Rubidoux Community Services District

Board of Directors
Diana Leja, President
Leslie Altamirano, Vice-President
Bernard Murphy
John Skerbelis
Hank Trueba, Jr.

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

NOTICE AND AGENDA FOR THE RUBIDOUX COMMUNITY SERVICES DISTRICT BOARD MEETING

Thursday, July 2, 2026, at 4:00 PM

During this regular meeting of the Rubidoux Community Services District Board of Directors, members of the public will have the choice to attend and address the Board in person or attend and address the Board via Zoom.

Members of the public wanting to attend and/or address the Board virtually may do so by using the Zoom App or website for free at: https://zoom.us/

- Meeting ID is **994 957 9980**
- Passcode is: rcsd
- Call into the meeting number 1-669-444-9171

Only one person at a time may speak by telephone or Zoom and only after being recognized by the President of the Board.

Board packets are available for public review upon request and may also be accessed on the District's website at https://www.rcsd.org/board-of-directors-board-meetings under the applicable meeting date.

Closed Session: At any time during the regular session, the Board may adjourn to a closed executive session to consider matter of litigation, personnel, negotiations, or to deliberate on decisions as allowed and pursuant with the open meetings laws. Discussion of litigation is within the Attorney/Client privilege and may be held in closed session.
Authority: Government code 11126-(a) (d) (q).

ADDITIONS TO THE AGENDA

In accordance with Section 54954.2 of the Government Code (Brown Act), additions to the agenda require a two-thirds vote of the entire Board, or, if fewer than two-thirds of the members are present, a unanimous vote of those members present, making findings that there is a need to take immediate action and that the need for action came to the attention of the District subsequent to the posting of the agenda.

1. **CALL TO ORDER** – Diana Leja, President

2. **PLEDGE OF ALLEGIANCE** – General Manager

3. **ROLL CALL** – General Manager

4. **PUBLIC COMMENTS**

   Members of the public are encouraged to address the Board of Directors. Anyone who wishes to speak on an item not on the published agenda must submit a comment request card to the General Manager or designee. Each speaker should begin by identifying themselves for the record and is allowed up to five minutes.

   No one may give their time to a speaker during the public comment period of the meeting. It is requested that all present refrain from any action that might disrupt the orderly course of the meeting. Coarse, crude, profane, or vulgar language, or unsolicited comments from the audience, which disrupts or disturbs the Board meeting, may result in exclusion from the meeting.

   The Ralph M. Brown Act, Government Code 54950, et. seq. prohibits members of the Board of Directors from taking formal action or discuss items not on the published agenda. As a result, immediate response to public comment may be limited.

5. **CONSENT CALENDAR**

   Consent Calendar items are expected to be routine and non-controversial and are to be acted upon by the Board by one motion, without discussion. If any Board member, staff member, or interested person requests that an item be removed from the Consent Calendar for further discussion, it will be moved to the first item on the Action Agenda.

   A. Approval of Minutes for June 18, 2026, Regular Meeting

   B. Consideration to Approve July 3, 2026, Salaries, Expenses and Transfers

   C. **DM 2026-56**: Receive and File Statement of Cash Asset Report Ending May 2026

   D. **DM 2026-57**: Consider Approval of Amendment to Legal Services Agreement with Best Best & Krieger LLP for Special Counsel Services

E. **DM 2026-58**: RCSD – JCSD Boundary Line Clean-Up Project Participation and Funding Authorization

6. CORRESPONDENCE AND RELATED INFORMATION

7. REPORTS

A. Operations Report – None

B. Emergency and Incident Report – None

C. General Manager and Staff Reports / Updates

D. Committee Reports – None

E. Jurupa Unified School District – Student Liaison Report – None

8. ACTION / DISCUSSION ITEMS

A. **DM 2026-59**: Consideration to Award Advanced Metering Infrastructure (AMI) Implementation Project (Rebid)

B. **DM 2026-60**: Consideration to Establish a Street Sweeping Signage and Installation Budget and Authorize Implementation of Street Sweeping Route Signage

C. **DM 2026-61**: **CLOSED SESSION –** Pursuant to Government Code Section 54956.8: Conference with Real Property Negotiators

Property: APNs 182-021-018 and 182-021-006, Jurupa Valley, California
Agency Negotiators: General Manager and Legal Counsel
Negotiating Parties: Property Owner, through Authorized Representative Frank Vora, Lee & Associates
Under Negotiation: Price and Terms of Payment

9. DIRECTORS COMMENTS AND REQUESTS

10. NEXT MEETING

Thursday, July 16, 2026, at 4:00 p.m.

11. ADJOURNMENT

Any person with a disability who requires a modification or accommodation in order to participate in this meeting, or any person with limited English proficiency (LEP) who requires language assistance to communicate with the Rubidoux Community Services District Board of Directors during the meeting, should contact the Rubidoux Community Services District Administrative Department, at (951) 684-7580 or admin@rcsd.org, no fewer than two (2) business days prior to this meeting to enable the Rubidoux Community Services District to make reasonable arrangements to assure accessibility or language assistance for this meeting.

DECLARATION OF POSTING

I, Brian Laddusaw, General Manager and Board Secretary to the Rubidoux Community Services District, certify that a copy of this has been posted in the District's main office, 3590 Rubidoux Blvd., Jurupa Valley, and on its website no less than seventy-two (72) hours before the start of the meeting.

Brian Laddusaw
General Manager-Secretary

4. PUBLIC COMMENTS

5. CONSENT CALENDAR

A. Approval of Minutes for June 18, 2026, Regular Meeting

RUBIDOUX COMMUNITY SERVICES DISTRICT
BOARD OF DIRECTORS

MINUTES OF REGULAR MEETING
Thursday, June 18, 2026

DIRECTORS PRESENT:	Diana Leja Hank Trueba Jr., John Skerbelis Bernard Murphy Leslie Altamirano
STAFF PRESENT:	Brian Laddusaw, General Manager Brandon Thomas, Assistant General Manager Jaclyn Makarzec, Director of Engineering Miguel Valdez, Director of Operations Kirk Hamblin, Director of Operations Martha Perez, Customer Services / Accounts Payable Manager Melissa Trujillo, Human Resources Generalist / Safety and Facilities Coordinator
VISITORS (SIGNED IN):	John Harper, RCSD Legal Counsel, Via Zoom John Shulda, Lieutenant, Riverside County Sheriff Ross Leja, RCSD Customer Michael Miller., Via Zoom Tim Voigt, Cal Fire Station 38 Michael Heftman, Vice President of Burrtec Patrick "Kit" Bobko, RCSD Legal Counsel, Via Zoom John Robinson, John Robinson Consulting Shahnwaz Ahmad, SA Associates

ITEM 1. CALL TO ORDER

The regular meeting of the Board of Directors of the Rubidoux Community Services District was called to order by President Leja at 4:00 p.m. on Thursday, June 18, 2026, held in person and via teleconference at the District's Administrative Office, 3590 Rubidoux Boulevard, Jurupa Valley, California.

ITEM 2. PLEDGE OF ALLEGIANCE – General Manager

ITEM 3. ROLL CALL – General Manager

ITEM 4. PUBLIC COMMENTS – None

ITEM 5. (4:10 PM) DM 2026-48: CLOSED SESSION) – Pursuant to Government Code Section 54956.9: Legal Counsel Status on Litigation Case No. CIVDS 1310520, City of Riverside vs. Rubidoux Community Services District

BOARD DELIBERATION / ACTION
The Board recessed into Closed Session at 4:02 p.m. and reconvened in Open Session at 4:36 p.m. No reportable action was taken.

ITEM 6. CONSENT CALENDAR

A. Approval of Minutes for June 4, 2026, Regular Meeting

B. Consideration to Approve June 19, 2026, Salaries, Expenses and Transfers

C. Waive the Reading of the Title and Text of All Ordinances and Resolutions Included in the Agenda

D. **DM 2026-49**: Consider Additional Funding Authorization for Activities Commemorating the 250th Anniversary of the United States of America

E. **DM 2026-50**: Receive and File Rubidoux Community Services District's 2026 Annual Water Supply and Demand Assessment

BOARD DELIBERATION / ACTION
Director Murphy made a motion to approve the Consent Calendar, Director Trueba seconded the motion.

Roll Call Vote:

Ayes – 5 (Trueba, Altamirano, Murphy, Skerbelis, Leja)
Noes – 0
Abstain – 0
Absent – 0

Result: Motion carried 5-0-0-0.

ITEM 7. CORRESPONDENCE AND RELATED INFORMATION

General Manager Brian Laddusaw shared an article from the Press Enterprise, "Composing colossus rising in Mojave Desert." The article was about Waste hauler Republic Services opening a $90 million, 140-acre composting and mulch processing facility in El Mirage, in the

Mojave Desert. Opening in fall, the colossus will process organic materials from the Inland Empire and High Desert to help Southern California communities meet state green waste reduction requirements.

ITEM 8. REPORTS

A. Operations Report

Director of Operations Miguel Valdez presented the Operations Report. The report included potable water production for the month of May, as well as potable water and wastewater comparison data. It also included the reservoir capacity report and chemical deliveries. Chemical deliveries consisted of 3,034 gallons of 25% sodium bisulfite delivered to the Thompson Plant, 25 tons of Morton NSF-certified white crystal salt, and 3,823 gallons of 12.5% sodium hypochlorite delivered to the Thompson Plant, Smith Plant, and Well 8.

B. Emergency and Incident Report

Chief Tim Voigt shared with the Board that there were 313 incidents in May. He also reported that the Office of the Fire Marshal issued 63 weed abatement notices on May 21, 2026, and 47 notices on May 28, 2026.

C. General Manager and Staff Reports / Updates

Director of Engineering Jaclyn Makarzec shared with the Board that the Anita B. Smith Plant is anticipated to generate annual savings of approximately $71,000. She also informed the Board that the bid results for the AMI Project had been received and provided the Board with a copy. Director Murphy requested the Excel spreadsheet submitted by one of the bidders. Lastly, she shared information about the District's Toilet and Showerhead Giveaway events, which are scheduled for July 18 and August 18.

D. Committee Reports – None

E. Jurupa Unified School District – Student Liaison Report – None

ITEM 9. ACTION / DISCUSSION ITEMS

A. **DM 2026-51**: **PUBLIC PROTEST HEARING** – Consideration to Adopt Resolution No. 2026-932, A Resolution of the Board of Directors of Rubidoux Community Services District Establishing Residential and Commercial Trash Collection Fees within the District's Service Area

BACKGROUND:

On April 16, 2026, pursuant to Director's Memorandum ("DM") 2026-29 (Attachment 1), the Board of Directors ("Board") considered proposed Fiscal Year ("FY") 2026|2027 solid waste rates and authorized staff to initiate the Proposition 218 process for the purpose of establishing updated solid waste collection and disposal costs effective July 1, 2026.

As part of that action, the Board:

1. Reviewed the proposed FY 2026|2027 solid waste rate adjustments;
2. Authorized staff to initiate the Proposition 218 process, including preparation and distribution of required notices;
3. Established June 18, 2026, as the date for the Public Protest Hearing; and
4. Directed staff to return with a Resolution for consideration following completion of the Public Protest Hearing.

The proposed rates reflect contractual service cost adjustments payable to Burrtec Waste Industries, Inc. ("Burrtec"), pass-through disposal and processing costs established by the County of Riverside, ongoing State-mandated SB 1383 compliance costs, and District administrative costs associated with management of the solid waste enterprise.

The proposed FY 2026|2027 rate schedule is attached to Resolution No. 2026-932 as Exhibit "A" (Attachment 2).

Budget Considerations

The Solid Waste Enterprise Fund is intended to operate on a cost-recovery basis, with revenues generated from customer rates sufficient to cover the cost of contracted collection services, pass-through disposal and processing fees, State-mandated program requirements, and District administrative oversight.

The proposed FY 2026|2027 solid waste rates reflect:

- Contractual service cost adjustments payable to Burrtec pursuant to the District's agreement;
- Pass-through landfill, recycling, and mixed organics processing costs established by the County of Riverside;
- Ongoing compliance costs associated with Senate Bill 1383 (SB 1383); and
- District administrative costs necessary to manage and oversee the solid waste enterprise.

More than 90 percent of the District's solid waste customers are residential customers. Historically, the 90-gallon residential barrel has served as the primary benchmark when evaluating overall rate adjustments. For FY 2026|2027, the monthly rate for a residential customer with a 90-gallon barrel is proposed to increase from $38.92 to $40.65, an increase of $1.73 per month, or 4.45 percent.

The detailed cost breakdown is provided in Table 1 below.

TABLE 1				
	Current	Proposed		
	FY 25|26	FY 26|27		
Cost Component	($)	($)	($)	(%)
CPI (3.28%)	$ 18.21	$ 18.81	$ 0.60	3.29%
Landfill tipping fee	$ 9.54	$ 9.81	$ 0.27	2.83%
Recycling	$ 2.37	$ 2.44	$ 0.07	2.95%
Mixed Organics	$ 5.90	$ 6.66	$ 0.76	12.88%
SB 1383 Admin Fee	$ 0.90	$ 0.93	$ 0.03	0.00%
RCSD Admin Fee	$ 2.00	$ 2.00	$ -	0.00%
Total	$ 38.92	$ 40.65	$ 1.73	4.45%

As shown in Table 1, the proposed increase is primarily attributable to contractual service cost adjustments, pass-through disposal and processing fees, and ongoing State-mandated program requirements. The District's administrative fee remains unchanged at $2.00 per month.

The proposed residential rates have been developed in accordance with Amendment No. 3 to the District's refuse collection agreement with Burrtec, which requires that the District's comparable residential rate not exceed the City of Jurupa Valley's rate by more than two percent. Additional discussion regarding the City of Jurupa Valley's pending rate consideration is provided later in this memorandum.

Based upon current projections, the proposed rates are anticipated to generate sufficient revenue to support FY 2026|2027 operating expenditures of the Solid Waste Enterprise Fund while maintaining the fund in a near break-even position. Adoption of Resolution No. 2026-932 will establish the rates necessary to recover anticipated costs associated with providing solid waste services throughout the District.

Proposition 218 Compliance

Proposition 218 establishes procedural requirements for the adoption of property-related service charges, including solid waste collection fees. These requirements include:

- Mailing written notice to affected property owners and tenants at least 45 days prior to the Public Protest Hearing;
- Providing the basis upon which the proposed fees are calculated;
- Providing the reason for the proposed fees;
- Providing the date, time, and location of the Public Protest Hearing; and
- Conducting a Public Protest Hearing prior to adoption of the proposed rates.

Pursuant to Board direction, Proposition 218 notices were mailed on April 29, 2026. The notices were mailed more than 45 days prior to tonight's Public Protest Hearing and included all information required under Proposition 218. Copies of the mailed notice and affidavit of mailing are included as attachments to this memorandum (Attachment 3).

The Proposition 218 notice specified that protests must be submitted in writing in order to be counted toward the majority protest determination. Although Proposition 218 does not expressly address electronic submissions, the District will accept emailed written protests provided they (1) clearly identify the property owner or customer, (2) identify the service address or parcel/account, (3) clearly state opposition to the proposed rates, and (4) are received prior to the close of the hearing.

While interested persons may provide verbal comments during the Public Protest Hearing, verbal comments do not constitute valid protests for purposes of Proposition 218 and will not be included in the protest tally. This clarification was included in the District's 2026 Proposition 218 notice to ensure consistency with written protest requirements and to provide a clear and administratively verifiable process for tabulating protests. This process has been reviewed and confirmed by District General Counsel.

A total of 8,789 notices were mailed to affected property owners and tenants. Proposition 218 requires a majority protest, defined as 50 percent plus one of the affected property owners subject to the proposed fee. Accordingly, 4,396 valid protests would be required to defeat the proposed rate adjustment.

As of the preparation of this memorandum, the District has received 2 written protests (Attachment 5). At the conclusion of tonight's Public Protest Hearing, all valid written protests received prior to the close of the hearing will be tabulated (Attachment 6). If the number of valid written protests does not constitute a majority protest, the Board may proceed with adoption of Resolution No. 2026-932.

Although not required by Proposition 218, notice of tonight's potential adoption of Resolution No. 2026-932 was published in the *Press-Enterprise*, posted on the District's website, and made available for public inspection at the District's front counter.

City of Jurupa Valley Rate Consideration

Pursuant to Amendment No. 3 of the District's agreement with Burrtec, the District's comparable residential rate for the 90-gallon barrel may not exceed the City of Jurupa Valley's corresponding rate by more than two percent.

The City of Jurupa Valley is scheduled to consider its FY 2026|2027 solid waste rates at a Special City Council meeting on June 25, 2026, following the District's Public Protest Hearing.

Based on preliminary information provided by Burrtec, the proposed District residential rates have been developed in anticipation of compliance with the contractual rate comparison requirement. However, because Jurupa Valley's rates will not be finalized until June 25, 2026, staff may make minor administrative adjustments to the residential rate schedule prior to implementation on July 1, 2026, if necessary to ensure continued compliance with Amendment No. 3.

Commercial and industrial rates are not subject to the City of Jurupa Valley rate comparison provision and would not be affected by any action taken by the City Council.

Should any adjustment be required, staff will coordinate with Burrtec and return to the Board as appropriate.

BOARD DELIBERATION / ACTION

The Public Protest Hearing was held, and the Board of Directors tabulated all valid protests received. The Public Protest failed as the three received written protests failed to achieve the 50% + 1 threshold. The Board proceeded to deliberation.

Director Altamirano made a motion to approve the Rubidoux Community Services District residential and commercial trash collection fees within the District's service area. Director Trueba seconded the motion.

Roll Call Vote:

Ayes – 4 (Trueba, Altamirano, Skerbelis, Leja)
Noes – 1 (Murphy)
Abstain – 0
Absent – 0

Result: Motion carried 4-1-0-0.

President Leja called for a recess at 5:10 p.m. The meeting resumed at 5:19 p.m.

B. **DM 2026-52**: Consideration to Approve a Five (5) Year Cooperative Agreement for Fire Protection and Emergency Services with the County of Riverside

BACKGROUND:

Rubidoux Community Services District ("District") contracts for fire protection, fire prevention, rescue, fire marshal, and emergency medical services through the County of Riverside ("County") via a Cooperative Agreement with the California Department of Forestry and Fire Protection ("Cal Fire").

The District's current five (5) year Cooperative Agreement is set to expire on June 30, 2026. The District previously transitioned from a three (3) year agreement to a five (5) year agreement beginning with the 2021 contract, providing greater long-term stability for service delivery and financial planning.

Pursuant to Directors Memorandum ("DM") 2026-24, the Board of Directors ("Board") directed staff to conduct the agreement review and negotiation process without the formation of an ad hoc committee or other formal Board involvement. This approach is consistent with the process utilized during negotiation of the District's 2021 Cooperative Agreement.

Discussion

Nature of the Agreement

The Cooperative Agreement is a standardized contract administered by the County and Cal Fire. As in prior renewal cycles, the structure and core provisions of the agreement are largely consistent across participating agencies, with limited opportunity for substantive modification. Historically, changes have generally been limited to cost updates, administrative clarifications, and County- or State-initiated operational adjustments.

Accordingly, staff's review focused primarily on:

- Verification of service levels and operational assumptions;
- Evaluation of cost projections and year-over-year escalation factors; and
- Confirmation that administrative and reporting provisions remain consistent with District expectations and operational needs.

Summary of Key Changes

The overall structure, scope, and intent of the proposed agreement and related exhibits remain substantially unchanged from the 2021 Cooperative Agreement.

Key changes include:

- Updates service cost structures for fire apparatus and Fire Marshal services to reflect current Riverside County Board of Supervisors-approved cost recovery methodologies and replacement values.
- Clarifies and expands reimbursable cost categories, including personnel, equipment, supplies, and support services.
- Modernizes Fire Marshal program provisions, including updated staffing structure, roles, and cost allocation methodologies for optional service levels and equipment and technology support.
- Updates fire apparatus provisions to reflect current fleet replacement costs and cost recovery methodologies.
- Incorporates updated administrative roles and delegation authorities to streamline contract administration and implementation.
- Aligns mutual aid, cost recovery, and claims provisions with current statutory requirements and State-level risk management processes.
- Adds standard provisions addressing Public Records Act compliance and electronic signature authorization.
- Retains the existing service delivery model, with no change to the fundamental scope of fire protection and emergency response services.

Summary of Agreement and Exhibits

1. Cooperative Agreement – Rubidoux Community Services District and County of Riverside

Although the draft agreement contains several substantive revisions, the overall scope and intent remain consistent with the 2021 agreement. Many of the changes are administrative in nature and serve to clarify existing provisions, modernize contract language, and reflect current operational practices.

Similar to the current agreement, the proposed contract includes a five-year term. Staff believes the five-year structure has proven beneficial by providing stability in service delivery, improving long-term financial planning, and reducing the administrative burden associated with more frequent contract renewals.

2. Exhibit A – Itemized Detail of Level of Service and Associated Costs for Each Fiscal Year Covered

With the proposed five-year Cooperative Agreement, the County has provided Exhibit A, which identifies the level of service and associated costs for each fiscal year covered by the agreement. Exhibit A includes estimated salary costs based upon full-time equivalent ("FTE") staffing, support services, direct charges, and fire engine use costs.

Tables 1 through 4 below provide an analysis of prior agreements from a budget-to-actual perspective, present the projected costs associated with the proposed five-year agreement, and compare those costs against historical and projected property tax revenues. Collectively, the analysis demonstrates the District's ability to fund fire services throughout the term of the proposed agreement while maintaining discretionary property tax revenues for other District operations and priorities.

3. Exhibit C – Fire Engine Use Agreement

Overall, the draft language in the exhibit remains relatively unchanged from prior versions and the methodology remains consistent. The primary substantive change is the updated apparatus replacement value used to calculate the annual fire engine use charge.

The annual cost for use of the fire engine assigned to Station 38 is $55,000, based upon a factor of 1/20 of the replacement cost of an engine with a replacement value of $1,100,000.

4. Exhibit D – Office of the Fire Marshal Agreement

Overall, the draft language in the exhibit remains relatively unchanged from prior versions. Fire Marshal duties include:

- State-mandated fire and life safety inspections;
- Investigation of fire safety complaints;
- Annual business fire and life safety inspections; and
- Weed abatement inspections.

The proposed agreement and related exhibits were reviewed by District General Counsel, who did not identify any material legal concerns or provisions warranting further negotiation.

Budget Considerations

With the proposed five-year Cooperative Agreement, the County has provided Exhibit A, which contains an itemized summary of service levels and associated costs for each fiscal year covered by the agreement. The estimates included in Exhibit A represent fully burdened costs based on anticipated staffing, support services, direct charges, and fire engine use.

Historically, actual annual costs incurred by the District have been lower than the estimated costs reflected in Exhibit A. As a conservative budgeting practice, the District utilizes the Exhibit A estimates when preparing annual budgets. Any difference between budgeted and actual expenditures remains available to the District and is retained within the Unrestricted Property Tax Reserve. Funding for the Cooperative Agreement is derived from the District's property tax allocation received from the County.

Table 1 below compares budgeted versus actual fire service costs under the District's previous agreements. When reviewing the proposed Exhibit A estimates, it is important to recognize that these figures represent fully burdened estimated costs and have historically proven conservative when compared to actual expenditures.

TABLE 1

Fiscal Year	Budget	Actual		*Difference*
Contract: 2018-2021				
FY18| 19	$ 2,431,401	$ 1,901,578		*$ 529,823*
FY19| 20	$ 2,474,359	$ 2,072,248		*$ 402,111*
FY20| 21	$ 2,525,000	$ 2,090,252		*$ 434,748*
Contract: 2021-2026				
FY21| 22	$ 2,338,100	$ 2,272,315		*$ 65,785*
FY22| 23	$ 2,724,100	$ 2,520,193		*$ 203,907*
FY23| 24	$ 2,955,000	$ 2,895,065		*$ 59,935*
FY24| 25	$ 3,247,000	$ 2,571,931		*$ 675,069*
FY25| 26	$ 3,512,000	$ 2,326,695	[a]	*$ 1,185,305*

[a] - Through 3 quarters

It should also be noted that Exhibit A estimates are subject to change during the term of the agreement based upon operational, regulatory, and statewide cost factors. During the current agreement term, several factors affected annual fire service costs, including but not limited to adjustments to the State of California's employee benefit rate, which is established annually and applied statewide to Cal Fire personnel costs, the District's transition from a Traditional Staffing

Model to a Municipal Staffing Model pursuant to DM 2025-102, and implementation of the 66-hour workweek structure.

Table 2 below presents the estimated costs for each year of the proposed five-year agreement.

TABLE 2				
Fiscal Year	Exhibit A Estimate		$ Change	% Change
Contract: 2026-2031				
FY26|27	$	3,750,006		
FY27|28	$	3,931,101	$ 181,095	4.83%
FY28|29	$	4,121,231	$ 190,130	4.84%
FY29|30	$	4,121,231	$ -	0.00%
FY30|31	$	4,121,231	$ -	0.00%

You will note that the estimated costs for FY 2029|30 and FY 2030|31 remain unchanged. According to Cal Fire, cost projections for these years are not further escalated due to the limited reliability of long-range forecasting assumptions. Updated Exhibit A estimates will be provided as additional information becomes available closer to those fiscal years.

Contracted fire services are funded through the District's property tax revenues, which have historically increased at a rate exceeding growth in fire service costs.

Table 3 compares actual fire service costs against actual property tax revenues during the 2018-2021 and 2021-2026 contract periods. Historically, excess property tax revenues have been utilized to support other District operations and services, including water, wastewater, and solid waste operations when needed.

TABLE 3						
Fiscal Year	Property Tax Receipts		Cal Fire Costs		*Difference*	
Contract: 2018-2021						
FY18|19	$	3,107,505	$	1,901,578	*$ 1,205,928*	
FY19|20	$	3,138,305	$	2,072,248	*$ 1,066,057*	
FY20|21	$	3,936,137	$	2,090,252	*$ 1,845,884*	
Contract: 2021-2026						
FY21|22	$	4,014,400	$	2,272,315	*$ 1,742,085*	
FY22|23	$	4,506,224	$	2,520,193	*$ 1,986,031*	
FY23|24	$	5,661,791	$	2,895,065	*$ 2,766,727*	
FY24|25	$	6,130,486	$	2,571,931	*$ 3,558,556*	
FY25|26	$	7,417,752 [a]	$	2,326,695 [b]	*$ 5,091,057*	

[a] - Through 6/10/2026.
[b] - Through 3 quarters.

Table 4 compares projected fire service costs against projected property tax revenues throughout the proposed five-year agreement term. Property tax revenues were conservatively escalated at two percent (2%) annually.

Based upon these assumptions, staff believes the District will be able to fully fund fire protection services throughout the term of the agreement while continuing to maintain discretionary property tax revenues available for other District operations, capital improvements, and strategic initiatives.

TABLE 4

Fiscal Year	Estimated Property Tax Receipts	Estimated Cal Fire Costs (Exhibit A)	*Difference*
Contract: 2026-2031			
FY26| 27	$ 7,566,107	$ 3,750,006	*$ 3,816,101*
FY27| 28	$ 7,717,429	$ 3,931,101	*$ 3,786,328*
FY28| 29	$ 7,871,778	$ 4,121,231	*$ 3,750,547*
FY29| 30	$ 8,029,213	$ 4,121,231	*$ 3,907,982*
FY30| 31	$ 8,189,798	$ 4,121,231	*$ 4,068,567*

Staff Assessment

Based upon its review, staff believes the proposed agreement provides a cost-effective and operationally sound framework for continuing fire protection and emergency services within the District. The agreement maintains existing service levels, supports long-term financial planning, and continues a service delivery model that has served the District and community well.

Other Considerations

While the financial and contractual components of the agreement are important, staff also recognizes the value of maintaining a longstanding partnership with Cal Fire and the County of Riverside. Over the years, the District has consistently received a high level of service from Station 38 personnel, including emergency response, fire prevention, community outreach, and support during District events and activities.

In addition to meeting operational service expectations, Cal Fire personnel have demonstrated a strong commitment to the Rubidoux community and have developed a thorough understanding of the District's unique service area, facilities, and operational needs. The continuity provided through this established relationship contributes to effective coordination and service delivery.

Staff recognizes that the quality of service provided to the community has been an important consideration expressed by Board members throughout prior discussions regarding fire protection services and believes the proposed agreement continues to support those expectations.

As noted previously, District General Counsel has reviewed the proposed agreement and related exhibits and did not identify any material legal concerns. Staff believes the agreement is consistent with prior cooperative agreements and adequately protects the interests of the District.

BOARD DELIBERATION / ACTION

Director Murphy requested a survey or cost study regarding the construction of a fire station. Director Altamirano noted that the City had previously conducted a survey and suggested reviewing existing available information. The Chief confirmed that while the staffing model has changed, the equipment has remained the same. He further noted that, in the future, the department is considering adding a paramedic squad. Director Murphy inquired about the duties of fire prevention and weed abatement staff. He also asked whether large building projects go through the Fire Marshal's Office. Chief Voigt confirmed that such projects are reviewed by both the City and County Fire Marshal offices.

Director Altamirano made a motion to approve the five-year Cooperative Agreement for Fire Protection and Emergency Services with the County of Riverside for the period of July 1, 2026, through June 30, 2031, and to authorize the Board President and General Manager to execute the Agreement and any associated non-substantive documents necessary to implement it. Director Trueba seconded the motion.

Roll Call Vote:

Ayes – 5 (Trueba, Murphy, Altamirano, Skerbelis, Leja)
Noes – 0
Abstain – 0
Absent – 0

Result: Motion carried 5-0-0-0.

C. **DM 2026-53**: **PUBLIC HEARING** – Consideration to Adopt:

a. Resolution No. 2026-934, A Resolution of the Board of Directors of the Rubidoux Community Services District, Adopting the 2025 Urban Water Management Plan

b. Resolution No. 2026-935, A Resolution of the Board of Directors of the Rubidoux Community Services District, Adopting the 2025 Water Shortage Contingency Plan

BACKROUND:

The Urban Water Management Planning Act requires every urban water supplier to update and adopt its Urban Water Management Plan ("UWMP") at least once every five (5) years on or before July 1 in years ending in six and one. California Water Code Section 10642 requires agencies to make their plans available for public inspection prior to adoption and conduct a public hearing at which the public may submit or verbalize comments on the draft 2025 UWMP.

For purposes of the Urban Water Management Planning Act an "urban water supplier" is a supplier providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. Rubidoux Community Services District ("District") exceeds both criteria and is required to update its UWMP.

On November 20, 2025, the District's Board of Directors authorized the Master Consulting Agreement with SA Associates ("SA") and issued a Task Order for preparation of the District's 2025 UWMP and the District's 2025 Water Shortage Contingency Plan ("WSCP") (DM 2025-103). The District 2025 WSCP is included as Section 5 within the 2025 UWMP. The 2025 UWMP is an update of the District's 2020 UWMP and reflects current demand projections and water supplies.

The UWMP is the periodic document urban water suppliers use to describe and evaluate sources of water, efficient uses of water, demand management measures, implementation strategy and schedule, and other relevant information and programs. An UWMP is required for a water supplier to be eligible for Department of Water Resources administered state grants and loans and drought assistance. Information within the document is used by the state to aggregate statewide water conditions, issues, and propagate public policy with the goal of ensuring the state has adequate safe and reliable water supply.

In compliance with California Water Code appropriate notifications were made to allow interested parties to review and provide unput regarding the District's draft 2025 UWMP and 2025 WSCP. Below are the various notifications provided:

Date	Notice	Code Section
April 9, 2026	Notice 1: 60-day notice	WC 10621(b)
June 4 & June 11, 2026	Public Notice in newspaper	WC 10642 and GC 6066
June 4, 2026	Public Posting on District website and hardcopy of UWMP made available at District customer counter	WC 10642
June 10, 2026	Notice 2: one-week notice to Cities and Public Agencies	N/A

As of the preparation of this Director's Memorandum, no written or oral comments have been received regarding the District's intent to adopt the 2025 UWMP. A hardcopy of the 2025 UWMP is available for review at the District office located at 3590 Rubidoux Blvd., Jurupa Valley, CA and on the District's website – www.rcsd.org.

After the presentation and input by the public, the Board can consider approving the District's 2025 UWMP and WSCP by adoption of Resolution No. 2026-934 and Resolution No. 2026-935.

BOARD DELIBERATION / ACTION

Director Altamirano made a motion to adopt Resolution No. 2026-934, a Resolution of the Board of Directors of the Rubidoux Community Services District adopting the 2025 Urban Water Management Plan, following the Public Hearing. Director Trueba seconded the motion.

Roll Call Vote:

Ayes – 5 (Trueba, Murphy, Altamirano, Skerbelis, Leja)
Noes – 0
Abstain – 0
Absent – 0

Result: Motion carried 5-0-0-0.

Director Altamirano made a motion to adopt Resolution No. 2026-935, a Resolution of the Board of Directors of the Rubidoux Community Services District adopting the 2025 Water Shortage Contingency Plan, following the Public Hearing. Director Trueba seconded the motion.

Roll Call Vote:

Ayes – 4 (Trueba, Altamirano, Skerbelis, Leja)
Noes – 1 (Murphy)
Abstain – 0
Absent – 0

Result: Motion carried 4-1-0-0.

D. **DM 2026-54**: Consider Approval of "Water for Tomorrow" School Art Contest Program

BACKGROUND:

At the direction of the Board of Directors ("Board") and in response to prior Board comments emphasizing expanded community engagement and youth outreach, staff has developed the "Water for Tomorrow" Art Contest as a structured educational and outreach program for students within the Rubidoux Community Services District ("District") service area.

The intent of this program is to strengthen the District's visibility within local schools while advancing core public education objectives related to water conservation, environmental stewardship, and sustainable water use. The program aligns with similar initiatives implemented by agencies such as the Metropolitan Water District of Southern California and other regional water agencies that utilize student-focused creative engagement as an effective outreach tool.

Water is a critical resource, and fostering early awareness among students is an important component of long-term conservation efforts. This program provides a structured platform for students to express their understanding of water-related issues through visual art while supporting educators with ready-to-use thematic content.

Program Overview

The "Water for Tomorrow" Art Contest is an annual, theme-based student art competition open to schools within the District's service area, including but not limited to:

- Ina Arbuckle Elementary School
- Peralta Elementary School
- West Riverside Elementary School
- Pacific Avenue Academy of Music
- Rustic Lane Elementary School
- Mission Middle School
- Rubidoux High School

The contest theme will change annually and be announced at the beginning of the submission period.

Program Timeline

- **January – April:** Student submission period (during school year)
- **May:** Review and voting/judging period
- **June:** Announcement of winners and recognition

All submissions must be original student work and become the property of the District. Artwork will not be returned.

Guidelines Summary

The contest guidelines establish clear parameters to ensure fairness, consistency, and educational alignment:

1. Eligibility and Participation

    - Open only to students within designated District-area schools
    - Entries must be original work created solely by the student
    - Submissions must be appropriate to the student's age, grade, and skill level

2. Artwork Requirements

    - Size: 12" x 18" standard format
    - Orientation: Landscape (horizontal only)

- Medium: White poster board or plain white drawing paper only
- Border: 1-inch clean white border required on all sides

3. Content Focus

Artwork must reflect water-related themes such as:

- Water conservation and efficiency
- Environmental stewardship and sustainability
- Water use in homes, schools, agriculture, industry, and recreation
- Public health, safety, and environmental protection
- Climate-related water challenges and solutions

A short slogan or message may be included but must be minimal and correctly spelled.

4. Approved and Prohibited Media

Approved media include crayons, markers, colored pencils, paints, watercolors, chalk, and cut paper/fabric.

Digital artwork and photography are not permitted.

5. Originality Standards

Submissions must be fully original. Traced work, copied designs, copyrighted characters, logos, or commercial imagery are strictly prohibited.

6. District Authority

The District reserves the right to review, question, or disqualify submissions where originality or compliance is in question.

Judging and Scoring Methodology

Entries will be evaluated by a panel consisting of water industry professionals, educators, and community members to ensure balanced perspective and relevance to educational goals.

Judging is based on a 100-point rubric allocated as follows:

- Theme Clarity – 20 points
- Creativity and Originality – 20 points
- Neatness and Overall Quality – 20 points
- Visual Impact – 20 points
- Water Conservation Message – 20 points

Each entry will undergo an eligibility screening prior to scoring to confirm compliance with submission requirements, including format, originality, and allowed media.

A structured disqualification checklist is used to ensure consistent enforcement of rules (e.g., incorrect size, prohibited media, non-original content, missing border, or copyrighted material).

Awards

Winners will be selected in each of the following grade categories:

- K–5
- 6–8
- 9–12

Each category will include:

- First Place: $100
- Second Place: $75
- Third Place: $50

Budget Considerations

The "Water for Tomorrow" Art Contest is anticipated to have minimal fiscal impact to the District, with costs limited to outreach materials such as printed flyers, educational handouts, and paper supplies provided to participating schools upon request.

In addition, the program includes student recognition awards with a total annual prize allocation of $675, distributed across three grade categories (K–5, 6–8, and 9–12), with first, second, and third place awards provided in each category.

Funding for this program will be supported through the District's General Fund and will be drawn from either discretionary property tax revenues or interest income earned on those funds. The program is not funded by ratepayer revenues.

Staff time required for program coordination, outreach, and administration is anticipated to be absorbed within existing operational workloads and does not require additional staffing.

BOARD DELIBERATION / ACTION

Director Altamirano made a motion to approve the establishment and implementation of the "Water for Tomorrow" School Art Contest as presented. Director Trueba seconded the motion.

Roll Call Vote:

Ayes – 4 (Trueba, Altamirano, Skerbelis, Leja)
Noes – 0
Abstain – 1 (Murphy)

Absent – 0

Result: Motion carried 4-0-1-0.

E. **DM 2026-55:** Authorization to Purchase Granular Activated Carbon Media for Well No. 2 Treatment Facility

BACKGROUND:

Well No. 2 is located at the Rubidoux Community Services District's ("District") Operations and Administration Yard (3590 Rubidoux Blvd.) and is equipped with a Granular Activated Carbon (GAC) treatment system utilized for the removal of 1,2,3-Trichloropropane (1,2,3-TCP) and Per- and Polyfluoroalkyl Substances (PFAS) from groundwater produced by the well.

The treatment system consists of two GAC vessels designed to treat approximately 800 gallons per minute or approximately 1.152 million gallons a day. The vessels are owned by the District and are currently empty. In order to return the facility to service, new granular activated carbon media must be supplied, delivered, and loaded into both vessels.

The Well No. 2 treatment facility provides the District with an additional treated groundwater source and increases operational flexibility, particularly during periods of high demand, maintenance activities, or reduced production from other facilities.

District staff is currently soliciting proposals from multiple qualified activated carbon suppliers, including leading manufacturers and distributors serving the municipal drinking water industry. Staff anticipates receiving pricing and availability information prior to the Board meeting and expects the final cost of the project to be below the requested authorization amount.

Discussion

The District is seeking to procure approximately 1,334 cubic feet of NSF/ANSI 61 certified virgin bituminous coal-based activated carbon suitable for the removal of PFAS and 1,2,3-TCP.

The proposed work includes:

- Supply of new activated carbon media
- Delivery to the District
- Loading of media into both GAC vessels
- Startup support, if required
- Associated freight and installation costs

Based on recent market conditions and historical carbon replacement costs, staff estimates the total project cost to be less than $140,000. However, given current supply chain conditions and the District's desire to return the facility to service as soon as practical, staff recommends obtaining Board authorization up to this amount to allow timely award and procurement.

As part of the solicitation, vendors have been asked to provide pricing for future carbon replacement services. Staff recommends securing these unit prices for a 24-month period to

provide pricing certainty, streamline future procurement efforts, and reduce administrative costs associated with repeatedly soliciting proposals for routine media replacement. Future carbon replacement work would remain subject to available budget appropriations and annual Board-approved budgets.

Should the final proposal exceed the authorized amount, staff will return to the Board for additional direction.

Budget Considerations

The estimated cost of the project is anticipated to be less than $140,000.

Funding for this project is available within the Fiscal Year 2025|26 Water Fund Budget under Operating Expenses – Treatment Media, Line No. 21 (Attachment 1). The current authorized budget amount is $1,000,000, of which approximately $200,000 has been appropriated year-to-date for Wells No. 4 and No. 6. This leaves approximately $800,000 available within the current fiscal year budget, which is sufficient to support this funding request.

Staff is currently soliciting proposals from multiple qualified activated carbon suppliers and anticipates receiving competitive pricing prior to the Board meeting. The requested authorization amount is intended to provide sufficient flexibility to proceed with procurement and installation in a timely manner once proposals have been evaluated. Staff expects the final project cost to be below the requested authorization amount.

Completion of this project will allow the District to place the Well No. 2 treatment facility back into service, increasing available groundwater production capacity, improving operational flexibility, and enhancing overall system reliability.

BOARD DELIBERATION / ACTION

Director Altamirano made a motion to authorize the General Manager to procure and install granular activated carbon media for the Well No. 2 treatment facility in an amount not to exceed $140,000; execute all necessary purchase orders, agreements, and related documents required to complete the work; and utilize the selected vendor for future Well No. 2 carbon removal, disposal, replacement, and loading services for a period of 24 months from the date of award, utilizing the pricing structure submitted by the selected vendor, subject to available budget appropriations and annual budget approval by the Board of Directors. Director Trueba seconded the motion.

Roll Call Vote:

Ayes – 4 (Trueba, Murphy, Altamirano, Leja)
Noes – 1 (Skerbelis)
Abstain – 0
Absent – 0

Result: Motion carried 4-1-0-0.

ITEM 10. DIRECTORS COMMENTS AND REQUESTS – None

ITEM 11. NEXT MEETING

Thursday, July 2, 2026, at 4:00 p.m.

ITEM 12. ADJOURNMENT

President Leja adjourned the meeting at 6:24 p.m.

5. **CONSENT CALENDAR** (continued)

B. Consideration to Approve July 3, 2026, Salaries, Expenses and Transfers

RUBIDOUX COMMUNITY SERVICES DISTRICT
JULY 2, 2026 (BOARD MEETING)
FUND TRANSFER AUTHORIZATION

NET PAYROLL 7/2/26	96,000.00
ACH TRANSFER: FEDERAL PAYROLL TAXES	40,000.00
ACH TRANSFER: STATE PAYROLL TAXES	12,000.00
ACH TRANSFER: TO CREDIT UNION	5,000.00
ACH TRANSFER: PERS RETIREMENT	22,000.00
ACH TRANSFER: PERS HEALTH PREMIUMS	60,384.85
ACH TRANSFER: PERS RETIRED HEALTH PREMIUMS AND FEES	2,017.71
ACH TRANSFER: VSP VISION	1,188.10
ACH TRANSFER: SDRMA	3,066.62
ACH TRANSFER: COLONIAL	3,205.00
ACH TRANSFER: THE STANDARD	3,763.52
ACH TRANSFER: SECTION 125	119.22
ACH TRANSFER: SECTION 457 AND 401(A)	3,000.00

CHECKING ACCOUNT TRANSFERS FOR ACCOUNTS PAYABLE:

7/2/2026	WATER FUND TO GENERAL FUND-Payables	375,603.93
	WATER FUND TO GENERAL FUND-Trash	245,049.29
	WATER FUND TO SEWER FUND	167,189.57
	SEWER FUND TO GENERAL FUND-Payables	179,616.86
	DUE TO / DUE FROM INTERFUND REPAYMENT - WATER TO GENERAL FUND	600,000.00
	DUE TO / DUE FROM INTERFUND REPAYMENT - SEWER TO GENERAL FUND	22,700.87

INTERFUND TRANSFERS:

7/2/2026	LAIF SEWER OP TO SEWER FUND CHECKING	10,000.00
	GENERAL FUND PROP TAX TO GENERAL FUND CHECKING	7,237.42
	GENERAL FUND CHECKING TO WATER FUND CHECKING	23,514.00
	LAIF PROPERTY TAX TO GENERAL FUND CHECKING	200,000.00
	WATER FUND CHECKING TO LAIF WATER OP	356.00
	WATER FUND CHECKING TO LAIF WATER ML	22,644.00

NOTES PAYABLE

DESCRIPTION	BALANCE		PAYMENT	DUE DATE
MN Plant-State Revolving Loan	2,909,628	Prin.	148,443	Jan-26
MN Plant-State Revolving Loan	368,135	Intr.	33,655	Jan-26
2022 Obligations	2,940,803	Prin.	340,195	Jan-26
2022 Obligations	372,912	Intr.	39,813	Jan-26

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Rubidoux Community Services District (RCSACT)

6/25/2026 8:18:54 AM **Batch: AAABFH**

Tr. # / PO Number / GL Date	Vendor	Inv Date / Immediate	Paid Out / GL Account	Immediate	Credit Card Vendor / Check # / Credit Card	CC Reference #	Due Date / Discount Date / Payment Date	Invoice # / Discount / Total Invoice
1	AT&T / AT&T							000025352419
PHN CHGRS		06/07/2026	N	N			07/07/2026	$0.00
06/30/2026					N		06/07/2026	$586.36
2	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							114-6894725-4885015
SUPPLIES		06/02/2026	N	N			07/02/2026	$0.00
06/30/2026					N		06/02/2026	$36.62
3	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1MD4-YLW9-Q3PG
BOARD ROOM CHAIRS		06/04/2026	N	N			07/04/2026	$0.00
06/30/2026					N		06/04/2026	$2,558.97
4	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1RRW-3674-JCFG
BOARD ROOM TABLE		06/04/2026	N	N			07/04/2026	$0.00
06/30/2026					N		06/04/2026	$571.06
5	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1VJQ-MGTQ-VCMD
WOOD PANELS		06/05/2026	N	N			07/05/2026	$0.00
06/30/2026					N		06/05/2026	$337.77
6	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1QDV-TPQN-N9TG
PODIUM STAND		06/08/2026	N	N			07/08/2026	$0.00
06/30/2026					N		06/08/2026	$147.39
7	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1PDL-GLCM-LKJD
SIGNAGE		06/08/2026	N	N			07/08/2026	$0.00
06/30/2026					N		06/08/2026	$5.92
8	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1MHJ-16TN-DKC7
SUPPLIES		06/09/2026	N	N			07/09/2026	$0.00
06/30/2026					N		06/09/2026	$86.14
9	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1144-R3R4-M3HJ
SIGNAGE		06/09/2026	N	N			07/09/2026	$0.00
06/30/2026					N		06/09/2026	$76.80
10	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1RJT-1Y4R-YVCG
PAPER BAGS		06/10/2026	N	N			07/10/2026	$0.00
06/30/2026					N		06/10/2026	$30.14
11	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1KVC-RGTP-W9TQ
BACK PACK		06/12/2026	N	N			07/12/2026	$0.00
06/30/2026					N		06/12/2026	$35.55
12	AMERICAN RENTALS / AMERICAN RENTALS							203059
FORKLIFT RNTL		06/10/2026	N	N			07/10/2026	$0.00
06/30/2026					N		06/10/2026	$682.63
13	BERNELL / BERNELL HYDRAULICS, INC.							00534398
HOSE ASSEMBLY		06/09/2026	N	N			07/09/2026	$0.00
06/30/2026					N		06/09/2026	$331.65
14	BUSINESS / BUSINESS TELECOMMUNICATION SYSTI							23815
TELEPHONE		06/05/2026	N	N			07/05/2026	$0.00
06/30/2026					N		06/05/2026	$469.53
15	BURRTEC / BURRTEC WASTE INDUSTRIES, INC.							N0821173637
MAY.26"SWR WSTE HAUL		05/31/2026	N	N			07/01/2026	$0.00
06/30/2026					N		05/31/2026	$2,655.62
16	BOOT BARN / BOOT BARN							INV00616817
BOOTS/MARTINEZ		06/12/2026	N	N			07/12/2026	$0.00
06/30/2026					N		06/12/2026	$230.00

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Rubidoux Community Services District (RCSACT)

Tr. # / PO Number / GL Date	Vendor	Inv Date / Immediate GL Account	Paid Out	Immediate	Credit Card Vendor / Check # / Credit Card	CC Reference #	Due Date	Discount Date / Payment Date	Invoice # / Discount / Total Invoice
17	CORODATA SHREDDING, INC / CORODATA SHREDDI								DN 1583269
MAY.26" SHREDDING		05/31/2026	N	N			07/01/2026	05/31/2026	$0.00
06/30/2026					N				$176.71
18	CORE & MAIN / CORE & MAIN								Z131565
MTR SFTWR		05/29/2026	N	N			06/29/2026	05/29/2026	$0.00
06/30/2026					N				$3,861.50
19	DURNEY DON / DURNEY, DON								20260609
GRDNG/WEED ABATE		06/09/2026	N	N			07/09/2026	06/09/2026	$0.00
06/30/2026					N				$3,716.63
20	EDGEWOOD PARTNERS INS / EDGEWOOD PARTNER								992367
COMM INS		06/01/2026	N	N			07/01/2026	06/01/2026	$0.00
06/30/2026					N				$50,018.26
21	EDGEWOOD PARTNERS INS / EDGEWOOD PARTNER								992368
AUTO INS		06/01/2026	N	N			07/01/2026	06/01/2026	$0.00
06/30/2026					N				$7,798.49
22	EDGEWOOD PARTNERS INS / EDGEWOOD PARTNER								992369
EXCESS LIAB INS		06/01/2026	N	N			07/01/2026	06/01/2026	$0.00
06/30/2026					N				$8,031.00
23	FERGUSON / FERGUSON ENTERPRISE INC #1350								0909158
SUPPLIES		06/09/2026	N	N			07/09/2026	06/09/2026	$0.00
06/30/2026					N				$211.74
24	GRAINGER / GRAINGER								9949660733
TRAY		06/11/2026	N	N			07/11/2026	06/11/2026	$0.00
06/30/2026					N				$57.60
25	HAAKER EQUIPMENT / HAAKER EQUIPMENT								INV39311
R&MSWR VACTOR		06/10/2026	N	N			07/10/2026	06/10/2026	$0.00
06/30/2026					N				$3,832.22
26	HARRINGTON INDUSTRIAL / HARRINGTON INDUSTRI								012O3948
PVC		06/04/2026	N	N			07/04/2026	06/04/2026	$0.00
06/30/2026					N				$119.79
27	HARRINGTON INDUSTRIAL / HARRINGTON INDUSTRI								012O3946
PVC		06/04/2026	N	N			07/04/2026	06/04/2026	$0.00
06/30/2026					N				$179.82
28	HARRINGTON INDUSTRIAL / HARRINGTON INDUSTRI								012O3947
PVC		06/04/2026	N	N			07/04/2026	06/04/2026	$0.00
06/30/2026					N				$179.82
29	HARRINGTON INDUSTRIAL / HARRINGTON INDUSTRI								012O3970
PVC		06/05/2026	N	N			07/05/2026	06/05/2026	$0.00
06/30/2026					N				$1,866.68
30	HARRINGTON INDUSTRIAL / HARRINGTON INDUSTRI								012O3989
PVC		06/08/2026	N	N			07/08/2026	06/08/2026	$0.00
06/30/2026					N				$98.06
31	HARRINGTON INDUSTRIAL / HARRINGTON INDUSTRI								012O4004
PVC/FITTING		06/09/2026	N	N			07/09/2026	06/09/2026	$0.00
06/30/2026					N				$21.45
32	HARRINGTON INDUSTRIAL / HARRINGTON INDUSTRI								012O4047
PVC		06/11/2026	N	N			07/11/2026	06/11/2026	$0.00
06/30/2026					N				$346.57

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Rubidoux Community Services District (RCSACT)

Tr. # / PO Number / GL Date	Vendor / Inv Date / Immediate GL Account	Paid Out	Immediate	Credit Card Vendor / Check # / Credit Card	CC Reference #	Due Date / Payment Date	Discount Date	Invoice # / Discount / Total Invoice
33	HOME DEPOT / HOME DEPOT CREDIT SERVICES							WN61177749
HARD HATS	06/10/2026	N	N			07/10/2026	06/10/2026	$0.00
06/30/2026				N				$829.87
34	HOME DEPOT / HOME DEPOT CREDIT SERVICES							026826/0351010
SUPPLIES	05/26/2026	N	N			06/26/2026	05/26/2026	$0.00
06/30/2026				N				$326.73
35	HOME DEPOT / HOME DEPOT CREDIT SERVICES							8190397
SUPPLIES	05/28/2026	N	N			06/28/2026	05/28/2026	$0.00
06/30/2026				N				($69.48)
36	HOME DEPOT / HOME DEPOT CREDIT SERVICES							008361/7544243
TOOL/SUPPLIES	06/08/2026	N	N			07/08/2026	06/08/2026	$0.00
06/30/2026				N				$127.13
37	INFOSEND / INFOSEND, INC							311225.A
MAY.26" BILL PRINT	05/31/2026	N	N			07/01/2026	05/31/2026	$0.00
06/30/2026				N				$937.99
38	INFOSEND / INFOSEND, INC							311225.B
MAY.26" POSTAGE	05/31/2026	N	N			07/01/2026	05/31/2026	$0.00
06/30/2026				N				$3,162.00
39	JADTEC SECURITY / JADTEC SECURITY SVCS, INC.							1912330
R&M SVC CALL	03/05/2026	N	N			04/05/2026	03/05/2026	$0.00
06/30/2026				N				$531.22
40	JADTEC SECURITY / JADTEC SECURITY SVCS, INC.							1921366
MON SVC 5780 RIVERVI	04/02/2026	N	N			05/02/2026	04/02/2026	$0.00
06/30/2026				N				$215.85
41	KH METALS / KH METALS & SUPPLY							0730977-IN
PARTS	06/04/2026	N	N			07/04/2026	06/04/2026	$0.00
06/30/2026				N				$98.71
42	KRIEGER & STEWART / KRIEGER & STEWART, INC.							51893
COMMERCE PK	02/23/2026	N	N			03/23/2026	02/23/2026	$0.00
06/30/2026				N				$7,427.00
43	KRIEGER & STEWART / KRIEGER & STEWART, INC.							51960
COMMERCEPK	03/17/2026	N	N			04/17/2026	03/17/2026	$0.00
06/30/2026				N				$845.00
44	LOOMIS / LOOMIS							13999521
MAY.26" ARMRD	05/31/2026	N	N			07/01/2026	05/31/2026	$0.00
06/30/2026				N				$593.55
45	MERIT OIL / MERIT OIL COMPANY							961684
GASOLINE	06/03/2026	N	N			07/03/2026	06/03/2026	$0.00
06/30/2026				N				$1,638.51
46	MINUTEMAN PRESS / MINUTEMAN PRESS							38394.A
32026DISCONN POSTAGE	06/13/2026	N	N			07/13/2026	06/13/2026	$0.00
06/30/2026				N				$156.16
47	MINUTEMAN PRESS / MINUTEMAN PRESS							38394.B
32026 DISCONN NOTICE	06/13/2026	N	N			07/13/2026	06/13/2026	$0.00
06/30/2026				N				$238.88
48	MINUTEMAN PRESS / MINUTEMAN PRESS							38395.A
41026 DISCONN POSTAG	06/13/2026	N	N			07/13/2026	06/13/2026	$0.00
06/30/2026				N				$142.74

Tr. # / PO Number / GL Date	Vendor / Inv Date / Immediate GL Account	Paid Out	Immediate	Credit Card Vendor / Check # / Credit Card	CC Reference #	Due Date / Discount Date / Payment Date	Invoice # / Discount / Total Invoice
49	MINUTEMAN PRESS / MINUTEMAN PRESS						38395.B
41026 DISCONN NOTICE	06/13/2026	N	N			07/13/2026 06/13/2026	$0.00
06/30/2026				N			$226.52
50	MOOREFIELD CONSTRUCTION INC. / MOOREFIELD C						15130014-02
RFND OVRPYMT	04/29/2026	N	N			05/29/2026 04/29/2026	$0.00
06/30/2026				N			$476.00
51	MOOREFIELD CONSTRUCTION INC. / MOOREFIELD C						15130014-02.B
HYD RFND	04/24/2026	N	N			05/24/2026 04/24/2026	$0.00
06/30/2026				N			$2,157.81
52	NORTHSTAR CHEMICALS / NORTHSTAR CHEMICAL						342688
SODIUM HYPO	06/10/2026	N	N			07/10/2026 06/10/2026	$0.00
06/30/2026				N			$9,747.60
53	NORTHSTAR CHEMICALS / NORTHSTAR CHEMICAL						342773
SODIUM SULFITE	06/11/2026	N	N			07/11/2026 06/11/2026	$0.00
06/30/2026				N			$4,239.00
54	OREILLY AUTO PARTS / OREILLY AUTO PARTS						4726-195127
R&M TRUCK	06/08/2026	N	N			07/08/2026 06/08/2026	$0.00
06/30/2026				N			$8.31
55	OSTS,INC / Osts, Inc.						67848
DIG ALERT TRAINING	05/31/2026	N	N			07/01/2026 05/31/2026	$0.00
06/30/2026				N			$995.00
56	PAUL COURVILLE TRANSPORTATION / PAUL COURVI						0000610
BASE	06/04/2026	N	N			07/04/2026 06/04/2026	$0.00
06/30/2026				N			$5,475.91
57	PIPE TEC, INC. / PIPE TEC, INC						16278
SWR LINE VIDEOING	06/03/2026	N	N			07/03/2026 06/03/2026	$0.00
06/30/2026				N			$3,050.00
58	PLUMBERS / PLUMBERS DEPOT INC						PD-61471
SWR /CREW PLEX	05/27/2026	N	N			06/27/2026 05/27/2026	$0.00
06/30/2026				N			$3,164.75
59	QUADIENT / QUADIENT LEASING USA, INC.						Q2400820
PST MACHINE	06/08/2026	N	N			07/08/2026 06/08/2026	$0.00
06/30/2026				N			$219.17
60	REDWING / REDWING SHOES						314ST1-4906451
BOOTS/MANRIQUE	05/28/2026	N	N			06/28/2026 05/28/2026	$0.00
06/30/2026				N			$230.00
61	RICHMOND AMERICAN HOMES OF MARYLAND INC /						15140039-00
HYD RFND	06/11/2026	N	N			07/11/2026 06/11/2026	$0.00
06/30/2026				N			$2,540.19
62	RIVERSIDE CITY / RIVERSIDE CITY						00286784.A
APR.26" SURCH	06/02/2026	N	N			07/02/2026 06/02/2026	$0.00
06/30/2026				N			$24,379.83
63	RIVERSIDE CITY / RIVERSIDE CITY						00286784.B
APR.26" TRTMNT	06/02/2026	N	N			07/02/2026 06/02/2026	$0.00
06/30/2026				N			$127,509.80
64	ROAD READY REPAIR INC / ROAD READY REPAIR IN						1201
R&M DUMP TRUCK	06/04/2026	N	N			07/04/2026 06/04/2026	$0.00
06/30/2026				N			$850.96

BM

AP Enter Bills Edit Report

Rubidoux Community Services District (RCSACT)

6/25/2026 8:18:54 AM **Batch: AAABFH**

Tr. # / PO Number / GL Date	Vendor	Inv Date / Immediate GL Account	Paid Out	Immediate	Credit Card Vendor / Check # / Credit Card	CC Reference #	Due Date	Discount Date / Payment Date	Invoice # / Discount / Total Invoice
65	ROAD READY REPAIR INC / ROAD READY REPAIR IN(								1204
R&M DUMP TRUCK		06/12/2026	N	N			07/12/2026	06/12/2026	$0.00
06/30/2026					N				$1,028.86
66	ZELDAS / GRISELDA RODRIGUEZ								INVOICE11773.B
POLO SHIRTS		02/26/2026	N	N			03/26/2026	02/26/2026	$0.00
06/30/2026					N				$172.24
67	ROYAL INDUSTRIAL / ROYAL INDUSTRIAL SOLUTION(								6441-1184464
PARTS		06/05/2026	N	N			07/05/2026	06/05/2026	$0.00
06/30/2026					N				$549.35
68	SCE / SCE								2026U700040982544
MAIN OFC UTILITY		06/08/2026	N	N			06/29/2026	06/08/2026	$0.00
06/30/2026					N				$2,001.28
69	SCE / SCE								2026U700617778997
FIRE STN UTILITY		06/08/2026	N	N			06/29/2026	06/08/2026	$0.00
06/30/2026					N				$2,444.45
70	TRENCH SHORING COMPANY / TRENCH SHORING C								S020009718
PLYWOOD		03/13/2026	N	N			04/13/2026	03/13/2026	$0.00
06/30/2026					N				$334.95
71	UNITED RENTALS / UNITED RENTALS, INC								262874448
HYDRO EXCAVATOR		05/27/2026	N	N			06/27/2026	05/27/2026	$0.00
06/30/2026					N				$4,828.64
72	USA ALARM SYSTEMS, INC. / USA ALARM SYSTEMS								205062
SEC SVC 2100 FLEETWO		06/05/2026	N	N			07/05/2026	06/05/2026	$0.00
06/30/2026					N				$825.43
73	UPS / UNITED PARCEL SERVICE								0000F908W2216
POSTAGE		05/23/2026	N	N			06/23/2026	05/23/2026	$0.00
06/30/2026					N				$56.31
74	VARNER / VARNER & BRANDT LLP								20260531
MAY.26" LGL CNSLT		05/31/2026	N	N			07/01/2026	05/31/2026	$0.00
06/30/2026					N				$15,440.02
75	WEBB ALBERT A ASSOC / WEBB, ALBERT A. ASSOCI/								ARIV0012567
CONNECTION FEE NEXUS		04/25/2026	N	N			05/25/2026	04/25/2026	$0.00
06/30/2026					N				$3,432.00
76	WESTERN MUNICIPAL WATER / WESTERN MUNICIPA								RI-6178
JUNE 2026 BRINE FIXE		06/01/2026	N	N			07/01/2026	06/01/2026	$0.00
06/30/2026					N				$860.16
77	WESTERN MUNICIPAL WATER / WESTERN MUNICIPA								IN-17489
APR.26 BRINE		06/04/2026	N	N			07/04/2026	06/04/2026	$0.00
06/30/2026					N				$151.54
78	WESTERN WATER WORKS SUPPLY COMPANY / WES								1171984-00.B
PIPE /EPOXY PUTTY		03/20/2026	N	N			04/20/2026	03/20/2026	$0.00
06/30/2026					N				$4,959.41
79	WESTERN WATER WORKS SUPPLY COMPANY / WES								1173283-00.B
PARTS SMITH PLANT		04/21/2026	N	N			05/30/2026	04/21/2026	$0.00
06/30/2026					N				$8,310.86
80	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF								1PT7-61696-CNXX
BACK PACK		06/16/2026	N	N			07/16/2026	06/16/2026	$0.00
06/30/2026					N				$29.08

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82	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF			19NT-VPFR-X3PN
WEB CAM	06/16/2026 N N		07/16/2026 06/16/2026	$0.00
06/30/2026		N		$29.16
83	CARBON ACTIVATED / CARBON ACTIVATED CORPOR			1065095
WELL 4	04/30/2026 N N		05/30/2026 04/30/2026	$0.00
06/30/2026		N		$75,360.60
84	JULIE CRITCHFIELD / JULIE CRITCHFIELD			20260603
CALWEP CONFERENCE	06/03/2026 N N		07/03/2026 06/03/2026	$0.00
06/30/2026		N		$620.39
85	EARTHSOFT INC / EARTHSOFT INC			HM260401G1
EARTHSOFT SOFTWARE	04/01/2026 N N		05/01/2026 04/01/2026	$0.00
06/30/2026		N		$20,976.00
86	EXPRESS STEAMER / EXPRESS STEAMER CO.			10003
FIELD OFC CLNG SVC	06/11/2026 N N		07/11/2026 06/11/2026	$0.00
06/30/2026		N		$900.00
87	EXPRESS STEAMER / EXPRESS STEAMER CO.			20081
MAIN OFC CLNG SVC	06/10/2026 N N		07/10/2026 06/10/2026	$0.00
06/30/2026		N		$2,500.00
88	GEOSYNTEC CONSULTANTS, INC / GEOSYNTEC CON			IC8462
CITY RVSD APPEAL	06/10/2026 N N		07/10/2026 06/10/2026	$0.00
06/30/2026		N		$6,883.01
89	GRAINGER / GRAINGER			9953691319
COOLER/SFTY GLOVES	06/16/2026 N N		07/16/2026 06/16/2026	$0.00
06/30/2026		N		$196.25
90	MERIT OIL / MERIT OIL COMPANY			962830
GASOLINE	06/10/2026 N N		06/25/2026 06/10/2026	$0.00
06/30/2026		N		$1,542.96
91	MINUTEMAN PRESS / MINUTEMAN PRESS			38439.A
42026DISCONN POSTAGE	06/16/2026 N N		07/16/2026 06/16/2026	$0.00
06/30/2026		N		$164.09
92	MINUTEMAN PRESS / MINUTEMAN PRESS			38439.B
42026 DISCONN NOTICE	06/16/2026 N N		07/16/2026 06/16/2026	$0.00
06/30/2026		N		$246.18
93	MIKE ROQUET CONSTRUCTION INC. / MIKE ROQUET			0509-26
ASPHALT RPRS	05/30/2026 N N		06/30/2026 05/30/2026	$0.00
06/30/2026		N		$28,146.50
94	TRENCH SHORING COMPANY / TRENCH SHORING C			SI20008802
PLYWOOD	03/13/2026 N N		04/13/2026 03/13/2026	$0.00
06/30/2026		N		$334.95
95	JURUPA COMMUNITY SERVICES DISTRICT / JURUPA			2027-00000001
HELI HYDRANT	07/01/2026 N N		08/01/2026 07/01/2026	$0.00
07/02/2026		N		$50,000.00
96	THE PRESS-ENTERPRISE / THE PRESS ENTERPRISE			0000637710
NOTICE PUBLICATION	02/28/2026 N N		03/28/2026 02/28/2026	$0.00
06/30/2026		N		$218.90
97	TRI-CO DISPOSAL INC / TRI-CO DISPOSAL, INC			060426-061626.A
COMM TRSH	06/17/2026 N N		07/17/2026 06/17/2026	$0.00
06/30/2026		N		$65,397.25

BRL

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98	TRI-CO DISPOSAL INC / TRI-CO DISPOSAL, INC							060426-061626.B
RES TRSH	06/17/2026	N	N			07/17/2026	06/17/2026	$0.00
06/30/2026				N				$179,652.04
99	TRI-CO DISPOSAL INC / TRI-CO DISPOSAL, INC							060426-061626.C
RCSD SHR COMM	06/17/2026	N	N			07/17/2026	06/17/2026	$0.00
06/30/2026				N				($11,117.53)
100	TRI-CO DISPOSAL INC / TRI-CO DISPOSAL, INC							060426-061626.D
RCSD SHR RES	06/17/2026	N	N			07/17/2026	06/17/2026	$0.00
06/30/2026				N				($8,301.61)
101	AMAZON CAPIATL SERVICES / AMAZON CAPITAL SEF							1N7H-VDY7-HTKV
PUSH PINS	06/17/2026	N	N			07/17/2026	06/17/2026	$0.00
06/30/2026				N				$9.19
102	CREW METAL FABRICATION COMPANY / CREW META							200971
GATES/FENCING	06/12/2026	N	N			07/12/2026	06/12/2026	$0.00
06/30/2026				N				$71,290.00
103	FLYERS ENERGY, LLC / FLYERS ENERGY, LLC							CFS-4638096
DIESEL	06/15/2026	N	N			07/15/2026	06/15/2026	$0.00
06/30/2026				N				$1,057.17
104	HOME DEPOT / HOME DEPOT CREDIT SERVICES							H1084-435679
TOILET PURCHASE	06/12/2026	N	N			07/12/2026	06/12/2026	$0.00
06/30/2026				N				$46,970.42
105	MASTER'S / MASTER'S SERVICES (GLACIER)							0000001493842
WTR BTL	06/17/2026	N	N			07/17/2026	06/17/2026	$0.00
06/30/2026				N				$94.75
106	NORTHSTAR CHEMICALS / NORTHSTAR CHEMICAL							343374
SODIUM SULFITE	06/17/2026	N	N			07/17/2026	06/17/2026	$0.00
06/30/2026				N				$3,591.68
107	RELIABLE / RELIABLE WORKPLACE SOLUTIONS							RWS26060185
PRINTER USG	06/15/2026	N	N			07/15/2026	06/15/2026	$0.00
06/30/2026				N				$424.57
108	RELIABLE / RELIABLE WORKPLACE SOLUTIONS							RWS26060224
PRINTER USG	06/15/2026	N	N			07/15/2026	06/15/2026	$0.00
06/30/2026				N				$90.40
109	UNITED RENTALS / UNITED RENTALS, INC							262647198-001
BOOM LIFT	05/29/2026	N	N			06/29/2026	05/29/2026	$0.00
06/30/2026				N				$34,822.96

Grand Totals

Total Direct Expense:	$928,844.68
Total Direct Expense Adj:	($19,488.62)
Total Non-Electronic Transactions:	$909,356.06

Report Summary

Report Selection Criteria

Report Type: Condensed

	Start	**End**
Transaction Number:	Start	End

BR 6/25/26

KH 6/25/26

5. **CONSENT CALENDAR** (continued)

C. **DM 2026-56**: Receive and File Statement of Cash Asset Report Ending May 2026

Rubidoux Community Services District

Board of Directors
Diana Leja, President
Leslie Altamirano, Vice-President
Bernard Murphy
John Skerbelis
Hank Trueba Jr.

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

DIRECTORS MEMORANDUM 2026-56 July 2, 2026

To: Rubidoux Community Services District
Board of Directors

Subject: Receive and File Statement of Cash Asset Schedule Report Ending May 2026

BACKGROUND:

Attached for the Board of Directors' consideration is the May 2026 Statement of Cash Assets Schedule Report for all District Fund Accounts. Year to date ("YTD") interest is $1,520,403.89 for District controlled accounts. With respect to District "Funds in Trust," $507.25 has been earned and posted. The District has a combined YTD interest earned total of $1,520,911.14 as of May 31, 2026.

The District's Operating Funds (Excluding Restricted Funds and Operating Reserves) show a balance of $18,110,955.04 ending May 31, 2026. This is **$4,552,445.47 MORE** than July 1, 2025, beginning balance of $13,458,509.57.

Further, the District's Field/Admin Fund current fund balance is $858,371.70.

Submitted for the Board of Directors consideration is the ***May 2026 Statement of Cash Assets Schedule Report*** for review and acceptance.

RECOMMENDATION:

Staff recommends the Board of Directors "**Receive and File**" the May 2026 Statement of Cash Assets Schedule Report.

Respectfully,

BRIAN R. LADDUSAW, CPA
General Manager

Attachment(s): May 2026, Cash Assets Schedule Report

Attachment 1

RUBIDOUX COMMUNITY SERVICES DISTRICT

INVESTMENT SUMMARY - MAY 31, 2026
CASH BASIS

	Beg. Balance 7/1/2025	YTD Int.	Other Activity YTD	Balance 5/31/2026	YTD Avg. Int. Rate
Operating Accounts	**$ 13,458,509.57**	**$ 531,763.40**	**$ 4,020,682.07**	**$ 18,010,955.04**	**2.95%**
Water Operating Reserve	4,726,385.84	156186	33,843.77	4,916,415.57	3.18%
Wastewater Operating Reserve	646,646.37	27,316.80	-	673,963.17	4.05%
Fire Mitigation Reserve	3,878,995.47	143,007.52	60,482.86	4,082,485.85	3.50%
Wastewater Reserve	3,370,049.77	145,791.64	517,974.53	4,033,815.94	3.61%
Wastewater Replacement Res.	615,063.44	24,803.03	(107,672.12)	532,194.35	4.66%
Water Reserve	3,263,353.98	130,451.71	348,877.48	3,742,683.17	3.49%
Field/Admin Reserve	823,580.54	34,791.16	-	858,371.70	4.05%
Project Admin Building	1,210,150.42	51,121.33	-	1,261,271.75	4.05%
Project Ops Building	2,201,997.93	93,020.73	-	2,295,018.66	4.05%
Short-Term and Long-Term Strategic Investment Portfolio	5,133,355.74	168,786.22	-	5,302,141.96	3.18%
CalPERS - Section 115 Trust (CEPPT)	320,012.89	13,364.39	150,000.00	483,377.28	2.76%
Funds in Trust	368,208.98	507.25	-	368,716.23	0.14%
Total Investments	**$ 40,016,310.94**	**$ 1,520,911.14**	**$ 5,024,188.59**	**$ 46,561,410.67**	**3.27%**

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS

FIRE MITIGATION

DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	PURCHASE / REDEEM	INT. RATE	INTEREST	PAR/ BALANCE	TOTAL
5/1/2026	Columbia Bank	**CD**		Beg. Bal.				170,424.60	
	Columbia Bank			Interest	21.01	3.34%	-	170,424.60	
	Columbia Bank			Redeem	-			170,424.60	
5/31/2026	Columbia Bank	**CD**	4/3/2026	Purchase	-			170,424.60	
5/1/2026	LAIF	**Fire Mitigation**		Beg. Bal.				1,761,734.28	
	LAIF			Interest		3.81%	-	1,761,734.28	
5/31/2026	LAIF			Activity	19,274.03			1,781,008.31	
5/1/2026		**US BANK - TVI**		Beg. Bal				2,125,025.44	
	U.S. Bank			Deposits	-	4.10%	927.86	2,125,953.30	
5/31/2026				Disbursements	-			2,125,953.30	
5/1/2026	Columbia Bank	**Safekeeping**		Beg. Bal				5,078.63	
	Columbia Bank			Activity	-	-	21.01	5,099.64	
5/31/2026	Columbia Bank			End Bal.				5,099.64	$ 4,082,485.85

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS
WASTEWATER CIP FUNDS

DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	PURCHASE / REDEEM	INT. RATE	INTEREST	PAR/ BALANCE	TOTAL
5/1/2026	LAIF	**Sewer Mainline**		Beg. Bal.				3,753,318.08	
	LAIF			Interest		3.81%	-	3,753,318.08	
5/31/2026	LAIF			Activity	208,000.00			3,961,318.08	
5/1/2026	CBB	**Safekeeping**		Beg. Bal				72,497.86	
	CBB			Activity	-	0.05%	-	72,497.86	
5/31/2026	CBB			End Bal.				72,497.86	$ 4,033,815.94

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS

WATER CIP FUNDS

DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	PURCHASE / REDEEM	INTEREST RATE	INTEREST	PAR/ BALANCE	TOTAL
5/1/2026	LAIF	**Water Mainline**		Beg. Bal.				3,298,224.29	
	LAIF			Interest		3.81%	-	3,298,224.29	
5/31/2026	LAIF			Activity	193,664.00			3,491,888.29	
5/1/2026	CBB	**Safekeeping**		Beg. Bal.				250,794.88	
	CBB			Activity	-	0.05%	-	250,794.88	
5/31/2026	CBB			End Bal.				250,794.88	$ 3,742,683.17

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS
OPERATING FUNDS

DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	DEPOSIT/ WITHDRAW	INTEREST RATE	INTEREST	PAR/ BALANCE	TOTAL
5/1/2026	Columbia Bank	**Checking-Gen.**		Beg. Bal.				1,264,543.09	
	Columbia Bank			Deposits	2,725,870.57	0.00	-	3,990,413.66	
5/31/2026	Columbia Bank			Disbursements	(3,754,451.40)			235,962.26	
5/1/2026	Columbia Bank	**Checking**		Beg. Bal.				259,528.75	
	Columbia Bank	**Property Tax**		Deposits	871,122.69	0.00	-	1,130,651.44	
5/31/2026	Columbia Bank			Disbursements	(255,028.75)			875,622.69	
5/1/2026	Columbia Bank	**Checking-Sewer**		Beg. Bal.				7,000.22	
	Columbia Bank			Deposits	403,499.54	0.00	-	410,499.76	
5/31/2026	Columbia Bank			Disbursements	(404,956.47)			5,543.29	
5/1/2026	Columbia Bank	**Checking-Water**		Beg. Bal				1,600,540.63	
	Columbia Bank			Deposits	1,575,385.01	0.00	-	3,175,925.64	
5/31/2026	Columbia Bank			Disbursements	(2,075,350.34)			1,100,575.30	
5/1/2026	Bank of America	**Paymode**		Beg. Bal				2,879.55	
	Bank of America			Deposits	-	0.26%	0.62	2,880.17	
5/31/2026	Bank of America			Disbursements	-			2,880.17	

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS

OPERATING FUNDS

DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	DEPOSIT/ WITHDRAW	INTEREST RATE	INTEREST	PAR/ BALANCE	TOTAL
5/1/2026	LAIF	**Gen. Fund-Prop Tax**		Beg. Bal.				7,907,840.60	
	LAIF	Qtrly. Interest		Interest		3.81%	-	7,907,840.60	
5/31/2026	LAIF			Activity	322,725.97			8,230,566.57	
5/1/2026	LAIF	**Water Op.**		Beg. Bal.				3,960,985.36	
	LAIF	Qtrly. Interest		Interest		3.81%	-	3,960,985.36	
5/31/2026	LAIF			Activity	302,336.00			4,263,321.36	
5/1/2026	LAIF	**Sewer Op.**		Beg. Bal.				3,098,483.40	
	LAIF	Qtrly. Interest		Interest		3.81%	-	3,098,483.40	
5/31/2026	LAIF			Activity	198,000.00			3,296,483.40	$18,010,955.04

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS
RESERVED FUNDS

DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	DEPOSIT/ WITHDRAW	INTEREST RATE	INTEREST	PAR/ BALANCE	TOTAL
5/1/2026	LAIF	**Water Op. Reserve**		Beg. Bal.				3,853,438.90	
	LAIF	Qtrly. Interest		Interest	-	3.81%	-	3,853,438.90	
5/31/2026	LAIF			Activity	-			3,853,438.90	
5/1/2026		**US BANK - TVI**		Beg. Bal				1,062,512.74	
	U.S. Bank			Deposits	-	4.10%	463.93	1,062,976.67	
5/31/2026				Disbursements	-			1,062,976.67	
5/1/2026	LAIF	**Wastewater Replacement**		Beg. Bal.				532,194.35	
	LAIF	Qtrly. Interest		Interest		3.81%	-	532,194.35	
5/31/2026	LAIF			Activity	-			532,194.35	
5/1/2026	LAIF	**Field/Admin Bldg.**		Beg. Bal.				858,371.70	
	LAIF	Qtrly Interest		Interest	-	3.81%	-	858,371.70	
5/31/2026	LAIF			Activity	-			858,371.70	
5/1/2026	LAIF	**Wastewater Op. Reserve**		Beg. Bal.				673,963.17	
	LAIF	Qtrly. Interest		Interest	-	3.81%	-	673,963.17	
5/31/2026	LAIF			Activity	-			673,963.17	
5/1/2026	LAIF	**Project Admin Bldg**		Beg. Bal.				1,261,271.75	
	LAIF	Qtrly. Interest		Interest	-	3.81%	-	1,261,271.75	
5/31/2026	LAIF			Activity	-			1,261,271.75	
5/1/2026	LAIF	**Project Ops Bldg**		Beg. Bal.				2,295,018.66	
	LAIF	Qtrly. Interest		Interest	-	3.81%	-	2,295,018.66	
5/31/2026	LAIF			Activity	-			2,295,018.66	$10,537,235.20

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS

SHORT-TERM AND LONG-TERM STRATEGIC INVESTMENT PORTFOLIO

DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	PURCHASE / REDEEM	INTEREST RATE	INTEREST / CHANGE IN FMV	MV/ BALANCE	TOTAL
5/1/2026		**US BANK - TVI**		Beg. Bal				5,299,828.25	
	U.S. Bank			Deposits	-	4.10%	2,313.71	5,302,141.96	
5/31/2026				Disbursements	-			5,302,141.96	$ 5,302,141.96

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS

CALPERS - SECTION 115 TRUST (CEPPT)

DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	PURCHASE / REDEEM	INTEREST RATE	INTEREST	PAR/ BALANCE	TOTAL
5/1/2026		**Section 115 Trust (CEPPT)**		Beg. Bal				333,377.28	
	CalPERS	**Strategy 2**		Deposits	150,000.00	0.00%	-	483,377.28	
5/31/2026				Disbursements	-			483,377.28	$ 483,377.28

RUBIDOUX COMMUNITY SERVICES DISTRICT
CASH ASSET SCHEDULE
INVESTMENT ACTIVITY
FOR PERIOD JULY 1, 2025 THRU MAY 31, 2026
CASH BASIS
FUNDS IN TRUST

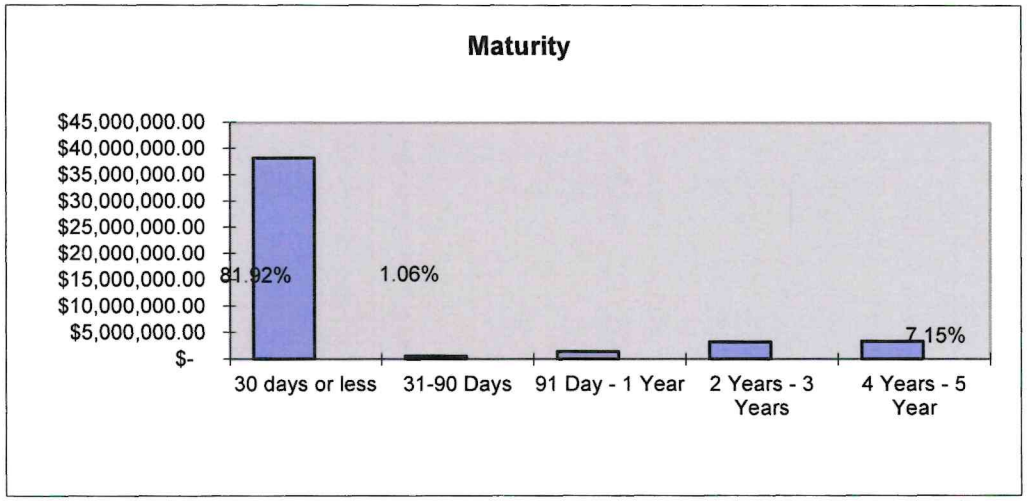
DATE	INSTITUTION	INSTRUMENT	MATURITY	STATUS	PURCHASE / REDEEM	INTEREST RATE	INTEREST	PAR/ BALANCE	TOTAL
5/1/2026	Columbia Bank	**Fiscal Agent-SRL MN Plant**		Beg. Bal				368,669.27	
	Columbia Bank			Deposits	-	0.15%	46.96	368,716.23	
5/31/2026	Columbia Bank			Disbursements	-			368,716.23	$ 368,716.23
						TOTAL CASH FUNDS			$46,561,410.67

RCSD PORTFOLIO HOLDINGS REPORT
MAY 31, 2026

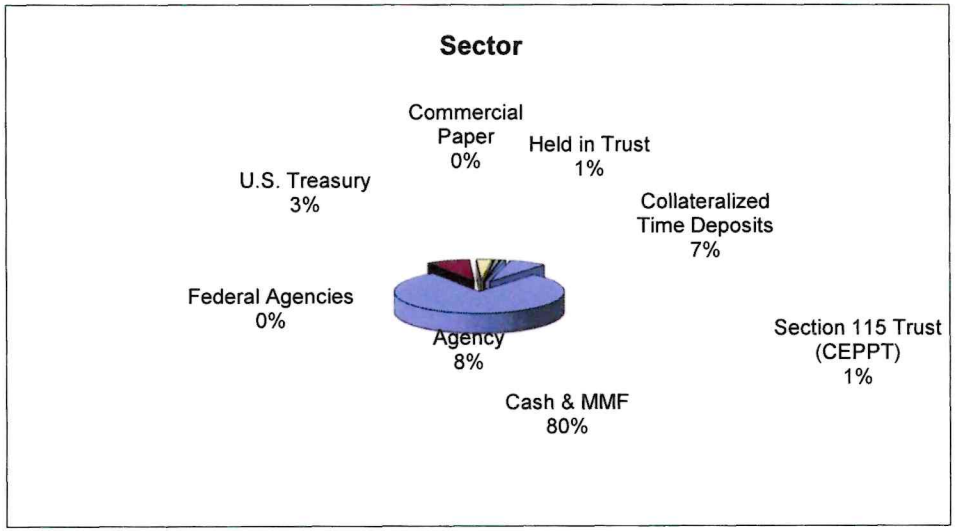
Issuer	Maturity	Acquisition Cost	Current Market	Gain/Loss	Yld Mat
AGENCY	Various	3,878,870.45	3,859,179.75	(19,690.70)	-
U.S. TREASURIES	Various	1,374,531.48	1,379,499.60	4,968.12	-
COMMERCIAL PAPER		-	-	-	-
CALPERS - SECTION 115 TRUST (CEPPT)		$ 450,000.00	$ 483,377.28	33,377.28	-
FUNDS IN TRUST		$ 368,716.23	$ 368,716.23	-	
COLLATERALIZED TIME DEPOSITS					
Premier	4/3/2026	$ 170,424.60	$ 170,424.60		3.34%
US Bank	Various	3,190,000.00	3,178,744.03		Various
Subtotals		$ 3,360,424.60	$ 3,349,168.63	(11,255.97)	
CASH EQUIVALENT & MONEY MARKET					
LOCAL AGENCY INVESTMENT FUND (LAIF)		$ 34,498,844.54	$ 34,498,844.54	-	3.81%
US BANK CASH AND MONEY MARKET		$ 73,648.55	$ 73,648.55	-	3.33%
DEPOSITS HELD WITH FINANCIAL INSTITUTIONS		$ 2,548,976.09	$ 2,548,976.09	-	-
Subtotals		$ 37,121,469.18	$ 37,121,469.18	-	
GRAND TOTALS		$ 46,554,011.94	$ 46,561,410.67	(11,255.97)	

RCSD INVESTMENT PORTFOLIO
MAY 31, 2026

Maturity	Assets
30 days or less	$ 38,143,987.29
31-90 Days	494,506.81
91 Day - 1 Year	1,369,259.75
2 Years - 3 Years	3,222,667.84
4 Years - 5 Year	3,330,988.98
Total	$ 46,561,410.67



Sector	
Cash & MMF	$ 37,121,469.18
Agency	$ 3,859,179.75
U.S. Treasury	1,379,499.60
Federal Agencies	-
Commercial Paper	-
Section 115 Trust (CEPPT)	483,377.28
Held in Trust	368,716.23
Collateralized Time Deposits	3,349,168.63
Total	$ 46,561,410.67



5. **CONSENT CALENDAR** (continued)

D. **DM 2026-57**: Consider Approval of Amendment to Legal Services Agreement with Best Best & Kreiger LLP for Special Counsel Services

Rubidoux Community Services District

Board of Directors
Diana Leja, President
Leslie Altamirano, Vice-President
Bernard Murphy
John Skerbelis
Hank Trueba Jr.

