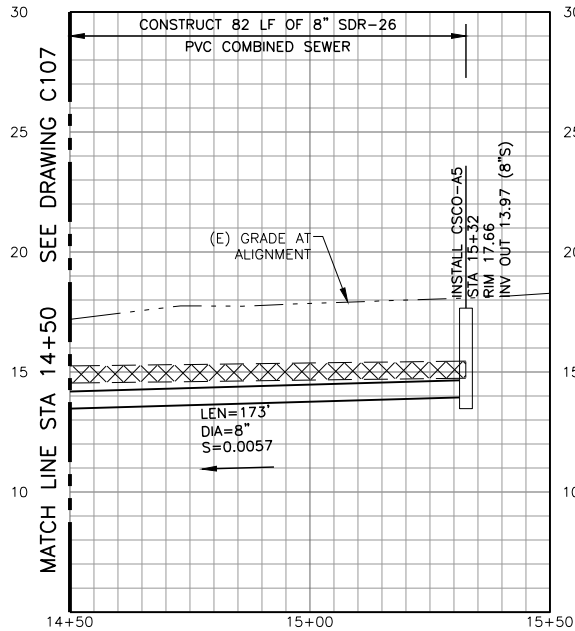
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24TH AND K ST CS RELOCATION PLAN

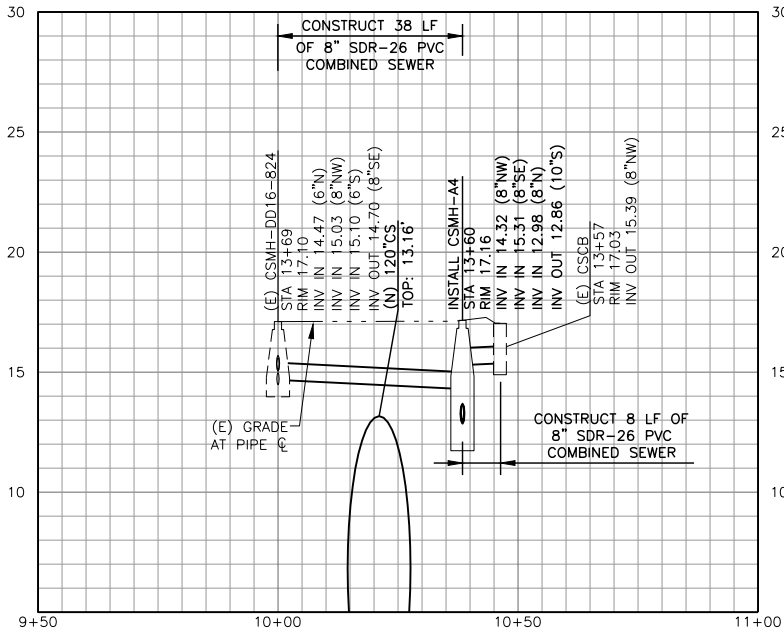


- NOTES:
1. REMOVE AND REPLACE (E) CATCH BASIN PER STD DTL S-20.
 2. PG&E WILL RELOCATE (E) 2" GAS MAIN. CONTRACTOR TO COORDINATE SCHEDULE AS REQUIRED. SEE SPECIAL PROVISION SECTION X.XX ORDER OF WORK.



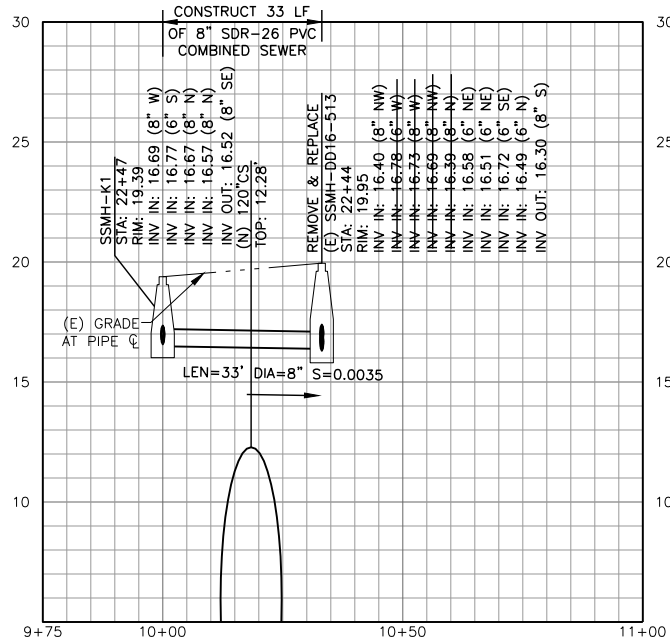
24TH STREET CS RELOCATION PROFILE

SCALE: H: 1"=20', V: 1"=4'



PROFILE B

SCALE: H: 1"=20', V: 1"=4'



PROFILE C

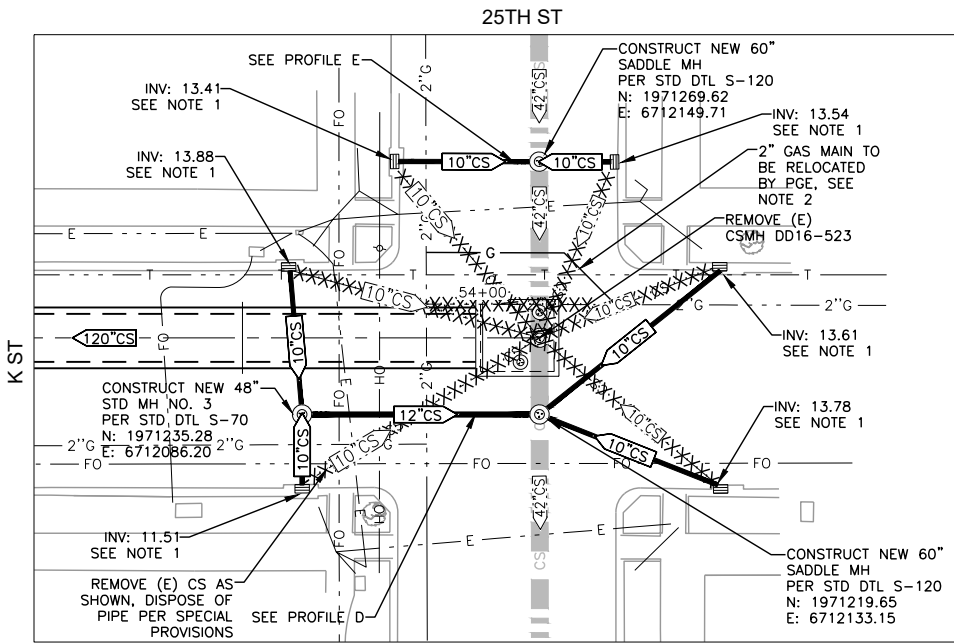
SCALE: H: 1"=20', V: 1"=4'

PN: X14170106

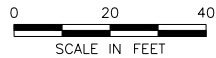
PN: X14170106

24TH AND K STORAGE FACILITY

N:\Clients\038 Soc City\30-59-24th & 25th CSS\CAD\Production\24th ST\03830-2059-C107-110.dwg

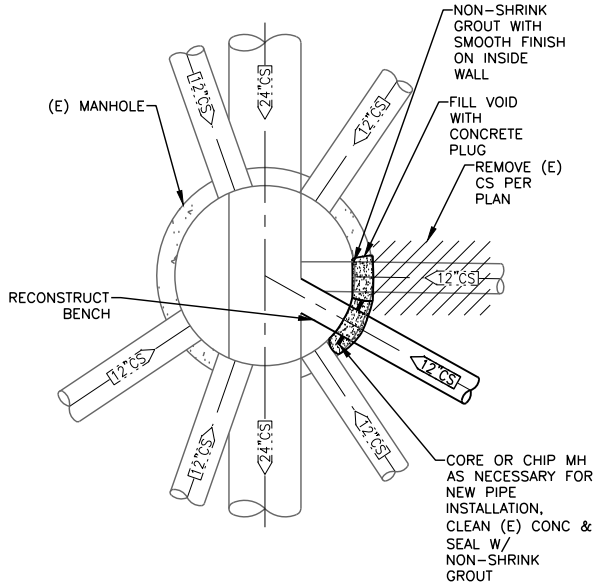


25TH AND K ST CS RELOCATION PLAN



- NOTES:
1. REMOVE AND REPLACE (E) CATCH BASIN PER STD DTL S-20.
 2. PG&E WILL RELOCATE (E) 2" GAS MAIN. CONTRACTOR TO COORDINATE SCHEDULE AS REQUIRED. SEE SPECIAL PROVISION SECTION X.XX ORDER OF WORK.

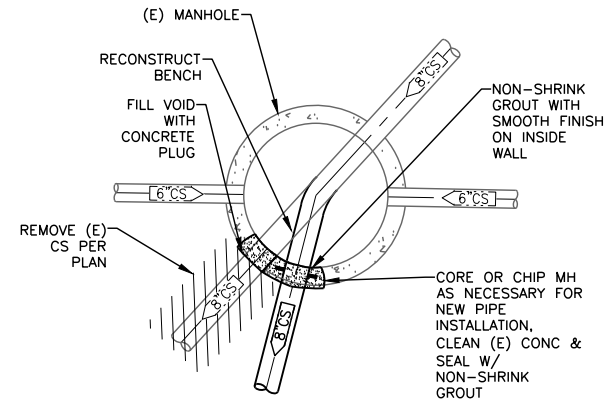
DESIGN NOTE: CITY TO PROVIDE STORM DESIGN FLOWS TO CONFIRM PIPE SIZING SHOWN ON 25TH AND K ST RELOCATION PLAN.



CONNECTION TO (E) CSMH EE16-116

DETAIL 1
C107

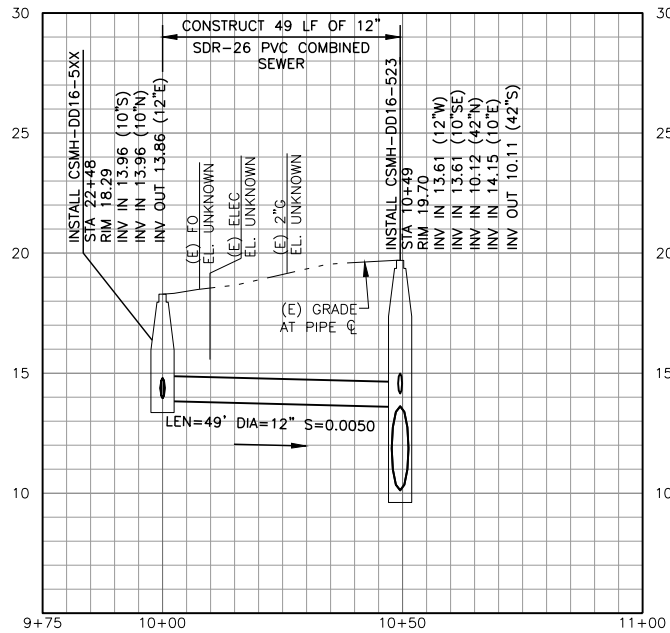
SCALE: NTS



CONNECTION TO (E) CSMH EE16-23X

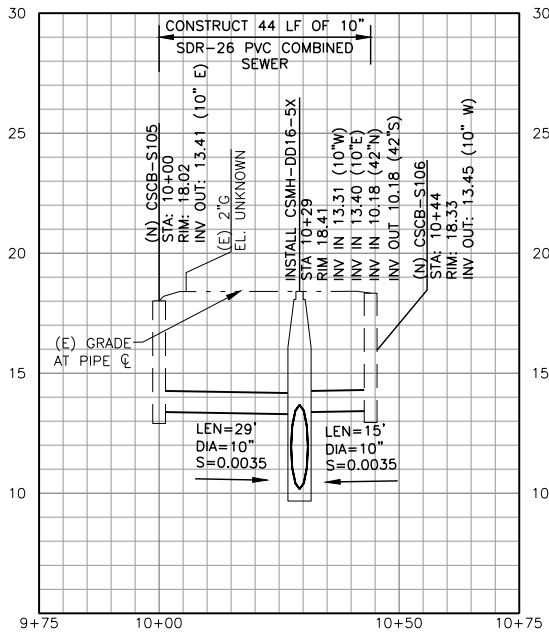
DETAIL 2
C107

SCALE: NTS



PROFILE D

SCALE: H: 1"=20', V: 1"=4'



PROFILE E

SCALE: H: 1"=20', V: 1"=4'

THIS LINE IS 1 INCH
AT FULL SCALE
IF NOT SCALE ACCORDINGLY

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK	ELEV.	19.756
DESCRIPTION:		
BENCHMARK 297-F41: RAMSET IN X-TIE TO CLRC		
SW CORNER OF 26TH ST. & K ST. D.B.		