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

DIRECTORS MEMORANDUM 2026-57 July 2, 2026

To: Rubidoux Community Services District
Board of Directors

Subject: Consider Approval of Amendment to Legal Services Agreement with Best Best & Krieger LLP for Special Counsel Services

BACKGROUND:

On November 6, 2025, the Board of Directors approved a Legal Services Agreement with Best Best & Krieger LLP ("BBK") to provide specialized legal counsel related to the District's water and wastewater capacity fee program. Since that time, BBK, under the direction of Partner Lutfi Kharuf, has provided valuable assistance to the District in reviewing and refining the Capacity Fee Nexus Report, addressing stakeholder concerns, evaluating legal considerations, and supporting staff throughout the capacity fee adoption process.

As the District has continued to work through the final stages of implementing its updated capacity fee program, staff has found BBK's specialized expertise and practical guidance to be a valuable resource. Through this engagement, BBK has developed familiarity with the District's operations, infrastructure planning efforts, development-related issues, and other matters that extend beyond the original scope of services.

Staff is requesting authorization to amend the existing Legal Services Agreement to expand the scope of services and allow BBK to provide special counsel services on an as-needed basis for matters assigned by the General Manager. Such services may include, but are not limited to:

- Real estate transactions and property-related matters;
- Development and infrastructure-related issues;
- Capacity fee implementation and administration;
- Strategic planning and special projects; and
- Other legal matters requiring specialized expertise as assigned by the General Manager.

The proposed amendment does not modify BBK's hourly billing rates. Services will continue to be provided in accordance with BBK's standard annual rate schedule, which is updated periodically pursuant to the terms of the engagement and communicated to the District in advance.

Budget Considerations

Costs associated with special counsel services will be accommodated within existing professional services budget appropriations and utilized on an as-needed basis. No minimum expenditure is required under the agreement, and services will only be requested when determined necessary by staff.

To ensure appropriate fiscal oversight, staff will provide the Board of Directors with a quarterly budget-to-actual analysis reflecting legal service expenditures. Should additional appropriations become necessary to support ongoing or expanded special counsel services, staff will return to the Board with a proposed budget amendment and request for additional authorization.

RECOMMENDATION:

Staff recommends that the Board of Directors take the following action:

1. Approve the Amendment to the Legal Services Agreement with Best Best & Krieger LLP to expand the scope of services and authorize the firm to provide special counsel services on an as-needed basis for matters assigned by the General Manager.

Respectfully,

BRIAN R. LADDUSAW, CPA
General Manager

Attachment(s):

1. DM 2025-95
2. Amendment to Legal Services Agreement – Best Best & Krieger dated June 23, 2026

Attachment 1

Rubidoux Community Services District

Board of Directors
Hank Trueba Jr., President
Diana Leja, Vice President
Bernard Murphy
John Skerbelis
Leslie Altamirano

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

DIRECTORS MEMORANDUM 2025-95 November 6, 2025

To: Rubidoux Community Services District
Board of Directors

Subject: Consider Authorization of Legal Services Agreement with Best Best & Krieger LLP for Special Counsel Assistance Regarding Capacity Fee Program

BACKGROUND:

The Rubidoux Community Services District ("District") is in the process of updating its water and wastewater capacity fees pursuant to Ordinance No. 2025-143. In the course of reviewing stakeholder comments and technical/legal questions, it became clear that specialized legal counsel would be beneficial to ensure the fees are legally defensible and compliant with applicable law, including the Mitigation Fee Act and related statutes.

Staff, in consultation with the District's General Counsel, recommends retaining Best Best & Krieger LLP (BBK), under the direction of Partner Lutfi Kharuf, to provide specialized counsel on these matters. Mr. Kharuf has extensive experience advising public agencies on fee compliance and capacity fee adoption, is well-versed in relevant case law including *Sheetz v. County of El Dorado*, and has led presentations and guidance on these topics for other agencies. An associate attorney will assist under his supervision.

The engagement will include:

- Review and refinement of the Nexus Report;
- Addressing legal and technical concerns raised by stakeholders;
- Ensuring compliance with the Mitigation Fee Act, California Constitution, and applicable case law; and
- Supporting a legally defensible adoption process for Ordinance No. 2025-143.

Note: The Board discussed the potential engagement of special counsel in closed session earlier on today's agenda (DM 2025-93).

The attached legal services agreement provides full details of the proposed scope of services.

Budget Considerations

Costs associated with retaining BBK as special counsel will be accommodated within the District's professional services budget. Hourly rates are set forth in the attached engagement letter.

RECOMMENDATION:

Staff recommends that the Board of Directors take the following action:

1. Approve the Legal Services Agreement with Best Best & Krieger LLP, under the direction of Partner Lutfi Kharuf, to provide specialized counsel regarding the District's water and wastewater capacity fee adjustments.

Respectfully,

BRIAN R. LADDUSAW, CPA
General Manager

Attachment(s):

1. Legal Services Agreement (Engagement Letter) – Best Best & Krieger LLP

Attachment 2

BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

Lutfi Kharuf
Partner
(619) 525-1302
lutfi.kharuf@bbklaw.com

October 13, 2025

VIA E-MAIL
BLADDUSAW@RCSD.ORG

Rubidoux Community Services District
c/o Brian R. Laddusaw, General Manager
3590 Rubidoux Boulevard
Jurupa Valley, CA 92509

Re: Engagement with Best Best & Krieger LLP

Dear Mr. Laddusaw:

ABOUT OUR REPRESENTATION

Best Best & Krieger LLP is pleased to represent Rubidoux Community Services District ("District"). Specifically, we will work with the District's general counsel to assist the District with developing capacity fees. This letter constitutes our agreement setting the terms of our representation. If you want us to represent the District and agree to the terms set forth in this letter, after you review the letter, please sign it and return the signed copy to us.

CONFIDENTIALITY AND ABSENCE OF CONFLICTS

An attorney-client relationship requires mutual trust between the client and the attorney. It is understood that communications exclusively between counsel and the client are confidential and protected by the attorney-client privilege.

To also assure mutuality of trust, we have maintained a conflict of interest index. The California Rules of Professional Conduct defines whether a past or present relationship with any party prevents us from representing Rubidoux Community Services District. Similarly, you will be included in our list of clients to ensure we comply with the Rules of Professional Conduct with respect to Rubidoux Community Services District.

We have checked the following names against our client index: Rubidoux Community Services District. Based on that check, we can represent Rubidoux Community Services District. Please review the list to see if any other persons or entities should be included. If you do not tell us to the contrary, we will assume that this list is complete and accurate. We request that you update this list for us if there are any changes in the future.

YOUR OBLIGATIONS ABOUT FEES AND INDIVIDUAL RATES

Our proposed fee arrangement is as follows: my current billing rate is $450 per hour. Richard Wall's billing rate is $350 per hour.

If other attorneys are called upon to work on this matter, Partners and Of Counsel will bill at $450 per hour, Associates will bill at $350 per hour, and Paralegals, Law Clerks and Analysts will bill at $210 per hour. Our rates are adjusted annually every July 1st, with advanced written notice. These rates shall be increased for the change in the cost of living for the most recently published twelve (12) month period, as shown by the U.S. Department of Labor in its All Urban Consumers Index set forth in the Riverside-San Bernardino-Ontario, CA area (bi-monthly), provided, however, that such adjustment shall never be lower than zero percent (0%). In addition to the automatic rate increases, either BB&K or the Client may initiate consideration of a rate increase at any time.

The billing policies are described in the memorandum attached to this letter, entitled "Best Best & Krieger LLP's Billing Policies." You should consider the Billing Policies memorandum part of this agreement as it binds both of us. For that reason, you should read it carefully.

INSURANCE

We understand that you are not now insured or have any insurance that may cover potential liability or attorneys' fees in this matter. If you think you may have such insurance, please notify me immediately.

We are also pleased to let you know that Best Best & Krieger LLP carries errors and omissions insurance with Lloyd's of London. After a standard deductible, this insurance provides coverage beyond what is required by the State of California.

NEW MATTERS

When we are engaged by a new client on a particular matter, we are often later asked to work on additional matters. You should know that such new matters will be the subject of a new signed supplement to this agreement. Similarly, this agreement does not cover and is not a commitment by either of us that we will undertake any appeals or collection procedures. Any such future work would also have to be agreed upon in a signed supplement.

CIVILITY IN LITIGATION

In the event of litigation, courtesy is customarily honored with opposing counsel, such as extensions to file pleadings or responses to other deadlines. In our experience, the reciprocal extension of such courtesies saves our clients' time and money. By signing this letter, you will be confirming your approval of this practice in your case.

HOW THIS AGREEMENT MAY BE TERMINATED

You, of course, have the right to end our services at any time. If you do so, you will be responsible for the payment of fees and costs accrued but not yet paid, plus reasonable fees and costs in transferring the matter to you or your new counsel. By the same token, we reserve the right to terminate our services to you upon written notice, order of the court, or in accordance with our attached Billing Policies memorandum. This could happen if you fail to pay our fees and costs as agreed, fail to cooperate with us in this matter, or if we determine we cannot continue to represent you for ethical or practical concerns.

CLIENT FILE

If you do not request the return of its file, we will retain your file for five years. After five years, we may have your file destroyed. If you would like your file maintained for more than five years or returned, you must make separate arrangements with us.

THANK YOU

On a personal note, we are pleased that you have selected Best Best & Krieger LLP to represent you. We look forward to a long and valued relationship with you and appreciate your confidence in selecting us to represent you in this matter. If you have any questions at any time about our services or billings, please do not hesitate to call me.

If this letter meets with your approval, please sign and date it, and return the original to us. Unless you sign, date and return by November 20, 2025, we will not represent you in any capacity, and we will assume that you have made other arrangements for legal representation.

Sincerely,

Lutfi Kharuf
of BEST BEST & KRIEGER LLP

AGREED AND ACCEPTED:

By: _____

Dated: _____

BEST BEST & KRIEGER LLP'S BILLING POLICIES

Our century of experience has shown that the attorney-client relationship works best when there is mutual understanding about fees, expenses, billing and payment terms. Therefore, this statement is intended to explain our billing policies and procedures. Clients are encouraged to discuss with us any questions they have about these policies and procedures. Clients may direct specific questions about a bill to the attorney with whom the client works or to our Accounts Receivable Department (accounts.receivable@bbklaw.com). Any specific billing arrangements different from those set forth below will be confirmed in a separate written agreement between the client and the firm.

INVOICE AND PAYMENT OPTIONS

Best Best & Krieger strives to meet our clients' needs in terms of providing a wide variety of invoice types, delivery and payment options. Please indicate those needs including the preferred method of invoice delivery (Invoice via Email; or USPS). In addition, accounts.receivable@bbklaw.com can provide a W-9 upon request and discuss various accepted payment methods.

FEES FOR PROFESSIONAL SERVICES

Unless a flat fee is set forth in our engagement letter with a client, our fees for the legal work we will undertake will be based in substantial part on time spent by personnel in our office on that client's behalf. In special circumstances which will be discussed with the client and agreed upon in writing, fees will be based upon the novelty or difficulty of the matter, or the time or other special limitations imposed by the client.

Hourly rates are set to reflect the skill and experience of the attorney or other legal personnel rendering services on the client's behalf. All legal services are billed in one-tenth of an hour (0.10/hour) or six-minute increments. Our attorneys are currently billed at rates from $260 to $1085 per hour, and our administrative assistants, research assistants, municipal analysts, litigation analysts, paralegals, paraprofessionals and law clerks are billed at rates from $145 to $350 per hour for new work. These rates reflect the ranges in both our public and our private rates. These hourly rates are reviewed annually to accommodate rising firm costs and to reflect changes in attorney status as lawyers attain new levels of legal experience. Any increases resulting from such reviews will be instituted automatically and will apply to each affected client, after advance notice.

Non-Attorney Personnel: BBK may employ the services of non-attorney personnel under the supervision of a BBK attorney in order to perform services called for in the legal services agreement. The most common non-attorney personnel utilized are paralegals. Other types of non-attorney personnel include, but are not limited to, case clerks, litigation analysts, and specialty consultants. The client agrees that BBK may use such non-attorney personnel to perform its services when it is reasonably necessary in the judgment of the responsible BBK attorney. Hourly fees for non-attorney personnel will be charged at the rate then in effect for such personnel. A copy of BBK's current rates and titles for non-attorney personnel will be provided upon request.

FEES FOR ELECTRONICALLY STORED INFORMATION ("ESI") SUPPORT AND STORAGE

BBK provides Electronically Stored Information ("ESI") services for matters requiring ESI support, which are matters with a document population over 1GB – typically litigation or threatened litigation matters. BBK provides services for basic ESI processing and storage at the following rates per month based on the number of gigabytes of data ("GB") processed and stored:

1GB -250GB: $10 per GB
251GB - 550GB: $8 per GB
551GB - 750GB: $6 per GB
751GB - 1TB: $4 per GB

The amount BBK charges for basic processing and storage of ESI allows BBK to recover the costs of providing such services, plus a net profit for BBK. BBK believes that the rates it charges for processing and storage are lower than comparable services available from third party vendors in the market. If you wish to contract separately with a third party vendor for processing and storage costs, please notify PracticeSupportServices@bbklaw.com in writing. BBK also provides advanced ESI processing services at hourly rates for personnel in its Litigation Support Group. A copy of BBK's current rates for such services will be provided on request.

FEES FOR OTHER SERVICES, COSTS AND EXPENSES

We attempt to serve all our clients with the most effective support systems available. Therefore, in addition to fees for professional legal services, we also charge separately for some other services and expenses to the extent of their use by individual clients. These charges include but are not limited to, mileage at the current IRS approved rate per mile, extraordinary telephone and document delivery charges, copying charges, computerized research, court filing fees and other court-related expenditures including court reporter and transcription fees. No separate charge is made for secretarial or word processing services; those costs are included within the above hourly rates.

We may need to advance costs and incur expenses on your behalf on an ongoing basis. These items are separate and apart from attorneys' fees and, as they are out-of-pocket charges, we need to have sufficient funds on hand from you to pay them when due. We will advise the client from time to time when we expect items of significant cost to be incurred, and it is required that the client send us advances to cover those costs before they are due.

ADVANCE DEPOSIT TOWARD FEES AND COSTS

Because new client matters involve both a substantial undertaking by our firm and the establishment of client credit with our accounting office, we require an advance payment from clients. The amount of this advance deposit is determined on a case-by-case basis discussed first with the client, and is specified in our engagement letter.

Upon receipt, the advance deposit will be deposited into the firm's client trust account. Our monthly billings will reflect such applications of the advance deposit to costs and not to attorney's fees (unless otherwise noted in our accompanying engagement letter). At the end of engagement, we will apply any remaining balance first to costs and then to fees. We also reserve the right to require increases or renewals of these advanced deposits.

By signing the initial engagement letter, each client is agreeing that trust account balances may be withdrawn and applied to costs as they are incurred and to our billings, when we issue our invoice to the client. If we succeed in resolving your matter before the amounts deposited are used, any balance will be promptly refunded.

MONTHLY INVOICES AND PAYMENT

Best Best & Krieger LLP provides our clients with monthly invoices for legal services performed and expenses incurred. Invoices are due and payable upon receipt.

Each monthly invoice reflects both professional and other fees for services rendered through the end of the prior month, as well as expenses incurred on the client's behalf that have been processed by the end of the prior month. Processing of some expenses is delayed until the next month and billed thereafter.

Our fees are not contingent upon any aspect of the matter and are due upon receipt. All billings are due and payable within ten days of presentation unless the full amount is covered by the balance of an advance held in our trust account.

It is our policy to treat every question about a bill promptly and fairly. It is also our policy that if a client does not pay an invoice within 60 days of mailing, we assume the client is, for whatever reason, refusing to pay. We reserve the right to terminate our engagement and withdraw as attorney of record whenever our invoices are not paid. If an invoice is 60 days late, however, we may advise the client by letter that the client must pay the invoice within 14 days or the firm will take appropriate steps to withdraw as attorney of record. If the delay is caused by a problem in the invoice, we must rely upon the client to raise that with us during the 14-day period. This same policy applies to fee arrangements which require the client to replenish fee deposits or make deposits for anticipated costs.

From time to time clients have questions about the format of the bill or description of work performed. If you have any such questions, please ask them when you receive the bill so we may address them on a current basis.

CHANGES IN FEE ARRANGEMENTS AND BUDGETS

It may be necessary under certain circumstances for a client to increase the size of required advances for fees after the commencement of our engagement and depending upon the scope of the work. For example, prior to a protracted trial or hearing, the firm may require a further advance payment to the firm's trust account sufficient to cover expected fees. Any such changes in fee arrangements will be discussed with the client and mutually agreed in writing.

Because of the uncertainties involved, any estimates of anticipated fees that we provide at the request of a client for budgeting purposes, or otherwise, can only be an approximation of potential fees.

BEST BEST & KRIEGER LLP

BBK
BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

Lutfi Kharuf
Partner
(619) 525-1302
lutfi.kharuf@bbklaw.com

June 23, 2026

VIA E-MAIL
BLADDUSAW@RCSD.ORG

Rubidoux Community Services District
c/o Brian R. Laddusaw, General Manager
3590 Rubidoux Boulevard
Jurupa Valley, CA 92509

Re: Amendment to Engagement Letter

Dear Mr. Laddusaw:

This letter amendment memorializes our mutual agreement that Best Best & Krieger LLP expand its scope of work to provide Special Counsel Services on an As-Needed Basis to Rubidoux Community Services District ("District").

Except as to the above scope of our representation, the terms of our representation are set forth in our engagement letter dated November 18, 2025. (Attached hereto as Exhibit A.)

If you have any other questions or concerns about the terms of our representation, please contact me. Thank you for the opportunity to represent the District.

Sincerely,

Lutfi Kharuf
of BEST BEST & KRIEGER LLP

LK:hjb

AGREED AND ACCEPTED:

By: _____

Dated: _____

BEST BEST & KRIEGER LLP
ATTORNEYS AT LAW

Lutfi Kharuf
Partner
(619) 525-1302
lutfi.kharuf@bbklaw.com

October 13, 2025

VIA E-MAIL
BLADDUSAW@RCSD.ORG

Rubidoux Community Services District
c/o Brian R. Laddusaw, General Manager
3590 Rubidoux Boulevard
Jurupa Valley, CA 92509

Re: Engagement with Best Best & Krieger LLP

Dear Mr. Laddusaw:

ABOUT OUR REPRESENTATION

Best Best & Krieger LLP is pleased to represent Rubidoux Community Services District ("District"). Specifically, we will work with the District's general counsel to assist the District with developing capacity fees. This letter constitutes our agreement setting the terms of our representation. If you want us to represent the District and agree to the terms set forth in this letter, after you review the letter, please sign it and return the signed copy to us.

CONFIDENTIALITY AND ABSENCE OF CONFLICTS

An attorney-client relationship requires mutual trust between the client and the attorney. It is understood that communications exclusively between counsel and the client are confidential and protected by the attorney-client privilege.

To also assure mutuality of trust, we have maintained a conflict of interest index. The California Rules of Professional Conduct defines whether a past or present relationship with any party prevents us from representing Rubidoux Community Services District. Similarly, you will be included in our list of clients to ensure we comply with the Rules of Professional Conduct with respect to Rubidoux Community Services District.

We have checked the following names against our client index: Rubidoux Community Services District. Based on that check, we can represent Rubidoux Community Services District. Please review the list to see if any other persons or entities should be included. If you do not tell us to the contrary, we will assume that this list is complete and accurate. We request that you update this list for us if there are any changes in the future.

YOUR OBLIGATIONS ABOUT FEES AND INDIVIDUAL RATES

Our proposed fee arrangement is as follows: my current billing rate is $450 per hour. Richard Wall's billing rate is $350 per hour.

If other attorneys are called upon to work on this matter, Partners and Of Counsel will bill at $450 per hour, Associates will bill at $350 per hour, and Paralegals, Law Clerks and Analysts will bill at $210 per hour. Our rates are adjusted annually every July 1st, with advanced written notice. These rates shall be increased for the change in the cost of living for the most recently published twelve (12) month period, as shown by the U.S. Department of Labor in its All Urban Consumers Index set forth in the Riverside-San Bernardino-Ontario, CA area (bi-monthly), provided, however, that such adjustment shall never be lower than zero percent (0%). In addition to the automatic rate increases, either BB&K or the Client may initiate consideration of a rate increase at any time.

The billing policies are described in the memorandum attached to this letter, entitled "Best Best & Krieger LLP's Billing Policies." You should consider the Billing Policies memorandum part of this agreement as it binds both of us. For that reason, you should read it carefully.

INSURANCE

We understand that you are not now insured or have any insurance that may cover potential liability or attorneys' fees in this matter. If you think you may have such insurance, please notify me immediately.

We are also pleased to let you know that Best Best & Krieger LLP carries errors and omissions insurance with Lloyd's of London. After a standard deductible, this insurance provides coverage beyond what is required by the State of California.

NEW MATTERS

When we are engaged by a new client on a particular matter, we are often later asked to work on additional matters. You should know that such new matters will be the subject of a new signed supplement to this agreement. Similarly, this agreement does not cover and is not a commitment by either of us that we will undertake any appeals or collection procedures. Any such future work would also have to be agreed upon in a signed supplement.

CIVILITY IN LITIGATION

In the event of litigation, courtesy is customarily honored with opposing counsel, such as extensions to file pleadings or responses to other deadlines. In our experience, the reciprocal extension of such courtesies saves our clients' time and money. By signing this letter, you will be confirming your approval of this practice in your case.

HOW THIS AGREEMENT MAY BE TERMINATED

You, of course, have the right to end our services at any time. If you do so, you will be responsible for the payment of fees and costs accrued but not yet paid, plus reasonable fees and costs in transferring the matter to you or your new counsel. By the same token, we reserve the right to terminate our services to you upon written notice, order of the court, or in accordance with our attached Billing Policies memorandum. This could happen if you fail to pay our fees and costs as agreed, fail to cooperate with us in this matter, or if we determine we cannot continue to represent you for ethical or practical concerns.

CLIENT FILE

If you do not request the return of its file, we will retain your file for five years. After five years, we may have your file destroyed. If you would like your file maintained for more than five years or returned, you must make separate arrangements with us.

THANK YOU

On a personal note, we are pleased that you have selected Best Best & Krieger LLP to represent you. We look forward to a long and valued relationship with you and appreciate your confidence in selecting us to represent you in this matter. If you have any questions at any time about our services or billings, please do not hesitate to call me.

If this letter meets with your approval, please sign and date it, and return the original to us. Unless you sign, date and return by November 20, 2025, we will not represent you in any capacity, and we will assume that you have made other arrangements for legal representation.

Sincerely,

Lutfi Kharuf
of BEST BEST & KRIEGER LLP

AGREED AND ACCEPTED:

By: _____

Dated: 11/18/25

BEST BEST & KRIEGER LLP'S BILLING POLICIES

Our century of experience has shown that the attorney-client relationship works best when there is mutual understanding about fees, expenses, billing and payment terms. Therefore, this statement is intended to explain our billing policies and procedures. Clients are encouraged to discuss with us any questions they have about these policies and procedures. Clients may direct specific questions about a bill to the attorney with whom the client works or to our Accounts Receivable Department (accounts.receivable@bbklaw.com). Any specific billing arrangements different from those set forth below will be confirmed in a separate written agreement between the client and the firm.

INVOICE AND PAYMENT OPTIONS

Best Best & Krieger strives to meet our clients' needs in terms of providing a wide variety of invoice types, delivery and payment options. Please indicate those needs including the preferred method of invoice delivery (Invoice via Email; or USPS). In addition, accounts.receivable@bbklaw.com can provide a W-9 upon request and discuss various accepted payment methods.

FEES FOR PROFESSIONAL SERVICES

Unless a flat fee is set forth in our engagement letter with a client, our fees for the legal work we will undertake will be based in substantial part on time spent by personnel in our office on that client's behalf. In special circumstances which will be discussed with the client and agreed upon in writing, fees will be based upon the novelty or difficulty of the matter, or the time or other special limitations imposed by the client.

Hourly rates are set to reflect the skill and experience of the attorney or other legal personnel rendering services on the client's behalf. All legal services are billed in one-tenth of an hour (0.10/hour) or six-minute increments. Our attorneys are currently billed at rates from $260 to $1085 per hour, and our administrative assistants, research assistants, municipal analysts, litigation analysts, paralegals, paraprofessionals and law clerks are billed at rates from $145 to $350 per hour for new work. These rates reflect the ranges in both our public and our private rates. These hourly rates are reviewed annually to accommodate rising firm costs and to reflect changes in attorney status as lawyers attain new levels of legal experience. Any increases resulting from such reviews will be instituted automatically and will apply to each affected client, after advance notice.

Non-Attorney Personnel: BBK may employ the services of non-attorney personnel under the supervision of a BBK attorney in order to perform services called for in the legal services agreement. The most common non-attorney personnel utilized are paralegals. Other types of non-attorney personnel include, but are not limited to, case clerks, litigation analysts, and specialty consultants. The client agrees that BBK may use such non-attorney personnel to perform its services when it is reasonably necessary in the judgment of the responsible BBK attorney. Hourly fees for non-attorney personnel will be charged at the rate then in effect for such personnel. A copy of BBK's current rates and titles for non-attorney personnel will be provided upon request.

FEES FOR ELECTRONICALLY STORED INFORMATION ("ESI") SUPPORT AND STORAGE

BBK provides Electronically Stored Information ("ESI") services for matters requiring ESI support, which are matters with a document population over 1GB – typically litigation or threatened litigation matters. BBK provides services for basic ESI processing and storage at the following rates per month based on the number of gigabytes of data ("GB") processed and stored:

1GB -250GB: $10 per GB
251GB - 550GB: $8 per GB
551GB - 750GB: $6 per GB
751GB - 1TB: $4 per GB

The amount BBK charges for basic processing and storage of ESI allows BBK to recover the costs of providing such services, plus a net profit for BBK. BBK believes that the rates it charges for processing and storage are lower than comparable services available from third party vendors in the market. If you wish to contract separately with a third party vendor for processing and storage costs, please notify PracticeSupportServices@bbklaw.com in writing. BBK also provides advanced ESI processing services at hourly rates for personnel in its Litigation Support Group. A copy of BBK's current rates for such services will be provided on request.

FEES FOR OTHER SERVICES, COSTS AND EXPENSES

We attempt to serve all our clients with the most effective support systems available. Therefore, in addition to fees for professional legal services, we also charge separately for some other services and expenses to the extent of their use by individual clients. These charges include but are not limited to, mileage at the current IRS approved rate per mile, extraordinary telephone and document delivery charges, copying charges, computerized research, court filing fees and other court-related expenditures including court reporter and transcription fees. No separate charge is made for secretarial or word processing services; those costs are included within the above hourly rates.

We may need to advance costs and incur expenses on your behalf on an ongoing basis. These items are separate and apart from attorneys' fees and, as they are out-of-pocket charges, we need to have sufficient funds on hand from you to pay them when due. We will advise the client from time to time when we expect items of significant cost to be incurred, and it is required that the client send us advances to cover those costs before they are due.

ADVANCE DEPOSIT TOWARD FEES AND COSTS

Because new client matters involve both a substantial undertaking by our firm and the establishment of client credit with our accounting office, we require an advance payment from clients. The amount of this advance deposit is determined on a case-by-case basis discussed first with the client, and is specified in our engagement letter.

Upon receipt, the advance deposit will be deposited into the firm's client trust account. Our monthly billings will reflect such applications of the advance deposit to costs and not to attorney's fees (unless otherwise noted in our accompanying engagement letter). At the end of engagement, we will apply any remaining balance first to costs and then to fees. We also reserve the right to require increases or renewals of these advanced deposits.

By signing the initial engagement letter, each client is agreeing that trust account balances may be withdrawn and applied to costs as they are incurred and to our billings, when we issue our invoice to the client. If we succeed in resolving your matter before the amounts deposited are used, any balance will be promptly refunded.

MONTHLY INVOICES AND PAYMENT

Best Best & Krieger LLP provides our clients with monthly invoices for legal services performed and expenses incurred. Invoices are due and payable upon receipt.

Each monthly invoice reflects both professional and other fees for services rendered through the end of the prior month, as well as expenses incurred on the client's behalf that have been processed by the end of the prior month. Processing of some expenses is delayed until the next month and billed thereafter.

Our fees are not contingent upon any aspect of the matter and are due upon receipt. All billings are due and payable within ten days of presentation unless the full amount is covered by the balance of an advance held in our trust account.

It is our policy to treat every question about a bill promptly and fairly. It is also our policy that if a client does not pay an invoice within 60 days of mailing, we assume the client is, for whatever reason, refusing to pay. We reserve the right to terminate our engagement and withdraw as attorney of record whenever our invoices are not paid. If an invoice is 60 days late, however, we may advise the client by letter that the client must pay the invoice within 14 days or the firm will take appropriate steps to withdraw as attorney of record. If the delay is caused by a problem in the invoice, we must rely upon the client to raise that with us during the 14-day period. This same policy applies to fee arrangements which require the client to replenish fee deposits or make deposits for anticipated costs.

From time to time clients have questions about the format of the bill or description of work performed. If you have any such questions, please ask them when you receive the bill so we may address them on a current basis.

CHANGES IN FEE ARRANGEMENTS AND BUDGETS

It may be necessary under certain circumstances for a client to increase the size of required advances for fees after the commencement of our engagement and depending upon the scope of the work. For example, prior to a protracted trial or hearing, the firm may require a further advance payment to the firm's trust account sufficient to cover expected fees. Any such changes in fee arrangements will be discussed with the client and mutually agreed in writing.

Because of the uncertainties involved, any estimates of anticipated fees that we provide at the request of a client for budgeting purposes, or otherwise, can only be an approximation of potential fees.

BEST BEST & KRIEGER LLP

5. **CONSENT CALENDAR** (continued)

E. **DM 2026-58**: RCSD – JCSD Boundary Line Clean-Up Project Participation and Funding Authorization

Rubidoux Community Services District

Board of Directors
Diana Leja, President
Leslie Altamirano, Vice-President
Bernard Murphy
John Skerbelis
Hank Trueba Jr.

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

DIRECTORS MEMORANDUM 2026-58 July 2, 2026

To: Rubidoux Community Services District
Board of Directors

Subject: RCSD - JCSD Boundary Line Clean-Up Project Participation and Funding Authorization

BACKGROUND:

Rubidoux Community Services District ("District") and Jurupa Community Services District ("JCSD") share a service boundary along the Manor Drive corridor. Legacy infrastructure and historical service conditions have resulted in service inefficiencies that are inconsistent with each agency's intended service area.

The District and JCSD have coordinated to establish a clear and permanent boundary through the RCSD–JCSD Boundary Line Clean-Up Project. JCSD is serving as the lead agency for design, bidding, construction administration, and inspection.

The proposed work implements previously approved LAFCO boundary adjustments between the District and JCSD (LAFCO Cases 2022-19-2 and 2022-20-2) and corrects legacy water infrastructure inconsistencies along the service boundary.

Discussion

Prior to bidding, the Engineer's Estimate for the District's portion of the project was approximately $55,000.

On March 26, 2026, JCSD opened bids for the project. The lowest responsive bid was submitted by Boudreau Pipeline Corporation in the total amount of $521,594.12.

The District's portion of the work is included in Bid Schedule II and Bid Schedule III. Based on the lowest responsive bid, the District's portion of the project is as follows:

TABLE 1	
Item	Amount
Bid Schedule II	$ 54,850.59
Bid Schedule III	$ 55,319.63
Total District Construction Cost Share	$ 110,170.22

The bid amount for the District's portion of the project is approximately double the original Engineer's Estimate. Staff accounted for the increased project cost during preparation of the FY 2026|2027 Water Capital Improvement Project (CIP) Budget under Line Item 15 – JCSD Line Separation. As a result, sufficient funding has been appropriated to complete the project without requiring a budget amendment.

The scope of work remains unchanged and includes the water system improvements necessary to complete the boundary line clean-up and transfer service responsibilities consistent with the LAFCO-approved boundaries.

The addresses transferred from JCSD to the District as part of this project receive water service only. The District does not provide sewer service to these properties, and they will continue to be served by their existing septic systems. This project does not expand or modify the District's sewer collection system or wastewater infrastructure.

Budget Considerations

The approved FY 2026|2027 Water CIP Budget includes $115,000 under Line Item 15 – JCSD Line Separation.

The total District construction cost of $110,170.22 is within the approved project budget. The remaining balance of $4,829.78 will be available for minor contingencies and other project-related costs. No budget amendment or additional appropriation is required.

Coordination with JCSD is consistent with Procurement Policy Section 1040.25.8 governing inter-agency agreements. JCSD is serving as the lead agency for project bidding and administration in accordance with the California Public Contract Code and Procurement Policy Section 1040.3.

All work affecting District facilities shall be constructed in accordance with District specifications, approved materials, and inspection requirements. Any deviation from District standards shall require prior written approval from the District.

The District's financial participation is limited to Bid Schedule II and Bid Schedule III and shall not exceed the approved budget amount of $115,000 without further authorization from the Board of Directors.

RECOMMENDATION:

Staff recommends that the Board of Directors take the following actions:

1. Approve the District's participation in the RCSD–JCSD Boundary Line Clean-Up Project at a construction cost of $110,170.22, with total project expenditures not to exceed $115,000 as budgeted in the FY 2026|2027 Water Capital Improvement Project Budget under Line Item 15 – JCSD Line Separation.

2. Authorize the General Manager or Designee to execute the inter-agency letter with Jurupa Community Services District and process payments associated with Bid Schedule II and Bid Schedule III, provided the total amount does not exceed $115,00

Respectfully,

BRIAN R. LADDUSAW, CPA
General Manager

Attachment(s):

1. Engineer's Estimate - RCSD Scope (Bid Schedules II and III)
2. Inter-Agency Letter – RCSD-JCSD Boundary Line Clean-Up Project
3. Protest notice RCSD-JCSD
4. Plan Sheets - RCSD Work Area Only (Full Size Available upon Request)
5. Award Letter-06222026- C245117 -Boudreau Pipeline Corporation
6. Preliminary Bid Results
7. Boudreau Pipeline (Available at the following link: https://www.rcsd.org/2026-07-02-board-of-directors-board-meeting)
8. FY 2026|2027 Water CIP Budget (Page 8)

Attachment 1

JURUPA COMMUNITY SERVICES DISTRICT
Manor Drive Boundary Clean Up
Project No. C245117

Engineer's Opinion of Probable Construction Costs
FINAL
ENR=15,979.642 November 2025

Item No.	Item Description	Quantity	Unit	Unit Price	Extension
Bid Schedule I					
101	Mobilization, Demobilization, Insurance Bonds and Preconstruction Video (2)	1	LS	$45,000	$ 45,000
102	Pothole existing utilities at all crossings, and adjacent to proposed alignment, confirm connect points, and provide report prior to construction (8 Potholes). Including traffic control and pavement patchwork in accordance with city encroachment permit.	1	LS	$12,000	$ 12,000
103	Connection to Ex. 16"x12" Tee on Mission Blvd. Including piping, fittings, thrust restraints and dewatering.	1	EA	$12,000	$ 12,000
104	Furnish and install 8" Dia RSGV per JCSD Std Dwg B-1	1	EA	$2,500	$ 2,500
105	8" dia. C-909 PVC watermain with tracer wire, ductile iron fittings and thrust restraints	375	LF	$141	$ 52,875
106	Re-connect water service line to customer on-site piping	1	EA	$1,500	$ 1,500
107	Remove and replace existing Fire Hydrant Per JCSD Std. Dwg. G-2	1	EA	$8,000	$ 8,000
108	Cut existing 12" waterline and install 12" blind flange, construct thrust block, and bulkhead the remaining pipeline in accordance with design drawings and specifications	6	EA	$3,500	$ 21,000
109	Cut and cap existing 12" Waterline and bulkhead remaining pipeline in accordance with design drawings and specifications	3	EA	$2,000	$ 6,000
110	Cut existing 8" waterline and install 8" blind flange, construct thrust block, and bulkhead the remaining pipeline in accordance with design drawings and specifications	1	EA	$3,000	$ 3,000
111	Cut and cap existing 8" Waterline and bulkhead remaining pipeline in accordance with design drawings and specifications.	3	EA	$2,000	$ 6,000
112	Cut and cap existing 4" Waterline and bulkhead remaining pipeline in accordance with design drawings and specifications.	2	EA	$2,000	$ 4,000
113	Abandon existing water main in place per the Special Requirements section of the specifications including dewatering, filling with CLSM, backfill compaction, and finished surface restoration, etc.	3582	LF	$5	$ 17,910

JURUPA COMMUNITY SERVICES DISTRICT
Manor Drive Boundary Clean Up
Project No. C245117

114	Remove and replace existing cross gutters, drains, fences, mailboxes in kind	1	LS	$5,000	$	5,000
115	Remove and Dispose of existing valves, valve box, and lid in accordance with design drawings and specifications	1	LS	$5,000	$	5,000
116	Remove and dispose of existing air valve and blow assemblies, and dispose of in accordance with design drawings and specifications	1	LS	$4,000	$	4,000
117	Remove and restore existing asphalt Driveway per Riverside County Std Dwg 206	190	SF	$8	$	1,520
118	Remove and Replace sidewalk and curb per Riverside County Std. Dwg. 401 and in accordance with design drawings and specifications	3	CY	$500	$	1,500
119	Remove and restore landscaping, drip irrigation lines, sprinkler heads to provide a fully functional system	1	LS	$5,000	$	5,000
120	Remove and replace residential concrete drive approach, sidewalk, and curb per Riverside County Std Dwg 207, minimum joint to joint replacement	1	CY	$500	$	500
121	Remove and replace Type D curb per Riverside County Std Dwg D-204, minimum joint to joint replacement	10	LF	$50	$	500
122	Remove and replace Type A-6 curb per Riverside County Std Dwg D-200, minimum joint to joint replacement	10	LF	$50	$	500
123	Remove and replace existing stamped and colored concrete in kind, match existing color and pattern, replace joint to joint.	40	SF	$15	$	600
124	Remove and restore existing landscaped median including irrigation per Riverside County Std Dwg 113 and design drawings and specifications	1	LS	$500	$	500
125	Pavement removal, disposal and replacement of slurry backfill (mainline trench) per City of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, and per Specifications, export and disposal of native materials	310	LF	$15	$	4,650
126	Grinding and 0.125' thick asphalt concrete capping of Mission Blvd per City of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, and per Specifications for work areas	5095	SF	$10	$	50,950

127	Trench sheeting, shoring and bracing per OSHA standard	1	LS	$12,000	$ 12,000
128	Backfill, compact, restore mainline trench zone	375	LF	$30	$ 11,250
129	Replace traffic striping and pavement markings per City of Jurupa Valley Encroachment Permit and Temporary Striping for work areas	1	LS	$5,000	$ 5,000
130	Prepare engineer signed Traffic Control plans for waterline construction and all appurtenances, services, connections, etc. including abandonment of water facilities, and submit and obtain approval from City of Jurupa Valley for work areas	1	LS	$10,000	$ 10,000
131	Traffic Control and Safety per approved Traffic Control Plans as required by City of Jurupa Valley Encroachment Permit, including traffic control for inspection activities performed for work areas	1	LS	$14,000	$ 14,000
132	Monitoring and maintenance of traffic control devices for work areas	1	LS	$8,000	$ 8,000
133	Unknown/unmarked utility under crossings and protection including idle costs, excavation, support, backfill, slurry and delays associated cost per Special Requirements	2	EA	$2,000	$ 4,000
134	Apply for, obtain, pay for and comply with Jurupa Valley encroachment permit (including all rider permits and extensions), provide and implement BMP's per City's requirements	1	LS	$2,500	$ 2,500
135	Protect and/or replace existing survey monuments	1	LS	$2,000	$ 2,000
136	Chlorination and disinfection of pipelines	1	LS	$4,000	$ 4,000
137	Flush and pressure testing including temporary blow-offs, all thrust restraints and protection per AWWA and JCSD requirements	1	LS	$5,000	$ 5,000
138	Construction water, and associated piping, fittings, thrust restraints, back-flow assemblies, meter deposits, equipment, valves	1	LS	$1,500	$ 1,500
139	Provide Record Drawings in accordance with the Specifications	1	LS	$2,000	$ 2,000
140	Maintain updated As-Builts and provide final Record Drawings	1	LS	$1,500	$ 1,500
141	All other work in the Contract Documents not outlined in Bid Items 101 to 140 to make system operational	1	LS	$12,000	$ 12,000
TOTAL SCHEDULE I (101 thru 141)					**$ 366,755**

JURUPA COMMUNITY SERVICES DISTRICT
Manor Drive Boundary Clean Up
Project No. C245117

Bid Schedule II - JEWEL STREET CLEANUP - RCSD						
201	Abandon existing 8" diameter water main in place for Jewel Street reconfiguration, per the Special Requirements section of the specifications, including dewatering, filling with CLSM, backfill compaction, and finished surface restoration, etc.	100	LF	$5	$	500
202	Cut and cap existing 8" waterline for the Jewel Street reconfiguration, and bulkhead remaining pipeline in accordance with design drawings and specifications.	1	EA	$6,500	$	6,500
203	Connect existing 8-in watermain to existing 12-inch water main along Jewel Street, Per Detail 4A, including all piping, fittings, thrust restraints and dewatering	1	EA	$10,500	$	10,500
204	Grinding and 0.125' thick asphalt concrete capping of Mission Blvd per City of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, and per Specifications for work areas	300	SF	$10	$	3,000
205	All other work in the Contract Documents not outlined in Bid Items 201 to 204 to make system operational	1	LS	$5,000	$	5,000
TOTAL SCHEDULE I (201 thru 205)					**$**	**25,500**
Bid Schedule III - RCSD FIRE HYDRANT - RCSD						
301	Remove existing on-site fire hydrant and replace with new Fire Hydrant Assembly Per RCSD Std. Dwg. W1060 w/ Guard Posts per RCSD Std. Dwg. W1160.	1	EA	$10,000	$	10,500
302	Remove and restore existing asphalt in kind, and restore grades and flow patterns to existing conditions	1	LS	$2,500	$	2,500
303	Remove and restore existing chain link fence and posts in kind.	10	LF	$60	$	600
304	Grinding and 0.125' thick asphalt concrete capping of Mission Blvd per City of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, and per Specifications for work areas	165	SF	$10	$	1,650
304	Remove and replace Type A-6 curb per Riverside County Std Dwg D-200, minimum joint to joint replacement	10	LF	$50	$	500
305	Remove and replace existing stamped and colored concrete in kind, match existing color and pattern, replace joint to joint.	20	SF	$15	$	300
306	All other work in the Contract Documents not outlined in Bid Items 301 to 305 to make system operational	1	LS	$1,500	$	1,500
TOTAL SCHEDULE III (301 thru 306)					**$**	**17,550**
Grand Total (Bid Schedule I + II + III)					**$**	**409,805**

Attachment 2

Board of Directors
Anthony Herda, President
Kenneth J. McLaughlin, Vice President
Lupe R. Nava, Director
Bart Moreno, Director
Betty Folsom, Director

Chris Berch, General Manager

February ____, 2026

Dear Mr. Thomas:

This letter confirms the mutual understanding between the Jurupa Community Services District (JCSD) and the Rubidoux Community Services District (RCSD) regarding the JCSD Project #C245117- Manor Drive Boundary Clean Up Project- ("the Project").

RCSD acknowledges and agrees that JCSD may proceed with the design and construction of the Project. RCSD further agrees that JCSD will serve as the lead agency for the Project and will be responsible for overall project management, construction administration, and inspection services associated with the work. RCSD shall cooperate with JCSD for the successful completion of the Project.

RCSD agrees to deposit with JCSD within 30 days from the receipt of JCSD's invoice for the total bid amounts associated with Bid Schedule II and Bid Schedule III, pending receipt and confirmation of the final bid pricing. Payment shall be based on the awarded construction contract amounts for these bid schedules, and incidental soft cost and supported by appropriate documentation. Upon completion of the Project, JCSD will prepare a final written accounting of the Total Costs.

This memorandum serves as confirmation of RCSD's authorization for JCSD to proceed and outlines RCSD's financial responsibility for the identified portions of the project. Additional administrative coordination, invoice procedures, and payment timelines may be documented separately as needed.

Please acknowledge acceptance of this understanding by signing below.

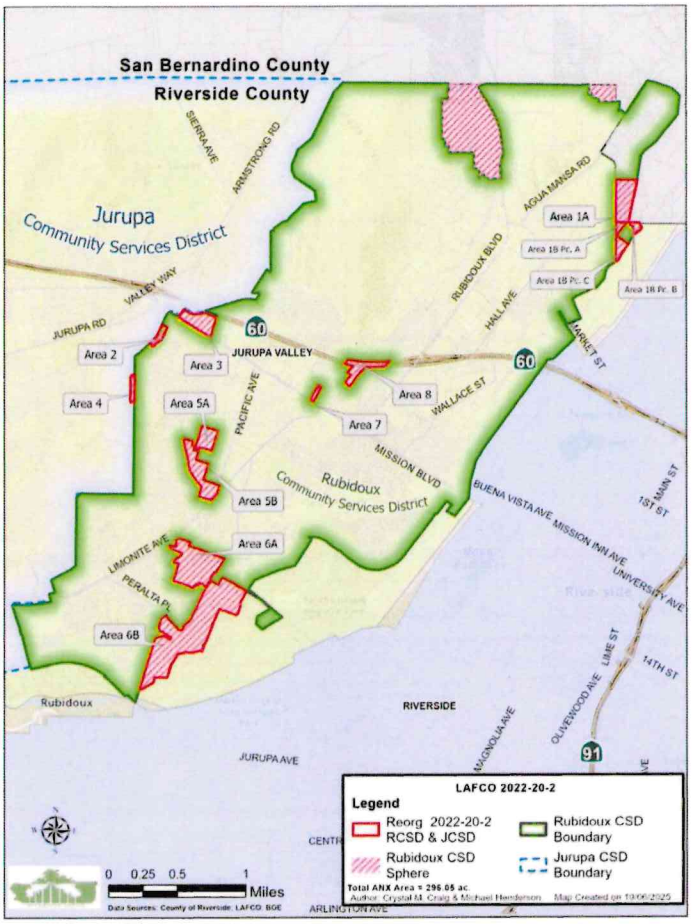
Rubidoux Community Services District	**Jurupa Community Services District**
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

Attachment 3

NOTICE OF PROTEST HEARING
BEFORE THE EXECUTIVE OFFICER OF THE
RIVERSIDE LOCAL AGENCY FORMATION COMMISSION

NOTICE IS HEREBY GIVEN that a Protest Hearing will be held by the Executive Officer of the **Riverside Local Agency Formation Commission (LAFCO)** at 6216 Brockton Avenue, Suite 111-B, Riverside, CA 92506 on **Tuesday, January 13, 2026, at 10:00 a.m.** to receive written protest on the following proposal:

1. **LAFCO 2022-20-2- Reorganization to Include Detachments from Jurupa Community Services District and Rubidoux Community Services District and Concurrent Annexations to Jurupa Community Services District and Rubidoux Community Service District:** Areas 1A, 1B, 2, 3, 4, 5A, 5B, 6A, 6B, 7, & 8 are generally located south of Jurupa Road and Agua Mansa Road, west of Riverside Avenue, north of the Santa Ana River, and east of Camino Real, located within the City of Jurupa Valley in Riverside County and a portion within unincorporated San Bernardino County.



Commission proceedings were initiated by resolution of application by the Rubidoux Community Services District. The purpose of the reorganization is for the provision of water, wastewater, fire, solid waste collection, and streetlighting services by RCSD and the provision of water, wastewater, recreation and parks, landscape maintenance, graffiti abatement, and streetlighting services by the Jurupa Community Services District. The reorganization was approved subject to the terms and conditions outlined in LAFCO Resolution No. 32-25, which includes a detailed version of the map and legal description, and is available upon request through the LAFCO office.

Any **registered voter residing within the territory or owner of land within the territory** may file a written protest against the proposal with the Executive Officer of the Commission at any time between the date of this notice and the conclusion of the protest hearing on this proposal.

Written protest must be submitted on the official protest form available from LAFCO. Protests must be delivered to the following address prior to the conclusion of the hearing:

Gary Thompson, Executive Officer
Riverside Local Agency Formation Commission
6216 Brockton Avenue, Suite 111-B
Riverside, CA 92506
(951) 369-0631

RIVERSIDE LOCAL AGENCY FORMATION COMMISSION

Gary Thompson
Executive Officer
December 22, 2025

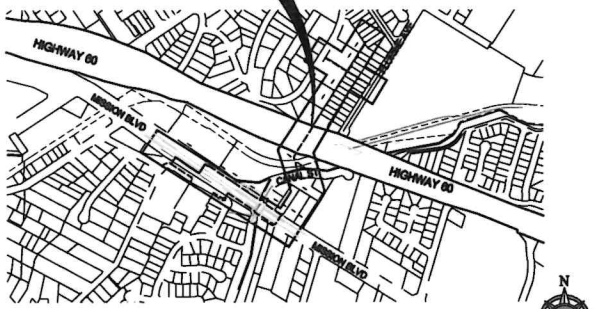
Attachment 4

JURUPA COMMUNITY SERVICES DISTRICT
JURUPA VALLEY, CALIFORNIA
MANOR DRIVE PIPELINE ABANDONMENT

GENERAL NOTES AND REQUIREMENTS

1. ALL CONSTRUCTION UNDER THIS CONTRACT SHALL CONFORM WITH ALL PROVISIONS OF THE SPECIAL REQUIREMENTS, BASIC SPECIFICATIONS, TECHNICAL SPECIFICATIONS AND CONSTRUCTION DRAWINGS ALL INCLUSIVE UNDER THIS CONTRACT.
2. THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (VALVES, PIPES, STRUCTURES, ETC.) SHOWN ON THE PLANS ARE APPROXIMATE AND WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY UTILITY COMPANIES. NEITHER THE OWNER, NOR THE ENGINEER, ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL DETERMINE THE DEPTH AND LOCATION OF UNDERGROUND FACILITIES AND MAIN LATERALS PRIOR TO THE START OF CONSTRUCTION AND WILL TAKE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITIES AND/OR UNDERGROUND UTILITIES NOT OF RECORD OR NOT SHOWN ON THE PLANS.
3. REPLACEMENT PAVING IN ALL PAVED ROADS, TRAFFIC CONTROL, RESTRIPING, SPECIAL TRENCH BACKFILL, SPECIAL CLASS 2 BASE REQUIREMENTS, ETC. SHALL BE IN ACCORDANCE WITH THE CITY OF JURUPA VALLEY PERMIT REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY PERMIT SECTION AT (951) 332-6464 AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. IF THE PROPOSED PIPELINE CROSSES A PAVED STREET AT AN ANGLE OTHER THAN 90 DEGREES, THE LIMITS OF PAVEMENT OVERLAY SHALL BE AT RIGHT ANGLES TO THE STREET CENTERLINE AND SHALL ENCOMPASS THE ENTIRE TRENCH PAVING.
4. THE CONTRACTOR/SUBCONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE THEMSELVES WITH THE SITE AND WILL BE RESPONSIBLE FOR ANY DAMAGED CAUSED TO EXISTING IMPROVEMENTS AND/OR FACILITIES, AND IS RESPONSIBLE TO RE-INSTALL AND/OR REPAIR IN KIND ALL DAMAGED ITEMS INCLUDING BUT NOT LIMITED TO DRIVE APPROACH (CONCRETE, ASPHALT, OR DIRT), MAILBOXES, FENCES, GATES, SIDEWALKS, CURB AND GUTTER, BERMS, DITCHES, PLANTS, ETC.
5. SURVEY MONUMENTS THAT MAY BE DISTURBED, SHALL BE TIED OUT PRIOR TO THE START OF CONSTRUCTION BY A LICENSED LAND SURVEYOR. THE CONTRACTOR SHALL CONFIRM THAT DISTURBED MONUMENTS ARE RESTORED UPON THE COMPLETION OF THE WORK.
6. THE CONTRACTOR WILL COORDINATE WITH THE DISTRICT TO FIELD LOCATE WATER AND SEWER SERVICES. THE CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR PROTECTING ALL EXISTING SERVICES AT NO ADDITIONAL COST TO THE DISTRICT.
7. THE CONTRACTOR/SUBCONTRACTOR SHALL EXAMINE CAREFULLY THE SITE OF THE WORK CONTEMPLATED AS WELL AS THE PLANS AND SPECIFICATIONS. THE SUBMISSION OF A BID PROPOSAL SHALL BE CONCLUSIVE EVIDENCE THAT THE CONTRACTOR/SUB CONTRACTOR HAS INVESTIGATED THE PROJECT SITE AND IS SATISFIED AS TO THE CONDITIONS TO BE ENCOUNTERED, AS TO THE CHARACTER, QUALITY, AND SCOPE OF THE WORK TO BE PERFORMED, AS TO THE QUANTITIES OF MATERIAL TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THE BID PROPOSAL, PLANS AND GENERAL SPECIFICATIONS.
8. LINEAR FEET OF PIPE SHOWN ON THE DRAWINGS ARE HORIZONTAL MEASUREMENTS AND EXTEND THROUGH VALVES, BENDS, AND OTHER APPURTENANCES.
9. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH JCSD STANDARDS AND SPECIFICATIONS. ANY CONSTRUCTION AND/OR MATERIALS NOT COVERED IN THE JCSD STANDARDS SHALL BE APPROVED BY THE DISTRICT IN WRITTEN.
10. PIPE SHALL BE HANDLED SO AS TO PROTECT PIPE, PIPE JOINTS, AND LININGS AND COATINGS, AND CAREFULLY BEDDED TO PROVIDE CONTINUOUS BEARING AND PREVENT UNEVEN SETTLEMENT. PIPE SHALL BE PROTECTED AGAINST FLOTATION AT ALL TIMES. OPEN ENDS OF WATERLINE SHALL BE SEALED AT ALL TIMES WHEN CONSTRUCTION IS IN PROCESS. DURING STORAGE OF PIPE, OPENED ENDS SHALL BE SEALED CONTINUOUSLY IN A MANOR NOT TO AFFECT THE MORTAR INTEGRITY.
11. FAILURE TO MEET ANY REQUIREMENTS OF JCSD AND THE PLANS AND SPECIFICATIONS WILL BE CAUSE FOR REJECTION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL AND MAINTAIN ALL CONSTRUCTION, REGULATORY, GUIDE AND WARNING SIGNS WITHIN THE PROJECT LIMITS AND ITS SURROUNDINGS, AND TO PROVIDE SAFE PASSAGE FOR THE TRAVELING PUBLIC AND WORKERS UNTIL THE FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT BY THE DISTRICT. IN AREAS WHERE CONSTRUCTION ACTIVITIES RESTRICT NORMAL ACCESS TO PROPERTIES, THE CONTRACTOR SHALL PROVIDE/MAINTAIN ALTERNATE ACCESS ROUTES WHICH ARE SUBJECT TO APPROVAL BY THE CITY OF JURUPA VALLEY.
13. CONTRACTOR SHALL NOT BACKFILL TRENCH UNTIL THE INSPECTOR HAS OBTAINED RECORD DRAWING STATIONING AND MEASUREMENTS ON ALL STRUCTURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ACCURATE "AS BUILT" DRAWINGS TO THE DISTRICT IMMEDIATELY AFTER CONSTRUCTION.
14. TEST PRESSURE SHALL BE 225 PSI. MINIMUM TEST DURATION IS 4 HOURS. DISTRICT INSPECTOR WILL INSPECT TEST USING CONTRACTOR PROVIDED PRESSURE GAUGE. ALL INSPECTOR TIME SPENT INSPECTING AND REQUIRED RETESTS (INCLUDING RATE AND OVERHEAD) SHALL BE AT THE EXPENSE OF THE CONTRACTOR. FOR TESTING PURPOSES ALL PIPE SHALL BE CONSIDERED CLASS 235.
15. CONTRACTOR SHALL SHORE ALL TRENCHES AND CONDUCT ALL CONSTRUCTION AND OPERATIONS IN ACCORDANCE WITH CAL-OSHA REQUIREMENTS.
16. PIPE JOINTS SHALL NOT BE PULLED AT ANY ANGLE GREATER THAN 1/2 THE MAXIMUM ANGLE RECOMMENDED BY THE PIPE MANUFACTURER.
17. HORIZONTAL SEPARATION REQUIREMENTS BETWEEN WATER AND SEWER LINES (10' MINIMUM) SHALL CONFORM TO THE COUNTY OF RIVERSIDE HEALTH DEPARTMENT AND THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH (CDPH) REQUIREMENTS. THE AGENCY WHOSE SPECIFICATIONS ARE MORE RESTRICTIVE SHALL GOVERN IN ALL CASES. MINIMUM VERTICAL SEPARATION REQUIRED SHALL BE 12 INCHES.
18. APPROVAL BY JCSD IMPLIES NO PERMISSION OTHER THAN THAT WITHIN THE DISTRICT'S JURISDICTION. ALL PERMITS REQUIRED BY LAW SHALL BE ACQUIRED BY THE CONTRACTOR UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS. REQUIREMENTS OF JCSD SHALL TAKE PRECEDENCE OVER REQUIREMENTS OF OTHER AGENCIES ONLY WHERE JCSD REQUIREMENTS ARE GREATER.
19. CONTRACTOR SHALL DESIGNATE A QUALIFIED SUPERINTENDENT WITH FULL AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR SAID SUPERINTENDENT SHALL BE ON THE JOB SITE AT ALL TIMES.
20. PRIOR TO CONNECTION TO EXISTING WATER SYSTEM, CONTRACTOR SHALL DISINFECT AND FLUSH SYSTEM AND PASS BACTERIAL TESTING PER SPECIFICATIONS. CONTRACTOR SHALL SUBMIT FLUSHING PLAN AND BACTERIOLOGICAL MONITORING (DISINFECTING) PLAN TO THE DISTRICT FOR REVIEW AND APPROVAL PRIOR TO MAKING CONNECTIONS.
21. EXISTING MAIN LINE VALVES ARE TO BE OPERATED ONLY BY A DISTRICT EMPLOYEE, A MINIMUM OF FOUR (4) WORKING DAYS NOTIFICATION IS REQUIRED.
22. CONNECTION TO EXISTING WATERLINES SHALL BE DONE IN THE PRESENCE OF THE DISTRICT INSPECTOR.
23. A PRE-JOB MEETING SHALL OCCUR PRIOR TO CONSTRUCTION. ATTENDEES SHALL INCLUDE: DISTRICT REPRESENTATIVE, INSPECTOR, CITY REPRESENTATIVE AND CONTRACTOR AND SUBCONTRACTOR.
24. ALL TRENCH BACKFILL SHALL BE CONTINUALLY INSPECTED, TESTED, AND CERTIFIED BY A SOILS ENGINEER. THE SOILS ENGINEER SHALL SUBMIT A CERTIFIED REPORT TO THE CITY ENGINEER SUMMARIZING ALL TESTS TAKEN.
25. PERFORM AND PROVIDE PRE-CONSTRUCTION AUDIO/VIDEO PER SPECIFICATIONS. SUBMIT PRE-CONSTRUCTION AUDIO/VIDEO TO DISTRICT FOR REVIEW PRIOR TO START OF CONSTRUCTION TO ENSURE QUALITY FOR POST WORK FOLLOW UP.
26. NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 811 AT LEAST TWO (2) WORKING DAYS PRIOR TO EXCAVATION AND HAVE ALL UNDERGROUND UTILITIES MARKED. PROVIDE JCSD WITH TICKET NUMBERS.

PROJECT LOCATION



VICINITY MAP
NOT TO SCALE

WATER NOTES

1. CONTRACTOR SHALL INSTALL WATER SERVICE LATERALS AS REQUIRED WITH STREAMLINE PLASTIC COATED COPPER PIPE, PER JCSD STD. DWG. D-1, D-2, OR D-3 AS APPLICABLE. INSTALL NEW METER BOX PER JCSD STD. DWG. D-1 WITH TRAFFIC RATED LID (J & R POLYMER) WHERE EXISTING METER BOX IS LOCATED OR WITHIN PUBLIC RIGHT-OF-WAY AND BEHIND CURB WHERE APPLICABLE. MOVE EXISTING METER TO THE NEW METER BOX. EXISTING SERVICE LINES TO BE RECONNECTED TO RESIDENCE LINES WITH SCHEDULE 80 PVC PIPE OR COPPER, IF EXISTING LINE IS COPPER (SIZED TO MATCH EXISTING). REMOVE EXISTING METER BOX AND DISPOSE OF. RESTORE SITE TO MATCH EXISTING CONDITIONS.
2. ALL EXISTING APPURTENANCES AND VALVES INCLUDING MAINLINE VALVES THAT ARE TO BE ABANDONED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR ONLY AT THE LOCATIONS WITH PROPOSED CONNECTIONS. THE ABANDONED PIPELINE SHALL BE PLUGGED PROPERLY PER DISTRICT'S REQUIREMENTS.
3. ALL PROPOSED PIPELINES INSTALLED AT A DEPTH LESS THAN 48" TO THE TOP OF THE PIPE SHALL RECEIVE A 2-SACK SLURRY ENCASEMENT PER JCSD STD. DWG. A-11
4. WATER LINES CROSSING EXISTING CURB AND GUTTER SHALL BE BACKFILLED WITH 1-SACK SLURRY
5. ALL APPURTENANCES (AV, BO, FH, SERVICES, ETC.) THAT REQUIRE RELOCATION SHALL BE RECONSTRUCTED IN ACCORDANCE WITH CURRENT DISTRICT STANDARDS. APPURTENANCES TO BE RELOCATED WILL BE FIELD EVALUATED INDIVIDUALLY AND RECONSTRUCTED AS DIRECTED BY THE DISTRICT AND AS REQUIRED TO BRING TO CURRENT STANDARDS.

GENERAL SURFACE REPAIR NOTES

1. ALL WORK IS TO BE ACCOMPLISHED WITHIN CITY OF JURUPA VALLEY ROAD RIGHT OF WAY ONLY. WHENEVER CONSTRUCTION EXTENDS WITHIN PRIVATE PROPERTY, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE PERMISSION FROM ABUTTING PROPERTY OWNERS PRIOR TO STARTING WORK. WRITTEN NOTICE OF APPROVAL IS REQUIRED.
2. CLEATED TRACK LAYING CONSTRUCTION EQUIPMENT & MECHANICAL OUTRIGGERS SHALL NOT BE PERMITTED TO OPERATE ON ANY PAVED SURFACE UNLESS FITTED WITH SMOOTH FACED STREET PADS/RUBBER STREET SHOES. ONLY RUBBER TIRED EQUIPMENT SHALL BE USED IN BACKFILL OPERATIONS IN PAVED AREAS.
3. ALL STREET CROSSINGS SHALL BE CUT IN HALF-STREET SECTIONS TO FACILITATE THE FLOW OF TRAFFIC. UNDER NO CIRCUMSTANCES SHALL WORK BE PERFORMED ON THESE CROSSINGS ON WEEKENDS OR HOLIDAYS, UNLESS OTHERWISE SPECIFIED. ALL TRAFFIC PLATES LEFT MUST BE NON-SLIP RATED PLATES AND RECESSED.
4. OPEN TRENCHES SHALL BE ATTENDED AND PROTECTED BY CONTRACTOR'S PERSONNEL AT ALL TIMES. AT THE CLOSE OF EACH WORK DAY, ALL EXCAVATIONS WITHIN THE PAVED AREAS SHALL BE BACKFILLED, COMPACTED, & SURFACED PAVED WITH TWO INCHES OF SC800 TEMPORARY ASPHALT, UNLESS OTHERWISE APPROVED BY THE CITY. THE CITY MAY ALSO APPROVE PROTECTION OF APPROPRIATE AREAS OF TRENCH BY PLATE BRIDGING AND/OR PROTECTIVE FENCING.
5. THE CONTRACTOR SHALL REMOVE ANY SURPLUS MATERIAL RESULTING FROM BACKFILL/EXCAVATION OPERATIONS FROM THE RIGHT OF WAY AND BROOM CLEAN ALL PAVED SURFACES OF EARTH & OTHER OBJECTIONABLE MATERIALS IMMEDIATELY AFTER BACKFILL & COMPACTION. THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR COMPLYING WILL ALL NOPES LAWS, REGULATIONS, AND REQUIREMENTS.
6. AC CAPS SHALL BE 0.12-FOOT MINIMUM THICKNESS AND SHALL BE PERFORMANCE GRADE (PG) ASPHALT PER RIVERSIDE COUNTY ORDINANCE 461, SECTION 11. ASPHALT DIKES SHALL BE PG 70-10 PAVING ASPHALT, 3/8-INCH MAXIMUM, MEDIUM GRADING.
7. THE CONTRACTOR SHALL INSTALL A SEAL ARMOR COAT CONSISTING OF APPLICATION BINDER & SCREENING FOR ALL PATCH AREAS WITH EXISTING SEAL COAT, APPLIED AS SPECIFIED IN RIVERSIDE COUNTY ORDINANCE 461, SECTION 13. A CHIP SEAL ARMOR COAT CONSISTING OF APPLICATION BINDER AND SCREENING SHALL BE APPLIED FOR ALL PATCH AREAS WITH EXISTING CHIP SEAL COAT, APPLIED AS SPECIFIED IN SECTION 37, CALIFORNIA STANDARD SPECIFICATIONS, LATEST ED.
8. IF THE EXISTING PAVEMENT ADJACENT TO THE TRENCH IS SCARRED, SPALLED, BROKEN, OR REMOVED DURING CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO REMOVE AND REPLACE THE PAVEMENT IN ACCORDANCE WITH THE PAVEMENT SPECIFICATIONS OF THE PERMIT, AND PLACE A 0.12-FOOT OVERLAY (& SEAL COAT) THE ENTIRE WIDTH OF ONE TRAFFIC LANE. IF THE WORK ENCROACHES OVER MORE THAN ONE LANE, THE ENTIRE WIDTH OF EACH LANE SHALL RECEIVE THE PAVING CAP; ALL AT NO ADDITIONAL COST TO OWNER.
9. SHOULD EXISTING ROLLED BERM OR AC DIKE BE DISTURBED, THE CONTRACTOR SHALL REPLACE AS DIRECTED BY CITY INSPECTOR, IN ACCORDANCE WITH ORDINANCE 461.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO RESTORE ALL TRAFFIC SIGNING AND STRIPING/PAVEMENT MARKINGS DISTURBED AS A RESULT OF CONSTRUCTION. TRAFFIC SIGNING & STRIPING SHALL BE COMPLETED BY THE CONTRACTOR, UNLESS OTHERWISE APPROVED BY THE CITY, WITH ALL INCURRED COSTS BORNE BY THE CONTRACTOR.
11. CONTRACTOR SHALL ADHERE TO ALL ADDITIONAL REQUIREMENTS STATED IN APPLICABLE CITY OF JURUPA VALLEY PERMITS.

PLANS APPROVED BY:
JURUPA COMMUNITY SERVICES DISTRICT

CHRIS BERCH, P.E. – GENERAL MANAGER _____ _____

JESSE POMPA, P.E. – ENGINEERING & WATER RESOURCES DIRECTOR _____ _____

MATT ABEL – DIRECTOR OF OPERATIONS _____ _____

EDDIE RHEE, P.E. – ENGINEERING MANAGER _____ _____

BASIS OF BEARINGS:

"THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, CCS83, ZONE 6, BASED LOCALLY ON CONTROL STATIONS "EWPP", "NLFP", AND "NOCO" NAD 83(NSRS2011) EPOCH 2010.00 AS SHOWN HEREON. ALL BEARINGS SHOWN ON THIS MAP ARE GRID. QUOTED BEARINGS AND DISTANCES FROM REFERENCE MAPS OR DEEDS ARE AS SHOWN PER THAT RECORD REFERENCE. ALL DISTANCES SHOWN ARE GROUND DISTANCES UNLESS SPECIFIED OTHERWISE. GRID DISTANCES, MAY BE OBTAINED BY MULTIPLYING THE GROUND DISTANCE BY A COMBINATION FACTOR OF 0.99994617989. CALCULATIONS ARE MADE AT PT. NO. 101 WITH COORDINATES OF: N: 2311003 E: 6201162.418, AN ELEVATION OF 963.080.

PRESSURE ZONE

POTABLE WATER 1100-FOOT PRESSURE ZONE

BENCHMARKS:

DESIGNATION	– UF623
PID	– EW2272
COUNTY, STATE	– CA/RIVERSIDE
DATUM	– NAVD 88
ELEV	– 777.84'

CITY OF JURUPA VALLEY
ENGINEERING DEPARTMENT
REVIEW BY:

OCTAVIO DURAN, ASSISTANT CITY ENGINEER DATE

811 Know what's below. Call 811 before you dig.

NOTE:
WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREIN. IN THE EVENT OF DISCREPANCIES ARISING AFTER JCSD APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY JCSD.

MARK	BY	DATE	REVISIONS	APPR.	DATE

ENGINEER COUNTY

SEAL – ENGINEER

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE, CA. 92506
PH. (951) 686-1070
FAX (951) 788-1256

PREPARED UNDER THE SUPERVISION OF: _____

DESIGNED BY: RP CHECKED BY: SZ
R.C.E. NO.: C86483
DATE: _____

BENCHMARK:
DETAILED INFO

SCALE:
HORIZONTAL: N/A VERTICAL: N/A

JURUPA COMMUNITY SERVICES DISTRICT
CITY OF JURUPA VALLEY, CALIFORNIA
MANOR DRIVE PIPELINE ABANDONMENT
COVER SHEET

FOR: J.C.S.D. | W.O 2024-0687 | CITY FILE NO. XX

SHEET NO. 1 OF 5 SHEETS

H:\2024\24-0687\DRAWINGS CAD\PLAN SHEETS\24-0687-C-01-MT.DWG 10/30/2025 Ricardo

ABBREVIATIONS

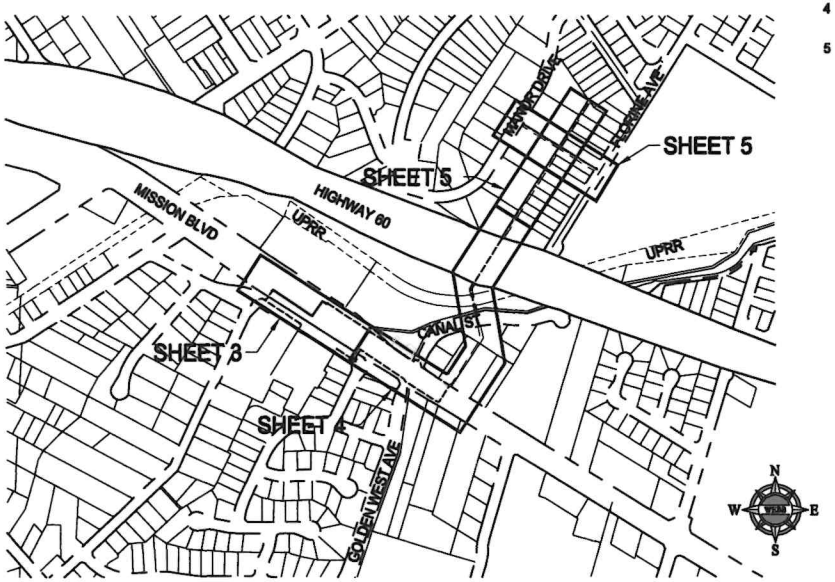
ABAND	ABANDON
AH.	AHEAD STATION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
A.V	AIR VALVE
AWWA	AMERICAN WATER WORKS ASSOCIATION
B.C.	BEGIN CURVE
BFV	BUTTERFLY VALVE
BK.	BACK STATION
BLD FLG	BLIND FLANGE
B.O.	BLOW OFF
BOT	BOTTOM
CIP	CURED IN PLACE
CIPP	CURED IN PLACE PIPE
CLSM	CONTROLLED LOW-STRENGTH MATERIAL
CTS	CATHODIC TEST STATION
C.O.	CLEAN OUT
CML/CMC	CEMENT MORTAR LINED/CEMENT MORTAR COATED
CPLG	COUPLING
DIP	DUCTILE IRON PIPE
E.C.	END CURVE
ELEC.	ELECTRICAL
ESMT.	EASEMENT
EX.	EXIST
FH	FIRE HYDRANT
FLG.	FLANGE OR FLANGED
FL	FLOWLINE
G	GAS LINE OR SERVICE
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HPI	HORIZONTAL POINT OF INTERSECTION
IPS	IRON PIPE SIZE
JCSD	JURUPA COMMUNITY SERVICES DISTRICT
MB	MAILBOX
MH	MANHOLE
P.C.C.	POINT OF COMPOUND CURVE
P.R.C.	POINT OF REVERSE CURVE
P.E.	POLYETHYLENE
PVC	POLYVINYL CHLORIDE
RED	REDUCER
RJ	RESTRAINED JOINT
S	SEWER MAIN OR HOUSE LATERAL
SD	STORM DRAIN
ST. LT.	STREET LIGHT
SWR	SEWER
T	TELEPHONE CABLE OR CONDUIT
TB	THRUST BLOCK
U.G.	UNDERGROUND
VCP	VITRIFIED CLAY PIPE
VPI	VERTICAL POINT OF INTERSECTION
W	WATER MAIN OR SERVICE
WSP	WELDED STEEL PIPE

LEGEND

- PROPOSED PIPELINE (SIZE NOTED)
- PROPOSED INLINE GATE VALVE PER JCSD STD. NO. 8-1 (LINE SIZE)
- PROPOSED AIR VALVE
- PROPOSED BLOW-OFF
- PROPOSED FIRE HYDRANT (6"X4"X2-1/2") PER JCSD STD. NO. G-1
- NEW WATER SERVICE AND METER
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEANOUT
- EXISTING STORM DRAIN MANHOLE
- EXISTING UNDERGROUND ELECTRIC LINE
- EXISTING SEWER MAIN (SIZE NOTED)
- EXISTING STORM DRAIN (SIZE NOTED)
- EXISTING GAS LINE (SIZE NOTED)
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING WATERLINE (SIZE NOTED)
- EXISTING UNDERGROUND CABLE TELEVISION LINE
- EXISTING ABANDONED WATERLINE (SIZE NOTED)
- EXISTING OVERHEAD UTILITY
- EXISTING CURB AND EDGE OF PAVEMENT
- EXISTING RIGHT-OF-WAY LINE
- EXISTING PROPERTY/LOT LINE
- EXISTING WATER VALVE (GENERAL)
- EXISTING AIR VALVE
- EXISTING BLOW-OFF
- CENTERLINE
- EXISTING FIRE HYDRANT
- FLOWLINE DRAINAGE SWALE OR DITCH
- THRUST BLOCK
- EXISTING TELEPHONE RISER
- EXISTING MAILBOX
- EXISTING MONUMENT
- EXISTING WATER SERVICE AND METER
- EXISTING GAS VALVE
- PICTURE VIEW

DEMOLITION NOTES:

1. PRIOR TO START OF DEMOLITION, CONTRACTOR SHALL COMPLETE THE CONSTRUCTION AND INSTALLATION, TESTING, AND ACCEPTANCE OF THE NEW 8-INCH WATER MAIN, SERVICES, APPURTENANCES, AND FACILITIES.
2. PRIOR TO CAPPING AND REMOVING OF UTILITIES, DEWATER THE UTILITY AND FILL REMAINING ABANDONED UTILITY PIPES WITH 12-INCH MIN. CONCRETE BULK HEAD. CONTRACTOR SHALL DISPOSE OF DEWATERED FLOWS TO THE NEAREST EXISTING STORM DRAIN CATCH BASIN OR AS AN OPTION, THE CONTRACTOR MAY DISPOSE OF DEWATERING FLOWS INTO THE JCSD'S SEWER SYSTEM. THE CONTRACTOR MUST COORDINATE WITH THE DISTRICT AND OBTAIN AND FOLLOW ALL REQUIREMENTS STIPULATED BY THE DISTRICT PRIOR TO DISPOSING OF FLOWS INTO THE DISTRICT'S SEWER SYSTEM. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE TRANSPORT AND DISPOSAL OF ALL WASTE FOLLOWING STATE AND LOCAL CODES.
3. PROVIDE ROUGH GRADING AND COMPACTION FOR AREAS WHERE VALVES, UTILITIES, APPURTENANCES, AND ANY OTHER STRUCTURE REMOVAL WAS CONDUCTED AND PROVIDE A SMOOTH SURFACE WITHIN THE DEMOLITION AND REMOVAL AREAS. DEMOLITION AND/OR REMOVAL AREAS WITHIN PAVEMENT SHALL BE BACKFILLED, PROPERLY COMPACTED, AND PAVED PER PLANS AND SPECIFICATIONS.
4. VERIFY THE LOCATIONS OF ANY AND ALL UTILITIES WITH THE UTILITY AGENCY/COMPANY PRIOR TO CUTTING, CAPPING, OR REMOVING THE UTILITY CALLED OUT FOR ABANDONMENT OR REMOVAL.
5. ANY AND ALL PAVEMENT DAMAGED DUE TO CONSTRUCTION ACTIVITIES SHALL BE TEMPORARILY REPAIRED AND MAINTAINED UNTIL FINAL REPAIRS ARE COMPLETED PER APPLICABLE RIVERSIDE COUNTY STANDARDS, AT NO ADDITIONAL COST TO THE CONTRACT.
6. SEE SPECIFICATION SECTION ENTITLED "DEMOLITION" FOR ADDITIONAL REQUIREMENTS.



SHEET INDEX
SCALE: 1"=300'

SHEET INDEX

SHEET NO.	SHEET DESCRIPTION
1	COVER SHEET
2	INDEX SHEET ABBREVIATIONS, LEGEND, AND ADDITIONAL NOTES
3	MISSION BOULEVARD 8-INCH WATER MAIN
4	MISSION BLVD, CANAL ST & JCSD EASEMENT 8-IN & 12-IN WATERMAIN ABANDONMENT PLAN
5	JCSD EASEMENT 12-IN & 4-IN WATER MAIN ABANDONMENT PLAN

CONSTRUCTION NOTES:

1. PROTECT IN PLACE
2. ABANDON PIPE IN PLACE AND FILL PIPE WITH CLSM
3. FURSNISH AND INSTALL 8" DIA C-909 (CL 235) PVC WATER MAIN, BEDDING PER JCSD STD. DWG. A-1
4. FURNISH AND INSTALL 8" DIA FLXMJ RSGV PER JCSD STD DWG 8-1
5. REMOVE EXISTING FH AND REPLACE WITH 6" DIA FIRE HYDRANT PER JCSD STD DWG G-2
6. FURNISH AND INSTALL 8" DIA MJ DI 90° BEND W/ RESTRAINED JOINTS
7. FURNISH AND INSTALL 16" X 8" DIA FLXFL ECCENTRIC REDUCER
8. CONSTRUCT THRUST BLOCK PER JCSD STD DWG C-1
9. CONSTRUCT AND CONNECT NEW SERVICE TO EXISTING METER PER JCSD STD DWG D-1 WITH 1" PLASTIC COATED COPPER TUBE TYPE K
10. FURNISH AND INSTALL END OF LINE DI CAP
11. RESTORE PAVEMENT PER ENCROACHMENT PERMIT REQUIREMENTS AND RIVERSIDE COUNTY STD DWG 818
12. REPLACE EXISTING TYPE "D" CURB PER RIVERSIDE COUNTY STD DWG D-204, MINIMUM JOINT TO JOINT REPLACEMENT
13. REPLACE EXISTING TYPE A-6 CURB PER RIVERSIDE COUNTY STD DWG D-200, MINIMUM JOINT TO JOINT REPLACMENT
14. REMOVE AND REPLACE SIDEWALK AND CURB PER RIVERSIDE COUNTY STD DWG 401, SIDEWALK MINIMUM 4" THICKNESS, MINIMUM JOINT TO JOINT REPLACEMENT
15. RESTORE LANDSCAPED MEDIAN INCLUDING IRRIGATION, LANDSCAPE, MAINTENANCE WALK PER RIVERSIDE COUNTY STD DWG 113
16. FURNISH AND INSTALL 150 LB BLIND FLANGE (SIZED TO MATCH PIPE DIA)
17. CUT AND CAP EXISTING PIPE AND BULK HEAD WITH MINIMUM 12" NON-SHRINK GROUT. DEWATER PIPE COMPLETELY PRIOR TO CAPPING PER DEMOLITION NOTE 2 ON SHEET 2.
18. REMOVE AND REPLACE EXISTING STAMPED AND COLORED CONCRETE IN KIND, MATCH EXISTING COLOR AND PATTERN AND REPLACE MINIMUM JOINT TO JOINT
19. BACKFILL, COMPACT TO MINIMUM 90% COMPACTION AND REGRADE TO MATCH EXISTING SURROUNDING GRADES.
20. PROVIDE TOP SOIL, PLANTS, AND LANDSCAPING TO MATCH EXISTING SURROUNDING LANDSCAPING.
21. FURNISH AND INSTALL IRRIGATION DRIP LINES AND NEW SPRINKLER HEADS (HEADS TO MATCH EXISTING SURROUNDING HEADS) INTO EXISTING IRRIGATION SYSTEM
22. RESTORE EXISTING ASPHALT DRIVEWAY PER RIVERSIDE COUNTY STD DWG 206.
23. REMOVE AND REPLACE EXISTING RESIDENTIAL DRIVE APPROACH, SIDEWALK, AND CURB PER RIVERSIDE COUNTY STD DWG 207, MINIMUM JOINT TO JOINT REPLACEMENT
24. REMOVE AND REPLACE EXISTING CONCRETE WALKWAY, MINIMUM 4-IN THICKNESS, AND REPLACE JOINT TO JOINT.

QUANTITIES

DESCRIPTION	QTY.
EXISTING VALVES TO BE REMOVED	5 EACH
AIR VALVES TO BE REMOVED	1 EACH
BLOW OFFS TO BE REMOVED	1 EACH
CONCRETE RESTORATION	4 CU YD
PAVEMENT RESTORATION	5,095 SQ FT
PAINTED/STAMPED CONCRETE RESTORATION	40 SQ FT

811 Know what's below. Call 811 before you dig.

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MARK	BY	DATE	REVISIONS	APPR.	DATE
ENGINEER				COUNTY	

SEAL – ENGINEER

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE CA. 92506
PH. (951) 686-1070
FAX (951) 788-1256

PREPARED UNDER THE SUPERVISION OF:
DESIGNED BY: RP CHECKED BY: SZ
R.C.E. NO.: C86483
DATE:

BENCHMARK:
SEE SHEET NO. 1

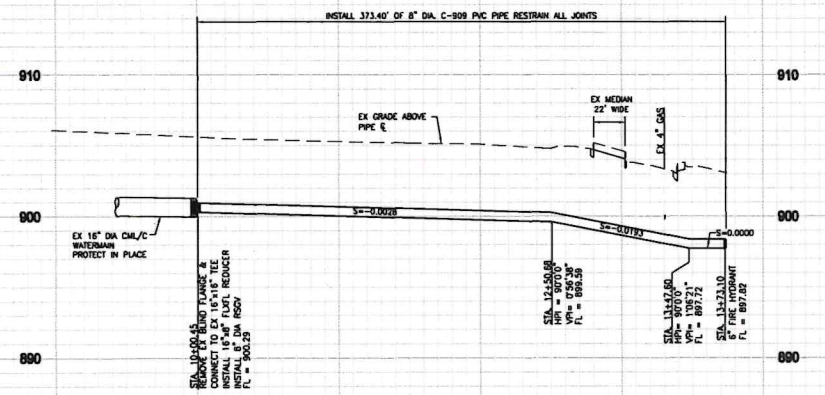
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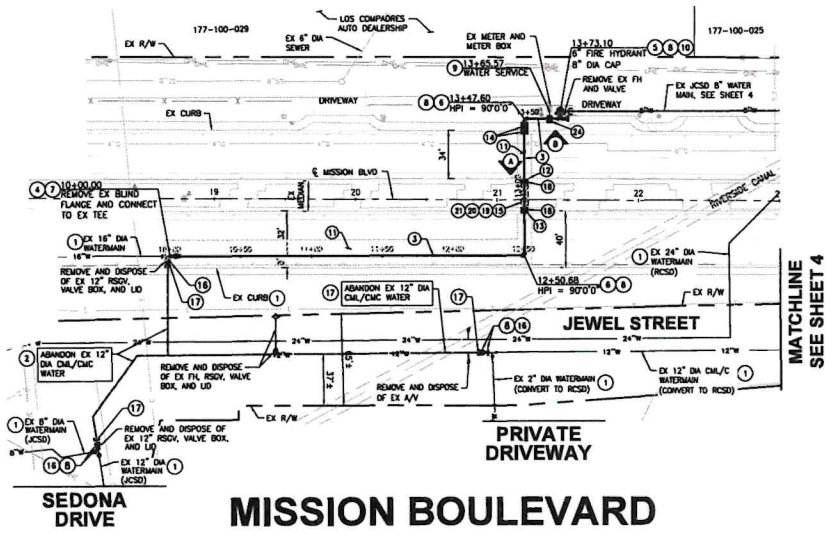
JURUPA COMMUNITY SERVICES DISTRICT
CITY OF JURUPA VALLEY, CALIFORNIA
MANOR DRIVE PIPELINE ABANDONMENT
INDEX SHEET ABBREVIATIONS, LEGEND, AND ADDITIONAL NOTES

SHEET NO. 2 OF 5 SHEETS

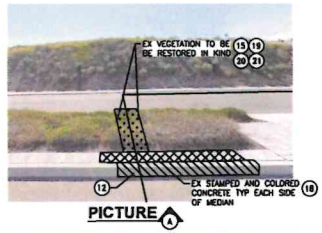
FOR: J.C.S.D.
W.O. 2024-0887
CITY FILE NO. xx

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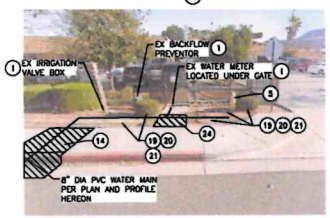




MISSION BOULEVARD



PICTURE A



PICTURE B

CONSTRUCTION NOTES:

1. PROTECT IN PLACE
3. FURNISH AND INSTALL 8" DIA C-909 (CL 235) PVC WATER MAIN, BEDDING PER JCSD STD. DWG. A-1
4. FURNISH AND INSTALL 8" DIA FLXMJ RSGV PER JCSD STD DWG B-1
5. REMOVE EXISTING FH AND REPLACE WITH 6" DIA FIRE HYDRANT PER JCSD STD DWG C-2
6. FURNISH AND INSTALL 8" DIA MJ DI 90° BEND W/ RESTRAINED JOINTS
7. FURNISH AND INSTALL 16" X 8" DIA FLXFL ECCENTRIC REDUCER
8. CONSTRUCT THRUST BLOCK PER JCSD STD DWG C-1
9. CONSTRUCT AND CONNECT NEW SERVICE TO EXISTING METER PER JCSD STD DWG D-1 WITH 1" PLASTIC COATED COPPER TUBE TYPE K
10. FURNISH AND INSTALL END OF LINE DI CAP
11. RESTORE PAVEMENT PER ENCROACHMENT PERMIT REQUIREMENTS AND RIVERSIDE COUNTY STD DWG 818
12. REPLACE EXISTING TYPE "D" CURB PER RIVERSIDE COUNTY STD DWG D-204, MINIMUM JOINT TO JOINT REPLACEMENT
13. REPLACE EXISTING TYPE A-6 CURB PER RIVERSIDE COUNTY STD DWG D-200, MINIMUM JOINT TO JOINT REPLACMENT
14. REMOVE AND REPLACE SIDEWALK AND CURB PER RIVERSIDE COUNTY STD DWG 401, SIDEWALK MINIMUM 4" THICKNESS, MINIMUM JOINT TO JOINT REPLACEMENT
15. RESTORE LANDSCAPED MEDIAN INCLUDING IRRIGATION, LANDSCAPE, MAINTENANCE WALK PER RIVERSIDE COUNTY STD DWG 113
16. FURNISH AND INSTALL 150 LB BLIND FLANGE (SIZED TO MATCH PIPE DIA)
17. CUT AND CAP EXISTING PIPE AND BULK HEAD WITH MINIMUM 12" NON-SHRINK GROUT, DEWATER PIPE COMPLETELY PRIOR TO CAPPING PER DEMOLITION NOTE 2 ON SHEET 2.
18. REMOVE AND REPLACE EXISTING STAMPED AND COLORED CONCRETE IN KIND, MATCH EXISTING COLOR AND PATTERN AND REPLACE MINIMUM JOINT TO JOINT
19. BACKFILL, COMPACT TO MINIMUM 90% COMPACTION AND REGRADE TO MATCH EXISTING SURROUNDING GRADES.
20. PROVIDE TOP SOIL, PLANTS, AND LANDSCAPING TO MATCH EXISTING SURROUNDING LANDSCAPING.
21. FURNISH AND INSTALL IRRIGATION DRIP LINES AND NEW SPRINKLER HEADS (HEADS TO MATCH EXISTING SURROUNDING HEADS) INTO EXISTING IRRIGATION SYSTEM.
24. REMOVE AND REPLACE EXISTING CONCRETE WALKWAY, MINIMUM 4-IN THICKNESS, AND REPLACE JOINT TO JOINT.

PROFILE SCALES
HORIZ. 1"=40'
VERT. 1"=4'

1" = 40'
40 0 40

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MARK	BY	DATE	REVISIONS	APPR.	DATE
ENGINEER				COUNTY	

SEAL – ENGINEER

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE, CA. 92506
PH. (951) 686-1070
FAX (951) 788-1256

PREPARED UNDER THE SUPERVISION OF:

DESIGNED BY: RP CHECKED BY: SZ
R.C.E. NO.: C86463
DATE:

BENCHMARK:
SEE SHEET NO. 1

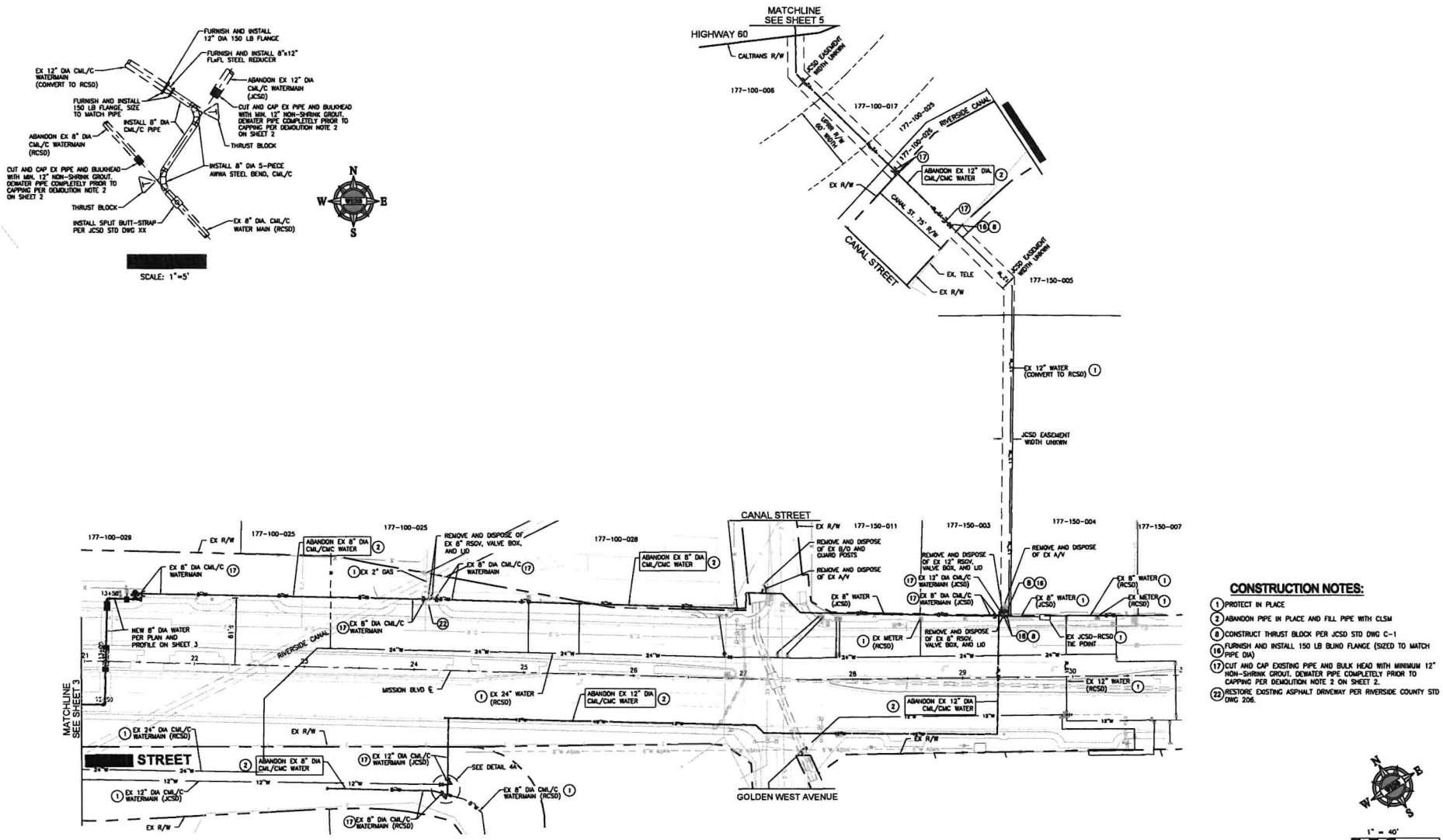
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JURUPA COMMUNITY SERVICES DISTRICT
CITY OF JURUPA VALLEY, CALIFORNIA
MANOR DRIVE PIPELINE ABANDONMENT
MISSION BOULEVARD
8-INCH WATER MAIN

SHEET NO. 3 OF 5 SHEETS

FOR: J.C.S.D | W.O. 2024-0687 | CITY FILE NO. XX

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MARK	BY	DATE	REVISIONS	APPR.	DATE

ENGINEER | COUNTY

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3788 McCRAY STREET
RIVERSIDE CA. 92506
PH. (951) 686-1070
FAX (951) 788-1256

PREPARED UNDER THE SUPERVISION OF:

DESIGNED BY: RP CHECKED BY: SZ
R.C.E. NO.: C86483
DATE:

BENCHMARK:
SEE SHEET NO. 1

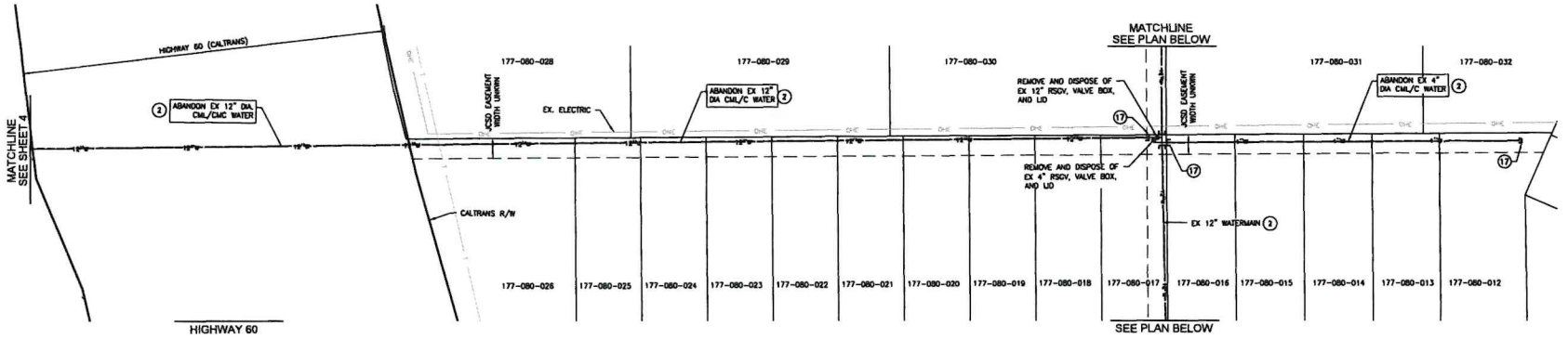
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JURUPA COMMUNITY SERVICES DISTRICT
CITY OF JURUPA VALLEY, CALIFORNIA
MANOR DRIVE PIPELINE ABANDONMENT
MISSION BLVD, CANAL ST & JCSD EASEMENT
8-IN & 12-IN WATERMAIN ABANDONMENT PLAN

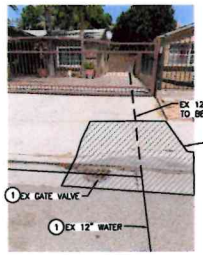
SHEET NO. 4 OF 5 SHEETS

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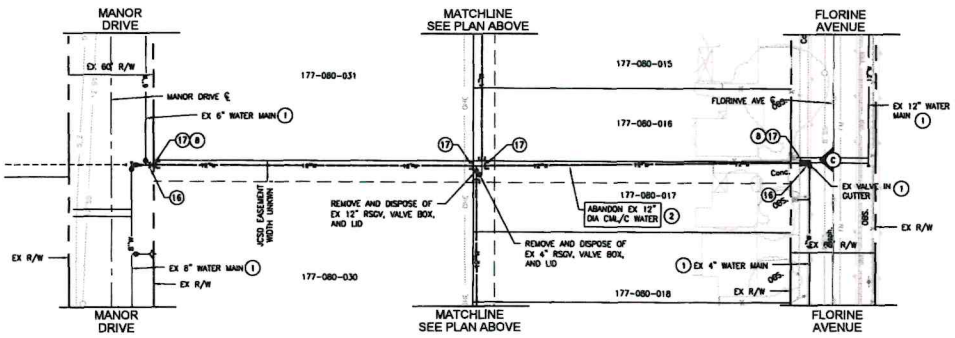
JCSD EASEMENT



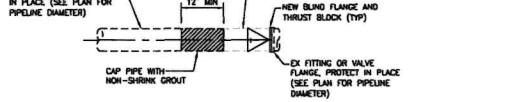
PICTURE (C)

CONSTRUCTION NOTES:

1. PROTECT IN PLACE
2. ABANDON PIPE IN PLACE AND FILL PIPE WITH CLSM
8. CONSTRUCT THRUST BLOCK PER JCSD STD DWG C-1
16. FURNISH AND INSTALL 150 LB BLIND FLANGE (SIZED TO MATCH PIPE DIA)
17. CUT AND CAP EXISTING PIPE AND BULK HEAD WITH MINIMUM 12" NON-SHRINK GROUT. DEWATER PIPE COMPLETELY PRIOR TO CAPPING PER DEMOLITION NOTE 2 ON SHEET 2.
23. REMOVE AND REPLACE EXISTING RESIDENTIAL DRIVE APPROACH, SIDEWALK, AND CURB PER RIVERSIDE COUNTY STD DWG 207, MINIMUM JOINT TO JOINT REPLACEMENT



JCSD EASEMENT



TYPICAL CUT AND CAP DETAIL
SCALE: NTS

1" = 40'
40 0 40

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ENGINEER | COUNTY

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RIVERSIDE CA. 92506
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FAX (951) 788-1256

PREPARED UNDER THE SUPERVISION OF:
DESIGNED BY: RP CHECKED BY: SZ
R.C.E. NO.: C86483
DATE:

BENCHMARK: SEE SHEET NO. 1
SCALE:
HORIZONTAL: N/A VERTICAL: N/A

JURUPA COMMUNITY SERVICES DISTRICT
CITY OF JURUPA VALLEY, CALIFORNIA
MANOR DRIVE PIPELINE ABANDONMENT
JCSD EASEMENT
12-IN & 4-IN WATER MAIN ABANDONMENT PLAN

SHEET NO. 5 OF 5 SHEETS

FOR: J.C.S.D | W.O. 2024-0687 | CITY FILE NO. XX

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Attachment 5

Jurupa
COMMUNITY SERVICES DISTRICT
Proudly serving Jurupa Valley and Eastvale

Board of Directors
Anthony Herda, President
Kenneth J. McLaughlin, Vice President
Lupe R. Nava, Director
Bart Moreno, Director
Betty Folsom, Director

Chris Berch, General Manager

June 23, 2026

Alan Boudreau
President
Boudreau Pipeline Corporation
462 N. Smith Ave.
Corona, CA 92878

RE: NOTICE OF AWARD OF CONTRACT - Manor Drive Boundary Clean-Up Project, JCSD P.N. C245117

Dear Alan Boudreau:

At the Jurupa Community Services District (JCSD) Regular Board Meeting held on **06/22/2026**, the Board of Directors awarded a contract to **Boudreau Pipeline Corporation** (Contractor) in the not to exceed amount of **$521,594.12** for the above-referenced project.

This letter serves as the Notice of Award. Unless otherwise ordered in writing by the General Manager, the Contractor is hereby authorized to begin preparation of submittals for all materials to be supplied for the project immediately upon receipt of this Notice of Award and to proceed with the work immediately upon execution of the contract and receipt of the Notice to Proceed. All work of said Contract shall be completed within **one hundred sixty (160) days**, following this notice. The construction completion date is, therefore, **November 30, 2026.** JCSD will issue the Notice to Proceed only upon receipt of the executed contract and other required documents.

The Contractor shall execute a written contract with JCSD on the form of Contract provided herein (which shall incorporate by reference the Proposal; Bidder's Plan for Construction; Bidder's Statement of Experience, Financial Condition and Reference; Bidding Sheet; General Conditions; Special Requirements; Specifications; and Drawings), together with the Labor Code Certification therein and furnish good and approved bonds or substitution and Certificates of Insurance as required within working ten (10) days from the date of mailing of this Notice of Award.

An electronic copy of the contract documents, as listed below, is attached. Please complete and return them to JCSD, addressed to **Keith Backus, Project Manager**, within ten (10) days after receipt. Please ensure that the Certificate of Insurance is as specified in the General Conditions, Item 8. A digital copy of the plans and specifications will be provided to you at the pre-construction meeting, for your use.

- Contract– pages Contract –1 through Contract–4
- Contract Performance Bond– pages Contract–5 through Contract–8
- Labor and Material Payment Bond – pages Contract–9 through Contract–11
- Certificate of Insurance – pages Contract –12 through Contract–15
    - Term must cover the length of the project.
- Escrow Agreement for Security Deposits in Lieu Of Retention –pages Contract–16 through Contract–18
    - If the Contractor does not enter into an Escrow Agreement, the Contractor shall submit a written authorization on company letterhead permitting JCSD to retain funds in accordance with the Contract.
- Any additional documents required under the Contract Documents or requested by the District.

A progress payment request form will be provided at or before the preconstruction meeting. It will be transmitted electronically, if applicable. JCSD will only accept progress payment requests that are prepared on this form and submitted to the Project Manager. Certified payroll must also be submitted at the same time as progress payment requests.

Should you have any questions, please contact **Keith Backus** at **(951) 538-1052** or by email at **kbackus@jcsd.us.** We look forward to working with your company on this project.

Sincerely,

Keith Backus

Keith Backus,

Project Manager

Attachment 6

Manor Dr. Boundary Clean Up Project
Preliminary Bid Results Opened: Thursday March 26, 2026

Bids Opened by JCSD Staff: Keith Backus

	CONTRACTOR	BID TOTAL	Bid Bond
1	Boudreau Pipeline Corporation	$ 521,594.12	X
2	Big Ben Engieering	$ 618,916.50	X
3	Gentry General Engineering, Inc.	$ 649,080.00	X
4	GCI Construction, Inc.	$ 856,639.00	X
5			
6			

*** Corrected Bid Amount**

Attachment 7

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE, CALIFORNIA

VOLUME I

BIDDING DOCUMENTS, CONTRACT, GENERAL CONDITIONS, BASIC SPECIFICATIONS AND SPECIAL REQUIREMENTS

FOR

MANOR DRIVE BOUNDARY CLEAN UP
JCSD P.N. C245117

BOARD OF DIRECTORS
Anthony Herda, President
Kenneth J. McLaughlin, Vice President
Lupe R. Nava, Director
Bart Moreno, Director
Betty Folsom, Director

GENERAL MANAGER
Chris Berch, P.E.

GENERAL COUNSEL
Best, Best & Krieger LLP

February 2026

Prepared by

ALBERT A. WEBB ASSOCIATES
3788 McCray Street
Riverside, California 92506
(951) 686-1070

JURUPA COMMUNITY SERVICES DISTRICT

VOLUME I

BIDDING DOCUMENTS, CONTRACT, GENERAL CONDITIONS, BASIC SPECIFICATIONS AND SPECIAL REQUIREMENTS

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February 2026



Prepared by:

ALBERT A. WEBB ASSOCIATES
3788 McCray Street
Riverside, California 92506
(951) 686-1070

W.O. 2024-0687

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SPECIAL REQUIREMENTS SR-1

BASIC SPECIFICATIONS

Section	Specification Title	
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B	Water Pipeline Materials Specifications	B-1
C	Water Pipeline Construction Specifications	C-1
D	Sewer Pipeline Materials Specifications	D-1
E	Sewer Pipeline Construction Specifications	E-1
F	Traffic Control Specifications ……..	F-1

TECHNICAL SPECIFICATIONS

LOCATION MAP

STANDARD DRAWINGS

APPENDIX A	-	List of District Approved Pipe Manufacturers, Pipe Fabricators, and Appurtenance Manufacturers
APPENDIX B	-	Sample of Pothole Report Format
APPENDIX C	-	City of Jurupa Valley Encroachment Permit
APPENDIX D	-	Sample of Project Sign
APPENDIX E	-	QSD Certification
APPENDIX F	-	Reference Drawings

* The sections of this Specification are divided by inserts. A more detailed Table of Contents for the Bidding Documents, Contract, General Conditions, Special Requirements, Technical Specifications and Basic Specifications and other sections are included at the beginning of those portions of the Specification.

Refer to Volume II for Bidding Documents to be submitted as Bid Proposal for the project.

NOTICE INVITING BIDS

JURUPA COMMUNITY SERVICES DISTRICT

NOTICE INVITING BIDS

FOR

MANOR DRIVE BOUNDARY CLEAN UP

JCSD P.N. C245117

Prospective bidders are hereby notified that the Jurupa Community Services District, California (District) will receive sealed bid proposals for the Jurupa Community Services District Manor Drive Boundary Clean Up JCSD P.N. C245117. The projects consist of the construction of approximately 320 L.F. of 8-inch diameter PVC watermain including all water appurtenances (i.e. blow-offs, air valves, fire hydrants, etc.), isolation valves, and water service meters and meter boxes, and the construction of approximately 20 L.F. of 8-inch diameter steel CML/C watermain including fittings and connections to the existing water system, and a hot-tap installation of a new fire hydrant service line including valve, fittings, thrust block, and assembly. The project also consists of trenching, traffic control, surface restoration, restoration of curb and gutter, repaving and street restoration, and restoration of landscaping, pavers and irrigation lines, and fencing. Additionally, the project includes the abandonment of existing 8-inch and 12-inch water mains including disconnections, valve removal, flange and blind flange installations, thrust block installations, and reconnecting existing fire hydrants, and disposal removed items as called out on the design plans. The successful Contractor shall furnish all labor, material, transportation, tools, supplies, plant, equipment, and appurtenances, unless specifically excepted, for the satisfactory completion of the entire contract work, in accordance with the Specifications and Drawings.

Such bid proposals will be received until **2:00 p.m. on Thursday, March 26, 2026**, VIA EMAIL ONLY at which time and place such bids will be publicly opened and read. DO NOT DELIVER BIDS TO DISTRICT OFFICES. Award, if made, will be made to one Bidder. Bids received after this time will be returned unopened.

Questions from prospective bidders affecting interpretation or corrections related to the Plans and Specifications received after **5:00 p.m.** on **Thursday, March 19, 2026** will not be answered.

The Engineer's Estimated Construction Cost is **$421,300.** All work under this contract shall be completed and operational within **One Hundred Sixty (160)** calendar days from the date District gives written "Notice of Award" to the Contractor.

Each proposal must be accompanied by: (a) cash; (b) a certified or cashier's check made payable to the "Jurupa Community Services District"; (c) equivalent cash or securities pursuant to Section 995.710 of the Code of Civil Procedure, or (d) a bid bond payable to "Jurupa Community Services District" executed by the bidder as principal and surety as obligor in an amount equal to ten percent (10%) of the maximum amount of the bid. Personal sureties and unregistered surety companies are unacceptable. The surety insurer shall be a California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120. The cash, check, equivalent cash or securities, or bid bond shall be given as a guarantee that the bidder, if an award is made to the bidder in accordance with the terms of said bidder's proposal, shall provide the payment and performance bonds and insurance certificates and endorsements as required herein within ten (10) calendar days after notification of the award of the Contract to the bidder. Failure to provide the required documents may result in forfeiture of the bidder's bid deposit or bond to the District and the District may award the Contract to the next lowest responsive, responsible bidder, or may call for new bids; the bidder shall also:

a. Execute a contract in the District's standard form together with the Labor Code certification thereon. Said contract shall incorporate by reference the Notice Inviting Bids; the Proposal; Bidder's Plan for Construction; Bidder's Statement of Experience, Financial Condition and References; Bidding Sheet; General Conditions; Special Requirements; Basic Specifications; Technical Specifications; and Drawings;

b. Furnish a performance bond as required thereby with a corporate surety or sureties satisfactory to the District, or equivalent cash or securities for the faithful performance of the said contract. Personal sureties and unregistered surety companies are unacceptable. The surety insurer shall be a California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120. Said performance bond shall be for an amount of not less than one hundred percent (100%) of the total bid price;

c. Furnish also a labor and materials payment bond with a corporate surety or sureties satisfactory to the District. Personal sureties and unregistered surety companies are unacceptable. The surety insurer shall be a California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120. Said bond shall be for an amount of not less than one hundred percent (100%) of the total bid price;

d. Furnish certificates of insurance and endorsements, evidencing that all insurance coverage required by the Contract has been secured.

All contract construction shall be by an organization which has had successful experience in the construction of facilities of the TYPE & SIZE SPECIFIED, OR COMPARABLE. Each bidder shall be a licensed contractor pursuant to the Business and Professions Code and shall be licensed in the following appropriate classification(s) of contractor's license(s), for the work bid upon, and must maintain the license(s) throughout the duration of the Contract: Class "A" (General Engineering) **OR** "C-34" (pipeline) License. If the bidder is a specialty contractor, the bidder is alerted to the requirements of Business and Professions Code Section 7059. The District requires the Contractor to self-perform fifty-five percent (55%) of the work bid upon.

The District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the work is to be performed for each craft, classification, or type of workman needed to execute the contract. The Contractor shall obtain a copy of the prevailing rates of per diem wages from the website of the Division of Labor Statistics and Research of the Department of Industrial Relations located at www.dir.ca.gov/dlsr/. In the alternative, the Contractor may view a copy of the prevailing rates of per diem wages at the District's principal office located at the address set forth in the second paragraph of this Notice Inviting Bids. Please note that the prevailing wage for this project shall be based on those wages in effect at the time of bid opening.

Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to perform the work available to interested parties upon request and shall post copies at the Contractor's principal place of business and at the job site. The successful bidder and all subcontractor(s) under the successful bidder, shall comply with all applicable Labor Code provisions, which include, but are not limited to the payment of not less than the required prevailing rates to all workers employed by them in the execution of the Contract, the employment of apprentices, the hours of labor and the debarment of contractors and subcontractors. Contractor shall defend, indemnify and hold the District, its elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the prevailing wage laws. The Contractor shall forfeit, as a penalty to the District, $200.00 for each calendar day or portion thereof for each workman paid less than the said stipulated prevailing rates for any work done under the contract by the Contractor or by any subcontractor under the Contractor in violation of the California Labor Code.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter

into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the Bidder's and its subcontractors' current registration with the Department of Industrial Relations. If awarded a Contract, the Bidder and its subcontractors of every tier shall maintain active registration with the Department of Industrial Relations for the duration of the Project. It shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements

If the bidder's maximum bid is $1,000,000 or more, each bidder shall submit the certification required by the Iran Contracting Act of 2010 as required by Public Contract Code section 2204.

Contractor may, at the Contractor's sole cost and expense, substitute securities equivalent to any monies withheld by the District to ensure performance under the Contract. Such securities shall be deposited with the District, or with a state or federally charted bank as escrow agent, who shall pay such monies to the Contractor upon satisfactory completion of the Contract. The Contractor shall be the beneficiary of any securities substituted for monies withheld and shall receive any accrued interest thereon. Securities eligible for substitution shall include those listed in Public Contract Code Section 22300. Please refer to applicable portions of Section 45 of the General Conditions and the Escrow Agreement for Security Deposits In Lieu of Performance Retention included with the Contract Documents.

The District shall award the Contract for the work to the lowest responsive, responsible bidder. The District reserves the right to reject any or all bids, to waive any irregularities or informalities in any bids or in the bidding process. No bidder may withdraw their bid for 90 days after bid opening.

THE BIDDERS ARE URGED TO PAY PARTICULAR ATTENTION TO BIDDING DOCUMENTS SECTION A "INSTRUCTION TO BIDDERS", ITEM 2 "COMPLETION OF BID PROPOSAL AND SUPPORTING DOCUMENTS."

Digital copies of the bid documents are only available for download at the following website: https://www.jcsd.us.bids.

The Bidder shall examine the site of the proposed contract work carefully. The submission of a bid proposal shall be conclusive evidence that the Bidder has investigated the project site and is satisfied as to the conditions to be encountered.

Please contact the project engineer, Ricardo Perez of Albert A. Webb Associates at 951-686-1070, **OR the** District project manager, **Keith Backus** of Jurupa Community Services District at 951-685-7434, ext. 135, or e-mail jcsdbids@jcsd.us for questions pertaining to the project

Dated: _____02/23/2026_____

/s/ Keith Backus
Engineering Services Supervisor

BIDDING DOCUMENTS

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1. Qualified Bidders

Bidders are advised that in selecting a Contractor, the Owner shall award the Contract for the work to the lowest responsive, responsible bidder. The Owner reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding process. The use of substitute bid forms other than clear and correct photocopies of those provided by the Owner will not be permitted. The Owner requires that each bidder be properly licensed and sign and submit with their proposal the attached statement of their experience, current financial condition, and references. Please note that similar information is required in the attached Bidder's Plan for Construction with respect to any proposed subcontractor. **Perspective bidders are encouraged to submit completed and signed Plan Holder's Information Form. Failure to provide completed and signed Plan Holder's Information Form may result in late / no notification. Addenda and other updates will be issued via facsimile, email, District website or any combination thereof, and only to perspective bidders that provide the required information.**

2. Completion of Bid Proposal and Supporting Documents

Each bidder shall complete each blank of each page of the attached Bid Proposal and supporting documents including Bidder's Plan for Construction, Bidder's Statement of Financial Conditions and References, and Bidding Sheet. Bidders shall fill in all blank spaces (including inserting "N/A" where applicable) and initial all interlineations, alterations, or erasures to the Bid Forms. Bidders shall neither delete, modify, nor supplement the printed matter on the Bid Forms nor make substitutions thereon. Deviations in the bid form may result in the bid being deemed non-responsive.

The Owner may, in its discretion reject any bid to which the bidder has added conditions, limitations, provisions or any interlineations or alterations. The Owner will not consider alternative proposals unless they are called for by these instructions or the supplemental instructions appearing in the bidding documents themselves. The Owner will not accept proposals on forms other than those bound herein, and these forms shall not be removed from this bound volume.

3. Omissions and Discrepancies

Should a bidder find discrepancies in, or omissions from the Special Requirements, Basic Specifications, Technical Specifications, Drawings, or other documents bound herein, or should the bidder be in doubt as to their meaning, the bidder should immediately notify the Owner by submission of a written request for an interpretation or correction. Such submission, if any, must be sent to the Project Engineer by emailing to Mr. Keith Backus by email at jcsdbids@jcsd.us. The owner may send a written instruction to all bidders in the form of an addendum.

4. Signature and Seal

All Bids submitted shall be executed by the Bidder or its authorized representative. Bidders may be asked to provide evidence in the form of an authenticated resolution of its Board of Directors or a Power of Attorney evidencing the capacity of the person signing the Bid to bind the Bidder to each Bid and to any Contract arising therefrom. If the bid proposal is made by an individual, it shall be signed and the individual's full name and the individual's address shall be given; if it is made by a co-partnership, it shall be signed with the co-partnership name by one of the partners, who shall sign their own name and, in addition, the name and address of each partner shall be given; if it is made by a corporation, the name of the corporation shall be signed by its duly authorized officer, or officers, attested by the corporation seal, and the names and titles of all current officers of the corporation shall be given.

5. Bid Proposal Guaranty

Each bid shall be accompanied by: (a) cash; (b) a certified or cashier's check made payable to the "Jurupa Community Services District"; (c) equivalent cash or authorized securities pursuant to Section 995.710 of the Code of Civil Procedure or (d) a bid bond payable to "Jurupa Community Services District" executed by the bidder as principal and surety as obligor in an amount not less than 10% of the maximum amount of the bid. Each bid proposal shall be accompanied by a certified or cashier's check, bid bond on the form provided by Owner, or equivalent cash or authorized securities, for an amount of not less than 10 percent of the amount named in the Bidding Sheet. Personal sureties and unregistered surety companies are unacceptable. The surety insurer shall be California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120. The cash, check or bid bond shall be given as a guarantee that the bidder shall execute the Contract if it be awarded to the bidder, shall provide the payment and performance bonds and insurance certificates and endorsements as required herein within ten (10) calendar days after notification of the award of the Contract to the bidder. Failure to provide the required documents may result in

forfeiture of the bidder's bid deposit or bond to the Owner and the Owner may award the Contract to the next lowest responsive, responsible bidder, or may call for new bids

Said check or bond shall be made payable to the Owner and shall be given as a guarantee that the bidder will enter into the contract described in the Notice Inviting Bids herein if awarded the work. By submitting a proposal, each bidder agrees that its failure to enter the Contract if awarded the work would result in damage to the Owner and that it would be impracticable or extremely difficult to ascertain the actual amount of that damage. If the successful bidder fails to execute the Contract within the time period provided in Instruction No. 12 on the attached page, their bid security shall be forfeited in full to the Owner, except to the extent that Sections 5100 et. seq. of the California Public Contract Code apply.

6. Packaging and Delivery of Bid Proposal and Guaranty

Once the Bid Proposal and Supporting Documents herein have been completed and signed as set forth above, they shall be assembled electronically along with a copy of the Bid Proposal Guaranty and any proposed sketches and brochures required by these instructions, into a PDF file and send via email to the contact listed below.

No consideration shall be given by the Owner to bid proposals received after the date and time set by the Notice Inviting Bids herein for the opening of bids. No oral or telephonic bids will be considered. No forms transmitted via facsimile, or any other electronic means, will be considered unless specifically authorized by Owner as stated in the Notice Inviting Bid.

Bid instructions are as follows:

- Potential bidders who wish to submit a bid to JCSD must submit their bid electronically to JCSD Bids, email jcsdbids@jcsd.us.

  Email subject shall read "Bid from Contractor's Name Project No. C245117."

- Bids will be sent by **March 26, 2026, no later than 2:00 p.m.** All bids received after **2:00 p.m.** will be **rejected.**

- Bidders are encouraged to send their electronic bids utilizing the **DELIVERY and READ Receipt enabled.**

- The delivery receipt will be the bidder's verification that the bid has been sent to JCSD prior to the 2:00 PM deadline; all electronic files must be less than 20MB, as this is JCSD's limit for email submissions.

- After 3:30 p.m. – Bidders will call the following to hear the bids read out loud:

  1. 1-415-915-0466

  2. Meeting ID #: 277 550 248 806 23 | Passcode: 2t4M33hz

     Note: Contractors may protect their bid (PDF file) with a password and provide the password in a subsequent email between 2:01 p.m. and 3:29 p.m.

- Immediately following the conference call bid, JCSD will post bid results on JCSD website.

7. Withdrawal of Bid Proposal

The bidder may, without prejudice, withdraw their bid proposal at any time prior to the date and time set by the Notice Inviting Bids herein for the opening of bids; provided, that any request to withdraw must be in writing and duly executed by the bidder or the bidder's duly authorized representative and delivered to the Owner's Secretary at the address set forth in Instruction 6 herein. Any request to withdraw a bid after bid opening shall meet all requirements of Public Contract Code section 5100 et seq. and must be submitted in writing within five (5) working days, excluding Saturdays, Sundays and State holidays, specifying in detail the mistake.

8. Modification of Bid Proposal

Any bidder who may wish to modify the bid proposal previously submitted by them may do so only by (a) following the withdrawal procedure set forth in Instruction 7 hereof prior to the date and time set by the Notice Inviting Bids herein for the opening of bids, and (b) submitting a substituted bid proposal which conforms to the requirements set forth in Instructions 1, 2, 4, 5, and 6 hereof. A bid proposal shall be deemed withdrawn once it has been delivered by the Owner to the one requesting withdrawal, either by personal delivery or deposit in the United States mail, addressed to the address originally given by the bidder. After withdrawal the Owner will not recognize modifications of bid proposals attempted by methods other than as set forth in this Instruction 8.

9. Opening and Awarding of Bids

All Bid Proposals shall be publicly opened and read at the time and place set forth in the Notice Inviting Bids herein. Bidders and their authorized representatives are invited to be present. The award, if made, shall be made within ninety (90) days of the opening. The Owner's policy is to award to the lowest responsible, responsive bidder

who can comply with the projected delivery and/or completion schedules. However, the Owner reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding process. Notice of Award shall be made to a successful bidder in writing mailed to the address set forth on the signature page of the Bidding Documents.

In accordance with Labor Code section 1773.3, the District may be required to provide notice of the award to the Department of Industrial Relations on the Form PWC-100. The bidder who is awarded the Contract shall submit to the District a completed Form PWC-100 including identification of the worker classifications for the bidder and all listed subcontractors, within three (3) days of the award. Failure to provide a completed Form PWC-100 prior to execution of the Contract may result in forfeiture of the Bidder's bid guaranty to the District, and the District may award the Contract to the next lowest responsive and responsible bidder, or may call for new bids.

10. Retention of Proposal Guarantees

Upon award to the lowest responsive, responsible bidder, the security of an unsuccessful bidder shall be returned in a reasonable period of time, but in no event shall that security be held by the Owner 60 days from the time the award is made.

11. Bond(s) and Certificates of Insurance Required of Successful Bidder

The successful bidder shall, upon receipt of notice of acceptance of their bid, promptly secure with a responsible corporate surety or sureties, a faithful performance bond or equivalent cash or authorized securities in an amount of not less than 100 percent of the total bid price, conditioned upon a faithful performance by said bidder of all requirements under the Contract.

In addition, the successful bidder shall promptly secure with a reasonable corporate surety or sureties, a labor and material payment bond in an amount of not less than 100% of the total bid price, conditioned upon payment in full of the claims of all persons performing labor upon or furnishing materials to be used in or furnishing appliances or power contributing to the work to be performed under the Contract.

The successful bidder shall also furnish certificates of insurance and endorsements as evidence of coverage in accordance with the General Conditions.

All bonds shall be subject to the approval of the Owner and shall be in the same form as the Contract Performance Bond and Labor and Materials Bond specified by the Owner herein. All Certificates of Insurance shall be subject to the approval of the Owner. Personal sureties and unregistered surety companies are unacceptable. The

surety insurer for all bonds shall be California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120.

12. Execution of Contract

The bidder to whom award is made shall execute a written contract with the Owner on the form of Contract provided herein (which shall incorporate by reference the Proposal; Bidder's Plan for Construction; Bidder's Statement of Experience, Financial Condition and Reference; Bidding Sheet; General Conditions; Special Requirements; Basic Specifications; Technical Specifications, and Drawings), together with the Labor Code Certification therein, and furnish good and approved bonds or substitution and Certificates of Insurance as required in the preceding paragraph within ten (10) calendar days from the date of mailing the Notice of Award from the Owner to the bidder, as set forth above, of the acceptance of their proposal.

If the successful bidder fails or refuses to enter into the Contract, as herein provided, or to conform to any of the stipulated requirements in connection therewith, the proposal guaranty shall be forfeited in full to the Owner, except to the extent that Sections 5100 et. seq. of the California Public Contract Code apply. If the successful bidder refuses or fails to execute the Contract, the Owner may award the Contract to the bidder whose proposals is the next lowest responsive, responsible bidder to said Owner; and such bidder shall fulfill every stipulation embraced herein as if he were the party to whom the first award were made.

All Bids submitted shall be executed by the Bidder or its authorized representative. Bidders may be asked to provide evidence in the form of an authenticated resolution of its Board of Directors or a Power of Attorney evidencing the capacity of the person signing the Bid to bind the Bidder to each Bid and to any Contract arising therefrom. A corporation to which an award is made will be required, before the Contract is finally executed, to furnish evidence of its corporate existence and of the authority of the officer signing the Contract and bond for the corporation to so sign.

13. Special Instructions

Bidders are advised that supplemental instructions applicable to this project are set forth in paragraph "a" of the Bidding Sheet.

14. Mathematical Errors

In the event the Owner determines that there has been a mathematical error on the Bidding Sheet resulting from incorrect multiplication of unit prices times quantities, or incorrect addition of bid prices to determine the total bid, unit prices shall control and the multiplication and the total bid amount shall be corrected accordingly prior to evaluating the bid. Any request to withdraw a bid after bid opening shall meet all requirements of Public Contract Code section 5100 et seq. and must be submitted in writing within five (5) working days, excluding Saturdays, Sundays and State holidays, specifying in detail the mistake.

15. Addenda to Contract Documents

The Project Engineer will transmit addenda to the Contract documents to the fax number, mailing/street address, or email address provided by the bidder. However, neither the District nor the Project Engineer is responsible for verifying the bidder's contact information nor ensuring that the bidder receives all addenda information.

It shall be the bidder's responsibility to be sure that bidder has obtained all applicable project addenda prior to submitting their bid proposal. To this end, each bidder should check the District's posting website https://www.jcsd.us/bsuiness to verify that they have received all addenda issued, if any, at least 72 hours prior to the bid opening. Failure to acknowledge the receipt of all addenda may result in bid rejection. The District reserves the right to revise bid documents prior to bid opening date.

16. Interpretation of Plans and Documents

If any bidder contemplates submission of a bid for the proposed work and is in doubt as to the true meaning of any part of the plans, specifications or other proposed Contract documents, or finds discrepancies in, or omissions from, the drawings or specifications, bidder may contact the Project Manager, Keith Backus via email at jcsdbids@jcsd.us, a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery and confirmation of receipt. Any interpretation or correction of the proposed documents shall be made only by addendum duly issued and copy of such addendum will be mailed or delivered to each person receiving a set of such documents. **Interpretation or corrections received within seven (7) days prior to Bid Opening will not be answered.** The Owner will not be responsible for any other explanation or interpretations of the proposed documents. No person is authorized to make any oral interpretation of any provision in the Contract documents to any bidder, and no bidder should rely on any such oral interpretation.

17. Examination of Contract Documents

The District has made copies of the Contract available, as indicated above. bidders shall be solely responsible for examining the work site and the Contract, including any addenda issued during the bidding period, and for informing itself with respect to local labor availability, means of transportation, necessity for security, laws and codes, local permit requirements, wage scales, local tax structure, contractors' licensing requirements, availability of required insurance, and other factors that could affect the work. Bidders are responsible for consulting the standards referenced in the Contract. Failure of bidder to so examine and inform itself shall be at its sole risk, and no relief for error or omission will be given except as required under State law.

18. Inspection of Site; Pre-Bid Conference and Site Walk

Each prospective bidder is responsible for fully acquainting itself with the conditions of the work site (which may include more than one site), as well as those relating to the construction and labor of the work, to fully understand the facilities, difficulties and restrictions which may impact the cost or effort required to complete the work. To this end, a Pre-Bid Conference and Site Walk will be held on the date(s) and time(s) indicated in the Notice Inviting Bids.

19. Basis of Award; Balanced Bids

If the District proceeds to award the Contract, the award shall be to the lowest responsive, responsible bidder submitting a responsive bid. The District may reject any bid which, in its opinion, when compared to other bids received or to the District's internal estimates, does not accurately reflect the cost to perform the work. The District may reject as non-responsive any bid which unevenly weights or allocates costs, including but not limited to overhead and profit to one or more particular bid items.

20. Disqualification of Bidders; Interest in More than One Bid

No bidder shall be allowed to make, submit or be interested in more than one bid. However, a person, firm, corporation or other entity that has submitted a subproposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a subproposal or quoting prices to other bidders submitting a bid to the District.

No person, firm, corporation, or other entity may submit a subproposal to a bidder, or quote prices of materials to a bidder, when also submitting a prime bid for the same work.

21. Filing of Bid Protests

Submitted bids will be timely made available for review upon request of any bidder. Bidders may file a "protest" of a Bid with the District's Project Engineer. The protest must:

- Be filed in writing within five (5) business days after the bid opening date;
- Clearly identify the specific irregularity or accusation;
- Clearly identify the specific District staff determination or recommendation being protested;
- Specify, in detail, the grounds of the protest and the facts supporting the protest;
- Include all relevant, supporting documentation with the protest at time of filing;
- If the protest does not comply with each of these requirements, it may be rejected without further review; and
- If the protest is timely and complies with all of the above requirements, the District's Project Engineer, or other designated District staff member, shall review the basis of the protest and all relevant information. The District will provide a written response to the protestor.

22. Retention and Substitution of Security

The Contract calls for monthly progress payments based upon the percentage of the work completed. Unless otherwise specified in the Notice Inviting Bids, the District will retain five percent (5%) of each progress payment as provided by the Contract. At the request and expense of the successful bidder, the District will substitute securities for the amount so retained in accordance with Public Contract Code Section 22300.

23. Prevailing Wage

The District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages in the locality in which this work is to be performed for each craft or type of worker needed to execute the Contract. These rates are on file and available at District's office as stated in the Notice Inviting Bid or may be obtained online at http://www.dir.ca.gov/dlsr. Bidders are advised that a copy of these rates must be posted by the successful Bidder at the job site(s). Bidder

must also be registered with the California Department of Industrial Relations to qualify for an award to perform this contract.

24. Debarment of Contractors and Subcontractors

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Section 1777.1 or Section 1777.7 of the Labor Code. Any subcontract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the work shall be returned to the District. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor used on the work.

25. Iran Contract Act Certification

Each bidder shall submit the certification required by the Iran Contracting Act of 2010, Public Contract Code section 2200 et seq. as provided with the Bid Documents.

26. Request for Substitutions

The successful bidder shall comply with the substitution request provisions set forth in the Contract. Any deadlines for substitution requests which occur prior to the bid opening date are set forth in the Special Requirements.

27. Sales and Other Applicable Taxes, Permits, Licenses and Fees

Contractor and its subcontractors performing work under this Contract will be required to pay California sales tax and other applicable taxes, and to pay for permits, licenses and fees required by the agencies with authority in the jurisdiction in which the work will be located, unless otherwise expressly provided by the Contract.

PROPOSAL DOCUMENTS

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BIDDER'S PROPOSAL WITH SUPPORTING DOCUMENTS

MANOR DRIVE BOUNDARY CLEAN UP
JCSD P.N. C245117

TO THE PRESIDENT OF THE BOARD OF DIRECTORS, JURUPA COMMUNITY SERVICES DISTRICT ("THE OWNER")

1. PROPOSAL

The undersigned proposes to furnish all labor, materials, (except those materials to be furnished by Owner) equipment and methods necessary to properly construct and complete for the Owner, the MANOR DRIVE BOUNDARY CLEAN UP PROJECT, JCSD PROJECT NO. C245117 as set forth in the Bidding Sheet, and in accordance with Bidder's Plan for Construction accompanying this proposal and incorporated herein by reference. The undersigned also declares that, as bidder, we have carefully examined the location of the proposed work and have read and examined the Contract (including the Special Requirements, Basic Specifications, Technical Specifications, and Drawings and other documents incorporated therein by reference).

The undersigned hereby declares, as bidder, that the only persons or parties interested in this proposal as principals are those named herein, that this bid is made without any connection with any other person or persons making a bid for the same purposes; except for any other division of the undersigned which may submit an independent bid; that the bid is in all respects fair and without collusion or fraud; that the bidder has read the Notice Inviting Bids and the Instruction to Bidders and agrees to all the stipulations contained therein; that the bidder has examined the form of Contract, (including the Special Requirements, Basic Specifications, Technical Specifications, and Drawings and other documents incorporated therein by reference); that in exchange for consideration of their bid proposal by the Owner the bidder proposes, in the event their bid as submitted on the attached and incorporated Bidding Documents be accepted by the Owner, to contract in the said form to furnish and provide the items mentioned in this proposal and in the said form of Contract and in the Special Requirements, Basic Specifications, Technical Specifications, and Drawings, and to furnish and provide the

same within the time stipulated therein; and the bidder will accept as full payment therefor the prices named in said Bidding Sheet.

The Bidder further agrees that they shall execute such Contract within ten (10) days from the date of mailing to them of written notice of the Owner's acceptance of this proposal and within same time shall furnish the required faithful performance bond or securities as permitted by Code of Civil Procedure Section 995.710, the labor and material payment bond, and certificates of insurance and endorsements, and that upon failure to do so within said time, then the proposal guarantee accompanying this proposal shall become the property of the Owner as liquidated damages for such failure or refusal and shall be deposited as monies belonging to the Owner; provided, that if said Bidder shall execute the Contract and furnish the required bonds and certificates of insurance and endorsements within the time aforesaid, their proposal guarantee shall be returned to them upon request within ten (10) days thereafter or otherwise destroyed if so requested.

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignments shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

2. BIDDER'S PLAN FOR CONSTRUCTION

Replies to these inquiries must be full and explicit.

A. Each bidder is required to inspect this proposed work. When, by whom, and in what manner was this proposed work inspected on behalf of the Bidder:

On March 16th, by Christian Cobo, in person, the work was inspected. This includes Mission Blvd, Manor Dr, and Florine Ave

B. Explain your plan or layout for performing the proposed work, including description of any proposed construction plan and detail construction program

Firstly saw cutting (with an approved TC Plan) the relevant areas, and then exposing and plating each access point for the waterline where we will be abandoning. Making sure to de-water per acceptable means, with proper disposal of water. Pumping the flow-able concrete fill into the pipes per plan, we will then bulkhead or blind flange per plan. After backfilling, we will restore everything per project specs. For the tie in locations, we will be sure that all pipe, fittings, and valves are installed correctly. Also, we will ensure that all flushing, chlor, and testing is performed per the inspector and projects specs and standard drawings. This will ensure proper functioning and acceptance. Careful coordination with the city will happen at all stages.

C. List the name and address of each subcontractor who will perform work in or about the work or improvement, or who will specifically fabricate and install a portion of the work according to detailed drawings contained in the plans and specifications, in excess of one-half of one percent of your total bid, and a statement of the portion of the work which will be done by each subcontractor. Only one subcontractor may be listed for each portion of the work. Each subcontractor must be registered with the Department of Industrial Relations to perform public work. Failure to include a subcontractor's registration number may result in the bid being non-responsive.

Subcontractor (a):

Name:	ABC Resources, Inc
Address:	1527 W. State Street, Ontario, CA 91762-4034
Portion of Work:	Striping
License No:	538680
DIR Registration Number:	1000001608

Subcontractor (b):

Name:	Hardy & Harper Inc.
Address:	32 Rancho Circle, Lake Forest, CA 92630
Portion of Work:	Paving
License:	215952
DIR Registration Number:	1000000076

Subcontractor (c):

Name:	Cell-Crete Corpration
Address:	135 E Railroad Ave, Monrovia, CA
Portion of Work:	Specialty Concrete
License:	243404
DIR Registration Number:	1000000262

Subcontractor (d):

Name:	On Point Land Surveying, Inc.
Address:	1906 Orange Tree Lane Suite 240, Redlands, CA 92374
Portion of Work:	Surveying
License:	LS 8133
DIR Registration Number:	1000003100

Subcontractor (e):

Name: Jawco Certified Welding Inc.

Address: 35029 Orange St, Wildomar, CA 92595

Portion of Work: Welding

License No: 1101627

DIR Registration Number: 1001082242

Subcontractor (f):

Name: _____

Address: _____

Portion of Work: _____

License: _____

DIR Registration Number: _____

Subcontractor (g):

Name: _____

Address: _____

Portion of Work: _____

License: _____

DIR Registration Number: _____

Subcontractor (h):

Name: _____

Address: _____

Portion of Work: _____

License: _____

DIR Registration Number: _____

D. For each subcontractor listed under paragraph C herein, provide the following information concerning years and examples of experience of each subcontractor's present organization in similar work:

NAME OF SUBCONTRACTOR	YRS OF EXPERIENCE OF SUBCONTRACTOR PRESENT ORGANIZATION	DATE OF COMPLETION OF SIMILAR JOBS (AT LEAST 2 COMPLETED) WITHIN PAST 3 YRS	NAMES AND ADDRESSES OF OWNERS OF LISTED SIMILAR JOBS
a. ABC Resources, Inc	38 Yrs.	Job #1 11/2025	City of Colton, 670 Colton Ave, Colton, CA 92324
		Job #2 1/2026	Riverside County Department of Wast Resources 31125 Ironwood Avenue, Moreno Valley, CA 92555
b. Hardy & Harper, Inc.	80 Yrs.	Job #1 04/2025	City of Cathedral City, 6870 Avenida Lalo Guerrero Cathedral City, CA 92324
		Job #2 02/2025	City of Hawaiian Gardens 21815 Pioneer Blvd, Hawaiian Gardens, CA
c. Cell-Crete Corporation	70 Yrs.	Job #1 10/2025	JCSD 11201 Harrel St, Jurupa Valley, Ca 91752 Annual Sewer Repair and Replacement Project Pyrite 60 Fwy
		Job #2 12/2025	Santa Clarita Water Valley Agency 27234 Bouquet Canyon Road, Santa Clarita, CA 91350 Newhall Ave Water Line Project
d. On-Point Land Surveying	21 Yrs.	Job #1 5/2024	Los Angeles County Sanitation District 1955 Workman Mill Rd, Whittier, CA 90601
		Job #2 8/2025	City of Huntington Beach 2000 Main St, Huntington Beach, CA 92648

NAME OF SUBCONTRACTOR	YRS OF EXPERIENCE OF SUBCONTRACTOR PRESENT ORGANIZATION	DATE OF COMPLETION OF SIMILAR JOBS (AT LEAST 2 COMPLETED) WITHIN PAST 3 YRS	NAMES AND ADDRESSES OF OWNERS OF LISTED SIMILAR JOBS
e. Jawco Certified Welding	4 Yrs.	Job #1	
		Job #2	
f.	Yrs.	Job #1	
		Job #2	
g.	Yrs.	Job #1	
		Job #2	
h.	Yrs.	Job #1	
		Job #2	

3. BIDDER'S STATEMENT OF EXPERIENCE, FINANCIAL CONDITION AND REFERENCES

How many years of experience in construction work has your organization had? ____

The following forms shall be filled out to outline a record of the undersigned Bidder's experience in construction of the three (3) most recent projects of a type similar in magnitude and character to that contemplated under this Contract. Include the project type, project size, project name, scope of work description, project location, owner's name, contact information, project duration, and total contract amount. Contractor shall answer all questions accurately and completely. Errors, omissions, or misrepresentation may result in rejection of Bid.

As a part of this supporting document, submit a signed financial statement, financial data, or other information and references sufficiently comprehensive to permit an appraisal of your financial condition. The Bidder may submit this supporting document in a sealed envelope labeled "CONFIDENTIAL" or may submit this supporting document as a password protected file.

<table>
<tr><th colspan="4">Project No. 1</th></tr>
<tr><td colspan="2">1. PROJECT NAME / TITLE</td><td colspan="2" rowspan="3">2. PROJECT DESCRIPTION</td></tr>
<tr><td colspan="2">3. TYPE OF PROJECT (Sewer/Water Pipeline, Tunneling, etc.)</td></tr>
<tr><td colspan="2">4. PROJECT SIZE (sq. ft., linear ft. cubic yd.)</td></tr>
<tr><td colspan="2">5. OWNER'S NAME</td><td colspan="2">6. TOTAL CONTRACT AMOUNT
$ _____</td></tr>
<tr><td colspan="4">7. PROJECT LOCATION / ADDRESS Street City State ZIP Code</td></tr>
<tr><td colspan="4">8. OWNER'S CONTACT PERSON Email Address Phone #</td></tr>
<tr><td>9. START DATE (Month/Year)</td><td>10. COMPLETION DATE (Month/Year)</td><td colspan="2">11. PROJECT DURATION
___YEARS and __MONTHS</td></tr>
</table>

BIDDERS NAME: _____ DATE: _____

Project No. 2		
1. PROJECT NAME / TITLE	2. PROJECT DESCRIPTION	
3. TYPE OF PROJECT *(Sewer/Water Pipeline, Tunneling, etc.)*		
4. PROJECT SIZE *(sq. ft., linear ft. cubic yd.)*		
5. OWNER'S NAME	6. TOTAL CONTRACT AMOUNT $ _____	
7. PROJECT LOCATION / ADDRESS Street City State ZIP Code		
8. OWNER'S CONTACT PERSON Email Address Phone #		
9. START DATE (Month/Year)	10. COMPLETION DATE (Month/Year)	11. PROJECT DURATION ___YEARS and __MONTHS

BIDDERS NAME: _____ DATE: _____

Project No. 3		
1. PROJECT NAME / TITLE	2. PROJECT DESCRIPTION	
3. TYPE OF PROJECT *(Sewer/Water Pipeline, Tunneling, etc.)*		
4. PROJECT SIZE *(sq. ft., linear ft. cubic yd.)*		
5. OWNER'S NAME	6. TOTAL CONTRACT AMOUNT $ _____	
7. PROJECT LOCATION / ADDRESS Street City State ZIP Code		
8. OWNER'S CONTACT PERSON Email Address Phone #		
9. START DATE (Month/Year)	10. COMPLETION DATE (Month/Year)	11. PROJECT DURATION ___YEARS and __MONTHS

BIDDERS NAME: _____ DATE: _____

4. BIDDING SHEET

a. Supplemental Instructions

1. Bidders are advised that:
   a. Bidders shall submit a price for all bid item numbers under Bid Schedules I, II, and III.
   b. Award, if made, will be for Bid Schedules I, II, and III, and will be made to one bidder only.
   c. All work under this Contract shall be completed in accordance with the Contract Completion Schedule(s) stated in the Special Requirements; AND THAT THE GENERAL CONDITIONS HEREIN CONTAINS A SECTION TITLED "LIQUIDATED DAMAGES".
   d. All contract construction shall be by an organization which has had successful demonstrable experience in the construction of facilities OF THE TYPE SPECIFIED, OR COMPARABLE.
   e. The Owner reserves the right to vary the amount of work under the Contract and may add or deduct from the various bid numbers at the unit prices shown on the Bidding Sheet, and as a result of this prerogative, there will be no claim for damages or profits, real or anticipated.
   f. Bid items must include a proportional amount of profit, overhead, etc., within the bid price for each bid item number, since the schedule of bid item numbers under which award is to be made will be determined by Owner after bids have been received.
   g. The Bidder shall submit their proposal on the bidding documents within the separately bounded Bid Proposal Documents booklet (Volume II) containing the Notice Inviting Bids and the Proposal Documents.

2. To complete this Bidding Sheet, use the blanks provided to fill in the bid prices at which you propose to furnish the scheduled construction, including all labor, materials, (other than materials supplied by the Owner), equipment, work, and methods necessary to complete the work in accordance with the Contract Completion Schedule located in the Special Requirements. Fill in the figures for the unit prices, extensions, and sum of extensions (Total Bid) for all Bid Schedules and/or Bid Items shown on the Bidding Sheet. Figures and words must be inserted for the "Total Bid". If any discrepancy exists, the

Owner may recalculate the bid price on the basis of the unit price and bidder agrees to be bound by such recalculation.

b. Bid Item Schedule

The undersigned hereby proposes to furnish and install the following items of construction(1) for the Owner, all in strict accordance with the attached and/or incorporated Special Requirements, Basic Specifications, Technical Specifications, and Drawings, including all labor, materials, equipment, work, method, etc., necessary to complete the work in accordance with the stated completion schedule(s); for the following bid prices:

BID SCHEDULE I

MANOR DRIVE BOUNDARY CLEAN UP

JCSD PROJECT NO. C245117

See Attached

Item No.	Description	Qty (1)	Unit	Unit Bid Price*	Bid Extension*
101	Mobilization, Demobilization, Insurance Bonds and Preconstruction Video (2)	1	LS	--	$
102	Pothole existing utilities at all crossings, and adjacent to proposed alignment, confirm connect points, and provide report prior to construction (8 Potholes). Including traffic control and pavement patchwork in accordance with city encroachment permit.	1	LS	--	$
103	Connection to Ex. 16"x12" Tee on Mission Blvd. Including piping, fittings, thrust restraints and dewatering.	1	EA	$	$
104	Furnish and install 8" Dia RSGV per JCSD Std Dwg B-1	1	EA	$	$
105	8" dia. C-909 PVC watermain with tracer wire, ductile iron fittings and thrust restraints	375	LF	$	$
106	Re-connect water service line to customer on-site piping	1	EA	$	$
107	Remove and replace existing Fire Hydrant Per JCSD Std. Dwg. G-2	1	EA	$	$
108	Cut existing 12" waterline and install 12" blind flange, construct thrust block, and bulkhead the remaining pipeline in accordance with design drawings and specifications	6	EA	$	$
109	Cut and cap existing 12" Waterline and bulkhead remaining pipeline in accordance with design drawings and specifications	3	EA	$	$
110	Cut existing 8" waterline and install 8" blind flange, construct thrust block, and bulkhead the remaining pipeline in accordance with design drawings and specifications	1	EA	$	$

(1) Quantities (except for "Lump Sum" item numbers) are estimated and are for the purpose of comparing bids only. Payment will be based upon actual quantities furnished, installed, or constructed in accordance with the Contract documents.

(2) Payment shall not exceed 5% of total for Bid Schedule. This will be paid 50% upon mobilization, 25% midway, and 25% upon demobilization.

(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

MANOR DRIVE BOUNDARY CLEAN UP

JCSD PROJECT NO. C245117

See Attached

Item No.	Description	Qty (1)	Unit	Unit Bid Price*	Bid Extension*
111	Cut and cap existing 8" Waterline and bulkhead remaining pipeline in accordance with design drawings and specifications.	3	EA	$	$
112	Cut and cap existing 4" Waterline and bulkhead remaining pipeline in accordance with design drawings and specifications.	2	EA	$	$
113	Abandon existing water main in place per the Special Requirements section of the specifications including dewatering, filling with CLSM, backfill compaction, and finished surface restoration, etc.	3582	LF	$	$
114	Remove and replace existing cross gutters, drains, fences, mailboxes in kind	1	LS	$	$
115	Remove and Dispose of existing valves, valve box, and lid in accordance with design drawings and specifications	1	LS	$	$
116	Remove and dispose of existing air valve and blow assemblies, and dispose of in accordance with design drawings and specifications	1	EA	$	$
117	Remove and restore existing asphalt Driveway per Riverside County Std Dwg 206	190	SF	$	$
118	Remove and Replace sidewalk and curb per Riverside County Std. Dwg. 401 and in accordance with design drawings and specifications	3	EA	$	$
119	Remove and restore landscaping, drip irrigation lines, sprinkler heads to provide a fully functional system	1	EA	$	$
120	Remove and replace residential concrete drive approach, sidewalk, and curb per Riverside County Std Dwg 207, minimum joint to joint replacement	1	LS	--	$

(1) Quantities (except for "Lump Sum" item numbers) are estimated and are for the purpose of comparing bids only. Payment will be based upon actual quantities furnished, installed, or constructed in accordance with the Contract documents.

(2) Payment shall not exceed 5% of total for Bid Schedule. This will be paid 50% upon mobilization, 25% midway, and 25% upon demobilization.

(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

MANOR DRIVE BOUNDARY CLEAN UP
JCSD PROJECT NO. C245117

See Attached

Item No.	Description	Qty (1)	Unit	Unit Bid Price*	Bid Extension*
121	Remove and replace Type D curb per Riverside County Std Dwg D-204, minimum joint to joint replacement	10	LS	--	$
122	Remove and replace Type A-6 curb per Riverside County Std Dwg D-200, minimum joint to joint replacement	10	LS	--	$
123	Remove and replace existing stamped and colored concrete in kind, match existing color and pattern, replace joint to joint.	40	LS	--	$
124	Remove and restore existing landscaped median including irrigation per Riverside County Std Dwg 113 and design drawings and specifications	1	LS	--	$
125	Pavement removal, disposal and replacement of slurry backfill (mainline trench) per City of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, and per Specifications, export and disposal of native materials	310	LF	$	$
126	Grinding and 0.125' thick asphalt concrete capping of Mission Blvd per City of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, and per Specifications for work areas	5095	SF	$	$
127	Trench sheeting, shoring and bracing per OSHA standard	1	LS	--	$
128	Backfill, compact, restore mainline trench zone	375	LF	$	$
129	Replace traffic striping and pavement markings per City of Jurupa Valley Encroachment Permit and Temporary Striping for work areas	1	LS	$	$

(1) Quantities (except for "Lump Sum" item numbers) are estimated and are for the purpose of comparing bids only. Payment will be based upon actual quantities furnished, installed, or constructed in accordance with the Contract documents.
(2) Payment shall not exceed 5% of total for Bid Schedule. This will be paid 50% upon mobilization, 25% midway, and 25% upon demobilization.
(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

MANOR DRIVE BOUNDARY CLEAN UP
JCSD PROJECT NO. C245117

See Attached

Item No.	Description	Qty (1)	Unit	Unit Bid Price*	Bid Extension*
130	Prepare engineer signed Traffic Control plans for waterline construction and all appurtenances, services, connections, etc. including abandonment of water facilities, and submit and obtain approval from City of Jurupa Valley for work areas	1	LS	$	$
131	Traffic Control and Safety per approved Traffic Control Plans as required by City of Jurupa Valley Encroachment Permit, including traffic control for inspection activities performed for work areas	1	LS	$	$
132	Monitoring and maintenance of traffic control devices for work areas	1	LS	--	$
133	Unknown/unmarked utility under crossings and protection including idle costs, excavation, support, backfill, slurry and delays associated cost per Special Requirements	2	EA	$	$
134	Apply for, obtain, pay for and comply with Jurupa Valley encroachment permit (including all rider permits and extensions), provide and implement BMP's per City's requirements	1	LS	$	$
135	Protect and/or replace existing survey monuments	1	LS	--	$
136	Chlorination and disinfection of pipelines	1	LS	$	$
137	Flush and pressure testing including temporary blow-offs, all thrust restraints and protection per AWWA and JCSD requirements	1	LS	--	$
138	Construction water, and associated piping, fittings, thrust restraints, back-flow assemblies, meter deposits, equipment, valves	1	LS	--	$
139	Provide Record Drawings in accordance with the Specifications	1	LS	--	$

(1) Quantities (except for "Lump Sum" item numbers) are estimated and are for the purpose of comparing bids only. Payment will be based upon actual quantities furnished, installed, or constructed in accordance with the Contract documents.
(2) Payment shall not exceed 5% of total for Bid Schedule. This will be paid 50% upon mobilization, 25% midway, and 25% upon demobilization.
(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

MANOR DRIVE BOUNDARY CLEAN UP

JCSD PROJECT NO. C245117

See Attached

Item No.	Description	Qty (1)	Unit	Unit Bid Price*	Bid Extension*
140	Maintain updated As-Builts and provide final Record Drawings	1	LS	--	$
141	All other work in the Contract Documents not outlined in Bid Items 101 to 140 to make the system operational	1	LS	--	$

Total Bid Schedule I ..... $_____*

(Sum of Extension Nos. 101 thru 141) (Figures)

"TOTAL BID" Schedule I _____

_____Dollars*

(words)

(1) Quantities (except for "Lump Sum" item numbers) are estimated and are for the purpose of comparing bids only. Payment will be based upon actual quantities furnished, installed, or constructed in accordance with the Contract documents.

(2) Payment shall not exceed 5% of total for Bid Schedule. This will be paid 50% upon mobilization, 25% midway, and 25% upon demobilization.

(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

BID SCHEDULE II

See Attached

MANOR DRIVE BOUNDARY CLEAN UP
JCSD PROJECT NO. C245117

Item No.	Description	Qty (1)	Unit	Unit Bid Price*	Bid Extension*
201	Abandon existing 8" diameter water main in place for Jewel Street reconfiguration, per the Special Requirements section of the specifications, including dewatering, filling with CLSM, backfill compaction, and finished surface restoration, etc.	100	LF	$	$
202	Cut and cap the existing 8" waterline for the Jewel Street reconfiguration, and bulkhead the remaining pipeline in accordance with design drawings and specifications.	1	EA	$	$
203	Connect existing 8-in watermain to existing 12-inch watermain along Jewel Street, Per Detail 4A, including all piping, fittings, thrust restraints and dewatering	1	EA	$	$
204	Grinding and 0.125' thick asphalt concrete capping of Mission Blvd per City of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, and per Specifications for work areas	300	SF	$	$
205	Flush and pressure testing, including temporary blow-offs, all thrust restraints, and protection per AWWA and JCSD requirements	1	LS	--	$
206	Construction water, and associated piping, fittings, thrust restraints, back-flow assemblies, meter deposits, equipment, valves	1	LS	--	$
207	All other work in the Contract Documents not outlined in Bid Items 201 to 206 to make the system operational	1	LS	--	$

(1) Quantities (except for "Lump Sum" item numbers) are estimated and are for the purpose of comparing bids only. Payment will be based upon actual quantities furnished, installed, or constructed in accordance with the Contract documents.
(2) Payment shall not exceed 5% of total for Bid Schedule. This will be paid 50% upon mobilization, 25% midway, and 25% upon demobilization.
(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

Total Bid Schedule II ..... $_____*
(Sum of Extension Nos. 201 thru 207) (Figures)

"TOTAL BID" Schedule II _____

_____Dollars*
(words)

See Attached

(1) Quantities (except for "Lump Sum" item numbers) are estimated and are for the purpose of comparing bids only. Payment will be based upon actual quantities furnished, installed, or constructed in accordance with the Contract documents.
(2) Payment shall not exceed 5% of total for Bid Schedule. This will be paid 50% upon mobilization, 25% midway, and 25% upon demobilization.
(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

BID SCHEDULE III

See Attached

MANOR DRIVE BOUNDARY CLEAN UP
JCSD PROJECT NO. C245117

Item No.	Description	Qty (1)	Unit	Unit Bid Price*	Bid Extension*
301	Remove existing on-site fire hydrant and replace with new Fire Hydrant Assembly Per RCSD Std. Dwg. W1060 w/ Guard Posts per RCSD Std. Dwg. W1160.	1	EA	$	$
302	Remove and restore existing asphalt in kind, and restore grades and flow patterns to existing conditions	1	LS	--	$
303	Remove and restore the existing chain-link fence and posts in kind.	10	LF	$	$
304	Grinding and 0.125' thick asphalt concrete capping of Mission Blvd per City of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, and per Specifications for work areas	165	SF	$	$
305	Remove and replace Type A-6 curb per Riverside County Std Dwg D-200, minimum joint-to-joint replacement	10	LF	$	$
306	Remove and replace existing stamped and colored concrete in kind, match existing color and pattern, replace minimum joint-to-joint.	20	SF	$	$
307	All other work in the Contract Documents not outlined in Bid Items 301 to 306 to make the system operational	1	LS	--	$

Total Bid Schedule III ..... $_____*
(Sum of Extension Nos. 301 thru 307) (Figures)

"TOTAL BID" Schedule III _____

_____Dollars*
(words)

(1) Quantities (except for "Lump Sum" item numbers) are estimated and are for the purpose of comparing bids only. Payment will be based upon actual quantities furnished, installed, or constructed in accordance with the Contract documents.
(2) Payment shall not exceed 5% of total for Bid Schedule. This will be paid 50% upon mobilization, 25% midway, and 25% upon demobilization.
(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

BID SUMMARY SHEET

(shall be filled in by Bidder)

BID SCHEDULE NO.	TOTAL ESTIMATE
I	$ 411,423.90 *
II	$ 54,850.59 *
III	$ 55,319.63 *
TOTAL BID (Sum of Bid Schedules I, II, and III)	**$** 521,594.12 *

TOTAL BID" Schedule I, II, and III: $521,594.12

Five Hundred Twenty One Thousand, Five Hundred and Ninety Four and Twelve Cents DOLLARS

(words)

(*) The above prices include any amount payable by the Owner for taxes resulting from this contract.

EMPLOYEE OWNED "WE OWN OUR FUTURE"

BOUDREAU PIPELINE CORPORATION

www.BoudreauPipeline.com • CA Lic#791842 • DIR#1000003803

To:	Jurupa Community Services District (JCSD)	**Contact:**	Keith Backus
Address:	11201 Harrel St	**Phone:**	(951) 685-7434
	Jurupa Valley, CA 91752 UNITED STATES	**Fax:**	
Project Name:	JCSD Manor Boundary Cleanup	**Bid Number:**	260164
Project Location:	6565 Mission Blvd, Jurupa Valley, CA	**Bid Date:**	3/26/2026

Line #	Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
		Bid Schedule I	1.00	LS	$0.00	$0.00
	101	Mobilization, Demobilization, Insurance Bonds And Preconstruction Video	1.00	LS	$10,531.06	$10,531.06
	102	Pothole Existing Utilities At All Crossings, And Adjacent To Proposed Alignment, Confirm Connect Points, And Provide Report Prior To Construction (8 Potholes). Including Traffic Control And Pavement Patchwork In Accordance With City Encroachment Permit.	1.00	LS	$3,047.91	$3,047.91
	103	Connection To Ex. 16"x12" Tee On Mission Blvd. Including Piping, Fittings, Thrust Restraints And Dewatering.	1.00	EACH	$9,551.72	$9,551.72
	104	Furnish And Install 8" Dia RSGV Per JCSD Std Dwg B-1	1.00	EACH	$3,613.16	$3,613.16
	105	8" Dia. C-909 PVC Watermain With Tracer Wire, Ductile Iron Fittings And Thrust Restraints	375.00	LF	$106.73	$40,023.75
	106	Re-connect Water Service Line To Customer On-site Piping	1.00	EACH	$7,880.62	$7,880.62
	107	Remove And Replace Existing Fire Hydrant Per JCSD Std. Dwg. G-2	1.00	EACH	$19,332.56	$19,332.56
	108	Cut Existing 12" Waterline And Install 12" Blind Flange, Construct Thrust Block, And Bulkhead The Remaining Pipeline In Accordance With Design Drawings And Specifications	6.00	EACH	$3,861.79	$23,170.74
	109	Cut And Cap Existing 12" Waterline And Bulkhead Remaining Pipeline In Accordance With Design Drawings And Specifications	3.00	EACH	$3,977.22	$11,931.66
	110	Cut Existing 8" Waterline And Install 8" Blind Flange, Construct Thrust Block, And Bulkhead The Remaining Pipeline In Accordance With Design Drawings And Specifications	1.00	EACH	$6,161.01	$6,161.01
	111	Cut And Cap Existing 8" Waterline And Bulkhead Remaining Pipeline In Accordance With Design Drawings And Specifications.	3.00	EACH	$4,326.73	$12,980.19
	112	Cut And Cap Existing 4" Waterline And Bulkhead Remaining Pipeline In Accordance With Design Drawings And Specifications.	2.00	EACH	$4,524.29	$9,048.58
	113	Abandon Existing Water Main In Place Per The Special Requirements Section Of The Specifications Including Dewatering, Filling With CLSM, Backfill Compaction, And Finished Surface Restoration, Etc.	3,582.00	LF	$13.40	$47,998.80
	114	Remove And Replace Existing Cross Gutters, Drains, Fences, Mailboxes In Kind	1.00	LS	$17,226.91	$17,226.91
	115	Remove And Dispose Of Existing Valves, Valve Box, And Lid In Accordance With Design Drawings And Specifications	1.00	LS	$6,210.33	$6,210.33
	116	Remove And Dispose Of Existing Air Valve And	1.00	EACH	$1,617.79	$1,617.79

Line #	Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
		Blow Assemblies, And Dispose Of In Accordance With Design Drawings And Specifications				
	117	Remove And Restore Existing Asphalt Driveway Per Riverside County Std Dwg 206	190.00	SF	$34.56	$6,566.40
	118	Remove And Replace Sidewalk And Curb Per Riverside County Std. Dwg. 401 And In Accordance With Design Drawings And Specifications	3.00	EACH	$3,050.43	$9,151.29
	119	Remove And Restore Landscaping, Drip Irrigation Lines, Sprinkler Heads To Provide A Fully Functional System	1.00	EACH	$5,298.65	$5,298.65
	120	Remove And Replace Residential Concrete Drive Approach, Sidewalk, And Curb Per Riverside County Std Dwg 207, Minimum Joint To Joint Replacement	1.00	LS	$9,624.34	$9,624.34
	121	Remove And Replace Type D Curb Per Riverside County Std Dwg D-204, Minimum Joint To Joint Replacement	10.00	LS	$782.61	$7,826.10
	122	Remove And Replace Type A-6 Curb Per Riverside County Std Dwg D-200, Minimum Joint To Joint Replacement	10.00	LS	$809.86	$8,098.60
	123	Remove And Replace Existing Stamped And Colored Concrete In Kind, Match Existing Color And Pattern, Replace Joint To Joint.	40.00	LS	$102.32	$4,092.80
	124	Remove And Restore Existing Landscaped Median Including Irrigation Per Riverside County Std Dwg 113 And Design Drawings And Specifications	1.00	LS	$1,713.92	$1,713.92
	125	Pavement Removal, Disposal And Replacement Of Slurry Backfill (mainline Trench) Per City Of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, And Per Specifications, Export And Disposal Of Native Materials	310.00	LF	$35.38	$10,967.80
	126	Grinding And 0.125' Thick Asphalt Concrete Capping Of Mission Blvd Per City Of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, And Per Specifications For Work Area	5,095.00	SF	$10.90	$55,535.50
	127	Trench Sheeting, Shoring And Bracing Per OSHA Standard	1.00	LS	$5,419.15	$5,419.15
	128	Backfill, Compact, Restore Mainline Trench Zone	375.00	LF	$29.53	$11,073.75
	129	Replace Traffic Striping And Pavement Markings Per City Of Jurupa Valley Encroachment Permit And Temporary Striping For Work Areas	1.00	LS	$10,403.66	$10,403.66
	130	Prepare Engineer Signed Traffic Control Plans For Waterline Construction And All Appurtenances, Services, Connections, Etc. Including Abandonment Of Water Facilities, And Submit And Obtain Approval From City Of Jurupa Valley For Work Areas	1.00	LS	$3,532.56	$3,532.56
	131	Traffic Control And Safety Per Approved Traffic Control Plans As Required By City Of Jurupa Valley Encroachment Permit, Including Traffic Control For Inspection Activities Performed For Work Areas	1.00	LS	$5,981.39	$5,981.39
	132	Monitoring And Maintenance Of Traffic Control Devices For Work Areas	1.00	LS	$2,253.95	$2,253.95
	133	Unknown/unmarked Utility Under Crossings And Protection Including Idle Costs, Excavation, Support, Backfill, Slurry And Delays Associated Cost Per Special Requirements	2.00	EACH	$586.15	$1,172.30
	134	Apply For, Obtain, Pay For And Comply With Jurupa Valley Encroachment Permit (including All Rider Permits And Extensions), Provide And Implement BMP's Per City's Requirements	1.00	LS	$7,025.05	$7,025.05
	135	Protect And/or Replace Existing Survey Monuments	1.00	LS	$1,360.66	$1,360.66

Line #	Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
	136	Chlorination And Disinfection Of Pipelines	1.00	LS	$1,478.16	$1,478.16
	137	Flush And Pressure Testing Including Temporary Blow-offs, All Thrust Restraints And Protection Per AWWA And JCSD Requirements	1.00	LS	$2,166.09	$2,166.09
	138	Construction Water, And Associated Piping, Fittings, Thrust Restraints, Back-flow Assemblies, Meter Deposits, Equipment, Valves	1.00	LS	$2,882.11	$2,882.11
	139	Provide Record Drawings In Accordance With The Specifications	1.00	LS	$777.52	$777.52
	140	Maintain Updated As-Builts And Provide Final Record Drawings	1.00	LS	$583.14	$583.14
	141	All Other Work In The Contract Documents Not Outlined In Bid Items 101 To 140 To Make The System Operational	1.00	LS	$6,112.22	$6,112.22
		Bid Schedule II	1.00	LS	$0.00	$0.00
	201	Abandon Existing 8" Diameter Water Main In Place For Jewel Street Reconfiguration, Per The Special Requirements Section Of The Specifications, Including Dewatering, Filling With CLSM, Backfill Compaction, And Finished Surface Restoration, Etc.	100.00	LF	$78.17	$7,817.00
	202	Cut And Cap The Existing 8" Waterline For The Jewel Street Reconfiguration, And Bulkhead The Remaining Pipeline In Accordance With Design Drawings And Specifications.	1.00	EACH	$2,997.30	$2,997.30
	203	Connect Existing 8-in Watermain To Existing 12-inch Watermain Along Jewel Street, Per Detail 4A, Including All Piping, Fittings, Thrust Restraints And Dewatering	1.00	EACH	$6,757.21	$6,757.21
	204	Grinding And 0.125' Thick Asphalt Concrete Capping Of Mission Blvd Per City Of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, And Per Specifications For Work Areas	300.00	SF	$109.14	$32,742.00
	205	Flush And Pressure Testing, Including Temporary Blow-offs, All Thrust Restraints, And Protection Per AWWA And JCSD Requirements	1.00	LS	$2,166.09	$2,166.09
	206	Construction Water, And Associated Piping, Fittings, Thrust Restraints, Back-flow Assemblies, Meter Deposits, Equipment, Valves	1.00	LS	$1,399.09	$1,399.09
	207	All Other Work In The Contract Documents Not Outlined In Bid Items 201 To 206 To Make The System Operational	1.00	LS	$971.90	$971.90
		Bid Schedule III	1.00	LS	$0.00	$0.00
	301	Remove Existing On-site Fire Hydrant And Replace With New Fire Hydrant Assembly Per RCSD Std. Dwg. W1060 W/ Guard Posts Per RCSD Std. Dwg. W1160.	1.00	EACH	$21,109.71	$21,109.71
	302	Remove And Restore Existing Asphalt In Kind, And Restore Grades And Flow Patterns To Existing Conditions	1.00	LS	$6,369.42	$6,369.42
	303	Remove And Restore The Existing Chain-link Fence And Posts In Kind.	10.00	LF	$269.22	$2,692.20
	304	Grinding And 0.125' Thick Asphalt Concrete Capping Of Mission Blvd Per City Of Jurupa Valley Encroachment Permit, Riverside County Standard No. 818, And Per Specifications For Work Areas	165.00	SF	$81.75	$13,488.75
	305	Remove And Replace Type A-6 Curb Per Riverside County Std Dwg D-200, Minimum Joint-to-joint Replacement	10.00	LF	$771.25	$7,712.50
	306	Remove And Replace Existing Stamped And Colored Concrete In Kind, Match Existing Color And Pattern, Replace Minimum Joint-to-joint.	20.00	SF	$143.61	$2,872.20
	307	All Other Work In The Contract Documents Not Outlined In Bid Items 301 To 306 To	1.00	LS	$1,074.85	$1,074.85

Line #	Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
		Make The System Operational				

Total Bid Price: $521,594.12

Notes:

- Proposal is based on [Prevailing - Non-Prevailing] wages
- Proposal is based on [8] hour working days, [Monday through Friday]
- Proposal is based on [Daytime] work
- Proposal is based on [identification of drawings, date, etc]
- Proposal is based on a work to be performed and completed per a mutually agreed upon schedule
- Construction water and meter to be provided and paid for by owner within footprint of jobsite
- Includes [1] mobilization and [1] demobilization. Additional mobilizations to be paid at [$4,250] per mobilization, with no additional charge for demobilization.
- Includes dust control only for our work
- Excludes Erosion Control / SWPPP
- Excludes any and all permits
- Excludes protection, removal, restoration of landscape, irrigation systems, trees, roots, hardscape unless otherwise noted in this proposal
- Pricing is based on award of entirety of scope as presented in this proposal unless otherwise agreed prior to award
- Excludes impacts due to reduced or restricted access due to sediment control practices at or around BPC scope of work
- Excludes Engineering, layout, and survey
- Excludes compaction testing & inspection fees
- Excludes site security
- Excludes builder's risk
- Excludes removal and disposal of any hazardous or contaminated materials
- Conflicts with unidentified existing and unknown utilities will be considered extra work
- Proposal excludes any and all rock excavation unless specifically included in special conditions.
- Proposal based on BPC given unobstructed access of at least 20' from excavator during our work
- No bond is included. Please contact BPC for our bond rate
- Proposal pricing is based on material costs at the time of the proposal. Due to fluctuations in material pricing beyond our control, suppliers are unable to guarantee pricing on select materials beyond 30 days from quotation

ACCEPTED:

The above prices, specifications and conditions are satisfactory and are hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:

Boudreau Pipeline Corporation

Authorized Signature: _____

Estimator: Christian Cobo
951-833-2501 Christian@boudreaupipeline.com

5. BIDDER'S STATEMENT

1. Names and addresses of all members of co-partnership or names and titles of all officers of the corporation.

Alan Boudreau - President
Christie Boudreau - Vice President
Ron Jacobson - CEO
Dave Reynolds - VP of Operations

2. The bidder declares that the surety or sureties named in the space provided below has agreed to furnish bonds in the aggregate amounts set forth in the Instruction to Bidders, in the event the Contract is awarded on the basis of this proposal.

Name(s) and address(es) of surety or sureties agreeing to furnish bond.

CHUBB Group of Insurance Companies - Vigelant Insurance Company - 2023 Mill Rd Whitehouse Station NJ
VenBrook Surety Agent - 11512 El Camino Real Suite 120, San Diego, CA 92130

Corporation organized under the laws of the State of:

California

Name of Bidder:

Boudreau Pipeline Corporation

California Contractor's License No. 791842

462 N Smith Ave
Corona, CA 92878

Bidder's Address

License Expiration Date: 2/22/2027

License Class C34 & C-36

951 493-6780
Bidder's Phone Number

951 493-6781
Bidder's Fax Number

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered with the Department of Industrial Relations to perform public works.

DIR Registration Number: 1000003803 expires 6/30/2027

I declare under penalty of perjury under the laws of the State of California that the foregoing representations are true and correct.

By: _____
(Bidder's Signature)

Alan Boudreau / President
(Typed or Printed Name)

President
Title

6. NON-COLLUSION DECLARATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the President of Boudreau Pipeline Corporation, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted their bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that they have full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on 3/23/2024 [date], at Corona [city], California [state].

(Signature)

Alan Boudreau
(Typed Name)

SUBSCRIBED BEFORE ME on this ____ day of _____, 20_____.

See attached

NOTARY PUBLIC

My Commission Expires: _____

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Riverside)

On March 23, 2026 before me, Theresa L Blondi; Notary Public
(insert name and title of the officer)

personally appeared Alan Boudreau,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

THERESA L. BLONDI
Notary Public - California
Riverside County
Commission # 2530644
My Comm. Expires Sep 17, 2029

Signature Theresa L Blondi (Seal)

7. BID BOND

The makers of this bond are, Boudreau Pipeline Corporation, as Principal, and Vigilant Insurance Company, as Surety and are held and firmly bound unto the Jurupa Community Services District, hereinafter called the District, in the penal sum of TEN PERCENT (10%) OF THE TOTAL BID PRICE of the Principal submitted to DISTRICT for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying bid dated March 26, 20 26, for the MANOR DRIVE BOUNDARY CLEAN UP JCSD P.N. C245117.

If the Principal does not withdraw its bid within the time specified in the Contract; and if the Principal is awarded the Contract and provides all documents to the District as required by the Contract (including the Special Requirements, Basic Specifications, Technical Specifications, and Drawings and other documents incorporated therein by reference); then this obligation shall be null and void. Otherwise, this bond will remain in full force and effect.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract shall in affect its obligation under this bond, and Surety does hereby waive notice of any such changes.

In the event a lawsuit is brought upon this bond by the District and judgment is recovered, the Surety shall pay all litigation expenses incurred by the District in such suit, including reasonable attorneys' fees, court costs, expert witness fees, and expenses.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this 18th day of March, 20 26, the name and corporate seal of each corporation.