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES			
DRAWN BY: ESE/RSM	DESIGNED BY: ALB/SMG/DM	CHECKED BY: RR	
DATE: 1/2023	R.C.E. NO.	R.C.E. NO.	DATE: 1/2023

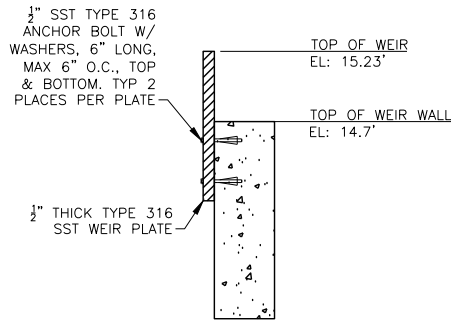


IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
UTILITY RELOCATION PLAN 3

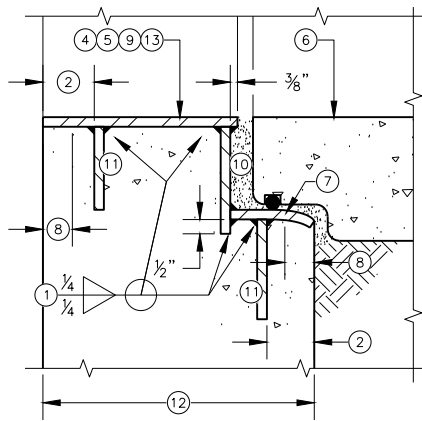
PN: X14170106	DWG. NO. C109
	SHEET 14 OF 24

PN: X14170106

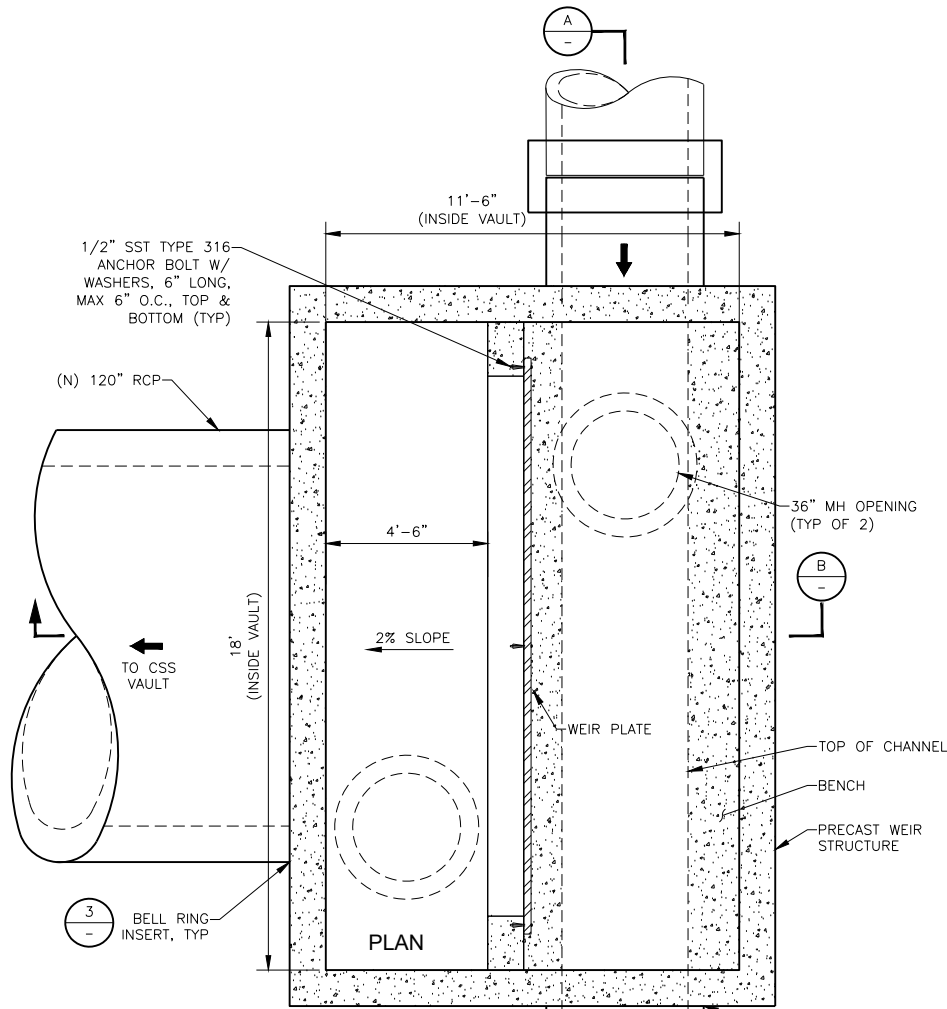
24TH AND K STORAGE FACILITY
N:\Clients\038 Soc City\30-20-59-24th & 25th CSS\CAD\Production\24th SI\03830-2059-D01-D04.dwg
PN: X14170106



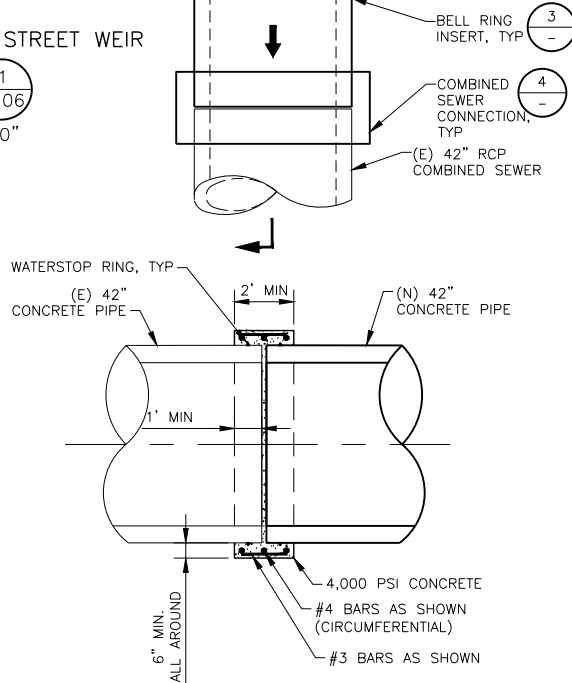
WEIR PLATE
DETAIL 2
NOT TO SCALE



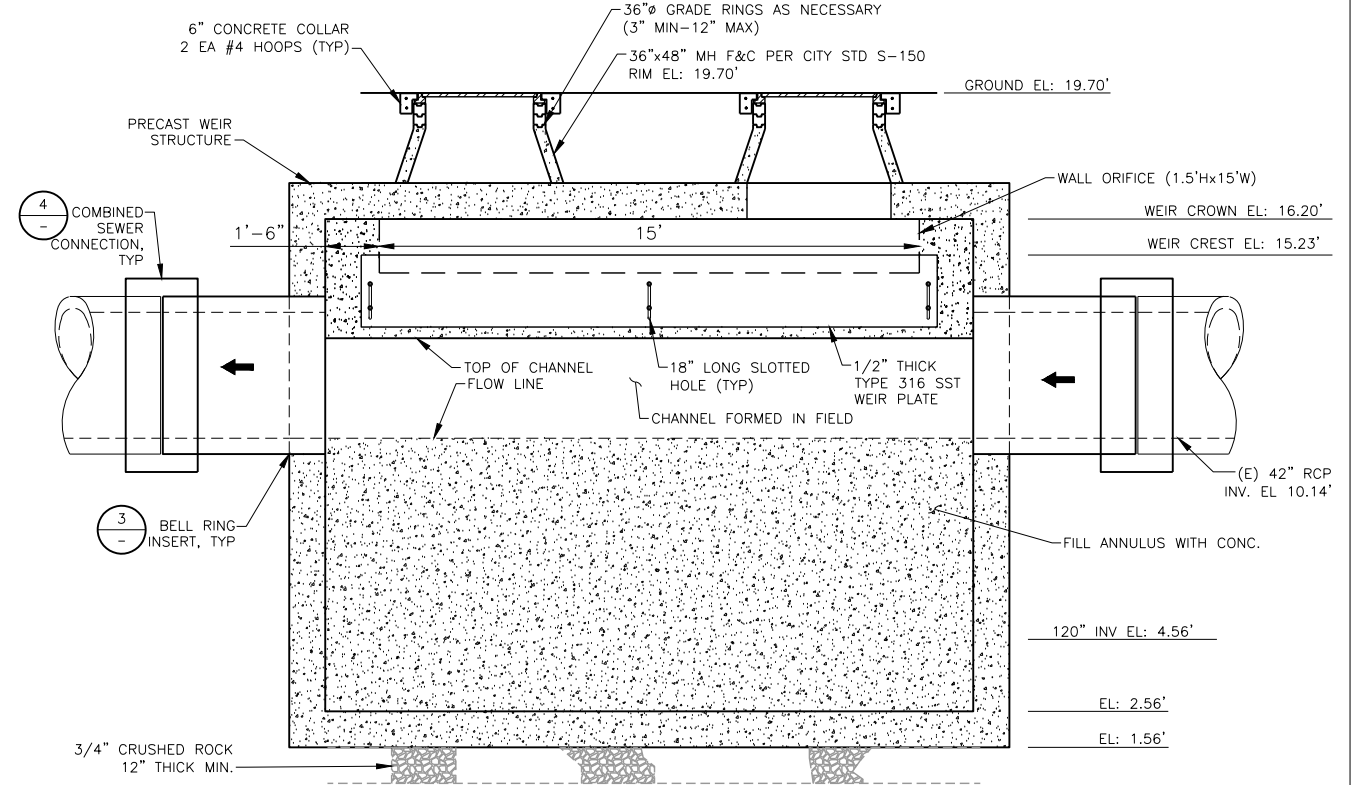
BELL RING INSERT
DETAIL 3
NOT TO SCALE



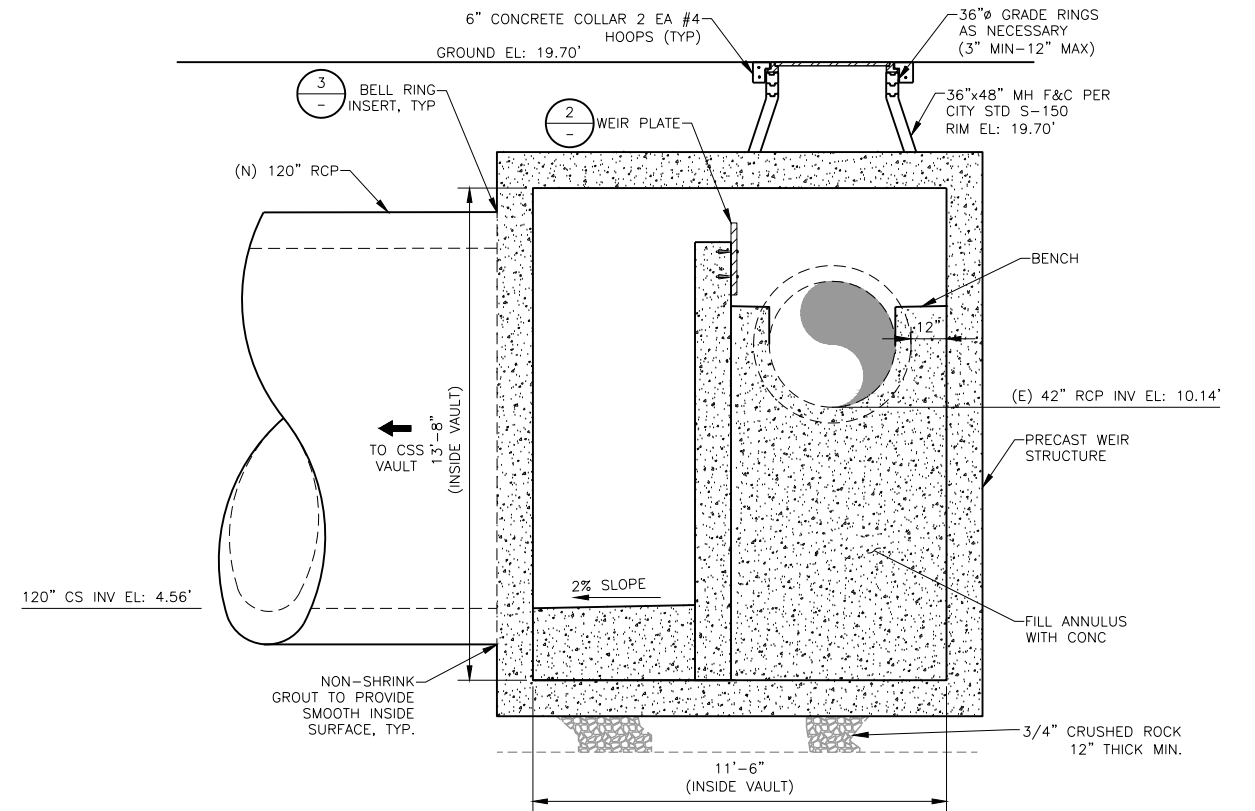
K STREET AND 25TH STREET WEIR
DETAIL 1
3/8" = 1'-0"



COMBINED SEWER CONNECTION
DETAIL 4
NOT TO SCALE



SECTION A-A
SCALE: 3/8" = 1'-0"



SECTION B-B
SCALE: 3/8" = 1'-0"

- KEYNOTES:
- WELD ALL CUT REINFORCING BARS TO ANNULAR RING FOR PIPES GREATER THAN 48"Ø. USE LOW HYDROGEN WELDING
 - REINFORCING STEEL CLEAR COVER PLUS DIAMETER OF OUTSIDE BARS
 - GRIND SMOOTH ALL METAL EDGES IN AREAS TO BE COATED & ALL SURFACES IN PIPE SEATING AREA
 - RING SHALL HAVE SPIDER BRACING INSTALLED AT POINT OF MANUFACTURER
 - RING SHALL BE FUSION BONDED EPOXY COATED AFTER FABRICATION
 - SHAPE & SIZE OF PIPE SPIGOT SHALL BE VERIFIED BY CONTRACTOR PRIOR TO FABRICATION OF BELL RING.
 - 5/16" PLATE RING, CUT FROM MANUFACTURER STANDARD BELL RING
 - LAP COATING 1" UNDER INSERT
 - 3/8" PLATE RING, SAME ID AS PIPE, COAT PER SPEC'S
 - FILL WITH CEMENT MORTAR
 - 1 3/8"x3" ANNULAR RING
 - WALL THICKNESS PER PRE-CAST MANUFACTURER
 - ID OF PIPE

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1			
2			
3			

BENCH MARK	ELEV. 19.756
DESCRIPTION:	
BENCHMARK 297-F41: RAMSET IN X-TIE TO CLRC	
SW CORNER OF 26TH ST. & K ST. D.B.	

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES			
DRAWN BY: ESE/RSM	DESIGNED BY: ALB/SMG/DM	CHECKED BY: RR	
DATE: 1/2023	R.C.E. NO. DATE: 1/2023	R.C.E. NO. DATE: 1/2023	