SURETY:

Vigilant Insurance Company

By: _____

Title: Kim Truong, Attorney-in-Fact

Attest: (If Corporation)

See attached Notary Acknowledgment

Title: _____

(SEAL)

BIDDER:

Boudreau Pipeline Corporation

By: _____

Title: _____

Attest: (If Corporation)

_____

Title: _____

(SEAL)

STATE OF CALIFORNIA
COUNTY OF _____

See Next Page

On _____, before me, _____, Notary Public, personally appeared _____, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signatures(s) on the instrument, the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under penalty of perjury under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(SEAL)

_____
SIGNATURE OF NOTARY

ALL- PURPOSE
CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }

County of San Diego }

On March 18, 2026 before me, Audrey Rodriguez, Notary Public
(Here insert name and title of the officer),

personally appeared Kim Truong,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Notary Public Signature (Notary Public Seal)

AUDREY RODRIGUEZ
Notary Public - California
San Diego County
Commission # 2413412
My Comm. Expires Sep 2, 2026

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

CAPACITY CLAIMED BY THE SIGNER

- ☐ Individual (s)
- ☐ Corporate Officer

(Title)

- ☐ Partner(s)
- ☑ Attorney-in-Fact
- ☐ Trustee(s)
- ☐ Other _____

2015 Version www.NotaryClasses.com 800-873-9865

INSTRUCTIONS FOR COMPLETING THIS FORM

This form complies with current California statutes regarding notary wording and, if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long as the wording does not require the California notary to violate California notary law.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they,~~ is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - Indicate title or type of attached document, number of pages and date.
  - Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document with a staple.

venbrook

March 18, 2026

Ron Jacobson
BOUDREAU PIPELINE CORPORATION
463 N. Smith Ave.
Corona, CA 92878

RE: **3/26 Bid, Jurupa Community Services District, Manor Drive Boundary Clean Up, Project No. C245117**

Dear Ron,

We are pleased to enclose the bid bond(s) you requested. **WE URGE THAT YOU RECHECK ALL BID DOCUMENTS ENCLOSED INCLUDING THE POWER OF ATTORNEY, SIGNATURES, DATES, AMOUNTS, JOB DESCRIPTION, AND ANY OTHER ATTACHMENTS, TO AVOID THE POSSIBILITY OF HAVING A LOW BID REJECTED.** Would you also please re-verify that the bid bond form attached is the form required by the specifications. Be sure to execute the bid bond with the proper signature and seal.

THE BID BOND AUTHORIZATION IS BASED UPON YOUR ORIGINAL ESTIMATE OF **$500,000.00 . IF THE BID EXCEEDS THIS ESTIMATE BY 10% OR MORE, PLEASE CONTACT US FOR ADDITIONAL AUTHORITY!!!!**

GOOD LUCK!

Venbrook

FINAL RATES APPLICABLE TO 100% OF CONTRACT PRICE:

First	$ 500,000	@	$ 12.50 per thousand
Next	$2,000,000	@	$ 8.50 per thousand
Next	$2,500,000	@	$ 6.75 per thousand
Next	$2,500,000	@	$ 6.25 per thousand
Over	$7,500,000	@	$ 5.75 per thousand

Note: IN THE EVENT THE STIPULATED TIME FOR COMPLETION EXCEEDS TWO (2) YEARS, A SURCHARGE PREMIUM OF ONE (1) PERCENT FOR EACH FULL MONTH IN EXCESS OF TWO (2) YEAR MUST BE ADDED TO THE ORIGINAL PREMIUM.

Note: IN THE EVENT THE STIPULATED MAINTENANCE/WARRANTY TERM IS IN EXCESS OF ONE YEAR THERE IS AN ADDITIONAL PREMIUM SURCHARGE:

First	$ 100,000 of contract amount	@	$ 2.50 per thousand
Next	$ 400,000 of contract amount	@	$ 2.25 per thousand
Next	$2,000,000 of contract amount	@	$ 2.00 per thousand
Next	$2,500,000 of contract amount	@	$ 1.75 per thousand
Next	$2,500,000 of contract amount	@	$ 1.50 per thousand
Over	$7,500,000 of contract amount	@	$ 1.40 per thousand

Your Bid Results are very important. Please forward bid results to us as soon as the job bids.

Low _____ $_____

2ND _____ $_____

3RD _____ $_____

If Boudreau Pipeline Corporation is not among the top three bidders, please note your bid amount and placement below.

_____

CHUBB

Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company
Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that **FEDERAL INSURANCE COMPANY,** an Indiana corporation, **VIGILANT INSURANCE COMPANY,** a New York corporation, **PACIFIC INDEMNITY COMPANY,** a Wisconsin corporation, **WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY** corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint Audrey Rodriguez, Michael W. Thomas and Kim Truong of San Diego, California ----------

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY** have each executed and attested these presents and affixed their corporate seals on this **18th** day of **April 2024.**

Rupert HD Swindells, Assistant Secretary

Warren Eichhorn, Vice President

STATE OF NEW JERSEY
County of Hunterdon ss.

On this **18th** day of **April, 2024** before me, a Notary Public of New Jersey, personally came Rupert HD Swindells and Warren Eichhorn, to me known to be Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY, the companies which executed the foregoing Power of Attorney, and the said Rupert HD Swindells and Warren Eichhorn, being by me duly sworn, severally and each for himself did depose and say that they are Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority

Notarial Seal

Albert Contursi
NOTARY PUBLIC OF NEW JERSEY
No 50202369
Commission Expires August 22,2027

Notary Public

CERTIFICATION

Resolutions adopted by the Boards of Directors of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY on August 30, 2016; WESTCHESTER FIRE INSURANCE COMPANY on December 11, 2006; and ACE AMERICAN INSURANCE COMPANY on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

(1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.

(2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.

(3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.

(4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.

(5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Rupert HD Swindells, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY (the "Companies") do hereby certify that

(I) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
(II) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this March 18, 2026

Rupert HD Swindells, Assistant Secretary

IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:
Telephone (908) 903- 3493 Fax (908) 903- 3656 e-mail: surety@chubb.com

emailed 3/18/26
260164

VENBROOK

BID BOND REQUEST FORM

ATTN: ***AUDREY***

NAME OF CONTRACTOR: **Boudreau Pipeline Corporation**

BID DATE: 3/26/26 CITY WHERE OPENING: Jurupa Valley

TIME OF OPENING: 2:00 PM APPROX. CONTRACT PRICE: $500,000

% BID BOND: 10 % PERCENT PERFORMANCE BOND: 100%
(PLEASE PROVIDE WHEN REQUESTING BID BOND)

% LABOR & MATERIAL BOND: 100%
(PLEASE PROVIDE WHEN REQUESTING BID BOND)

TIME TO COMPLETE:
OF WORK DAYS: _____ **OR** CALENDAR DAYS 160
(PER SPECS)

LIQUIDATED DAMAGES: $2000 per calenda CONTRACT #: Project #No C245117
(CALENDAR DAY/WORK DAY, PLEASE SPECIFY) (BID #, JOB #, SPEC # ETC...PLEASE SPECIFY)

SURETY'S BID BOND FORM: no (YES/NO) BOND FORM ATTACHED: yes (YES/NO)

USA/GOVT. BID BOND FORM: no (YES/NO) MAINT. /WARRANTY PERIOD: 1 yr (# OF YEARS PER SPECS)

TO: Jurupa Community Services District
(OBLIGEE – ENTITY REQUIRING THE BOND)

(ADDRESS)

Riverside, CA

JOB TITLE: MANOR DRIVE BOUNDARY CLEAN UP

JOB DESCRIPTION: 8" DIA C-909 PVC Watermain w/tracer wire - 375lf; Abandon existing water

water main in place per specs - 3582lf; Backfill, compact, restore mainline trench zone - 375lf

DATED: 3/18/2026 SIGNED: Theresa Blondi

8. IRAN CONTRACTING ACT CERTIFICATION

(Public Contract Code Section 2200 *et seq.*)

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 *et seq.*) is true and correct:

☒ The Contractor is not:

(i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or

(ii) a financial institution that extends, for 45 days or more, credit in the amount of $20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

☐ The District has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, the District will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

☐ The amount of the Contract payable to the Contractor for the Project does not exceed $1,000,000.

Signed: _____

Titled: President

Firm: Bowdrean Pipeline Corporation

Date: 3-23-2026

Note: In accordance with Public Contract Code Section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of $250,000 or twice the Contract amount, termination of the Contract and/or ineligibility to bid on contracts for three years.

CONTRACT

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JURUPA COMMUNITY SERVICES DISTRICT

CONTRACT

MANOR DRIVE BOUNDARY CLEAN UP

JCSD P.N. C245117

THIS CONTRACT is made and entered into this _____ day of _____ _____ in the year Two Thousand _____, by and between the Jurupa Community Services District hereinafter designated as the "Owner", and _____ _____ hereinafter designated as the "Contractor".

A. RECITALS

1. The Contractor, in response to a Notice Inviting Bids issued by the Owner, has submitted a bid proposal for **Manor Drive Boundary Clean Up (JCSD P.N. C245117).**

2. The Owner has duly opened and considered the said bid proposal, and has duly awarded said bid to the Contractor, in accordance with said Notice Inviting Bids and has given written notice of said award to the Contractor on _____ _____, 20____.

3. The Contractor has obtained and delivers concurrently herewith all appropriate certificates of insurance and endorsements, a performance bond or equivalent substitute, and a labor and material payment bond with corporate surety or sureties satisfactory to the Owner, each for not less than 100% of the total bid price.

4. The Contractor shall perform all work within the time stipulated in the Contract and shall provide all labor, materials, equipment, tools, utility services, and transportation to complete all of the work required in strict compliance with the Contract Documents as specified herein.

B. AGREEMENTS

1. Incorporation of Documents

This Contract includes, and there are hereby incorporated by reference the following documents which are attached and bound and/or incorporated herewith, together with any addenda thereto which may hereafter be executed by both Parties, Notice Inviting Bids, The Proposal; Bidder's Plan for Construction; Bidder's

Statement of Experience, Financial Condition, and References; Bidding Sheet; Contractor's Certification in accordance with Labor Code 1861; General Conditions; Special Requirements; Basic Specifications; and Drawings. Said documents shall by this reference, be incorporated with like effect as if their provisions were each separately and expressly set forth here.

2. Contractor's Basic Obligation

The Contractor promises and agrees at the Contractor's own cost to furnish to the Owner all materials (except those materials to be furnished by Owner), labor, tools, and equipment necessary to complete **MANOR DRIVE BOUNDARY CLEAN UP (JCSD P.N. 245117)** as awarded by the Owner, for a total of $ _____, including taxes, as specified in the Bidding Sheet; and in addition, Additive Bid Item(s) NONE , Deductive Bid Item(s) NONE , and Additive/Deductive Bid Item(s) NONE ; at the time and place and in the quantity specified in the Bidding Sheet and/or the Special Requirements hereto attached and incorporated, all subject to and in accordance with the terms and conditions contained herein and in the General Conditions and in strict compliance with and in conformity to the Special Requirements, Basic Specifications, and Drawings hereto attached and/or incorporated. The following shall be at the risk of the Contractor: All loss and damages which may arise out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties which may arise or be encountered in the prosecution of the work until its acceptance by the Owner, together with all risks of any description in connection with the work and any and all expenses incurred by or in consequence of any suspension or discontinuance of the work, except such as in the specifications are expressly stipulated to be borne by the Owner.

3. The Owner's Basic Obligation

The Owner hereby promises and agrees with the Contractor to engage and does hereby engage said Contractor as an independent contractor to furnish the materials and/or to perform the work according to the terms and conditions herein contained and referred to for the sum aforesaid and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth herein, in the General Conditions, Special Requirements, Basic Specifications, and the Drawings.

4. Time for Completion

The work shall commence on the date stated in the Owner's Notice to Proceed. The Contractor shall complete all work required by the Contract within

One Hundred Sixty (160) calendar days from the commencement date stated in the Notice of Award. By its signature hereunder, Contractor agrees the time for completion set forth above is adequate and reasonable to complete the work.

5. Liquidated Damages

In accordance with Government Code section 53069.85, it is agreed that the Contractor will pay the Owner the sum of **Two Thousand Dollars ($2,000)** for each and every calendar day of delay beyond the time prescribed in the Contract for finishing the work, as Liquidated Damages and not as a penalty or forfeiture. In the event this is not paid, the Contractor agrees the Owner may deduct that amount from any money due or that may become due the Contractor under the Contract. This section does not include recovery of other damages specified in the Contract.

6. Successors Bound

The parties hereto do for themselves, their heirs, executors, administrators, successors, and assigns agree to the full performance of all of the provisions herein contained. Contractor may not, either voluntarily or by action of law, assign any obligation assumed by Contractor hereunder without the prior written consent of the Owner.

[SIGNATURES ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF; The parties hereto have caused this Contract to be executed the day and year first above written.

ATTEST:

_____

Jurupa Community Services District,

By _____
Chris Berch, P.E., General Manager

_____
Contractor
(Signature of Contractor must be notarized)

Approved as to form and execution:

_____
Counsel for
Jurupa Community Services District

By _____

_____
Title

_____
Secretary

Dated: _____, 20____

Corporate Seal (if a corporation)

CERTIFICATION OF CONTRACTOR
IN ACCORDANCE WITH LABOR CODE
SECTION 1861

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Workmen's Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

_____
Contractor's Authorized Representative

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, _____ (hereinafter referred to as "District") has awarded to _____, (hereinafter referred to as the "Contractor") _____ an agreement for Manor Drive Boundary Clean Up (JCSD P.N. C245117) (hereinafter referred to as the "Work").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract for the Work dated _____, (hereinafter referred to as "Contract"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract to perform the terms thereof and to furnish a bond for the faithful performance of said Contract.

NOW, THEREFORE, we, _____, the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the District in the sum of _____ DOLLARS, ($_____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, their heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one-year guarantee of all materials and workmanship; and shall indemnify and save harmless the District, its officers and agents, as stipulated in said Contract, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a condition precedent to the satisfactory completion of the Contract, unless otherwise provided for in the Contract, the guarantee obligation shall hold good for a period of one (1) year after the acceptance of the work by District, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the District's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

As a part of the obligation secured hereby and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees including reasonable attorney's fees, incurred by District in enforcing such obligation.

Whenever Contractor shall be, and is declared by the District to be, in default under the Contract, the Surety shall remedy the default pursuant to the Contract, or shall promptly, at the District's option:

(1) Take over and complete the work in accordance with all terms and conditions in the Contract; or

(2) Obtain a bid or bids for completing the work in accordance with all terms and conditions in the Contract and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the District, and make available as work progresses sufficient funds to pay the cost of completion of the work, less the balance of the Contract price, including other costs and damages for which Surety may be liable. The term "balance of the Contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract.

(3) Permit the District to complete the work in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the work, less the balance of the Contract price, including other costs and damages for which Surety may be liable. The term "balance of the Contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract.

Surety expressly agrees that the District may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the work nor shall Surety accept a bid from Contractor for completion of the work if the District, when declaring the Contractor in default, notifies Surety of the District's objection to Contractor's further participation in the completion of the work.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work and the provisions of Section 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20___.

_____
CONTRACTOR/PRINCIPAL

_____
Name

By: _____

SURETY:
By: _____
Attorney-In-Fact

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, $_____.
(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____
_____
_____

(Name and Address of Agent or Representative for service of process in California, if different from above) _____

(Telephone number of Surety and Agent or Representative for service of process in California) _____

CERTIFICATE AS TO CORPORATE PRINCIPAL

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document

State of California

County of _____

On_____ before me, _____
(insert name and title of the officer)

personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**

I, _____, certify that I am the _____ Secretary of the corporation named as principal to the within bond; that _____ who signed the said bond on behalf of the principal was then _____ of said corporation; that I know his/her/their signature, and his/her/their signature thereto is genuine; and that said bond was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing board.

_____
(Corporate Seal)

NOTE: A copy of the Power-of-Attorney to local representatives of the bonding company must be attached hereto.

PAYMENT BOND (LABOR AND MATERIALS)

KNOW ALL MEN BY THESE PRESENTS

THAT WHEREAS, _____ (hereinafter referred to as "District") has awarded to _____, (hereinafter referred to as the "Principal") _____ a contract for the work described as follows: Manor Drive Boundary Clean Up (JCSD P.N. C245117) as set forth in the Contract for the Work dated _____, (hereinafter referred to as "Contract"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, said Principal is required to furnish a bond in connection with said Contract; providing that if said Principal or any of its subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the District in the penal sum of _____ Dollars ($_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, their subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Section 9100 of the Civil Code, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of the contractor and their subcontractors pursuant to Section 18663 of the Revenue and Taxation Code, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by the District in such suit, including reasonable attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of any of the persons named in Section 9100 of the

Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or District and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 9100 of the Civil Code, and has not been paid the full amount of their claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned and the provisions of Section 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed unoriginal thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____ 20_____ the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative pursuant to authority of its governing body.

(Corporate Seal of Principal if corporation,)

_____
Principal (Property Name of Contractor)

By: _____
Signature of Contractor

Seal of Surety

_____
Surety

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of _____

On_____ before me, _____
(insert name and title of the officer)

personally appeared _____ , who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ **(Seal)**

By _____
Attorney in Fact

NOTE: A copy of the power of attorney to local representatives of the bonding company must be attached hereto.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the _____ Secretary of the corporation named as principal to the within bond; that _____ who signed the said bond on behalf of the principal was then _____ of said corporation; that I know his/her/their signature, and his/her/their signature thereto is genuine; and that said bond was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing board.

_____
(Corporate Seal)

CERTIFICATE OF INSURANCE	ISSUE DATE (MM/DD/YY)
PRODUCER	THIS CERTIFICATE IS USSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
	COMPANIES AFFORDING COVERAGE
	Company Letter A
	Company Letter B
INSURED	Company Letter C
	Company Letter D
	Company Letter E

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LT R	TYPE OF INSURANCE	POLICY NO.	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	GENERAL LIABILITY				GENERAL AGGREGATE	$
	☐ COMMERCIAL GENERAL LIABILITY				PRODUCTS-COMP/OP AGG.	$
	☐ CLAIMS MADE ☐ OCCURANCE				PERSONAL & ADV. INJURY	$
	☐ OWNER'S & CONTRACTOR'S PROT.				EACH OCCURRENCE	$
	☐ _____				FIRE DAMAGE (Any one fire)	$
	☐ _____				MED. EXPENSE (Any one person)	$
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT	$
	☐ ANY AUTO					
	☐ ALL OWNED AUTOS				BODILY INJURY (Per Person)	$
	☐ SCHEDULED AUTOS					
	☐ HIRED AUTOS				BODILY INJURY Per Accident	$
	☐ NON-OWNED AUTOS					
	☐ GARAGE LIABILITY				PROPERTY DAMATE	
	☐ _____					
	EXCESS LIABILITY				EACH OCCURRENCE	$
	☐ UMBRELLA FORM				AGGREGATE	$
	☐ OTHER THAN UMBRELLA FORM					
	WORKER'S COMPENSATION				STATUTORY LIMITS	
	AND				EACH ACCIDENT	$
	EMPLOYERS' LIABILITY				DISEASE -- POLICY LIMIT	$
					DISEASE -- EACH EMPLOYEE	$

SAMPLE

THE FOLLOWING PROVISIONS APPLY:

1. None of the above-described policies will be canceled until after 30 days' written notice has been given to the Owner at the address indicated below.
2. The Owner, the members of its governing body, its officers, employees, agents and volunteers are added as insured on all liability insurance policies listed above.
3. It is agreed that any insurance or self-insurance maintained by the Owner will apply in excess of and not contribute with the insurance described above.
4. The Owner is named as a loss payee on the property insurance described above, if any.
5. All rights of subrogation under the property insurance policy listed above have been waived against the Owner
6. The worker's compensation insurer named above, if any, agrees to waive all rights of subrogation against the Owner for injuries to employees of the insured resulting from work for the Owner or use of the Owner's premises or facilities.

CERTIFICATE HOLDER ("OWNER")	CANCELLATION SHOULD ANY OF THE ABOVE-DESCRIBED POLICIES BE CANCELED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL MAIL THIRTY (30) DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NMAED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES AUTHORIZED REPRESENTATIVE

COMMERCIAL GENERAL LIABILITY ENDORSEMENT

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS

Insurer:	*This Endorsement Changes The Policy*
Policy Number:	*Please Read it Carefully*
Endorsement Number:	

POLICY TYPE: This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage

SCHEDULE:

_____

Name of Public Entity ("Additional Insured")

If no entry appears above, the information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.

WHO IS AN INSURED is amended to include as an Additional Insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that Additional Insured by or for you.

Modifications to Policy:

1. The Additional Insured shown in the Schedule above includes the members of its governing body, its officers, employees, agents and volunteers.

2. This insurance shall be primary as respects the Additional Insured shown in the Schedule above, or if excess, shall stand in an unbroken chain of coverage excess of the Named Insured's scheduled underlying primary coverage. In either event, any other insurance maintained by the Additional Insured shown in the Schedule above shall be in excess of this insurance and shall not be called upon to contribute with it.

3. This insurance shall afford coverage at least as broad as the latest version of Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).

4. The insurance afforded by this policy shall not be canceled except after thirty days prior written notice by certified mail return receipt requested has been given to the Additional Insured.

AUTHORIZED REPRESENTATIVE:

☐ Broker/Agent ☐ Underwriter ☐ _____

I, _____,
(print/type name) warrant that I have authority to bind the above-mentioned insurance company and by my signature hereon do so bind this company to this endorsement.

_____
Signature of Authorized Representative

_____
Address

_____ _____
Phone Number Date Signed

AUTOMOBILE LIABILITY SPECIAL ENDORSEMENT

For _____ (The Owner) SUBMIT IN DUPLICATE

	ENDORSEMENT NO.	ISSUE DATE (MM/DD/YY)
PRODUCER	POLICY INFORMATION: Insurance Company: Policy No.: Policy Period: (from) (to) LOSS ADJUSTMENT EXPENSE ☐ Included in Limits ☐ In Addition to Limits	
	☐ Deductible ☐ Self-Insured Retention (check which) of $_____	
NAME INSURED	APPLICABILITY. This insurance pertains to the operation and/or tenancy of the named insured under all written agreements and permits in force with the Additional Insured unless checked here ☐ in which case only the following specific agreements and permits with the City are covered: ADDITIONAL INSURED AGREEMENTS/PERMITS	
TYPE OF INSURANCE	OTHER PROVISIONS	
☐ Commercial Auto Policy ☐ Business Auto Policy ☐ Other _____		
LIMIT OF LIABILITY	CLAIMS: Underwriter's representative for claims pursuant to this insurance.	
$_____ per accident, for bodily injury and property damage.	Name: _____ Address: _____ Telephone: (____) _____	

In consideration of the premium charged and notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any endorsement now or hereafter attached thereto, it is agreed as follows:

1. ADDITIONAL INSURED. The Owner, the members of its governing body, its officers, employees, agents and volunteers are included as insureds with regard to damages and defense of claims arising from: the ownership operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Named Insured or for which the Name Insured is responsible.

2. CONTRIBUTION NOT REQUIRED. As respects work performed by the Named Insured for or on behalf of the Additional Insured, the insurance afforded by this policy shall: (a) be primary insurance as respects the Additional Insured; or (b) stand in an unbroken chain of coverage excess of the Named Insured's primary coverage. Any insurance or self-insurance maintained by the Additional Insured shall be excess of the Named Insured's insurance and not contribute with it.

3. CANCELLATION NOTICE. With respect to the interests of the Additional Insured, this insurance shall not be canceled, except after thirty (30) days prior written notice, by receipted delivery, has been given to the Additional Insured.

4. SCOPE OF COVERAGE. This policy affords coverage at least as broad as:
   (1) If primary, Insurance Services Office form number CA0001, Code 1 ("any auto"); or
   (2) If excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding section (1).

Except as stated above, nothing herein shall be held to waive, alter or extend any of the limits, conditions, agreements or exclusions of the policy to which this endorsement is attached.

ENDORSEMENT HOLDER	
OWNER	AUTHORIZED REPRESENTATIVE ☐ Broker/Agent ☐ Underwriter ☐ _____ I, _____, (print/type name) warrant that I have authority to bind the above mentioned insurance company and by my signature hereon do so bind this company to this endorsement. Signature _____ (original signature required) Telephone: (____) _____ Date Signed: _____

WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY SPECIAL ENDORSEMENT

<table>
<tr><td colspan="2">WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY
SPECIAL ENDORSEMENT

SUBMIT IN DUPLICATE</td><td>SUBMIT IN DUPLICATE</td></tr>
<tr><td rowspan="2">For _____ (The Owner)</td><td>ENDORSEMENT NO.</td><td>ISSUE DATE (MM/DD/YY)</td></tr>
<tr><td colspan="2">POLICY INFORMATION:
Insurance Company:
Policy No.:
Policy Period: (from) (to)</td></tr>
<tr><td>PRODUCER</td><td colspan="2"></td></tr>
<tr><td>NAMED INSURED</td><td colspan="2">OTHER PROVISIONS</td></tr>
<tr><td>CLAIMS: Underwriter's representative for claims pursuant to this insurance.

Name: _____

Address: _____

Telephone: _____</td><td colspan="2">EMPLOYERS LIABILITY LIMITS

$ _____ (Each Accident)

$ _____ (Disease – Policy Limit)

$ _____ (Disease – Each Employee)</td></tr>
<tr><td colspan="3">In consideration of the premium charged and notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any endorsement now or hereafter attached thereto, it is agreed as follows:

1. CANCELLATION NOTICE. This insurance shall not be canceled, except after thirty (30) days prior written notice, by receipted delivery, has been given to the Owner.

2. WAIVER OF SUBROGATION. This insurance company agrees to waive all rights of subrogation against the Owner, the members of its governing body, its officers, employees and volunteers for losses paid under the terms of this policy which arise from the work performed by the Named Insured for the Owner.

Except as stated above, nothing herein shall be held to waive, alter or extend any of the limits conditions, agreements or exclusions of the policy to which this endorsement is attached.</td></tr>
<tr><td>ENDORSEMENT HOLDER</td><td colspan="2"></td></tr>
<tr><td>OWNER</td><td colspan="2">AUTHORIZED REPRESENTATIVE ☐ Broker/Agent ☐ Underwriter ☐
_____

I, _____, (print/type name) warrant that I have authority to bind the above-mentioned insurance company and by my signature hereon do so bind this company to this endorsement.

Signature _____
(original signature required)

Telephone: (_____) _____ Date Signed:
_____</td></tr>
</table>

ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between _____
whose address is _____
hereinafter called "Owner," _____
whose address is _____
hereinafter called "Contractor" and _____
whose address is _____
hereinafter called "Escrow Agent."

For the consideration hereinafter set forth, the Owner, Contractor, and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Contract entered into between the Owner and Contractor for Manor Drive Boundary Clean Up (JCSD P.N. C245117) in the amount of _____ _____ ($ _____) dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payments of the retention earnings directly to the escrow agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of _____, and shall designate the Contractor as the beneficial Owner.

(2) The Owner shall make progress payments to the Contractor for such funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Owner makes payment of retention earned directly to the escrow agent, the escrow agent shall hold them for the benefit of the Contractor until such time as the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the escrow agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Owner.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the Owner of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.

(8) Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant to Sections (5) to (8), inclusive, of this agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Owner:	On behalf of Contractor:
_____	_____
Title	Title
_____	_____
Name	Name
_____	_____
Signature	Signature
_____	_____
Address	Address

At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their property officers on the date first set forth above.

Owner:

_____
Title

_____
Name

_____
Signature

Contractor:

_____
Title

_____
Name

_____
Signature

Escrow Agent:

_____
Title

_____
Name

_____
Signature

_____
Address

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“GENERAL CONDITIONS”

1. Definitions

Wherever words defined here, or pronouns used in their stead, occur in any of the contract documents, they shall have the following meanings:

a. The word "Owner" or "District" shall mean the Jurupa Community Services District. The term "Agent" when used with reference to the District, shall include the District's officers, agents, consultants and employees.

b. The term "General Manager of the Jurupa Community Services District shall mean the person designated by the Board of Directors of the Jurupa Community Services District to have charge, supervision, and administration of the Jurupa Community Services District and shall be hereinafter called the "Manager".

The Manager may, at their option, designate a person or persons to represent her to have charge, supervision, administration, inspecting, and reporting on the work as it progresses. This person shall be considered the “Owner’s Representative”.

c. The word "Contractor" shall mean the successful bidder who is entering into this contract with the Jurupa Community Services District, Riverside County, California, for the furnishing of the material, equipment, and/or services specified in this contract, and the legal representatives of said party, or the agent appointed to act for said party in the execution of the contract. Said party is referred to throughout the contract documents as if of the singular number and the masculine gender. The Contractor shall hold a valid Contractor's license in accordance with the provisions of Division 3, Chapter 9 of the Business and Professions Code of the State of California, and all amendments thereto.

d. "Project Engineer" shall mean the Registered Professional Engineer designated by the Owner to give the work general engineering supervision. The term "Project Engineer" shall mean the independently contracting professional consultant retained by the Owner on an ongoing basis to perform engineering services on behalf of the Owner and to advise the Owner's Board of Directors and staff on engineering matters. Under this contract the Project Engineer is the Agent of the Owner and the General Manager for all purposes, and shall initiate such action, or carry out such instructions, or both, as is required to assure full compliance by the Contractor with these contract documents. The Project Engineer has full authority and responsibility, consistent with the Manager's instructions, for contract compliance, and shall make all technical engineering decisions hereunder.

e. "Owner Property" shall mean any work site upon which the Contractor shall be required to perform under the contract including private property, property owned in-fee by the Owner of upon which it holds an appropriate lease, right of way, license, or encroachment permit.

f. **"Liquidated Damages" as defined under Section 20 of this General Conditions shall be $2,000 per day.**

g. "County" whenever used shall mean Riverside County, California.

2. Authority of the Manager

a. Power of Decision. The Manager shall decide every question regarding the interpretation of these contract documents or the true meaning or import of any provisions contained therein. A dispute which arises from the Manager's final decision shall be submitted to independent arbitration, if mutually agreeable to the parties; otherwise by litigation in a court of competent jurisdiction.

b. No Power to Waive Contract. It is expressly agreed that neither the Manager nor any of their assistants or agents, shall have any power to waive the obligation of the contract for the performance of work and/or furnishing by the Contractor of the equipment and/or material conforming to the Special Requirements, Basic Specifications, Plans, Technical Specifications, and Standard Drawings.

c. Access to Contractor's Plant. The Manager, their assistants, inspectors, and agents shall at all times have immediate access to all parts of the Contractor's plant(s) where the production of any equipment and/or material for delivery under this agreement is in progress and shall be afforded there, without charge to the Owner, full facilities for determining that all said equipment and/or material is being produced so as to comply strictly with the Special Requirements, Basic Specifications, Plans, Technical Specifications, and Standard Drawings.

d. Access to Site of Work. The Manager, their assistants, inspectors, and agents shall at all times have immediate access to the site of the work and to all parts of the Contractor's plant used in conjunction with work being performed hereunder on Owner property and shall be afforded there, without charge to the Owner, full facilities for determining that all said work is being performed so as to comply strictly with the Special Requirements, Basic Specifications, Plans, Technical Specifications, and Standard Drawings.

3. Legal Address of Contractor

The address given at the end of the Contractor's proposal herein, is designated as the place to which all notices, letters, and other communications to the Contractor

shall be mailed or delivered. The mailing to or delivering at the above named place of any notice, letter, or other communication to the Contractor shall be deemed sufficient service thereof upon the Contractor. The date of service shall be the date of such mailing or delivery. Such address may be changed at any time by a written notice signed by the Contractor and hand delivered to the Manager. Nothing herein contained shall be deemed to preclude or render inoperative the service of any notice, letter, or other communication upon the Contractor personally.

Pursuant to Public Contract Code section 9201, the District shall provide Contractor with timely notification of the receipt of any third-party claim relating to the Contract.

4. Contractor Responsibility

a. Cooperation with Manager. The Contractor shall comply with all orders of the Manager in regard to maintaining an adequate progress, but neither the making of such demands nor the failure of the Manager to make such demands shall relieve the Contractor of their obligation to secure the quality of equipment and/or material and/or performance of work and the rate of delivery of said equipment and/or material and/or completion of work as stipulated in the contract, and the Contractor alone shall be responsible for the safety, efficiency, and adequacy of their plant, equipment, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance, or operation.

b. Examination of Site and Documents. Before commencing any portion of the Work, Contractor shall again carefully examine the Special Requirements, Basic Specifications, Plans, Technical Specifications, and Standard Drawings, has visited and examined the delivery route(s) and the installation site for equipment and/or materials which the Contractor has agreed to supply herein, and/or the work site upon which the Contractor has agreed to perform herein and is familiar with local conditions which may affect the Contractor's manufacture and delivery of the said equipment and/or materials, and/or performance of said work, and that except as provided herein the Contractor will make no claims for additional compensation over and above the quotations set forth in the Bidding Documents because of difficulties, real or anticipated. Contractor shall immediately notify the Owner's Representative of any potential error, inconsistency, ambiguity, conflict or lack of detail or explanation. If Contractor performs, permits, or causes the performance of any Work which is in error, inconsistent or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all resulting costs, including, without limitation, the cost of correction. In no case shall the Contractor or any subcontractor proceed with Work if uncertain as to the applicable requirements. Contractor is solely responsible for the means and methods utilized to perform the Work. In no case shall the Contractor's means and methods deviate from commonly used industry standards.

c. Contractor Furnish Information. Before proceeding with the erection of temporary structures, including sheeting, bracing, upon the property of the Owner, the Contractor shall furnish the Manager with information and drawings of all such structures as may be required by the Manager. Drawings and prints in such detail as may be required of articles, machinery, or fabricated materials entering into permanent construction which are by the Special Requirements, Basic Specifications, Plans, Technical Specifications, and Standard Drawings, required to be furnished by the Contractor and of which detailed drawings are not furnished by the Owner, shall be submitted by the Contractor for approval and shall become the property of the Owner; such approval shall not, however, operate to waive or modify any provision or requirement contained in the Special Requirements, Basic Specifications, Plans, Technical Specifications, and Standard Drawings.

d. Specifications and Drawings. The Contractor shall keep at their place(s) of work hereunder a copy of the Special Requirements, Basic Specifications, Plans, Technical Specifications, and Standard Drawings and shall at all times give the Manager access thereto. The Contractor shall check all dimensions and quantities on the drawings or schedules herein contained or given to them by the Manager and shall notify the Manager of all errors therein which may be discovered by examining and checking the drawings. The Contractor shall not take advantage of any error or omission in the Plans, Special Requirements, Basic Specifications, or in the Standard Drawings or schedules, as full instructions will be furnished by the Manager should such error omission be discovered, and the Contractor shall carry out such instructions as if originally specified. In the event of conflicts between the Specifications and Drawings, the requirements of the Specifications shall take precedence over those of the Drawings.

e. Risk of Loss. Until by the formal acceptance by the Owner of the performance of the Contractor hereunder, either by furnishing equipment and/or materials or by performance of work, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements and from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore and replace, and make good all injuries or damages to any portion of that which they are to improve, provide or complete thereunder occasioned by any of the above causes before completion and acceptance and shall bear the expense thereof, except for such injuries or damages as are occasioned by acts of the Federal Government or the public enemy, and only to the extent of 5% of the contract amount where such injuries or damages are proximately caused by an act of God. In case of suspension of work from any cause whatsoever, the Contractor shall be responsible for all equipment and/or materials then upon Owner property and shall properly store them, if necessary, and shall erect temporary structures where necessary in so doing. Nothing in this contract shall

be considered as vesting in the Contractor any right of property in materials used after they have been attached or affixed to the work or the soil upon Owner real property but all such materials shall upon being so attached or so affixed, become the property of the Owner.

f. Copyrights and Patents. The Contractor shall and does hereby hold and save the Owner, its officers, agents, and employees harmless from liability of any nature and kind, including costs and expenses, for or on account of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, article or appliance, manufactured, furnished, or used by the Contractor in the performance of this contract, including their use by the Owner unless otherwise specifically stipulated in this contract.

g. Contractor's Personal Attention and Supervision. The Contractor shall give their personal attention constantly to the faithful prosecution of the work, and shall be present, either in person or be represented by a duly authorized and competent representative, on the site of the work, continually during progress of any work hereunder upon Owner property, to receive directions or instruction from the Manager. Whenever the Contractor is not present on any part of the said work where it may be desired to give directions, orders may be given by the Manager and shall be received and obeyed by the superintendent or foreman who may have charge of the particular part of the work in reference to which orders are given.

h. Materials and Workmanship. All materials furnished by the Contractor shall be new and of the best quality for their particular use. Work shall be performed by skilled workmen fully qualified for their trade, and shall be subject to the approval of the Manager.

The Contractor shall submit to the Manager samples, specimens, or test pieces of such materials to be furnished or used in the work as the Manager may require. All materials must be of the specified quality and equal to approved sample, if samples have been submitted. All work shall be done and completed in a thorough, workmanlike manner, notwithstanding any omission from the Special Requirements, Basic Specifications, Plans, or the Standard Drawings.

Materials shall be furnished in ample quantities and at such times as to ensure uninterrupted progress of the Work and shall be stored properly and protected as required by the Contract documents. Contractor shall be entirely responsible for damage or loss by weather or other causes to materials or Work.

No materials, supplies, or equipment for Work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. Contractor warrants good title to all material, supplies, and

equipment installed or incorporated in the Work and agrees upon completion of all work to deliver the Work to the District free from any claims, liens, or charges.

Materials shall be stored on the Work site in such manner so as not to interfere with any operations of the District or any independent contractor.

i. Testing. The testing of any materials or of any portions of the job under construction shall be at the option of the Owner's field representative. The Contractor shall furnish, without charge, any materials requested for testing in accordance with Section 4 of the Greenbook, Standard Specifications for Public Works Construction (latest edition). The Contractor shall also provide access to any area of the job for testing. The charges for normal testing will be paid by the Owner. Normal testing shall be deemed to be the testing required by the Standard Specifications and/or the Inspector. Extra testing required, due to test failures, will be at the Contractor's expense, either as a billing or as a deduction from contract payment. The Contractor shall notify the Owner's field representative of the readiness of any phase of construction to be tested and shall not proceed with any subsequent phase of work until the results of the test are known and approved. Testing shall be performed by a private laboratory, selected by the Owner.

j. Laws and Regulations. The Contractor shall keep themself fully informed of all laws, ordinances and regulations in any manner affecting those engaged or employed on the contract work, or the materials used in the contract work, or in any way affecting the conduct of the contract work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency should be discovered in this contract, or in the Special Requirements, Basic Specifications, Plans, or Standard Drawings herein referred to, in relation to any such law, ordinance, regulation, order, or decree, the Contractor shall forthwith report the same in writing to the Manager. The Contractor shall at all times themself observe and comply with and shall cause all their agents and employees to observe and comply with all such applicable laws, ordinances, regulations, orders, and decrees in effect or which may become effective before completion of this contract; and shall protect and indemnify the Owner and its officers and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulations, order, or decree, whether by the Contractor, by the Contractor’s employee or by a subcontractor. Except as otherwise explicitly provided elsewhere in the Special Requirements, Basic Specifications, Plans, or Standard Drawings, all permits and/or licenses necessary to the prosecution of the contract work shall be secured by the Contractor at their own expense, and they shall pay all taxes properly assessed against their equipment or property used or required in connection with the work.

k. Removing Obstructions and Maintenance of Existing Improvements. When the work hereunder involves performance upon Owner property, and when the proper completion of the said work requires their temporary or permanent

removal, the Contractor shall, at their own expense, remove, and without unreasonable delay temporarily or permanently replace or relocate in a workmanlike manner and to the satisfaction of the Owner and of any other person or agency having jurisdiction, all water pipes, gas pipes, drainage lines, irrigation lines, sewer lines, pipelines, conduits, culverts, roads, driveways, fences, bridges, railroad tracks, wires, poles, towers, retaining walls, buildings, curbs, gutters, concrete walks, trees, shrubs, lawns, and all other improvements of whatsoever character not required by law to be removed by the owner thereof; and all such improvements temporarily removed shall be maintained until permanently replaced, all at the Contractor's expense.

Where the work is to be constructed in or adjacent to areas which have been improved by lawns, trees, shrubs, or gardens, the Contractor shall remove such trees or plants as may be necessary for the prosecution of the work and give them proper care and attention until the work has been satisfactorily completed, after which the Contractor shall replace them in as nearly the original condition and location as is reasonably possible. Where it is necessary to deposit the excavated materials on lawns during the process of construction, the Contractor shall first lay burlap or canvas on the lawn to prevent contact between the excavated material and the lawn.

Unless otherwise indicated in the Special Requirements, Basic Specifications, Technical Specifications, Plans, and Standard Drawings, or unless otherwise cared for by the owner of a public utility or franchise, all water, gas, oil, or irrigation lines, lighting, power, or telephone conduits or wires, or sewer lines, structures, or house connections in place, and all other surface or subsurface structures or lines shall be maintained by the Contractor and shall not be disturbed, disconnected, or damaged by the Contractor during the progress of the work; provided, that should the Contractor in the performance of the work disturb, disconnect, or damage any of the above, all expenses, of whatever nature, arising from such disturbance, or in the replacement or repair thereof, shall be borne by the Contractor. However, in accordance with Section 4215 of the California Government Code, the Contractor shall be compensated for the cost of locating and repairing damage to main or trunkline utility facilities located on the jobsite, not due to the failure of the Contractor to exercise reasonable care; for costs of removing or relocating such utility facilities not indicated in the Contract Documents with reasonable accuracy; and for the operating costs for equipment on the project necessarily idled during such work.

At least two working days prior to commencing any excavation pursuant to this Contract, the Contractor shall contact Underground Service Alert or other appropriate regional notification center if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations.

l. Clean Up. Contractor at all times shall keep premises free from debris such as waste, rubbish, and excess materials and equipment. Contractor shall not store debris under, in, or about the premises. Upon completion of Work, Contractor shall clean the interior and exterior of the building or improvement including fixtures, equipment, walls, floors, ceilings, roofs, window sills and ledges, horizontal projections, and any areas where debris has collected so surfaces are free from foreign material or discoloration. Contractor shall clean and polish all glass, plumbing fixtures, and finish hardware and similar finish surfaces and equipment and contractor shall also remove temporary fencing, barricades, planking and construction toilet and similar temporary facilities from site. Contractor shall also clean all buildings, asphalt and concrete areas to the degree necessary to remove oil, grease, fuel, or other stains caused by Contractor operations or equipment.

Contractor shall fully clean up the site at the completion of the Work. If the Contractor fails to immediately clean up at the completion of the Work, the District may do so and the cost of such clean up shall be charged back to the Contractor.

5. Contractor's Liability

Contractor shall defend (with counsel of District's choosing), indemnify and hold the District, its officials, officers, agents, employees, and representatives free and harmless from any and all claims, demands, causes of action, costs, expenses, liabilities, losses, damages or injuries, in law or equity, regardless of whether the allegations are false, fraudulent, or groundless, to property or persons, including wrongful death, to the extent arising out of or incident to any acts, omissions or willful misconduct of Contractor, its officials, officers, employees, agents, consultants and contractors arising out of or in connection with the performance of the Work or this Contract, including claims made by subcontractors for nonpayment, and including without limitation the payment of all consequential damages and other related costs and expenses. Contractor shall defend, at Contractor's own cost, expense and risk, with counsel of District's choosing, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against District, its officials, officers, agents, employees and representatives. To the extent of its liability, Contractor shall pay and satisfy any judgment, award or decree that may be rendered against District, its officials, officers, employees, agents, employees and representatives, in any such suit, action or other legal proceeding. Contractor shall reimburse District, its officials, officers, agents, employees and representatives for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. The only limitations on this provision shall be those imposed by Civil Code Section 2782.

6. Safety

a. The Contractor shall be responsible for all damages to persons or property that occur as a result of the Work. Contractor shall be responsible for the proper care and protection of all materials delivered and Work performed until completion and final acceptance by the District. All Work shall be solely at the Contractor's risk. Contractor shall adequately protect adjacent property from settlement or loss of lateral support as necessary. Contractor shall comply with all applicable safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the site where Work is being performed. Contractor shall erect and properly maintain at all times, as required by field conditions and progress of work, all necessary safeguards, signs, barriers, lights, and watchmen for protection of workers and the public, and shall post danger signs warning against hazards created in the course of construction.

b. In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization from the Owner's Representative, is hereby permitted to act to prevent such threatened loss or injury; and Contractor shall so act, without appeal, if so authorized or instructed by the Owner's Representative or the District. Any compensation claimed by Contractor on account of emergency work shall be determined by and agreed upon by the District and the Contractor.

c. Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions.

d. Contractor shall take adequate precautions to protect existing sidewalks, curbs, pavements, utilities, and other adjoining property and structures and to avoid damage thereto, and Contractor shall repair any damage thereto caused by the Work operations. Contractor shall:

1) Enclose the working area with a substantial barricade, and arrange work to cause minimum amount of inconvenience and danger to the public.

2) Provide substantial barricades around any shrubs or trees indicated to be preserved.

3) Deliver materials to the Work site over a route designated by the applicable local jurisdiction.

4) Provide any and all dust control required and follow the applicable air quality regulations as appropriate. If the Contractor does not comply, the District shall have the immediate authority to provide dust control and deduct the cost from payments to the Contractor.

5) Confine Contractor's apparatus, the storage of materials, and the operations of its workers to limits required by law, ordinances, permits, or directions of the Owner's Representative. Contractor shall not unreasonably encumber the Work site with its materials.

6) Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by an approved civil engineer or land surveyor, at no cost to the District.

7) Ensure that existing facilities, fences and other structures are all adequately protected and that, upon completion of all Work, all facilities that may have been damaged are restored to a condition acceptable to the District.

8) Preserve and protect from injury all buildings, pole lines and all direction, warning and mileage signs that have been placed within the right-of-way.

9) At the completion of work each day, leave the Work site in a clean, safe condition.

10) Comply with any stage construction and traffic handling plans. Access to residences and businesses shall be maintained at all times.

These precautionary measures will apply continuously and not be limited to normal working hours. Full compensation for the Work involved in the preservation of life, safety and property as above specified shall be considered as included in the prices paid for the various contract items of Work, and no additional allowance will be made therefor.

e. Should damage to persons or property occur as a result of the Work, Contractor shall be responsible for proper investigation, documentation, including video or photography, to adequately memorialize and make a record of what transpired. The District shall be entitled to inspect and copy any such documentation, video, or photographs.

7. Trespass

The Contractor shall be responsible for all damage or injury which may be caused on any property by trespass of the Contractor, their agents, employees or subcontractors in the course of performance of work hereunder, whether the said trespass was committed with or without the consent or knowledge of the Contractor.

8. Insurance

a. *General*: Promptly, upon execution of the contract and prior to commencement of any work, Contractor shall furnish the Owner certificates of insurance covering all policies providing the insurance required hereunder. Said certificates shall be signed on behalf of the insurer by an authorized representative thereof and the signature of the insurer's authorized representative shall be notarized.

Contractor agrees, upon written request, to furnish Owner with copies of all required policies, certified by an authorized representative of the insurer. All insurance issued under the provisions of this section shall be issued in a form and by insurance organizations approved by the Owner, prior to commencement of performance hereunder.

b. *Time for Compliance*: The Contractor shall not commence work under this Contract until the Contractor has provided evidence satisfactory to the Owner that the Contractor has secured all insurance required under this section. In addition, Contractor shall not allow any subcontractor to commence work on any subcontract until the Contractor has provided evidence satisfactory to the Owner that the subcontractor has secured all insurance required under this section.

c. *Minimum Requirements*: Contractor shall, at their expense, procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, the Contractor's agents, representatives, employees or subcontractors. Contractor shall also require all of their subcontractors to procure and maintain the same insurance for the duration of the Contract. Such insurance shall meet at least the following minimum levels of coverage:

Minimum Scope of Insurance: Coverage shall be at least as broad as the latest version of the following:

(1) *General Liability*: Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).

(2) *Automobile Liability*: Insurance Services Office Business Auto Coverage form number CA 0001, code 1 (any auto).

(3) *Workers' Compensation and Employers' Liability*: Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

(4) *Builders'/All Risk*: Builders'/All Risk insurance covering for all risks of loss (including earthquakes and floods if requested by the Owner).

Minimum Limits of Insurance: Contractor shall maintain limits no less than:

(1) *General Liability*: $2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

(2) *Automobile Liability*: $1,000,000 per accident for bodily injury and property damage.

(3) *Workers' Compensation and Employer's Liability*: Workers' compensation limits as required by the Labor Code of the State of California. Employers Liability limits of $1,000,000 per accident for bodily injury or disease.

(4) *Builders'/All Risk*: Completed value of the project.

d. *Insurance Endorsements*: The insurance policies shall contain the following provisions, or Contractor shall provide endorsements on forms supplied or approved by the Owner to add the following provisions to the insurance policies:

(1) *General Liability*: (1) The Owner, its directors, officers, employees, agents and volunteers and Albert A. Webb Associates, if any shall be covered as additional insureds with respect to the work or operations performed by or on behalf of the Contractor, including materials, parts or equipment furnished in connection with such work; and (2) the insurance coverage shall be primary insurance as respects the Owner, its directors, officers, employees, agents and volunteers and Albert A. Webb Associates, or if excess, shall stand in an unbroken chain of coverage excess of the Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the Owner, its directors, officers, employees, agents and volunteers shall be excess of the Contractor's insurance and shall not be called upon to contribute with it.

(2) *Automobile Liability*: (1) The Owner, its directors, officers, employees, agents and volunteers and Albert A. Webb Associates, if any shall be covered as additional insureds with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by the Contractor or for which the Contractor is responsible; and (2) the insurance coverage shall be primary insurance as respects the Owner, its directors, officers, employees, agents and volunteers and Albert A. Webb Associates or if excess, shall stand in an

unbroken chain of coverage excess of the Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the Owner, its directors, officers, employees, agents and volunteers and Albert A. Webb Associates shall be excess of the Contractor's insurance and shall not be called upon to contribute with it.

(3) *Workers' Compensation and Employers Liability Coverage*: The insurer shall agree to waive all rights of subrogation against the Owner, its directors, officers, employees, agents and volunteers and Albert A. Webb Associates for losses paid under the terms of the insurance policy which arise from work performed by the Contractor.

(4) *All Coverages*: Each insurance policy required by this contract shall be endorsed to state that: (1) coverage shall not be canceled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the Owner; and (2) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the Owner, its directors, officials, officers, employees, agents and volunteers and Albert A. Webb Associates, if any.

e. *Builder's/All Risk Policy Requirements*: The builders'/all risk insurance shall provide that the Owner be named as loss payee. In addition, the insurer shall waive all rights of subrogation against the Owner. The making of progress payments to the Contractor shall not be construed as creating and insurable interest by or for the Owner, or as relieving the Contractor or its subcontractors of any responsibility for loss from any direct physical loss, damage or destruction covered by the builders'/all risk policy occurring prior to final acceptance of the work by the Owner.

f. *Separation of Insureds; No Special Limitations*: All insurance required by this Section shall contain standard separation of insureds provisions. In addition, such insurance shall not contain any special limitations on the scope of protection afforded to the Owner, its directors, officers, employees, agents and volunteers and named consultants, if any.

g. *Deductibles and Self-Insurance Retentions*: Any deductibles or self-insured retentions must be declared to and approved by the Owner. Contractor shall guarantee that, at the option of the Owner, either: (1) the insurer shall reduce or eliminate such deductibles or self-insurer retentions as respects the Owner, its directors, officers, employees, agents and volunteers; or (2) the Contractor shall procure a bond guaranteeing payment of losses and related investigation costs, claims and administrative and defense expenses.

h. *Acceptability of Insurers*: Insurance is to be placed with insurers with a current A.M. Best's rating no less than A:VIII, licensed to do business in California, and satisfactory to the Owner.

i. *Verification of Coverage*: Contractor shall furnish Owner and named associates, if any, with original certificates of insurance and endorsements effecting coverage required by this contract. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall be on forms supplied or approved by the Owner. All certificates and endorsements must be received and approved by the Owner before work commences. The Owner reserves the right to require complete, certified copies of all required insurance policies, at any time.

j. *Subcontractors*: All subcontractors shall meet the requirements of this Section before commencing work. In addition, Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

9. Agents of Owner not Personally Liable

No agent of the Owner shall be personally responsible for any liability arising under this contract, and no claim shall be made or filed, and neither the Owner nor any of its agents shall be liable for or held to pay any money, except as specifically provided in this contract.

10. Subcontracts

a. The provisions of the Subletting and Subcontracting Fair Practices Act found in the California Government Code are incorporated herein and made a part hereof by this reference. Each bidder shall set forth in their proposal the name and location of the place of business of each subcontractor who will perform work or labor or render service to the general contractor in or about the construction of the work, or who will specifically fabricate and install a portion of the work or improvement according to detailed drawings contained in the plans and specifications, such work being in an amount in excess of one-half of one percent (1/2 of 1%) of the general contractor's total bid.

b. It is the Owner's intent that the work shall be performed and constructed by a Contractor who is staffed and equipped to construct the major portion of the work with their own directly employed personnel and with the minimum feasible subcontracting. Subcontracting may be permitted by the Owner to such extent as is shown to be necessary or advantageous to the Contractor without injury to the intent and interests of the Owner. In general, it is the Owner's intent that subcontracting shall be limited to not more than forty-five percent (45%) of the

value of the work. Any bid proposing subcontracting in excess of this limit is subject to rejection at the discretion of the Owner.

c. A copy of each subcontract, if in writing, or if not in writing then a written statement signed by the Contractor, giving the name of the subcontractor, and the terms and conditions of such subcontract, shall be filed with the Manager before the subcontractor begins work. Each subcontract shall contain a reference to the agreement between the Owner and the Contractor, and the terms of that agreement and all parts thereof shall be made a part of such subcontract insofar as applicable to the work covered thereby. Each subcontract shall provide for its annulment by the Contractor at the order of the Manager, if, in the Manager's opinion, the subcontractor fails to comply with the requirements of the principal contract insofar as the same may be applicable to the Contractor's work. Nothing herein contained shall create any contractual relation between any subcontractor and the Owner or relieve the Contractor of any liability or obligation hereunder.

d. The Contractor is hereby alerted to provisions of Section 7107 of the Public Contract Code, requiring the Contractor to pay to each of their subcontractors from whom retention has been withheld, each subcontractor's share of the retention received, within 7 days from the time that all or any portion of such retention proceeds are received by Contractor from the Owner.

11. Assignment Forbidden

The Contractor shall not assign, transfer, convey or otherwise dispose of this contract, or of the Contractor's right, title or interest in or to the same or any part thereof, without the previous consent in writing of the Manager; and the Contractor shall not assign by power of attorney, or otherwise, any of the moneys to become due and payable under the contract, unless by and with the like consent signified in like manner. If the Contractor shall, without such previous written consent, assign, transfer, convey, or otherwise dispose of the contract, or of the Contractor's right, title or interest therein, or of any of the moneys to become due under the contract to any other person, company, or other corporation, the contract may, at the option of the Owner, be terminated and revoked, and the Owner shall thereupon be relieved and discharged from any and all liability and obligation growing out of the same to the Contractor, and to the Contractor's assignee or transferee. No right under the contract, nor any right to any money to become due hereunder, shall be asserted against the Owner in law or equity by reason of any so-called assignment of the contract, or any part thereof, or by reason of the assignment of any moneys to become due hereunder, unless authorized as aforesaid by the written consent of the Manager.

12. Lines, Grades, and Measurements

Unless otherwise provided in the Special Requirements, any and all lines and grades will be furnished by the Owner. The Contractor shall provide such materials and

give such assistance as may be required. The Contractor shall preserve all bench marks, monuments, survey marks, and stakes upon Owner property, and in case of their removal or destruction by the Contractor, the Contractor's employees, or the Contractor's subcontractors, the Contractor shall be liable for the cost of their replacement. The Contractor shall keep the Manager informed, a reasonable time in advance, of the times and places at which the Contractor intends to do work, in order that lines and grades may be furnished, that inspection may be provided and that necessary measurements for record and payment may be made with the minimum of inconvenience to the Manager or delay to the Contractor. Whenever the Manager finds it necessary to carry on the Manager's operations outside of regular working hours or at other times when the work of the Contractor is not in progress, the Contractor shall furnish all necessary service and assistance. No payment shall be made to the Contractor for any of the work or delay occasioned by giving lines and grades, or making other necessary measurements, or by inspection.

13. Domestic Materials and Machinery (See Note)

In the performance of this contract, there shall be used only such unmanufactured articles, materials and supplies as have been mined or produced in the United States, and only such manufactured articles, materials and supplies as have been mined, produced, or manufactured, as the case may be, in the United States, substantially all from materials produced in the United States in accordance with Section 4300 through 4305 of the Government Code of California, except to the extent, if any, that such provision may be superseded by any law or treaty of the United States. (Note: This provision is included within the General Conditions as required by the provisions of Sections 4300-4305 of the Government Code. However, the Owner will not enforce this provision by reason of Bethlehem Steel Corp. v. Board of Commissioners (1969) 276 C.A. 2d 221, which held Sections 4300-4305 to be unconstitutional.)

14. No Discrimination

The Contractor shall not discriminate in the employment of persons upon the contract work because of their race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex except as provided in Section 1420 of the California Labor Code. The Contractor shall require a clause to this effect to be included in every subcontract to perform work under this contract.

15. Eight-Hour Law

Except as otherwise provided the California Labor Code, eight hours of labor shall constitute a legal day's work, and the time of service of any workman employed on the work shall be limited and restricted to eight hours during any one calendar day, and forty hours in any one calendar week, except when payment of overtime is made. The Contractor shall be subject to Civil liabilities and penalties for each workman employed in the execution of this contract by the Contractor, or by any subcontractor under the

Contractor, for each calendar day during which such workman is not paid for overtime in violation of the provisions of said Labor Code.

16. Prevailing Rates of Wages

The Contractor is aware of the requirements of Labor Code Sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq. ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. Since this Work involves an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and since the total compensation is $1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. The Contractor shall obtain a copy of the prevailing rates of per diem wages at the commencement of this Agreement from the website of the Division of Labor Statistics and Research of the Department of Industrial Relations located at www.dir.ca.gov/dlsr/. In the alternative, the Contractor may view a copy of the prevailing rates of per diem wages at the District. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to perform the Work available to interested parties upon request, and shall post copies at the Contractor's principal place of business and at the Work site. Contractor shall defend, indemnify and hold the District, its elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or allege failure to comply with the Prevailing Wage Laws.

The Contractor and each subcontractor shall forfeit as a penalty to the District not more than two hundred dollars ($200) for each calendar day, or portion thereof, for each worker paid less than the stipulated prevailing wage rate for any work done by the Contractor, or by any subcontract under the Contractor, in violation of the provisions of the Labor Code. The difference between such stipulated prevailing wage rate and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor. Contractor shall post, at appropriate conspicuous points on the Work site, a schedule showing all determined general prevailing wage rates and all authorized deductions, if any, from unpaid wages actually earned.

In accordance with Labor Code section 1771.4, the Contractor and each subcontractor shall furnish the certified payroll records directly to the Department of Industrial Relations on a weekly basis and in the format prescribed by the Department of Industrial Relations, which may include electronic submission. Contractor shall comply with all requirements and regulations from the Department of Relations relating to labor compliance monitoring and enforcement.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The Contractor shall have an affirmative obligation to verify that all subcontractors are currently and validly registered with the Department of Industrial Relations and shall not permit a subcontractor of any tier to perform work on the project without first verifying the subcontractor's registration. The Contractor

shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain valid registration for the duration of the project.

17. Mandatory Certification of Contractor and Employment of Apprentices

This contract shall not prevent the employment of properly indentured apprentices in accordance with the California Labor Code, and no employer or labor union shall refuse to accept otherwise qualified employees as indentured apprentices on the work performed hereunder solely on the ground of race, creed, national origin, ancestry, color or sex. Every qualified apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade in which apprentice is employed, and shall be employed only in the craft or trade to which apprentice is indentured.

If California Labor Code Section 1777.5 applies to the Contract Work, the Contractor and any subcontractor hereunder who employ workmen in any apprenticeable craft or trade shall apply to the joint apprenticeship committee administering applicable standards for a certificate approving the Contractor and any subcontractor for the employment and training of apprentices. Upon issuance of this certificate the Contractor and any subcontractor shall employ the number of apprentices provided for therein, as well as contribute to the fund to administer the apprenticeship program in each craft or trade in the area of the work hereunder.

The parties hereto expressly understand that the responsibility for compliance with this Section No. 17 and with Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code in regard to all apprenticeable occupations lies with the Contractor.

18. Payment of Wages

The issuance as payment for wages of any evidence of indebtedness is prohibited unless the same is negotiable and payable on demand without discount. Wages must be paid at least semi-monthly on regular pay days established in advance, and shall include all amounts for labor or services performed by employees of every description, as required under the California Labor Code.

19. Overtime - No Extra Compensation

Overtime work shall not entitle the Contractor to any compensation for any contract item in addition to that stipulated in the contract for the kind of work performed, even though such overtime or legal holiday work may be required under emergency conditions and may be ordered by the Manager. In case of extra work ordered by the Manager under the provisions hereof, no additional payment will be made to the Contractor because of the payment by the Contractor of overtime or legal holiday rates for such work, unless the use of overtime or legal holiday rates in connection with such extra work is specifically ordered by the Manager and then only to such extent as extra

payment is regularly being made by the Contractor to the Contractor's men for overtime or legal holiday work of a similar nature in the same locality.

20. Time For Completion And Liquidated Damages

a. Time for Completion/Liquidated Damages. Work shall be commenced within ten (10) days of the date stated in the District's Notice to Proceed and shall be completed by Contractor in the time specified in the Contract Documents. The District is under no obligation to consider early completion of the Work; and the Contract completion date shall not be amended by the District's receipt or acceptance of the Contractor's proposed earlier completion date. Furthermore, Contractor shall not, under any circumstances, receive additional compensation from the District (including but not limited to indirect, general, administrative or other forms of overhead costs) for the period between the time of earlier completion proposed by the Contractor and the Contract completion date. If the Work is not completed as stated in the Contract Documents, it is understood that the District will suffer damage. In accordance with Government Code Section 53069.85, it is impractical and infeasible to determine the amount of actual damage that the District would suffer due to late completion, and therefore it is agreed that Contractor shall pay to the District as fixed and liquidated damages, and not as a penalty, the sum stipulated in the Contract for each day of delay until the Work is fully completed. Contractor and its surety shall be liable for any liquidated damages. Any money due or to become due the Contractor may be retained to cover liquidated damages.

b. Inclement Weather. Contractor shall abide the Owner's Representative's determination of what constitutes inclement weather. Time extensions for inclement weather shall only be granted when the Work stopped during inclement weather is on the critical path of the Work schedule.

c. Extension of Time. Contractor shall not be charged liquidated damages because of any delays in completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of Contractor (or its subcontractors or suppliers). Contractor shall within five (5) days of identifying any such delay notify the District in writing of causes of delay. The District shall ascertain the facts and extent of delay and will grant an extension of time for completing the Work when, in its judgment, the facts justify such an extension. Time extensions to the Work shall be requested by the Contractor as they occur and without delay. No delay claims shall be permitted unless the event or occurrence delays the completion of the Work beyond the Contract completion date.

d. No Damages for Reasonable Delay. The District's liability to Contractor for delays for which the District is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. In no case shall the District be liable for any costs which are borne by the Contractor in the regular course of business, including, but not

limited to, home office overhead and other ongoing costs. Damages caused by unreasonable District delay, including delays caused by items that are the responsibility of the District pursuant to Government Code section 4215, shall be based on actual costs only; no proportions or formulas shall be used to calculate any delay damages.

21. Changes And Extra Work

a. Change Order Work.

1) The District, without invalidating the Contract, may order changes in the Work consisting of additions, deletions or other revisions, the Contract amount and Contract time being adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents. A Change Order signed by the Contractor indicates the Contractor's agreement therewith, including any adjustment in the Contract amount or the Contract time, and the full and final settlement of all costs (direct, indirect and overhead) related to the Work authorized by the Change Order.

2) All claims for additional compensation to the Contractor shall be presented in writing before the expense is incurred and will be adjusted as provided herein. No work shall be allowed to lag pending such adjustment, but shall be promptly executed as directed, even if a dispute arises. No claim will be considered after the work in question has been done unless a written contract change order has been issued or a timely written notice of claim has been made by Contractor. Contractor shall not be entitled to claim or bring suit for damages, whether for loss of profits or otherwise, on account of any decrease or deletion of any item or portion of Work to be done. Whenever any change is made as provided for herein, such change shall be considered and treated as though originally included in the Contract, and shall be subject to all terms, conditions and provisions of the original Contract.

3) Owner Initiated Change. The Contractor must submit a complete cost proposal, including any change in the Contract time, within seven (7) Days after receipt of a scope of a proposed change order, unless the District requests that proposals be submitted in less than seven (7) Days.

4) Contractor Initiated Change. The Contractor must give written notice of a proposed change order required for compliance with the Contract Documents within seven (7) Days of discovery of the facts giving rise to the proposed change order.

5) Whenever possible, any changes to the Contract amount shall be in a lump sum mutually agreed to by the Contractor and the District.

6) Price quotations from the Contractor shall be accompanied by sufficiently detailed supporting documentation to permit verification by the District.

7) If the Contractor fails to submit the cost proposal within the seven (7) Day period (or as requested), the District has the right to order the Contractor in writing to commence the work immediately on a force account basis and/or issue a lump sum change to the contract price in accordance with the District's estimate of cost. If the change is issued based on the District estimate, the Contractor will waive its right to dispute the action unless within fifteen (15) Days following completion of the added/deleted work, the Contractor presents written proof that the District's estimate was in error.

8) Estimates for lump sum quotations and accounting for cost-plus-percentage work shall be limited to direct expenditures necessitated specifically by the subject extra work, and shall be segregated as follows:

   (a) Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft or type of worker at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the extra work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

   (b) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight and delivery. Materials cost shall be based upon supplier or manufacturer's invoice. If invoices or other satisfactory evidence of cost are not furnished within fifteen (15) Days of delivery, then the Owner's Representative shall determine the materials cost, at its sole discretion.

   (c) Tool and Equipment Use. No payment will be made for the use of small tools, tools which have a replacement value of

$1,000 or less. Regardless of ownership, the rates to be used in determining equipment use costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.

(d) Overhead, Profit and Other Charges. The mark-up for overhead (including supervision, on-site and home office overhead) and profit on work added to the Contract shall be according to the following:

i. "Net Cost" is defined as consisting of costs of labor, materials and tools and equipment only excluding overhead and profit. The costs of applicable insurance and bond premium will be reimbursed to the Contractor and subcontractors at cost only, without mark-up.

ii. For Work performed by the Contractor's forces the added cost for overhead and profit shall not exceed fifteen (15%) percent of the Net Cost of the Work.

iii. For Work performed by a subcontractor, the added cost for overhead and profit shall not exceed fifteen (15%) percent of the Net Cost of the Work to which the Contractor may add five (5%) percent of the subcontractor's Net Cost.

iv. For Work performed by a sub-subcontractor the added cost for overhead and profit shall not exceed fifteen (15 %) percent of the Net Cost for Work to which the subcontractor and general contractor may each add an additional five (5 %) percent of the Net Cost of the lower tier subcontractor.

v. No additional mark-up will be allowed for lower tier subcontractors, and in no case shall the added cost for overhead and profit payable by District exceed twenty-five (25%) percent of the Net Cost as defined herein.

9) For added or deducted Work by subcontractors, the Contractor shall furnish to the District the subcontractor's signed detailed estimate of the cost of labor, material and equipment, including the subcontractor markup for overhead and profit. The same requirement shall apply to sub-subcontractors.

10) For added or deducted work furnished by a vendor or supplier, the Contractor shall furnish to the District a detailed estimate or

quotation of the cost to the Contractor, signed by such vendor or supplier.

11) Any change in the Work involving both additions and deductions shall indicate a net total cost, including subcontracts and materials. Allowance for overhead and profit, as specified herein, shall be applied if the net total cost is an extra; overhead and profit allowances shall not be applied if the net total cost is a credit. The estimated cost of deductions shall be based on labor and material prices on the date the Contract was executed.

12) Contractor shall not reserve a right to assert impact costs, extended job site costs, extended overhead, constructive acceleration and/or actual acceleration beyond what is stated in the change order for work. No claims shall be allowed for impact, extended overhead costs, constructive acceleration and/or actual acceleration due to a multiplicity of changes and/or clarifications. The Contractor may not change or modify the District's change order form in an attempt to reserve additional rights.

13) If the District disagrees with the proposal submitted by Contractor, it will notify the Contractor and the District will provide its opinion of the appropriate price and/or time extension. If the Contractor agrees with the District, a change order will be issued by the District. If no agreement can be reached, the District shall have the right to issue a unilateral change order setting forth its determination of the reasonable additions or savings in costs and time attributable to the extra or deleted work. Such determination shall become final and binding if the Contractor fails to submit a claim in writing to the District within fifteen (15) Days of the issuance of the unilateral change order, disputing the terms of the unilateral change order.

14) No dispute, disagreement or failure of the parties to reach agreement on the terms of the change order shall relieve the Contractor from the obligation to proceed with performance of the work, including extra work, promptly and expeditiously.

15) Any alterations, extensions of time, extra work or any other changes may be made without securing consent of the Contractor's surety or sureties.

22. Inspection

All materials and equipment furnished and all work performed shall be subject to rigid inspection by Owner. Work performed in the absence of inspection may be

required to be removed and replaced under the proper inspection, with the entire cost of removal and replacement borne by the Contractor, even if such work is not defective. Work covered up without authority of the Manager shall, upon order of the Manager, be uncovered to the extent required to permit inspection, repair or replacement, and thereafter shall be recovered, all at the Contractor's sole cost. Whenever the Contractor arranges to work outside regular or specified work periods or to vary the work period during any particular day, the Contractor shall give the Manager 24 hours notice so that inspection may be provided. Such work shall be performed without extra compensation, and Contractor shall pay for inspection services provided on Saturdays, Sundays and holidays in accordance with established Owner rates. Contractor shall bear all costs and fees incurred as a result of inspection services furnished by utilities or others.

23. Examination of Work

The Contractor shall furnish the Manager every reasonable facility for ascertaining whether the work is in accordance with the requirements and intention of the Special Requirements, Basic Specifications, Plans, and Standard Drawings, even to the extent of uncovering or taking down portions of finished work which have been previously approved or authorized to be covered. Should such previously approved work thus exposed or examined prove satisfactory, the uncovering or taking down and the replacing of the covering or the making good of the parts removed shall be included in the contract estimates and will be paid for at the contract prices for the kind of work done or as extra work, as determined by the Manager; but should the work exposed or examined prove unsatisfactory, the uncovering, taking down, replacing, and making good shall be at the expense of the Contractor, and Contractor shall be charged with the cost to the Owner of any materials furnished by the Owner for the unsatisfactory work and its replacement in excess of the requirements for satisfactory original construction.

24. Defective Materials

a. The inspection of the work to be performed under the contract shall not relieve the Contractor of any of their obligations to fulfill their contract, as herein prescribed, and all defective materials or workmanship shall be made good notwithstanding the fact that such materials or workmanship may have been previously inspected by the Manager and accepted or estimated for payment. If the material or workmanship shall be found defective at any time before the final acceptance of the entire contract performance, the Contractor shall forthwith make good such defect, without compensation, in a manner satisfactory to the Manager. The Manager shall be the sole judge of determining whether any defective material or workmanship is the result of the materials and methods of the Contractor or whether the defects have been caused by other contractors of the Owner having the responsibility of supplying the material.

b. If the Contractor shall fail or neglect to make ordered repairs of defective material or workmanship or to remove condemned material from the work within

ten (10) days after the service by the Manager of an order to do such repair work or remove such materials, the Manager, acting on behalf of the Owner, may make the ordered repairs or remove the condemned materials and deduct the cost thereof from any moneys due the Contractor.

25. Unpaid Claims

Pursuant to Section 9356 of the California Civil Code, upon or before completion of work agreed to be performed or at any time prior to the expiration of the period within which claims may be filed for record, certain persons claiming to have performed labor or furnished material, supplies, or services toward the performance of this contract may file with the Owner a verified statement of such claim, stating in general terms the kind of labor and materials and the name of the person to or for whom the same was done or furnished or both, together with a statement that the same has not been paid. If so, or if any person brings any action against the Owner or against any officer thereof to enforce such claim, the Owner shall withhold from the money under its control so much of said money due or to become due the Contractor under this Contract as shall be sufficient to satisfy and discharge the amount claimed and potential costs of suit, but in no event less than one and one-fourth (1-1/4) times the amount claimed. However, if the Owner in its discretion permits the Contractor to file such additional bond as is authorized by Section 9364 of the Civil Code in a penal sum equal to one and one-fourth (1-1/4) times the amount of the claim, the Owner shall not thereafter withhold said money on account of the claim.

26. Partial Estimates and Payments

Each month the Contractor shall submit to the Manager a written request for payment, together with such supporting data as the Manager may request, covering the amount of work then completed. Further, supporting data shall include an updated project schedule, proof that as-built drawings are being maintained, certified payrolls, and other information the Manager determines is pertinent to satisfying the Owner that the Contractor is meeting the requirements of the contract documents. Failure to provide said supporting data shall be grounds for the Owner to reject or delay the subject Partial Payment Estimate until said supporting information is provided to the satisfaction of the Owner. Such request and supporting data shall be submitted at least five (5) days prior to the regular meeting of the Board of Directors of the Owner to permit approval during such month. Upon receipt of such request and supporting data, the Manager shall establish estimates of the amount of work satisfactorily performed by the Contractor and shall determine the value thereof. Upon approval by the Manager, payment will be made within ten (10) days after the date of said regular meeting, in the amount of ninety-five percent (95%) of the estimated value of such work. Review and payment of such requests by the Owner under this section are also subject to provisions of Section 20104.50 of the California Public Contract Code, summarized below:

Upon failure to make any undisputed progress payment within thirty (30) days after receipt of an undisputed and properly submitted request for payment

from Contractor, as set out below, the Owner shall pay interest to Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the California Code of Civil procedure.

Each request for payment shall be reviewed by the Manager as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request. Any request for payment determined by the Manager not to be proper and suitable for payment shall be returned to Contractor as soon as practicable, but not later than seven (7) days after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reason why the payment request is not proper.

The number of days available to the Owner to make a payment without incurring interest pursuant to Section 20104.50 of the California Public Contract Code shall be reduced by the number of days by which the Owner exceeds the seven day return requirement set forth herein. For purposes of Section 20104.50 of the California Public Contract Code, a "progress payment" includes all payments properly due to the Contractor, except that portion of the final payment designated by this Contract as retention earnings.

27. Final Estimate and Payment

Contractor shall be entitled to final payment of unpaid and undisputed amounts due on the Contract within 60 days after completion of the Work, as hereinafter provided. Prior to that date, Owner will prepare a final estimate of the Work done by Contractor and compute therefrom the total value of the Work done by Contractor, from which Owner will deduct: (a) all previous partial payments made to Contractor under this Contract, (b) any amounts to be deducted from the Contract pursuant to the terms of the Contract, (c) 150% of all unpaid Contract amounts then in dispute, and (d) 125% of all stop notices then on file with Owner. The net amount shall be paid to Contractor upon Contractor's transmittal to Owner of the properly executed release, upon the form provided by Owner, releasing Owner from all claims or liability relating to undisputed Contract amounts for work performed in relation to said amounts. Amounts withheld from final payment pending resolution of disputes, or to satisfy third-party claims or stop notices, will be subsequently released to Contractor according to the terms of such settlements as may be subsequently reached between the parties thereto.

It shall be understood and agreed by Contractor that all partial payments are estimates only and may be revised, adjusted, and corrected at the time of computing final payment. For purposes of final payment on the Contract, the term "completion" shall mean any of the following:

a. Occupation, beneficial use, and enjoyment of the Work, performed pursuant to the Contract, excluding any operation only for testing, start-up, or

commissioning, by Owner or its agent, accompanied by cessation of labor on the Contract.

b. Acceptance of the Work by Owner.

c. Cessation of labor on the Contract for a continuous period of 100 days or more, due to factors beyond Contractor's control.

d. After commencement of the Work on the Contract, cessation of labor for a continuous period of 30 days or more, if Owner has filed for record a Notice of Cessation or a Notice of Completion.

28. Sales and Use Taxes

The Contract price includes all taxes, and the Contractor shall pay all taxes of any nature due and payable by the Owner or by the Contractor to the State of California and its political subdivisions or to any charter city, and all taxes of every nature due and payable by the Owner or by the Contractor to the United States of America or any of its agencies in connection with any or all of the work or equipment provided for in the Contract. This shall include, but not be limited to, sales taxes and use taxes.

29. Payment Only in Accordance with Contract

The Contractor shall not demand or be entitled to receive payment for the work to be performed and/or equipment and/or materials furnished, or any portion thereof, except in the manner set forth in the Contract; nor unless each and every one of the promises, agreements, stipulations, terms, and conditions herein contained to be performed, kept, observed, and fulfilled on the part of the Contractor shall have been performed, kept, observed, and fulfilled, and the Manager shall have accepted the work.

30. Moneys to be Retained

The Owner may keep any moneys which would otherwise be payable at any time hereunder and apply the same, or so much as may be necessary therefor, to the payment of any expenses, losses, or damages as determined by the Manager, incurred by the Owner for which the Contractor is liable under the Contract. The Owner shall also withhold all forfeited funds pursuant to Labor Code Section 1727.

Pursuant to Section 20104.6 of the California Public Contracts Code, the Owner shall be entitled to withhold from final payment any unpaid contract amount which is the subject of a claim by the Contractor to be resolved pursuant to Section 44 of the General Conditions, pending final resolution of the claim.

31. Contractor's Claims

No claim shall be made or be filed and neither the Owner nor any employee of the Owner nor any of its agents shall be liable or held to pay any money, except as specifically provided in the contract.

32. Recovery of Damages

The making of an estimate and payment in accordance therewith shall not preclude the Owner from demanding and recovering from the Contractor such damages as it may sustain by reason of the Contractor's failure to comply with the Special Requirements, Basic Specifications, Plans, and/or Standard Drawings.

33. Acceptance of the Work Not a Waiver

Neither the acceptance by the Owner or its Manager or any of its employees, nor any order, measurements, or certificate by the Engineer, nor any payment of money by the Owner or any of its officers, nor any payment for or acceptance of the whole or any part of the work by the Manager or the Owner, nor any extension of time, nor any possession taken by the Owner or its employees shall operate as a waiver of any portion of this contract or of any power herein provided; nor shall any waiver of any breach of this contract be held to be a waiver of any other or subsequent breach.

34. Maintenance and Guaranty

a. The Contractor hereby guarantees that all materials and workmanship furnished by the Contractor under the contract will meet fully all requirements thereof as to quality of workmanship and of materials furnished by the Contractor. The Contractor hereby agrees to replace all materials and pay for all installation costs, made necessary by defects in materials or workmanship supplied by the Contractor, that become evident within one year after the date of final payment and pay for all work necessary to remove, restore, and replace the materials to full serviceability and to full compliance with the requirements of the Special Requirements, Basic Specifications, Plans, and/or Standard Drawings, including the test requirements set forth herein for any part of the materials furnished hereunder which, during said one-year period, are found to be deficient with respect to any provision of the Special Requirements, Basic Specifications, Technical Specifications, Plans, and Standard Drawings. The Contractor also agrees and does hereby hold the Owner harmless from claims of any kind which may arise from damage due to said defects. The Contractor shall replace all defective materials promptly upon receipt of written orders for same from the Manager. If the Contractor fails to replace all defective materials promptly, the Owner may secure the service of others to do this work, and the Contractor and the Contractor's surety shall be liable to the Owner for the cost, including removal and replacement thereof.

b. The guarantees, indemnifications and agreements set forth in Subsection a. hereof are secured by the Contract Performance Bond provided by

the Contractor herein, and for this purpose said bond shall remain in force for a period of one year after the date of the final payment.

35. Suspension of Contract

a. If the equipment and/or material to be furnished or the work to be performed by the Contractor under the contract shall be abandoned by the Contractor, or if the Contractor shall make a general assignment for the benefit of the Contractor's creditors or be adjudicated a bankrupt, or if a Receiver of the Contractor's property or business be appointed by a court of competent jurisdiction, or if the Contractor's contract shall be assigned by the Contractor otherwise than hereinbefore specified, or if, at any time, the Manager shall be of the opinion that the performance of the contract is unnecessarily or unreasonably delayed, or that the Contractor is willfully violating any of the conditions or covenants of the contract, or of the Specifications, or is executing the same in bad faith or not in accordance with the terms thereof, or if the terms of the contract be not fully completed within the time named in the contract for its completion or within the time to which the completion of the contract may have been extended, as hereinbefore provided, the Manager acting on behalf of the Owner may, by written notice, instruct the Contractor to suspend the operation of all or any part of the contract, and the Contractor shall do so and shall resume the same only upon written instruction by the Manager.

b. Upon such suspension of the contract, the Owner may procure the equipment and/or the materials, and/or performance of the work necessary to fulfill the contract requirements in such manner as it may deem proper. In so doing, the Owner may take possession of and use any and all materials, plant, tools, equipment, supplies and property of every kind which may be provided by the Contractor upon the Owner property for the purposes of the Contractor's work. The Owner may procure other equipment and/or materials and provide labor for the completion of the same, or contract therefor, and charge the expense of completion by either method to the Contractor. These charges shall be deducted from such moneys as may be due or may at any time hereafter become due the Contractor under and by virtue of this contract or any part thereof. In case such expense shall exceed the amount which would have been due the Contractor under the contract if the same has been completed by the Contractor, the Contractor shall pay the amount of such excess to the Owner and in case such expense shall be less than the amount which would have been payable under this contract if the same had been completed by the Contractor, the Contractor shall have no claim to the difference, except to such extent as may be necessary, in the opinion of the Manager, to reimburse the Contractor or the Contractor's sureties for any expense properly incurred for plant, camp, equipment, materials, supplies, and labor devoted to the prosecution of the work of which the Owner shall have received the benefits and which shall not have been otherwise paid for by the Owner. In computing such expense so far as it shall relate to plant and equipment taken over by the Owner, the salvage value of

such plant and equipment at completion of the work shall be deducted from the depreciated value thereof at the time taken over by the Owner, and the difference shall be considered as an expense. Evidence of such expense, satisfactory to the Manager, shall be required, and all necessary estimates and appraisements shall be made by the Contractor ***or*** the Manager. When any particular part of the work is being carried on by the Owner, by contract or otherwise, under the provisions of this section, the Contractor shall continue the remainder of the work in conformity with the terms of the Contractor's contract and in such manner as in nowise to hinder or interfere with the persons or workers employed, as above provided, by the Owner, by contract or otherwise, to do any part of the work or to complete the same under the provisions of this section.

c. In the determination of the question whether there has been such noncompliance with the contract as to warrant its suspension or the procurement of the materials elsewhere by the Owner as herein provided, the decision of the Manager shall be final. Suspension of the contract or any portion thereof shall operate only to terminate the right of the Contractor to proceed with the furnishing of the equipment and/or material, or performing the work covered by the contract or the suspended portions thereof. All other stipulations of the contract shall be and remain in full force and effect after such suspension and until the contract shall have been completed and final payment or final adjustments of accounts made.

36. Additional Surety

If, during the continuance of the contract, any of the sureties upon the performance bond in the opinion of the Manager, are or become insufficient, the Manager may require additional sufficient sureties, which the Contractor shall furnish to the satisfaction of the Manager within fifteen (15) days after notice, and in default thereof, the contract may be suspended with the same force and effect as provided in Section 37.

37. Termination of Contract

37.1 Owner May Terminate for Cause.

37.1.1 Owner may, without prejudice to any other right or remedy, serve written notice upon Contractor of its intention to terminate this Contract in whole or in part if the Contractor: (i) refuses or fails to prosecute the Work or any part thereof with such diligence as will ensure its completion within the Contract Time; (ii) fails to complete the Work within the required time; (iii) files a bankruptcy petition or is adjudged a bankruptcy; (iv) makes a general assignment for the benefit of its creditors; (v) has a receiver appointed; (vi) refuses or fails to supply enough properly skilled workers or proper materials to complete the Work; (vii) fails to make prompt payment to

subcontractors or for material or labor; (viii) disregards Applicable Laws, other requirements or instructions of Owner; or (ix) violates any of the provisions of the Contract Documents.

37.1.2 The Notice of Default and Intent to Terminate shall state the reasons for termination. Unless within five (5) Days after the service of such notice, Contractor resolves the circumstances giving rise to the Notice of Default to Owner's satisfaction, or makes arrangements acceptable to Owner for the required corrective action, Owner may terminate this Contract. In such case, Contractor shall not be entitled to receive any further payment until the Work has been finished. Owner may take over and complete the Work by any method it may deem appropriate, including enforcement of the Project Performance Bond. Contractor and its surety shall be liable to Owner for any excess costs or other damages incurred by Owner to complete the Work. If Owner takes over the Work, Owner may, without liability for so doing, take possession of and utilize in completing the Work such materials, appliances, plant, and other property belonging to the Contractor as may be on the Site.

37.2 Owner May Terminate for Convenience.

37.2.1 In addition to its right to terminate this Contract for default, District may terminate the Contract, in whole or in part, at any time upon seven (7) Days written notice to Contractor. The Notice of Termination shall specify that the termination is for the convenience of Owner, the extent of termination, and the effective date of such termination ("Effective Date of Termination").

37.2.2 After receipt of Notice of Termination, and except as directed by Owner, the Contractor shall, regardless of any delay in determining or adjusting any amounts due under this Termination for Convenience clause, immediately proceed with the following obligations:

37.2.2.1 Stop Work as specified in the Notice.

37.2.2.2 Complete any Work specified in the Notice of Termination in a least cost/shortest time manner while still maintaining the quality called for under the Contract Documents.

37.2.2.3 Leave the Site and any other property upon which the Contractor was working in a safe and sanitary manner such that it does not pose any threat to the public health or safety.

37.2.2.4 Terminate all subcontracts and purchase orders to the extent that they relate to the portions of the Work terminated.

37.2.2.5 Place no further subcontracts or orders, except as necessary to complete the remaining portion of the Work.

37.2.2.6 Submit to Owner, within fifteen (15) Days from the Notice of Termination, all of the documentation called for by the Contract Documents to substantiate all costs incurred by the Contractor for labor, materials and equipment through the Notice of Termination. Any documentation substantiating costs incurred by the Contractor solely as a result of Owner's exercise of its right to terminate this Contract pursuant to this clause, which costs the Contractor is authorized under the Contract Documents to incur, shall: (i) be submitted to and received by Owner no later than thirty (30) Days after the Effective Date of the Notice of Termination; (ii) describe the costs incurred with particularity; and (iii) be conspicuously identified as "Termination Costs Occasioned by Owner's Termination for Convenience."