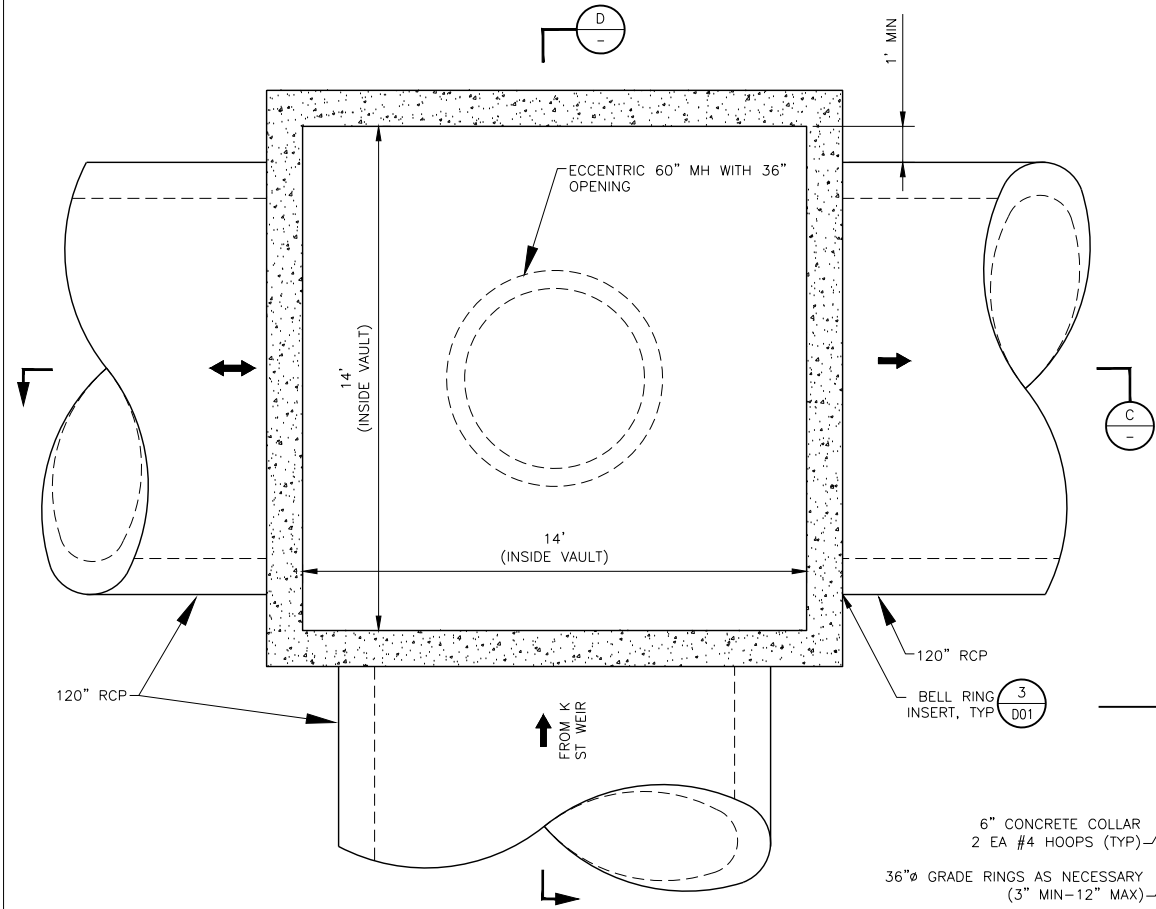


IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
CIVIL DETAILS 1

PN: X14170106	DWG. NO. D01
	SHEET 15
	OF 24

PN: X14170106

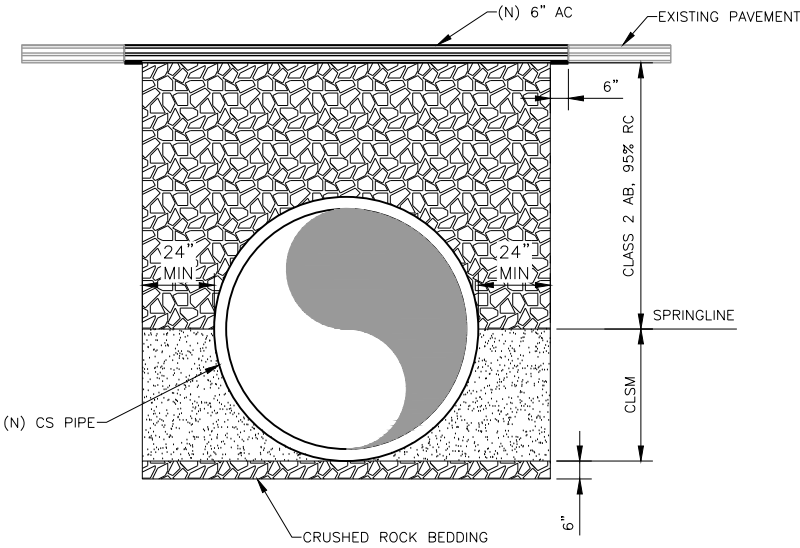
PN: X14170106 24TH AND K STORAGE FACILITY N:\Clients\039 Soc City\30-20-59 24th & 25th CSS\CAD\Production\24th SI\03830-2059-D01-D04.dwg



JUNCTION STRUCTURE AT 24TH AND K STREETS

DETAIL 5
C102

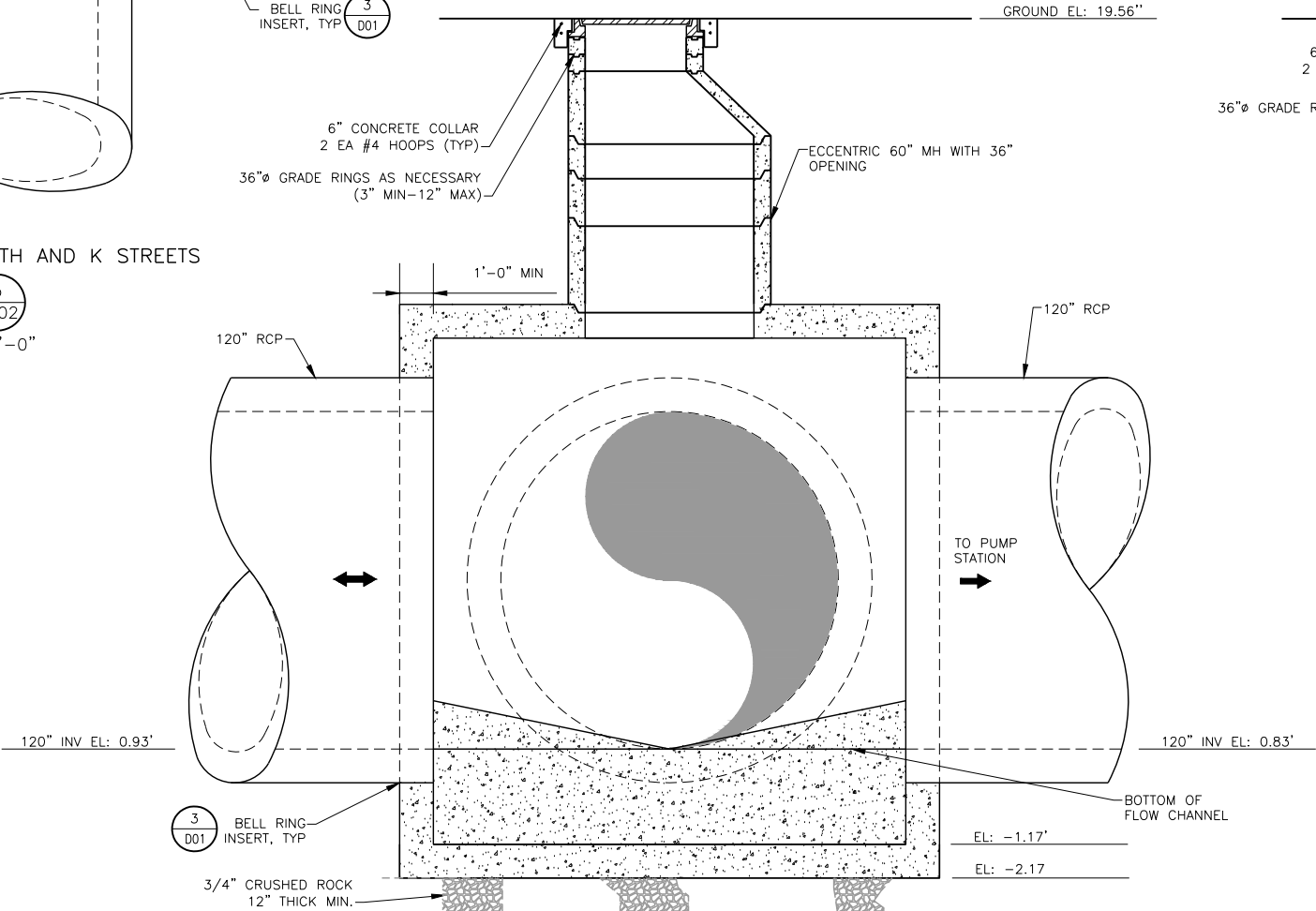
SCALE: 3/8"=1'-0"



120" CS TRENCH SECTION

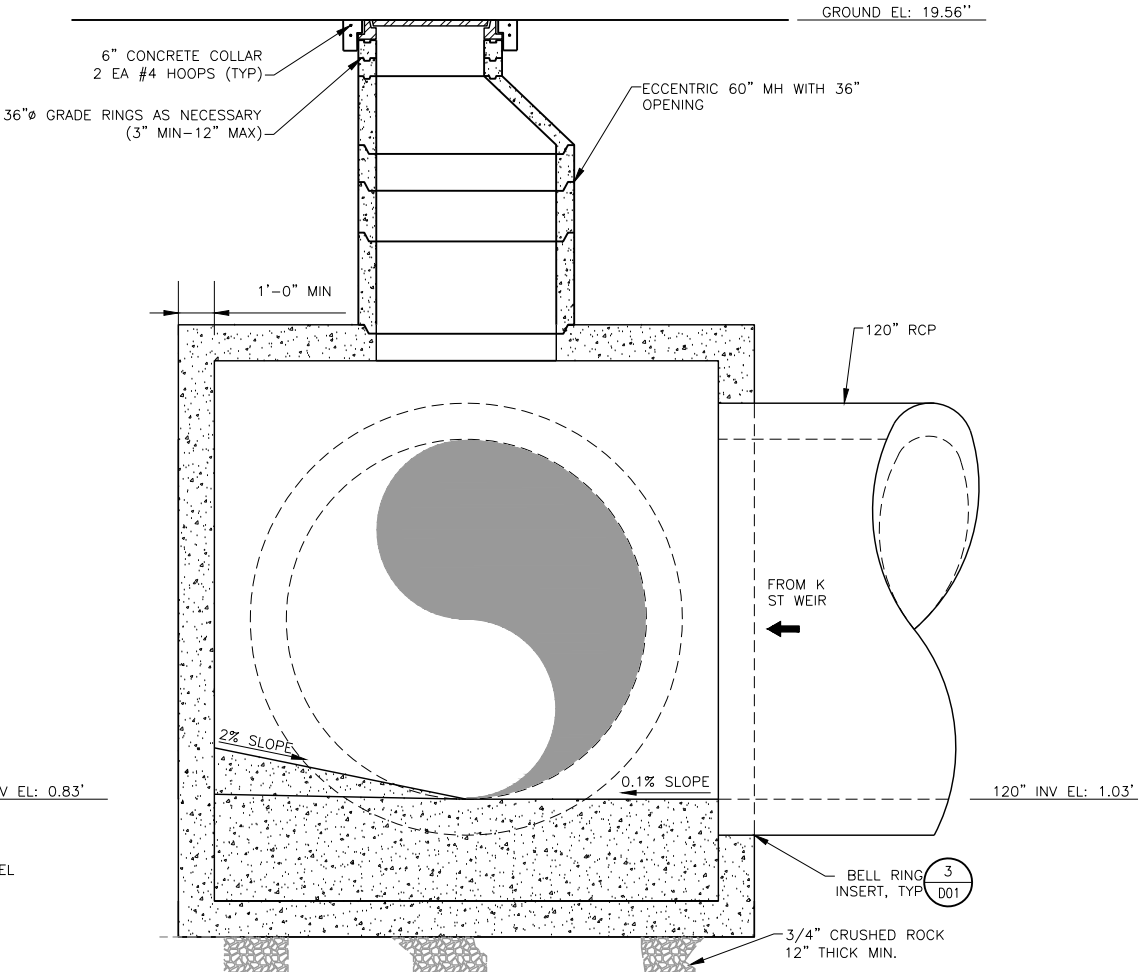
DETAIL 6
TYP

NOT TO SCALE



SECTION C
-

SCALE: 3/8"=1'-0"



SECTION D
-

SCALE: 3/8"=1'-0"

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1			
2			
3			

BENCH MARK	ELEV.	19.756
DESCRIPTION:		
BENCHMARK 297-F41: RAMSET IN X-TIE TO CLRC		
SW CORNER OF 26TH ST. & K ST. D.B.		

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

DRAWN BY: ESE/RSM	DESIGNED BY: ALB/SMG/DM	CHECKED BY: RR
DATE: 1/2023	R.C.E. NO. DATE: 1/2023	R.C.E. NO. DATE: 1/2023

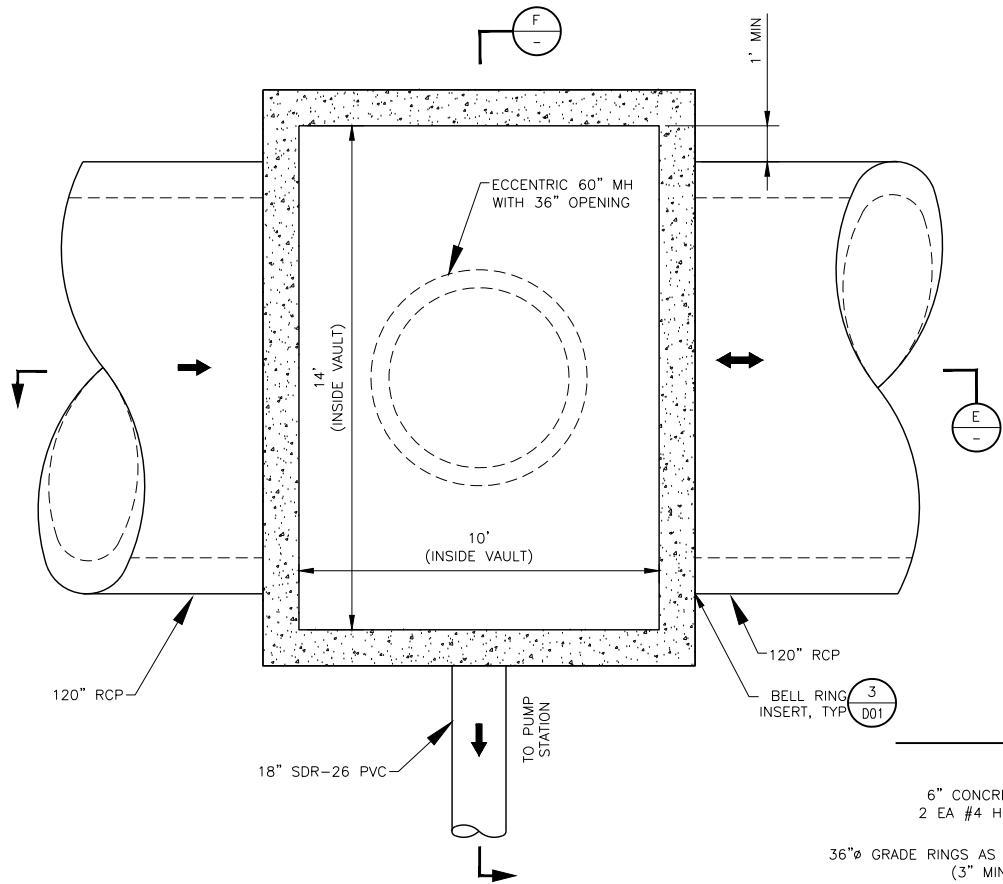


IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
CIVIL DETAILS 2

PN: X14170106	DWG. NO. D02
	SHEET 16
	OF 24

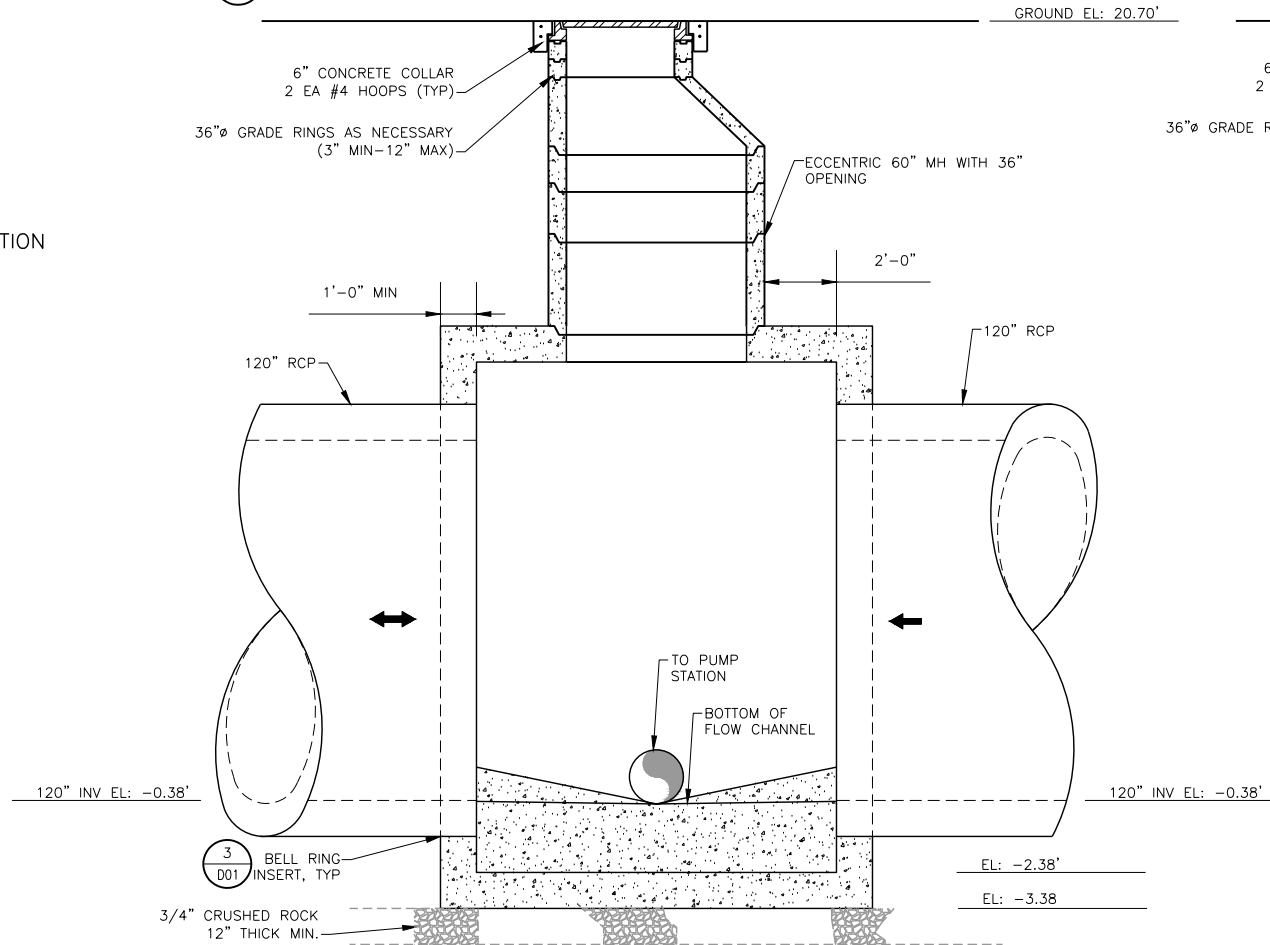
PN: X14170106

PN: X14170106 24TH AND K STORAGE FACILITY N:\Clients\038 Soc City\30-20-59 24th & 25th CSS\CAD\Production\24th SI\03830-2059-D01-D04.dwg

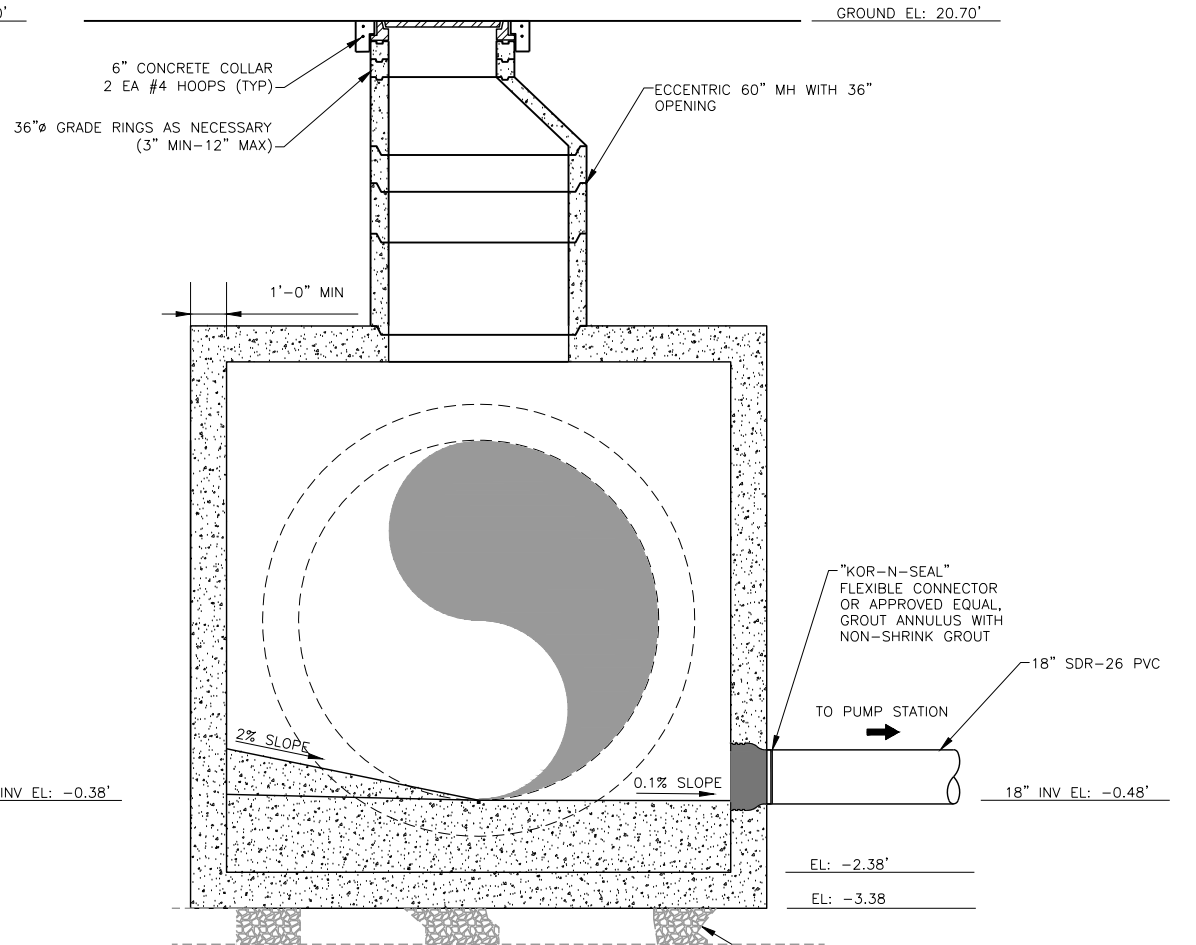


JUNCTION STRUCTURE AT PUMP STATION

DETAIL 6
C105
SCALE: 3/8"=1'-0"



SECTION E
SCALE: 3/8"=1'-0"



SECTION F
SCALE: 3/8"=1'-0"

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1			
2			
3			

BENCH MARK	ELEV.	19.756
DESCRIPTION:		
BENCHMARK 297-F41: RAMSET IN X-TIE TO CLRC		
SW CORNER OF 26TH ST. & K ST. D.B.		

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES			
DRAWN BY: ESE/RSM	DESIGNED BY: ALB/SMG/DM	CHECKED BY: RR	
DATE: 1/2023	R.C.E. NO. DATE: 1/2023	R.C.E. NO. DATE: 1/2023	

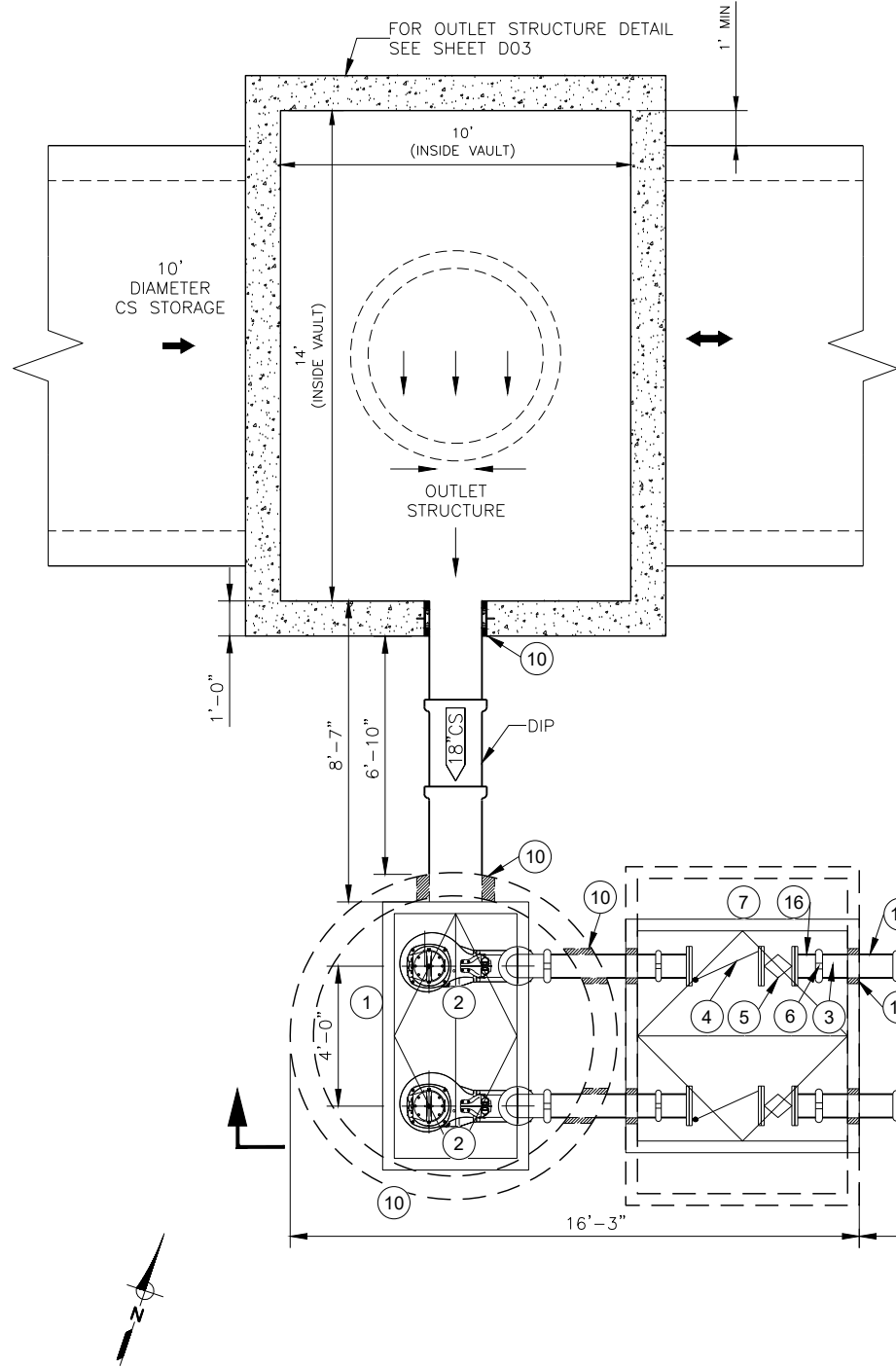


IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
CIVIL DETAILS 3

PN: X14170106	DWG. NO. D03
	SHEET 17
	OF 24

PN: X14170106

PN: X14170106 24TH AND K STORAGE FACILITY N:\Clients\038 Soc City\30-20-59 24th & 25th CSS\CAD\Production\24th SI\03830-2059-D01-D04.dwg



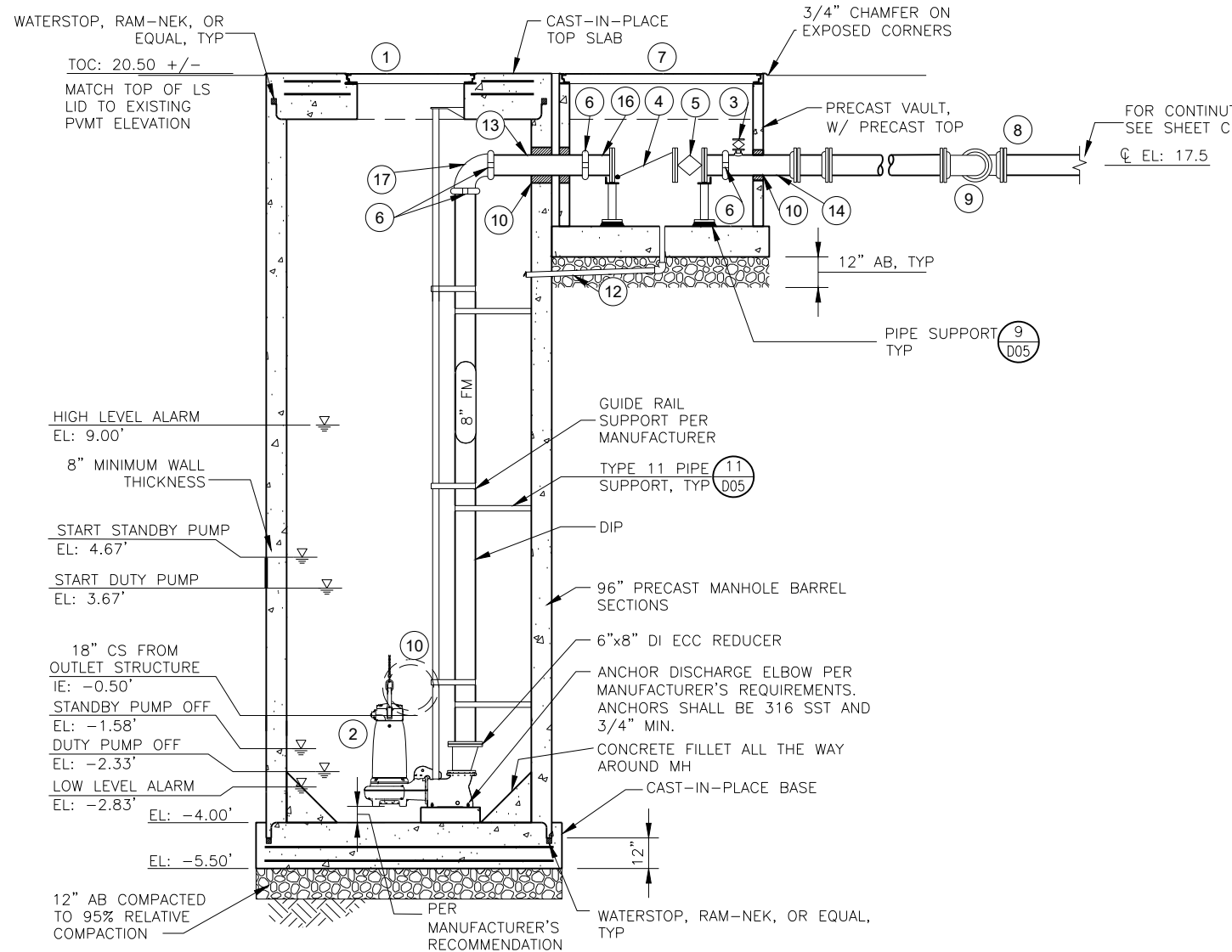
- PART SCHEDULE:
- 1 DOUBLE LEAF STEEL ACCESS HATCH WITH 42"x 84" CLEAR OPENING WITH FALL PROTECTION GRATING.
 - 2 SUBMERSIBLE PUMP (2 TOTAL)
 - 3 2" PLUG VALVE WITH AIR VACUUM AND AIR RELEASE VALVE ASSEMBLY, SEE 8 D05
 - 4 8" CHECK VALVE.
 - 5 8" PLUG VALVE.
 - 6 8" FLEXIBLE GROOVED COUPLING.
 - 7 72"x108"x72" DEEP PRE-CAST CONCRETE UTILITY VAULT WITH 72"x72" DOUBLE LEAF STEEL ACCESS HATCH BY VAULT MANUFACTURER.
 - 8 8" MJ TEE.
 - 9 8" MJ 90° ELBOW.
 - 10 PIPE PENETRATION PER 10 D05
 - 11 8" MJ 45° ELBOW.
 - 12 2" DRAIN WITH CHECK VALVE.
 - 13 8" DI SPOOL (GEXGE).
 - 14 8" DI SPOOL (GEXMJ).
 - 15 8" DI SPOOL (MJXMJ).
 - 16 8" DI SPOOL (FLGXGE).
 - 17 8" 90° ELBOW.