37.2.2.7 Owner’s total liability to Contractor by reason of the termination shall be limited to the total (without duplication of any items) of:

37.2.2.7.1 The reasonable cost to the Contractor for all Work performed prior to the Effective Date of Termination, including the Work done to secure the Project for termination. Reasonable cost may not exceed the applicable percentage completion values derived from the progress schedule and the Cost Breakdown. Deductions shall be made for cost of materials to be retained by the Contractor, cost of Work defectively performed, amounts realized by sale of materials, and for other appropriate credits or offsets against cost of Work as allowed by the Contract Documents.

37.2.2.7.2 When, in Owner’s opinion, the cost of any item of Work is excessively high due to costs incurred to remedy or replace defective or rejected Work, reasonable cost to be allowed will be the estimated reasonable cost of performing the Work in compliance with requirements of the Contract Documents and excessive actual cost shall be disallowed.

37.2.2.7.3 Any Work required by the Termination for Convenience that is not included in Contract Documents will be negotiated pursuant to the Contract Change Order provisions.

37.2.2.7.4 Reasonable costs to the Contractor of handling material returned to vendors, delivered to District or otherwise disposed of as directed by District.

37.2.2.7.5 A reasonable allowance for the Contractor’s internal administrative costs in preparing termination claim.

37.2.2.7.6 Reasonable demobilization costs, and reasonable payments made to Subcontractors or suppliers on account of termination.

37.2.2.8 In no event shall Owner be liable for unreasonable costs incurred by the Contractor or subcontractors after receipt of a Notice of Termination. Such non-recoverable costs include, but are not limited to, the cost of or anticipated profits on Work not performed as of the date of termination, post-termination employee salaries, unreasonable post-termination administrative expenses, post-termination overhead or unabsorbed overhead, surety costs of any type, costs of preparing and submitting the Owner's termination claim, attorney fees of any type, and all other costs relating to prosecution of a claim or lawsuit.

37.2.2.9 Owner shall have no obligation to pay the Contractor under this Article unless and until the Contractor provides Owner with updated and acceptable as-built drawings and Record Documents for Work completed prior to termination as required by the Contract Documents.

37.2.2.10 In arriving at the amount due the Contractor under this clause there shall be deducted in whole, or in the appropriate part(s) if the termination is partial:

37.2.2.10.1 All unliquidated advances or other payments on account previously made to the Contractor, including without limitation all payments which are applicable to the terminated portion of the Contract Documents,

37.2.2.10.2 Any claim Owner may have against the Contractor in connection with the Work or any amounts that may be withheld in accordance with the Contract Documents, and

37.2.2.10.3 The agreed price for, or proceeds of sale of, any materials, supplies, or other things kept by the Contractor and not otherwise recovered by or credited to Owner.

37.2.3 These provisions are in addition to and not in limitation of any other rights or remedies available to Owner.

37.2.4 Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss or consequential damages arising out of or resulting from such termination

37.3 Notwithstanding any other provision of this Article, when immediate action is necessary to protect life and safety or to reduce significant exposure or liability, Owner may immediately order Contractor to

cease Work until such safety or liability issues are addressed to the satisfaction of Owner or the Contract is terminated.

37.4 If Owner terminates Contractor for cause, and if it is later determined that the termination was wrongful, such default termination shall automatically be converted to and treated as a termination for convenience. In such event, Contractor shall be entitled to receive only the amounts payable under this section, and Contractor specifically waives any claim for any other amounts or damages, including, but not limited to, any claim for consequential damages or lost profits.

38. Right to Occupy Completed Portions of Work

The Owner may wish to occupy or place in service portions of the completed work before final completion of the contract work and shall be at liberty to do so, but such occupancy or placing in service of any completed portion of the work shall not void the contract nor relieve the Contractor of their responsibility of protection and care of all work until final completion and acceptance of the entire work, provided, however, that expense directly attributable to operation and placing in service the portions of the work shall not be chargeable to the Contractor.

39. Cooperation with Other Contractors and Governmental Agencies

The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral and essential work by others. The Owner, its workers and Contractors, and others, shall have the right to operate within or adjacent to the worksite to perform such work.

Where the pipeline and structures are constructed within the right-of-way under the jurisdiction of other governmental agencies having jurisdiction over the right-of-way, contractor shall comply with all requirements of said agencies having jurisdiction over the right-of-way.

Where the same subject matter is covered by the specifications of two or more agencies, the specifications more restrictive on the Contractor shall govern in all cases.

The Owner, the Contractor, and each of such workers, Contractors, and others, shall coordinate their operations and cooperate to minimize interference.

The Contractor shall absorb in its bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the Owner for damages resulting from such simultaneous, collateral and essential work. If necessary to avoid or minimize such damage, or delay, the Contractor shall deploy its work force to other parts of the work.

Should the Contractor be delayed by the Owner, and such delay could not reasonably have been foreseen and prevented by the Contractor, the Engineer will determine the extent of the delay, the effect of the delay on the project as a whole, and any commensurate extension of time.

40. Clayton Act or Cartwright Act

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or Subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 422f the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

41. Contract Funds

At the Contractor's own request and expense, the Contractor may substitute equivalent security for money that is withheld to ensure performance in the following manner, and in accordance with Section 22300 of the California Public Contract Code. For purposes of Section 22300 of the Public Contract Code, the term "satisfactory completion of the contract" means the time the Owner has issued written final acceptance of the Work and filed a Notice of Completion as required by law and provisions of the Contract Documents.

a. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the Owner, or with a state or federally chartered bank in California as the escrow agent who shall pay such monies to the Contractor upon satisfactory completion of the contract.

b. Alternatively, the Contractor may request, at the expense of the Contractor, that the Owner make payment of retention earned directly to the Escrow Agent. The Contractor may, at their expense, direct the investment of the payments into securities and receive the interest earned on those investments upon the same terms provided for in Section 22300 of the Public Contract Code. The Escrow Agent shall pay to Contractor all securities, interest, and payments received by the Escrow Agent from the Owner pursuant to such Section, upon satisfactory completion of the Contract. The Contractor shall pay to each subcontractor, not later than twenty days following receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each subcontractor, on the amount of retention withheld to ensure the performance of the Contractor.

c. Securities eligible for investments shall include those listed in Section 16430 of the California Government Code, bank or savings and loan Certificates of Deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the Contractor and the Owner. The Contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon.

d. Pursuant to conditions of Section 22300 of the Public Contract Code, any escrow agreement entered into pursuant to these conditions shall be executed pursuant to the form included in these Contract Documents.

42. Precedence

In event of conflict between various provisions of the plans and specifications, the provisions more restrictive of the Contractor shall apply. In event of conflict that cannot be resolved by restrictiveness, the document highest in precedence shall control. The precedence shall be:

a. Federal and State requirements (where applicable)
b. Permits from Agencies having jurisdiction.
c. General Conditions
d. Bidding Documents
e. Special Requirements
f. Basic Specifications
g. Plans (Drawings)
h. Standard Drawings
i. Reference Specifications

43. Excavations: Discovery of Hazardous Conditions

a. Pursuant to Section 7104 of the California Public Contract Code, should services performed under this Contract include the digging of trenches or other excavation extending deeper than four feet below the surface, the Contractor shall, while performing such excavation, promptly, and before the following conditions are disturbed, notify the Owner, in writing of any:

(1) material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the California Health & Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law;

(2) subsurface or latent physical conditions at the site differing from those indicated; or

(3) unknown physical conditions at the site of any unusual nature, differing materially from those ordinarily encountered and generally

recognized as inherent in work of the character provided for in this Contract.

b. Upon such notification, the Owner shall promptly investigate such conditions. If the Owner finds that the reported conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work, the Owner shall issue a Change Order or similar contract modification pursuant to the procedures described in this Contract.

c. In the event a dispute arises between the Owner and the Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by this Contract, but shall proceed with all work to be performed under this Contract. The Contractor shall retain any and all rights provided either by contract or by law which pertains to the resolution of disputes and protests between the contracting parties.

44. Resolution of Claims

Any separate demand by the Contract in an amount of $375,000 or less for payment of money or damages arising from work done by or on behalf of the Contractor pursuant to this contract, payment of which is not otherwise expressly required by this Contract, or any separate demand by the Contractor the amount of which is disputed by the Owner, shall be resolved pursuant to Sections 20104 et seq. of the California Public Contract Code, as may be amended. These sections are summarized as follows:

a. For any claim, as defined in Section 20104 of the California Public Contract Code, by the Contractor of an amount less than $50,000, the Owner will respond in writing within forty-five days of receipt of the claim, or may request in writing, within thirty days of receipt of the claim, any additional documentation supporting the claim or related to any defenses the Owner may have against such claim. The Owner's written response to the claim, as further documented, shall be submitted to the Contractor within fifteen days after receipt of the further documentation or within a period of time no greater than that taken by the Contractor in producing the additional documentation, whichever is greater.

b. For claims, as defined in Section 20104 of the California Public Contract Code, by the Contractor for an amount above $50,000 and up to $375,000, the Owner shall respond in writing to all written claims within sixty days of receipt of the claim, or may request in writing within thirty days of receipt of the claim any additional documentation supporting the claim or related defenses which the owner may have against such claim. The Owner's written response to the claim as further documented shall be submitted to the Contractor within thirty days after receipt of the further documentation or within a period of time no greater

than that taken by the Contractor in producing the additional documentation, whichever is greater.

c. If the Contractor disputes the Owner's written response, or the Owner fails to respond within the time prescribed, the Contractor may notify the Owner, in writing, either within fifteen days of receipt of the Owner's response or within fifteen days of the Owner's failure to respond within the statutorily prescribed time, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon demand, the Owner shall schedule a meet and confer conference within thirty days for settlement of the dispute.

d. If the meet and confer process does not produce an agreement, the Contractor may file a claim pursuant to Government Code Sections 900, et seq. The period of time within which to file such a claim shall be as defined in Section 20104.2 (e).

e. The procedures for any civil action brought by the Parties to resolve such claims shall be those set forth in Section 20104.4 of the California Public Contract Code, a summary of which is set forth below:

(1) Within sixty days, but no earlier than thirty days, following the filing of responsive pleading, unless waived by mutual stipulation of both parties, the court shall submit the matter to a non-binding mediation. The mediation process shall commence within thirty days of the submittal, and shall be concluded within fifteen days from the commencement of the mediation process, except as may be otherwise required by Section 20104.4 of the Public Contract Code.

(2) If the matter remains in dispute after mediation, the case shall be submitted to judicial arbitration. Such proceedings shall be conducted, and arbitrator appointed, pursuant to provisions of Section 20104.4 of the Public Contract Code.

(3) Any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to the payment of costs and fees, also pay the attorneys' fees on appeal of the other party.

f. In any suit filed pursuant to these provisions, the Owner shall pay interest at the legal rate on any arbitration award or judgment in favor of the Contractor. The interest shall begin to accrue on the date the suit is filed in a court of law.

45. Contractor Eligibility to Perform on Public Works Projects

Pursuant to Public Contract Code Section 6109, contractors or subcontractors who are ineligible to perform work on a public works project pursuant to Section 1777.1 or Section 1777.7 of the California Labor Code shall not be allowed to perform any

portion of the work contemplated herein. Any subcontract between the contractor and a debarred subcontractor shall be void as a matter of law, and the debarred subcontractor shall not receive any payment for performing such work. Any public money that has been paid to the debarred subcontractor on the project shall be returned to the Owner. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the project.

46. Release

Contractor shall be required to execute the "RELEASE" form provided as follows prior to receiving final payment for the contract work. Prior to the District making final construction contract payment to the Contractor, the Contractor shall supply the District with fully executed Contractor, Subcontractor and Material Suppliers “Unconditional Lien” releases.

CONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT

NOTICE: THIS DOCUMENT WAIVES THE CLAIMANT'S LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS EFFECTIVE ON RECEIPT OF PAYMENT. A PERSON SHOULD NOT RELY ON THIS DOCUMENT UNLESS SATISFIED THAT THE CLAIMANT HAS RECEIVED PAYMENT.

Identifying Information

Name of Claimant:
_____

Name of Customer:
_____

Job Location:
_____

Owner:
_____

Conditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are waived and released by this document, unless listed as an Exception below. This document is effective only on the claimant's receipt of payment from the financial institution on which the following check is drawn:

Maker of Check:
_____

Amount of Check: $
_____

Check Payable to:
_____

Exceptions

This document does not affect any of the following:
Disputed claims for extras in the amount of: $_____

Signature

Claimant's Signature:
_____

Claimant's Title:
_____

Date of Signature:
_____

UNCONDITIONAL WAIVER AND RELEASE ON FINAL PAYMENT

NOTICE TO CLAIMANT: THIS DOCUMENT WAIVES AND RELEASES LIEN, STOP PAYMENT NOTICE, AND PAYMENT BOND RIGHTS UNCONDITIONALLY AND STATES THAT YOU HAVE BEEN PAID FOR GIVING UP THOSE RIGHTS. THIS DOCUMENT IS ENFORCEABLE AGAINST YOU IF YOU SIGN IT, EVEN IF YOU HAVE NOT BEEN PAID. IF YOU HAVE NOT BEEN PAID, USE A CONDITIONAL WAIVER AND RELEASE FORM.

Identifying Information

Name of Claimant:
_____

Name of Customer:
_____

Job Location:
_____

Owner:
_____

Unconditional Waiver and Release

This document waives and releases lien, stop payment notice, and payment bond rights the claimant has for all labor and service provided, and equipment and material delivered, to the customer on this job. Rights based upon labor or service provided, or equipment or material delivered, pursuant to a written change order that has been fully executed by the parties prior to the date that this document is signed by the claimant, are w9+aived and released by this document, unless listed as an Exception below. The claimant has been paid in full.

Exceptions

This document does not affect any of the following:
Disputed claims for extras in the amount of:
$_____

Signature

Claimant's Signature:
_____

Claimant's Title:
_____

Date of Signature:
_____

SPECIAL REQUIREMENTS

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SPECIAL REQUIREMENTS
OF
Manor Drive Boundary Clean Up
JCSD P.N. C245117

1. THE REQUIREMENT

The Contractor shall construct the specified project for the Jurupa Community Services District, Jurupa Valley, California; furnishing all labor, materials (except those materials to be furnished by Owner), equipment, and methods necessary to complete said construction, in order to provide the Owner with complete, correctly operating pipeline facilities with appurtenances, all in accordance with the Contract Documents.

2. LOCATION OF CONTRACT WORK SITE

The contract work site is in the City of Jurupa Valley, California (Sections 8 of Township 2 South, Range 5 West, SBB&M). Refer to the Index on the Project Drawing.

3. STANDARD MANUAL

The Jurupa Community Services District "Standards Manual", Latest Edition (including all Addendums), is hereby incorporated into these Specifications, and in case of conflict the highest and most stringent requirement shall govern. Copies of the "Standards Manual" are available at the District office for review and/or purchase by prospective bidders.

Contractor shall furnish and install all facilities in accordance with the latest revision of the Jurupa Community Services District's (District) Standard Specifications and Standard Drawings for Water Facilities are available from the District. The Contractor shall be in possession of District's Specifications and Standard Drawings on the job site at all times. Any construction and/or materials not covered in District Standards shall be approved by the District prior to construction.

4. CONTRACT COMPLETION SCHEDULE

All work under Bid Schedule I shall be completed and operational (including all pavement repairs and final clean up) within **One Hundred Sixty (160) calendar days** following date Owner provides written "Notice of Award" of contract.

The contract completion schedules are firm and will not change regardless of the combination of Bid Schedules awarded. Completion time in calendar days includes Saturdays, Sundays, and holidays.

IF CONTRACTOR DOES NOT CONFORM TO THE ABOVE LISTED CONTRACT AND COMPLETION SCHEDULES, THEN THE OWNER WILL ENFORCE THE AGREEMENT IN THE CONTRACT APPENDIX TITLED "LIQUIDATED DAMAGES".

5. CONTRACT DRAWINGS

The Contract work to be executed under these specifications, its location, nature, size and extent, and the form and detail of its various features are shown on the listed Drawings, which are hereby made a part of these Specifications.

Manor Drive Boundary Clean Up

JCSD P.N. C245117

Sheet No.	Sub-Title
1	Title Sheet
2	Index Sheet Abbreviations, Legend, and Additional Notes
3	Mission Boulevard 8-inch Water main
4	Mission Blvd, Canal St & JCSD Easement 8-in & 12-in Watermain Abandonment Plan Abandonment
5	JCSD Easement 12-in & 4-in Water Main Abandonment Plan
6	Mission Boulevard Restoration

Together With:

8 1/2" x 11" Standard Drawings; attached in the back of these Specifications.

JCSD Standard No.	Title
A-1	Typical Trench Detail (Modified)
A-2	Waterline Special Bedding Detail
A-11	Waterlines Crossing over Storm Drains / Sewers
B-1	Gate Valve Installation
C-2	Thrust Block for Welded Street Pipelines, Class 200 PSI Max.
C-2A	Minimum Pipe Welding Length for Thrust Restraint
C-3	Typical Butt Strap Connection

C-4	Typical Cut-To-Fit Details for Types I, II, III
C-9	Lap Welded Slip Joint for Belled-End CML & CMC Pipe
D-1	.75-in or 1-in Meter, 1-in Water Service Detail without Residential Fire Sprinklers
G-2, G-2A	Typical 6” Fire Hydrant Installation – PVC, DI Pipe

RCSD Standard No.	**Title**
W1010	Watermain Crossing / Paralleling Existing Utilities
W1020	Gate Valve Installation
W1060	6” Commercial Fire Hydrant Installation
W1160	Guard Post / Flexible Delineator Installation
W1260	Hot Tap for CML&C Pipeline

County of Riverside

Standard No.	**Title**
113	Landscaped Median
200	Type A-6 Curb and Gutter
204	Type D Curb Only
401	Sidewalk and Curb
818	Utility Trench Backfill

The Contractor's Submittal Drawings and information under the Section titled “Data to be Submitted by the Contractor” in the Bidding Documents, as approved by the Engineer, are hereby made a part of the Contract Drawings.

6. RIGHTS-OF-WAY / EASEMENTS

A. GENERAL

Construction under this Contract is located upon the land and/or near existing interference facilities under the jurisdiction of the following organizations:

(1) AT&T California

(2) Frontier – MCI Verizon

(3) Crown Castle

(4) Rubidoux Community Services District

(5) SoCal Gas (Distribution & Transmission)

(5) Charter Communication - Spectrum

(6) SoCal Edison

(7) Jurupa Community Services District (JCSD)

(8) Easement within Private Property (North of Mission Blvd, North of Canal Street, Between Florine Ave and Manor Drive)

It shall be the Contractor's responsibility to conduct all his operations within the public right-of-way and easements provided for them as shown on the Drawings.

The contractor shall also coordinate with JCSD and the private property owners of residential properties within the project area to remove existing valves and cap existing pipelines to be abandoned in place.

B. JURUPA COMMUNITY SERVICES DISTRICT

The District's existing water and sewer facilities are shown on the contract drawings, in accordance with the aerial survey and/or recorded locations as shown on the District’s atlas sheets.

It shall be the Contractor’s responsibility to conduct all his operations within the easements (permanent or temporary) provided for them as shown on the drawings. Additional easements that may be required by the contractor to complete the work as hereby proposed shall be obtained by the Contractor at his own expense.

C. OTHER UTILITIES AND ORGANIZATIONS

The existing underground facilities are shown on the contract drawings in accordance with recorded locations per the particular utility's atlas sheets. Refer to the section titled "Permits and Fees" for additional information.

7. PERMITS AND FEES

A. GENERAL

Contractor shall secure at his own expense all permits (including riders) and/or licenses necessary to the prosecution of the contract work, except for any permits and/or licenses stated herein to have been secured and paid for by the Owner. The Contractor shall also be liable for any expense, of any kind,

associated with any permit or license, including those obtained by Owner, in excess of payments made prior to Contract Award.

Contractor shall comply with the applicable requirements of all permits and/or licenses that have been secured by the District, all at no additional cost to the District.

B. RULES AND REGULATIONS OF UTILITIES AND OTHER ORGANIZATIONS

The Contractor shall determine and comply with all the applicable rules and regulations of the utilities and organizations listed in Paragraph “A” of section titled “Rights-of-Way” of these Special Requirements. The Contractor shall contact all of the listed utilities and/or organizations prior to the start of construction so these agencies may make the exact location of their facilities that may be in conflict with this project.

The cost of any work necessitated for the convenience of the Contractor during construction is reimbursable to that particular utility or organization, and the Contractor shall pay such charges to said utility or organization at no additional cost to the District.

C. CITY OF JURUPA VALLEY

Contractor shall contact the City of Jurupa Valley to determine applicable permit requirements, including but not limited to traffic control, pavement removal and restoration, working area, staging area, and working hours prior to bidding on the project, apply for, obtain, and pay for the Encroachment Permit, all Rider Permits, and Extensions. The Contractor shall include all such expenses in the bid proposal, and no additional compensation will be made for such expenses, nor will any time be awarded in the event the encroachment permit is delayed.

The Contractor shall determine and comply with all City rules and regulations applicable to the contract work, including complying with the City’s Best Management Practices (BMP) requirements for storm water control and protecting, at no additional cost to the District.

The Encroachment Permit from the City of Jurupa Valley is applicable to various City roads affected by the contract work. Refer to Appendix C.

The Contractor shall obtain a business license from the City of Jurupa Valley, if required by the City. The Contractor shall pay the associated fee at their expense.

Replacement paving in all paved roads, grinding and capping, traffic control, restriping, special trench backfill, special class 2 aggregate base requirements, etc., shall be in accordance with the City of Jurupa Valley Standards and City of Jurupa Valley permit requirements. The Contractor shall notify the City of Jurupa Valley Permit Section at (951) 332-6464 at least two (2) working days prior to starting construction. If the proposed pipeline crosses a paved street at an angle other than 90 degrees, the limits of pavement grind and overlay shall be at right angles to the street centerline and shall encompass the entire trench paving. The Contractor shall replace or repair any damaged or altered existing improvement within the public right-of-way as directed by the City Engineer.

Contractor shall perform all trench backfill, pavement repair, and grind and overlay per City of Jurupa Valley requirements and per County of Riverside Standard No. 818 modified as follows: Backfill between pipe zone and subgrade shall be suitable native with minimum SE 30 or import material if unsuitable material is discovered. Placement and compaction per specification.

D. RIVERSIDE COUNTY FLOOD CONTROL DISTRICT

The Contractor shall determine and comply with all Riverside County Flood Control District rules and regulations applicable to the contract work, at no additional cost to the District for work adjacent to, cross over and cross under the RCFC & WCD's facilities.

E. CALIFORNIA REGIONAL WATER RESOURCES CONTROL BOARD

Contractor shall channel the flushing flow (using sandbags or other means). Contractor shall protect all property from flooding and other damage during flushing operations. Contractor shall post "flooding ahead" signs in streets as required and as directed. Because of demand on the existing water system, Cities may require the Contractor to flush the pipeline over several days, in the evenings, weekends, or holidays.

Contractor shall not allow any discharges from the construction site that may have an adverse effect on the receiving waters of the United States.

Contractor shall, at their expense, obtain a discharge permit from the California Regional Water Quality Control Board, Santa Ana Region (Regional Board) for discharge of water from trench dewatering, line flushing, and testing operations. A copy of said discharge permit shall be provided to the Owner. Contractor shall comply with the conditions therein and perform the monitoring required. If the Regional Board determines that a discharge permit is not required

for said work, then the Contractor shall comply with any and all applicable criteria and conditions established by the Regional Board, including compliance with the requirements of the General Water Discharge Requirements for Discharges to Surface Waters which pose an insignificant De Minimus threat to water quality (Order No. 98-67).

Order No. 98-67 includes submittal of a Notice of Intent and a waste discharge report to the Regional Board. In addition, Template Monitoring and Reporting Program No. 98-67, appended to Order No. 98-67, includes the following monitoring and reporting requirements:

(a) Estimate and report daily discharge flow, collect samples of each discharge, and have them analyzed for the 8 parameters listed on Pages 2 and 3 of the Template Monitoring and Reporting Program No. 98-67. All samples shall be representative of the waste discharge under peak-load conditions.

All sample collection, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants" promulgated by the U. S. Environmental Protection Agency (40 CFR 136). All sample analyses shall be performed by an analytical laboratory certified by the California Department of Health Services to perform such analyses.

(b) Report any discharge which is in violation of the discharge specifications (Order No. 98-67) to the Regional Board, Santa Ana Region, within 24 hours.

(c) Notify the Regional Board 5 days before commencing any discharge.

(d) Prepare monthly monitoring reports for submittal to the Regional Board. The reports shall include:

1) Results from all analyses for the previous month.

2) Daily flow data.

3) A report detailing Contractor's compliance or noncompliance with Order No. 98-67 and the discharge authorization letter.

F. EASEMENT

Jurupa Community Services District will quit-claim easements back to the adjacent property owners after the construction is completed. It shall be the Contractor's responsibility to coordinate with the property owners and/or tenants of the properties of said easements and of adjacent properties for operations, deliveries, security, and access, and shall be reflected in the Contractor's construction schedule. No additional compensation will be awarded to the Contractor due to any delays caused by the property owner's and/or tenant's operations of said easements and of adjacent properties. The Contractor shall incorporate the following parameters into the construction schedule and activities:

- Contractor shall maintain clean sites; all debris, mud, dirt, materials, equipment, etc. shall be cleared from sites or maintained within a pre-designated location at the end of each day. If said items are maintained on site as described above, Contractor shall secure all items per specifications.

- Contractor shall not block off the entire easement area within the properties during construction. The Contractor shall block off the maximum amounts for pipelines and appurtenances as designated in the specifications. Once this area of work is completed for the day, the Contractor shall provide backfill, restoration, temporary paving, site restoration, Hydro-seed, and any other required work, and remove any temporary fencing, barricades, etc. The Contractor shall not leave an open trench when work for the day is completed.

- The Contractor shall provide temporary lockable gates as required, remove gates, and install a wall to match the existing or better condition.

8. DATA TO BE SUBMITTED BY CONTRACTOR

Contractor shall submit to the Engineer for approval detailed shop drawings and a schedule. No pipe or other facilities shall be manufactured until the drawings have been reviewed and approved. The owner may require an electronic color copy (PDF) and/or five (5) copies of submittals. The Owner will review and return the initial submittals within fifteen (15) working days. Resubmittals will be reviewed and returned within ten (10) working days following receipt.

The Engineer's approval of the Contractor's submittal data shall not relieve the Contractor from having the entire responsibility for the correctness of details and dimensions. The Contractor shall assume all responsibility and risk for misfits due to any errors in the Contractor's submittal data. The Contractor is hereby notified that any proposed deviation for the contract document shall be clearly indicated on each submittal; and if not so, submittal may be subject to rejection.

The contractor shall also field-verify the ground elevations of proposed sewer manholes prior to sewer manhole submittal.

The contractor shall, prior to preparation of pipe shop fabrication drawings (immediately after the "Notice-to-Proceed"), determine in field the O.D. cylinder dimension of the existing pipelines at all connections, and shall be responsible for all field measurements at his own costs. The contractor shall prepare and submit a potholing report prior to preparation of pipe shop fabrication drawings, see "Potholing Existing Utilities by Contractor" section below for additional information.

The successful Bidder shall submit a construction schedule within ten (10) calendar days following the award of the contract. The schedule shall conform to the completion schedule stated herein and shall show dates for beginning and completing all aspects of contract work, including potholing of utility crossings and expected dates for beginning and completing all aspects of contract work, including expected dates (both delivery and installation) for the required submittal data. Bidder shall understand that this schedule will be tentative and subject to modification and updating by the Contractor (as approved by the District) as the contract work progresses. The schedule shall generally provide the following main items, along with corresponding details listed under "Schedule".

In addition to the above, the Contractor shall submit to the Engineer for approval, manufacturer's data sheets, brochures, etc., for appurtenant materials, shoring and bracing design, etc. A list of the minimum required submittals is as follows:

<u>Schedule</u>

- Overall Schedule and Plan
- Submittals
- Review and approval period
- Material delivery
  - Installation
  - Testing and Bypass Procedure
  - Final site work and cleanup
- Schedule/Phasing of construction

Pipeline Material

- Steel Pipe
- PVC Pressure Pipe
- Pipe Layout Drawings
- All Pipe Fittings

Appurtenant Submittals

- Fire Hydrant Assembly, valve and fittings
- Restraint Joints, Couplings, Joints and Fittings
- Gate Valves
- Warning Marking Tape
- Concrete Mix Designs
- Meter Box

Miscellaneous

- AC Paving Mix Design
- Aggregate Base Gradation
- Air Testing and Vacuum Testing Procedures
- Cementitious Low Strength Material (CLSM) Mix
- Concrete Mix Design
- Construction Phasing Plan
- Copies of Permit Required (NDPES, Excavation, etc.)
- Copies of Permits required to be obtained by Contractor
- Dewatering equipment and detailed procedures
- Hot-Tap installation equipment, materials, and procedures
- Method to protect existing utilities in close proximity
- Non-Shrink Grout Mix
- Potholing Report
- Schedule of Values of Lump Sum Bid Items
- Sheeting and Shoring Details
- SWPPP/BMP as Required by City of Jurupa Valley
- Painted and Stamped Concrete Design and Mix
- Waterline Testing and Disinfection Procedures

Submit Pipeline Testing, Filling, Flushing, and Disinfection Procedures within two weeks from Notice to Proceed for District review and approval. Time is to be provided in the Contractor's submitted construction schedule for the District to review, no additional time will be awarded, no exception. Submit these procedures prior to commencement of work, no additional time will be awarded to the contract due to failure to submit these procedures in a timely manner.

The Engineer's approval of the Contractor's submittal data shall not relieve the Contractor from having the entire responsibility for the correctness of details and dimensions. The contractor shall assume all responsibility and risk for misfits due to any errors in the Contractor's submittal data.

9. MATERIAL FURNISHED BY OWNER

The Owner will furnish water meters for the new water meter installations (to be installed by Contractor), as applicable. Refer to Section 20 ("Meter and Service Connections") herein for additional information.

10. MATERIAL FURNISHED BY CONTRACTOR

The Contractor shall furnish all materials (except those materials which may be furnished by Owner stated in Section 9 herein) necessary to complete the contract work, all in strict accordance with the Special Requirements, Basic Specifications, and Drawings.

In addition, the Contractor shall furnish all labor, skills and services required for the installation of all materials (including those materials which may be furnished by Owner stated in Section 9 herein) to provide the Owner with a complete project, in accordance with the Special Requirements, Basic Specifications and Drawings.

11. CONTRACTOR'S SCHEDULE OF WORK

Within ten (10) calendar days from the time the Contract is executed, the Contractor shall submit practicable schedules shown the order in which the Contractor proposes to carry on the work. Additionally, the contractor shall submit the anticipated starting and completion dates for these activities, including expected dates (both delivery and installation) for the required submittal data.

The Contractor's schedule shall reflect progress of project as work is being completed. The schedule shall generally provide the following main items along with corresponding details:

- Pre-Construction Video (above ground)
- Potholing
- Submittals
- Review and Approval Period
- Material Delivery
- Environmental Mitigation Measures
- Schedule of Construction

- Potholing and Verify Existing Facilities
- Installation
- Testing
- Abandonment
- Demolition
- Final Site Work and Cleanup
- Punch Lists

Contractor shall submit updated project schedules to District as follows:

- Once per month after the Contractor receives the written "Notice of Award" of the contract
- Twice per month when the Contractor has mobilized for construction
- Any time a change in the schedule and/or change in work has occurred
- Submitted with progress pay requests (status/completion items as shown on the schedules shall be consistent with the progress pay requests)

The District reserves the right to approve or alter the Schedule proposed by the Contractor, prior to the start of work. Additionally, the District may establish priorities for completion of certain parts of the work which may be necessary to provide certain services or which the District may deem advisable in the interest of public safety and convenience.

The construction schedules submitted shall be consistent in all respects with the time requirements of the contract.

12. POTHOLING OF EXISTING UTILITIES BY CONTRACTOR

The Engineer has shown from record research the approximate location of known underground interference facilities. Contractor shall field determine the exact location and depth of all existing underground interference and immediately notify the Engineer in the event there is a conflict with the proposed pipeline alignment or grades. Contractor shall "pothole" all utility line crossings, unless the utility performs the potholes, in which event Contractor shall pay any potholing charges from the utility. The Owner reserves the right to make minor adjustments (12-inch) in alignment and grade, all at no additional cost to the Owner and no time extension will be awarded.

The horizontal position of existing underground utilities, including existing water mains, as shown on the drawings, has been determined by record. Where no elevation is shown, the Contractor shall excavate the utilities shown to be within the construction area, and verify their position prior to construction. Any variation from the positions

shown on the drawings with the position determined by verification shall be immediately reported to the Engineer.

Adjustments to the alignment and depth of the proposed improvements shall be made based on the actual position and condition of the existing utilities as determined from the above verification.

Where underground main distribution conduits such as water, gas, sewer, electric power, telephone or cable television are shown on the Plans, the Contractor, for the purpose of preparing a Bid, shall assume that every property parcel will be served by at least one (1) service connection for each type of utility.

In addition to the above required potholing, Contractor is required to pothole existing fiber optic facility at the crossing of the proposed facilities and the existing fiber optic conduit as shown on the Drawings. Contractor shall assume all responsibility for any and all damage to the fiber optic facility.

Contractor shall submit a signed report to the District describing the findings of the potholing efforts prior to commencement of construction. See Appendix section of these specifications for sample. Said report shall include at the minimum: the vertical and horizontal locations of the potholed facilities, the sizes and material of the conduits and pipe, and the orientation of the facilities. If Contractor does not report any conflict regarding the existing facilities and the proposed facilities, the District will assume that the proposed design is sufficient. If significant interference is found on existing facility during the initial potholing efforts, Contractor shall begin construction on the portion of the proposed improvements with no conflicts to accommodate re-designing efforts. If, during construction a conflict between facilities arises, all additional costs for re-designing the proposed pipeline shall be borne by Contractor no additional cost and delay will be awarded to the Contractor.

In addition to the requirements provided above, the format of the report and scheduling of the pothole efforts shall be as follows. The report shall document field data including, but not limited to date, street name, stationing per contract drawings, utility, size, top and bottom depth, materials, conflict. Contractor shall submit the signed pothole report within twenty (20) calendar days from date of “Notice to Proceed”. In the pothole report, Contractor shall identify all conflicting utilities and confirm that there are no conflicts on all other utilities. Refer to Appendix B for format.

As provided in Section 4216 of the California Government Code, at least two (2) working days prior to commencing any excavation, if the excavation will be conducted in an area which is known, to contain subsurface installations, the Contractor shall contact the regional notification center (Underground Service Alert of Southern California) and obtain an inquiry identification number.

13. CONSTRUCTION WATER

The Contractor shall arrange, pay for and furnish construction water from the existing water systems located in the general vicinity of the contract work (Jurupa Community Services District). The Contractor shall pay for, furnish and install all necessary piping, all certified backflow assembly devices, fittings, connections, pumps, water trucks, gauges, hydrant meters, etc., in accordance with the regulations of the providing agencies, required to provide approved facilities to deliver construction water to the jobsite for all construction activities, flushing, disinfection, testing and filling into pipelines to be constructed herein. All costs associated with the Contractor providing construction water shall be included in the appropriate bid items. Facilities installed or equipment traffic generated by the Contractor on existing streets and properties shall not restrict and impede access to vehicles, pedestrians, and property owners.

When backflow assembly devices are removed, relocated, and reinstalled due to District requests, construction activities, Contractor's convenience, or for any other reason or requirement, the Contractor shall re-certify the backflow assembly devices prior to using said device. All costs shall be included in the appropriate bid items.

14. CONSTRUCTION STAKING

A. Pre-Construction Survey

Prior to start of construction, Contractor shall perform pre-construction field survey in order to obtain current, existing topography of the project site prior to disturbance. The field topo and boundary survey shall encompass all existing improvements, elevations, plantings, surfaces, trails, dirt roads, grades, sidewalks, streets, pavements, all above ground features, elevations, layout of gates, posts, fencing, signs and any other above ground improvements. This work shall be performed by a Licensed Land Surveyor registered in the State of California. The survey plans shall be signed and sealed by the Licensed Land Surveyor and shall be submitted to the District for records. This survey shall be utilized by the Contractor to re-establish pre-existing grades and restore the site to existing conditions. In addition, the proposed manhole rim elevations shall be confirmed and utilized in the Contractor's submittals.

B. Surveying and Staking

The Contractor will provide all construction staking in accordance with Contract Documents. One (1) set of stakes must be provided at 25-foot stations plus horizontal and vertical angle points and appurtenance outlets for the sewer line and one (1) set of stakes must be provided at 50-foot plus horizontal and vertical angle points and appurtenance outlets for the waterline. Any costs for re-

staking due to stakes lost during construction and/or due to any other cause, shall be the responsibility of the Contractor. If the Contractor requires additional staking, the Contractor will be responsible for the additional survey/staking costs. All plans, descriptions and calculations related to surveying including grade sheets, shall be signed and stamped by the Contractor's Land Surveyor, or Professional Engineer authorized by the State of California to practice land surveying.

The Contractor shall provide the District all cut or grade sheets and survey data within no more than two working days after staking and no less than three days prior to construction for any particular phase of the construction work

C. Lines and Grades

All work under this Contract shall be built in accordance with the lines and grades as shown on the drawings. Distance and measurements, except elevations and structural dimensions, are given and made on horizontal planes. For pipeline work, the surveyor will provide offset line and grade stakes at ground level and furnish cut sheets, therefore; the Contractor shall be responsible to transfer of such line and grade into the trench for construction of the work and for accuracy of the transfer cost of transfer shall be included in the unit bid for the work and no extra compensation will be made to the Contractor. The Contractor shall preserve benchmarks, survey stakes, and points sets for lines, grades, or measurement of the work in their proper places until authorized by the Project Engineer to remove them. The Contractor shall provide the Engineer with Cut Sheets for approval a minimum of three (3) working days prior to commencing construction. All issues with the staking shall be specifically marked on the cut or grade sheets when these are provided to the District and submitted as an RFI for specific resolution.

D. Potholing

The Contractor shall provide coordinates and elevations, (x, y and z coordinates) of all potholing. The coordinates shall be referenced to the plan provided by the Engineer. Survey of all potholing locations shall be considered part of the construction staking and included in the bid item. No additional compensation will be allowed.

E. Data Provided by the Owner

The Owner shall provide the design data in AutoCAD/Civil 3D 2018 format with control data (Northing, Easting) for monumentation shown on recorded maps only. Control data provided by the Owner shall be verified for conformance

to the recorded map by the Contractor prior to use for any purpose. The Contractor is responsible for determining if any conflict exists. The Owner makes no representation as to the compatibility of this Data with your hardware or your software beyond the specified release of referenced specifications. The Data provided is part of the Owner's proprietary instruments of service and shall not be used by the Contractor or anyone else receiving this datum through or from the Contractor for any purpose other than as a convenience for construction staking services for this project. To the extent that the Data is electronic files, those files are not the approved construction documents. Further, differences may exist between this Data and corresponding hard-copy, engineering documents or recorded survey documents. In the event that a conflict arises between the signed, recorded or sealed hard-copy survey documents or construction documents ("Hard-Copy Documents") prepared by the Owner and the electronic files, the Hard-Copy Documents shall govern. The Contractor is responsible for determining if any conflict exists. By use of this Data, the Contractor is not relieved of his duty to fully comply with the contract documents, including, and without limitation, the need to check, confirm and coordinate all dimensions and details, take field measurements, verify field conditions and coordinate your work with that of other contractors for the project. To the extent that the Data is intended to be used for staking and/or grading of property, the Contractor should be aware that the Data was prepared anticipating that a duly licensed and qualified Land Surveyor would perform on-site interpretation, verification, cross-checking and field-correction of the Data at the time of actual staking of the property prior to grading.

If changes are required to the original design, the Owner will provide to the Contractor redlined changes on the original plans in PDF format only of the approved changes.

15. CONSTRUCTION VIDEO PHOTOGRAPHY

A. Description

This Section covers pre-construction video photography of the work area to support proof of pre-existing pavement conditions and sign locations for visual comparison to the post-construction conditions. The requirements specified in the Condition of Contract also form part of this Section.

B. Video Photography

Provide video and audio DVD of the site prior to placing markings of any kind on the pavement, saw cutting or removal of materials. The DVD shall be

new and previously unexposed and shall be playable on a DVD player and computer.

The video company shall be a professional photographer approved by the Owner. The video shall be in full color.

C. Description

Identify each DVD on its cover. List name of project, orientation of view, date and time of view, name and address of photographer.

D. Technique

Provide factual presentation. Provide correct exposure and focus, high resolution and sharpness. Video and audio capture of the construction area from a vehicle moving at a slow rate of speed to permit Owner to view the DVD and determine pre-existing conditions. Provide audio explanation of pavement failure areas and of other items which require special notation.

Areas of local distress shall be video captured with the camera held without moving, using zoom control to record pavement cracking and alligatoring.

E. Submittals

Contractor shall deliver the DVD within three (3) calendar days after exposure with transmittal letter. The Owner will retain one of each DVD which will be the permanent record.

16. GEOLOGICAL INFORMATION

It is the Contractor's responsibility to examine the site and perform any and all testing and evaluations necessary from which to draw conclusions regarding:

1. The ease or difficulty of excavation.
2. The presence, nature and extent of any rock.
3. The depth and quantity of groundwater.
4. The stability of excavations.
5. The suitability and quantity of excavated materials for pipe bedding and backfill or sources for importing bedding and backfill materials.

6. All excavation shall be unclassified, and it shall be the Contractor's responsibility prior to submitting his proposal to familiarize themself with the conditions that they may encounter during construction of the Contract Work. All costs for excavation for all soil's conditions (including any groundwater or required rock excavation) shall be included in the Contractor's applicable bid prices for constructing the various improvement facilities and no additional compensation shall be made therefore.

Where investigations of subsurface conditions have been made by the District in respect to foundation or other structural design, and that information is shown in the plans, or included in the Specifications, said information represents only the statement by the District as to the character of material which has been actually encountered by it in its investigation, and is only included for the convenience of bidders. Investigations of subsurface conditions are made for the purpose of design, and the District assumes no responsibility whatever in respect to the sufficiency or accuracy of borings or of the log of test borings or other preliminary investigations, or of the interpretation thereof, and there is no guaranty either expressed or implied, that the conditions indicated are representative of those existing throughout the work, or any part of it, or that unlooked for developments may not occur. Making such information available to bidders is not to be construed in any way as waiver of the provisions of the first part of this article and bidders must satisfy themselves through their own investigations as to conditions to be encountered.

The geotechnical material contained in these bidding documents is intended only to assist Contractor in preparing his bid and to provide information regarding geotechnical construction requirements. The District does not guarantee the present or future validity of this material, and the material is in no way to be construed as a warranty of geologic conditions. Personal investigation by the Contractor is mandatory so that they can satisfy themself with regard to all geologic conditions affecting the Work hereunder. All costs for excavation for all soils and soils conditions shall be in the Contractor's bid prices for the applicable site Work and facilities, and no additional compensation shall be made therefore.

17. WATER SERVICES TIE OVER

The Contractor shall provide detailed construction phase plan showing construction at each street with anticipated start date, duration of construction as well as the plan for services tie overs and connections. The Contractor shall field locate the location of water service and meter box prior to bidding on the project. Contractor shall complete all construction within certain streets prior to starting construction on other streets. Completion means all contract work including waterline and appurtenances,

installation, testing, disinfection, connections, services, base paving and improvements restoration, punch list, and District approval and acceptance. By the end of each street the Contractor shall provide an operational system as well as finished streets.

18. PRIORITY CONNECTIONS

The Owner reserves the right to require that certain connections to existing water lines be completed as first priority work avoid shut-down of Owner's facilities during periods of high-water demands.

19. CONNECTIONS TO EXISTING WATER SYSTEM

Contractor shall furnish and install connections to the existing water system at locations shown on Drawings, and perform all work required including any necessary field measurements, cuts-to-fit, temporary connections, and field fabrications AS REQUIRED TO MEET EXISTING CONDITIONS.

Contractor shall construct all said connections so that any downtime of existing water systems, due to connection work, shall occur during normal working hours as directed by Owner. However, Owner reserves the right to require the connections be made after normal working hours if the conditions warrant.

CONTRACTOR SHALL COOPERATE WITH OWNER IN SCHEDULING ALL CONNECTIONS, AT LEAST FIVE (5) WORKING DAYS IN ADVANCE.

Owner will operate all existing valves necessary for Contractor to accomplish said connection work.

Contractor shall conduct his work activities in order that the existing water system will be kept in service until after the proposed pipelines are operational, and all services are transferred to the new watermains. After the new water system is operational, the existing system shall be abandoned (where indicated on Drawings) and the Contractor shall plug or cap and fill abandoned waterline with CLSM (as defined by the Green Book) as required and directed in the field by the District.

20. METER AND SERVICE CONNECTIONS

All meter locations shown on the plans are schematic only. All existing public and private facilities adjacent to the contract work which are damaged or removed by the Contractor shall be restored or replaced in kind. Said facilities include but are not limited to all water service, water meters, landscaping, irrigation works, decorative lighting, fences, block wall, driveways, curbs and gutters, sidewalks, paved surfaces and structures.

All costs associated with restoration shall be included in the Contractor's bid.

21. ALLOWABLE VARIATIONS IN PIPELINE ALIGNMENT

The pipeline alignment, as shown on the Plans, was determined form record land net data and interference information obtained from utility agencies. The alignment shown on the Drawings is the alignment for bidding purposes. After the award and prior to the commencement of construction, it will be necessary to review the pipeline alignment with the potholing information conducted and submitted by Contractor prior to Contractor's submittal of pipe fabrication and shop drawings, since experience shows that field conditions can often be different than recorded information regarding interference facilities.

The basic procedure to be used to verify (or adjust) pipeline alignment prior to submittal of pipe fabrication and shop drawings is as follows:

A. Using the pipeline alignment shown on the Plans as a guide, Contractor shall field pothole all underground utilities needed along the route of the pipelines.

B. Contractor shall submit potholing report prior to submittal of pipe fabrication and shop drawings for approval. The report shall include the horizontal and vertical location of those utilities and point of connections. Contractor shall identify the conflicts with installation of the water pipelines. Contractor shall also validate the horizontal alignment location and vertical profile shown on the construction drawings if no conflict exists.

C. Upon receiving the potholing report the Engineer will review or, where necessary, make modifications to accommodate the utility conflict.

D. Contractor shall then submit pipe fabrication and shop drawings based on the modified construction drawings

E. The specifications provide that the Owner may vary pipe alignment (ALL AT NO ADDITIONAL COST TO THE OWNER AND NO TIME EXTENSION WILL BE AWARDED).

These modifications shall be recorded by the Contractor on the "As-Built" drawings.

22. WATER PIPELINE COVER

All pipelines shall be installed with no less than 48" of cover unless otherwise shown on the Drawings or approved by the Engineer.

23. REMOVAL AND DISPOSAL OF ASBESTOS CEMENT PIPE

An asbestos material report is not available. Prior to start of construction, Contractor shall pothole or excavate as necessary the asbestos material pipe within the affected areas of construction, perform the asbestos materials survey and inspections, identify an estimate the amount of friable or non-friable asbestos percent to SCAQMD Rules 1403, Section B and provide a report to include an Asbestos Removed Schedule and Removable Procedure. The asbestos survey, inspection, and removal and disposal report shall be performed by a qualified firm certified for this work. Upon receipt of this report and when the Contractor is ready to proceed with the cutting, removing and disposal process, may then conduct the removal schedule and procedure and disposal. The requirements herein are a minimum requirement. Upon completion of the survey the Contractor shall perform the removal, handling and disposal pursuant to the contract document and the result of the survey. Any conflicts, the more stringent shall prevail. All work shall be included in bid items and no additional cars shall be awarded.

Asbestos Cement Pipe (ACP) shall be removed and disposed of in accordance with the applicable local and state laws. All work involved in the removal, salvage or disposal of ACP shall be the responsibility and at the expense of the Contractor.

All scrap ACP shall be properly manifested and prepared for transport following state and local criteria. The scrap material shall be delivered to a landfill permitted for disposal of the asbestos containing materials.

Small pieces of ACP less than 3-feet long must have all broken edges encapsulated (sealed) with an improved product and double wrapped in the durable 6 mil plastic which is properly sealed to prevent expulsion of dust particles.

Intact ACP over 3-feet long does not have to be double wrapped in 6 mil plastic. Any broken edges; however, must be encapsulated with an approved product. Certane 1000 Post Removal Encapsulant or equal.

Asbestos containing pipe will be accepted into the landfill if the pipe is intact and if broken edges are encapsulated using approved products and techniques. Small pieces of asbestos containing pipe less than 3-feet long must have any broken edges adequately encapsulated and it must be double wrapped in a durable 6 mil plastic which is properly sealed to prevent the expulsion of dust particles.

The landfill will accept a maximum of two (2) packaged loads per day per generator, unless prior approval has been obtained from the Solid Waste Division.

Each load must be accompanied by manifest indicating that ACP was properly disposed on and not the Owner's responsibility. The completed copy of the manifest this show will be returned to the Owner after disposal.

24. ROCK EXCAVATION

Excavation encountered during pipeline trenching for this project that cannot be excavated by use of a Cat 345, Komatsu 400 or equivalent while using heavy duty buckets or buckets more suitable for difficult trenching conditions and requires blasting and/or special breaker equipment (as determined by the Engineer and approved by Owner) will be paid for under the rocket excavation bid item provided on the Bidding Sheet. Normal trench excavation is defined and shall include those materials that are capable of being removed by the aforementioned excavating equipment in good operating condition; and been operated diligently and efficiently by an experienced operator. In addition to the above-described criteria, material will be classified within trench excavation which, when tested, indicates seismic velocities below 4,500-feet-per-second. Any tests requested by Contractor which failed to show velocities in excess of 4,500-feet-per-second shall be paid for by the Contractor, at no additional cost to the District. It is noted that the correlation between rippability of in-trench soils and the capability of heavy excavators to rip such materials is not exact. Also, Contractor shall understand that the criteria and definition of rock excavation (as stated herein) must be met for payment under this provision under the Contract; all other excavation shall be considered normal trenching with payment to be made under the Contractor's unit bid price for pipeline installation as indicated on the Bidding Sheet. Accordingly, it shall be the responsibility of the Bidder to perform any additional, independent evaluation of the rippability of the existing on-site materials prior to submitting a bid proposal.

Contractor shall notify Owner immediately, both verbally and in writing, if conditions are such that rock excavation is expected to be necessary. All rock excavation shall be performed under direct inspection by District Project Inspector. No payment shall be made for rock removed prior to inspection and measurement by the District's Project Inspector. The District, at its option, may consider alternate measures including the adjustment of line and grade in lieu of rock excavation.

Payment for rock excavation will be made on cubic yard (CY) basis in accordance with from the unit bid price for "Rock Excavation, Removal and Disposal". Unit bid price shall include cost of removal and disposal of the unsuitable material. Should the rock removal create a shortage of backfill material, the Contractor shall provide additional backfill material in accordance with the import backfill provisions of these Special Requirements. Rock excavation volume (CY) for payment purposes will be calculated using the "Average End Area" method (refer two Attachment B for

example calculation mythology). Maximum trench width for payment purposes shall be in accordance with Excavation/Backfill Detail; with all measurement (stations, links, depth, etc.) as confirmed by Inspector.

The Bid Sheet shows an estimated quantity only; and there shall be no increase/decrees allowed on the unit price based upon any quantity variance.

The Contractor shall hire, pay for, and make arrangements for the seismic study and investigation to determine the seismic velocities and related properties of the materials pertaining to the Rock Removal section. Contractor shall incorporate all efforts into their construction schedule including the timing for required investigation, reports, effort, etc. All reports, resolved studies, supporting data shall be provided to the District in coordination with progress payments. All costs associated with the seismic study and investigation effort shall be the responsibility of the Contractor at no additional cost to the District.

25. EXISTING UNDERGROUND UTILITIES AND EASEMENTS

Contractor shall understand that the existing easements shown on the Drawings are not from record information, no research was performed to confirm the location, width, ownership, or record information. The Contractor shall coordinate with the District and with the private property owners to locate existing water mains, valves and appurtenances, to abandon the utilities as shown in the Design drawings.

26. EXISTING UNDERGROUND UTILITIES

Contractor shall understand that the existing underground facilities as shown on Drawings are from record only, and NO FIELD CHECK was made to establish their exact location. Also, other underground facilities may exist. Therefore, it shall be the Contractor's responsibility to locate, protect, preserve, etc., all existing underground or overhead facilities, in accordance with other applicable provisions of Special Requirements, Basic Specifications, and Drawings.

27. ACCESS TO CONFINED SPACES IN EXISTING STRUCTURES

The Contractor's attention is directed to the General Industry Safety Orders of the State of California, Article 108, Permit-Required Confined Spaces, Section 5157 (Refer to California Code of Regulations, Title 8, Confined Spaces, Sections 5156, 5157 and 5158). Contractor shall also comply with the JCSD confined space program requirements which are more stringent. District's confined space program does not allow reclassification / declassification of permit required.

The Contractor shall provide personnel and equipment, including standby personnel, observers, and authorized competent person to stand by while entrants are inside the space, temporary ventilation equipment, or self-contained breathing apparatus, to assist the personnel of the Owner's Representative in obtaining access to permit-required confined spaces.

28. COMPLIANCE WITH STORM WATER REGULATIONS (NPDES)

Contractor, as JCSD's authorized representative, shall comply with the regulatory requirements of the State Water Resources Control Board's (SWRCB) Order No. 2009-0009 DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Runoff Associated with Construction Activity, copies of which are available on SWRCB website at: http://www.swrcb.ca.gov/stormwtr/construction.html.

The Contractor, as JCSD's authorized representative shall have a Qualified SWPPP Developer determine the Risk Level/LUP Type and prepare a Contractor and QSD Certified Storm Water pollution and Prevention Plan Storm Water Pollution and Prevention Plan in accordance with Order No. 2009-0009 DWQ, NPDES General Permit No. CAS000002. The Contractor shall submit both paper and electronic copies of the SWPPP to the JCSD within two weeks of the contract start date. The JCSD, upon approval of the SWPPP, shall electronically file Permit Registration Documents (PRDs) using the Stormwater Multi Application Reporting & Tracking System (SMARTS) and shall mail the Notice of Intent (NOI) and appropriate annual fee to the State Water Resources Control Board. SWRCB will process the PRDs and a Waste Discharge Identification Number (WDID) will be assigned to the project. JCSD will forward the completed NOI including the WDID to the Contractor upon receipt.

The Contractor, as JCSD's authorized representative, shall always maintain a copy of the SWPPP on the job site for review and inspection by the Regional Water Quality Control Board. Documents that shall be available on site include but are not limited to the SWPPP that is monitored as needed for current conditions; construction site monitoring plan (CSMP); required daily/weekly and extended inspection checklists, pre, during, and post rain event inspection checklists; pre, during, and post-rain event reports; quarterly non-stormwater monitoring reports; and Rain Event Action Plans (Risk Level 2 and 3 projects only).

The Contractor, as JCSD's authorized representative, shall have a Qualified SWPPP Practitioner (QSP) available at all times to implement the SWPPP in compliance with Order No. 2009-0009 DWQ including but not limited to training/certification requirements for key personnel implementing the SWPPP/BMPs etc.; performance of daily/weekly inspection reports; performance of all required

monitoring and reporting including monitoring data/records and visual monitoring records; and maintaining records of corrective actions taken and not taken. Submittal of daily/weekly inspections and monthly reports to JCSD in compliance with the permit is required by the end of each month. The Annual Report, in accordance with Section XVI of Order No. 2009-0009 DWQ, NPDES General Permit No. CAS00002, must be submitted to JCSD by July 31 of each year. The Contractor's QSP must be registered in SMARTS so JCSD may link the QSP to the project in SMARTS as a Data Submitter.

The JCSD, at its discretion, may withhold payment and/or return pay requests if the contractor fails to submit monthly reports by the last working day of the month, properly maintain records, or otherwise comply with the permit requirements.

The contractor shall include all costs for preparation of the SWPPP, record keeping, implementation, and reporting requirements of the permit. No additional compensation will be allowed.

29. SECURING TRENCHES

All trenches with pavement cut/removal must be backfilled and temporary pavement (2" minimum) placed (flush) at the end of each workday. City of Jurupa Valley Encroachment Permit requirements shall govern if more stringent. For sites with non-paved surfaces, provide gravel surfaces. The Contractor will be required to provide complete unobstructed access to each resident's driveway at all times.

During the construction and installation of proposed pipelines and facilities close to existing utilities, the Contractor shall provide all necessary means to protect in place and support all existing utilities, existing backfill material, existing pavement, etc. If surrounding backfill and paving fails during construction, Contractor shall provide for all restoration of backfill, compaction, sub-base, base pavement, grind and cap per City of Jurupa Valley Road Improvement Standards and Specifications and support and protect utilities at no additional cost to contract.

30. PAVEMENT REPAIR, REPLACEMENT, AND RECAPPING

Pavement replacement and trench repair shall comply with the City of Jurupa Valley encroachment permit requirements. Unless otherwise noted within the permit materials/requirements shall consist of Class II aggregate base, base pavement PG-64-10B (3/4" max), cap pavement PG-64-10 C2 (1/2" max), grind and overlay. Contractor shall adjust the unit prices of associated bid items based upon the equipment used. No additional compensation will be granted. For pavement and trench repair, refer to County of Riverside Standard No. 818 modified as follows: Backfill between pipe zone

and subgrade shall be suitable native with minimum SE 30 or import material if unsuitable material is discovered. Placement and compaction per specification.

31. MAINTAINING WATER SERVICE

MINIMAL INTERRUPTION OF WATER SERVICES - While installing a new pipeline to replace an existing pipeline providing water service to users along the line, the service to a given user shall not be interrupted except for the required period to transfer that service from the old line to the new line. This period of time shall not exceed 8 hours. The Contractor shall make provisions necessary, at no additional cost to the District, to keep the old main in service until the new main has been completed and is ready for service transfer. Transfers shall not be made until the new line has been installed, disinfected, tested and placed in service.

32. PROTECTION OF EXISTING IMPROVEMENTS, RESTORATION OF WORK SITE AND DISPOSAL OF SPOIL AND WASTE MATERIALS

Contractor shall complete operations so that existing improvements (including road and other paved surfaces adjacent to or in the vicinity of the work site) are not damaged. Contractor shall repair and restore, at Contractor's expenses, all disturbed or damaged private or public improvements which results from Contractor's operations (except that which is specifically a part of the contract work) to the satisfaction of the District, or the agency having jurisdiction over said improvements.

All work sites shall be restored to pre-job conditions and shall meet the requirements of District, Agencies who have jurisdiction, and property owner(s). The Contractor shall repair or replace, at their expense, the damages as directed by District.

The District is obligated to keep visual impact of the work sites to a minimum; therefore, the Contractor is required to restore all areas altered by construction to pre-existing conditions, unless shown otherwise on the Drawings. Such areas shall include but shall not be limited to areas used for travel, parking, and storage of vehicles, equipment and materials or adjacent areas impacted by facilities construction.

The Contractor shall be responsible for the proper disposal of all waste materials resulting from project operations, including rubbish, packaging materials, discarded equipment parts, and damaged construction materials, in a manner and at locations suitable to the District and all health and other regulatory agencies.

33. RESTORATION OF NON-PAVED AREAS

For all disturbed non-paved areas, such as dirt shoulders, unimproved areas, trails, lawns, turf, etc. due to Contractor's activities. Contractor shall restore and re-compact these areas to their original condition and shall not impact the existing drainage conditions of the area, all per the applicable sections of these Plans and Specifications. Contractor shall coordinate with and restore said areas to the satisfaction of the City of Jurupa Valley's inspector, property owner, agencies/ entities having jurisdiction of said properties. Contractor shall provide all equipment, effort, labor, materials all at no additional cost to the contract.

34. PROTECTION/ACCESS OF PRIVATE PROPERTIES

Protection of private properties adjacent to the Project site against flooding and other hazards caused by construction is of the utmost importance. All protection and safety measures shall be provided by the Contractor. All costs for this Work shall be included in the original bid, and no additional compensation will be allowed. The Contractor shall protect in place or replace in kind all driveway approaches, landscaping, fencing, wall, mailboxes, landscaping, etc. disturbed by the Work. Contractor will be required to provide complete unobstructed access to each resident's driveway at the end of every workday. Contractor shall be responsible for providing emergency vehicle access to each resident's house and around the work site at ALL times. Contractor shall notify the local fire department, sheriff department and ambulance services and provide them with access routes through the construction area and a schedule indicating when access through any street will be obstructed by performance of the Work.

Contractor shall comply with local ordinances concerning noise abatement. Noise suppression shall be practiced at all times to minimize disturbance to persons living or working nearby, and to the general public. Measures for noise suppression shall include, but are not limited to, equipping all internal combustion engines with critical residential silencers, shielding noise-producing operations and equipment from nearest areas of occupancy, and conducting operations in the most effective manner to minimize noise generation consistent with prosecution of the Contract in a timely and economic manner.

Sound levels shall be kept below 65 dba, 10-minute LEQ, at all times, as measured at any neighboring residence. Should complaints be filed by surrounding property owners with the Code Enforcement Division of Jurupa Valley, the Contractor shall submit a noise monitoring report, which will include steps to mitigate the excessive noise levels.

All costs associated with this special condition, including all compliance, reporting, monitoring, and mitigation activities, shall be Contractor's sole responsibility and included in the bid, and no additional compensation will be allowed.

35. DEMOLITION, SALVAGE AND ABANDONMENT

Water pipeline facilities shall be abandoned, demolished, and salvaged as part of this project. Procedures for abandoning and demolishing of said facilities are outlined in the Green Book and on the plans and specifications as applicable. All pipes and facilities to be abandoned in place shall be dewatered and bulkhead plugged and sealed with watertight cement.

The Contractor shall properly dispose of buried pipelines proposed to be removed, backfill and compact per plans, specifications and Green Book. Any abandoned pipelines planned to be left in place, Contractor shall dewater pipeline and abandoned in place, fill abandoned pipe with Cementitious Low Strength Materials (CLSM), and properly bulkhead all ends. Contractor shall cut/remove all abandoned water facilities, appurtenances, risers, valve cans, etc. backfill, compact and restore surface to match surroundings.

The appurtenances (valves, air valves, blow-offs, hydrants, etc.) shall be removed, handled, and disposed of by the Contractor. The Contractor shall transport and deliver decommissioned materials to an approved waste management facility capable of accepting, handling and processing of such materials. The contractor shall follow proper procedures and protocols for waste handling and transportation, such as using appropriate containers, equipment, and vehicles; apply adequate protective measures, such as personal protective equipment, signage, security, and complying with the relevant local regulations and standards, and obtain required permits and licenses and inspections.

36. SCHEDULE OF VALUES

A. GENERAL

Contractor shall provide a Schedule of Values (cost breakdown of ALL lump sum bid items) for the contract work. The Schedule of Values shall be subject to Owner approval.

All lump sum items (“LS” as listed on the Biding Sheet) shall be paid for at the price indicated in the Bid; with the exception that if no work is performed on a particular bid item or the item is deleted by the Owner, then that particular item will become a “no pay” item. In the event a portion of the lump sum bid item is

provided, that completed portion will be paid in accordance with the approved cost item breakdown (Schedule of Values).

The lump sum bid price shall include furnishing all labor, materials, equipment, methods, etc. necessary to complete the work for the specified bid item as described on the Bidding Sheet, the Plans and Specifications.

B. SCHEDULE OF VALUES

Within ten (10) days following the date the Owner issues the written "Notice to Proceed", Contractor shall submit a detailed price breakdown ("Schedule of Values") of all lump sum bid items indicated on the Bidding Sheet. The price breakdown shall include quantities, unit prices and any other information required insufficient detail to enable it to be used by Owner in reviewing and approving Contractor's progress pay estimates. Such price breakdown shall be in accordance with the bid items and sub-items indicated on the Bidding Sheet and the major components of the Work as contained in the Contract Documents. Include all subcontractor/supplier agreements showing the dollar value of these agreements to justify the schedule of values and showing separate line items for the material costs and installation costs.) Provide any separate material cost breakdowns that may be required pursuant to the Special Requirements. The price breakdown shall be subject to Owner approval.

37. EQUIPMENT AND MATERIALS STORAGE

It is the Contractor's responsibility to legally store equipment and materials associated with the performance of the work. If the Contractor has arranged for temporary storage on private property outside of the public right-of-way, the Contractor shall provide to the District a copy of the written agreement between the landowner and the Contractor.

If Contractor is required to leave equipment on public right-of-way in close proximity to the work area, Contractor shall request and obtain approval from City of Jurupa Valley. Contractor shall provide all requirements and items requested by City such as traffic control plans and Contractor shall prepare and submit these traffic control plans as requested by the City. Contractor shall pay all fees and prepare and submit all applications required. Once approved, Contractor shall provide copy of approval letter(s) to District for files and implement and provide and setup all devices, security, signs, message boards, etc. all at no additional cost to the contract and no additional time awarded.

38. SCE POLE PROTECTION

For work associated with protecting, supporting, repairing existing Southern California Edison (SCE) facilities, Contractor shall utilize an Approved SCE Electrical Contractor. Regarding all excavations near existing utility poles, Contractor shall perform all excavation, install pipe, backfill and compact in the same day. Contractor shall bring grade at existing utility poles back to existing grades

39. TRAFFIC CONTROL

It shall be the Contractor's responsibility to maintain traffic warning signs, barricades, flagmen, and other traffic control devices as required to maintain traffic, and as required by agencies having jurisdiction over the roadways in the work area. It shall be the responsibility of the Contractor to investigate with various agencies having jurisdiction over the right-of-way in work area to determine the extent of traffic control that may be required by each agency. The Contractor shall be responsible for traffic control during his work activities as well as for all surveying and inspection activities which subject any employee to traffic danger of any kind. The Contractor shall maintain access to properties adjacent to the construction area at all times. A temporary detour graded access road from Frank Street to Smith Avenue to maintain access to residents while working on the Smith Avenue alignment. Contractor shall restore and maintain temporary traffic markings during construction.

It shall be the Contractor's responsibility to have a traffic control plan prepared under the supervision and signed by a Civil Engineer or a Traffic Engineer registered in the State of California for work done in the street right-of-way. It shall be the Contractor's responsibility to prepare, submit and obtain approval of said traffic control plan from the City of Jurupa Valley prior to working in said road right-of-way. This plan shall include but not be limited to signing plan, traffic control plan, detour plan, etc. Contractor shall comply with any and all work hours required by County such as night work, limited work hours, etc. and all costs and time shall be included at no additional cost to the contract.

The Contractor shall apply, obtain, pay for, and comply with all riders and permits and all provisions of the City of Jurupa Valley Encroachment Permit and the respect to maintaining the flow of traffic during construction. The Contractor shall account for all costs associated with the preparation and implementation of the traffic control, permit and riders in the appropriate bid item numbers of the Bid Schedule. No additional cost or time will be awarded to the contract due to delays in the permit process and traffic control plans review and approval process.

40. PROTECTION OF SURVEY MONUMENTS

It shall be the Contractor's responsibility to protect all existing survey monuments, if possible. If a survey monument is going to be disturbed, the monument shall be tied out prior to start of construction and reset after construction. Removal of such monuments or displacement thereof shall require their resetting per the existing type of monument. The cost of tie-out resetting such monuments shall be the financial responsibility of the Contractor. Contractor is advised that tie-out and resetting of monuments must be done by a registered civil engineer authorized to practice land surveying or licensed land surveyor at no additional cost to the contract. The following table summarizes survey monuments within the project area that requires protection, tie-out, resetting. This information is provided for assistance to the Contractor only and may not be all inclusive. The Contractor shall field verify all monuments utilizing a Professional Licensed Land Surveyor registered in the State of California. Work performed under the Section, including monument presentation, shall comply with Business and Profession Code Section 8771.

41. LINES AND GRADES

All work under this Contract shall be built in accordance with the lines and grades as shown on the plans. Distance and measurements, except elevations and structural dimensions, are given and made on horizontal planes. For pipeline work, the Surveyor will provide offset line and grade stakes at ground level and will furnish cut sheets therefore. The Contractor shall be responsible for transfer of such offset line and grade into the trench for construction of the work and for accuracy of such transfer. Cost of such transfer shall be included in the unit prices bid for the work and no extra compensation will be made to the Contractor. The Contractor shall preserve bench marks, survey stakes, and points sets for lines, grades, or measurement of the work in their proper places until authorized by the Project Engineer to remove them.

42. GAS COMPANY REQUIREMENTS

When performing work and construction activities within Gas Company (Distribution and Transmission) crossings and parallels, the Contractor shall follow the Gas Company's work requirements:

1. Contractor shall coordinate with the Gas Company (Distribution and Transmission) and schedule the appropriate Gas Company representative to be on-site when working in areas of the gas lines and when gas lines require protecting and supporting in place.

2. All work, labor, equipment, provisions, materials to accommodate these Gas Company (Distribution and Transmission) shall be included in the contract all at no additional cost and no additional time shall be awarded.

43. CONTROL DENSITY FILL (CDF)

The Contractor will be required to use CDF as backfill in areas under and around existing utilities as indicated on the drawings and when crossing under existing utilities depicted on the drawings by the sewer line. All costs associated with furnishing and placing CDF shall be included in the applicable bid item(s) for furnishing and installing the gravity mains and force mains. Mix design shall be specified in the Standard Specifications Section 201 - Concrete Mortar and Related Items; Table 201-1.1.2A) for trench backfill slurry.

44. PUBLIC NOTIFICATION AND COORDINATION

The Contractor shall be responsible to notify and coordinate with the public and business, residents, church, offices, chapel, and schools in the vicinity areas such as providing door knockers, fliers, etc. The Contractor shall also accommodate his construction schedule to provide access. Contractor shall include all costs associated in his bid proposal. Neither additional expenses compensation nor time extension will be allowed.

45. MISCELLANEOUS SPECIAL CONDITIONS

A. PROJECT MEETING

1. ATTENDEES. Unless otherwise specified or required by the Owner, the meetings shall be attended by the Owner, the Engineer, the Inspector, and the Contractor and his Superintendent. Subcontractors may attend when involved in the matters to be discussed or resolved but only when requested by the Owner, Engineer, or Contractor.

2. MEETING RECORDS. The Owner or the Engineer will record minutes of each meeting and will furnish copies to the Contractor within five (5) working days thereafter. If the Contractor does not submit written objection to the contents of such minutes within seven (7) days after presentation to them, it shall be understood and agreed that the Contractor accepts the minutes as a true and complete record of the meeting.

3. MEETING SCHEDULE. The dates, times and locations for the

progress meetings shall be agreed upon and recorded at the preconstruction conference. Then after, changes to the schedule shall be by agreement between the Owner and Contractor, with appropriate written notice to all parties involved.

4. PRECONSTRUCTION CONFERENCE. Prior to issuance of the Notice to Proceed, a preconstruction conference shall be held at the location, date, and time designated by the Owner. In addition to the attendees named herein, the meeting shall be attended by the representatives of regulatory agencies having jurisdiction of the Project, Owners and Operators of affected utilities, if required, and such other persons the Owner may designate. The Contractor performing the electrical work for the Owner will be present, if requested by the Contractor of this contract.

5. EXECUTION AND SUBMITTAL OF DOCUMENTS. At the preconstruction conference, unless otherwise specified or agreed by the Owner and Contractor, the Contract Agreement shall be executed by the parties hereto and the Contractor shall present to the Owner the Bonds, certificates of insurance, progress schedule, schedule of values, written safety program, and all other preconstruction documents required of them by the Contract Documents.

6. AGENDA. In general, the matters to be discussed or resolved and the instructions and information to be furnished to or given by the Contractor at the preconstruction conference include:

(1) Progress meeting schedule.

(2) Progress schedule and schedule of values submitted by Contractor.

(3) Communication procedures between the parties.

(4) The names and titles of all persons authorized by the Contractor to represent and execute documents for them with samples of all authorized signatures.

(5) The names, addresses, and telephone numbers of all those authorized by the Contractor to act for them in emergencies.

(6) Construction permit requirements, procedures, and posting.

(7) Public notice of starting Work.

(8) Procedures concerning the installation of Work on public or private property not owned by the Owner.

(9) Interfaces with other Contractors or with utility owners.

(10) Access and rights-of-way furnished by the Owner.

(11) Forms and procedures for Contractor's submittals.

(12) Change Order forms and procedures.

(13) Payment application forms and procedures and the revised progress schedule and reports to accompany the applications.

(14) Contractor's safety and training program, and designation of the Contractor's Safety Officer and his qualifications.

(15) First aid and medical facilities to be furnished by Contractor.

(16) Contractor's provisions for barricades, traffic control, utilities, sanitary facilities, and other temporary facilities and controls.

(17) Project sign for Owner if required by the Specifications.

(18) Engineer, Inspector and his duties.

(19) Construction surveyor and initiation of surveying services.

(20) Testing laboratory or agency, and testing procedures.

(21) Methods of construction proposed by the Contractor.

(22) Equipment proposed for use during construction by the Contractor.

(23) Procedures for payroll and labor cost reporting by the Contractor.

(24) Procedures to ensure nondiscrimination in employment on and for the Work.

(25) Issuance of the Notice to Proceed.

(26) Matters concerning construction within the city/county (traffic, police, fire, mail and waste collection services).

7. PROGRESS MEETINGS. The meetings shall be held on a bi-monthly basis in accordance with the agreed schedule. All matters bearing on the progress and performance of the Work since the preceding progress meeting shall be discussed and resolved, including without limitation any previously unresolved matters, deficiencies in the Work or the methods being employed for the Work, and problems, difficulties, or delays which may be encountered.

8. SPECIAL MEETINGS. Upon appropriate notice to the other parties, special meetings may be called by the Owner, Engineer, or Contractor. Special meetings will be held where and when designated by the Owner for the following purposes unless the matters are resolved at the preconstruction conference or at subsequent progress meetings.

9. REGULATORY AGENCIES. When requested, the Contractor shall attend meetings held or required by the governmental regulatory agencies having jurisdiction of the Project or by various California State agencies or Owners of affected utilities.

B. REIMBURSEMENT TO OWNER FOR COMPACTION RE-TESTS

The Owner will arrange for a soils engineering laboratory to perform the trench compaction testing for the water pipeline. The Owner will pay for required compaction tests, with the exception that the Owner shall be reimbursed by the Contractor for any compaction tests that fail to meet the minimum relative compaction requirements. The Bidder is hereby notified that the amount of the reimbursement to the Owner shall be Seventy-Five Dollars ($75.00) for each required retest for insufficient compaction, said amount includes costs for testing, overhead and administration.

C. PARTIAL PAYMENT REQUESTS

Contractor shall submit all invoicing and requests for payment for completed portions of the work directly to the Engineer for approval on a form approved by the District. Said invoicing shall be submitted at intervals no less than thirty (30) calendar days.

D. CONTRACTOR'S FIELD SUPERINTENDENT

The Contractor shall be required to have a field superintendent, from his organization at the jobsite during construction activities to manage the affairs of the Contractor and to receive directions or instruction from the District.

Contractor shall provide the District with a 24-hour emergency phone number for field superintendent prior to beginning of construction.

E. COOPERATION WITH OTHER CONTRACTORS

The Contractor shall cooperate with other contractors that are working within the project area, as directed by the District.

F. REQUIRED CERTIFIED PAYROLL SUBMITTALS

The Owner shall require the Contractor to submit Certified Payroll records per the Section entitled “Prevailing Wage” of the General Provisions. The Contractor shall prepare said certified payroll records on a form acceptable to and approved by the District; and the certified payroll records shall be submitted with each partial payment request.

G. AS-BUILT DRAWINGS

The Contractor shall be responsible for maintaining one up-to-date set of as-built drawings, on the job site, available for review by the District representative. These drawings shall be clean, neat, legible and show deviations from the original plan and profile design. This set of as-built drawings shall be submitted for review on a monthly basis and given to the District upon project completion. The Notice of Completion will not be filed until the District receives the as-built drawings.

Failure to provide acceptable up-to-date as-built drawings as required herein is considered a material breach of the Contract and shall result in withholding of progress payments and/or final payment at the sole discretion of the District. Failure to submit the final as-built drawings shall of and by itself, be grounds for assessment of liquidated damages not withstanding any other contractual action which may be taken.

Full compensation for conforming to the above requirement will be considered as included in the prices bid for various contract items of work and no additional compensation will be allowed therefore.

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SECTION A

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BASIC SPECIFICATION

SECTION A

GENERAL SPECIFICATIONS

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BASIC SPECIFICATIONS
SECTION A

GENERAL SPECIFICATIONS

1. REFERENCE SPECIFICATIONS

The following published reference specification shall hereby become part of these specifications.

A. State of California, Department of Transportation, "Standard Specifications", (Latest Edition**)**.

B. The Greenbook "Standard Specifications for Public Works Construction", Latest Edition, published by Building News, Inc., 990 Park Center Drive, Suite E, Vista CA 92081. Part I of the "Standard Specifications for Public Works Construction" shall apply to work accomplished under the contract except as herein modified.

2. CONTRACTOR'S SCHEDULE OF WORK

Within seven (7) days from the time the Contract is executed by all parties and at such other times as may be requested by the District, the Contractor shall submit to the District a detailed construction schedule which shall show the order in which the Contractor proposes to carry on the work, the dates at which the Contractor will start the several parts of the work, and the estimated dates of completion of the several parts. The District reserves the right to approve or alter the Schedule proposed by the Contractor, prior to the start of work.

The District may establish priorities for completion of certain parts of the work which may be necessary to provide certain services or which District may deem advisable in the interest of public safety and convenience.

The construction schedule and supplementary construction schedules submitted shall be consistent in all respects with the time requirements of the contract.

The receipt or written approval of any schedules by the Owner’s Representative or the District shall not in any way relieve the Contractor of its obligations under the Contract Documents. The Contractor is fully responsible to determine and provide for any and all staffing and resources at levels which allow for good quality and timely completion of the Work. Contractor’s failure to incorporate all elements of Work required for the performance of the Contract or any inaccuracy in the schedule shall not excuse the Contractor from performing all Work required for a completed Work within the specified Contract time period. If the required schedule is not received by the time

the first payment under the Contract is due, Contractor shall not be paid until the schedule is received, reviewed and accepted by the Owner's Representative.

a. Schedule Contents. The schedule shall allow enough time for inclement weather. The schedule shall indicate the beginning and completion dates of all phases of construction; critical path for all critical, sequential time related activities; and "float time" for all "slack" or "gaps" in the non-critical activities. The schedule shall clearly identify all staffing and other resources which in the Contractor's judgment are needed to complete the Work within the time specified for completion. Schedule duration shall match the Contract time. Schedules indicating early completion will be rejected.

b. Schedule Updates. Contractor shall continuously update its construction schedule. Contractor shall submit an updated and accurate construction schedule to the Owner's Representative whenever requested to do so by Owner's Representative and with each progress payment request. The Owner's Representative may withhold progress payments or other amounts due under the Contract Documents if Contractor fails to submit an updated and accurate construction schedule.

3. INSPECTION

All work and materials furnished under these specifications shall be subject to rigid District inspection and acceptance.

The Contractor shall notify the District at least two working days in advance of any work to be done, in order that inspection, including that of on-site materials, may be provided with a minimum of inconvenience to the District or delay to the Contractor. The Contractor shall perform construction only in the presence of an inspector unless written permission to work during the absence of an inspector has been granted by the District or inspector. Any work done in the absence of an inspector without permission shall be subject to rejection.

The District shall at all times have access to the work during its construction and shall be furnished with every reasonable facility for ascertaining that materials and workmanship are in accordance with the requirements of these Specifications.

When required, the Contractor shall notify the District a sufficient time in advance of manufacture or production of materials to be supplied, in order that the District may arrange for shop or plant inspection and testing. The District shall have access to all parts of the shop or plant where material subject to inspection is being manufactured.

All materials shipped prior to having satisfactorily passed such testing and inspection by the District shall not be used unless approved by the District.

The Contractor shall also furnish the District duplicate, certified copies of all factory and mill test reports when required by the District.

Work or materials failing to conform to these Specifications may be rejected at any time.

The District has made the necessary arrangements for inspection (general, geotechnical and specialties) of Contractor's work during the District's field services' regular (i.e., 7:00 a.m. to 3:30 p.m., Monday through Friday) 40 hour work week. If the Contractor works more than an 8 hour day, a 40 hour week, and/or District observed holidays, the financial responsibility for ALL added inspection shall be the responsibility of the Contractor. The prevailing hourly rates for inspection are on file with the District. Such prevailing rates will be applied at 1-1/2 times the regular rates for periods over 8 hours a day and/or 40 hours per week and/or District observed holidays and 2 times the regular rates for periods over 12 hours in one (1) day.

4. DEFECTIVE WORKMANSHIP AND MATERIAL

The Contractor shall promptly remove from the premises all work and materials condemned by the District as failing to conform to the contract, whether incorporated or not, and the Contractor shall promptly replace and re-execute the Contractor’s own work in accordance with the contract and without expense to the District and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement and pay for reinspection costs.

If the Contractor does not remove such condemned work or materials within a reasonable time after notice, the District may remove them and store the materials at the expense of the Contractor. If the Contractor does not pay the expenses of such removal within 10 days' time after such removal, the District may, upon thirty days' written notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof after deducting all the costs and expenses that should have been borne by the Contractor.

5. SANITATION

All parts of the work shall be maintained in a neat, clean, sanitary condition. Fixed and portable toilets, which are made inaccessible to flies, shall be provided wherever needed for use of employees, and their use shall be strictly enforced. Toilets shall be kept supplied with toilet paper and shall have workable door fasteners. Toilets shall be serviced no less than once weekly and shall be present in a quantity of not less than 1 per 20 workers as required by CAL-OSHA regulation. The toilets shall be maintained in a sanitary condition at all times. Use of toilet facilities in the Work under construction shall not be permitted. Any other sanitary facilities required by CAL-OSHA shall be the responsibility of the Contractor. All waste and refuse from sanitary facilities provided by the Contractor or from any source related to Contractor's operations shall

be taken care of in a sanitary manner, satisfactory to the District, and in accordance with the laws and regulations pertaining thereto. Contractor shall rigorously prohibit and prevent committing of nuisance within the work site area or upon the District's right-of-way or adjacent to private property. Contractor shall furnish all facilities and means for proper sanitation of the work, and shall protect and save harmless the District, its officers and employees from any liability resulting from improper or insufficient sanitation.

6. FIRST AID AND PROTECTIVE FACILITIES

First aid facilities and supplies shall be kept on the jobsite. Instructions in first aid shall be given, and Contractor shall provide emergency first aid treatment and supplies for the Contractor's employees sufficient to comply with all legal requirements.

7. CONTRACTOR TO PROVIDE FACILITIES FOR EMPLOYEES

Contractor shall, at their own expense, provide all labor, materials, equipment, and facilities which may be required to carry out effectively the provisions of these specifications. Contractor shall receive no additional payment therefore, and all compensation to be received for such work shall be included in the prices bid on the Bidding Sheet.

8. POWER

The Contractor shall provide, at their own expense, all necessary power required for their operations under the contract. The Contractor shall provide and maintain in good order such modern power equipment and installation as shall be adequate, in the opinion of the District, to perform in a safe and satisfactory manner the work required by the Contract.

9. CLEANUP

THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, the Contractor shall keep the premises occupied by the Contractor and the project site in a neat and clean condition, and free from unsightly accumulation of rubbish, excess construction materials, and excess excavated materials. The Contractor shall also abate dust nuisance by cleaning, sweeping, and sprinkling with water, or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other cleaning methods.

Materials and equipment shall be removed from the site as soon as they are no longer necessary.

Care shall be taken to prevent spillage on haul routes. Any such spillage shall be removed immediately and the area cleaned.

Excess excavated material from the pipe trench shall be removed from the site immediately. Sufficient material may remain for use as backfill. Forms and form lumber shall be removed from the site as soon as practicable after stripping.

FAILURE OF THE CONTRACTOR TO COMPLY WITH THE DISTRICT'S CLEANUP ORDERS MAY RESULT IN AN ORDER TO SUSPEND WORK UNTIL THE CONDITION IS CORRECTED. No additional compensation or extension of time will be allowed as a result of such suspension.

The Contractor shall not discharge smoke, dust, or any other air contaminants into the atmosphere in such quantity as will violate the regulations of any legally constituted authority.

Upon completion of work and before the final estimate is submitted, the Contractor shall, at their own expense and cost, satisfactorily dispose of or remove from the vicinity of the work all plants, buildings, rubbish, unused materials, concrete forms, and other equipment and materials belonging to them or used under their direction during the construction, and in the event of their failure to do so, the same may be removed and disposed of by the District at the Contractor's expense.

10. UTILITIES AND EASEMENTS

The plan portion of each sheet indicates the general location of underground utilities as shown on available records. No attempt has been made to show service connections other than those services improved as part of the contract work. The plans also indicate the location of public right-of-way lines and easements that will be acquired by the District. It shall be the Contractor's responsibility to conduct all their operations within the rights-of-way and easements as shown on these plans.

11. RELATIONSHIP WITH OTHER GOVERNMENTAL AGENCIES

Where the pipeline and structures are constructed within the rights of way under the jurisdiction of other governmental agencies, Contractor shall comply with all requirements of said agencies. Where the same subject matter is covered by the specifications of two or more agencies, the specifications more restrictive on the Contractor shall govern in all cases.

12. EXPOSURE OF UTILITIES IN ADVANCE OF WORK

It shall be the Contractor's responsibility to determine the exact location and depth of all utilities and service connections. The Contractor shall also determine the type, material, and condition of any utility which may be affected by or affect the work. The Contractor shall have all utility companies field locate all underground lines before start of construction.

In order to provide sufficient lead time to resolve unforeseen conflicts, order materials and take other appropriate measures to ensure that there is no delay in work,

the CONTRACTOR SHALL POTHOLE ALL UTILITY MAINS THAT MUST BE CROSSED OR CLOSELY PARALLELED PRIOR TO ANY CONSTRUCTION. CONTRACTOR SHALL THEN IMMEDIATELY PROVIDE THE LOCATION AND DEPTH OF THE "POTHOLED" UTILITIES TO THE ENGINEER. The Contractor shall expose all service connections before excavation in the area. All cost incurred in exposing utilities shall be borne by the Contractor.