- NOTES:
- 1. VERIFY PAVEMENT SURFACE ELEVATION AT LS LOCATION. NOTIFY OWNER'S REP AND MATCH LS LID TO EXISTING PAVEMENT SURFACE.
 - 2. ALL FORCE MAIN PIPING TO BE MECHANICALLY RESTRAINED.
 - 3. HATCHES OVER WET WELL AND VAULT TO BE RATED FOR EXPOSURE TO CONTINUAL TRAFFIC.

- NOTES:
- 1. ALL BURIED JOINTS TO BE MECHANICALLY RESTRAINED MECHANICAL JOINTS.

PUMP STATION
PLAN

SCALE: 3/8" = 1'



PUMP STATION
SECTION

SCALE: 3/8" = 1'

REVISIONS			
NO.	DESCRIPTION	DATE	BY
1			
2			
3			

BENCH MARK	ELEV.	19.756
DESCRIPTION:		
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC		
SW CORNER OF 26TH ST. & K ST. D.B.		

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

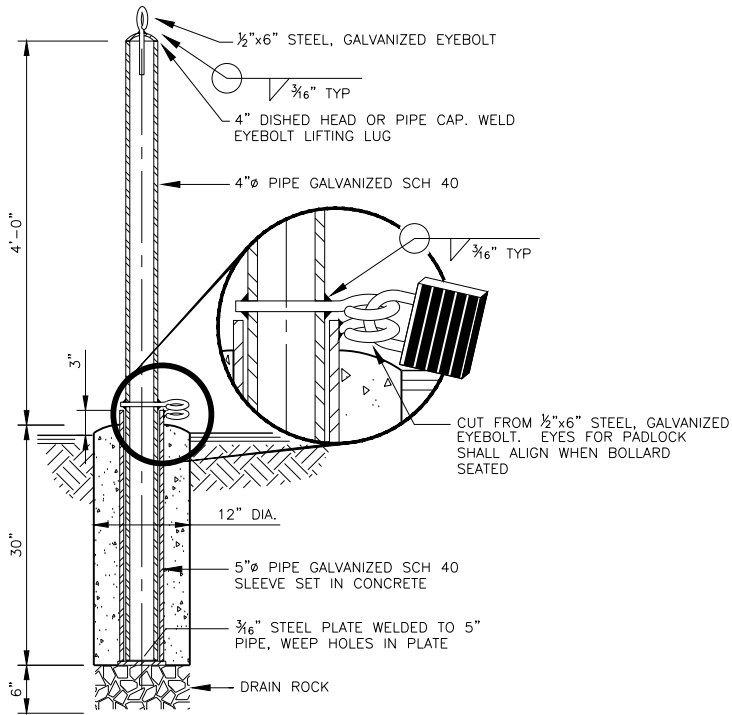
CITY OF SACRAMENTO DEPARTMENT OF UTILITIES			
DRAWN BY: ESE/RSM	DESIGNED BY: ALB/SMG/DM	CHECKED BY: RR	
DATE: 1/2023	R.C.E. NO. DATE: 1/2023	R.C.E. NO. DATE: 1/2023	



IMPROVEMENT PLANS FOR:		DWG. NO.	D04
COMBINED SEWER SYSTEM IMPROVEMENTS		SHEET	18
24TH AND K STORAGE FACILITY		OF	24
LIFT STATION DETAILS			

PN: X14170106

24TH AND K STORAGE FACILITY
N:\Clients\039 Soc City\30-20-59 24th & 25th CSS\CAD\Production\24th ST\03830-2059-D01-D04.dwg
PN: X14170106

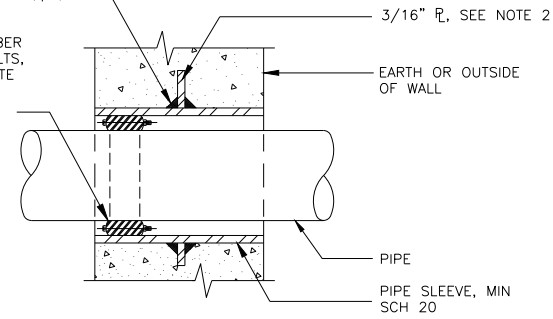


- NOTES:
1. POST & SLEEVE SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
 2. POST TO BE REMOVABLE FROM SLEEVE.
 3. POST TO BE HOLLOW.

REMOVABLE BOLLARD

DETAIL 7
D04
NOT TO SCALE

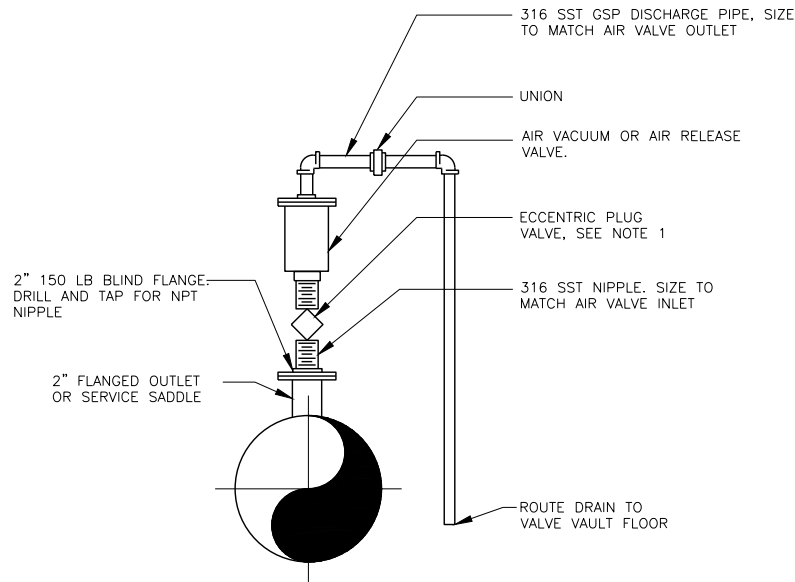
MODULAR MECHANICAL
EXPANDING NITRILE RUBBER
SEAL WITH 304 S.S. BOLTS,
NUTS, & PRESSURE PLATE



- NOTES:
1. SLEEVE DIAMETER SHALL BE AS RECOMMENDED BY THE MECHANICAL SEAL MANUFACTURER.
 2. WEEP RINGS SHALL HAVE A MINIMUM DIAMETER EQUAL TO THE PIPE OR PIPE SLEEVE OUTSIDE DIAMETER PLUS 3-INCHES.

FOR WALLS TYPE A PIPE PENETRATION

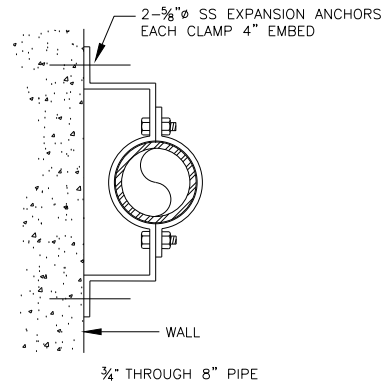
DETAIL 10
VAR
NOT TO SCALE



- NOTES:
1. SERVICE TAP AND ECCENTRIC PLUG VALVE SHALL BE AS INDICATED ON PLANS.

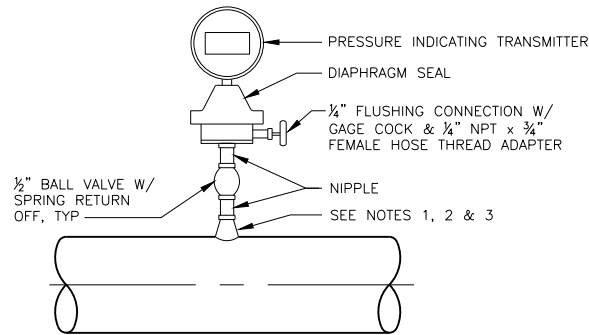
AIR VACUUM AND AIR RELEASE (2" AND SMALLER)

DETAIL 8
VAR
NOT TO SCALE



TYPE 11 PIPE HANGER

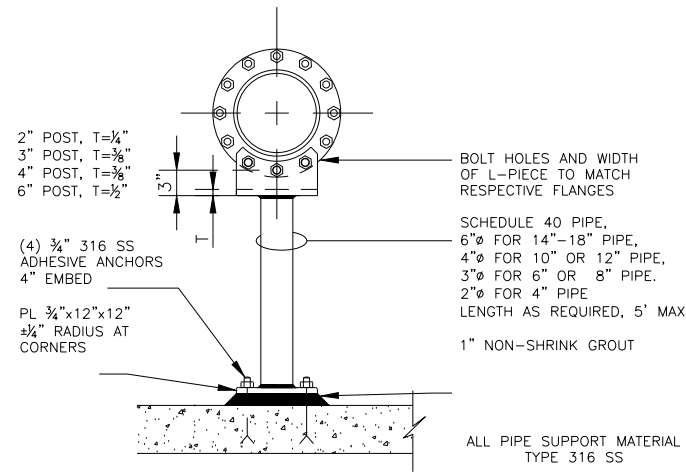
DETAIL 11
VAR
NOT TO SCALE



- NOTES:
1. FOR STEEL GSP OR PVC 2-1/2" AND SMALLER USE A TEE WITH BUSHING.
 2. FOR DI OR FRP ALL SIZES, USE PIPE SADDLE WITH BUSHING.
 3. FOR STEEL OR STAINLESS STEEL PIPES 3" AND LARGER, AND PRESSURE VESSELS, USE THREAD-0-LET OR EQUAL AS SHOWN.
 4. DIAPHRAGM SEAL - PRESSURE INDICATING TRANSMITTER ASSEMBLY TO BE FACTORY ASSEMBLED.

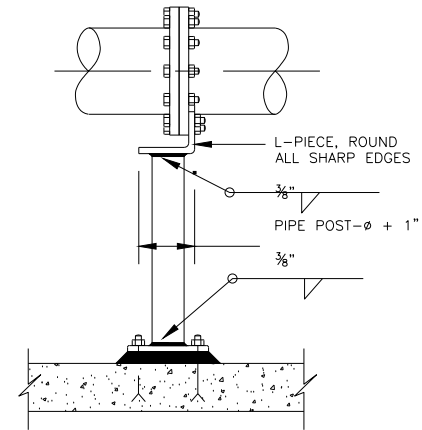
PRESSURE INDICATING TRANSMITTER

DETAIL 14
VAR
NOT TO SCALE



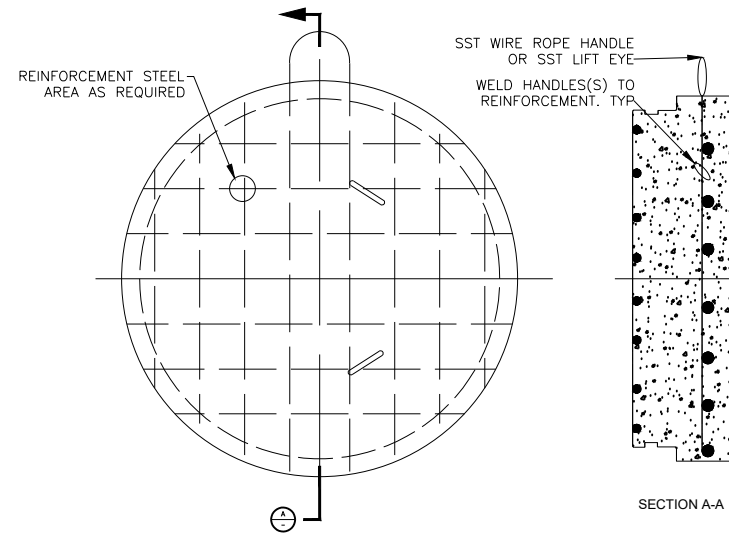
FLANGE MOUNTED PIPE SUPPORT

DETAIL 9
-
NOT TO SCALE



PIPE TERMINATION POINT

DETAIL 12
C100
NOT TO SCALE



TYPICAL SPIGOT PLUG

DETAIL 13
-
NOT TO SCALE

- NOTES:
1. PLUG DESIGNED BY MANUFACTURER FOR WATER TIGHTNESS ONLY. FORCES RESULTING FROM INTERNAL PRESSURE TO BE RESISTED BY EXTERNAL CLSM AND BACKFILL UNIFORMLY DISTRIBUTED TO PREVENT MOVEMENT OR DISTORTION OF PLUG.
 2. DESIGN PLUG FOR CLSM BEDDING.
 3. ALL STORAGE PIPE JOINTS SHALL BE GASKETED.

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK	ELEV.	19.756
DESCRIPTION:		
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC		
SW CORNER OF 26TH ST. & K ST. D.B.		

FIELD BOOK	1477
SCALE:	
H: AS SHOWN	
V: AS SHOWN	

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES			
DRAWN BY: ESE/RSM	DESIGNED BY: ALB/SMG/DM	CHECKED BY: RR	
DATE: 1/2023	R.C.E. NO.	DATE: 1/2023	R.C.E. NO.



IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
CIVIL DETAILS 4

PN: X14170106	DWG. NO. D05
	SHEET 19
	OF 24

PN: X14170106

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AT FULL SCALE
IF NOT SCALE ACCORDINGLY

MISCELLANEOUS ELECTRICAL & INSTRUMENTATION ABBREVIATIONS					
&	AND	HOR	HAND-OFF-REMOTE	PRESS	PRESSURE
@	AT	HP	HORSEPOWER	PRI	PRIMARY
A	AMBER, AMPERES	HPS	HIGH PRESSURE SODIUM	PROVIDE	FURNISH, INSTALL & CONNECT
AC	ALTERNATING CURRENT	HS	HAND SWITCH	PRR	POWER RELAY
AF	AMP FRAME	HTR	HEATER	PS	PRESSURE SWITCH, POWER SUPPLY
AFF	ABOVE FINISHED FLOOR	HZ	HERTZ (CYCLES PER SECOND)	PT	POTENTIAL TRANSFORMER
AI	ANALOG INPUT	HZD	HAZARDOUS AREA, EXPLOSION PROOF	PTT	PUSH TO TEST
AIC	AMP INTERRUPTING CAPACITY SYMMETRICAL	I	INTERLOCK	PV	PROCESS VARIABLE
AL	RIGID ALUMINUM CONDUIT	I/O	INPUT/OUTPUT	PVC	POLY VINYL CHLORIDE
ALT	ALTERNATOR	ICR	INSTRUMENTATION CONTROL RELAY	PWR	POWER
AM	AMMETER	INST	INSTANTANEOUS	R	RED
ARMS	ARC FLASH REDUCTION MAINTENANCE SYS	ISC	SHORT CKT INTERRUPTING CURRENT (SYMM)	RCT	REPEAT CYCLE TIMER
AO	ANALOG OUTPUT	ISR	INTRINSICALLY SAFE RELAY	REF	REFERENCE
AT	AMP TRIP	J	JUNCTION BOX	RIO	REMOTE I/O
ATS	AUTOMATIC TRANSFER SWITCH	K	KILO, PREFIX	RTD	RESISTANCE TEMPERATURE DETECTOR
AWG	AMERICAN WIRE GAUGE	KAIC	KILO-AMPERE INTERRUPTING CAPACITY	RTM	RUN TIME METER
B	BLUE	L	LINE	RTU	REMOTE TELEMETRY UNIT
BC	BARE COPPER	LA	LIGHTNING ARRESTOR	RVNR	REDUCED VOLTAGE NON-REVERSING
BFC	BELOW FINISHED CEILING	LC	LIGHTING CONTACTOR	(R)	REWIRE, RELOCATE, REVISE, REUSE, REPLACE
BOD	BIOCHEMICAL OXYGEN DEMAND	LCD	LIQUID CRYSTAL DISPLAY	SC	SHORTING CONTACTOR
BLK	BLACK	LED	LIGHT EMITTING DIODE	SCH	SCHEDULE
BKR	BREAKER	LEL	LOWER EXPLOSIVE LIMIT	SEC	SECONDARY
C	CONDUIT	LGT	LIGHT	SECS	SECONDS
CAP	CAPACITOR	LO	LOW	SEL	SELECTOR
CB	CIRCUIT BREAKER	LOR	LOCAL-OFF-REMOTE	SFA	SERVICE FACTOR AMPS
CBL	CABLE	LOS	LOCK-OUT STOP SWITCH	SP	SETPOINT
CH	CHANNEL	LP	LIGHTING PANELBOARD	SPD	SURGE PROTECTIVE DEVICE
CKT	CIRCUIT	LPU	LINE PROTECTION UNIT	SPEC	SPECIFICATION
COAX	COAXIAL CABLE	LS	LEVEL SWITCH	SS	STAINLESS STEEL
COMM	COMMUNICATION PORT	LSI	LONG, SHORT, INSTANTANOUS	SSS	SOLID STATE SOFT STARTER
CP	CONTROL PANEL	M	MOTOR CONTRACTOR	STT	START
CPT	CONTROL POWER TRANSFORMER	MAX	MAXIMUM	STP	STOP
CR	CONTROL RELAY	MCC	MOTOR CONTROL CENTER	SV	SOLENOID VALVE
CT	CURRENT TRANSFORMER	MCM	THOUSAND CIRCULAR MILS	SW	SWITCH
CTQ	CONSTANT TORQUE	MCP	MOTOR CIRCUIT PROTECTOR	SWBD	SWITCHBOARD
CU	COPPER	MH	MANHOLE	SWGR	SWITCHGEAR
DC	DIRECT CURRENT	MHD	METAL HALIDE	SYMM	SYMMETRICAL
DET	DETAIL	MIN	MINIMUM	T	TRIP
DI	DIGITAL INPUT	MINS	MINUTES	TB	TERMINAL BLOCK
DIA	DIAGRAM	MISC	MISCELLANEOUS	TC	TIME CLOCK
DISC	DISCONNECT	MNFR	MANUFACTURER	TDOD	TIME DELAY ON DE-ENERGIZATION
DIV	DIVISION	MOV	MOTOR OPERATED VALVE	TDOE	TIME DELAY ON ENERGIZATION
DO	DIGITAL OUTPUT	MPS	MOTOR PROTECTION SYSTEM	TEL	TELEMETRY
DPDT	DOUBLE POLE DOUBLE THROW	MS	MOISTURE SENSOR/SWITCH	TELCO	TELEPHONE COMPANY
DWG	DRAWING	MTR	MOTOR	TEMP	TEMPERATURE
ELEV	ELEVATION	MTS	MANUAL TRANSFER SWITCH	TM	THERMAL MAGNETIC
EMT	ELECTRICAL METALLIC TUBING	MV	MEDIUM VOLTAGE	TOC	TOTAL ORGANIC CARBON
ETM	ELAPSED TIME METER	N	NEUTRAL	TR	TIME DELAY RELAY
(E)	EXISTING	NC	NORMALLY CLOSED	TRIAD	TWISTED & SHIELDED 3 CONDUCTOR
F	FRAME	NEC	NATIONAL ELECTRICAL CODE	TS	TEMPERATURE SWITCH
FC	FAIL CLOSED	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	TSPR	TWISTED & SHIELDED PAIR
FCS	FIELD CONTROL STATION	NIC	NOT IN CONTRACT	TYP	TYPICAL
FLA	FULL LOAD AMPS	NO	NORMALLY OPEN	UG	UNDERGROUND
FO	FAIL OPEN	NP	NAMEPLATE	UL	UNDERWRITERS LABORATORIES
FLEX	FLEXIBLE, METAL LIQUID TIGHT CONDUIT	NTS	NOT TO SCALE	UON	UNLESS OTHERWISE NOTED
FROA	FORWARD-REVERSE-OFF-AUTO	(N)	NEW	UPS	UNINTERRUPTIBLE POWER SUPPLIES
FS	FLOW SWITCH OR FULL SPEED	OC	ON CENTER	V	VOLTAGE
FV, FVNR	FULL VOLTAGE NON-REVERSING	OI	OPERATOR INTERFACE	VA	VOLT AMPS
FVR	FULL VOLTAGE REVERSING	OL	OVERLOAD	VAR	VOLT AMP REACTIVE
FWD	FORWARD	ORP	OXIDATION REDUCTION POTENTIAL	VFD	VARIABLE FREQUENCY DRIVE
(F)	FUTURE	P	PHASE, POLE	VLV	VALVE
G	GREEN	PB	PULL BOX	VM	VOLTMETER
GALV	GALVANIZED	PBI	PULL BOX INSTRUMENT	VTQ	VARIABLE TORQUE
GEN	GENERATOR	PBP	PULL BOX POWER	W	WHITE, WATTS
GFI	GROUND FAULT CIRCUIT INTERRUPTER	PE	PHOTOCELL	WHM	WATT-HOUR METER
GND	GROUND	PF	POWER FAIL	WM	WATTMETER
GRS	GALVANIZED RIGID STEEL CONDUIT	PFR	POWER (PHASE) FAIL RELAY	WP	WATERPROOF, WEATHER PROOF
GRS-PVC	PVC COATED GRS CONDUIT	PH	HYDROGEN ION CONCENTRATION	WS	TORQUE SWITCH, WATER SURFACE
HC	PUSHBUTTON	PLC	PROGRAMMABLE LOGIC CONTROLLER	XFMR	TRANSFORMER
HI	HIGH	PM	POWER MONITOR	XS	MISCELLANEOUS SWITCH
HID	HIGH INTENSITY DISCHARGE	PMP	PUMP	Y	YELLOW
HMI	HUMAN MACHINE INTERFACE	PNL	PANEL	Z	IMPEDANCE
HOA	HAND-OFF-AUTO	PR	PAIR, TWISTED & SHIELDED CABLE	ZS	LIMIT SWITCH

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
SWITCHES – PROCESS		DEVICES – RELAY		COMPONENTS		WIRING – CONNECTIONS	
	FLOW SWITCH – CLOSSES UPON INCREASING FLOW		CONTROL RELAY CR1 WITH NORMALLY OPEN CONTACT ON LINE 28 & NORMALLY CLOSED CONTACT ON LINE 111		RESISTOR		PANEL OR EQUIPMENT WIRING
	FLOW SWITCH – OPENS UPON INCREASING FLOW		TIME DELAY RELAY TR2 – ADJUSTABLE TIME DELAY RANGE & SETTING AS SHOWN		POTENTIOMETER		FIELD WIRING
	LEVEL SWITCH – CLOSSES UPON INCREASING LEVEL		TIME DELAY ON ENERGIZATION		CAPACITOR, FIXED		CONDUCTORS – NOT CONNECTED
	LEVEL SWITCH – OPENS UPON INCREASING LEVEL		TIME DELAY ON DE-ENERGIZATION		CAPACITOR, ADJUSTABLE		CONDUCTORS – CONNECTED
	PRESSURE SWITCH – CLOSSES UPON INCREASING PRESSURE (INCREASING VACUUM)		CONTACTOR OR STARTER M1		DIODE		GROUND
	PRESSURE SWITCH – OPENS UPON INCREASING PRESSURE (INCREASING VACUUM)		SOLENOID		DIODE, ZENER		CHASSIS OR FRAME GROUND
	TEMPERATURE SWITCH – CLOSSES UPON INCREASING TEMPERATURE		NORMALLY OPEN, RELAY CONTACT – ACTUATED BY RELAY CR1 COIL LOCATED ON LINE 105		VOLTAGE SURGE SUPPRESSOR, AC		INCOMING LINE
	TEMPERATURE SWITCH – OPENS UPON INCREASING TEMPERATURE		NORMALLY CLOSED, RELAY CONTACT – ACTUATED BY RELAY CR1		RESISTANCE TEMPERATURE DETECTOR (RTD)		TERMINAL BLOCKS
	LIMIT SWITCH – CLOSSES AT SET LIMIT		NORMALLY OPEN, TIME DELAY RELAY CONTACT – CONTACT CLOSSES AFTER TR2 IS ENERGIZED		THERMOCOUPLE (T/C)		TERMINALS
	LIMIT SWITCH – OPENS AT SET LIMIT		NORMALLY CLOSED, TIME DELAY RELAY CONTACT – CONTACT OPENS AFTER TR2 IS ENERGIZED	DEVICES – MISCELLANEOUS			SHIELDED CABLE
	PROXIMITY SWITCH – CLOSSES UPON DECREASING DISTANCE		NORMALLY OPEN, TIME DELAY RELAY CONTACT – CONTACT OPENS AFTER TR2 IS DE-ENERGIZED		AUDIBLE ALARM	PLAN – SYMBOLS	
	PROXIMITY SWITCH – OPENS UPON DECREASING DISTANCE		NORMALLY CLOSED, TIME DELAY RELAY CONTACT – CONTACT OPENS AFTER TR2 IS DE-ENERGIZED		BATTERY		CONDUIT, EXPOSED
	TORQUE SWITCH – CLOSSES UPON INCREASING TORQUE		CONTACT OPENS AND CLOSSES IN A TIMED REPEAT CYCLE		3 PHASE HEATER		CONDUIT, IN SLAB OR BELOW GRADE
	TORQUE SWITCH – OPENS UPON INCREASING TORQUE				GENERATOR		CONDUIT STUBBED OUT & CAPPED
SWITCHES – OPERATOR		DEVICES – FRONT PANEL		DEVICES – PROTECTIVE			CONDUIT BENDS TOWARD OBSERVER
	TOGGLE OR DISCONNECT SWITCH		INDICATING LIGHT, LETTER "X" INDICATES COLOR: R=RED G=GREEN, A=AMBER, W=WHITE Y=YELLOW, B=BLUE		DISCONNECT, 3 POLE		CONDUIT BENDS AWAY FROM OBSERVER
	PUSHBUTTON – NORMALLY OPEN, MOMENTARY ACTION		INDICATING LIGHT, PUSH TO TEST		CIRCUIT BREAKER, 3 POLE THERMAL MAGNETIC (TM) OR MOTOR CIRCUIT PROTECT (MCP)		CONDUIT ENDS
	PUSHBUTTON – NORMALLY CLOSED, MOMENTARY ACTION		AMP METER		THERMAL OVERLOAD CONTACT		CONDUIT CHANGE IN ELEVATION
	PUSHBUTTON, MECHANICALLY INTERLOCKED, DOUBLE CIRCUIT – NORMALLY CLOSED AND NORMALLY OPEN, MAINTAINED ACTION		VOLT METER		THERMAL OVERLOAD ELEMENT		BARE COPPER GROUND WIRE
	SELECTOR SWITCH, 3 POSITION – CONTACT STATUS SHOWN EXISTS AT POSITION OF H-HAND, O-OFF, OR A-AUTO		ELAPSED TIME METER		FUSE WITH BLOWN FUSE INDICATING LIGHT		GROUND CONNECTION BOLTED TYPE
	SELECTOR SWITCH, 2 POSITION – CONTACT STATUS SHOWN EXISTS AT POSITION AS SHOWN		RUN TIME METER		TOGGLE SWITCH		GROUND CONNECTION EXOTHERMIC WELD TYPE
			MULTI-POSITION SWITCH WHERE LETTER "X" IS FUNCTION: A=AMP, V=VOLT		FUSE		PULL BOX
					MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER		DISCONNECT SWITCH
					LOW VOLTAGE DRAWOUT CIRCUIT BREAKER		FIELD CONTROL STATION WITH JUNCTION BOX
							FIELD CONTROL STATION WITH #AMP DISCONNECT SWITCH
							SPECIAL RECEPTACLE
							JUNCTION BOX
							THERMOSTAT
							LIGHTING, FANS, HEATERS
							# – CIRCUIT BREAKER NUMBER
							A – FIXTURE SCHEDULE REF.
							a – CONTROL SWITCH REFERENCE
							DUPLEX RECEPTACLE
							# – CIRCUIT BREAKER NUMBER
							TOGGLE SWITCH
							# – CIRCUIT BREAKER NUMBER SUBSCRIPT – CIRCUIT CONTROLLED
							SUPERSCRIPIT – BLANK = 1 POLE 2 = 2 POLE 3 = 3 WAY
							CONDUIT #
							EQUIPMENT NUMBER

REVISIONS		
DESCRIPTION	DATE	BY

BENCH MARK	ELEV. 19.756
DESCRIPTION:	
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC	
SW CORNER OF 26TH ST. & K ST. D.B.	