THE DISTRICT RESERVES THE RIGHT TO MAKE MINOR ADJUSTMENTS IN PIPELINE ALIGNMENT AND GRADE, ALL AT NO ADDITIONAL COST TO THE DISTRICT.

Failure of the Contractor to comply with these provisions will result in an order to suspend work until these provisions are complied with, and no additional compensation or extension of time will be allowed as a result of such suspension. Payment per bid item or spread.

13. ADVANCE NOTIFICATION OF AGENCIES

It shall be the Contractor's responsibility to determine and notify those agencies requiring advance notification for inspection or other purposes before beginning construction in any area of concern to said Agency. A minimum of two working days advance notice shall be given to the various agencies before beginning construction in the area unless specific advance times and requirements are stated in these detailed specifications or required by the Agency.

14. CROSSING, PROTECTION AND/OR RELOCATION OF UTILITIES

A. General

Utilities for the purpose of these specifications shall be considered as including, but not limited to, and irrespective of ownership; Pipelines (including irrigation mains), conduits, transmission lines, and appurtenances of "Public Utilities" (as defined in the Public Utilities Act of the State of California) and those of private industry, business, or individuals solely for their own use or for use of their tenants; and storm drains, sanitary sewer, street lighting, traffic signal systems, duct banks, telephone cable, transmission cables, and completely buried structures.

The District has made an earnest effort to locate and indicate on the drawings all utilities which exist within the limits of the work. However, the accuracy and completeness of the utilities indicated on the drawings are not guaranteed. If utilities are shown in profile, the depth indicated is based on general practice and is not guaranteed at any specific location. No attempt has been made to show service connections on the plans. It shall be the responsibility of the Contractor to determine the exact location of all utilities and

their service connections. The Contractor shall have the utility companies field locate their utilities before excavation. The Contractor shall verify with each utility company the extent to which they will field locate their utilities. Where required, field location by Contractor forces shall be included in the contract price for which such work is appurtenant thereto and no additional allowance will be made therefore. The Contractor shall make their own investigation as to the location and type of existing utilities and their appurtenances and service connections which may be affected by the contract work, and shall notify the District as to any utility located by the Contractor which has been incorrectly shown or omitted from the drawings.

B. Utilities Shown on Plans

Where utilities cross or parallel the pipeline trench but do not conflict with the permanent work to be constructed, the Contractor shall protect the utility in place unless otherwise indicated on the plans. The Contractor shall notify the utility owner at least two working days in advance of the crossing or parallel construction and will coordinate the construction schedule with the utility service requirements.

Unless otherwise provided in the specifications, full compensation for crossing or paralleling of utilities shown on the plans shall be included in the contract unit price for which such work is appurtenant thereto and no additional allowance will be made therefore. Said various contract prices shall include all labor, materials, tools and equipment necessary or incidental to the work.

C. Special Water/Sewer Crossings

At the locations shown on the plans or if the vertical separation between the outside of the sewer pipe and the outside of existing water pipes at crossings is less than one (1) foot, and when directed by the District, the Contractor shall provide the construction required per the detail shown on the plans and per the California Department of Public Health Water/Sewer Special Construction Requirements. The special construction will be deleted at locations shown if the vertical separation of the waterline above the sewerline is 1 foot or greater.

The District hereby reserves the right to increase or decrease this item from the quantity shown on the Proposal forms without altering the unit price bid per each. Payment will be made in accordance with the unit bid price provided on the Bidding Sheet; in the event no item for said special construction work is designated on the Bidding Sheet, Contractor shall be paid under the "Extra Work" provisions of the General Conditions.

D. Relocation of Utilities by the Contractor for Their Own Convenience

The temporary relocation or the alteration of any utility desired by the Contractor solely for their own convenience in the performance of the contract work, to a position or condition other than that provided for in the specifications or shown on the drawings, shall be the Contractor's own responsibility, and the Contractor shall make all arrangements with the property owners regarding such work. Any costs of such work for the Contractor's own convenience shall be absorbed in the unit prices or included in the lump sum amounts bid for the various contract items.

E. Service Connections

Compensation for service connection crossings (not shown on the Plans) shall be included in the contract price for which such work is appurtenant thereto and no additional allowance will be made therefore.

F. Utility Conflicts with Proposed Improvements

If a utility, whether shown on the plans or not, should intersect the proposed improvement at grade anywhere along the line of the improvement, the Contractor shall immediately notify the District. The Contractor may be advised to continue with the construction, leaving sufficient "gap" in the Contractor's construction as determined by the District as may be necessary to accommodate resolution of the conflict, to be completed after the conflict has been resolved. In addition, the Contractor shall notify the District in writing, stating the nature of the conflict, location by schedule, sheet number, name of the street or location of easement and the station at which the conflict occurred. The District shall, within a reasonable time, make the necessary arrangements to resolve the conflict. Completion of the gap after the resolution of conflict shall not be just cause for additional compensation. Such completion of the "gap" shall be started within three working days after the Contractor has been notified of resolution of the conflict and completed in a workmanlike manner within reasonable time thereafter. When directed or approved by the District, changes in line or grade of any structure being built may be made in order to avoid utilities. Any additional costs because of such changes will be paid for as "Extra Work".

When a utility shown on the plans conflicts with the proposed improvements, the District will arrange for the relocation or alteration of said utility or require the Contractor to do same as "Extra Work". Work required in connection with unknown utilities will be performed and paid for as specified in the following paragraphs.

G. Unknown Utilities Disclosed During Contract Work

(Not including service connection)

In the event that a utility is disclosed or installed subsequent to the award of contract, such utility not being indicated on the drawings, the alteration, relocation or proper support and protection shall be done and paid for as follows:

(1) When said utility is found to occupy the space required to be occupied by a part of the permanent works to be constructed under the Contract, the District will arrange for the relocation or alteration of said utility, or require the Contractor to do same as "Extra Work".

(2) When the said utility is found to lie parallel to the permanent work and within the trench prism defined by the minimum allowable trench excavation consistent with safety and the rules, orders and regulations of local, State and Federal agencies having jurisdiction; the District will arrange for the relocation, protection or alteration of said utility, or require the Contractor to do same as "Extra Work".

(3) When said utility is more or less parallel with, and any portion of it does not lie within the trench prism specified hereinabove, the Contractor shall advise the District thereof, and in cooperation with the District of the utility, provide and place the necessary support, if any, for proper protection to ensure continuous and safe operation of the utility. All costs of such work shall be borne by the Contractor.

(4) Utilities found to cross the excavation but not intercepting the permanent works to be constructed, then the Contractor will be required to protect the existing facility in place and construct the proposed facility under the unknown utility.

Compensation for such crossings will be at a unit price per each in accordance with the proposal therefore. The number of such crossings is estimated and the District hereby expressly reserves the right to add to the number shown or decrease from the number shown or to totally delete the item for unknown utility crossings at no change in the unit price per each. The time extension for such crossings shall be determined by the District and shall be added to the total time for completion allowed and for which no liquidated damages will be assessed.

(5) Upon disclosing a utility in the course of excavation that was not indicated on the drawings or marked in the field, the Contractor shall protect it in place. However, the Contractor shall immediately investigate if it is abandoned. The Contractor will be compensated at the bid unit

price for unknown utility crossings only for the initial crossing of abandoned lines; and only if the Contractor did protect the abandoned utility in place.

H. Responsibility of the Contractor

The Contractor shall be held responsible for all costs for the repair of any and all damage to the contract work or to any utility (whether previously known or disclosed during the work), as may be caused by the Contractor's operations. Utilities not shown on the drawings to be relocated or altered by others, shall be maintained in place by the Contractor.

At the completion of the contract work, the Contractor will leave all utilities and appurtenances in a condition satisfactory to the utility owners and the District.

15. PROTECTION OF FACILITIES OTHER THAN UTILITIES

It shall be the Contractor's responsibility to protect in place or remove and replace to original condition all existing facilities. The existing natural and man-made features and elevations on the plans are shown by topography. The topography shown is not guaranteed complete. It shall be the Contractor's responsibility to familiarize themself with the conditions of proposed work and to identify by field investigation those features, whether or not shown on the plans, which require removal and replacement or protection in place. These features include, but are not limited to, fences, cross gutters, roads, sidewalks, driveways, curbs and gutters, power poles, signs, drainage structures, trees, landscaping, etc.

The Contractor shall repair all existing structures which may be damaged as a result of the work under the contract. Reconstruction shall be of the same type and material as the existing facility and shall be of equal quality or better than the original work.

Full compensation for complying with these requirements shall be considered as included in the price bid for the various items of work, and no additional compensation shall be made therefore.

16. GROUND WATER

Contractor shall investigate the possibility of ground water prior to submitting bid and shall assume all cost and liabilities incurred, should a ground water problem arise.

17. CONSTRUCTION WATER

The Contractor shall make all arrangements to furnish all construction water, all at no cost to the District, unless otherwise stated in the Special Requirements herein.

Bidder should contact District prior to submitting bid for further information regarding District's policy on construction water.

The Contractor shall coordinate with the District to obtain and check-out the District's hydrant meter including paying all deposits and fees. Refer to District Standard Drawing No. D–3 for Construction Meter Installation Detail.

18. WATER SUPPLY FOR COMPACTION AND DUST CONTROL

Contractor shall furnish and apply all water necessary for compaction and dust abatement purposes.

Contractor shall apply water to construction areas where dust conditions so warrant, as directed by the District.

The water supply and payment of fees shall be the responsibility of the Contractor, unless otherwise stated in the Special Requirements herein.

Full compensation for complying with these requirements shall be considered as included in the price bid for the various items of work, and no additional compensation shall be made therefore.

19. TRAFFIC CONTROL

It shall be the Contractor's responsibility to maintain traffic warning signs, barricades, flagmen, and other traffic control devices as required to maintain two-way traffic, and as required by agencies having jurisdiction over the roadways in the work area. It shall be the responsibility of the Contractor to investigate with various agencies having jurisdiction over the right-of-way in work area to determine the extent of traffic control that may be required by each agency.

Also, it shall be the Contractor's responsibility to provide all traffic control devices to ensure a safe working environment for any associated project work such as survey, geotechnical and materials testing, etc., that is required.

Full compensation for compliance with those provisions shall be considered as included in the bid unit price for various items, and no other compensation shall be made therefore.

20. ACCESS TO ADJACENT PROPERTIES

Contractor shall at all times provide access to the properties in the area of work, unless otherwise approved by District. The Contractor shall be responsible for providing adequate advance notice to properties that will not have access. It shall be the responsibility of the Contractor to provide such temporary structures in the area of work to provide reasonable access to the properties. At least one (1) lane on cross streets shall be available at all times for use of vehicles and emergency equipment.

Full compensation for compliance with these provisions shall be considered as included in the bid unit price for various items, and no other compensation shall be made therefore.

21. CONSTRUCTION STAKING

A. Surveying and Staking

The Contractor will provide all construction staking in accordance with Contract Documents. One (1) set of stakes must be provided at 25-foot stations plus all horizontal and vertical angle points and appurtenance outlets for the gravity sewer pipelines. One (1) set of stakes must be provided at 50-foot stations plus all horizontal and vertical angle points and appurtenance outlets for the waterline and sewer force mains. Any costs for re-staking due to stakes lost during construction shall be the responsibility of the Contractor. If the Contractor requires additional staking, the Contractor will be responsible for the additional survey/staking costs. All plans, descriptions and calculations related to surveying including grade sheets, shall be signed and stamped by the Contractor's Land Surveyor, or Professional Engineer authorized by the State of California to practice land surveying.

The Contractor shall provide the District all cut or grade sheets and survey data within no more than two working days after staking and no less than three days prior to construction for any particular phase of the construction work.

B. Lines and Grades

All work under this Contract shall be built in accordance with the lines and grades as shown on the drawings. If changes are required from the original design plans for whatever reason, the Contractor is responsible for revising the staking accordingly. Distance and measurements, except elevations and structural dimensions, are given and made on horizontal planes. For pipeline work, the surveyor will provide offset line and grade stakes at ground level and furnish cut sheets, therefore; the Contractor shall be responsible to transfer of such line and grade into the trench for construction of the work and for accuracy of the transfer cost of transfer shall be included in the unit bid for the work and no extra compensation will be made to the Contractor. The Contractor shall preserve bench marks, survey stakes, and points sets for lines, grades, or measurement of the work in their proper places until authorized by the Project Engineer to remove them. The Contractor shall provide the Engineer with Cut

Sheets for approval at minimum of three (3) working days prior to commencing construction. All issues with the staking shall be specifically marked on the cut or grade sheets when these are provided to the District and submitted as an RFI for specific resolution.

C. Potholing

The Contractor shall provide coordinates and elevations, (x, y and z coordinates) of all potholing. The coordinates shall be referenced to the plan provided by the Engineer. Survey of all potholing locations shall be considered part of the construction staking and included in the bid item. No additional compensation will be allowed.

D. Data Provided by the Owner

The Owner or Engineer shall provide the original design data in AutoCAD/Civil 3D format with control data (Northing, Easting) for monumentation shown on recorded maps only. Control data provided by the Owner shall be verified for conformance to the recorded map by the Contractor prior to use for any purpose. The Contractor is responsible for determining if any conflict exists.

The Owner makes no representation as to the compatibility of this Data with your hardware or your software beyond the specified release of referenced specifications.

The Data provided is part of the Owner's proprietary instruments of service and shall not be used by the Contractor or anyone else receiving these datum through or from the Contractor for any purpose other than as a convenience for construction staking services for this project.

To the extent that the Data is electronic files, those files are not the approved construction documents. Further, differences may exist between this Data and corresponding hard-copy, engineering documents or recorded survey documents. In the event that a conflict arises between the signed, recorded or sealed hard-copy survey documents or construction documents ("Hard-Copy Documents") prepared by the Owner and the electronic files, the Hard-Copy Documents shall govern. The Contractor is responsible for determining if any conflict exists. By the use of this Data, the Contractor is not relieved of their duty to fully comply with the contract documents, including, and without limitation, the need to check, confirm and coordinate all dimensions and details, take field

measurements, verify field conditions and coordinate your work with that of other contractors for the project.

To the extent that the Data is intended to be used for staking and/or grading of property, the Contractor should be aware that the Data was prepared anticipating that a duly licensed and qualified Land Surveyor would perform on-site interpretation, verification, cross-checking and field-correction of the Data at the time of actual staking of the property prior to grading.

If changes are required to the original design, the Owner will provide to the Contractor redlined changes on the original plans in PDF format only of the approved changes.

22. PROTECTION OF SURVEY MONUMENTS

It shall be the Contractor's responsibility to protect all of the existing survey monuments. Removal of such monuments or displacement thereof shall require their resetting per the existing type of monument. The cost of resetting such monuments shall be the financial responsibility of the Contractor. Contractor is advised that resetting of monuments must be done by a registered civil engineer or licensed land surveyor. Should the Contractor anticipate removal of any survey monuments, the Contractor shall include the cost of resetting of the same in the various items of work.

23. RECORD DRAWINGS

The Contractor SHALL PROVIDE, and keep up-to-date, a complete "as-built" record set of blueline prints, which shall be corrected daily and show every change from the original Drawings and Specifications and the exact "as-built" locations, measurements, sizes, and kinds of equipment. Prints for this purpose shall be obtained from the Engineer at cost. This set of Drawings shall be kept on the work site and shall be used only as a record set. The Engineer shall require that these drawings be presented monthly for review prior to any progress payment being made. At the completion of construction, the Contractor shall deliver said record set of prints to the District and will be required to certify the accuracy of the Record Drawings.

24. RESEEDING

Where cultivated and maintained ground covers in lawns, parkways or easements have been removed for installation of pipelines, the Contractor shall restore or replace such ground cover in kind by reseeding or resodding, after the backfill in the trench or excavation has been consolidated and the construction area graded and cleared of rocks and other objectionable material as required by these specifications. After reseeding or resodding the areas shall be covered with a suitable mulch.

Where natural vegetation has been removed for installation of pipelines, after the installation, compaction, grading and clearing has been completed, the Contractor shall reseed such areas in accordance with Section 25 - "Erosion Control" of these Basic General Specifications. All costs to the Contractor for restoration, replacement, reseeding or resodding shall be absorbed in the Contractor's bid for the applicable unit prices per linear foot of pipe and no other compensation will be made therefore.

25. EROSION CONTROL

A. General

The Contractor shall provide erosion control measures as defined herewith on all areas where the natural vegetation has been disturbed by the construction of the facilities. If a ground cover other than natural vegetation has been disturbed, this section does not apply and the Contractor shall replace said ground cover in kind.

B. Preparation

After the backfill has been compacted and the pipeline tested, the Contractor shall remove and dispose of rocks and debris from the area to be reseeded. No seeding shall be performed during windy weather or when the ground is too wet or in an untillable condition. The fertilizer and seed shall be spread before the straw cover material is applied. Commercial fertilizer shall not be applied until after the seed has been sown.

C. Material

Materials shall consist of the following: Seed - The seed shall consist of the following mixture: Crested wheatgrass, 47 percent; Intermediate Wheatgrass, 27 percent; Wimmera Ryegrass, 13 percent; Blando Ryegrass, 13 percent. The seed shall be spread at the rate of 100 pounds per acre and shall be applied by the use of a "Cyclone Seed Sower" or equal. Fertilizer - The fertilizer shall be Ammonium Phosphate (16-20-0) spread at the rate of 300 pounds per acre and shall be applied by the use of a "Cyclone Seed Sower" or equal. Mulch - After the application of the seed and fertilizer, new straw (stable bedding straw shall not be used) shall be uniformly spread at the approximate rate of four tons per acre. The straw shall then be "Mulched" into the ground by use of a "wire" roller or other approved equipment.

D. Protection for Steep Slopes

In cases where the grade over the pipeline exceeds 25 percent slope the Contractor shall provide additional erosion control measures to stabilize the backfill material. The Contractor shall submit to the Engineer for the Engineer's approval, special engineering details of the method to be used.

Full compensation for complying with the requirements of this section shall be included in the unit price per linear foot of pipe installed and no other compensation shall be made therefore. Bidder's attention is specifically called to the fact that the responsibility of determining the amount and the type of erosion protection shall rest with the prospective bidder.

26. CONTRACTOR'S SUBMITTALS

Contractor shall check and verify all field measurements and shall submit with such promptness as to provide adequate time for review and cause no delay in the Contractor's own Work or in that of any other contractor, subcontractor, or worker on the Work, three (3) hard copies together with one (1) electronic (pdf) copy of all shop or setting drawings, calculations, schedules, and materials list, and all other provisions required by the Contract.

Contractor shall make any corrections required by the Owner's Representative, and email to the Owner's Representative corrected copies in pdf format, and furnish such other copies as may be needed for completion of the Work.

Whenever called for in these Specifications or on the Drawings, or where required by the District, the Contractor shall furnish to the Construction Manager, and District's Representative, for review an electronic submittal of good quality, color, in pdf format. The maximum total attachment file size can be no larger than 10 megabytes. If files are larger, submittals may be sent on a CD Rom to the Construction Manager and District's Representative via overnight mail or hand delivery. In the case where a good quality pdf is not available the contractor will submit three (3) hard copies to the Construction Manager and one (1) hard copy to the District's Representative, (four copies total). Copies of all shop drawings shall be submitted, accompanied by a letter of transmittal, and shall be addressed to the District.

The letter of transmittal, shall give a list of the numbers of the drawings submitted. All drawings must be marked with the name of the project and the name of the Contractor and be numbered consecutively. All drawings must be complete in every respect.

Responses and comments to the submittals will be e-mailed in PDF format. No hard copies will be sent. The Construction Manager will respond directly to the Contractor and will copy the District's Representative.

Revisions indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Drawings and Specifications and shall not be taken as the basis of claims for extra work. Submittals that are not approved will be returned to the Contractor for corrections and re-submittal. Incomplete submittals will not be accepted.

It is considered reasonable that the Contractor shall make a complete and acceptable submittal to the District by the second submission of a submittal item. The District reserves the right to withhold monies due the Contractor to cover additional costs of review beyond the second submission.

Approval of shop drawings will be general and shall not relieve the Contractor from the responsibility for proper fitting and construction of the work, nor from furnishing the material and work required which may not be indicated in the shop drawings when approved; neither does it relieve the Contractor from responsibility for errors in shop drawings.

Example submittals include, but are not limited to the following:

A. All materials provided by the Contractor

B. All appurtenances provided by the Contractor

C. Miscellaneous
   (1) Pothole information for utilities
   (2) Copies of permits required to be obtained by the Contractor
   (3) SWPPP
   (4) Pre-Construction Video
   (5) Schedule of construction (with key milestones provided)
   (6) Waterline filling, disinfection, and flushing procedures
   (7) Sewer bypass plan
   (8) Safety program

27. RESPONSIBILITY FOR MATERIAL FURNISHED BY THE DISTRICT

The Contractor's responsibility for material furnished by the District shall begin upon the Contractor's acceptance at the point of delivery to the Contractor. All material shall be examined by the Contractor and District. The Contractor shall immediately (upon delivery) notify the District of any material the Contractor perceives to be defective in manufacture or otherwise damaged. Should the District concur that the material should not be utilized the material will be replaced by the District. Material furnished by the District in good condition and accepted by the Contractor which is later discovered to have been damaged, shall be replaced by the Contractor at the Contractor’s expense. The Contractor shall be responsible for the safe storage of all materials until they have been incorporated in the completed project.

28. ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR

If the Contractor, either before commencing work or in the course of the work, finds any discrepancy between these Specifications and drawings, or between either of them and the physical conditions at the site of the work, or finds any error or omission in

any of the drawings or in any survey, the Contractor shall promptly notify the Engineer in writing of such discrepancy, error or omission.

29. HANDLING AND STORAGE OF MATERIALS

All materials shall be handled in such a manner as to prevent damage and, in the case of water system work, maintain sanitary conditions. All materials for use in the work shall be stored by the Contractor in such a manner as to prevent damage from exposure to the elements, admixture of foreign materials or from any other cause. The Contractor shall be entirely responsible for damage or loss by weather or other causes as to work under the Contract.

30. GEOTECHNICAL SERVICES

All construction operations should be observed by a representative of the geotechnical engineer. The presence of the geotechnical engineer's field representative will be for the purpose of providing observation and field testing and will not include any supervising or directing of the actual work of the contractor, the Contractor's employees, or agents. Neither the presence of the geotechnical engineer's field representative nor the observations and testing by the geotechnical engineer shall excuse the Contractor in any way for defects discovered in the Contractor's work. It is understood that the geotechnical engineer will not be responsible for job or site safety on this project, which will be the sole responsibility of the contractor. CONTRACTOR TO PROVIDE SAFE ACCESS FOR GEOTECHNICAL IN CONFORMANCE WITH OSHA STANDARDS AT NO ADDITIONAL COST TO THE DISTRICT.

Dependent upon the circumstances of each particular project, as determined by the District, geotechnical services may include full time monitoring and testing or part time, periodic monitoring and testing.

31. EARTHWORK

A. General

Earthwork shall conform to the requirements of the agency having jurisdiction, but shall not be less than herein specified. Earthwork shall be performed in accordance with the requirements of Section 19 of the Specifications entitled: "State of California, Department of Transportation, Standard Specifications", Latest Edition, insofar as the same may apply and except as herein modified.

All excavations and embankments required to complete the work as specified herein shall be unclassified and made to the lines and grades shown upon the plans, or as staked in the field. (ALL EXCAVATION SHALL BE UNCLASSIFIED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY

PRIOR TO SUBMITTING THEIR PROPOSAL TO FAMILIARIZE THEMSELF WITH THE CONDITIONS THAT THEY MAY ENCOUNTER DURING CONSTRUCTION.) Excavated materials not required for fill, embankments or backfills shall become the property of the Contractor, and shall be disposed of at the Contractor's own expense.

All excavations shall be protected and supported as required for safety and in the manner set forth in the rules, orders and regulations prescribed by the Division of Industrial Safety of the State of California.

All trenches and excavations shall be backfilled overnight and on weekends and holidays. Barriers shall be placed at each end of all excavations, and at such places as may be necessary along excavations from sunset each day to sunrise of the next day until such excavation is entirely refilled. (BACKFILL SHALL BE COMPLETE AND STREETS OPEN TO TRAFFIC BY 5:00 P.M. UNLESS OTHERWISE APPROVED BY THE DISTRICT.)

No excavated material shall be deposited on private property unless written permission of the Property Owner thereof is secured by the Contractor, or specifically provided for on these plans and in these specifications. Copies of said written permission, duly signed by the Property Owners of the private property involved, shall be furnished the District by the Contractor before any excavated material is placed outside the limits of the established right-of-way. Free access must be provided to all driveways, watergates, hydrants, etc.

Any water which may be encountered or may accumulate in the excavation shall be pumped out or otherwise removed as necessary to keep the bottom of the excavation free and clear of water during the progress of the work.

B. Clearing and Grubbing

Areas where construction is to be performed shall be cleared of all rubbish and other objectionable material of any kind, which, if left in place, would interfere with the proper performance or completion of the contemplated work, would impair its subsequent use or form obstructions therein. Trees and other landscaping, unless otherwise specifically identified on the plans for removal, shall not be destroyed, and such measures as are necessary shall be taken by the Contractor for the protection thereof. Organic material from clearing and grubbing operations will not be incorporated in excavation backfill.

It shall be the Contractor's responsibility to remove and dispose of all excess material resulting from clearing and grubbing operations at Contractor's

own expense. The Contractor shall make their own arrangements for disposal sites at the Contractor's own expense, at which said material may be wasted. Full compensation for clearing and grubbing shall be included in the contract unit price for which such work is appurtenant thereto, and no additional allowance will be made therefore.

C. Grading Along Pipeline

The Contractor shall perform all grading to provide a working pad along the pipeline. The pad grade shall follow the existing ground grade as nearly as possible. If unnecessary excessive overcutting occurs during this operation, the Contractor may be required to replace all such overcut material and recompact to 90%, or to do other remedial work as directed by the District, all at no cost to the District.

D. Trench Excavation

(1) General

Excavation for water/sewer pipe, fittings, and appurtenances shall be in open trench to the depth and in the direction necessary for the proper installation of the same as shown upon the plans or as otherwise directed by the District. Trench banks shall be kept as near vertical as is safe, and where necessary shall be properly braced and sheeted, in accordance with the provisions of the Section herein entitled "Trench and Excavation Shoring". The trench bottom shall be graded to provide a smooth, firm and stable foundation at every point throughout the length of the pipe. For sewer pipe, at each joint the bottom of the trench shall be recessed in such a manner as to relieve the bell or coupling of all load.

Where the excavation has been made deeper than necessary, the Contractor shall furnish crushed rock, sand, or other material approved by the District for bedding to provide uniform support under the lower third of the depth of the pipe barrel. The cost of the material and labor to place and compact to achieve a firm and stable foundation herein specified shall be included in the unit price bid for the size of pipe laid thereon.

(2) Limit of Excavation

Except with specific approval of the Engineer, no more than 500 feet of open trench shall be excavated in advance of laying of pipe.

(3) Tunneling

Tunneling will be permitted only where native earth is of such firmness that it will remain in its original position, without sloughing off, throughout the work of excavation and backfilling; if sloughing occurs, the roof of the tunnel shall be broken down and the trench excavated as an open trench as herein specified.

(4) Trench Widths

(a) Water

As stated elsewhere in these Specifications, all trenches shall have vertical sides, unless District may designate otherwise. Trench width shall be such that ample working room shall be provided on either side of pipe, provided that width of ditch measured at top of pipe shall not exceed 3 pipe diameters or 3', whichever is greater. In the event of cave-ins of trench sides where aforesaid width is exceeded, District may, at the District's discretion, require Contractor to use concrete or other means of special backfill for a vertical distance of not less than 1/4 the outer pipe diameter. The cost of the labor and material to provide the concrete cradle, if required, shall be the responsibility of the Contractor, and no additional compensation will be made therefore.

(b) Sewer

The maximum allowable trench width, at the top of the pipe, is the outside diameter of the barrel plus ten (10) inches on either side of the exterior of the pipe barrel. Where the trench width at the top of the pipe is wider than ten (10) inches on either side of the exterior of the pipe barrel, the pipe shall be backfilled from the bottom of the trench to a level one-fourth (1/4) of the diameter above the center of the pipe with 3/4-inch crushed rock or as directed by the District. The cost of the labor and material to provide crushed rock encasement, if required, shall be the responsibility of the Contractor, and no additional compensation will be made therefore.

(5) Blasting

Use of explosives on the work shall be subject to approval of the District. All operations involving handling, storage and use of explosives shall be conducted with every precaution prescribed by Construction Safety Orders of Division of Industrial Safety, State of California, and by local laws and regulations. Only competent, reliable persons working under experienced supervision shall be permitted to use explosives. Contractor will be held responsible for and shall make good any damage caused by blasting or otherwise resulting from disposition or use of explosives on the work. Contractor shall obtain, at no additional cost to the District, blasting permit(s) that may be required.

(6) Grading for Pipeline Appurtenances

The Contractor shall perform all rough and fine grading to provide a graded area, sloped to drain, extending 3' minimum radially outside the limits of each air valve or blow-off installation as directed by the District in the field to assure accessibility.

The Contractor shall perform all rough and fine grading to provide a graded area, sloped to drain, extending 4' minimum radially outside the limits of each complete fire hydrant installation to assure accessibility. The location and elevation of graded pad for each fire hydrant installation will be directed by the District in the field.

E. Trench and Excavation Shoring

Pursuant to Section 6705 of the Labor Code of the State of California, in advance of any excavation pursuant to this contract, Contractor shall submit to the District for the District's acceptance a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the "Construction Safety Orders". Reference shall also be made to the rules, orders, and regulations of the Division of Industrial Safety of the State of California, latest edition, and the U.S. Department of Labor, Safety and Health Standards for Construction, latest edition.

FULL COMPENSATION FOR COMPLYING WITH THESE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED WITHIN THE CONTRACT UNIT OR LUMP SUM BID PRICES PAID FOR THE VARIOUS ITEMS ON THE BIDDING SCHEDULE, AND NO ADDITIONAL ALLOWANCE WILL BE MADE THEREFORE.

F. Pipe Bedding

(1) General

(a) Water

Normal bedding without crushed rock or concrete cradle shall be used unless otherwise shown on Drawings or ordered by District. For normal bedding of pipe, bottom of trench shall be excavated uniformly to grade as indicated on the Standard Drawings.

Trench bottom shall be given a final trim such that each pipe section when first laid will be continuously in contact with ground along extreme bottom of pipe. At each joint in the water pipe, the bottom of the trench shall be recessed in such a manner as to relieve the bell of the pipe of all load. Rounding out trench to form a cradle for pipe will not be required.

(b) Sewer

All pipe bedding shall be of the type indicated on the plans and shall be in accordance with the pipe bedding Standard Drawings included in these Specifications.

Bedding shall be sand, gravel or crushed aggregate having a minimum sand equivalent of not less than 30 or having a coefficient of permeability greater than 0.001 centimeters per second. (COMPENSATION FOR BEDDING MATERIAL AS INDICATED ON THE PLANS SHALL BE INCLUDED IN THE CONTRACTOR'S BID FOR THE APPLICABLE UNIT PRICES PER LINEAR FOOT OF PIPE AND NO ADDITIONAL COMPENSATION WILL BE MADE THEREFORE.) Minimum compaction for all pipe bedding shall be 90% relative compaction.

Where native material is acceptable for bedding as approved by the Engineer (sand equivalent of 30 or greater) the trench

bottom shall be graded to provide smooth, firm and stable foundation at every point throughout the length of the pipe. At each joint in the pipe, the bottom of the trench shall be recessed in such a manner so that the load will be carried uniformly throughout the length of pipe, including the bell or collar.

(2) Unstable Material

Where material at the bottom of the trench is found to be unstable, soft, or spongy, such material shall be removed to a depth as determined by the Engineer and replaced with Special Crushed Rock Bedding as specified in Section 1-G herein.

(3) Rock

Where rock is encountered, it shall be removed below grade, and the trench backfilled with suitable material to provide a compacted earth cushion with a thickness under the pipe of not less than 1/2-inch per inch of nominal diameter of the pipe to be installed, with a minimum allowable thickness of 6-inches. Where a special bedding class is indicated on the plans, the depth indicated on the Standard Drawing shall be increased to that stated herein, all at no additional cost to the Owner.

CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION FOR ABOVE MENTIONED WORK.

G. Crushed Rock Bedding

When specified on the plans or when groundwater is encountered in the excavation, or when soft, spongy and unstable material is encountered in the bottom of the trench, and when approved by the District, the material in the bottom of the trench shall be removed to a depth directed by the District and replaced with well graded 3/4-inch maximum crushed rock bedding as specified below. The crushed rock bedding shall be installed and compacted as shown on the Standard Drawing attached to these Specifications, or with no standard drawing place crushed rock bedding 8" min. thickness (90% min. compaction) under bottom of pipe. The 3/4-inch maximum crushed rock material shall be approved by the District before use.

Crushed rock shall be the product of crushing rock or gravel. Fifty percent of the particles retained on a 3/8-inch sieve shall have their entire surface area composed of faces resulting from fracture due to mechanical crushing. Not over

5% shall be particles that show no faces resulting from crushing. Less than 10% of the particles that pass the 3/8-inch sieve and are retained on the No. 4 sieve shall be waterworn particles. Gravel shall not be added to crushed rock. Crushed rock shall have the following gradation:

Sieve Sizes	3/4-inch Max Crushed Rock % Passing
1”	100
3/4”	90-100
1/2”	30-60
3/8”	0-20
No. 4	0-5
No. 8	--

Crushed Rock Bedding, where ordered by the District, shall be paid for at the unit price per ton complete in place, if Bidding Sheet so indicates, otherwise total cost of crushed rock bedding shall be borne by the Contractor.

Payment for trench width for Crushed Rock Bedding shall be limited to a maximum width of three (3) outside pipe diameters or the actual width, whichever is less. Any trench excavation beyond the maximum width limit shall be filled and compacted with crushed rock per the Standard Drawing, and the COST OF THE ADDITIONAL BEDDING SHALL BE BORNE BY THE CONTRACTOR.

THE DISTRICT RESERVES THE RIGHT TO INCREASE OR DECREASE THIS ITEM WITHOUT CHANGE IN UNIT PRICE OF THIS ITEM OR ANY OTHER ITEM.

H. Trench Backfill and Compaction Requirements

(1) General Requirements (Water)

All excavations shall be backfilled with compacted material to level of original ground surface, unless otherwise shown on Drawings or ordered by District. Materials used for backfill shall be imported or selected excavated material and shall be placed as shown on Drawings or as specified in these Specifications or any specifications made a part hereof by reference, or as directed by District. Backfill materials shall not be dropped directly on structures or pipeline, and all materials placed within 6" of pipe or structure shall be free from rocks or boulders larger than 2" maximum dimension and from unbroken masses of earthy

materials which might lodge and thereby cause unfilled pockets in excavations.

(2) Backfill Procedure (Water)

Material used in backfilling first layer shall be cohesionless, sandy loam, sandy, or sandy gravel material obtained from required excavation or from approved borrow areas. It shall not contain any rocks or other hard material detrimental to good bedding of pipe or that might be damaging to protective pipe coating. Trench shall be filled to 6" over top of pipe and flooded, jetted, and poled to secure adequate saturation and permitted to stand and settle before placing next layer; balance of trench shall be filled with material from excavation in layers not exceeding 3' in depth. Each layer shall be flooded, poled, and jetted, taking care not to disturb underlying layer, before placing succeeding layer, and Contractor shall at all times protect pipe against flotation.

Contractor shall understand that procedure for backfill outlined hereinabove is general and that conditions may be encountered where, due to a change in type of soil, methods specified hereinabove, particularly flooding, may result in leaving therein areas of dry, uncompacted backfill material adjacent to pipe and that when, in the opinion of District, soil type encountered does not permit adequate backfill compaction by flooding, Contractor will be required to jet all backfill compaction as District may direct or as specified elsewhere in these Specifications or any specifications made a part hereof by reference.

Along road or street right of way, ENTIRE TRENCH SHALL BE BACK-FILLED AS PRESCRIBED BY AGENCY HAVING JURISDICTION. In no event shall backfill material be compacted to a density of less than that of surrounding undisturbed soil. All trench backfill shall be compacted to 90% of maximum density as determined by ASTM D 1557-91, if so required by District and unless greater compaction is prescribed by agency having jurisdiction.

(3) Pipe Protection (Water)

Before backfilling, conductor tubes, if used, shall be strutted sufficiently to prevent distortion while compacting backfill. All struts shall be removed after compacting backfill. After insertion of pipe, conductor tubes shall be grouted with either dry sand or cement grout, at District's option.

Before backfilling, mortar-lined and coated steel pipe, 30" diameter and larger, shall be either filled with water or braced with studs sufficiently to prevent distortion while compacting backfill. All bracing shall be removed after compacting backfill.

(4) Pipe Zone (Sewer)

After the sewer pipe has been laid and inspected as herein specified, the trench shall be backfilled from the level of the bedding shown on the Standard Drawings, to a height of one (1) foot above the top of the pipe with specially selected and carefully compacted material which shall be clean, fine earth or sand, free from large stones or lumps. Backfilling shall be carried on simultaneously on each side of the pipe to assure proper protection of the pipe. Minimum compaction for all pipe zone material shall be 90% relative compaction.

(5) Procedure Above Pipe Zone (Sewer)

From the top of the pipe zone backfill to ground surface, the material for backfill may contain stones ranging in size up to 6-inches in diameter, in quantity not exceeding 40 percent of the volume when said coarse materials are well distributed throughout the finer materials so as to eliminate voids and the specified compaction may be attained. Rocks greater than 2-1/2 inches in any dimension will not be permitted in backfill placed within one foot of pavement subgrade.

(6) Compaction Above Pipe Zone (Water & Sewer)

Relative compaction in all streets and easements, public and private, from the pipe zone to the bottom of base material shall be 90% (95% to within 12 inches of the bottom of the base material). The base material shall be the thickness required and compacted to 95% relative compaction.

(7) Compaction Tests

The compaction test, as required by the District, that meets the required compaction, shall be paid for directly to the testing laboratory by the District. The minimum District requirements are as follows: Compaction tests shall be made at intervals not greater than 150' and one (1) test every 2' maximum vertical increment of trench backfill. Additionally at least 50% of all service laterals shall be tested. The tests

shall be made in accordance with a combination of the Sand Cone Method (ASTM D1556) and nuclear gauge testing methodology at rates (i.e. 1 sand cone method to “10” nuclear gauge tests) specified by the District and at varying depths.

It should be noted that dependent upon the circumstance of each project (e.g. quantity of earthwork involved), compaction testing could be administered on a full time basis.

It shall be the Contractor's responsibility to pay for all compaction tests that indicate insufficient compaction in the area where the Contractor has previously indicated that compaction was completed.

The Contractor shall provide, at the Contractor’s own expense, all labor and equipment necessary for all compaction test holes. Choice of location of all tests will be made by the District. The aforementioned labor and equipment shall be readily available to perform the necessary work when required. Should the Contractor not be ready to perform such work in support conducting the compaction test, and standby charges are incurred by the District for such a delay, the Contractor shall be responsible for payment of said standby charges.

It shall be the Contractor's responsibility to advise the District two working days prior to requiring compaction tests.

(8) Compaction Requirements under Agency Permit

Where the permit of a governing agency sets forth requirements for compaction more stringent than those stated herein, the Contractor shall adhere to the Agency requirements.

(9) Excess Excavated Material

The Contractor shall make the necessary arrangements for and shall remove and dispose of all excess or unsuitable material. All costs for the disposal of excess or waste material shall be borne by the Contractor.

It is the intent of these specifications that all surplus material not required for backfill shall be disposed of by the Contractor outside the limits of the public rights-of-way.

Excavated material shall not be deposited on private property unless written permission from the Property Owner thereof is secured by

the Contractor. Copies of said written permission, duly signed by the Property Owner of the private property, shall be furnished to the District by the Contractor before such material is placed on private property.

(10) Imported Backfill Material

Whenever the excavated material is, in the opinion of the District, unsuitable for backfill, the Contractor shall arrange and furnish imported backfill material. Such backfill material shall comply with the requirements of pipe bedding in Section 31.F.(1) herein.

Full compensation for disposing of unsuitable material, as well as for providing suitable material as herein specified, shall be paid for at unit price per ton of such material delivered and placed in accordance with backfill requirements, if Bidding Sheet so indicates, otherwise total cost of Imported Backfill Material shall be borne by the Contractor.

Contractor is hereby notified that the actual quantity of imported backfill material specified herein cannot be determined at this time. The District is anticipating a condition that may not exist; therefore, the quantities are fictitious for the purpose of comparing bids and the District reserves the right to reduce, to totally delete, or increase, the quantity of imported backfill material required without any consideration for adjustment in unit price of this item or any other item if the material is not needed or the final quantities are substantially different from those shown on the bidding schedule.

I. Structure Excavation and Backfill

Structure excavation shall include the removal of all material of whatever nature necessary for the construction of foundations and other structures in accordance with the plans.

In operating compacting equipment near structures, care shall be used to prevent the displacement of, or injury to, the structure. Backfill shall be carried up evenly on all sides in accordance with the soils engineer’s recommendations.

No backfilling shall be done until concrete is thoroughly set and is safe to withstand the load.

All excavation shall be unclassified and it shall be the Contractor's responsibility prior to submitting their proposal to familiarize themself with the conditions that the Contractor may encounter during construction.

Full compensation for complying with the above requirements for structure excavation and backfill shall be considered as included in the lump sum bid for a structure, and no other compensation shall be made therefore.

J. Control of Water

The Contractor shall provide and maintain at all times during construction, ample means and devices with which to promptly remove and dispose of all water entering the excavations or other parts of the work. No concrete footings or floors shall be laid in water nor shall water be allowed to rise over them until the concrete or mortar has set at least eight hours. Water shall not be allowed to rise unequally against walls for a period of 28 days. Ground water shall not be allowed to rise around pipe installations until jointing compound in the joints has set.

The Contractor shall dispose of the water from the work in a suitable manner without damage to adjacent property. No water shall be drained into work built or under construction. Water shall be disposed of in such a manner as not to be a menace to the public health.

Dewatering for structures and pipelines shall commence when ground water is first encountered, and shall be continuous until such times as water may be allowed to rise in accordance with the provisions of this Section.

K. Payment

Payment for earthwork and for conforming to all of the provisions of these specifications, unless otherwise specified herein and itemized in the bid schedule, shall be considered to be included in the contract unit or lump sum prices paid for the various items of work wherein earthwork is required, and no additional allowance will be made therefore.

32. STEEL CASING

Steel casing shall be butt welded of sheets conforming to ASTM Specification A283/A283M or A53/A53M and shall be constructed at the location shown on the plans or as directed by the District. Construction made be by open trench. If the Contractor elects to install the key thing pipe by jacking, the provisions of these specifications for jack steel casing pipe shall apply. However, payment shall be at the bid unit price for steel casing.

The key theme pipe show have a steal thickness not less than 1/4 inch. It shall be the Contractor’s responsibility for selecting a size of casing, at or above the minimum

specified, in order that the installation may be done with a significant degree of accuracy. Any and all increased costs resulting from the Contractor's use of steel casing pipe with greater diameter or thickness than the minimum specified shall be borne by the Contractor.

Carrier pipe conforming to these specifications for the designated pipe shall be installed within the casing pipe to the lined and grades shown on the plans. The carrier pipe she'll be supported on Advanced Products & Systems Casing Spacers and Insulators, PSI Pipeline Seal and Insulator Inc., Cascade Water Works Manufacturing Co., or District approved equal. The ends of the steel casing shall be sealed with synthetic rubber and seals were stainless steel band straps with a weep hole installed at lower end for drainage. The annular space between the steel casing and carrier pipe shall be left empty on unless grouting is specified by the Engineer or on the plans.

Measurement for payment for casing pipe, excluding carrier pipe within said casing, shall be made along the centerline of the casing pipe between the limits shown on the plans and/or staked in the field.

Payment for steel casing pipe will be at the contract unit price per linear foot for steel casing pipe least in accordance with these plans and specifications. Payment Shelby full compensation for furnishing all labor, excavation, backfill, steel casing pipe, shoring, equipment, services, transportation, say and cement, concrete, call grouting operations described herein, and other pertinent items of labor and material required to complete the work. The water carrier pipe will be paid for under the bid item four pie.

33. JACKED STEEL CASING

The Work of this section includes the furnishing and installing jack steel casing under roadways, railroads, storm drain facilities and other major pipelines, facilities or structures; including all labor, excavation, backfill, boring, jacking, steel casing pipe, shoring, equipment, services, transportation, sand cement, concrete, grouting, and other pertinent items of labor and material required to complete the work. Jacked steel casing and bore installations shall be installed only by a qualified company regularly engaged in this specialty work.

Jacked steel casing shall be butt welded of sheet conforming to ASTM Specification A283/A283M and shall be constructed in accordance with the provisions of Section 306-2 of the "Standard Specifications for Public Works Construction", Latest Edition, except as herein specified or Northwest Pipe Co. Perma Lok steel casing conforming to ASTM 36, ASTMA 515, grade 60 or ASTMA 572, grade 42.

The casing pipe shall have a steel thickness not less than 3/8 inch. The casing pipe shall be a minimum of 20 feet in length to a maximum of 40 feet in length. Any and all increased costs resulting from the Contractor's use of steel casing pipe with greater diameter or thickness than the minimum specified shall be borne solely by the Contractor.

Steel casing pipe of the minimum size and thickness specified shall be installed in place by jacking and boring methods without the use of water or air at the locations shown on the plans, and to grades required to install carrier pipe. If the bore casing is equal to or exceeds 18-inches in diameter and the length of the bore exceeds 80-feet in length, the contractor shall bore using a track machine, unless otherwise directed by the District.

Voids, if developed outside the casing and within limits for boring or jacking, from any cause such as removal of rocks encountered in boring, shall be filled with lean grout forced in under pressure by insertion of a grout pipe outside of the casing. The lean grout shall consist of one part of portland cement to not more than four parts of sand by volume, placed at low pressure. Grout pressure is to be controlled so as to avoid deformation of the casing. Sand for grout to be placed outside the casing shall be of such fineness that 100% will pass a No. 8 sieve and no less than 35% will pass a No. 50 sieve.

If the Contractor is not ready to place the pipe in the casing at the time of completion of boring and jacking operations, the ends shall be bulk headed, and the approach trenches in public streets shall be backfilled, temporary surfacing placed thereon, and the affected portion of the street reopened to traffic. For short (overnight) duration, the trenches may be securely covered with armored plates to allow for uninterrupted traffic.

The contractor shall be responsible for maintaining the specified line and grade, and preventing settlement of overlying structures, or other damage due to the boring and jacking operations. Except as otherwise indicated in this Section of the Specifications, the Contractor shall comply with the applicable provisions of latest adopted edition of the Standard Specifications for Public Works Construction (SSPWC) together with any latest Supplement Amendment. Additionally, jacked steel casing shall be in accordance with applicable ASTM Standards.

A. Submittal

(1) The following shall be submitted:

(a) Submittals for jacking or boring operation shall be in accordance with SSPWC Section 306-2.1 unless indicated otherwise.

(b) The Contractors attention is directed to the provisions for "Shoring and Bracing Drawings" in Section 6705 of the California Labor Code. If such plan varies from the shoring system standards established in the Construction Safety Orders of the State of California, such alternative systems plans shall be prepared by a civil or structural engineer licensed in the State of California.

(c) Casing installation schedules which include schedules of excavation, pipeline installation, and backfill operations.

(d) Material list including diameter, thickness, and class of steel casing.

(e) Detailed locations and sizes of all boring or jacking and receiving pits.

(f) Shop drawings of casing insulators (spacers) and end seals including manufactures' catalog information.

(g) Permits associated with the boring or jacking operations.

(h) Pressure concrete mix design and bracing plans to prevent the carrier pipe from shifting or floating in accordance with SSPWC Section 306-2.3.

B. Potholing of Existing Utilities

Contractor shall be required to pothole any existing underground utilities crossing the proposed jacked steel casing installation that may potentially interfere with the installation. Refer to Special Conditions.

C. Permit Provisions and Requirements

(1) Contractor shall be responsible for obtaining any required permits other than those indicated in the Special Conditions to be obtained by the District. Contractor shall comply and adhere to all permit requirements at no additional cost to the Owner.

(2) Where Agency permit provisions differ from the specification requirements stated herein, the highest and most stringent standard or requirement shall govern; and Contractor shall construct the installation to said higher standard at no additional cost to the District.

D. Casing Spacers

Casing isolators/spacers shall have a minimum 14 gauge steel band and where required, 10 gauge risers. The band, risers and connecting studs shall be welded and cleaned at the factory before the application of a fluidized bed fusion bonded PVC coating of between 10-16 mils thickness. The PVC coating shall provide good resistance to acids and alkalies and excellent resistance under ASTM B117 salt spray tests. The isolators/spacers shall have a flexible PVC inner liner of 0.09 inch thickness with a durometer "A" 85-90 hardness and a minimum 58,000 volt dielectric strength. The runners shall be high pressure molded glass reinforced polymer with a minimum compressive strength of 18,000 psi per ASTM D638. The runners shall be 2.0 inch in width and a minimum of 7.0 inches long for C8G-2 models and 11" for C12G-2 models (polyethylene runners are not an acceptable alternative). The runners shall be attached to the band or riser by 3/8" welded steel studs and lock nuts which shall be recessed far below the wearing surface on the runner. The recess shall be filled with a corrosion inhibiting filler. The band section shall be bolted together with cadmium plated studs, nuts and washers. End seals shall be made of synthetic rubber. Banding straps shall be made of stainless steel.

Products of the type indicated shall be made by one of the following:

(1) Casing Spacers – Pipeline Seal and Insulator Inc. Model C12G-2, Advance Products & Systems Inc. Model S/12, or approved equal.

(2) End Seals – Pipeline Seal and Insulator Inc. Model S, C or W, Advance Products & Systems Inc. Model AC or AW, or approved equal.

The Contractor shall give the District a minimum of three (3) days advance notice of the start of an excavation or boring operation. All work shall be performed in the presence of the District, unless the District has granted prior approval to perform such work in its absence. All welding procedures used to fabricate steel casings shall be pre-qualified under the provisions of ANSI/AWS D1.1. Welding procedures shall be required for, but not necessarily limited to,

longitudinal and girth or special welds for pipe cylinders, casing joint welds, reinforcing plates and grout coupling connections. No exterior of interior joints of the carrier pipe shall have mortar grout applied over a seam until the seam has cooled. Exterior and interior joints of the carrier pipe shall be mortar coated and lined in the field.

E. Installation of Steel Casing

(1) JACKING HEAD: A steel jacking head shall be fitted to the lead section of the casing in such a manner that it extends around the entire outer surface of the steel casing and projects at least 18 inches beyond the driving end of the casing. The jacking head shall not protrude more than 1/2 –inch outside of the outer casing surface. The head shall be securely anchored to prevent any wobble or alignment variation during the boring or jacking operations. To minimize voids outside the casing, excavation shall be carried out entirely within the jacking head and not in advance of the head. Excavated materials shall be removed from the casing as the boring or jacking operation progresses and no accumulation of excavated materials within the casing shall be permitted.

(2) JACKING PIT: The excavations for the boring or jacking operations shall be adequately shored to safeguard existing substructures and surface improvements and to ensure against ground movement in the vicinity of the jack supports. Heavy guide timber, structural steel, or concrete cradles of sufficient length shall be provided to assure accurate control of boring or jacking alignment. The Contractor shall provide adequate space within the excavation to permit the insertion of the lengths of casing to be bored or jacked. Timbers and structural steel sections shall be anchored to ensure action of the jacks in line with the axis of the casing. A bearing block, consisting of a timber or structural steel framework, shall be constructed between the jacks and the end of the casing to provide uniform end bearing over the perimeter of the casing and distribute the jacking pressure evenly.

(3) CONTROL OF ALIGNMENT AND GRADE: The Contractor shall control the application of the jacking pressure and excavation of materials ahead of the casing as it advances to prevent the casing from becoming earthbound or deviating from the required line and grade. The Contractor shall restrict the excavation of the materials

to the least clearance necessary to prevent binding in order to avoid loss of ground and consequent settlement or possible damage to overlying structures.

(4) GROUTING: Not used.

(5) INSTALLATION: The installation of the casing shall be in accordance with the SSPWC Section 306-2.1 and subject to the approval of the agency having jurisdiction over the area containing the boring or jacking operations.

F. Installation of Carrier Pipe

(1) JOINTS: All joints of the carrier pipe within the casing shall be in accordance with District Standards.

(2) INSTALLATION OF PIPE: The end seals shall be pulled on (in case of pull on type of seals) and the casing spacers shall be installed over the carrier pipe at the proper location, in accordance with the casing spacers manufacturer's instructions. Care shall be taken not to damage the carrier pipe coating or the inner coating of casing pipe while installing the carrier pipe. The position of the runners in the carrier pipe and casing shall be as indicated and shall be uniform throughout the casing length. Line and grade of the carrier pipe shall be installed as specified on the plans and deviations shall be permitted. During installation, rifling (rotating) of the carrier within the casing can occur and can be a cause of line and grade discrepancies. Take necessary measures to prevent rifling. Guides may be installed as necessary to prevent rifling (rotating) of the carrier pipe during installation.

(3) TESTING OF THE CARRIER PIPE: Testing of the carrier pipe shall be completed prior to strapping the end seals.

(4) END SEALS: After the carrier pipe has been tested, the end seals shall be strapped by stainless steel bands in accordance with the manufacturer's instructions.

(5) CLOSING OF PITS: After equipment and excavated materials from the boring or jacking operations have been removed from the jacking pit, the Contractor shall prepare the bottom of the jacking pit

as a pipe foundation. The Contractor shall remove all lose and disturbed materials below pipe grade to undisturbed earth and re-compact the material.

Measurement for payment for casing pipe excluding carrier pipe within said casing shall be made along the centerline of the casing pipe between the limits shown on the plans and/or staked in the field.

Payment for jacked steel casing pipe will be at the contract unit price per linear foot for jacked steel casing pipe placed in accordance with these plans and specifications. Payment shall be full compensation for furnishing all labor, excavation, backfill, boring, jacking, steel casing pipe, shoring*, equipment, services, transportation, sand cement, concrete, all grouting operations described herein, and other appurtenant items of labor and material required to complete the work. The water carrier pipe will be paid for under the bid item for pipe. The ends of the casing pipe shall be closed using an end seal as manufactured by Advanced Products and Systems, Inc. or District approved equal. Brick and mortar is not acceptable.

34. SUBSTITUTIONS

A. Pursuant to Public Contract Code Section 3400(b) the District may make a finding that is described in the invitation for bids that designates certain products, things, or services by specific brand or trade name.

B. Unless specifically designated in the Contract Documents, whenever any material, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such Specifications shall be deemed to be used for the purpose of facilitating the description of the material, process or article desired and shall be deemed to be followed by the words “or equal.” Contractor may, unless otherwise stated, offer for substitution any material, process or article which shall be substantially equal or better in every respect to that so indicated or specified in the Contract Documents. However, the District may have adopted certain uniform standards for certain materials, processes and articles.

C. Contractor shall submit requests, together with substantiating data, for substitution of any “or equal” material, process or article no later than thirty-five (35) days after award of the Contract. To facilitate the construction schedule and sequencing, some requests may need to be submitted before thirty-five (35) days after award of Contract. Provisions

* Shoring shall be by steel shield from top of bore pit excavation to bottom, unless otherwise directed by Engineer.

regarding submission of “or equal” requests shall not in any way authorize an extension of time for performance of this Contract. If a proposed “or equal” substitution request is rejected, Contractor shall be responsible for providing the specified material, process or article. The burden of proof as to the equality of any material, process or article shall rest with the Contractor. The District has the complete and sole discretion to determine if a material, process or article is an “or equal” material, process or article that may be substituted.

D. Data required to substantiate requests for substitutions of an “or equal” material, process or article data shall include a signed affidavit from the Contractor stating that, and describing how, the substituted “or equal” material, process or article is equivalent to that specified in every way except as listed on the affidavit. Substantiating data shall include any and all illustrations, specifications, and other relevant data including catalog information which describes the requested substituted “or equal” material, process or article, and substantiates that it is an “or equal” to the material, process or article. The substantiating data must also include information regarding the durability and lifecycle cost of the requested substituted “or equal” material, process or article. Failure to submit all the required substantiating data, including the signed affidavit, to the District in a timely fashion will result in the rejection of the proposed substitution.

E. The Contractor shall bear all of the District’s costs associated with the review of substitution requests.

F. The Contractor shall be responsible for all costs related to a substituted “or equal” material, process or article.

G. Contractor is directed to the Special Conditions (if any) to review any findings made pursuant to Public Contract Code section 3400.

35. WORKERS

A. Contractor shall at all times enforce strict discipline and good order among its employees. Contractor shall not employ on the Work any unfit person or any one not skilled in the Work assigned to the Contractor.

B. Any person in the employ of the Contractor whom the District may deem incompetent or unfit shall be dismissed from the Work and shall not be employed on this Work except with the written approval of the District.

36. REMOVAL OF HAZARDOUS WASTE

Should Contractor encounter material reasonably believed to be polychlorinated biphenyl (PCB) or other toxic wastes and hazardous materials which have not been rendered harmless at the Work site, the Contractor shall immediately stop work at the affected Work site and shall report the condition to the District in writing. The District shall contract for any services required to directly remove and/or abate PCBs and other toxic wastes and hazardous materials, if required by the Work site(s), and shall not require the Contractor to subcontract for such services. The Work in the affected area shall not thereafter be resumed except by written agreement of the District and Contractor.

37. AIR POLLUTION CONTROL

Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes. All containers of paint, thinner, curing compound, solvent or liquid asphalt shall be labeled to indicate that the contents fully comply with the applicable material requirements.

Without limiting the foregoing, Contractor must fully comply with all applicable laws, rules and regulations in furnishing or using equipment and/or providing services, including, but not limited to, emissions limits and permitting requirements imposed by the South Coast Air Quality Management District (SCAQMD) and/or California Air Resources Board (CARB). Although the SCAQMD and CARB limits and requirements are more broad, Contractor shall specifically be aware of their application to "portable equipment", which definition is considered by SCAQMD and CARB to include any item of equipment with a fuel-powered engine. Contractor shall indemnify District against any fines or penalties imposed by SCAQMD, CARB, or any other governmental or regulatory agency for violations of applicable laws, rules and/or regulations by Contractor, its subcontractors, or others for whom Contractor is responsible under its indemnity obligations provided for in Section 5 of the General Conditions.

38. COMPLIANCE WITH STATE STORM WATER PERMIT

A. Contractor shall be required to comply with all conditions of the State Water Resources Control Board (“State Water Board”) National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity (“Permit”) for all construction activity which results in the disturbance of in excess of one acre of total land area or which is part of a larger common area of development or sale. Contractor shall be responsible for filing the Notice of Intent and for obtaining the Permit. Contractor shall be solely responsible for preparing and implementing a

Storm Water Pollution Prevention Plan ("SWPPP") prior to initiating Work. In bidding on this Contract, it shall be Contractor's responsibility to evaluate the cost of procuring the Permit and preparing the SWPPP as well as complying with the SWPPP and any necessary revision to the SWPPP. Contractor shall comply with all requirements of the State Water Resources Control Board. Contractor shall include all costs of compliance with specified requirements in the Contract amount.

B. Contractor shall be responsible for procuring, implementing and complying with the provisions of the Permit and the SWPPP, including the standard provisions, monitoring and reporting requirements as required by the Permit. Contractor shall provide copies of all reports and monitoring information to the Owner's Representative.

C. Contractor shall comply with the lawful requirements of any applicable municipality, the District, drainage district, and other local agencies regarding discharges of storm water to separate storm drain system or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs.

D. Storm, surface, nuisance, or other waters may be encountered at various times during construction of the Work. Therefore, the Contractor, by submitting a Bid, hereby acknowledges that it has investigated the risk arising from such waters, has prepared its Bid accordingly, and assumes any and all risks and liabilities arising therefrom.

E. Failure to comply with the Permit is in violation of federal and state law. Contractor hereby agrees to indemnify and hold harmless District, its officials, officers, agents, employees and authorized volunteers from and against any and all claims, demands, losses or liabilities of any kind or nature which District, its officials, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the Permit arising out of or in connection with the Work, except for liability resulting from the sole established negligence, willful misconduct or active negligence of the District, its officials, officers, agents, employees or authorized volunteers. District may seek damages from Contractor for delay in completing the Contract in accordance with the Contract Documents, caused by Contractor's failure to comply with the Permit.

39. EXCESSIVE NOISE

A. The Contractor shall use only such equipment on the Work and in such state of repair so that the emission of sound therefrom is within the noise tolerance level of that equipment as established by CAL-OSHA.

B. The Contractor shall comply with the most restrictive of the following: (1) local sound control and noise level rules, regulations and ordinances and (2) the requirements contained in these Contract Documents, including hours of operation requirements. No internal combustion engine shall be operated on the Work without a muffler of the type recommended by the manufacturer. Should any muffler or other control device sustain damage or be determined to be ineffective or defective, the Contractor shall promptly remove the equipment and shall not return said equipment to the job until the device is repaired or replaced. Said noise and vibration level requirements shall apply to all equipment on the job or related to the job, including but not limited to, trucks, transit mixers or transit equipment that may or may not be owned by the Contractor.

40. DOCUMENT RETENTION AND EXAMINATION

A. In accordance with Government Code Section 8546.7, records of both the District and the Contractor shall be subject to examination and audit by the State Auditor General for a period of three (3) years after final payment.

B. Contractor shall make available to the District any of the Contractor's other documents related to the Work immediately upon request of the District.

C. In addition to the State Auditor rights above, the District shall have the right to examine and audit all books, estimates, records, contracts, documents, bid documents, subcontracts, and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the modification in order to evaluate the accuracy and completeness of the cost or pricing data at no additional cost to the District, for a period of four (4) years after final payment.

41. SOILS INVESTIGATION

When a soils investigation report for the Work site is available, such report shall not be a part of the Contract Documents. Any information obtained from such report as to subsurface soil condition, or to elevations of existing grades or elevations of underlying rock, is approximate only and is not guaranteed. Contractor acknowledges that any soils investigation report (including any borings) was prepared for purposes of design only and Contractor is required to examine the site before submitting its bid and

must make whatever tests it deems appropriate to determine the underground condition of the soil.

42. STATE LICENSE BOARD NOTICE

Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

43. CHANGE IN NAME AND NATURE OF CONTRACTOR'S LEGAL ENTITY

Should a change be contemplated in the name or nature of the Contractor's legal entity, the Contractor shall first notify the District in order that proper steps may be taken to have the change reflected on the Contract.

44. PROHIBITED INTERESTS

No District official or representative who is authorized in such capacity and on behalf of the District to negotiate, supervise, make, accept, or approve, or to take part in negotiating, supervising, making, accepting or approving any engineering, inspection, construction or material supply contract or any subcontract in connection with construction of the project, shall be or become directly or indirectly interested financially in the Contract.

45. PATENT FEES AND ROYALTIES

The Contractor shall include in its bid amount the patent fees or royalties on any patented article or process furnished or used in the Work. Contractor shall assume all liability and responsibility arising from the use of any patented, or allegedly patented, materials, equipment, devices or processes used in or incorporated with the Work, and shall defend, indemnify and hold harmless the District, its officials, officers, agents, employees and representatives from and against any and all liabilities, demands, claims, damages, losses, costs and expenses, of whatsoever kind or nature, arising from such use.

46. OWNERSHIP OF DRAWING

All Contract Documents furnished by the District are District property. They are not to be used by Contractor or any subcontractor on other work nor shall Contractor claim any right to such documents. With exception of one complete set of Contract

Documents, all documents shall be returned to the District on request at completion of the Work.

47. NOTICE OF TAXABLE POSSESSORY INTEREST

In accordance with Revenue and Taxation Code Section 107.6, the Contract Documents may create a possessory interest subject to personal property taxation for which Contractor will be responsible.

48. SUBMITTALS OF ALL SAMPLES, MATERIAL LISTS AND CERTIFICATIONS

A. Contractor shall furnish to the Owner's Representative for approval, prior to purchasing or commencing any Work, a log of all samples, material lists and certifications, mix designs, schedules, and other submittals, as required in the specifications. The log shall indicate whether samples will be provided in accordance with other provisions of this Contract.

B. Contractor will provide samples and submittals, together with catalogs and supporting data required by the Owner's Representative, to the Owner's Representative within a reasonable time period to provide for adequate review and avoid delays in the Work.

C. These requirements shall not authorize any extension of time for performance of this Contract. Owner's Representative will check and approve such samples, but only for conformance with design concept of work and for compliance with information given in the Contract Documents. Work shall be in accordance with approved samples and submittals.

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SECTION B

WATER PIPELINE MATERIALS SPECIFICATIONS

BASIC SPECIFICATIONS

SECTION B

WATER PIPELINE MATERIALS SPECIFICATIONS

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BASIC SPECIFICATIONS

SECTION B

WATER PIPELINE MATERIALS SPECIFICATIONS

1. GENERAL

A. Alternate Pipeline Materials

Where alternate pipeline materials are allowed by the District, the Contractor shall select such materials and construction methods as will result in a satisfactory completed project. All pipe materials shall be new and unused unless otherwise specified. Materials and strength of pipe shall be as shown on the plans or as specified herein.

B. Contractor Furnished Materials

The Contractor shall furnish (excepting materials specifically listed in the Special Requirements to be furnished by the District) and install all pipe, fittings, supports, bolts, nuts, gaskets, jointing materials, appurtenances, auxiliary piping and connections to equipment in accordance with the drawings and specifications, all as required for a complete and workable piping system. The materials to be furnished shall be in accordance with the District's "List of Approved Manufactured Materials" and the requirements of the Contract Drawings and Specifications. Refer to Section A Par. 32 for requirements pertaining to Contractor-proposed substitutions.

C. Exposed Piping Supports

All exposed piping shall be adequately supported with devices of appropriate design unless otherwise approved by Engineer, the support shall conform to the Standard Drawing A-5 or as shown on the Drawings.

D. Piping Sizes

Pipe sizes are nominal inside diameter unless otherwise noted. All sizes and types of pipe are noted on the Drawings, and specified herein. Where pipe is lined, the nominal diameter shall be the inside diameter of the cement mortar lining, except for wrought iron pipe.

E. Dissimilar Metals

All dissimilar metals shall be insulated from one another with approved insulating flange sets or unions.

F. Material Identification

All pipe and fittings delivered to the job site shall be clearly marked to identify the manufacturer's name, material, class, and thickness. All material shall be new and free of blemishes. Acceptance of pipe and accessories by the District will be based on load bearing tests, and inspection of the complete products as specified hereinafter. Acceptance of installed piping will be based on inspection and leakage tests as specified hereinafter.

2. WELDED STEEL PIPE, CML & CMC

Shop fabricated pipe with machine-applied lining and coating, dye-check shop welding performed after hydrostatic testing of cylinders, pipe per AWWA C200, steel plate per ASTM A1011/A1011M, 10 ga. minimum, minimum yield 36,000 psi, cement mortar coating and lining per AWWA C205. Design stress shall not exceed 18,000 psi. Each pipe section shall be provided, prior to delivery, with temporary plastic end covers, with exposed steel shop coated, 40' maximum joint lengths, lap weld bell x plain end spigot, or rubber gasket bell x rubber gasket spigot (as indicated on the Drawings and/or Bidding Sheet), including rubber gaskets and gasket lubricant. Pipe furnished herein shall be from an organization which has had not less than ten (10) years successful experience providing pipelines of the type specified.

The minimum steel plate thicknesses utilized for water pipeline shall be as shown below:

JURUPA COMMUNITY SERVICES DISTRICT
MINIMUM WATER PIPELINE THICKNESS

Nominal Pipe Diameter	Minimum Cylinder Diameter	Class 150 Minimum Plate Thickness	Minimum Cement Mortar Lining Thickness	Minimum Cement Mortar Coating Thickness
6″	6-5/8″ O.D.	0.1345″	1/4″	3/4″
8″	8-5/8″ O.D.	0.1345″	1/4″	3/4″
12″	12-3/4″ O.D.	0.1345″	5/16″	3/4″
16″	17-3/8″ O.D	0.188″	5/16″	3/4″
18″	19-3/8″ O.D	0.188″	5/16″	3/4″
20″	21-3/8″ O.D.	0.188″	5/16″	3/4″
24″	25-3/8″ O.D.	0.188″	3/8″	3/4″
30″	31-3/8″ O.D.	0.188″	3/8″	3/4″
36″	37-3/8″ O.D.	0.188″	3/8″	3/4″

NOTES

1. Steel thicknesses indicated hereon are minimum; and design steel thickness shall be determined from the pressure imposed (Class, the design stress of the steel and the O.D. of the cylinder). The minimum acceptable yield strength of the steel shall be 36,000 psi. Design stress shall not exceed 18,000 psi regardless of yield strength of steel.

2. All materials shall conform with AWWA Specifications C200 (Steel Pipe CML/CMC, Section C205)

3. DUCTILE IRON WATER PIPE

Ductile Iron Water Pipe shall be used only where specifically approved by District; and shall comply with ANSI A21.51 rubber gasket push-on type joint bell and spigot, conforming to ANSI A21.11 manufactured in sections of 18 feet or 20 feet. Fittings shall be rubber gasket push-on manufactured in accordance with ANSI A21.10. Where indicated on the Project Drawings, restrained joints shall mean the use of T.R. Flex Pipe as manufactured by U.S. Pipe or approved equal. All ductile iron pipe shall be provided with double polyethylene encasement for the entire length of the pipeline, per AWWA C105.

Unless otherwise specified, the interior of the Ductile Iron Water Pipe and fittings shall be lined with a uniform thickness of cement mortar "double thickness" then sealed with a bituminous coating in accordance with AWWA C104 (latest). The outside surfaces

of D.I.P. and fittings shall be coated with a bituminous coating in accordance with ANSI A21.6 or ANSI A21.51.

Standard pressure class for Ductile Iron Water Pipe shall be based on internal pressures and external loadings. Unless otherwise noted, minimum design pressure class shall be 150 psi. Ductile Iron Pipe thickness Class 53 shall be used where flanged or Victaulic-type pipe joints are specified or indicated on the plans.

All service connections made to the Ductile Iron Pipe shall be a brass double service strap type.

4. POLYVINYL CHLORIDE (PVC) PIPE

PVC pipe shall conform to the latest revision of AWWA C909 unless otherwise specified herein.

All rubber rings shall be furnished by the pipe manufacturer. These rubber rings (elastomeric gaskets) shall be manufactured to conform to the requirements of ASTM F477.

This specification includes polyvinyl chloride (PVC) pipe of the following classes/working water pressures:

- For Working Pressure up to 150 psi: Class 235 (DR-18)
- For Work Pressure up to 200 psi: Class 305 (DR-14)

All PVC pipe shall be twenty (20) foot laying lengths and have cast iron outside diameters (C.I.O.D.'s).

AWWA C909 PVC pipe shall be Class 235 minimum (DR-18) or as specified on approved drawings.

PVC pipe shall be installed within one year of its manufactured date. Pipe older than one year shall not be delivered to the construction site.

The District shall require the manufacturer to submit a certificate stating that all pipe has been manufactured and tested in accordance with this specification.

The Contractor shall submit test results showing the physical properties of the materials used in the manufacture of the rubber gaskets, if required by the District. All rubber gaskets furnished under this specification shall be subject to inspection and/or test by the District. Any gasket found to be unsatisfactory by the District shall be immediately replaced by the Contractor, at no expense to the District.

All pipe furnished under these specifications shall be the product of an organization which has had not less than three (3) years of successful experience in the manufacture of pipe of the type specified. The total pipeline shall be the product of one company (or integrated companies) in the business for the design and manufacture of the pipeline materials required herein; unless otherwise approved in writing by the District.

All pipe to be supplied under these specifications must have the following markings on the pipe barrel: Nominal size and O.D. base (for example, 8" C.I.O.D.); dimension ratio number; AWWA pressure class; and manufacturer's name or trademark and production record code.

Joints

Unless otherwise specified or shown, all joints of PVC pipe shall be with elastomeric gasket bell ends. Solvent welded joints will not be allowed. The bell ends shall be an integral thickened bell. The minimum wall thickness of the bell, at any point, between the ring groove and the pipe barrel shall conform to the dimension ratio requirements of AWWA C909.

Pipe Outlets 2 Inches and Smaller

Outlet connections to PVC water mains two (2) inches and smaller shall be bronze service saddles with double bronze straps designed specifically for C.I.O.D. PVC pipe. No single strap saddles or full circle saddles are allowed.

Pipe Outlets Larger Than 2 Inches

Outlets in C909 PVC pipe larger than two (2) inches shall be accomplished through the use of ductile fittings.

For outlets to be installed after initial pipeline construction, a tapping saddle may be used subject to advanced written approval by the District.

Ductile Iron Fittings for PVC

Manufacturers of ductile iron fittings proposed to be furnished under the specification must be approved by the District. Ductile iron fittings shall be American made. Manufacturers of ductile iron fittings, which seek District approval, must conform with District procedures concerning approved manufactured materials.

This specification covers ductile iron fittings for use with AWWA C909 polyvinyl chloride (PVC) pipe including tees, crosses, elbows, reducers, and related special fittings. Cast iron fittings are not permitted.

All fittings for use with PVC C909 pipe shall be cast-iron outside diameter (C.I.O.D.) push-on or mechanical joint fittings with the exception of fittings with valves which shall be push-on or mechanical joint by flange. Ductile iron fittings shall be classified as "compact ductile iron fittings" and shall be produced in strict accordance with ANSI/AWWA A21.53/C153. When flanged fittings are specified or required, the fittings shall be ductile iron confirming to AWWA C110/ANSI A21.10, latest.

Unless otherwise specified, the interior of the ductile iron fitting shall be lined with a uniform thickness of cement mortar “double thickness” sealed with a bituminous coating in accordance with AWWA C104 (latest). The outside surfaces of the DIP fittings shall be coated with NO-OX-ID special protective metal coating and wax.

All ductile iron fittings shall be double polyethylene encased at the time of installation. Double Polyethylene encasement and installation shall be accordance with AWWA C105.

Restrained System

Restrained joints shall be provided by a clamping ring and an additional ring designed to seat on the bell end of the pipe. The rings shall be connected with T-Head bolts or rods. Restraining devices shall provide full (360 degree) support around the circumference of the pipe. No point loading shall be permitted. Restraint of mechanical joint fittings shall be provided by a clamping ring installed on the PVC pipe and connected to the mechanical joint fitting with T-Head bolts or rods. All restraint devices for PVC pipe shall have a water working pressure rating equivalent to the full rated pressure of the PVC pipe on which they are installed, with a minimum 2:1 safety factor in any nominal pipe size. In addition, restraining devices shall meet or exceed requirements of UNI-Bell B-13 "Recommended Performance Specification for Joint Restraint Devices for Use with PVC Pipe." Restraining devices shall be approved by the District.

All buried steel parts shall be sand blasted in accordance with the coating manufacturer's technical data sheet for "submerged" service and coated with two-coat epoxy. Epoxy shall be Tnemec Series 66 or approved equal. All bolts and connecting hardware shall be of high strength low alloy material in accordance with ANSI/AWWA C111/A21.11. Buried steel parts shall be covered with grease and wrapped with visqueen.

High Deflection Coupling

Pipe joints shall not be pulled at any angle greater than one-half the maximum angle recommended by the pipe manufacturer. If an angle greater than one-half of the

maximum angle recommended by the pipe manufacturer is required, install ROMAC Alpha Series Coupling to restrain the joint Minimum Curvature.

Minimum Curvature

Whenever portions of the proposed water construction are to be installed on the radius of the curve, the minimum radius and installation of the pipe shall be in accordance with the manufacturer's recommendations.

Locator Wire

Locator wire shall be installed over all non-metallic and pipelines, services, and appurtenances for the purposes of providing a continuous signal path for a lectern and pipe locators used to determine pipe alignment after installation. Locator wire Shelby 14-1 solid insulated copper wire (UF), in a continuous strand, placed on top of pipe and secured with tape. The wire shall be tied to the pipe at 10 foot intervals with plastic adhesive tape. Locator wire shall be brought to the surface in concrete valve boxes as approved by the district at 660 feet maximum on centers and add all appurtenances (i.e. fire hydrant, water services, air valves, blow-off, valve cans, etc.), thus providing continuous "looping" between the appurtenances and the water main. If a pertinent locations exceed the 660 feet maximum spacing the concrete valve box shall be installed at the edge of right-of-way" and the face of curb in front of the box marked with the letters "LW". If curb does not exist, a marker post approved by the District shall be installed within 2 feet of the valve box. Two feet of wire shall be looped within all valve boxes. All splices to locator wire shell be made with direct bury connectors as approved by the District.

After all trench backfill operations are complete, the Contractor shall conduct (or pay for a third-party to conduct) the first conductivity tests to confirm that the wire is continuous. After the installation of all other underground facilities, the Contractor shall conduct (or pay for a third-party to conduct) the second conductivity test to re–confirm that the wire is continuous. The conductivity tests shall be performed with the District representative present. The Contractor shall be responsible for all costs to confirm, locate, and repair the breaks in the locator wire identified in the conductivity test. In addition, the Contractor shall reimburse the District for all costs to re-test repaired sections of the wire. The Contractor is advised to use care and the installation and backfilling operations to prevent damage to the wire. The Contractor shall provide the District a final report summarizing the results of the conductivity testing. The report shall include but not be limited to listing points of failure identified during testing and measures taken to repair the breaks, location where tests were taken, dates, JCSD Staff present during testing, and a final summary showing all passed testing.

Splices shall be made at locations approved by the District. The wire connecting device shall be an underground electrical wire connector to splice and effectively moisture–seal the conductors. Wire connector shall be approved by the District sand shall be UL listed and CSA certified for direct and burial splices.

5. WELDED STEEL FITTINGS

All bends, reducers, increasers, tees, crosses, wyes, and other special fittings, except as specifically noted on the Drawings, shall be constructed of cement mortar lined steel pipe with coating as specified for balance of pipeline, and shall be shop fabricated in accordance with the latest revision of AWWA C208. (as modified below).

ELBOWS

Angle	0-22 1/2°	22 1/2°-45°	45°-67 1/2°	67 1/2°-90°
No. Pieces	2	3	4	5

NOTE: At the break point angles (i.e. 22 1/2°, 45°, and 67 1/2°) the Contractor shall use the elbow with the largest number of pieces.

All fittings shall have a steel cylinder thickness equal to or greater than the specified wall thickness of the pipeline, but not less than 10 gauge. The minimum radius for all bends shall not be less than 2.5 times the nominal diameter of the pipelines. Where simulated weld bells are used for lap-welded fittings, the bell plate thickness shall be 1/4".

Special fittings shall be fabricated from machine cement mortar lined and machine outside coated. The individual parts of the fittings shall be cut from the pipe, welded together, and the coating and lining of shop joints shall be hand applied to provide a finished cement mortar lined and finished outside coated joint comparable to the mechanically applied lining and coating detailed herein.

Specials and fittings fabricated from cylinders that have been hydrostatically tested in accordance with these specifications shall be tested by the dye-check method, or approved equal, prior to the lining and coating of said material. Contractor shall submit fabrication drawings for all AWWA shop fabricated fittings to the District for approval prior to construction.

6. DUCTILE IRON FITTINGS

Bends, Tees, Crosses, Reducers, Bushings, Adapters, Caps, and Plugs; ANSI/AWWA C110-(latest), minimum 250 psi rated working pressure, cement mortar lining shall be "double thickness" in accordance with AWWA C104-(latest), flange ends (F) shall conform in dimensions and drilling to ANSI B16.I for cast-iron flanges and flanged

fittings for 125 lb., produced by a "District Approved Manufacturer". Short body pattern is acceptable. Properly fitting rubber gasket joint fittings are also acceptable. Fittings shall be double polyethylene encased per AWWA C105.

7. AWWA GATE VALVES

All resilient seat gate valves shall meet the requirements of AWWA C509-(latest) for rubber seated gate valves and shall be tested bubble-tight. In addition, RS Gate Valves shall be furnished with the following items:

- Valve body and bonnet shall be fusion bonded epoxy coated inside and out (10 mils nominal thickness) and meet all requirements of AWWA C550.
- Low zinc bronze stems.
- All stainless steel body hardware. Resilient seat gate valves shall be produced by a "District Approved Manufacturer".

8. RUBBER SEATED BUTTERFLY VALVES

Butterfly valves shall conform to the latest revision of AWWA C504 and the following:

- Butterfly valves and operators shall be Class 150B, constructed for direct burial and have flanged ends to mate A.S.A. 150 lb. steel flanges.
- Butterfly valves shall be furnished with operators of the traveling nut or worm gear type, self-locking in any position, and sealed, gasketed, and lubricated to withstand a submersion in water to 10 psi. The valve shall open by counter-clockwise rotation of a 2 inch square AWWA operating nut.
- The operator shall be capable of meeting the torque requirements for opening and closing the valve against:
  - -- 150 psi upstream and 0 psi downstream pressure.
  - -- Maximum inlet-outlet flow rate of 12 FPS, normal flow rate of 6 FPS, and shall be provided with AWWA stops capable of absorbing up to 300 foot-pounds of input torque without damage to the valve or operator.
- Butterfly valves shall have Buna N seat bonded or mechanically retained, without use of metal retainers or other devices located in the flow stream,

to the body and have a disc seating edge of nichrome or stainless steel. All internal mountings or working parts shall be stainless steel.

- Butterfly valves shall have the shaft V-type self-adjusting packing. The shaft shall not be exposed between the valve body and the operator.

- Butterfly valves shall be furnished with records of tests specified in AWWA C504, Section 2.3 and Section 5. All valves shall be furnished with Certified drawings and parts list of the valve and operator. An affidavit of compliance to AWWA C504 shall be furnished for all valves. Five (5) sets of the above information shall be furnished to the District.

- Butterfly valves shall have their internal and external surfaces (except flange faces, stainless steel and rubber surfaces) epoxy coated, to meet all requirements of AWWA C550. All butterfly valves shall be lined (holiday free) with a minimum of 10 mils (2-5 mil coats) of Keysite 750, (white); or DeVoe Bar-Rust No. 235 (white). The epoxy lining shall be applied at the valve manufacturer's plant in accordance with the coating manufacturer's application specifications.

- Approved butterfly valves shall be produced by a "District Approved Manufacturer".

9. COPPER TUBING

Copper tubing shall conform to the requirements of the "Specifications for Seamless Copper Water Tube" (ASTM Designation B88) and shall be Type K. As required by the District, copper tubing shall be installed with a 6 mil (minimum) polyethylene sleeve "Polywrap C" by Northtown Company or District approved equal.

10. BLACK STEEL PIPE

Black steel pipe shall conform to the requirements of the ASTM A53/A53M and shall be "Standard Weight" (Type S) unless otherwise designated. Black steel pipe shall not be cement-mortar lined, for sizes up to 3" diameter but shall have fusion bonded epoxy lining and coating. Pipe/fittings sizes 4" and greater shall be cement mortar lined and outside cement mortar coated; cement mortar lined and outside bare; or bare steel, as designated on the Drawings or Specifications.

Unless otherwise shown, black steel pipe, 3 inches in diameter and smaller, shall be joined with malleable iron screwed fittings. Black pipe 4" and greater shall be joined with standard weight welding fittings produced by a "District Approved Manufacturer".

11. RED BRASS PIPE

Brass pipe and fittings shall conform to the requirements of the "Specifications for Seamless Red Brass Pipe, Standard Sizes" (ASTM Designation B43). As required by the District, brass pipe shall be installed with a 6 mil (minimum) polyethylene sleeve "Polywrap C" by Northtown Company or District approved equal.

12. STAINLESS STEEL PIPE

Stainless steel pipe shall be Type 316 welded, full finished, and shall conform to the "Specification for Seamless and Welded Austenitic Stainless Steel Pipe (ASTM A312/A312M).

13. INSULATING UNIONS

Where dissimilar pipe materials are joined, suitable insulating unions shall be installed. Insulating unions shall be produced by a "District Approved Manufacturer".

14. PRESSURE GAUGES

Except as otherwise provided in these specifications, pressure gauges shall be 4-inch diameter dials, liquid filled, AISI 316 stainless steel case, have stainless steel elements, and 1/2-inch bottom connection. Accuracy shall be 0.5% of full scale. In all cases the normal operating pressure of the system to which the gauge is attached shall be within the middle 1/3 of the gauge range. Gauges shall read in pounds per square inch for pressure. Gauge shall be produced by a “District Approved Manufacturer."

15. PRESSURE REGULATING VALVES

A. General

Regulating valve shall be a diaphragm actuated, single seated, hydraulically operated globe-type valve. The valve body shall be ductile iron or stainless steel. It shall have two operating chambers sealed from each other by a flexible synthetic rubber fully-supported diaphragm. The valve disc shall be resilient with a rectangular cross section and shall be retained on three sides. Valve bodies and all necessary parts shall be a size and type suitable for use with pressure as specified and include all necessary fittings for correct pilotry and connections. The model numbers shall be as indicated on the Drawings.

Regulating valves shall be subject to hydrostatic test of not less than twice the maximum pressure rating. Pressure rating (Class) shall be as indicated on the Drawings.

B. Pump Control Valves

Control of valve operation shall be by means of an externally mounted, four-way, solenoid pilot valve. Self-cleaning strainers shall be used to protect the control system. Valve shall utilize line pressure for operation. A Limit-switch shall be installed to be adjustable over entire valve travel. Valve shall be equipped with a built-in lift type check feature to prevent reverse flow. It shall operate independently of the solenoid control. Solenoid valve shall operate on 120 VAC.

C. Pressure Relief Valves

The Pressure Relief Valve shall maintain constant upstream pressure by by-passing or relieving excess pressure, and shall maintain close pressure limits without causing surges. The diaphragm assembly containing a valve stem shall be fully guided at both ends by a bearing in the valve cover and an integral bearing in the valve seat. This diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure. The diaphragm shall consist of nylon fabric bonded with synthetic rubber and shall not be used as a seating surface. There shall be no pistons operating the valve or pilot controls. All necessary repairs shall be possible without removing valve from the line. The pilot control shall be a direct-acting, adjustable, spring-loaded, diaphragm valve, designed to permit flow when controlling pressure exceeds spring setting. The pilot control system shall operate such that as excess line pressure is dissipating the main valve shall gradually close to a positive, drip-tight seating.

D. Rate of Flow Control Valves

The valve shall maintain a constant rate of flow regardless of fluctuations in upstream pressure. The diaphragm assembly containing a valve stem shall be fully guided at both ends by a bearing in the valve cover and an integral bearing in the valve seat. The diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure. The diaphragm shall consist of nylon fabric bonded with synthetic rubber and shall not be used as a seating surface. There shall be no pistons operating the valve or pilot controls. All necessary repairs shall be possible without removing valve from the line.

The pilot control shall be a direct-acting diaphragm valve designed to close when the actuating differential increases beyond the spring setting. The actuating differential pressure shall be produced by a thin-edge orifice plate installed in an orifice flange located downstream of the valve.

E. Pressure Reducing/Pressure Sustaining Valves

This valve shall maintain a constant downstream pressure regardless of fluctuations in demand. When the upstream pressure becomes equal to the spring setting of the pressure sustaining control, the valve throttles to maintain a constant inlet pressure. If the downstream pressure is greater than the upstream pressure the valve closes automatically to prevent return flow.

The diaphragm assembly containing a valve stem shall be fully guided at both ends by a bearing in the valve cover and an integral bearing in the valve seat. This diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure. The diaphragm shall consist of nylon fabric bonded with synthetic rubber and shall not be used as a seating surface. All necessary repairs shall be possible without removing valve from the line.

The pressure reducing pilot control shall be a direct-acting, adjustable, spring-loaded, normally open diaphragm valve, which closes when downstream pressure exceeds the spring setting.

The pressure sustaining pilot control shall be a direct-acting, adjustable, spring-loaded, normally closed diaphragm valve which opens when upstream pressure exceeds the spring setting. The control system shall include a strainer orifice assembly and an adjustable opening speed control.

F. Altitude Valves

The altitude valve shall maintain a constant downstream pressure regardless of fluctuations in demand and shall also close tight when a pressure reversal occurs. It shall be a hydraulically-operated, pilot-controlled, diaphragm type globe or angle valve. The main valve shall have a single removable seat and a resilient disc. The stem shall be guided at both ends by a bearing in the valve cover and an integral bearing in the valve seat. No external packing glands are permitted, and there shall be no pistons operating the main valve or any pilot controls.

The pilot control shall be a direct-acting, adjustable, spring-loaded, normally open diaphragm valve, designed to permit flow when controlled pressure is less than the spring setting.

A system of auxiliary check valves shall be used to admit downstream pressure into the main valve cover chamber if pressure reversal occurs. This must result in positive closing of the main valve.

G. Coatings

All regulating valves shall have all wetted ferrous parts epoxy coated. The epoxy shall be thermo-setting, approved for potable water.

All coated surfaces shall be coated with 12 miles of fusion bonded epoxy and be visually and electrically examined for defects. The coating shall be holiday free with a low voltage wet sponge test per AWWA C550.

H. Options

Additional required options to be furnished with the valves shall be indicated on the Drawings utilizing the appropriate model numbers and/or catalog designations.

16. FLOW METERS

A. Service Flow Meters

Service flow meters for 5/8" through 1" diameters shall be displacement type, cold-water meters in accordance with AWWA C700, Latest; produced by a "District Approved Manufacturer". Service flow meters for 1 1/2", 2", and 3" diameters shall be turbine type cold-water meters in accordance with AWWA C701, latest; produced by a "District Approved Manufacturer". Service flow meters 4" diameter and larger shall be produced by a "District Approved Manufacturer" with all bronze turbine by-pass meter. All meters shall be equipped with Radio Reads.

Unless otherwise specified on Drawings and/or on the Bidding Sheet, subsequent to payment of fees and the purchase of the meters through the District, the District will furnish all service meters that are less than or equal to 3" diameter for installation by the Contractor. Meters 4" diameter and larger shall be furnished and installed by the Contractor in accordance with District Standards and Specifications.

17. NO-OX-ID

For specified outside wrapped steel pipeline and/or where specifically directed by the District, outside pipe coating shall be NO-OX-ID special protective metal coating and wax.

18. PRECAST CONCRETE VAULTS

All precast concrete manhole sections shall be manufactured in a plant especially designed for that purpose. All units will conform to the design shown on the drawings, and all work shall be conducted under strict plant controlled supervision.

Design loads shall consist of dead load, live load, impact, and in addition, loads due to water table, and any other loads which may be imposed upon the structure.

Live loads shall be for H-20 and/or H-20-S16 per AASHTO Standard Specifications for Highway Bridges with revisions. Design wheel load shall be 16 kips. The live load shall be that loading which produces the maximum shears and bending moments in the structure. All reinforcing steel shall be intermediate or hard grade billet steel conforming to ASTM A615/A615M/A706/A706M. Bars other than 1/4" round, or smaller, shall be deformed in accordance with ASTM A615/A615M.

All vaults shall have a 2 piece torsion hinged cover specified for traffic loads where required. The effort necessary to lift the cover shall not exceed OSHA requirements. Cover shall be provided with a 6" x 6" meter reading lid located directly over the meter register. Also, cover shall be provided with a safety chain capable of limiting the travel of the cover. Precast sections shall be joined with a plastic joint sealing compound. The preformed cold-applied ready-to-use plastic joint sealing compound shall be produced by a "District Approved Manufacturer".

Vaults shall be located outside of sidewalk areas. The dimension from the top of the vault to the centerline of the piping within the vault shall not exceed 5'.

19. FUSION BONDED EPOXY COATING

Wherever fusion-bonded epoxy coating is specified on steel piping or equipment for potable water, the coating system shall consist of one coat of Scotchkote 134; Tnemec Series 104 or District approved equal. Minimum dry film thickness shall be 12.0 mils. Surface preparation shall be SSPC-10. Coating shall be in accordance with NSF-61. Method of application shall be electrostatic spray method heat fusion per coating manufacturer’s specifications.

Submit manufacturer's data sheets for review and approval, including: method of application; minimum and maximum DFT; recommended surface preparation; application instructions and curing requirements; etc.

20. NSF COMPLIANCE

All materials in contact with domestic water shall comply with the applicable provisions of California Title 22 Regulations Related to Drinking Water, including NSF 60 and 61 certifications; all at no additional cost to the District. Additionally, Contractor shall provide the District with a written “Affidavit of Compliance” with the California Drinking Water Regulations as part of the submittal approval process. District will provide copies of the Contract Documents and related project information to the California Department of Public Health for their approval.

21. PIPE SUPPORTS

Pipe supports shall be adjustable for pipeline products PSG series pipe supports or District approved equal. Pipe support shall be painted with primer and two (2) coats of paint per District Specifications. The pipe and saddle shall be separately by 1/8-inch thick Neoprene Rubber.

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WATER PIPELINE CONSTRUCTION SPECIFICATIONS

BASIC SPECIFICATIONS

SECTION C

WATER PIPELINE MATERIALS SPECIFICATIONS

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BASIC SPECIFICATIONS

SECTION C

WATER PIPELINE CONSTRUCTION SPECIFICATIONS

1. WATER PIPE INSTALLATION

A. General

The Contractor shall furnish and install all water pipeline material required for the construction of the water pipeline and appurtenances as herein specified and shown on the Drawings. All pipeline material shall be installed per manufacturer's published recommendations and per the applicable published standards for the particular material being installed unless otherwise modified herein. In case of any conflict, the most stringent and highest requirement shall govern, and the Contractor shall adhere to said requirement, all at no additional cost to the District.

B. Installation

Pipe shall be accurately laid to alignment and grade shown on Drawings or established by District. Each section of pipe shall be lowered into trench in a manner that will prevent injury to pipe, coating, or joints and shall be carefully bedded to provide continuous bearing and prevent uneven settlement. Inside of pipe shall be clean and free from foreign material of any kind before being installed. Contractor will lay pipe units with bell ends in direction of laying, unless otherwise ordered by District or set forth in these Specifications and Drawings.

C. Handling

Contractor may find it necessary to move or haul pipe during progress of the work. Dropping or bumping of pipe will not be permitted, and all damaged pipe will be rejected. Rejected pipe may be repaired if permitted by District, and such repairs shall be subject to approval of District. If pipe is damaged beyond repair through Contractor's hauling or moving program, Contractor shall, at the Contractor’s own expense, replace the pipe. After District and/or material supplier has delivered pipe to Contractor in good order and condition on the job, it shall be Contractor's responsibility to keep it in good condition, and the Contractor shall repair or replace, at the Contractor’s own expense, any pipe damaged from any cause after delivery.

Contractor shall take all necessary precautions to prevent pipe from floating due to water entering trench from any source, shall assume full responsibility for any damage due to this cause, and shall, at the Contractor's own expense, restore and replace pipe to its specified condition and grade if it is displaced due to floating. Contractor shall maintain inside of pipe free from foreign materials and in a clean, sanitary condition until its acceptance by District.

At all times when work of installing pipe is not in progress, all openings into pipe and ends of pipe in trench shall be tightly closed to prevent entrance of animals and foreign materials.

D. Joints (CML/CMC Pipelines)

(1) Type of Joints and Bonding Requirements

Water pipeline joints shall be constructed in accordance with District Standards. All rubber gasket joints shall be bonded (in the field) per District standard. Where indicated on the Drawing, Contractor shall install insulation flange kits in accordance with District requirements.

(2) Field Joints - Cement Mortar Lining

Mortar shall be Hubs all patch quickset non shrink commercial grout or a District approved equal packaged dry mortar mix consisting of one part cement and three parts sand. Quantity of water shall be sufficient so that when mortar is firmly compressed into a ball shape, it will hold its shape without slump. Mortar shall be mixed separately for each joint to be patched.

Special care should be taken to avoid damage to lining or coating during lowering pipe into trench.

(3) Field Joints - Cement Mortar Coating

Outside field joints are required to be coated with cement-mortar. This shall be accomplished by wrapping a canvas or paper diaper around the joint. The diaper is held on each side by steel strapping. Cement mortar shall be composed of 1 part cement and not more than 3 parts sand and mixed to a consistency of thick cream. The top of the pour must be covered with a protective material, such as cloth or paper.

E. Curved Alignment

Laying pipe on curved alignment with unsymmetrical closure of spigot into bell rings shall be permitted as recommended by pipe manufacturer. For the purpose of reducing angular deflection at pipe joints and for closure sections, Contractor shall be permitted to install pipe sections of less than standard length.

Closing courses and short sections of pipe shall be fabricated and installed by Contractor as found necessary in the field. Where closing pieces are required, Contractor shall make the necessary measurements and shall be responsible for their correctness.

F. Manufacturer Access

Pipe manufacturer shall have free access to the work during laying operations and testing. Any improper act on the part of Contractor which pipe manufacturer may observe shall be reported to District.

G. Allowable Variations in Pipeline Alignment

The pipeline alignment, as shown on the Plans, was determined from record land net data and interference information obtained from contacting the various utilities, along with conducting a field check during design. After the award and prior to the commencement of construction, it will be necessary to review the pipeline alignment shown on the Drawings, just prior to Contractor's trenching for verification of field conditions regarding interference facilities. Contractor and, Engineer and District shall field-review each section of the proposed pipeline to verify the alignment for trenching purposes. The specifications provide that the District may vary pipe alignment (ALL AT NO ADDITIONAL COST TO THE DISTRICT).

H. Pipeline Cover

Pipeline cover as shown on the attached Standard Drawings and/or the Design Drawings, is hereby defined to be Design Cover over pipeline. Therefore, should field conditions determined at time of construction show that any pipe grade changes are required, District reserves the right to authorize said changes in pipeline grades, and Contractor shall trench and lay pipeline accordingly, ALL AT NO ADDITIONAL COST TO THE DISTRICT.

All pipeline within public roadways shall be installed with no less than 48" of cover below road grade (or projected existing road grade, in case of

embankments) unless otherwise shown on the Drawings or approved by the Engineer.

I. PVC Waterlines

(1) Bedding Pipe

Each section of pipe shall be lowered into the trench in a manner that will prevent injury to the pipe, or joints and shall be carefully bedded to provide continuous bearing and prevent uneven settlement. The inside of the pipe shall be clean and free from foreign material of any kind before being installed.

For PVC pipe and ductile iron pipe with mechanical joints, the gasket shall be placed in the groove of the bell. Lubricate the spigot end into the bell and force into position per manufacturer's recommendation.

(2) Laying and Jointing PVC C909

Trenches shall be in a reasonably dry condition when the pipe is laid. Necessary facilities shall be provided for lowering and properly placing the pipe sections in the trench without damage. The pipe shall be laid carefully to the lines and grades given and the sections shall be closely jointed to form a smooth flow line. Where no grades are given, pipe shall be laid in a smooth continuous grade between connections to other mains, blowoffs and/or air release valves with a minimum cover of 48”. Immediately before placing each section of pipe in final position for jointing, the bedding for the pipe shall be checked for firmness and uniformity of surface.

(3) Field Hydrostatic Test (PVC)

For convenience of testing, the pipeline may be divided into sections and each section tested separately. All pipe shall be tested to the pressure rating of the pipe and not less than the pipe’s pressure rating:

- C909 PVC Class 235 Test Pressure: 235 psi
- C909 PVC Class 305 Test Pressure: 305 psi

If any leakage is evidenced in the testing of the pipeline, the various sections of the pipeline shall be isolated for testing between available valves, or between bumpheads located as approved by the District. The maximum allowable leakage for PVC pipe shall be six (6) gallons per day

per mile of pipe per inch of pipe inside diameter. If the leakage exceeds this amount, the section being tested will be considered defective. The Contractor shall determine the points of leakage, make the necessary repairs and perform another test. This procedure shall be continued until the leakage in each section falls below the allowable maximum for that section of pipeline.

Leakage shall be determined by metering the water injected into the pipeline while under the required pressure. The Contractor shall submit to District before and after the test the gate and meter used so that these devices may be tested by District.

The Contractor shall provide all calibrated meters for measurement of leakage, all bumpheads or skillets, piping, calibrated gages, pumps and other equipment, all water not furnished by District, and all power and labor necessary for the performance of pressure tests satisfactory to the District. The Contractor shall furnish all necessary equipment and labor to fill each section of pipeline tested and for pumping the water from one test section to another as may be necessary for obtaining and maintaining the required water pressure and for filling the entire pipeline with water after the conclusion of the testing, as hereinafter provided.

The Contractor, at the Contractor's own expense, shall do any excavation necessary to locate and repair leaks or other defects which may develop under test, including removal of backfill already placed, shall replace such excavated material, and shall make all repairs necessary to meet the required water tightness after which the test shall be repeated until the pipe meets the test requirements. All tests shall be made in the presence of the District. After the pipe has successfully met all test requirements specified herein, the entire pipeline shall be filled with water and so maintained until the completion of the contract unless otherwise ordered by the District.

(4) Thrust Restraint

Thrust restraint shall be accomplished by the use of restrained joints as specified herein. Thrust blocks will not be allowed for PVC pipelines.

J. Measurement and Payment

(1) Pipe

Contractor shall understand that pipeline lengths are approximate and are to be used for establishing unit bid prices and extensions for comparison of bids. UNLESS OTHERWISE STATED IN THE "SPECIAL REQUIREMENTS", all payments shall be based upon said unit bid prices applied to the net centerline pipeline length (station difference - or length shown on drawings) installed by Contractor and shall include all specials, tees, bends, fittings, etc., except when shown otherwise on Bidding Sheet.

The District shall approve pipeline length used for payment purposes. The District reserves the right to increase or decrease the amount of pipeline indicated on Drawings and Bidding Sheet, with no change in Contractor's unit bid price.

Contractor shall include under pipeline unit bid prices, all costs to completely perform all contract work, including but not limited to, the construction of thrust blocks, locator wire along non-metallic pipelines, shoring methods and materials, and supplying barricades or other safety devices, except costs which are specifically required to be included under separate bid item numbers on Bidding Sheet.

(2) Pipeline Appurtenances

All pipeline appurtenances, including air valve installations, blowoff installations, fire hydrant installations, main line valve installations, side outlet valve installations, blind flange installations, valve marker installations, guard post installations, slope protection cut-off wall installations, slope protection cut-off ditch installations, pedestal mounted terminal housing installations for direct burial cable used and for cathodic protection use, specified connections, specified appurtenances, etc., are shown in detail on Standard Drawings attached in back of these Specifications or are described in the Specifications and/or Drawings. Contractor shall understand and agree that District may elect to eliminate all or a portion of said installations and that the Contractor shall receive payment in amount bid therefore, only for those installations the Contractor actually constructs.

2. WELDING SPECIFICATIONS

A. General

All welding operators shall be qualified under the Standard Qualification Procedure of the American Welding Society and all applicable provisions of the latest edition of "Structural Welding Code" (ANSI/AWS D1.1) published by the American Welding Society are incorporated into this Specification. Contractor shall adhere to all Cal-OSHA, American Welding Society, American National Standards Institute and local agency safety regulations (including fire) regarding all welding operations.

The District shall have the right at any time to call for and witness making of test specimens by any welder in accordance with these Specifications, and the expense of such tests shall be borne by Contractor.

The provisions of these sections do not apply to the fabrication of pipe or special fittings in conflict with AWWA Standard Specifications for pipe.

All hand welding in both shop or field shall be done by welders certified in accordance with ASA B31.1 latest (AWWA C206-latest).

All welds shall be made by an electric shielded arc method of welding.

Plates shall be held in correct position. Abutting edges shall be properly prepared. Each deposited layer of welded metal shall be thoroughly cleaned before additional metal is applied to its surface. Finished weld bead shall be central to the seam, and the finished joint shall be free from depressions, undercut edges, burrs, irregularities resulting from welding, other than normal bead necessary.

All welds shall be a type that will produce complete fusion with base metal and shall be free from cracks, oxides, and gas pockets within the limits set forth under these Specifications. If the automatic welding machine does not obtain a fusion weld that will penetrate through to the inside of the pipe and protrude beyond the contour of the plate surface, an inside pass shall be made in the root of the groove on the inside of the pipe. Chipping out of the weld in the root of the groove will be required when deemed necessary by the District.

If welding is stopped for any reason, special care shall be taken when welding is resumed to obtain complete penetration between welded metal, plate, and welded metal previously deposited, and if flux is used, it must be redistributed before work is resumed.

The height of the outside weld bead above the contour of the plate surface shall be measured and shall be not less than 1/16-inch. Heights of the outside weld bead above the contour of the plate surface exceeding l/8-inch shall be removed by grinding or chipping.

Welds found deficient in dimensions but not in quality shall be enlarged by additional welding after thorough cleaning of the surface of previously deposited metal and adjoining plate. However, if work performed since making a deficient weld has rendered the weld inaccessible or has caused new conditions which would make such reinforcement dangerous or ineffective, the original conditions shall be restored by removal of welds, members, or both, before enlarging the deficient weld, or the deficiency shall be compensated by additional work as prescribed by the District.

Welds considered by the District to be deficient in quality or made contrary to any mandatory provision of these Specifications shall be removed by chipping or melting and shall be remade. The weld metal shall be removed throughout its depth to expose clean base metal, but if a strictly local deficiency, the weld need not be removed throughout its entire length, provided that sufficient amount shall be removed to insure that sound weld metal only remains. A cracked weld shall be removed throughout its length.

When removing part or all of a weld by cutting or chipping, such cutting or chipping shall not extend into the base metal beyond the depth of weld penetration. When removing part or all of a weld by melting, care shall be taken not to burn or otherwise injure the base metal. After the melting operation, burned metal shall be removed to clean, sound metal.

Overheated weld metal and any overheated base metal adjoining same shall be removed and replaced by new weld metal properly applied. However, if the plate is so badly or extensively injured by overheating that it cannot satisfactorily be replaced by weld metal, such additional work as prescribed by the District shall be performed, all at the Contractor’s own expense, with no additional compensation.

All longitudinal, spiral, and girth seams of straight pipe sections, and special sections when practicable, shall be welded with an automatic welding machine. If requested, sample welds shall be submitted to the District for testing in accordance with these Specifications. Approval of such tests shall be required prior to welding of pipe.

Hand welding will be permitted only when it is impracticable to use an automatic welding machine.

Fillet welds shall have full penetration into the corner. Excessive cutting back of the edges of fillet welds is a defect and shall be repaired. Butt welds shall be made by adding weld metal to both sides of the joint, and the underside of the weld in groove shall be chipped out, removing all slag and unsound metal, containing a clean surface for the application of weld metal; in making butt and fillet welds, weld metal shall be deposited in successive layers, so there will be as many passes as there are complete multiples of 1/8-inch in the plate thickness, provided there shall be a minimum of two passes.

B. Field Welded Pipe Joints

Welded field joints in steel pipe shall be lapwelded unless otherwise shown. Welders shall be certified in accordance with the American Standard Code for Pressure Piping (ASA B31.l) or the "Standard for Field Welding of Steel Water Pipe Joints" (AWWA C206). The welding of each such field joint shall be performed at a time when the temperature is approximately the lowest during the 24-hour day, and after at least 150 linear feet of pipe have been laid and the joints have been welded ahead of said joint. In all hand welding, the metal shall be deposited in successive layers so that there will be at least as many passes or beads in the completed weld as indicated in the following table:

Plate Thickness Inches	**Fillet Weld Minimum Number of Passes**
3/16	2
1/4	2
5/16	3
3/8	3
13/32	3
7/16	4
15/32	4
1/2	4
More than 1/2	1 for each 1/8 of an inch

Each pass, except the final one shall be thoroughly bobbed or peened to relieve shrinkage stresses and to remove dirt slag, or flux, before the succeeding bead is applied. Each pass shall be thoroughly fused into the plates at each side of the welding groove or fillet, and shall not be permitted to pile up in the center of the weld. Under-cutting along the side will not be permitted.

3. PAINTING SPECIFICATIONS

The Contractor shall provide all labor, material, and equipment necessary for completion of all painting work specified in these Specifications and Drawings.

The Contractor shall deliver all painting materials to the work site in the original containers with seals unbroken and unmutilated and with labels attached. All paints and coatings shall be in compliance with all South Coast Air Quality Management District requirements including volatile organic chemicals (VOC). Containers shall not be opened until after they have been inspected by the District.

Material for prime coat shall be produced by a "District Approved Manufacturer".

Material for finish coat shall be automotive grade synthetic industrial enamel, produced by a "District Approved Manufacturer" unless specifically stated otherwise in these Specifications or Drawings.

The Contractor shall submit a color chart to the District, who will select the finish colors.

All work shall be done by thoroughly qualified painters in a neat, workmanlike manner. All work which shows carelessness or lack of skill in the execution or is defective due to any other cause will be rejected and repainted to the satisfaction of the District, at the expense of the Contractor.

Unless otherwise specified, paint shall be applied by brush or spray.

Paint shall be applied only on thoroughly clean, dry surfaces. Paint shall not be applied in extreme heat, cold, damp, or humid weather or in dust or smoke-laden air.

All exposed iron and steel work, including piping and valves, etc., shall be prime painted at the shop. After installation, said materials shall be cleaned and all welds, tool marks, etc., shall be touched up with primer and given two coats of finish enamel.

Prepared material shall be used without cutting or addition of any material whatsoever, except as directed by the manufacturer and approved by the District. Each coat must be thoroughly dry before application of the next coat.

If brushes are used, they shall have sufficient body and length of bristle to spread the paint in a uniform coat. Paint shall be evenly spread and thoroughly brushed out and with no residual brush marks remaining. On surfaces which are inaccessible for brushing, the paint shall be applied by spray or by sheepskin daubers or other means necessary to obtain a proper thickness of paint as approved by the District.

If a spray method is used, the operator shall be thoroughly qualified in the use of the equipment required. Air compressors employed in spray painting shall be equipped with a suitable trapping device to keep water, oil, and other impurities from entering the air lines. Runs, sags, thin areas, or other imperfections in the paint coat shall be considered as cause for rejection, and the Contractor shall be required to make all necessary corrections to the satisfaction of the District.

Paint materials shall be kept sealed or covered when not in use. Oily rags or waste shall be kept in covered containers and disposed of at frequent intervals.

The Contractor shall be held responsible for protecting freshly painted surfaces from accumulation of dust, dirt, water, or other foreign materials, whatever the cause or source. Any damaged surfaces shall be wiped clean, sanded, or stripped to a clean, dry condition and repainted to the satisfaction of the District.

The Contractor shall protect all parts of the work site against disfigurement by Contractor's operations. Tarps and cloths shall be placed where required to protect floors and equipment from spatter and droppings. Electric switchplates, lighting fixtures, hardware, glass, vehicles, etc., shall be removed, covered or otherwise protected from disfigurement by the painting operations. The Contractor shall clean or otherwise restore any spattered surfaces to the satisfaction of the District.

4. CONCRETE WORK

A. General

Concrete shall be composed of portland cement, natural aggregates, and water proportioned to produce required strength and well mixed into required consistency.

Portland cement concrete for thrust blocks, cradles, encasements, and structures shall be composed of portland cement, fine aggregate, coarse aggregate and water proportioned and mixed in accordance with the requirements of Section 90 of the State of California Department of Transportation Standard Specifications, except as may be herein modified.

Concrete for cradles and encasements, and all other concrete structures, shall be constructed to the lines and grades and in accordance with the design shown in the details on the plans.

Prior to placing any concrete, the Contractor shall submit to the District the design mix proposed to be used. Said mix shall set forth the weights of cement, sand, coarse aggregate and the amount of water to be used. (Source of supply shall also be

furnished to the District.) The proposed mix shall be approved by the District prior to placing any concrete.

B. Portland Cement Concrete Classification

Concrete Class	Compressive Strength @ 28 days (psi)	Sacks of Cement/CY
"A"	3,500	6
"B"	2,500	5
"C"	2,000	4
"D"	4,000	7

The amount of free water used in concrete shall not exceed 312 pounds per cubic yard, plus 20 pounds for each required 100 pounds of cement in excess of 564 per cubic yard.

5. PAVEMENT REMOVAL AND REPLACEMENT

A. General

Pavement removal and replacement for all public roads, including aggregate base and temporary paving where required, shall comply with all the requirements of the agency issuing the Encroachment Permit. In roads established under formation of a special road district, the specifications of the Encroachment Permit shall apply. Any private roads and streets, including driveways, in which the surface is removed or damaged, shall be restored to the original grade and crown by the Contractor. Removed or damaged sections shall be restored with the type of improvements (or better) conforming to that which existed at the time the Contractor entered upon the work.

It shall be the responsibility of the bidder to satisfy themself as to the existing pavement sections prior to submitting their bid.

Full compensation for temporary and permanent resurfacing, including the replacement of base material as required, shall be included in the unit bid price for pavement removal and replacement per linear foot of mainline trench. Any required pavement removal and replacement for services, fire hydrants, air valves, or other appurtenances shall be considered included in the bid price for the various items, and no additional compensation shall be made therefore.

B. Pavement Cutting

Pavement shall be saw cut to a straight edge parallel to the pipe alignment prior to excavation. Method of pavement cutting shall be as specified by the Agency having jurisdiction. Under no circumstances shall excavation be started prior to scoring of pavement. If the adjacent pavement is disturbed during the Contractor's operation, the pavement shall be recut on a straight line to remove the damaged pavement before resurfacing. Portland cement concrete pavement and sidewalk shall be saw cut. Pavement cutting shall be considered included in the bid price for pavement removal, disposal, and replacement, and no additional compensation shall be made therefore.

C. Permanent Trench Pavement

The permanent trench pavement shall be in accordance with the Agency having jurisdiction. If not specifically addressed by the road agency's permit, the existing pavement shall be saw cut and the permanent trench base paving shall be constructed to be flushed with existing so that the asphalt concrete is smooth, true to grade and cross section thus providing an even driving surface without undulations. The completed base paving surface shall be provided as described herein whether an asphalt concrete cap is specified or not specified. Should an asphalt concrete cap be required, Contractor shall grind down the base paving prior to placement of the A.C. cap.

D. Asphalt Concrete Cap

Where required by the agency issuing the Encroachment Permit or other agency having jurisdiction, an asphalt concrete cap shall be placed along the length of the trench. The installation of the asphalt concrete cap shall be in accordance with the specifications and policies of the agency having jurisdiction. Where the asphalt concrete cap is not specifically stated in the applicable permit or on the drawings, and when directed by the District, the minimum cap shall be a grinded 0.10-foot thick, 12-foot wide section centered over the center of the trench, or the traveled way, and pulled with a "Barber Greene" or equivalent.

Full compensation for placement of asphalt concrete cap, where required, shall be included in the unit bid price per linear foot of mainline trench. Any required asphalt concrete cap for house connection laterals or other appurtenances shall be considered included in the bid price for the various items, and no additional compensation shall be made therefore.

6. STEEL FLANGES, BOLTS, NUTS AND GASKETS*

Flanges for steel pipe shall conform to requirements for ASA 150-lb. flanges and flanged fittings or ASA 300-lb. flanges and flanged fittings, as noted on Drawings. All flanges shall be forged steel welding-neck or slip-on flanges. Dimensions and drilling of flanges for steel pipe shall conform to ASA 150 or 300, respectively, steel pipe flanges and flanged fittings, and all flanges shall be attached with bolt holes straddling vertical axis of pipe, unless otherwise shown on Drawings. Flanges and their attachment to pipe shall conform to applicable requirements of latest edition of API-ASME Code for Unfired Pressure Vessels. Welding-neck flanges shall be bored to same inside diameter as adjoining pipe.

Bolts shall be heavy hexhead machine per ASTM A307, Grade B. Nuts shall be heavy hex and conform to ASTM A563 (ASME B18.2.2). Washers shall be provided on both nut and bolt sides and shall be of the same material as the nuts. Studs with nuts on both ends shall be furnished wherever close clearances make removal and replacement of fixed head bolts difficult. Bolts and studs shall be of such lengths that not less than two or more than four threads shall project through nut when nut is drawn tight. All bolts, studs, or cap screws used in tapped holes shall be of sufficient length to provide an engagement of length of threaded portion of not less than nominal diameter of bolt for steel nor less than one and one-half times the diameter for cast iron fittings.

Unless stainless steel nuts and bolts are used, each steel/iron type fitting below grade shall be equipped with at least one (1) sacrificial zinc anode cap. Said cap shall be "protecto-cap" or District approved equal.

Slip-on flanges shall be welded along the inner seam surrounding the pipe diameter as well as along the outside pipe and flange interface.

Gaskets for flanged joints shall be 1/16 inch thick compressed non-asbestos sheet, produced by a "District Approved Manufacturer". Flat-faced flanges shall be provided with full face gaskets with bolt holes prepunched. Raised-face flanges shall be provided with ring gaskets.

7. ELBOWS, SIDE OUTLETS, TEES, BUTTSTRAPS, CROSSES

For steel pipe, all elbows, side outlets, top outlets, tees, crosses, etc., shall be furnished by the Contractor and shall be shop fabricated in accordance with AWWA C208 (latest); except the minimum radius for all bends shall not be less than 2.5 times the nominal diameter of the pipelines. Whenever the Contractor must perform minor

* Flanges shall be as per Specifications, except that at the option of the Contractor A.S.A. 150-lb. flanges may be changed to Class "E" steel plate flanges per Table 3 of AWWA C207-01.

amounts of field fabrication, the Contractor will be required to do all fabrication in a manner such that the lining and wrapping/coating may be repaired by hand to a quality equal to the shop applied lining and wrapping/coating. Buttstraps, shearrings, etc. shall be per the applicable Standard Drawings, the Drawings, or applicable AWWA Standards or Manuals.

Service outlets shall be constructed in accordance with the Standard Drawing.

Wherever collar reinforcement is required, both the collar and the plain-end of the flanged x p.e. (plain-end) outlet shall be preshaped to mate with curvature of the main line pipeline, and both the collar and the flanged x p.e. (plain-end) outlet shall be welded into place.

All collar and wrapper reinforcing shall be in accordance with the Standard Drawing and with the following reinforcement guides:

A. District's Standard for Outlet Reinforcement.

B. Steel Pipe, Design and Installation, AWWA Manual M-ll, latest.

C. An equal pipeline manufacturer's reinforcing guide, as approved by Engineer.

D. API-ASME Code for Unfired Pressure Vessels for Petroleum liquids and gases.

If case of conflict, the highest and most stringent standard shall govern.

8. TACKWELDED AND WELDED JOINTS - INSTALLATION

All rubber gasket joints shall be bond welded in accordance with the District standards, unless an alternate method is approved by the District.

The pipe manufacturer shall direct the Contractor on the method of welding the fully welded joints, or the cut-to-fit joints, in order that the joints shall not pull apart or leak when subjected to design pressures stated herein.

9. CONNECTIONS TO EXISTING WATER SYSTEM

Unless otherwise stated in the Special Requirements, Contractor shall furnish and install connections to the existing water systems at locations shown on Drawings**.** Prior to connecting to the existing water system, the Contractor shall "pothole" the connection location(s) and provide this information along with "Shop Drawings" of the proposed fitting(s) to the District for approval prior to the fabrication of said fitting(s).

The Contractor shall perform all work required including any necessary field measurements, cuts-to-fit, temporary connections, and field fabrications to meet existing conditions.

Contractor shall install the proposed pipelines about 3' to 4' short of the connection points to the existing pipelines. Hydro-static/leakage tests SHALL NOT be performed against closed valves that separate the proposed system from the existing system.

Connections SHALL NOT be made between existing District pipelines and proposed pipelines until successful hydrostatic/leakage and disinfection testing of the proposed pipelines has been completed. Upon successful completion of the hydrostatic/leakage and disinfection testing and only upon approval by the District, final connections can be made to the existing pipelines. The pipeline material and appurtenances utilized to make the final connections shall be "swabbed" with a high strength chlorine solution. Minimum dosage in parts per million (ppm) to be determined by District.

The Contractor shall be fully responsible for providing all labor, materials, equipment to de–water existing pipelines to make the connections or for any other purposes as required. Compensation for such de–watering activities shall be made per various bid items and no additional compensation shall be made therefore. Contractor shall construct all said connections so that any down-time of existing water systems, due to connection work, shall occur during normal working hours as directed by District.

Contractor shall cooperate with District in scheduling said connections.

District will operate all existing valves necessary for Contractor to accomplish said connection work.

10. FILLING, TESTING, AND CHLORINATION

The Contractor shall fill all contract pipelines (through an approved and certified backflow device furnished by the Contractor) with construction water and may obtain said construction water through hydrants, blow-offs, etc.

The Contractor shall hydrostatically test all contract pipelines, as detailed in the Basic Specifications, to at least 150% of the specified pipe class.

The Contractor shall chlorinate all contract pipelines, as detailed in the Basic Specifications.

Payment by the District to the Contractor for all filling, testing, and chlorination work required under these Specifications SHALL BE INCLUDED IN THE BID PRICES FOR PIPELINE CONSTRUCTION PER THE BIDDING SHEET.

11. PROTECTION OF DOMESTIC WATER MAINS FROM CONTAMINATION

The Contractor shall protect all domestic water mains from contamination by any existing septic tank and/or leach line facilities, etc., which may be adjacent to the jobsite, and payment to the Contractor for any special construction required shall be made per the Extra Work Provisions of the General Conditions herein. Said special construction shall be approved by the District and the State Health Department.

12. FIELD HYDROSTATIC TEST AND LEAKAGE TEST

Upon completion of laying, joining, and backfilling, and after pipe lengths comprising the line ARE NOT LESS THAN 14 DAYS OLD, and prior to resurfacing, pipeline**,** including all appurtenances (e.g. fire hydrants, services, air valves, etc…) shall be hydrostatically tested. Prior to performing the test, the section of pipeline to be tested shall be filled with water and placed under a slight pressure for at least 48 hours. Required test pressure shall then be applied and maintained for a 4-hour period. Water required to maintain test pressure shall be measured by meter or other means acceptable to District. Contractor shall provide all necessary thrust restraint required for the hydrostatic testing.

THE MEASURED LEAKAGE SHALL NOT EXCEED 10 GALLONS PER INCH DIAMETER PER MILE PER 24 HOURS. Should leakage exceed this amount, the section being tested will be considered defective and Contractor shall determine points of leakage, make necessary repairs, and conduct a second test. This procedure shall be continued until leakage equals or is less than the allowable minimum. Note: No leakage is allowed for welded steel pipe with fully welded joints.

Contractor shall provide calibrated meters for measurement of leakage, necessary bulkheads, piping, gauges, pumps, power, and labor, and do and furnish everything necessary for making all tests required, at the Contractor’s own expense, and shall furnish to District copies of all tests performed. The District will provide the pressure gauge to be utilized for pressure testing purposes.

All pipe shall be pressure tested to at least 150% of the pipe class rating; i.e. Class 150 = 225 psi test pressure, as measured near the low point of the section of pipe being tested.

The hydrostatic test shall be conducted on sections of pipeline as directed by District. CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION OTHER THAN THAT STATED IN BIDDING SHEET FOR TESTING LINES. CONTRACTOR SHALL PAY THE DISTRICT FOR INSPECTION TIME FOR ALL RETESTS.

Care shall be taken to see that all air vents are open during filling. After section has been completely filled, it shall be allowed to stand under slight pressure for a sufficient length of time to allow escape of air from any air pockets. During this period all fittings, specials, manholes, and connections shall be examined for leaks. If any are found, they shall be stopped, using a method approved by District. REQUIRED TEST PRESSURE SHALL THEN BE APPLIED AND MAINTAINED FOR THE 4-HOUR PERIOD. Contractor, at the Contractor's own expense, shall do all excavation necessary to locate and repair leaks or other defects which may develop under test, including removal of backfill already placed and shall replace such excavated material and shall make all repairs necessary to meet the required water tightness, after which test shall be repeated until pipe meets test requirements. ALL TESTS SHALL BE MADE IN THE PRESENCE OF DISTRICT OR THE DISTRICT'S REPRESENTATIVE. After pipe has successfully met test requirements, as specified, entire pipe shall be filled with water and so maintained until completion of the contract, unless otherwise ordered by District.

Pipe manufacturer and Contractor shall be responsible for any defects in materials and workmanship in manufacture and installation of pipe which may be revealed by such test and shall pay all costs of materials, labor, or other costs incidental to making necessary repairs or replacements resulting from such defects, in accordance with these Specifications.

13. DISINFECTING PIPELINES

Contractor shall furnish all equipment, labor, material, and water for proper disinfection of pipelines. Disinfection shall be accomplished by chlorination after lines have been tested for leakage but before they have been connected to existing system. Prior to chlorination, mains shall be thoroughly flushed out. The new mains shall be cleaned and flushed prior to disinfection. The flushing velocity to be obtained for pipes 12-inches and smaller in diameter shall not be less than 2.5 feet per second. The Contractor shall make the necessary arrangements to attain the minimum velocity. The Contractor shall take due precaution in providing for adequate drainage from the site.

Contractor shall submit filling, disinfection and flushing procedures to District for review. It is the responsibility of the Contractor to dispose of the flushed water from the project area. The Contractor is responsible for any damage as a result of flushing

operations. This includes but not limited to: dechlorination of chlorinated water, obtaining written approval from adjacent property owners affected by flushing operations, safety, protection of storm drain inlets, etc. Contractor shall obtain discharge permit for De Minimus water flows from the California Regional Water Quality Control Board as detailed in these specifications.

The flushed water shall have a residual chlorine content not to exceed 0.10 mg/l prior to discharging into the storm drain system. The flushing operation shall be in accordance with the California Regional Water Quality Control Board requirements. Dechlorination prior to flushing is required. The cost of said dechlorination shall be the responsibility of the Contractor.

The Contractor shall provide adequate drainage from the site.

The entire pipeline, including all valves, fittings, hydrants, service laterals, and other accessories, shall be disinfected in accordance with the specifications provided herein.

A chlorine gas-water mixture shall be applied with a solution-feed chlorinating device. Chlorinating agent shall be applied at locations selected by District and as prescribed by the District. DOSAGE APPLIED TO WATER WITHIN PIPELINE SHALL BE AT LEAST 50 PPM.

Chlorinated water shall be retained in pipeline long enough to destroy all non-spore-forming bacteria. This period shall be at least 24 hours. After chlorine-treated water has been retained for required time, CHLORINE RESIDUAL AT PIPE EXTREMITIES AND AT OTHER REPRESENTATIVE POINTS SHALL BE AT LEAST 25 PPM. Pump bowl assemblies shall not be exposed to harmful chlorine dosages and/or detention times.

Following chlorination, all disinfection water shall be thoroughly flushed from the pipeline.

Should initial treatment fail to produce satisfactory disinfection of the pipeline as evidenced by the chlorine residual and/or the bacteriological test results, the chlorination procedure shall be repeated until acceptable results are obtained. Contractor shall use caution in discharging any highly chlorinated water, and shall be responsible for obtaining any necessary permission and permits from regulatory agencies. If required, the Contractor shall apply a reducing agent to the solution to neutralize residual chlorine or chloramines remaining in the water at the Contractor's expense.

Bacteriological tests required by the Health Department shall be taken by the District, and conducted by a laboratory selected by and paid by the District (paid for by the Developer for private projects). All costs for any retesting that may be required shall be paid by the Contractor. All retesting shall conform to District requirements.

Unless otherwise specified herein, minimum requirements for disinfection and bacteriological testing of new pipelines shall be in accordance with ANSI/AWWA C651 except as modified herein; and the location and number of all tests shall be determined by the District, with approval by the State Health Department. A minimum of two (2) consecutive passing bacteria samples (absent for Coliform, absent for e. coli, and HPC ≤ 200) are required by the District. The first set of samples shall be taken 24-hours after pipeline is completely flushed and water in said pipeline has been at rest without any water flows. The second set of samples shall be taken 24-hours after first set of samples were taken and water in said pipeline has been at rest without any water flows. No connections to District's existing water system shall be made until certified test results, in writing for both sets of samples are provided to District for review and approval.

Once District provides approval for connections to District water system, Contractor can make connections. One sample will be taken immediately following completion of connection and energizing of existing line and connection within the vicinity of the connection and second sample taken 24 hours later in same location. This procedure shall be repeated at all proposed connection locations.

14. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, SANTA ANA REGION PERMIT

Contractor shall channel (using sandbags or other means) flushing flow. Contractor shall protect all property from flooding and other damage during flushing operations. Contractor shall post "flooding ahead" signs in streets as required and as directed by the District. Because of demand on existing water system, the District may require Contractor to flush the pipeline over several days, in the evenings, weekends, or holidays.

Contractor shall not allow any discharges from the construction site which may have an adverse effect on receiving waters of the United States.

Discharged water shall meet chlorine residual levels established by the appropriate State Water Quality Control Board. Dechlorination prior to flushing may be required, the cost of which shall be paid by the Contractor.

15. CORROSION PROTECTION

Where indicated on the Drawings, cathodic protection test stations and/or flange insulation kits with test stations shall be constructed in accordance with the applicable District Standards. Payment for installation of cathodic protection test stations and/or flange insulation kits with test station shall be per the unit bid price indicated on the Bidding Sheet for each installation, and no additional compensation shall be made therefore.

16. TAPPING

Connections to existing pipelines shall be made with the installation of tees or wrappers as designated on the plans. The connection sequence shall be as follows: The existing pipeline shall be drained; the tee or wrapper with valving shall be installed; and District approval of the connection shall occur prior to the re-filling of the existing pipeline.

In certain instances, and only where approved in writing by the District, wet tapping will be allowed as follows:

A. Water Mains

Where connections to existing water mains are made by wet tapping, the Contractor shall perform all required excavation and shall furnish the tapping saddle and gate valve. The District, or a District authorized contractor (Kopel or approved equal), will install the tapping saddle and gate or plug valve and make the wet tap. The Contractor shall pour the thrust block, backfill, complete all compaction of backfill, make closure, set the gate "can" and cover, make all necessary pavement repairs and complete the installation in accordance with the Plans and these Standards.

B. Water Laterals

Where connections to existing water mains are made by wet tapping, the Contractor shall furnish and install all necessary material and perform all required hand and machine excavation, backfill and pavement repair. The District or a **District** authorized Contractor will perform the actual wet tapping only.

17. VIDEO INSPECTION (CML/CMC WATERLINES)

Upon completion of the installation and backfill of the water pipeline, appurtenances, services, etc. and prior to filling the pipeline with water for the pressure test, the Contractor shall notify the District that the pipeline system is

ready for video inspection. Said notification shall be made at least five (5) working days in advance of the actual video inspection date. The video inspection will be made by a video inspection company approved by the District and hired by the Contractor. Video Inspection shall be made in the presence of the District or the District's representative. Prior to the video inspection, the contractor shall be responsible to provide the following items:

A. Clean water pipelines free of all dirt, rock, debris, etc.

B. Labor and equipment necessary to excavate the pipeline and provide camera access ports. Access ports shall not exceed 1000 feet in spacing and shall be located at all bends in excess of 22°. Also, labor and equipment necessary to repair the access ports to the satisfaction of the District.

C. Driveable truck access to each access port within the system to be videoed.

D. Provide all traffic control methods required.

Should any of the aforementioned items not be in compliance by the time the video inspection is to occur, the Contractor shall be subject to compensating the District for all costs incurred.

Full compensation to the Contractor for complying with the above requirements shall be considered as included in the contract lump sum provided for such work and no additional allowance will be made therefore.

Upon completion of the video for the subject waterlines, the Contractor shall reconnect the piping and backfill all access ports. The video inspection company will provide the District with the DVD (video file format to be viewable on a standard DVD player/computer and/or as approved by the District) and a written report detailing the condition of the interior of the mainline and joints. Subsequent to review of the DVD and report by the District, the District will notify the Contractor that the Contractor may then proceed with the filling, testing, and disinfection of the pipeline; or the District will provide a list of corrective measures that must occur prior to acceptance.

Should remedial activities be necessary, the reconstruction methodology shall be approved by the District prior to commencement of the work. Upon completion of the remedial construction, the Contractor shall once again notify the District that the waterlines are ready for a video inspection. The District

reserves the right to re-video any portions of the water system they determine may have been affected by the reconstruction work activities. Further, all related costs including but not limited to reconstruction materials, labor, equipment, video inspection, District and other agency inspection, and administrative costs shall be borne by the contractor.

VIDEO INSPECTION COMPANY REQUIREMENTS

(Closed Circuit Television Inspection - CCTV)

1. Rotating lens camera with articulating head.

2. Scanning capabilities of 360°.

3. Operative in 100% humidity conditions.

4. Lighting for the camera shall minimize reflective glare.

5. Lighting and camera quality shall be suitable to provide clear, in focus picture of the entire periphery of the pipe for all conditions.

6. Camera focal distance shall be adjustable through a range from 6" to infinity.

7. Remote reading distance (footage) counter shall be accurate to one percent (1%) over the length of the particular section being inspected.

8. The camera, television monitor, and other components of the color video system shall be capable of producing a minimum of 350 line resolution.

9. Documentation consisting of a DVD (video file format to be viewable on a standard DVD player/computer and/or as approved by the District) and a written report detailing the condition of the mainline and joints shall be submitted to the District inspector immediately following the video inspection. Each disc shall be labeled with the project or subdivision name, number and pipe run numbers it contains. Each disc shall be delivered in a plastic case.

10. <u>All video equipment used for domestic water systems shall be certified for domestic waterline inspection only and shall never have been utilized in a non-potable system</u>.

11. The CCTV camera operator shall stop at each defect and pipe joint and televise the entire joint with the pan and tilt feature on the head of the camera, initially, in a complete counterclockwise direction followed by a complete clockwise direction. If a defect is found, the CCTV operator will “home up” the camera prior to defining the defect and determining it’s size and location. The CCTV operator will also stop and record <u>any</u> questionable item such as a stain, crack, paint mark, shadow found or character change in a pipe being inspected. In other

words, the CCTV operator must stop, record and note anything questionable no matter how minor. The Engineer, as defined by JCSD Standard Specifications, not the CCTV operator, will decide if a questionable items is a “problem event” when that Engineer reviews the video inspection.

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SECTION D

SEWER PIPELINE MATERIALS SPECIFICATIONS

BASIC SPECIFICATIONS

SECTION D

WATER PIPELINE MATERIALS SPECIFICATIONS

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BASIC SPECIFICATIONS

SECTION D

SEWER PIPELINE MATERIALS SPECIFICATIONS

1. GENERAL

Where alternate pipeline materials are allowed by the District, the Contractor shall select such materials and construction methods as will result in a satisfactory completed project. All pipe materials shall be new and unused unless otherwise specified. Materials and strength of pipe shall be as shown on the plans or as specified herein.

2. GRAVITY MAINS

A. Vitrified Clay Pipe (VCP)

(1) General

Vitrified clay pipe and fittings shall not be used for proposed pipelines. However, VCP pipe exists the District's sewer system.

(2) Joints

Existing joints in vitrified clay pipe shall be repaired using a factory-made mechanical compression joint, consisting of a plastic material (Polyurethane), or a factory applied rubber coupling, and shall be produced by a District Approved Manufacturer and shall conform with the requirements of Section 208.2.3 Type "G" Joints of the "Standard Specifications for Public Works Construction", Latest Edition. Note the requirements in Section II.G.2.

B. Polyvinyl Chlorine (PVC) Plastic Pipe (4" to 15" Dia.)

PVC solid wall pipe shall meet the requirements of ASTM Designation D-3034, SDR 26 or 35. Whenever portions of the proposed sewer construction are to be installed on the radius of a curve, the minimum radius and installation of the pipe shall be in accordance with the manufacturer's recommendations.

C. Acrylonitrile-Butadiene-Styrene (ABS) (4" & 6" Dia.)

Acrylonitrile-Butadiene-Styrene (ABS) solid wall pipe shall meet the requirements of ASTM designation D-2751, SDR 23.5 or 35.

D. High-Density Polyethylene (HDPE)

HDPE pipe shall meet the minimum requirements of AWWA C906 and have a minimum thickness of DR 11 and shall be color green. Pipe sizing shall be based on outer diameter (O.D.).

E. Alternate Material for Repair

- CIPP for Lining Gravity Sewer Main
- Folded and Formed PVC Lining System
- Fusible PVC

3. FORCEMAINS

A. Polyvinyl Chloride Plastic Pipe (PVC), (4" to 12" Dia.)

The pipe to be used shall be rubber gasket joint polyvinyl chloride pressure pipe, Class 235 or 305, conforming to AWWA C909 -(latest), outside dimensions of cast-iron pipe, plain end x gasket bell ends.

Fittings shall be ductile iron ANSI/AWWA C153(latest), 250 psi rated working pressure, interior lining with 3M Scotchkote 134, fusion-bonded epoxy, 2 coats at 8 mils each coat for a total of 16 mils, mechanical joint ends (MT) to fit Class 235 and 305 PVC - C909 pipe.

When flanged fittings are specified or required, the fittings shall be ductile iron conforming to AWWA C110/ANSI A21.10, Latest.

Locator wire shall be installed over all PVC force mains. Locator wire shall be 14-1 solid insulated copper wire (UF), in a continuous strand, placed on top of pipe and secured with tape. Locator wire shall be brought to the surface at all appurtenances (i.e. sewer air valves, sewer cleanouts, etc.), thus providing continuous “looping” between the appurtenances and the water main. All splices to locator wire shall be made with direct bury connectors.

B. High-Density Polyethylene (HDPE)

See previous specification under Gravity Mains.

BASIC SPECIFICATIONS
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SEWER PIPELINE CONSTRUCTION SPECIFICATIONS

BASIC SPECIFICATIONS

SECTION E

SEWER PIPELINE CONSTRUCTION SPECIFICATIONS

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BASIC SPECIFICATIONS
SECTION E

SEWER PIPELINE CONSTRUCTION SPECIFICATIONS

1. SEWER PIPE INSTALLATION

A. General

The Contractor shall furnish and install all sewer pipeline material required for the construction of the sewer and appurtenances as herein specified and shown on the Drawings. All pipeline material shall be installed per manufacturer's published recommendations and per the applicable published standards for the particular material being installed unless otherwise modified herein. In case of any conflict, the most stringent and highest requirement shall govern, and the Contractor shall adhere to said requirement, all at no additional cost to the District.

B. Installation of Pipelines

Pipe laying shall proceed up-grade with the spigot ends of bell-and-spigot pipe pointing in the direction of the flow. Each pipe shall be laid true to line and grade and in such manner as to form a close concentric joint with the adjoining pipe, following manufacturer's instructions for the specific jointing method being used. Any pipe which exceeds 1/2-inch from true alignment, settlement, or joint offset after laying shall be taken up and relayed at the Contractor's expense. The SAG measuring device shall be approved by the District. The SAG measuring device shall have a scale to measure the depth of flow to the invert of the pipe and shall be placed in front of the camera. The Contractor shall clean the pipe by balling.

Notwithstanding prior factory or yard inspection, the District shall have the right to reject any damaged or defective pipe found on the job which in the District’s opinion will affect the durability of the installation, and the District may order its removal from the work.

C. Sewer Constructed on Radius

Whenever portions of the proposed sewer construction are to be installed on the radius of a curve, the minimum radius and installation of the pipe shall be in accordance with the manufacturer's recommendations.

D. Cleaning

Before final acceptance of sewer facilities or prior to putting any sewer into service, all sewer facilities shall be visually checked and all foreign objects, materials or obstructions removed from the facilities. The District shall require that the facilities be cleaned by flushing, balling, rodding or other means so that the materials may be removed from the system.

E. Plastic Sewer Systems

(1) General

These provisions establish the requirements for the use of plastic pipe (i.e., PVC) for house lateral and main line sewer construction. Use is limited to those projects which are approved in writing by the District.

Plastic pipe may only be used where indicated on plans approved by the District. Where plastic pipe is used, one type shall be used between consecutive manholes and shall include the house laterals in that system. When pipe and fittings are fabricated by the same manufacturer, contractor will not be allowed to use fittings from other manufacturers.

Plastic pipe shall not be used for sewers serving industrial areas, or areas that, in the opinion of the District, are likely to be rezoned to industrial zones.

(2) Care & Handling

Pipe shall be stored at the jobsite in unit packages provided by the manufacturer. Caution shall be exercised to avoid compression, damage or deformation to bell ends of the pipe. If pipe is to be exposed to direct sunlight for more than 14 days, pipe must be covered with an opaque material while permitting adequate air circulation above and around the pipe to prevent excessive heat accumulation.

If pipe is strung along trench prior to installation, string only pipe to be used within a 24-hour period; all pipe is to be laid on a flat surface. The interior as well as all sealing surfaces of pipe, fittings, and other accessories shall be kept free from dirt and foreign matter. Gaskets shall be protected from excessive exposure to heat, direct sunlight, ozone, oil and grease. Solvent cement when used shall be stored in tightly sealed containers away from excessive heat.

(3) Mandrel Test of ABS & PVC Pipe

Following the placement and densification of backfill and prior to the placing of permanent pavement, all main line pipe shall be cleaned and then mandrelled to measure for obstructions (deflections, joint offsets and lateral pipe intrusions). A rigid mandrel, approved by the Engineer, with a circular cross section having a diameter of at least 95% of the specified average inside diameter, shall be pulled through the pipe by hand.

Ninety-five (95%) of the specified average inside diameter for flexible plastic pipe taken from the appropriate ASTM requirements are as follows:

	ABS Solid Wall (ASTM D-2751) SDR		**PVC Solid Wall (ASTM D-3034) SDR**	
Pipe Nominal Dia.	**23.5"**	**35"**	**35"**	**26"**
4"	3.62"	3.69"	3.975"	3.891"
6"	5.33"	5.45"	5.915"	5.793"
8"	N/A	N/A	7.920"	7.754"
10"	N/A	N/A	9.900"	9.692"
12"	N/A	N/A	11.78"	11.538"

(4) High Density Polyethylene (HDPE) Pipe

All laying, slip lining, jointing, testing for defects and for leakage shall be performed in the presence of the District's authorized representative and will be subject to the District’s approval before acceptance.

Installation shall conform to the requirements of ASTM D 2321, ASTM D 2774, ASTM F 585, instructions furnished by the pipe manufacturer and supplementary requirements or modifications specified herein. Wherever the requirements of this Section and the aforementioned requirements are in conflict, the more stringent provision shall apply.

HDPE pipe shall be limited for use in easements at the direction of the District. HDPE pipe may be laid with a horizontal curvature; however,

the curvature radius shall be no greater than 50-percent of the pipe manufacturer's recommendations.

SHIPMENT, STORAGE AND HANDLING

The Manufacturer shall package products for shipment in a manner for safe transport by commercial carrier. The carrier shall use the appropriate methods and intermittent checks to ensure the pipe is properly supported, stacked and restrained during transport such that the pipe is not nicked, gouged or physically damaged.

When delivered, a receiving inspection shall be performed and any shipping damage shall be reported to the Manufacturer.

Pipe shall be stored at the job site in unit package provided by the manufacturer. The Contractor shall take every precaution to avoid compression damage or deformation to the pipe and to the ends of the pipe. The pipe shall be stored in such a way as to prevent sagging or bending and shall be protected from exposure to direct sunlight. Gaskets should be stored in a cool, dark place out of the direct rays of the sun, preferably in the original cartons.

The Contractor shall prevent undue scratching or gouging of the pipe in storage and handling of the pipe. Sections of the pipe with cuts or gouges in excess of 10% of the pipe wall thickness shall be cut out and removed. The undamaged portions of the pipe shall be rejoined using the heat fusion joining method.

When lifting and handling with slings, only wide fabric slings capable of safely carrying the load shall be used to lift, move or lower pipe and fittings. Metal, wire rope or chains shall not be used. Slings shall be of sufficient capacity for the load and shall be inspected before use. Worn or defective equipment shall not be used.

JOINING

HEAT FUSION JOINING: Joints between plain end pipes and fitting shall be made by butt fusion and joints between the main and saddle branch fittings shall be made using saddle fusion using only procedures that are recommended by the pipe and fittings Manufacturer. External beads produced by the heat fusion procedure shall not be removed, but internal beads shall be removed. The Contractor shall ensure that persons making heat fusion joints have received training in the Manufacture's recommended procedure. The Contractor shall maintain records of trained personnel and shall certify that training was received not more than 12 months before commencing construction. The Contractor shall schedule a time to have the pipe Manufacturer provide training to the Contractor's pipe installer and the District's representative.

MECHANICAL JOINING: Polyethylene pipe and fittings may be joined together or to other materials by means of flanged connections (flange adapters and back-up rings) or mechanical couplings designed for joining HDPE pipe or for joining HDPE pipe to another pipe material such as PVC. Mechanical couplings shall be fully pressure rated and fully thrust restrained such that when installed in accordance with the Manufacturer's recommendations, a longitudinal load applied to the mechanical coupling will cause the pipe to yield before the mechanical coupling disjoins. External joint restraints shall not be used in lieu of fully restrained mechanical couplings. When an outside diameter compression mechanical coupling is used, a stainless steel stiffener shall be installed in the bore of the HDPE pipe.

MECHANICAL JOINT AND FLANGE INSTALLATION: Mechanical joints and flange connections shall be installed in accordance with the Manufacturer's recommended procedure. Flange faces shall be centered and aligned to each other before assembling and tightening of the bolts. In no case shall the flange bolts be used to draw the flanges into alignment. Bolt threads shall

be lubricated and flat washers shall be fitted under the flange nuts. Bolts shall be evenly tightened according to the tightening partner and torque step recommendations of the Pipe Manufacturer. The final tightening torque shall be 100 ft-lbs. or less as recommended by the Pipe Manufacturer.

LARGE DIAMETER FITTINGS: Fabricated directional fittings 16 inches IPS and larger shall be butt fused to the end of the pipe. The flange directional outlet connections shall be made up in the trench.

EXCAVATION, BEDDING AND BACKFILL

EXCAVATION: Trench excavations shall conform to the plans and drawings or as otherwise authorized noted. The Contractor shall remove excess groundwater if any encountered. The trench walls shall be shored or reinforced when necessary. The Contractor shall take all the necessary precautions to ensure a safe working environment.

BEDDING: Pipe shall be laid on grade and on stable foundation. Unstable or “mucky” trench bottom soils shall be removed and a 6-inch bedding of compacted material shall be installed to the pipe bottom grade. Excess groundwater shall be removed from the trench before laying the bedding and the pipe. A trench cut in rock or stony soils shall be excavated 6 inches below the pipe bottom grade and brought back to grade with compacted bedding. All ledge rock, boulders and large stones shall be removed.

BACKFILLING: Backfilling shall be performed in accordance with the Manufacturer’s recommendations and with the District's Standard Plans. Compacted material shall be at least 90% R.C. in 6-inch lifts.

FINAL BACKFILLING: Final backfill shall be placed and compacted to finish grade in accordance with the Manufacturer’s recommendations and with the District's Standard Plans. Native

soils without debris, stones, boulders, clumps, clods or the like larger than 8 inches may be used.

FIELD TESTING

BUTT FUSION TESTING: On every day that butt fusions are to be made, the first fusion of the day shall be a trial fusion. The trial fusion shall be allowed to cool completely, then fusion test straps shall be cut out. The test straps shall be 12-inch minimum or 30 times the wall thickness in length with the fusion in the center and 1-inch minimum or 1.5 times the wall thickness in width. Bend the test strap until the ends of the strap touch. If the fusion fails at the joint, a new trial fusion shall be made and the procedure to be repeated. The butt fusion procedure shall not commence until the trial fusion has passed this test.

HYDROSTATIC PRESSURE AND LEAKAGE TESTING: The Contractor shall perform hydrostatic pressure and leakage test in accordance to the District Standards and in strict accordance with the Manufacturer's recommendations. In the event the section of pipe being tested fails, the Contractor shall locate and repair failure at no additional cost to the Contact. Test results shall have the full acceptance of the District prior to passing. No leakage will be allowed for butt fusion joints.

F. Measurement and Payment

Unless specifically otherwise provided for in these Specifications, full compensation for the work required for a complete installation of sewer pipeline shall be considered included in the bid unit price per linear foot of pipe, and no other compensation shall be made therefore.

Measurement for payment of pipe shall be on the basis of the horizontal linear footage constructed by the Contractor, complete in place. Measurement will exclude the space occupied by structures constructed by the Contractor. Pipe stubs of one pipe length or less installed in manholes shall be included in the price for manholes and will not be included in the measurement for pipe.

Where excavation depth breakdowns are indicated on the Bidding Sheet, the depths (sewer invert to ground surface) shall be determined by the cut sheets prepared by the survey crew.

Where the offset stake elevation varies more than 0.5 feet from the pipe centerline elevation (at the ground surface), the survey crew will take elevation shots to determine the actual cut from ground surface to invert of pipe. Using this procedure, the payment depth will be based upon average depth between 25-foot interval stations.

The District reserves the right to revise pipeline grades, and the Contractor shall trench and lay accordingly. Payment for said grade revisions shall be based upon the unit bid price for the appropriate size and depth category, and no additional compensation shall be made therefore.

G. Payments to Contractor for Completed Work

NO PARTIAL PAYMENT SHALL BE GIVEN TO THE CONTRACTOR FOR CONSTRUCTION OF THE SYSTEM UNTIL THE PORTION OF THE SYSTEM FOR WHICH THE PAYMENT IS TO BE MADE HAS BEEN TESTED AND THE ENGINEER HAS CERTIFIED THAT THE SYSTEM IS SUBSTANTIALLY COMPLETED AND READY FOR USE.

Consideration for partial payment may be given prior to the Contractor completing the permanent pavement (excluding AC Cap), provided the delay of placing the permanent paving was, in the opinion of the Engineer, due to causes beyond the control of the Contractor.

The Engineer may establish priorities for completion of certain parts of the work which may be necessary to provide certain services or which the Engineer may deem advisable in the interests of public safety and convenience.

2. MANHOLES

A. General

The manholes shall be constructed in accordance with the Standard Drawing, and at the locations shown on the plans. All concrete used in the manholes shall be Class "A" Concrete, as provided in Section **5** of these Basic Construction Specifications, unless otherwise indicated herein.

B. Precast Concrete Sections

Precast manhole sections shall conform to the size, shape, form and details shown on the Standard Drawing. The precast cylinder units and precast eccentric top sections shall meet the strength requirements for "Precast Reinforced Concrete Manhole Risers and Tops", ASTM C478. The Contractor shall submit shop drawings of the precast manhole Contractor proposes to use. Each manhole section shall be sealed with an approved preformed, permanently flexible gasket to form a watertight joint. Sealed joints shall conform to ASTM C-990; and shall not shrink, harden or oxidize upon aging. Precast concrete rings are to be joined and sealed with CS-102B butyl/bitumen blended sealant as manufactured by ConSeal of New Carlisle, Ohio. Manhole sections shall be set perfectly plumb. Sections of various heights shall be used in order to bring the top of the manhole ring and cover to the elevation shown on the plans.

C. Manhole Bases

Manhole bases shall be constructed of Class "A" concrete poured against native undisturbed material and to the form and dimensions shown on the Standard Drawing. If the Contractor over-excavates beyond the vertical dimensions shown on the Standard Drawing, the depth of concrete below the invert of the pipe shall be increased to greater than the 9" minimum as required to meet undisturbed material; all at no additional cost to the District.

Concrete shall be poured to a level ring-section seating surface, with the base centered over the sewer intersection unless otherwise specified. A metal forming ring shall be used to form a level joint groove in the manhole base. The groove will receive the first precast section to form a watertight joint.

Concrete shall be allowed to reach sufficient compressive strength prior to the installation of the precast manhole sections.

Connections of plastic sewer pipe to a manhole shall be watertight. All PVC or other flexible pipes entering or leaving concrete structures, including manholes, shall have a rubber sealing gasket, as supplied by the pipe manufacturer, firmly seated perpendicular to the pipe axis, around the pipe exterior and cast into the structure as a water stop. Additional requirements may be imposed by the District for manhole connections in projects constructed in areas of high or potentially high groundwater.

Precast manhole bases WILL NOT be allowed.

D. Manhole Frames and Covers

Manhole frames and covers shall be in accordance with the Standard Drawing. All frames and covers shall be traffic strength and shall be monogrammed according to the agency having jurisdiction. All frames and covers shall be composite material, EJ Series per District Standard Drawing No. S-7, Sheet 2 of 2.

The elevations at which manhole frames and covers are to be set shall con-form to the requirements set forth on the plans, but in all cases shall be governed by the District in the field. Manholes shall not be constructed to final grade until final paving has been completed. Where the cover is in existing pavement or in the traveled way of the existing road shoulder, it is to be placed flush with the existing surface. Where the cover is in unpaved areas, it shall be set per the Standard Drawing.

Manhole frames shall be set at the required grade and shall be securely attached to the top precast manhole shaft unit with a grout bed and filled as shown on the Standard Drawing. After the frames are securely set in the place provided herein, covers shall be installed and all necessary cleaning and scraping of foreign materials from the frames and covers shall be accomplished to ensure a fine satisfactory fit. All costs of setting and securing manhole frame and cover sets in place as herein provided, including all necessary concrete work, shall be considered as included in applicable contract unit prices and no additional allowance will be made therefore.

E. Standard Manholes

Standard manholes shall be constructed in accordance with the Standard Drawing and at the locations shown on the plans. Materials and construction of standard manholes shall conform in all respects to the applicable provisions of these specifications.

Standard manholes shall be either four-(4)-foot, five-(5)-foot, or six-(6)-foot diameter as shown on the plans. Full compensation for a complete installation of standard manholes shall be paid for at bid unit price per each and no other compensation will be made therefore.

F. Joint Wrap in Groundwater Conditions

In conditions where groundwater exists (or where the soils report indicates it could potentially exist) external wrap all joints with an approved joint wrap

impermeable to the groundwater. Joint wrap shall be a minimum of 65 mils thickness with width at least four (4) inches either side of concrete section joint. Product shall be ConWrap as manufactured by ConSeal of New Carlisle, Ohio. The external wrap shall be installed in addition to the required joint sealant per Section E.2.B herein.

G. Testing of Manholes

(1) Ground Water Conditions - Infiltration Test

All manholes in areas where ground water exists over the top of the pipe shall be water tested. All pumping of ground water shall be discontinued for at least three (3) days, after which the manhole shall be tested for infiltration. The inlet(s) and outlet of each manhole shall be plugged. Test for a minimum of thirty (30) minutes. No visible leakage shall be allowed.

(2) Vacuum Testing

All manholes shall be vacuum tested. Refer to Section E.12 herein for specific requirements.

H. Lining of Manholes

Utilithane 1600 Polyurethane Coating, 30SPL, as manufactured by Prime Coatings Inc. is ASTM D16, Type V, elastomeric, high build, corrosion and abrasion resistant, 100-percent pure polyurethane and 100-percent solids (no solvents) containing no volatile organic compounds or fillers.

Hydrogen sulfide resistant and tested by City of Los Angeles per SSPWC Greenbook Section 211-2. The service duty to be for new concrete sanitation wastewater structures, minimum of 150 mils thickness. Adhesion strength to concrete substrate per ASTM D4541 elcometer pull test, with primer, adhesion meets or exceeds 200 psi or the cohesive strength of the concrete substrate. The following are the minimum properties:

(1) Shore D Hardness ASTM D2240: D66-70

(2) Tensile Strength ASTM D638 IV: 3,000 psi

(3) Tear Resistance ASTM D624: 191 psi

(4) Elongation at Break ASTM D638 IV: 43 to 50%

(5) Flexibility ASTM D1737: Zero Bend on 1/2” Mandrel at 20 mils

(6) Dielectric Strength ASTM D149: Greater than 350 volts/mil

(7) Abrasion Resistance ASTM D4060, CS-17: 378 mg
Weight Loss 1,000 gms/cycle

(8) Impact Resistance ASTM G14: 140 in-lbs.

Apply Utilithane LTE 900 Primer for use with concrete substrate. Perform surface preparation per manufacturer’s recommendations.

3. SEWER LATERALS

A. General

The sewer laterals shall be constructed as shown on the Standard Drawing. Sewer laterals of the size called for on the plans shall be installed at approximately the locations shown on the plans. The exact location will be determined in the field by the District or private developer. The Contractor shall field reference each lateral connection with a surface marker. The marker shall be as specified on the Standard Drawing.

B. Materials

All sewer laterals shall be constructed using PVC pipe, and shall meet the requirements of ASTM D-3034.

C. Tees and Wyes

Tees and wyes shall be of the same material as the sewer main and the longitudinal barrel of the tee or wye shall be of the same size as the sewer main. Tees or wyes of the size called for on the plans shall be installed at approximately the locations shown on the plans. The exact location will be determined in the field by the District or private developer. A suitable plug shall be provided and installed prior to backfilling operations to ensure a watertight joint.

D. Construction

All sewer laterals shall be installed per the Standard Drawing. In no case shall any lateral be constructed at less than two percent (2%) slope unless shown on plans. The sewer lateral shall be constructed a minimum distance of five (5) feet horizontally from existing water services.

Unless otherwise approved by the District, any required saddle connections to existing mains shall be made with an approved sewer tapping machine. The Contractor shall submit to the District his proposed method for tapping, including manufacturer's tapping equipment descriptions, etc.

E. Payment

Sewer laterals shall be paid for at the unit price per foot bid, measured in a horizontal plane along the centerline of the sewer lateral from the centerline of the main sewer to the property line. Said prices per linear foot shall be considered full compensation for furnishing all pipe and fittings, other materials, equipment and labor necessary to install the pipe; including clearing and grubbing, pavement removal and replacement, placement of bedding in the locations shown on the plans in accordance with the Standard Drawings and specifications, removal and/or replacement of existing interfering improvements; and all other work pertinent to installing the sewer lateral complete in place and for which no additional compensation shall be made therefore.

In payment for tees and wyes, compensation shall be made for each tee and wye installed at the unit price bid, excepting for tees and wyes installed for cleanouts, compensation for which shall be included in the price per cleanout. The portion of the tee or wye covered by such compensation shall be considered to be the branch portion.

4. TESTS FOR LEAKAGE IN SEWER

A. General

All the tests for exfiltration from, and infiltration into the system shall be in accordance with Section 306-1.4 of the "Standard Specifications for Public Works Construction", Latest Edition, except as modified herein. The method of testing and testing equipment shall be approved by the District.

The Contractor shall, at the Contractor’s own expense, furnish all materials for making the tests required under the direction of the District.

If the leakage or infiltration, as shown by the tests, exceeds the standard set forth in said section, Contractor shall, at no additional cost to the District, make the necessary repairs by methods approved by the Engineer to correct the deficiencies. All tests must be completed before the street or trench is resurfaced with permanent pavement replacement, but after complete installation

and trench compaction of all facilities within a particular section between manholes.

Full compensation for testing shall be included in the bid price of various items of work, and no other compensation shall be made therefore.

B. Air Testing (Gravity Sanitary Sewers)

The Contractor shall test all sewers by means of the air test specified herein, unless otherwise directed by the District. The air test shall be in accordance with ASTM C828 Standard Test Methods, Latest Edition, for PVC pipeline installations.

Air shall be introduced into the pipeline until 4.0 psi gauge pressure has been reached, at which time the flow of air to the pipe shall be shut off. After the temperature has stabilized the air pressure shall be permitted to drop and, when the internal pressure has reached 3.5 psi gauge, the time lapse required for the air pressure to drop to 2.5 psi gauge shall be measured. The time lapse required for the air pressure to decrease from 3.5 to 2.5 psi (gauge) shall not be less than that calculated based upon equations from ASTM C828. An alternate method of determining the allowable time lapse is to utilize the tables from the National Clay Pipe Institute (NCPI) publication entitled “Low Pressure Air Test for Sanitary Sewers”. Tables shall be utilized by taking the next highest main line and lateral lengths in the table which exceeds the actual main line and lateral lengths.

If the time lapse exceeds that calculated or shown in the NCPI tables, the pipe shall be presumed to be within acceptable limits; if the time lapse is less, the Contractor shall make the necessary corrections to reduce the leakage to acceptable limits by repair methods approved by the District.

C. Water Infiltration Test (Gravity Sanitary Sewers)

Where ground water conditions are encountered and the water level prior to any pumping or dewatering operations is above the top of the proposed sewer pipe, then the Water Infiltration Test shall be used in lieu of the air test specified in Section 5-B of these Basic Specifications. The Water Infiltration Test shall be in accordance with Section 306-1.4.3 of the Standard Specifications for Public Works Construction, Latest Edition, except as herein modified.

The infiltration shall not exceed 0.0016 gallons per hour per foot of sewer, per inch of pipe diameter. The test shall be run for a minimum period of two (2) hours. The Contractor shall furnish all labor, materials, equipment required for the infiltration test, at no additional cost to the District.

If ground water conditions are such that the ground water level is between the flow line of the proposed sewer pipe and the top of the pipe, both the air test and the water infiltration test shall be conducted at no additional cost to the District. In such a case, the section of pipe being tested shall be deemed acceptable only if it passes both the air test and the water infiltration test.

D. Force Main Pressure Test

Field hydrostatic test and leakage test shall be performed in accordance with all provisions of Section C12, (Water Pipeline Construction Specifications) with the following modifications. Air testing WILL NOT be allowed.

The test pressure at the location of the testing equipment shall be computed on the basis of the relative elevations of the test gauge and the lowest point in the section being tested, and shall result in a pressure of 150 percent of the design pressure at the lowest point in said section. The test pressure at the highest point in the test section shall be not less than 120 percent of design pressure. The test pump and gauge shall be connected to the force main at a location other than the highest point in the line, to facilitate release of air from the high point.

THE MEASURED LEAKAGE SHALL NOT EXCEED 2 GALLONS PER INCH DIAMETER OF PIPE PER 1000 FEET OF PIPE PER 24 HOURS. Should leakage exceed this amount, the section being tested will be considered defective and Contractor shall determine points of leakage, make necessary repairs, and conduct a second test. This procedure shall be continued until leakage equals or is less than the allowable minimum.

5. CONCRETE WORK

A. General

Concrete shall be composed of portland cement, natural aggregates, and water proportioned to produce required strength and well mixed into required consistency, Type II-V for all concrete in contact with wastewater.

Portland cement concrete for manhole bases, cradles, encasements, thrust blocks and structures shall be composed of portland cement, fine

aggregate, coarse aggregate and water proportioned and mixed in accordance with the requirements of Section 90 of the State of California Department of Transportation Standard Specifications, except as may be herein modified.

Concrete for manhole bases, cradles and encasements, and all other concrete structures, shall be constructed to the lines and grades and in accordance with the design shown in the details on the plans.

Prior to placing any concrete, the Contractor shall submit to the District the design mix proposed to be used. Said mix shall set forth the weights of cement, sand, coarse aggregate and the amount of water to be used. (Source of supply shall also be furnished to the District.) The proposed mix shall be approved by the District prior to placing any concrete.

B. Portland Cement Concrete Classification

Concrete Class	Compressive Strength @ 28 days (psi)	Sacks of Cement/CY
“A”	3,500	6
“B”	2,500	5
“C”	2,000	4
“D”	4,000	7

The amount of free water used in concrete shall not exceed 312 pounds per cubic yard, plus 20 pounds for each required 100 pounds of cement in excess of 564 per cubic yard.

Additional cement and a modified concrete mix, as approved by Engineer, will be required for situations requiring pumping of concrete.

C. Class "B" Concrete Encasement

Class "B" concrete shall be used for unreinforced concrete encasements that may be required by unforeseen field conditions. The quantity shown on the proposal is an estimate. The District hereby reserves the right to reduce this item to a small percentage of that shown on the proposal forms, delete it or increase it, without altering the unit price bid for cubic yard of concrete.

The unit price bid for cubic yard of concrete shall include furnishing all materials and labor and equipment to properly place the concrete as may be required, and no other compensation shall be made therefore.

D. Reinforced Concrete Encasement

At the locations shown on the plans, and in accordance with the detail shown on the plans and/or Standard Drawing, and these Basic Specifications, the Contractor shall construct reinforced concrete encasement around the sewer carrier pipe. Concrete for reinforced concrete encasement shall be Class "A". Reinforcing steel (unless otherwise indicated) shall be No. 4 bar, billet steel having minimum yield point of 60,000 psi, formed and spaced as shown on the plans or the Standard Drawing.

Payment for reinforced concrete encasement shall be at the unit price per cubic yard of concrete for the section as shown on the plans or Standard Drawing, and no other compensation will be made therefore.

6. PAVEMENT REMOVAL AND REPLACEMENT

A. General

Pavement removal and replacement for all public roads, including aggregate base and temporary paving where required, shall comply with all the requirements of the agency issuing the Encroachment Permit. In roads established under formation of a special road district, the specifications of the Encroachment Permit shall apply. Any private roads and streets, including driveways in which the surface is removed or damaged, shall be restored to the original grade and crown by the Contractor. Removed or damaged sections shall be restored with the type of improvements (or better) conforming to that which existed at the time the Contractor entered upon the work.

It shall be the responsibility of the bidder to satisfy themself as to the existing pavement sections prior to submitting their bid.

Full compensation for temporary and permanent resurfacing, including the replacement of base material as required, shall be included in the unit bid price for pavement removal and replacement per linear foot of mainline trench. Any required pavement removal and replacement for manholes, house connection laterals, or other appurtenances shall be considered included in the bid price for the various items, and no additional compensation shall be made therefore.

B. Pavement Cutting

Pavement shall be saw cut to a straight edge parallel to the pipe alignment prior to excavation. Method of pavement cutting shall be as specified by the Agency having jurisdiction. Under no circumstances shall excavation be started

prior to scoring of pavement. If the adjacent pavement is disturbed during the Contractor's operation, the pavement shall be recut on a straight line to remove the damaged pavement before resurfacing. Portland cement concrete pavement and sidewalk shall be saw cut. Pavement cutting shall be considered included in the bid price for pavement removal, disposal and replacement, and no additional compensation shall be made therefore.

C. Permanent Trench Pavement

The permanent trench pavement shall be in accordance with the Agency having jurisdiction. If not specifically addressed by the road agency's permit, the existing pavement shall be saw cut and the permanent trench base paving shall be constructed to be flush with existing so that the asphalt concrete is smooth, true to grade and cross section thus providing an even driving surface without undulations. The completed base paving surface shall be provided as described herein whether an asphalt concrete cap is specified on not specified. Should an asphalt concrete cap be required, Contractor shall grind down the base paving prior to placement of the A.C. cap.

D. Asphalt Concrete Cap

Where required by the agency issuing the Encroachment Permit or other agency having jurisdiction, an asphalt concrete cap shall be placed along the length of the trench. The installation of the asphalt concrete cap shall be in accordance with the specifications and policies of the agency having jurisdiction. Where the asphalt concrete cap is not specifically stated in the applicable permit or on the drawings, and when directed by the District, the minimum cap shall be a grinded 0.10-foot thick, 12-foot wide section centered over the center of the trench or the traveled way, and pulled with a "Barber Greene" or equivalent.

Full compensation for placement of asphalt concrete cap, where required, shall be included in the unit bid price per linear foot of mainline trench. Any required asphalt concrete cap for house connection laterals or other appurtenances shall be considered included in the bid price for the various items, and no additional compensation shall be made therefore.

7. CONNECTIONS TO EXISTING MANHOLES

The Contractor shall make connections to existing manholes at the location and elevation shown on the plans and as verified in the field by the Contractor. Where new flow-through channels have to be cut in the existing manhole base, they shall be cut so that the resulting section is smooth and conforms to the intended shape. Deviation from

form and grade shall not be greater than 1/4 inch. The channel surface shall be smoothed with epoxy mortar. The new PVC sewer shall be firmly embedded in epoxy grout where it joins the existing manhole.

Payment for connections to existing manholes shall be included in the contract price paid for the various items of work wherein connections to existing manholes are required, and no additional allowance will be made therefore.

8. TEMPORARY HANDLING OF SEWAGE

Certain work in connection with tying into existing sewers and manholes, may require the temporary handling of sewage either by temporary bypass lines, pumping, bulkheading at low flows, or other means, to be approved by the District. Sewage so diverted shall be handled in a manner such that all sewage shall be contained and properly disposed of so as not to create a public nuisance or health hazard. No extra compensation will be allowed in connection with the temporary diversion of sewage, and all such costs shall be included in the various contract unit prices.

Should the Contractor's operation result in fine(s) from other agency jurisdictions or result in the District's need for cleanup assistance, the payment of such fines and District assistance shall be the responsibility of the Contractor.

9. VIDEO INSPECTION

Upon successful completion of the final leakage test for the sewer including manhole vacuum testing, and after base rock placement and compaction is complete, the contractor shall notify the District that the pipeline system is ready for video inspection. Said notification shall be made at least five working days in advance of the actual video inspection date. The video inspection will be made by a video inspection company approved by the District and hired by the Contractor. Video inspection shall be made in the presence of the District or the District’s representative. Prior to the video inspection, the contractor shall be responsible to provide the following items:

A. Clean sewer pipelines free of all dirt, rock, debris, etc.

B. Water source with an adequate amount water, pipe, hose, etc. to place enough water in the pipelines to evaluate pipeline alignment "SAGS".

C. Driveable truck access to each manhole within the system to be videoed.

D. Provide all traffic control methods required.

Should any of the aforementioned items not be in compliance by the time the video inspection is to occur, the contractor shall be subject to compensating the District for all costs incurred.

Full compensation to the contractor for complying with the above requirements shall be considered as included in the contract lump sum provided for such work and no additional allowance will be made therefore.

Upon completion of the video for the subject sewerlines, the video inspection company will provide the District with the DVD (video file format to be viewable on a standard DVD player/computer and/or as approved by the District) and a written report detailing the condition of the interior of the mainline and joints. Subsequent to review of the DVD and report by the District, the District will notify the Contractor that the Contractor may then proceed with completion of the project; or the District will provide a list of corrective measures that must occur prior to acceptance.

Should remedial activities be necessary, the reconstruction methodology shall be approved by the District prior to commencement of the work. Upon completion of the remedial construction, the contractor shall once again notify the District that the sewerlines are ready for a video inspection. The District reserves the right to re-video any portions of the sewer system they determine may have been affected by the reconstruction work activities. Further, all related costs including but not limited to reconstruction materials, labor, equipment, video inspection, District and other agency inspection, and administrative costs shall be borne by the contractor.

9A. VIDEO INSPECTION COMPANY REQUIREMENTS

(Closed Circuit Television Inspection - CCTV)

1. Rotating lens camera with articulating head.

2. Scanning capabilities of 360°.

3. Operative in 100% humidity conditions.

4. Lighting for the camera shall minimize reflective glare.

5. Lighting and camera quality shall be suitable to provide clear, in focus picture of the entire periphery of the pipe for all conditions.

6. Camera focal distance shall be adjustable through a range from 6" to infinity.

7. Remote reading distance (footage) counter shall be accurate to one percent (1%) over the length of the particular section being inspected. Provide depth gauge for SAG measurement acceptable to District.

8. The camera, television monitor, and other components of the color video system shall be capable of producing a minimum of 350 line resolution.

9. Documentation consisting of a DVD (video file format to be viewable on a standard DVD player/computer and/or as approved by the District) and a written report detailing the condition of the mainline and joints shall be submitted to the District inspector immediately following the video inspection. Each disc shall be labeled with the project or subdivision name, number and pipe run numbers it contains. Each disc shall be delivered in a plastic case. District will also accept the following formats: Thumb Drive and Cloud Service.

10. <u>All video equipment used for domestic sewer systems shall be certified for domestic sewerline inspection only.</u>

11. The CCTV camera operator shall stop at each defect and pipe joint and televise the entire joint with the pan and tilt feature on the head of the camera, initially, in a complete counterclockwise direction followed by a complete clockwise direction. If a defect is found, the CCTV operator will "home up" the camera prior to defining the defect and determining it's size and location. The CCTV operator will also stop and record <u>any</u> questionable item such as a stain, crack, paint mark, shadow found or character change in a pipe being inspected. In other words, the CCTV operator must stop, record and note anything questionable no matter how minor. The Engineer, as defined by JCSD Standard Specifications, not the CCTV operator, will decide if a questionable items is a "problem event" when that Engineer reviews the video inspection. Refer to Appendix P entitled "Closed Circuit Television (CCTV) Inspection Standards for Acceptance of New Sewers" of the District's Standards Manual for additional requirements.

10. VACUUM TESTING OF MANHOLES

A. General

All manholes shall be vacuum tested unless otherwise waived in writing by the District. Vacuum testing shall be performed either pre or post backfilling in

accordance with the criteria stated herein. In all cases vacuum testing shall be performed prior to video inspection.

Contractor shall be solely responsible for safe access to the manholes and all necessary safety measures required for the vacuum testing.

B. Pre versus Post Backfilling Test Criteria

(1) All manholes with depths from rim to pipe flowline less than or equal to twelve (12) feet shall be vacuum tested prior to backfilling.

(2) All manholes with depths greater than twelve (12) feet from rim to pipe flowline shall be vacuum test post backfilling.

C. Reference Standard

Unless otherwise modified herein, vacuum testing shall be in accordance with ASTM C1244-11.

D. Manhole Preparation

(1) Plug and seal all lift holes.

(2) Care shall be taken to affect a seal between the vacuum base and the manhole rim. Pipe plugs shall be secured to prevent movement while the vacuum is drawn.