FIELD BOOK	1477
SCALE:	
H: N/A	
V: N/A	

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES			
DRAWN BY: ZKY	DESIGNED BY: SMK	CHECKED BY: XML	
DATE: 12/2022	R.C.E. NO. 15698 DATE: 12/2022	R.C.E. NO. 18095 DATE: 12/2022	



IMPROVEMENT PLANS FOR:	
COMBINED SEWER SYSTEM IMPROVEMENTS	
24TH AND K STORAGE FACILITY	
ELECTRICAL SYMBOLS & ABBREVIATIONS	

PN: X14170106	DWG. NO. E-1
	SHEET --
	OF 19

POWER UTILITY SERVICE DIVISION OF WORK	Electrical Contractor	Utility Company
Primary Conduits	N/A	
Primary Conductors		N/A
Transformer Pad	N/A	
Transformer		X
Transformer Connections		X
Transformer Ground Rod	X	
Secondary Conduits	X	
Secondary Conductors	X	
Bollards	X	
Meter Enclosure/Base	X	
Utility Meter		X
C/T Enclosure	X	
Current Transformers C/T		X
Meter Room Lock Box	X	
Power Company Information:		
Contact Name:		
Power Utility:	Sacramento Municipal Utility District	
Address:		
City/State/Zip:		
Phone:		
Fax:		
E-mail:		
Notes:		
1. All Power Utility Service installation work shall be done by Contractor per Power Utility Engineered drawings (which supersedes what is shown on Contract Drawings).		
2. Contractor shall coordinate and schedule all Power Utility inspections and tests in strict compliance with Power Utility requirements.		

MCC - 24TH ST LOAD CALCULATIONS		UTILITY SERVICE					
HP DESCRIPTION	LOAD AMPS	QTY LOAD	LOAD VA	RUN AMPS	QTY RUN	RUN VA	
14 PUMP	40	2	33,255	80.0	2	33,255	
PANEL LP	3.9		1,638	3.9		1,638	
SUBTOTAL	83.9		34,893	83.9		34,893	
DIVERSITY FACTOR	100 %						
14 HP Largest motor @ 25% additional				40.0	0.25	4,157	
TOTAL						39,050	
/ 240 V, 3 Phase, 4 Wire, Service Amps =		93.9 Amps 1.25 Multiplier 117.4 Amps Main Breaker Size = 200.0 Amps % Main Breaker Load = 58.7%					

DWG REF: E2
NAMEPLATE: LP-1
LOCATION: PEDESTAL

MOUNTING: FLUSH

VOLTS: 120 / 208
PHASE: 3
WIRE: 4

BUS AMPS: 100A
MAIN BKR: 50A
KAIC RATING: 10

ENTRY: BOTTOM
NEMA: 1
SPD YES

BKR NO.	LOAD DESCRIPTION	LOAD VA	LINE AMPS	BKR AMP/ POLE	BKR NO.	PHASE
1	PEDESTAL HEATER	600	5	20/1	1	A
3			0	20/1	3	B
5	UTILITY RECEPTACLE	360	3	20/1	5	C
7	SHELTER LIGHT	60	1	20/1	7	A
9			0	20/1	9	B
11	SPARE	0	0	20/1 (L)	11	C

PHASE

A

B

C

LEFT SIDE AMPS

6

0

3

LEFT SIDE KVA

0.66

0.00

0.36

TOTAL KVA

1.82

TOTAL AMPS @ 208V, 3P

5.1

DIVERSITY FACTOR

0.90

LOAD KVA

1.64

NEUTRAL

GROUND

BKR NO.	AMP/ POLE	LINE AMPS	LOAD VA	LOAD DESCRIPTION	BKR NO.
2	20/1	7	800	UPS POWER SUPPLY	2
4	20/1	0			4
6	20/2	0	0	SPARE	6
8		0	0	SPARE	8
10	20/1	0			10
12	20/1 (L)		0	SPARE	12

PHASE

A

B

C

RIGHT SIDE AMPS

7

0

0

RIGHT SIDE KVA

0.80

0.00

0.00

LEFT SIDE KVA

0.66

0.00

0.36

TOTAL PHASE KVA

1.46

0.00

0.36

TOTAL PHASE AMPS

12

0

3

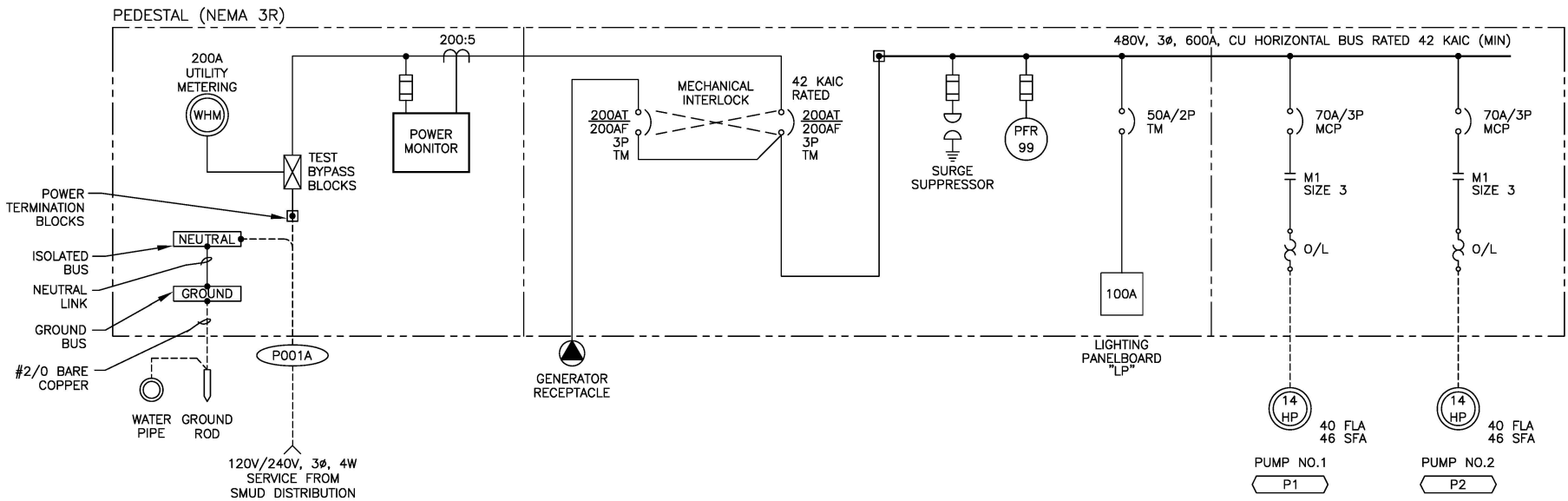
% OF AVERAGE

241

0

59

- NOTES: 1. MEANS OF WIRE COLOR CODING SHALL BE POSTED ON PANELBOARD PER NEC 210.5.
2. (G) INDICATES GFI BREAKER REQUIRED WITH 30 MA SENSITIVITY.
3. (H) INDICATES HACR RATED BREAKER.
4. (L) PROVIDE PADLOCKING PROVISION IN ORDER TO LOCK BREAKER IN THE OFF POSITION.



PEDESTAL ONE LINE DIAGRAM ①



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REVISIONS	DESCRIPTION	DATE	BY
1	BENCH MARK		
2	DESCRIPTION:		
3	BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC		
4	SW CORNER OF 26TH ST. & K ST. D.B.		

FIELD BOOK	1477
SCALE:	
H:	N/A
V:	N/A

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

DRAWN BY: ZKV
DATE: 12/2022

DESIGNED BY: SMK
R.C.E. NO. 15698 DATE: 12/2022

CHECKED BY: XML
R.C.E. NO. 18095 DATE: 12/2022



IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
ONE LINE DIAGRAM

PN: X14170106	DWG. NO. E-2
	SHEET
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	19

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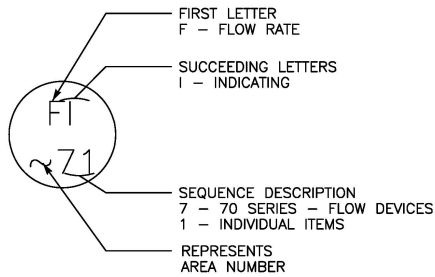
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24
OF
22
SHEET

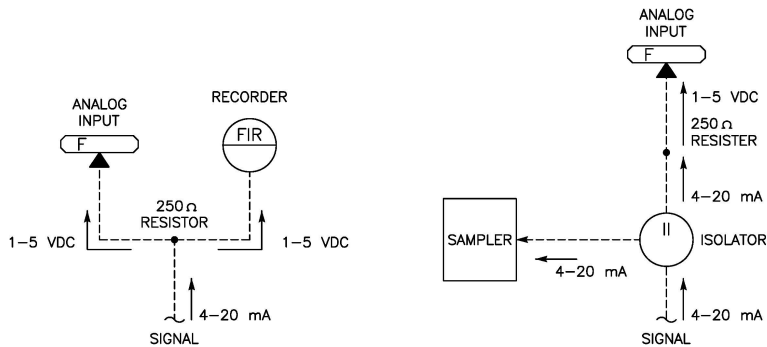


SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
P & I DIAGRAM SYMBOLS		P & I DIAGRAM SYMBOLS	
	FIELD MOUNTED INSTRUMENT		OPEN
	FACE MOUNTED INSTRUMENT ON LOCAL PANEL, OPERATOR ACCESSIBLE		CLOSED
	FACE MOUNTED INSTRUMENT ON FIELD PANEL, OPERATOR ACCESSIBLE		VALVE (GENERAL)
	INSTRUMENT MOUNTED IN LOCAL PANEL, OPERATOR INACCESSIBLE		GATE (GENERAL)
	INSTRUMENT MOUNTED IN FIELD PANEL, OPERATOR INACCESSIBLE		CHECK VALVE (GENERAL)
	OPERATION PERFORMED WITH LOGIC OR HARDWIRED DEVICES		PUMP (GENERAL)
DWG #	— REFERENCE ELEMENTARY DWG. #		
	PLC OR COMPUTER FUNCTION PERFORMING OPERATION WITH VISUAL INDICATION		BLOWER (GENERAL)
	PLC OR COMPUTER FUNCTION PERFORMING OPERATION WITH VISUAL ALARM INDICATION		VALVE/GATE NUMBER
	PLC OR COMPUTER PERFORMING INTERNAL OPERATION		EQUIPMENT NUMBER
	PLC OR COMPUTER PERFORMING INTERNAL ALARM OPERATION		ELECTRIC SIGNAL
	PROPORTIONAL, INTEGRAL, AND DIFFERENTIAL PARAMETERS		LOGIC OR DATA SIGNAL
	RATIO AND BIAS PARAMETERS		PNEUMATIC SIGNAL
	AUDIBLE ALARM (BUZZER OR HORN)		CAPILLARY TUBING (FILLED SYSTEM)
	ANNUNCIATOR WINDOW R — ROW # C — COLUMN #		HYDRAULIC SIGNAL
	LAMP INDICATION (STATUS OR ALARM)		SONIC OR ELECTROMAGNETIC SIGNAL
	DISCRETE INPUT		ELECTRIC SUPPLY
	DISCRETE OUTPUT		SERVICE AIR
	ANALOG INPUT		INSTRUMENT AIR
	ANALOG OUTPUT		DISCONNECT SWITCH
	JUMP TAG FROM ONE AREA TO ANOTHER AREA OF DRAWING "a" TAG CONNECT POINT ON EACH DRAWING		
	CONTINUED ON DWG P-X		
	AUTODIALER PRIORITY # PC BASED SOFTWARE		

INSTRUMENT IDENTIFICATION LETTERS				
FIRST — LETTER	SUCCEEDING — LETTER			
MEASURED OF INITIATING VARIABLE	MODIFIER	READOUT PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A ANALYSIS		ALARM		
B BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C CONDUCTIVITY			CONTROLLER	
D DENSITY	DIFFERENTIAL			
E VOLTAGE		SENSOR, PRIMARY ELEMENT		
F FLOW RATE	RATIO (FRACTION)			
G GENERAL		GLASS VIEWING DEVICE		
H HAND				HIGH, OPENED
I CURRENT (ELEC.)		INDICATING, INDICATOR		
J POWER	SCAN			
K TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L LEVEL		LIGHT		LOW, CLOSED
M MOISTURE	MOMENTARY			MIDDLE
N STATUS		STATUS	USER'S CHOICE	USER'S CHOICE
O OPERATOR		ORIFICE, RESTRICTION		
P PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q QUANTITY	INTEGRATE, TOTALIZE			
R RESET		RECORD		
S SPEED, FREQUENCY	SAFETY		SWITCH	
T TEMPERATURE			TRANSMITTER	TEST
U MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V VIBRATION, MECH. ANALYSIS			VALVE, DAMPER LOUVER	
W WEIGHT, FORCE		WELL		
X SWITCH	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTER, CONVERTOR	
Z DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	



P&ID INSTRUMENT IDENTIFICATION EXAMPLE



TYPICAL SIGNAL FLOWS

NUMBERING SEQUENCE	
SEQUENCE NUMBER	DESCRIPTION
00	COMMON ALARM
01-09	INDIVIDUAL ITEMS
10	MECHANICAL
20	MECHANICAL
30	MECHANICAL
40	MECHANICAL
50	LEVEL DEVICES
60	PRESSURE DEVICES
70	FLOW DEVICES
80	ANALYTICAL DEVICES
90	SAFETY & SECURITY DEVICES

REVISIONS	DESCRIPTION	DATE	BY
BENCH MARK	ELEV. 19.756		
DESCRIPTION:			
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC			
SW CORNER OF 26TH ST. & K ST. D.B.			

FIELD BOOK	1477
SCALE:	
H: N/A	
V: N/A	

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES

DRAWN BY: ZKV
DATE: 12/2022

DESIGNED BY: SMK
R.C.E. NO. 15698 DATE: 12/2022

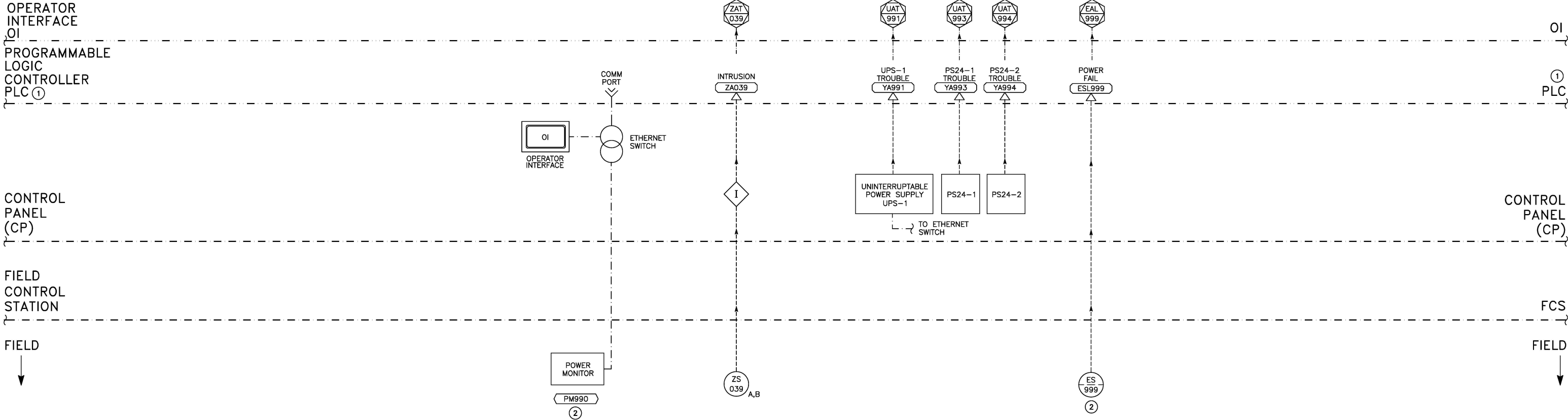
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IMPROVEMENT PLANS FOR:
COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
INSTRUMENTATION SYMBOLS & ABBREVIATIONS

DWG. NO. P-1
SHEET --
OF 19

PN: X14170106



AUXILIARY SYSTEMS

- NOTES: ① FOR COMPLETE PLC I/O TAG NUMBERS. SEE SPEC SECTION 17903 FOR DETAILS.
- ② LOCATED IN METER SECTION.



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24 OF 23 SHEETS

REVISIONS			
DESCRIPTION	DATE	BY	

BENCH MARK	ELEV. 19.756
DESCRIPTION:	
BENCHMARK 297-F41: RAMSET IN X-TIE TOC CLRC	
SW CORNER OF 26TH ST. & K ST. D.B.	

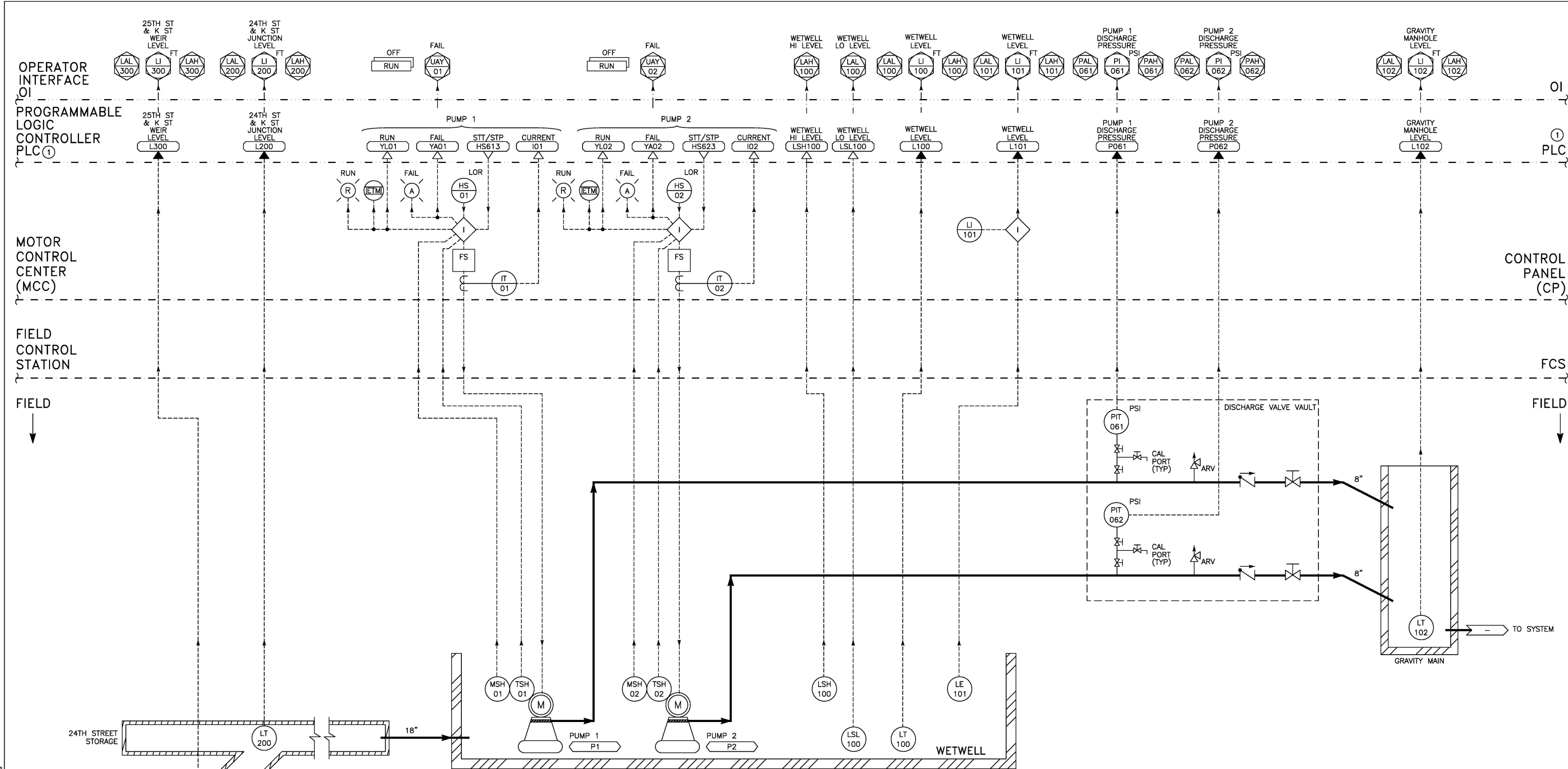
FIELD BOOK	1477
SCALE:	
H:	N/A
V:	N/A

CITY OF SACRAMENTO			
DEPARTMENT OF UTILITIES			
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DATE: 12/2022	R.C.E. NO. 15698 DATE: 12/2022	R.C.E. NO. 18095 DATE: 12/2022	



IMPROVEMENT PLANS FOR:	
COMBINED SEWER SYSTEM IMPROVEMENTS	
24TH AND K STORAGE FACILITY	
AUXILIARY SYSTEMS P&ID	

PN: X14170106	DWG. NO. P-2
	SHEET --
	OF 19



PUMP STATION

NOTES: ① FOR COMPLETE PLC I/O TAG NUMBERS, SEE SPEC SECTION 17903 FOR DETAILS.

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REVISIONS			
DESCRIPTION	DATE	BY	

BENCH MARK	ELEV. 19.756
DESCRIPTION:	
BENCHMARK 297-F41: RAMSET IN X-TIE TO C CLRC	
SW CORNER OF 26TH ST. & K ST. D.B.	

FIELD BOOK	1477
SCALE:	
H: N/A	
V: N/A	

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

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R.C.E. NO. 18095 DATE: 12/2022



IMPROVEMENT PLANS FOR:

COMBINED SEWER SYSTEM IMPROVEMENTS
24TH AND K STORAGE FACILITY
PUMP STATION P&ID

PN: X14170106

DWG. NO. P-3
SHEET --
OF 19

Appendix B

Air Quality and Greenhouse Gas Emissions

24th Street CSS Storage Custom Report

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- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
- 3. Construction Emissions Details
 - 3.1. Linear, Paving (2023) - Unmitigated
 - 3.3. Linear, Paving (2024) - Unmitigated
- 5. Activity Data
 - 5.1. Construction Schedule
 - 5.2. Off-Road Equipment
 - 5.2.1. Unmitigated

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5.3.1. Unmitigated

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	24th Street CSS Storage
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	36.4
Location	38.571022435522536, -121.47696361762047
County	Sacramento
City	Sacramento
Air District	Sacramento Metropolitan AQMD
Air Basin	Sacramento Valley
TAZ	533
EDFZ	13
Electric Utility	Sacramento Municipal Utility District
Gas Utility	Pacific Gas & Electric

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Linear	0.51	Mile	1.00	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.64	1.48	27.5	18.7	0.14	0.55	2.62	3.18	0.52	0.70	1.22	—	11,752	11,752	1.01	1.62	21.4	12,281
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.77	1.53	30.5	18.8	0.14	0.60	2.62	3.22	0.57	0.70	1.26	—	11,918	11,918	1.06	1.62	0.56	12,428
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.41	0.79	15.3	9.92	0.07	0.30	1.38	1.68	0.28	0.37	0.65	—	6,294	6,294	0.54	0.87	4.95	6,571
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	0.14	2.79	1.81	0.01	0.05	0.25	0.31	0.05	0.07	0.12	—	1,042	1,042	0.09	0.14	0.82	1,088

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.64	1.48	27.5	18.7	0.14	0.55	2.62	3.18	0.52	0.70	1.22	—	11,752	11,752	1.01	1.62	21.4	12,281

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.77	1.53	30.5	18.8	0.14	0.60	2.62	3.22	0.57	0.70	1.26	—	11,918	11,918	1.06	1.62	0.56	12,428
2024	2.63	1.46	28.9	18.5	0.14	0.55	2.62	3.18	0.52	0.70	1.22	—	11,733	11,733	1.01	1.62	0.55	12,241
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.50	0.28	5.43	3.37	0.02	0.11	0.46	0.57	0.10	0.12	0.23	—	2,147	2,147	0.19	0.29	1.67	2,240
2024	1.41	0.79	15.3	9.92	0.07	0.30	1.38	1.68	0.28	0.37	0.65	—	6,294	6,294	0.54	0.87	4.95	6,571
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.09	0.05	0.99	0.62	< 0.005	0.02	0.08	0.10	0.02	0.02	0.04	—	355	355	0.03	0.05	0.28	371
2024	0.26	0.14	2.79	1.81	0.01	0.05	0.25	0.31	0.05	0.07	0.12	—	1,042	1,042	0.09	0.14	0.82	1,088

3. Construction Emissions Details

3.1. Linear, Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.41	1.17	9.33	11.0	0.02	0.42	—	0.42	0.39	—	0.39	—	1,656	1,656	0.07	0.01	—	1,662
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.68	1.98	< 0.005	0.08	—	0.08	0.07	—	0.07	—	298	298	0.01	< 0.005	—	299
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.31	0.36	< 0.005	0.01	—	0.01	0.01	—	0.01	—	49.4	49.4	< 0.005	< 0.005	—	49.5
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.62	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	126	126	< 0.005	< 0.005	0.02	127
Vendor	0.01	< 0.005	0.26	0.09	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	120	120	0.01	0.02	0.01	125
Hauling	1.30	0.30	20.9	7.06	0.12	0.17	0.75	0.92	0.17	0.23	0.40	—	10,016	10,016	0.99	1.58	0.53	10,514
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	23.2	23.2	< 0.005	< 0.005	0.05	23.5

Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	21.6	21.6	< 0.005	< 0.005	0.02	22.6
Hauling	0.23	0.06	3.70	1.26	0.02	0.03	0.13	0.17	0.03	0.04	0.07	—	1,804	1,804	0.18	0.29	1.59	1,895
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.84	3.84	< 0.005	< 0.005	0.01	3.90
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	< 0.005	3.74
Hauling	0.04	0.01	0.67	0.23	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	299	299	0.03	0.05	0.26	314

3.3. Linear, Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	1.11	8.85	11.0	0.02	0.38	—	0.38	0.35	—	0.35	—	1,656	1,656	0.07	0.01	—	1,662
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.33	1.11	8.85	11.0	0.02	0.38	—	0.38	0.35	—	0.35	—	1,656	1,656	0.07	0.01	—	1,662
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.59	4.74	5.88	0.01	0.20	—	0.20	0.19	—	0.19	—	888	888	0.04	0.01	—	891
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.87	1.07	< 0.005	0.04	—	0.04	0.03	—	0.03	—	147	147	0.01	< 0.005	—	148
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.78	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	139	139	0.01	< 0.005	0.57	141
Vendor	0.01	0.01	0.22	0.08	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	118	118	0.01	0.02	0.30	124
Hauling	1.24	0.31	18.4	6.84	0.12	0.17	0.75	0.92	0.17	0.23	0.40	—	9,838	9,838	0.93	1.58	20.5	10,354
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	123	123	< 0.005	< 0.005	0.01	125
Vendor	0.01	< 0.005	0.24	0.08	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	118	118	0.01	0.02	0.01	123

Hauling	1.24	0.30	19.8	6.90	0.12	0.17	0.75	0.92	0.17	0.23	0.40	—	9,836	9,836	0.93	1.58	0.53	10,331
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	67.9	67.9	< 0.005	< 0.005	0.13	68.8
Vendor	0.01	< 0.005	0.13	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	63.2	63.2	< 0.005	0.01	0.07	66.2
Hauling	0.67	0.16	10.4	3.68	0.06	0.09	0.40	0.49	0.09	0.12	0.22	—	5,275	5,275	0.50	0.85	4.75	5,545
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.2	11.2	< 0.005	< 0.005	0.02	11.4
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.5	10.5	< 0.005	< 0.005	0.01	11.0
Hauling	0.12	0.03	1.90	0.67	0.01	0.02	0.07	0.09	0.02	0.02	0.04	—	873	873	0.08	0.14	0.79	918

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Project Construction	Linear, Paving	10/1/2023	9/30/2024	5.00	261	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Project Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Project Construction	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Project Construction	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Project Construction	Forklifts	Diesel	Average	1.00	4.00	82.0	0.20
Project Construction	Sweepers/Scrubbers	Diesel	Average	1.00	2.00	36.0	0.46

Project Construction	Generator Sets	Diesel	Average	2.00	10.0	14.0	0.74
Project Construction	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Project Construction	—	—	—	—
Project Construction	Worker	12.0	14.3	LDA,LDT1,LDT2
Project Construction	Vendor	4.00	8.80	HHDT,MHDT
Project Construction	Hauling	130	20.0	HHDT
Project Construction	Onsite truck	0.00	0.00	HHDT

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Project Construction	0.00	27,500	0.00	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	2.90	100%

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Per engineering team - modeled as paving phase to capture paving emissions in later screens.
Construction: Off-Road Equipment	Per engineering team; equipment spread throughout entire alignment. Assumed to operate concurrently as worst-case scenario.
Construction: Dust From Material Movement	Per engineering team; no grading. Only underground excavation. Includes implementation of SMAQMD basic control practices.
Construction: Trips and VMT	Per engineering team. Worst-case maximum day over entire alignment.
Construction: Paving	Per engineering team; all re-paving