(3) All pipe entering the manhole shall be temporarily plugged, taking care to securely brace the pipes and plugs to prevent them from being drawn into manhole.

E. Basic Field Testing Procedure

(1) The test head gauge shall be placed at the top of the manhole in accordance with the manufacturer’s recommendations.

(2) A vacuum of 10 inches of mercury shall be drawn on the manhole, the valve on the vacuum line of the test head closed, and the vacuum pump shut off. The time shall be measured for the vacuum to drop to 9 inches of mercury.

(3) The manhole shall pass if the time for the vacuum reading to drop from 10 inches of mercury to 9 inches of mercury meets or exceeds the values indicated in the table under Par. F.

(4) If the manhole fails the initial test, necessary repairs shall be made in accordance with a submitted plan and method approved by the District. The manhole shall then be re-tested until a satisfactory test is obtained. All repairs shall be the sole responsibility of the Contractor.

F. Minimum Test Times – Standard Manholes

(1) Testing Criteria

Depth of Manhole	**Diameter of manhole (feet.)**		
	4	5	6
(feet)	**Time (Sec.)**		
Up to 8 feet	20	26	33
10	25	33	41
12	30	39	49
14	35	46	57
16	40	52	67
18	45	59	73
20	50	65	81
22	55	72	89
24	59	79	97
26	64	85	105
28	69	91	113
30+	74	98	121

For manholes deeper than thirty (30) feet or larger than six (6) feet in diameter contact District for specific requirements.

(2) Testing Form and Certification

Submit testing form to District for approval. Include the following as a minimum:

- Date of Test
- Project Description
- General Contractor
- Agent/Company Performing Test
- Specific Location, Including Station and Manhole Number
- Detailed Test Results
- Certification Signed by Testing Company

G. Inspection and Re-Testing

The Inspector shall be notified when the testing will be performed and by whom. The inspector shall witness testing to verify procedures are being followed correctly, and must be given at least 48 hours notice.

Retesting manholes more than once may result in additional inspection fees chargeable to the Contractor.

H. Approved Vacuum Testing Companies

Vacuum testing shall be performed by Old Castle Precast of Riverside, California or other qualified testing organization approved by the District. Submit qualified testing company along with suitable documentation if alternate is proposed.

13. SEWAGE SPILL CONTAINMENT PLAN AND SEWER BYPASS/PHASING PLAN

A. General

The provisions stated herein shall apply whenever:

1. Existing residential/commercial sewer laterals are specified or indicated on the drawings to be disconnected from the existing sewer line and reconnected to the new line.

2. An existing sewer main is to be removed and replaced with a new sewer main at or near the same location.

Under either of the two cases, flows from the residential/commercial customers shall be contained and bypassed so that service is not interrupted.

B. Sewage Spill Containment Plan and Sewer Bypass Phasing Plan

The Contractor shall generate, and submit to the District at the Pre-Construction Meeting, a “Sewage Spill Containment Plan and Sewer Bypass Phasing Plan” that details the general order of construction, complete with details of where, when, and how the Contractor plans to bypass the existing sewer lateral and mainline flows. Proposed sewer bypass shall only be utilized during normal working hours, and the existing sewer shall be put back into service each day. The temporary bypass will be allowed to operate overnight only with specific written approval by the District. Requests for overnight bypass shall be

detailed in the submitted plan. Unless otherwise approved by the District, residential customers may have their service interrupted for no more than 8 hours. Contractor shall provide sanitary sewer services, in accordance with Section A, to residential customers (services for each home) during construction if their service will be interrupted. Sewer service for commercial customers along the proposed alignment shall not be interrupted by construction. Contractor shall identify all commercial customers in the plan.

C. Sewer Bypass

The Contractor shall arrange for, furnish, install and maintain all required bypass equipment, pumps, generators, piping, fittings, connections, etc. required to bypass the existing sewer flows during construction. All bypass equipment shall be installed and be made immediately operable to provide complete redundancy (primary and backup systems) to handle peak flow. Contractor shall provide for personnel to continuously monitor the bypass system.

D. Existing Sewer Flows

Refer to the Special Requirements section of the specifications for existing sewer flows. If information is not provided in Special Requirements, contact the District.

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TRAFFIC CONTROL SPECIFICATIONS

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BASIC SPECIFICATIONS
SECTION F

TRAFFIC CONTROL SPECIFICATIONS

1. PUBLIC CONVENIENCE AND SAFETY

A. General

It is the Contractor's responsibility to comply with the following requirements and to make any adjustments necessary to provide a route around or through the work area that is clear of obstructions and is signed and delineated in accordance with standard industry practice, applicable County standards, Cities requirements, Caltrans standards, current California Manual on Uniform Traffic Control Devices for Streets and Highways, the Work Area Traffic Control Handbook, Encroachment Permit requirements, and the following requirements.

Failure to comply with these requirements will result in an order to cease all work within the public street. Any deviation from these requirements shall require written approval from the Cities and JCSD.

Maintaining traffic shall conform to the Caltrans provisions in 7-1.02 "Load Limitations", 7-1.06 "Safety and Health Provisions", 7-1.08 "Public Convenience", 7-1.09 "Public Safety", and 12-3.04 "Portable Delineators" of the Standard Specifications, the Manual of Traffic Controls, the Section of these contract documents entitled "Insurance - Hold Harmless", and these Special Provisions.

All existing traffic control signs and street name signs shall be maintained in visible locations as directed by the Engineer. The Contractor shall cover conflicting signs and remove conflicting striping and pavement markings.

All warning lights, signs, flares, barricades and other facilities for the sole convenience and direction of public traffic shall be furnished and maintained by the Contractor. All signs shall conform to and be placed in accordance with the

California Manual on Traffic Control Devices for Street and Highways Supplement latest edition and it's approved changes.

All construction signs shall be either covered or removed when not required by the nature of the work or if no present hazard to the motorist exists.

No payment for extra work will be allowed for work performed as specified in Section 12-2.02 (Flagging Costs) of the Standard Specifications. Flagging costs will be borne entirely by the Contractor.

All temporary travel lanes shall be a minimum of twelve feet in width unless otherwise authorized by the Cities or shown on the JCSD provided Traffic Control Plan. In addition, lane clearance shall be a minimum of five feet from an open excavation with Type II barricades with "OPEN TRENCH" C27 (CA) signs spaced every 150-feet, and two feet from a curb or other vertical obstruction.

The Contractor shall provide access for USPS, refuse collection, and other service providers on regular basis.

When traffic is diverted from the existing pavement, suitable surfacing shall be provided and shall be approved by the Cities.

The Contractor shall provide personnel who will be responsible for the maintenance of all traffic control devices and will be available on a 24-hour basis. The names and telephone numbers of these personnel shall be submitted to District, County, Cities, and Engineer prior to the start of any construction. The job site shall be inspected daily, during weekends and holidays, and any adjustments, corrections or repairs that are determined to be necessary for the proper operation of the traffic control system shall be made immediately.

B. Pavement Striping/Marking

Temporary striping shall be immediately provided any time the existing striping is removed or the effectiveness is reduced. Temporary striping shall also be provided immediately after paving operations are complete and prior to the opening of the roadway or lanes just paved.

Re-striping will be required under the following conditions:

1. When traffic is to be diverted to the left of an existing double yellow centerline for two or more consecutive nights.

2. When the work area is adjacent to an intersection and results in a transition within the intersection.

3. When the traffic lane is continuously obstructed for more than one week on any street that has two or more lanes in a single direction

4. In other unusual situations where traffic and physical conditions, such as speed or restricted visibility, require special treatment.

The Contractor shall notify the Cities if re-striping is required. The City shall determine the extent of striping removal and re-striping. When temporary pavement striping or markers are provided, the existing striping or markers must be removed or covered by the Contractor. The installation of temporary striping or pavement markers will be done by the Contractor.

2. TRAFFIC AND ACCESS

A. General

When driveways are inaccessible due to the Contactor's work they shall be blocked by two Type II barricades or one Type I barricade and two delineators. Driveways that are ramped or planked for temporary access shall be provided with a barricade or delineator at each side. The Contractor shall give a two week notice to affected property owners prior to blocking any driveways. All driveways shall be open and accessible during non-working hours. If driveways or parking lots are inaccessible due to the Contractor's work, the Contractor shall provide temporary parking in the construction zone or offsite. The Contractor shall provide a safe and accessible path from temporary parking location to home or business.

Construction equipment, or vehicles not actively engaged in the work shall not be parked in such a manner as to restrict or obstruct the traffic flow.

Construction spoils or materials may be stored in the same lanes as the work obstruction provided they remain a minimum of two feet from the travel lane and do not restrict or obstruct the traffic flow.

B. Pedestrian Traffic

When the work area encroaches upon a sidewalk, walkway or crosswalk area, the Contractor shall give special consideration to separating the pedestrian from the work area. The passageway for pedestrians shall be at least four feet in width, free from obstructions, free of abrupt changes in grade, well defined, and meet ADA requirements. Any obstructions in the walkway shall be illuminated during hours of darkness. Minimum vertical clearance to any obstruction within the walkway shall be seven feet.

Where walks are closed by construction, an alternate walkway shall be provided, preferably within the parkway. Where it is necessary to divert pedestrians into the parking lane of a street barricading or delineation shall be provided to separate the pedestrian walkway from the adjacent traffic lane. At no time shall pedestrians be diverted into a portion of the street used for vehicular traffic.

At locations where adjacent alternate walkways cannot be provided, appropriate signs and barricades must be installed at the limits of construction and in advance of the closure at the nearest crosswalk or intersection to divert pedestrians across the street.

3. STREET CLOSURES, DETOURS, BARRICADES

A. General

The Contractor shall not close additional streets except as shown on the Traffic Control Plans within the City without first obtaining the approval of the City. Traffic control and detour diagrams shall be submitted by the Contractor as required by the City and JCSD.

During paving operations, delineators are to be spaced no more than 25-feet apart. At all access points such as intersecting streets, alleys and driveways, barricades and/or delineators shall be provided at five-foot intervals to

prevent vehicular access to the paving area. Where access from an intersecting street is prohibited, a “Road Closed” sign shall be provided at the nearest prior intersection. “No Left Turn” signs shall be provided to prevent traffic from crossing new pavement.

B. Signs

All signs and barricades shall be provided, installed, maintained and removed by the Contractor.

Signs may not be attached to utility poles, public agency sign posts or trees.

The use of any “Regulatory” signs must be approved by the Cities.

Existing “Regulatory” and/or “Warning” signs within or adjacent to the work area must be maintained by the Contractor. Any signs which are damaged or found to be missing during the course of construction shall be replaced by the Contractor. If existing signs are not appropriate for traffic conditions in the work area, the Cities shall be notified to determine if the signs shall be covered, replaced or relocated.

Whenever the Contractor’s operations require that parking be restricted, the Contractor shall notify the Cities, and install temporary “No Parking” signs 48 hours in advance of the restriction. Once the signs are installed the Contractor shall notify the Cities Inspector.

All signs shall be free of any contaminates that reduce the visibility or reflectivity, shall be placed so as to be clearly visible to on-coming traffic and shall resist displacement. The center of signs shall be at least 4-1/2 feet above the roadway. Vertical clearance for signs where pedestrian traffic is permitted shall be seven feet. “Advance Warning” signs shall be located on the right hand side of traffic lanes. On a divided highway, supplemental advance warning signs shall be placed on the divider.

Signs to be used during darkness shall be reflectorized or illuminated.

All signs shall be removed or covered when work is not in progress or the lane/street closure is not in effect.

C. Barricades

Barricades shall not be placed in a moving lane of traffic without advance warning, such as a high level warning device and appropriate delineation. A single barricade shall not be placed alone in the traveled way.

When barricades are used to close a street they should be placed so there is no gap large enough for a vehicle to pass, except where necessary to provide access for local traffic or emergency vehicles.

Type II barricades mounted with flashers shall be installed around work areas in parkways.

Markings on barricade rails shall be alternate orange and white stripes sloping downwardly toward the travel lane at an angle of 45 degrees. The entire area of white and orange shall be reflectorized.

The predominant color for other barricade components shall be white. Owner identification shall not be imprinted on the reflectorized face of any rail.

D. Delineators

Where traffic is diverted to the left of an existing double yellow centerline, into a painted median, or into a left turn lane, delineators shall be utilized beyond the work area to return traffic to normal lanes.

Delineator shall be of a material that will withstand impact without appreciable damage to the device, the striking vehicle or passing traffic.

E. High Level Warning Devices

High level warning devices shall be at least 9-feet high with legs, base or truck mounting designed to resist overturning in brisk winds. Sandbags may be used to add weight to the base or legs. High level warning devices shall be equipped with a yoke at the top to accommodate at least three flags. Flags shall be fabricated of high visibility orange material and equipped with stays to keep the flags extended. Torn or dirty flags shall be immediately replaced.

High level warning devices shall be used at locations where construction or maintenance work is being performed within or immediately adjacent to a traffic lane.

F. Flashers

Flashers shall be used only to outline the work area or to provide advance warning. Flashers shall not be used to channelize traffic, to separate opposing traffic or to delineate the path that traffic is to follow. Flashing yellow lights used for advance warning must be clearly distinguishable from the primary delineation and shall be seen above the normal reflectorized units.

G. Flashing Arrow Signs

Flashing arrow signs are sign panels with a matrix of electric lights, capable of sequential arrow displays.

Flashing arrow signs are required on all lane closures where the street has two or more travel lanes in each direction.

H. Flagger Control

Flaggers are required:

1. Where workers or equipment intermittently block a traffic lane.

2. Where two directions of traffic will be using one lane (one flagger is required for each direction of traffic).

3. Where the absence of a flagger would create an undesirable situation for the public and/or workers.

Flaggers should be alert, intelligent, neat in appearance, having good hearing and eyesight, and be capable of commanding the traveling public. They should be stationed far enough from the work to slow down or stop vehicles before they enter the work area.

A symbol sign of a flagger shall be placed as far ahead of the flagger as practicable.

All flaggers shall be provided with an orange jacket (or vest) for daytime use and a reflectorized belt and suspender harness for use at night. During daylight hours, flaggers shall be equipped with a sign paddle. At night, flaggers shall use a red light.

4. SPECIAL HAZARDOUS SUBSTANCES AND PROCESSES

A. Edison Energized Conductors

Contractor hereby promises and agrees that in the performance of the work specified in this contract, it will employ and utilize only qualified persons, as hereinafter defined, to work in proximity to Edison's secondary, primary and transmission facilities. The term "qualified person" is defined in Title 8, California Administrative Code, Section 2700, as follows:

> "Qualified Person". A person who by reason of experience or instruction is familiar with the operation to be performed and the hazards involved."

Contractor further promises and agrees that the provisions of this paragraph shall be and are binding upon any subcontractor or subcontractors that may be retained by it, and that Contractor shall take such steps as are necessary to assure compliance by said subcontractor or subcontractors with the requirements of this paragraph.

B. Emergency Provisions

Unusual conditions may arise on the work which will require that immediate and unusual provisions be made to protect the public from danger or loss or damage of life and property, due directly or indirectly to the prosecution of the work, and it is part of the service required of the Contractor to make such provisions and to furnish such protection.

5. TRAFFIC CONTROL

A. General

The work to be performed under these items consist of full compensation for furnishing all labor, materials, tools and equipment for constructing temporary signing and striping for construction area traffic control in accordance with these

Special Provisions and the Traffic Control Plans, including but not necessarily limited to the following:

1. Construction area signs
2. Traffic control system
3. Type I, II, III barricades
4. Removal and reconstruction of traffic striping
5. "K-railing"
6. Portable delineator
7. Cover roadside sign; and
8. Flashing arrow boards

In addition to Section 7-10 of the State Standard Specifications, the installation of temporary signing and striping for construction area traffic control shall conform to Section 12, "Construction Area Traffic Control Devices"; Section 56-2, "Roadside Signs"; and Section 84, "Traffic Stripes and Pavement Markings", of the State Standard Specifications. Signs and barricades may be relocated and reused for successive construction phases, however, signs and barricades shall not be relocated until they are no longer necessary for the construction phase where they were originally required.

All traffic control devices must be in place and in proper working condition before the start of work each day. If it is found that traffic control devices are out of place or in a broken or inoperative condition, work will be halted until the necessary corrections are made.

Traffic control at intersections shall be adjusted to allow traffic access to the intersection immediately after construction is complete enough to allow safe use of the roadway.

B. Parking Restrictions

Parking within the areas of improvement may be restricted during construction operations. Temporary "No Parking" signs shall be provided and posted by the Contractor two (2) working days in advance of construction. The "No Parking" signs shall clearly state the date and hours during which the restriction is effective. Permission and requirements shall be obtained from the Project Engineer for any "No Parking" signs to be posted on existing trees, utility poles, and traffic signs.

C. Notification to Businesses and Residences

All adjacent businesses and residences shall be duly notified by the Contractor, in writing (in English and Spanish), of his proposed operation. Notice shall be delivered at least two weeks prior to start of construction. The Contractor shall be responsible for reproduction of the letters. Renotification will be required if the Contractor's schedule is altered, or other delays occur which affect the project's schedule.

D. Street Closures/Full or Partial

In case of full closure, the Contractor shall provide barricades and reflectorized "Road Closed to Through Traffic" signs at the intersections immediately in advance of all such closures at entrances to the closure, and all detour route signing. Access to local residences shall be maintained at all times as well as access for emergency and other service vehicles. Detour signs shall be posted on wood or metal posts. Signs shall not be posted on any tree, utility pole, or traffic sign.

E. Drive Approaches and Pedestrian Access

At least one driveway must remain open to commercial establishments at all times. The Contractor shall make provisions to interrupt the construction to allow access to existing driveways in the event such access is determined necessary by the Cities.

Access to all driveways in the area of construction shall be open and accessible during nonworking hours. The Contractor shall keep open all

driveways except for short periods of time as outlined in Section 7-10, "Public Convenience and Safety".

Adequate provisions for pedestrian access shall be the responsibility of the Contractor at all locations.

F. Observation of Job Site

The Contractor shall appoint a person responsible to drive, observe, and maintain the job site during weekends and holidays to ensure that the safety of the public, both motoring and pedestrian, is preserved.

The name and telephone number of the person appointed by the Contractor to drive and maintain the site during weekends and holidays shall be supplied to the Project Engineer and Owner prior to start of any work.

6. DETECTORS

The Contractor shall install temporary or permanent detector loops within 24 hours after temporary or permanent pavement installation.

Detector loops' configuration shall be Type E unless otherwise shown on the construction plan, in the Special Provisions or as directed by the Engineer.

Limit Line detector loop configuration shall be modified Type E with diagonal saw cuts and wire winding conforming to Type D loop configuration.

Detector loops' wire shall be Type 2.

Detector loops' lead-in cable shall be Type B.

Detector loops' curb terminations shall be Type A in accordance with Standard Plans ES-5D.

Loop sealant shall be the Hot-Melt Rubberized Asphalt sealant type, unless otherwise directed by the Engineer. Loop conductors and sealant shall be installed on the same day the loop slots are cut.

All detector loops shall be tested sequentially by the following methods:

- impedance (measured by mega ohms)
- resistance (measured by ohms)

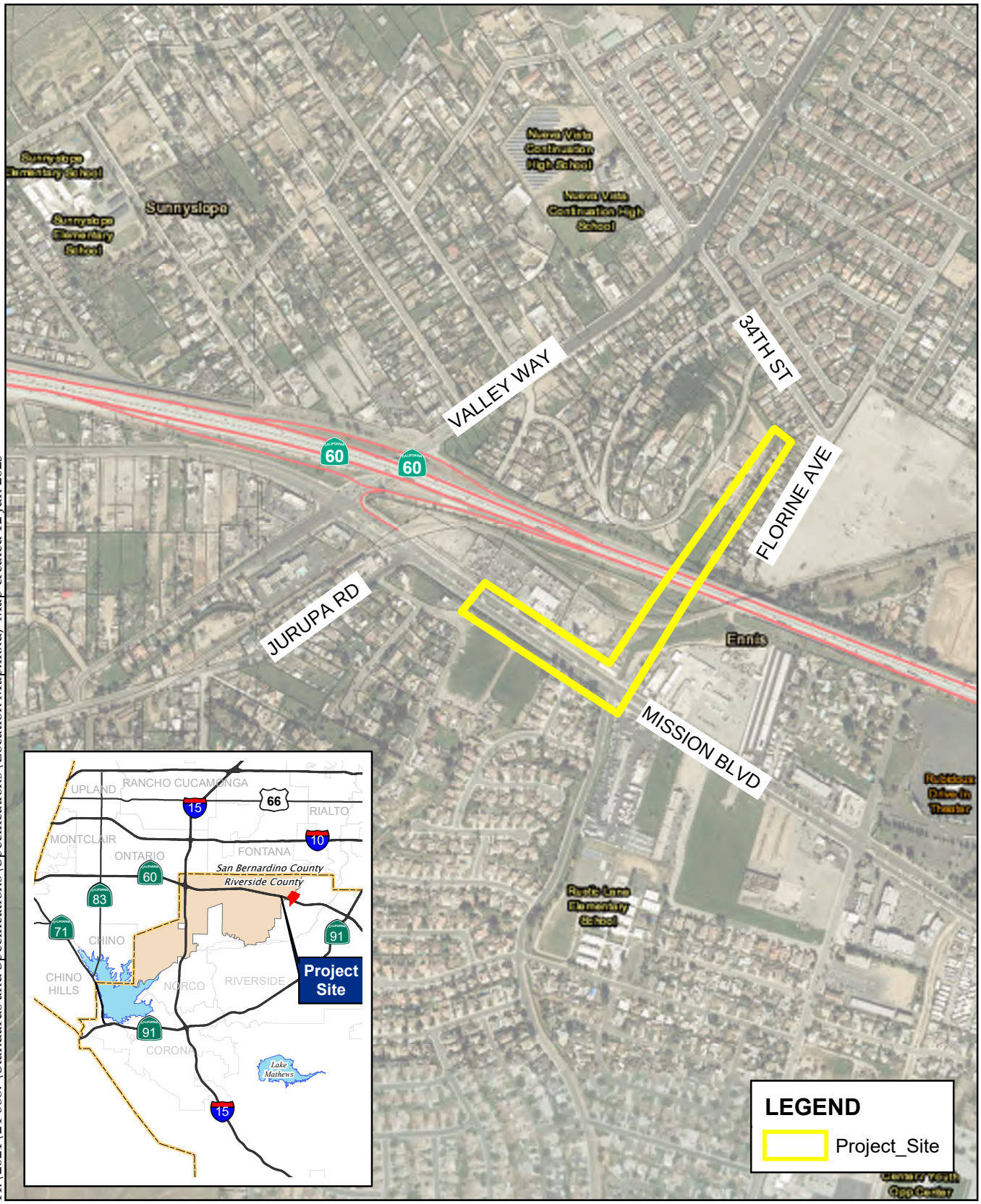
- inductance (measured in microhenries)

7. PAYMENT

Full compensation, except as otherwise provided herein, for conforming to the requirements of this article, Traffic Control Plans, Transportation Management Plan, and furnishing, installing and maintaining all traffic control devices, additional wireless detection related equipment, temporary and permanent detector loops, temporary pavement markings, construction signs, traffic directing services, and all the other items shall be paid for on a lump sum basis, and no additional compensation will be allowed therefore.

Progress payments for work under this Section will be computed at the percentage of the total Contract work completed as of the progress payment, excluding contract change orders. The total payments not-to-exceed the total cost for each item. Payment for these Items at the price bid per lump sum (all inclusive) shall be considered as full compensation for doing all work as specified herein and no additional compensation will be allowed therefore.

LOCATION MAP



H:\2024\24-0687\Standards and Specifications\Specifications\Location Map.mxd; Map created 12 Jun 2025

Sources: Riverside Co. GIS, 2021; RCIT, 2019.

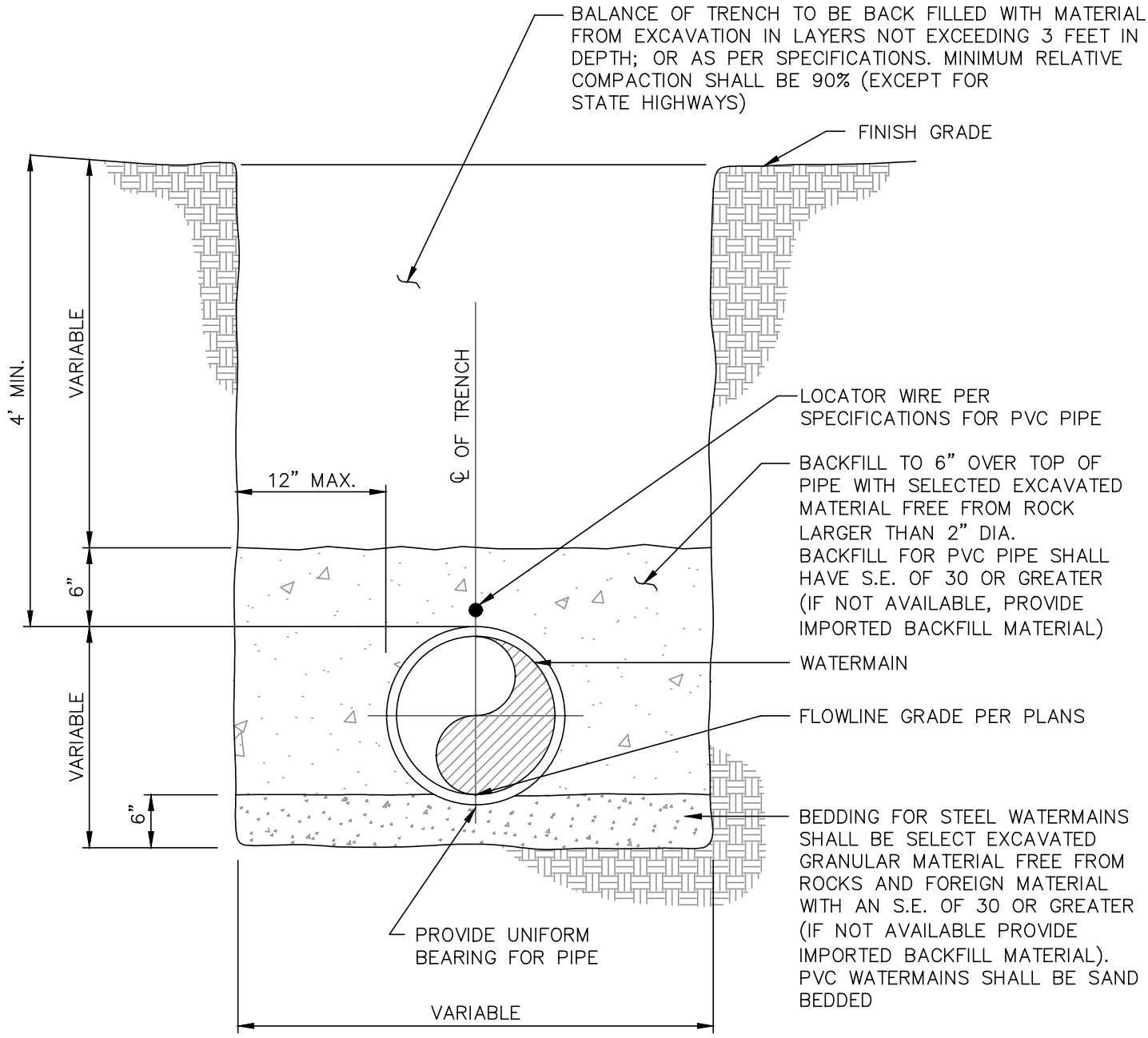
0 800 1,600 Feet

LOCATION MAP

Manor Drive Boundary Clean Up (C245117)

ALBERT A. WEBB ASSOCIATES

STANDARD DRAWINGS



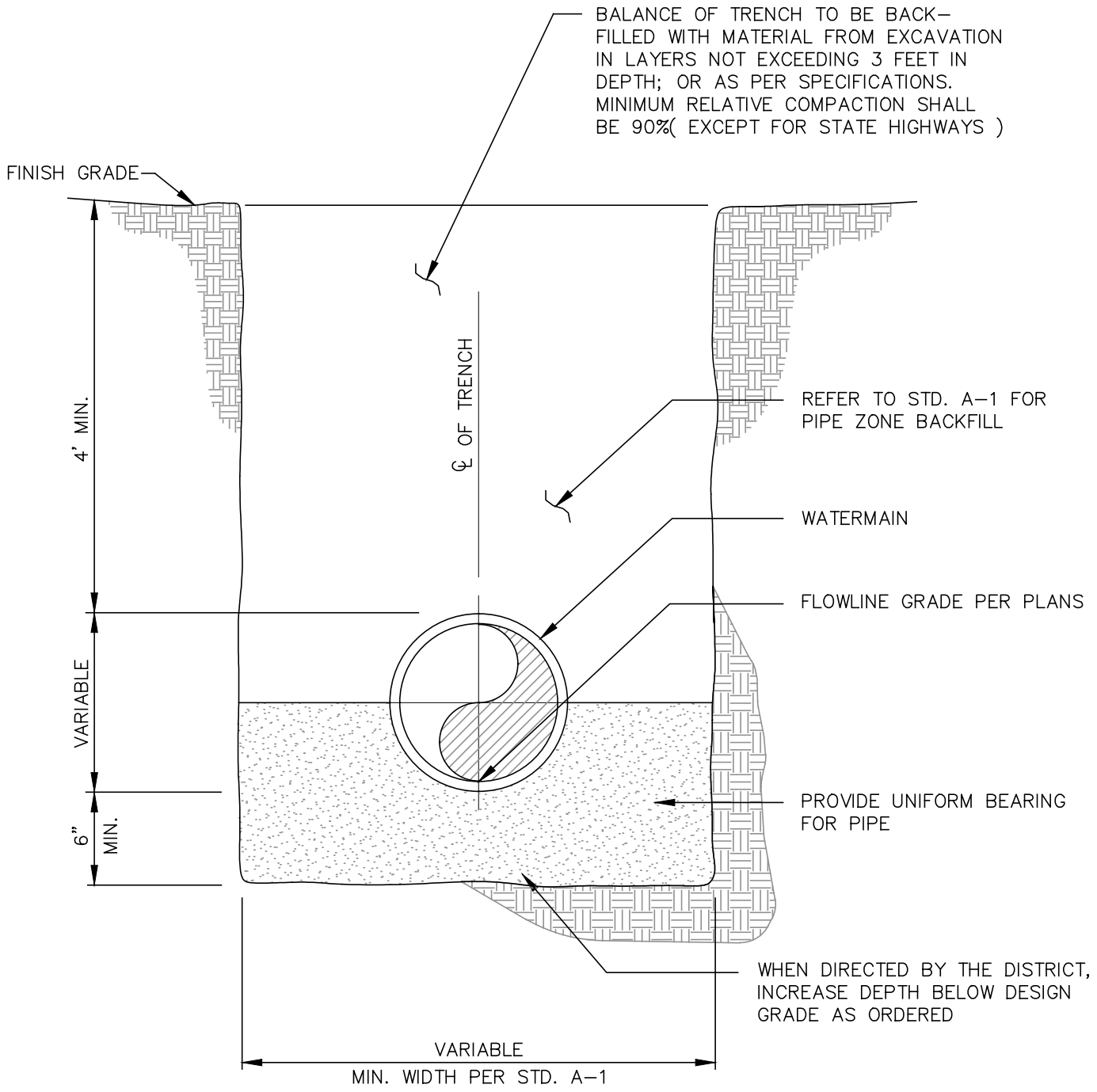
NOTES:

1. WHERE BOTTOM OF EXCAVATION IS IN ROCK WHICH CANNOT BE EXCAVATED TO PROVIDE UNIFORM BEARING FOR THE PIPE, OVEREXCAVATE 6" MINIMUM BELOW DESIGN GRADE, AND REFILL IN 3" THICK COMPACTED LAYERS WITH SELECTED EXCAVATED MATERIAL OR PROVIDE IMPORTED BACKFILL MATERIAL PER SPECIFICATIONS.

JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	TYPICAL TRENCH DETAIL	DRAWING NO. A-1
DATE: SEPTEMBER 2020		
APPROVED BY: Sinnaro Yos, P.E. C68607	ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS RIVERSIDE CALIFORNIA	W.O. 19-0248

REV.



NOTE:

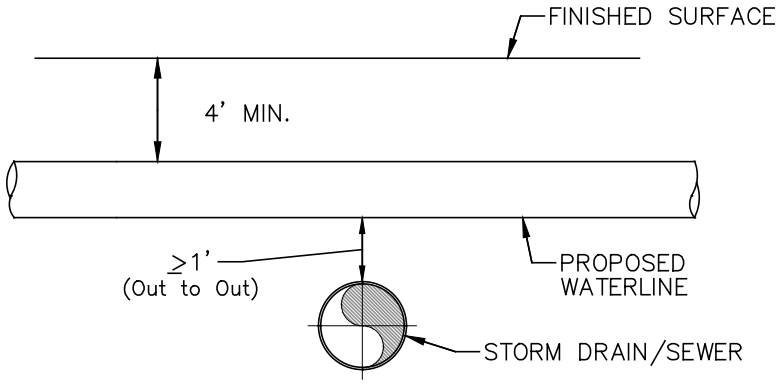
1. WHENEVER TRENCH BOTTOM IS INSUFFICIENTLY STABLE, IN THE OPINION OF THE DISTRICT, TO PROVIDE A SUITABLE FOUNDATION FOR THE PIPE, OVEREXCAVATE BELOW DESIGN GRADE AS ORDERED, AND REFILL WITH CAREFULLY PLACED AND SUFFICIENTLY COMPACTED CRUSHED ROCK; OR AS PER SPECIFICATION.

JURUPA COMMUNITY SERVICES DISTRICT

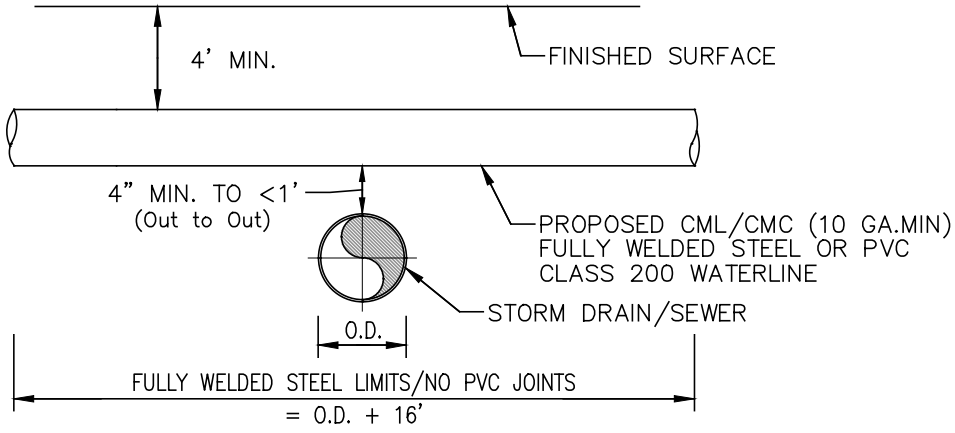
SCALE: NONE	WATERLINE SPECIAL BEDDING DETAIL	DRAWING NO. A-2
DATE: SEPTEMBER 2020		
APPROVED BY: Sinnaro Yos, P.E. C68607	ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS RIVERSIDE CALIFORNIA	W.O. 19-0248

REV.

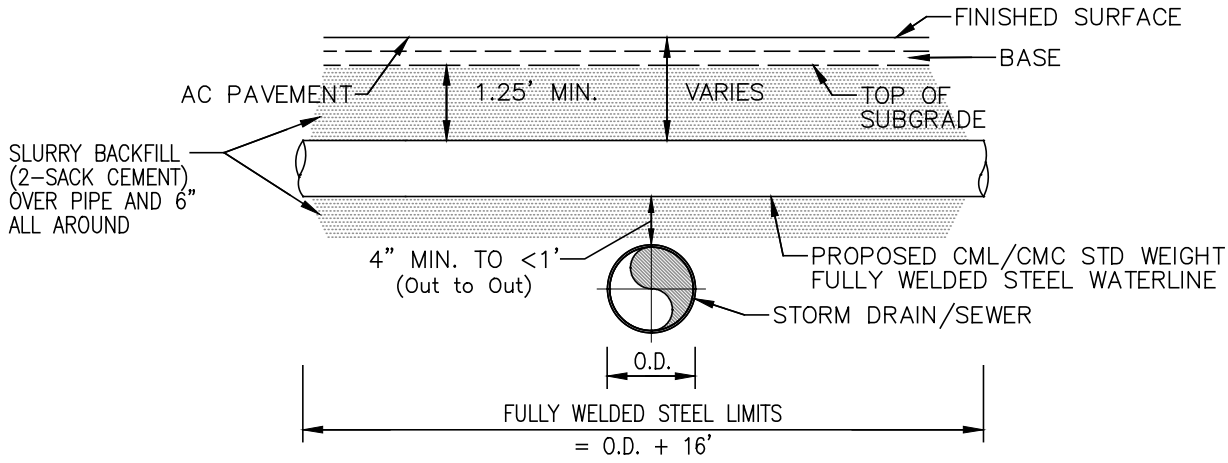
TYPE – 1 STANDARD COVER AND STANDARD SEPARATION



TYPE – 2 STANDARD COVER AND MINIMUM SEPARATION



TYPE – 3 SHALLOW COVER AND MINIMUM SEPARATION



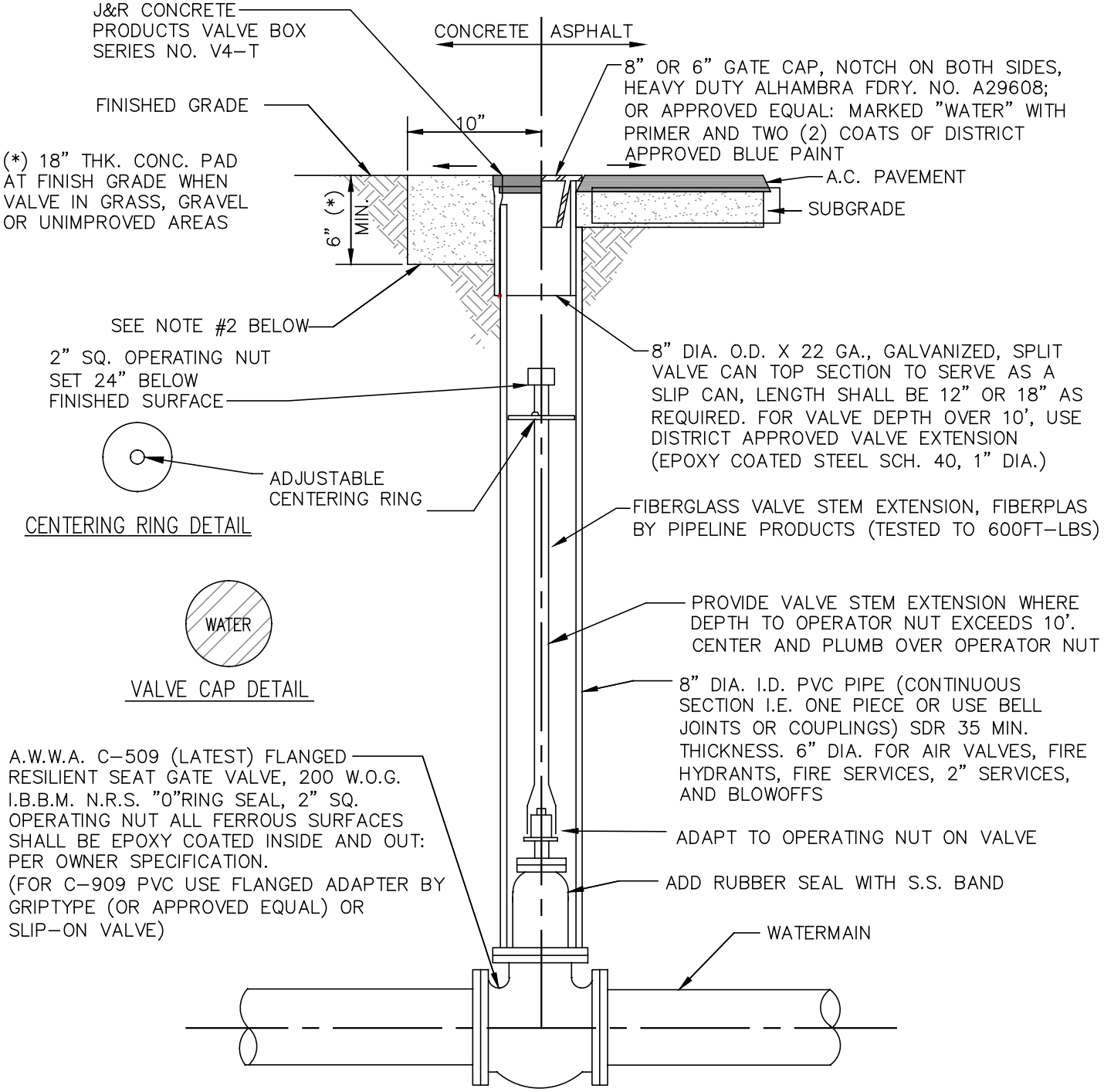
NOTES:

1. WHEN A HIGHPOINT OVER THE STORM DRAIN/SEWER IS CREATED, FOR TYPE–3, A SPECIAL CONSTRUCTION CALLOUT WILL BE NECESSARY ON THE PLANS TO PROTECT IN PLACE THE AIR VALVE DURING CONSTRUCTION.
2. WHEN A CROSSING OCCURS NEAR A TEE OR CROSS, FOR TYPE–3, THE USE OF A BUTTERFLY VALVE IN LIEU OF A GATE VALVE MAY BE REQUIRED, PER DISTRICT APPROVAL.

JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	WATERLINES CROSSING OVER STORM DRAINS/SEWERS	DRAWING NO. A–11
DATE: SEPTEMBER 2020		
APPROVED BY: Sinnaro Yos, P.E. C68607	ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS RIVERSIDE CALIFORNIA	W.O. 19–0248

REV.



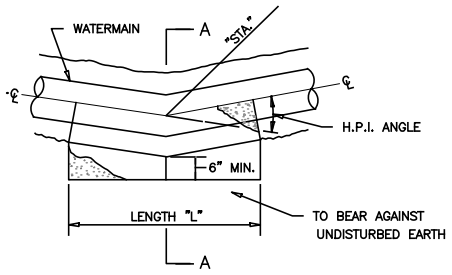
NOTES:

1. VALVE MARKER PER STD. NO. A-3 TO BE INSTALLED AS DIRECTED BY THE DISTRICT.
2. CLASS "B" CONCRETE PAD, 20" SQ. POUR AGAINST WELL COMPACTED EARTH, 90% MIN. RELATIVE COMPACTION AT FINISHED GRADE IN NON-PAVED AREAS.

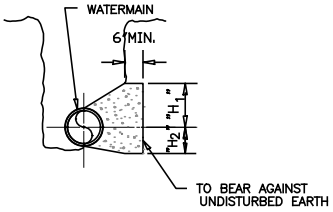
JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	GATE VALVE INSTALLATION	DRAWING NO. B-1
DATE: SEPTEMBER 2020		
APPROVED BY: Sinnaro Yos, P.E. C68607	ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS RIVERSIDE CALIFORNIA	W.O. 19-0248

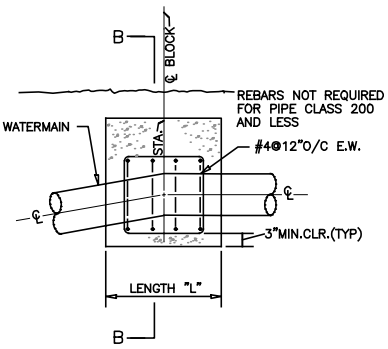
REV.



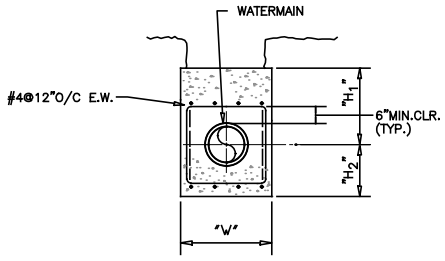
SECTIONAL PLAN



SECTION A–A



SECTIONAL ELEVATION



SECTION B–B

HORIZONTAL THRUST BLOCK

PIPE DIA.	"H_1"	"H_2"	"L"	H.P.I. ANGLE (DEGREES) CL. 150	H.P.I. ANGLE (DEGREES) GREATER THAN CL.150 UP TO CL.200
				MINIMUM DESIGN PIPELINE COVER	
6"ø & 8"ø				2.5'	2.5'
	9"	9"	2'–0"	5°–21°	5°–16°
	9"	9"	4'–0'	22°–43°	17°–32°
	9"	9"	6'–0"	44°–67°	33°–49°
	2'–0"	1'–0"	5'–0"	68°–101°	50°–70°
	2'–0"	1'–3"	7'–0"		71°–105°
10"ø & 12"ø				3.0'	3.0'
	1'–0"	1'–0"	2'–0"	5°–15°	5°–11°
	1'–0"	1'–0"	4'–0"	16°–31°	12°–23°
	1'–0"	1'–0"	6'–0"	32°–48°	24°–36°
	3'–0"	1'–6"	4'–0"	49°–58°	37°–42°
	3'–0"	1'–6"	6'–0"	59°–93°	43°–66°
	3'–0"	1'–6"	8'–0"		67°–93°
14"ø & 16"ø				3.5'	3.5'
	1'–6"	1'–6"	2'–0"	5°–15°	5°–11°
	1'–6"	1'–6"	4'–0"	16°–32°	12°–24°
	1'–6"	1'–6"	6'–0"	33°–49°	25°–36°
	3'–6"	1'–9"	6'–0"	50°–70°	37°–51°
	3'–6"	1'–9"	8'–0"	71°–100°	52°–70°
	3'–6"	1'–9"	10'–0"		71°–92°
18"ø & 20"ø				3.5'	3.5'
	1'–6"	1'–6"	3'–0"	4°–15°	4°–11°
	1'–6"	1'–6"	6'–0"	16°–32°	12°–23°
	4'–0"	2'–0"	5'–0"	33°–41°	24°–30°
	4'–0"	2'–0"	7'–0"	42°–59°	31°–43°
	4'–0"	2'–0"	9'–0"	60°–79°	44°–57°
	4'–0"	2'–0"	11'–0"	80°–102°	58°–71°
	4'–0"	2'–0"	13'–0"		72°–87°
21"ø & 24"ø				3.5'	3.5'
	1'–6"	1'–6"	4'–0"	3°–15°	3°–11°
	1'–6"	1'–6"	8'–0"	16°–30°	12°–22°
	1'–6"	1'–6"	10'–0"	31°–38°	23°–28°
	4'–0"	2'–0"	8'–0"	39°–48°	29°–36°
	4'–0"	2'–0"	10'–0"	49°–62°	37°–45°
	4'–0"	2'–0"	12'–0"	63°–76°	46°–55°
	4'–0"	2'–0"	14'–0"	77°–92°	56°–65°
	4'–0"	2'–0"	16'–0"		66°–76°
	4'–0"	2'–0"	18'–0"		77°–88°
27"ø & 30"ø				4.0'	4.0'
	2'–0"	2'–0"	4'–0"	3°–15°	3°–11°
	2'–0"	2'–0"	8'–0"	16°–30°	12°–22°
	4'–6"	2'–3"	8'–0"	31°–40°	23°–30°
	4'–6"	2'–3"	10'–0"	41°–51°	31°–38°
	4'–6"	2'–3"	12'–0"	52°–63°	39°–46°
	5'–0"	2'–6"	13'–0"	64°–75°	47°–54°
	5'–0"	2'–6"	15'–0"	76°–90°	55°–64°
	5'–0"	2'–6"	18'–0"		65°–79°
	5'–0"	2'–6"	21'–0"		80°–95°
33"ø & 36"ø				4.0'	4.5'
	2'–0"	2'–0"	4'–0"	3°–11°	3°–9°
	2'–0"	2'–0"	8'–0"	12°–22°	10°–18°
	5'–0"	2'–6"	8'–0"	23°–32°	19°–26°
	5'–0"	2'–6"	11'–0"	33°–45°	27°–37°
	5'–0"	2'–6"	14'–0"	46°–58°	38°–48°
	5'–0"	2'–6"	17'–0"	59°–72°	49°–59°
	5'–0"	2'–6"	20'–0"	73°–88°	60°–71°
	5'–6"	2'–9"	22'–0"		72°–86°

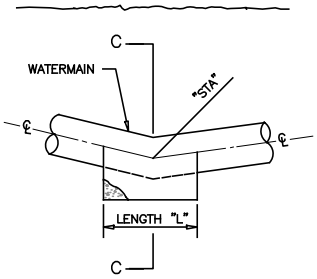
VERTICAL ANCHOR BLOCK

PIPE DIA.	"H_1"	"H_2"	"W"	"L"	GRADE DIFFERENCE (%) CL. 150	GRADE DIFFERENCE (%) GREATER THAN CL.150 UP TO CL.200
6"ø & 8"ø	2'–0"	2'–0"	2'–0"	1'–6"	4%–24%	4%–17%
	2'–0"	2'–0"	2'–0"	2'–6"	25%–41%	18%–30%
	2'–0"	2'–0"	2'–0"	3'–6"	42%–63%	31%–43%
	2'–0"	2'–0"	2'–0"	5'–6"	64%–154%	44%–81%
	2'–0"	2'–0"	2'–0"	7'–0"		82%–130%
10"ø & 12"ø	2'–6"	2'–6"	3'–0"	2'–0"	4%–25%	4%–19%
	2'–6"	2'–6"	3'–0"	3'–0"	26%–40%	20%–29%
	2'–6"	2'–6"	3'–0"	4'–6"	41%–68%	30%–46%
	2'–6"	2'–6"	3'–0"	6'–6"	69%–141%	47%–77%
	3'–0"	3'–0"	3'–0"	7'–0"		78%–132%
14"ø & 16"ø	3'–0"	3'–0"	4'–0"	2'–0"	4%–23%	4%–17%
	3'–0"	3'–0"	4'–0"	3'–6"	25%–42%	18%–30%
	3'–0"	3'–0"	4'–0"	5'–0"	43%–67%	31%–46%
	3'–0"	3'–0"	4'–0"	7'–0"	68%–127%	47%–73%
	3'–0"	3'–0"	4'–0"	10'–0"		74%–157%
18"ø & 20"ø	3'–0"	3'–0"	4'–6"	3'–0"	4%–24%	4%–18%
	3'–0"	3'–0"	4'–6"	5'–0"	25%–42%	19%–30%
	3'–0"	3'–0"	4'–6"	7'–0"	43%–66%	31%–45%
	3'–0"	3'–0"	4'–6"	10'–0"	67%–128%	46%–73%
	3'–0"	3'–0"	4'–6"	13'–0"		74%–120%
21"ø & 24"ø	3'–0"	3'–0"	5'–0"	3'–0"	4%–18%	4%–13%
	3'–0"	3'–0"	5'–0"	5'–0"	19%–31%	14%–22%
	3'–0"	3'–0"	5'–0"	7'–0"	32%–45%	23%–32%
	3'–0"	3'–0"	5'–0"	9'–0"	46%–63%	33%–43%
	3'–0"	3'–0"	5'–0"	11'–0'	64%–85%	44%–56%
	3'–0"	3'–0"	5'–0"	14'–0"	86%–148%	57%–79%
	3'–6"	3'–6"	5'–0"	15'–0"		80%–129%
27"ø & 30"ø	3'–6"	3'–6"	6'–0"	3'–0"	4%–15%	4%–11%
	3'–6"	3'–6"	6'–0"	5'–0"	16%–27%	12%–20%
	3'–6"	3'–6"	6'–0"	7'–0'	28%–39%	21%–28%
	3'–6"	3'–6"	6'–0"	9'–0"	40%–53%	29%–37%
	3'–6"	3'–6"	6'–0"	11'–0"	54%–70%	38%–47%
	3'–6"	3'–6"	6'–0"	13'–0"	71%–93%	48%–59%
	3'–6"	3'–6"	6'–0"	15'–0"	94%–127%	60%–73%
	4'–0"	4'–0"	6'–0"	16'–0"		74%–101%
	4'–0"	4'–0"	6'–0"	18'–0"		102%–133%
33"ø & 36"ø	3'–6"	3'–6"	7'–0"	4'–0"	4%–17%	4%–12%
	3'–6"	3'–6"	7'–0"	6'–0"	18%–26%	13%–19%
	3'–6"	3'–6"	7'–0"	8'–0"	27%–35%	20%–26%
	3'–6"	3'–6"	7'–0"	10'–0"	36%–45%	27%–32%
	3'–6"	3'–6"	7'–0"	13'–0'	46%–63%	33%–44%
	4'–0"	4'–0"	7'–0"	14'–0'	64%–91%	45%–58%
	4'–0"	4'–0"	7'–0"	16'–0"	92%–120%	59%–71%
	4'–0"	4'–0"	7'–0"	18'–0"		72%–85%
	4'–0"	4'–0"	7'–0"	21'–0"		86%–116%

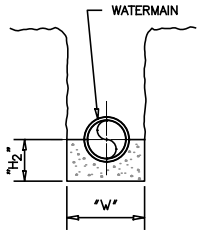
JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	THRUST BLOCKS FOR WELDED STEEL PIPELINES, CLASS 200 P.S.I. MAX.	DRAWING NO. C–2
DATE: SEPTEMBER 2020		SHEET 1 OF 3
APPROVED BY: Sinnaro Yos, P.E. C68607	ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS RIVERSIDE CALIFORNIA	W.O. 19–0248

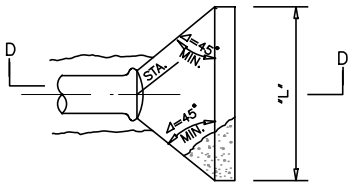
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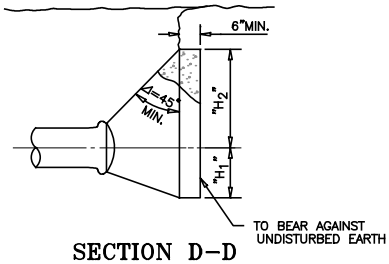
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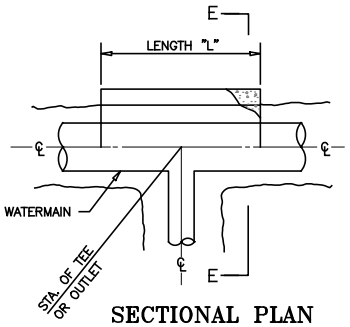
SECTION C–C



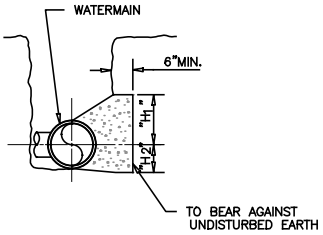
SECTIONAL PLAN



SECTION D–D



SECTIONAL PLAN



SECTION E–E

VERTICAL BEARER BLOCK

PIPE DIA.	"H_2"	"W"	"L"	GRADE DIFFERENCE (%) CL. 150	GRADE DIFFERENCE (%) GREATER THAN CL.150 UP TO CL.200
6"ø & 8"ø	1'–0"	2'–0"	0'–6"	4%–43%	4%–31%
	1'–0"	2'–0"	1'–0"	44%–131%	32%–74%
	1'–0"	2'–0"	1'–6"		75%–202%
10"ø & 12"ø	1'–0"	2'–6"	1'–0"	4%–49%	4%–35%
	1'–0"	2'–6"	1'–6"	50%–88%	36%–57%
	1'–0"	2'–6"	2'–0"	89%–189%	58%–88%
	1'–0"	2'–6"	2'–6"		89%–142%
14"ø & 16"ø	1'–6"	3'–0"	1'–0"	4%–31%	4%–22%
	1'–6"	3'–0"	1'–6"	32%–50%	23%–35%
	1'–6"	3'–0"	2'–0"	51%–74%	36%–50%
	1'–6"	3'–0"	3'–0"	76%–201%	51%–90%
	1'–6"	3'–0"	4'–0"		91%–201%
18"ø & 20"ø	1'–6"	3'–0"	1'–6"	4%–29%	4%–21%
	1'–6"	3'–0"	2'–0"	30%–41%	22%–29%
	1'–6"	3'–0"	2'–6"	42%–54%	30%–38%
	1'–6"	3'–0"	3'–0"	55%–69%	39%–47%
	1'–6"	3'–0"	4'–0"	70%–118%	48%–69%
	1'–6"	3'–0"	5'–0"		70%–102%
	1'–6"	3'–0"	6'–0"		103%–168%
21"ø & 24"ø	1'–6"	3'–6"	1'–6"	4%–23%	4%–17%
	1'–6"	3'–6"	2'–6"	24%–41%	18%–30%
	1'–6"	3'–6"	3'–6"	42%–64%	31%–44%
	1'–6"	3'–6"	4'–6"	65%–97%	45%–61%
	1'–6"	3'–6"	5'–6"	98%–162%	62%–82%
	1'–6"	3'–6"	7'–0"		83%–139%
27"ø & 30"ø	2'–0"	4'–6"	2'–0"	4%–26%	4%–19%
	2'–0"	4'–6"	3'–0"	27%–41%	20%–30%
	2'–0"	4'–6"	4'–0"	42%–59%	31%–41%
	2'–0"	4'–6"	5'–0"	60%–82%	42%–54%
	2'–0"	4'–6"	6'–6"	83%–147%	55%–79%
	2'–0"	4'–6"	7'–6"		80%–102%
	2'–0"	4'–6"	8'–6"		103%–138%
33"ø & 36"ø	2'–0"	5'–6"	2'–0"	4%–22%	4%–16%
	2'–0"	5'–6"	3'–6"	23%–41%	17%–30%
	2'–0"	5'–6"	5'–0"	42%–64%	31%–44%
	2'–0"	5'–6"	6'–6"	65%–99%	45%–62%
	2'–0"	5'–6"	8'–0"	100%–172%	63%–85%
	2'–0"	5'–6"	9'–6"		86%–121%

END THRUST BLOCK & TEE THRUST BLOCK

PIPE DIA.	"H_1"	"H_2"	LENGTH "L" CL.150	LENGTH "L" GREATER THAN CL.150 UP TO CL.200
			MINIMUM DESIGN PIPELINE COVER	
6"ø & 8"ø	2'–0"	1'–0"	2.5'	2.5'
			3'–0"	4'–0"
10"ø & 12"ø	2'–0"	1'–0"	3.0'	3.0'
			5'–6"	7'–6"
14"ø & 16"ø	3'–0"	1'–6"	3.5'	3.5'
			6'–0"	8'–0"
18"ø & 20"ø	3'–6"	1'–9"	3.5'	3.5'
			7'–6"	10'–0"
21"ø & 24"ø	4'–0"	2'–0"	3.5'	3.5'
			9'–6"	12'–6"
27"ø & 30"ø	4'–6"	2'–3"	4.0'	4.0'
			11'–6"	15'–6"
33"ø & 36"ø	5'–0"	2'–6"	4.0'	4.5'
			14'–6"	17'–6"

JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE

DATE: SEPTEMBER 2020

APPROVED BY:

Sinnaro Yos, P.E. C68607

THRUST BLOCKS FOR WELDED STEEL PIPELINES, CLASS 200 P.S.I. MAX.

ALBERT A. WEBB ASSOCIATES
CONSULTING ENGINEERS
RIVERSIDE CALIFORNIA

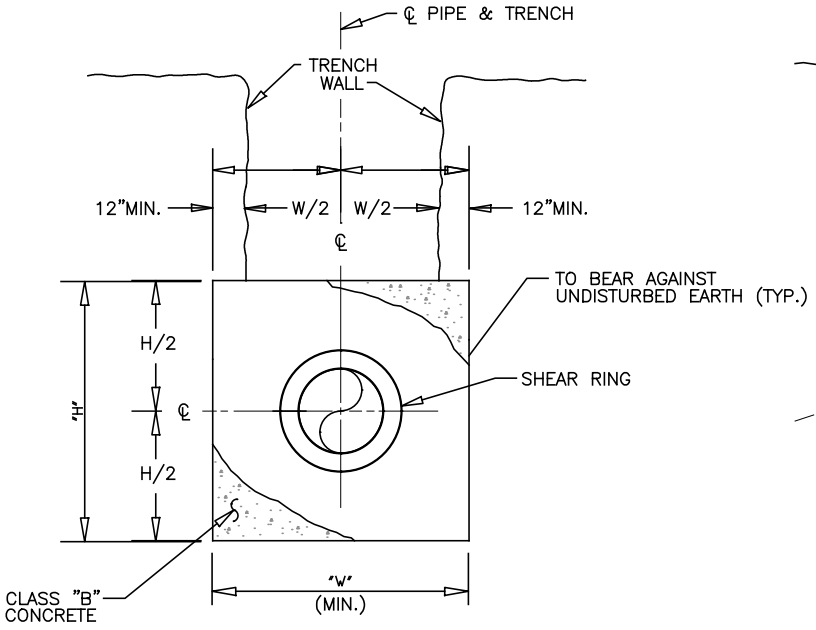
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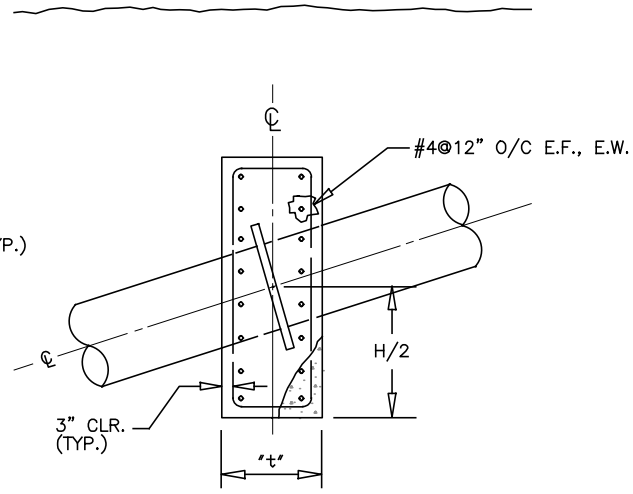
C–2

SHEET 2 OF 3

W.O. 19–0248

REV.





SHEAR RING BLOCK						
PIPE DIA.	CL. 150			GREATER THAN CL.150 UP TO CL. 200		
	MINIMUM		DESIGN	PIPELINE COVER		
	"H"	"W"	"t"	"H"	"W"	"t"
6"ø & 8"ø	2.5' 2'–6"	4'–6"	12"	2.5' 2'–6"	5'–6"	12"*
10"ø & 12"ø	3.0' 3'–6"	5'–6"	12"	3.0' 3'–6"	7'–0"	12"*
14"ø & 16"ø	3.5' 4'–0"	8'–0"	12"	3.5' 4'–0"	9'–0"	15"*
18"ø & 20"ø	3.5' 5'–0"	8'–6"	15"*	3.5' 6'–0"	9'–0"	18"*
21"ø & 24"ø	3.5' 6'–0"	9'–6"	21"*	3.5' 7'–0"	10'–6"	21"*
27"ø & 30"ø	4.0' 8'–0"	9'–6"	22"*	4.0' 8'–6"	11'–6"	27"*
33"ø & 36"ø	4.0' 9'–0"	11'–6"	24"*	4.5' 10'–0"	12'–6"	30"*

* USE REBAR #4 @ 12" O/C E.F. & E.W.

NOTES:

1. ALL THRUST BLOCKS SHALL BE A MINIMUM OF CLASS "C" CONCRETE (4.0 SACKS MIX) AS PER SPECIFICATIONS, EXCEPT SHEAR RING BLOCK WHICH SHALL BE A MINIMUM OF CLASS "B" CONCRETE (5.0 SACKS MIX).
2. RE–BAR SHALL BE INTERMEDIATE GRADE DEFORMED BARS CONFORMING TO A.S.T.M. SPEC. A–15 & A–305.
3. RE–BAR LAP LENGTH = 18" MIN. OR 36 x RE–BAR DIA., WHICHEVER IS GREATER.
4. REBARS ARE REQUIRED FOR SHEAR RING BLOCKS AS NOTED.
5. HORIZONTAL THRUST BLOCKS, TEE & END BLOCKS, & SHEAR RING BLOCKS.
   A.) THE ALLOWABLE LATERAL BEARING PRESSURE AGAINST UNDISTURBED EARTH (Pp) USED IN DESIGN OF BLOCKS IS 333 LBS./SQ. FT./FT. OF DEPTH.
   B.) THE ALLOWABLE LATERAL BEARING PRESSURE WAS DETERMINED BY USING THE MINIMUM DESIGN PIPELINE COVER AS SHOWN IN THE THRUST BLOCK TABLES.
   C.) THE TOTAL RESULTANT THRUST FOR HORIZONTAL ANGLES WAS DETERMINED USING THE RELATIONSHIP
   $HT = 2P \pi/4\ D^2\ \sin \Delta/2$
   WHERE HT= TOTAL HORIZONTAL THRUST, LBS.
   D= INSIDE DIAMETER, IN.
   P= INTERNAL PRESSURE, P.S.I.
   Δ = H.P.I., DEGREES.
6. VERTICAL BEARING BLOCK & VERTICAL ANCHOR BLOCK,
   A.) THE ALLOWABLE FOUNDATION PRESSURE AGAINST UNDISTURBED EARTH (Pp) USED FOR DETERMINING THE REQUIRED BEARING BLOCK IS 3000 LBS./SQ.FT.
   B.) THE TOTAL RESULTANT THRUST FOR VERTICAL ANGLES WAS APPROXIMATED USING THE RELATIONSHIP
   $VT = P\ \pi/4\ D^2\ \sin.\ (\Delta = \tan^{-1} g/100)$.
   WHERE VT= TOTAL VERTICAL THRUST, LBS.
   D= INSIDE PIPE DIAMETER, IN.
   P= INTERNAL PRESSURE, P.S.I.
   Δ = V.P.I., DEGREES.
   g= GRADE DIFFERENCE (%).

JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	THRUST BLOCKS FOR WELDED STEEL PIPELINES, CLASS 200 P.S.I. MAX.	DRAWING NO. C–2
DATE: SEPTEMBER 2020		SHEET 3 OF 3
APPROVED BY: Sinnaro Yos, P.E. C68607	ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS RIVERSIDE CALIFORNIA	W.O. 19–0248

REV.

MINIMUM PIPE WELDING LENGTHS FOR RESISTANCE

PIPE DIA.	INSTALLATIONS FOR CLASS 150 UP TO CLASS 200 (MAX.)			
	ANGLE OF BEND*			
	0–22.5°	22.5°–45°	45°–67.5°	67.5°–90°
4"	5'	15'	35'	55'
6"	10'	25'	50'	80'
8"	10'	30'	65'	100'
10"	10'	40'	80'	125'
12"	10'	40'	80'	125'
14"	15'	40'	80'	130'
16"	15'	45'	95'	150'
18"	15'	50'	105'	165'
20"	15'	55'	115'	180'
24"	20'	65'	135'	215'
30"	20'	80'	160'	260'
36"	25'	90'	190'	305'

* AT THE BREAK POINT ANGLES (i.e: 22.5°, 45°, AND 67.5°) THE CONTRACTOR SHALL USE THE THRUST RESTRAINT COLUMN SHOWING THE LONGEST WELD LENGTH.

GENERAL NOTES

1. WELDED PIPE LENGTHS TO BE USED ONLY UPON APPROVAL BY J.C.S.D.
2. WELDED LENGTHS INDICATED ARE TO BE PROVIDED ON EACH SIDE OF BEND.
3. ALL JOINTS WITHIN THE LENGTHS INDICATED SHALL BE FULL WELD, DOUBLE PASS.
4. "DEAD END" THRUST IS EQUIVALENT TO A 90° BEND.
5. FOR SERVICE LATERALS, INCLUDING FIRE HYDRANTS, FIRE SERVICES, BLOW–OFFS ETC., FULLY WELD ALL MAINLINE JOINTS (DOUBLE PASS) 10' MINIMUM EACH SIDE OF TEE OUTLET.

THE FOLLOWING ASSUMPTIONS APPLY

1. LENGTH OF WELDED PIPE IS FOR EACH SIDE OF BEND USING THE FOLLOWING EQUATION:

$$L = 1.5PA\,(1-\cos\triangle)\,/\,[U(2W_e + W_w + W_p)]$$

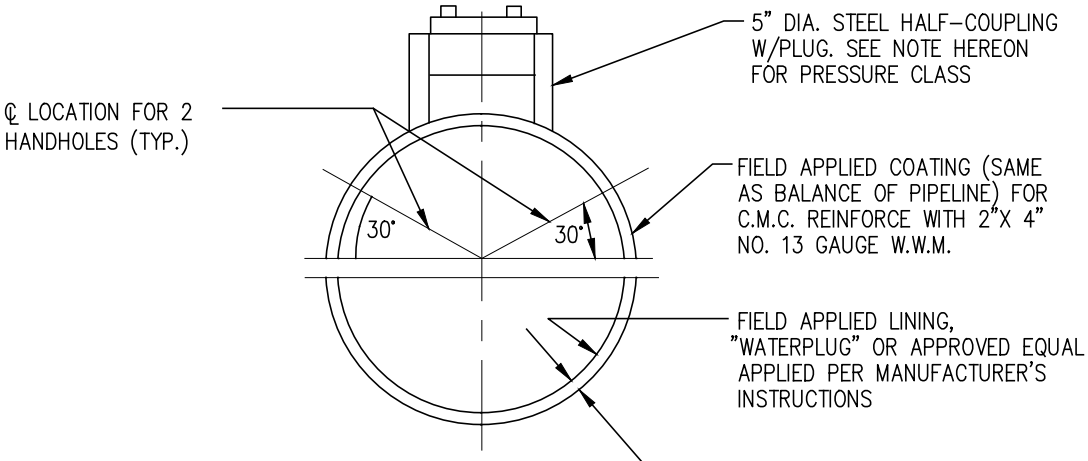
WHERE: P = MAXIMUM TEST PRESSURE (PSI)
A = CROSS–SECTION AREA OF THE PIPE (SQ. IN.)
$\triangle$ = ANGLE OF BEND (DEGREES)
U = COEFF. OF FRICTION BETWEEN PIPE AND SOIL (ASSUMED 0.3)
W_e = WEIGHT OF THE PRISM OR SOIL OVER THE PIPE (LB/FT.) OF PIPE LENGTH (WT. OF SOIL ASSUMED TO BE 110 LB/CU. FT.)
W_p = WEIGHT OF THE PIPE (LB/FT)
W_w = WEIGHT OF THE CONTAINED WATER (LB/FT)

2. 3' MINIMUM PIPE COVER FOR PIPE DIAMETERS < 12", 4' MINIMUM PIPE COVER FOR PIPE DIAMETERS > 12".
3. FACTOR OF SAFETY = 1.5 TIMES MAXIMUM DESIGN PRESSURE. (200 PSI)
4. MAXIMUM ANGLE (?) USED FOR EACH RANGE SHOWN.

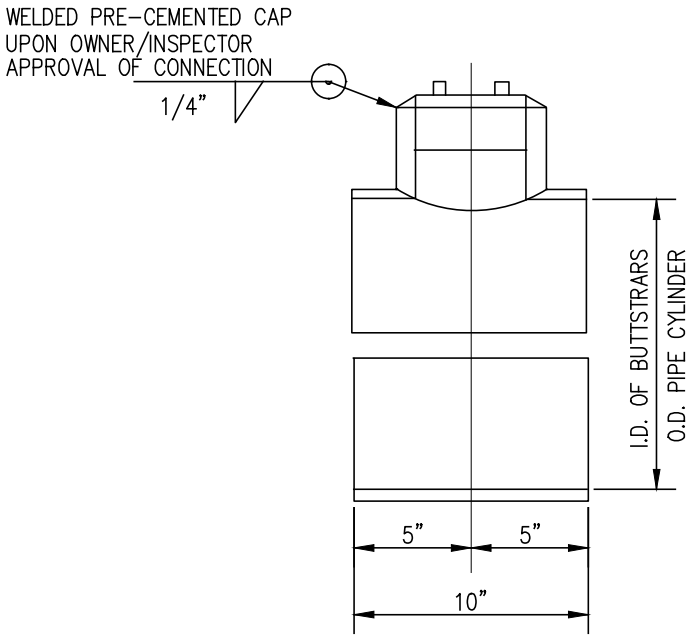
JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	MINIMUM PIPE WELDING LENGTH FOR THRUST RESTRAINT	DRAWING NO. C–2A
DATE: SEPTEMBER 2020		
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REV.



END VIEW



SIDE VIEW

NOTES:

① 1 HANDHOLE REQUIRED FOR 4"ø PIPE THROUGH 14"ø PIPE.
② 2 HANDHOLES REQUIRED FOR 20"ø PIPE THROUGH 30"ø PIPE.
③ UP TO CLASS 200 PIPELINES:

"T" =1/4" FOR 4" DIA. THROUGH 30" DIA.
"T" = 5/16" FOR 36" DIA.
5" – BLACK, HALF-COUPLING, STD. WT.
5" – BLACK, CORED, BAR PLUG, STD. WT.

④ GREATER THAN CLASS 200 THROUGH CLASS 350 PIPELINES:

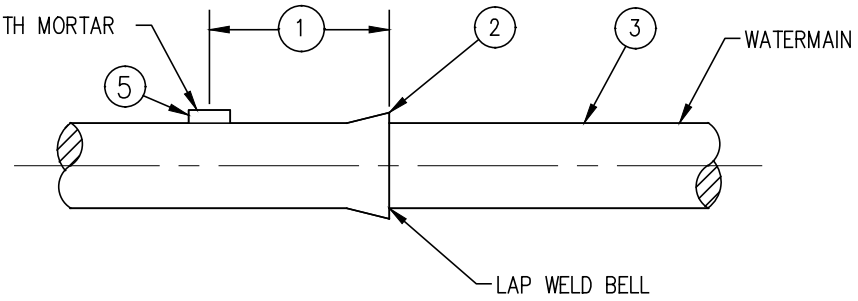
"T" = 1/4" FOR 4" DIA. THROUGH 20" DIA.
"T" = 5/16" FOR 24" DIA.
"T" = 3/8" FOR 30" DIA. & 36" DIA.
5" – BLACK, HALF-COUPLING, EXTRA HEAVY
5" – BLACK, SOLID, BAR PLUG, EXTRA HEAVY

⑤ 4 HANDHOLES REQUIRED FOR PIPE SIZES GREATER THAN 30" DIA.
⑥ 4 HANDHOLES REQUIRED FOR PIPE SIZES GREATER
⑦ WEDDING BAND NOT ALLOWED

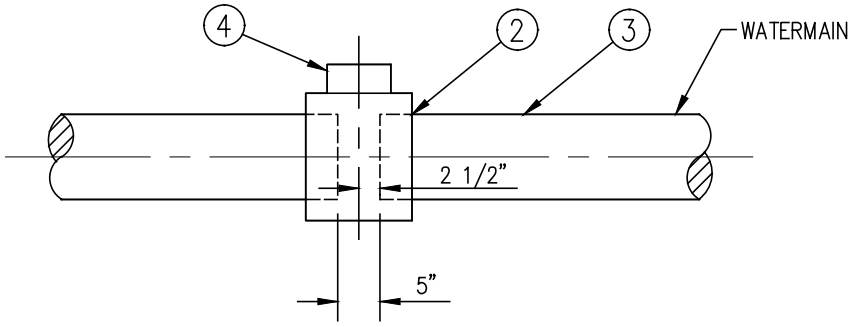
JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	TYPICAL BUTT STRAP CONNECTION CML/CMC PIPE	DRAWING NO. C-3
DATE: SEPTEMBER 2020		
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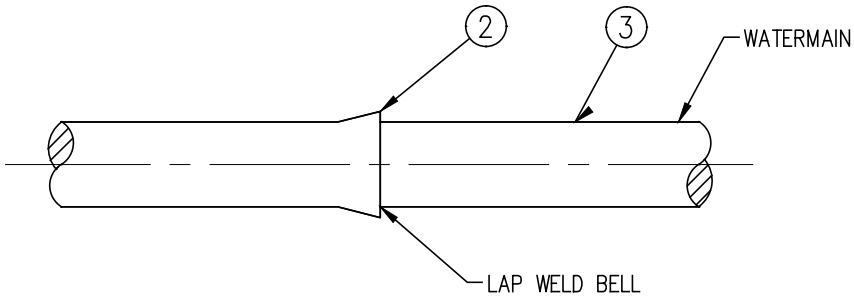
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TYPE – I



TYPE – II



TYPE – III

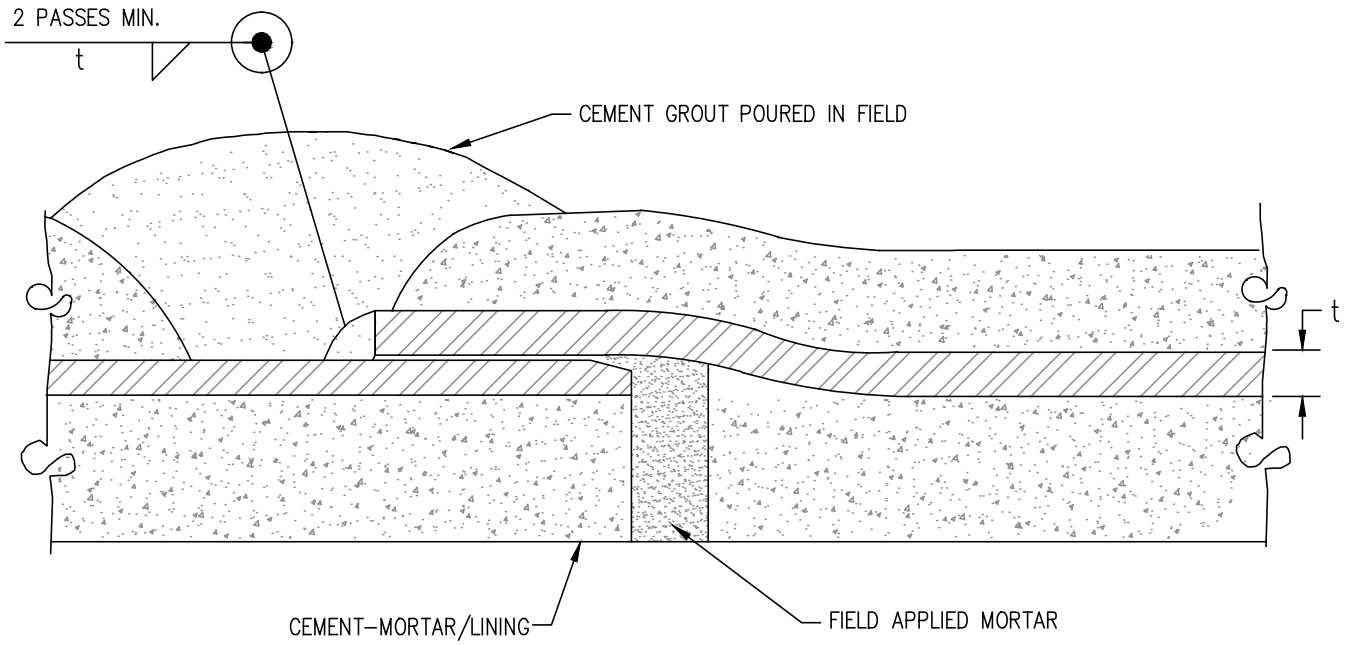
NOTES:

1. 1'–0" (12"ø THRU 36"ø) AND 6" (LESS THAN 12"ø) PER STD. NO. C–3.
2. CUT–TO–FIT OPTIONAL TO THE CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS. WELD AS PER SPEC'S.
3. CUT–TO–FIT PIPE (LENGTH AS SHOWN ON PLANS). HOLD COATING DISTANCE OF C.T.F. + 6" FIELD APPLIED COATING.
4. SPLIT BUTT–STRAP WITH 1 OR 2 HANDHOLES PER STD. NO. C–3.
5. 5" HALF COUPLING PER STD. NO. C–3 REQUIREMENTS WITH 1/4" PLATE WELDED TO TOP, 10" x 1/4" REINFORCEMENT COLLAR.

JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	TYPICAL CUT–TO–FIT DETAIL FOR TYPES I, II & III	DRAWING NO. C–4
DATE: SEPTEMBER 2020		
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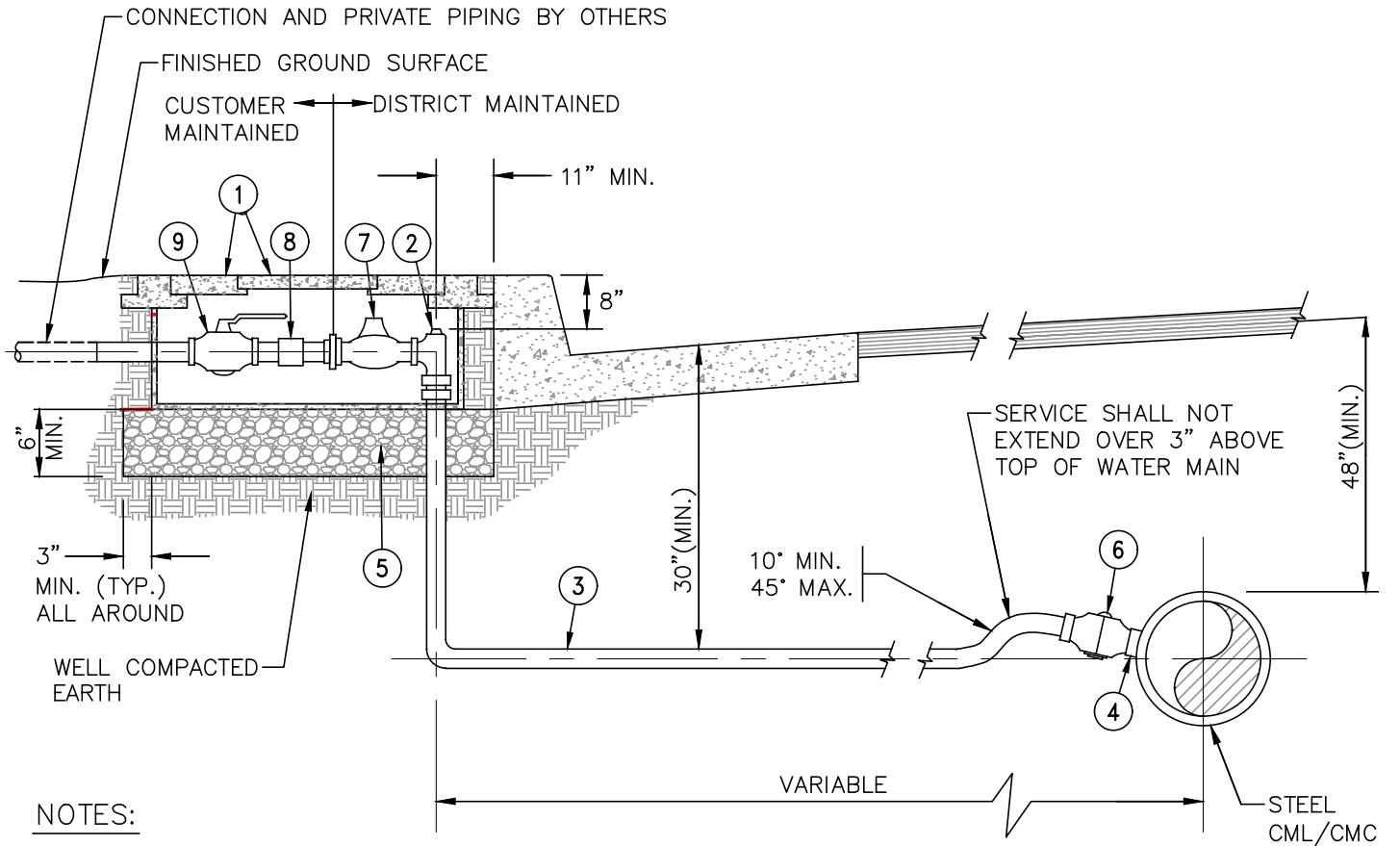


LAP WELDED SLIP JOINT
BELL-END STEEL CYLINDER PIPE

JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	LAP WELDED SLIP JOINT BELLED-END CML & CMC PIPE	DRAWING NO. C-9
DATE: SEPTEMBER 2020		
APPROVED BY: Sinnaro Yos, P.E. C68607	ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS RIVERSIDE CALIFORNIA	W.O. 19-0248

REV.



NOTES:

1. WHERE SIDEWALK IS DIRECTLY BEHIND CURB, LOCATE METER BOX RIGHT BEHIND THE SIDEWALK.
2. WHERE PARKWAY IS DIRECTLY BEHIND CURB, LOCATE METER BOX RIGHT BEHIND THE CURB
3. PIPE THREADS SHALL BE CLEAN AND SHARP AND SEALED WITH AN APPROVED JOINT COMPOUND.
4. METER SHALL NOT BE PLACED IN DRAINAGE AREA, DEPRESSIONS OR WITHIN TWO FEET OF A DRIVEWAY APPROACH.
5. DISTRICT MAINTAINED: ANGLE METER, METER, METER TAIL, CHECK VALVE, 2" NIPPLE
6. CUSTOMER MAINTAINED: BRASS BALL VALVE
7. FOR 1" METER INSTALLATION, SUBSTITUTE 1" DIMENSION WHERE 3/4" IS INDICATED.

ITEM	DESCRIPTION
1	J & R POLYMER CONCRETE METER BOX P–W 5–1/2 WITH TWO PIECE COVER OR APPROVED EQUAL. USE METER BOX P–W 5–1/2–20K FOR INCIDENTAL TRAFFIC CONDITIONS, CHECK FOR H20 RATED.
2	1" x 3/4" BALL ANGLE METER STOP W/ LOCK WING
3	1" PLASTIC COATED COPPER TUBE, TYPE K, COPPER SHALL BE CONTINUOUS WITH NO JOINTS FROM SERVICE CONNECTION TO RISER.
4	BLK. STL. STD. COUPLING TO PIPE W/COLLAR PER STD. D–6 (FOR STEEL WATERMAIN) OR WATERMAIN DIA. X 1" SERVICE SADDLE PER DISTRICT SPECIFICATIONS (FOR PVC WATERMAIN)
5	3/4" DIA. CRUSHED ROCK
6	1" DIA. BALL CORP. STOP, I.P.T. INLET X PACK JOINT
7	3/4" METER W/RADIOREAD, FURNISHED BY THE DISTRICT
8	1" DIA. BRASS PIPE W/ 1" DIA. BRONZE SPRING CHECK VALVE 1" X 12" BRASS PIPE
9	1" BRASS BALL VALVE W/ HANDLE

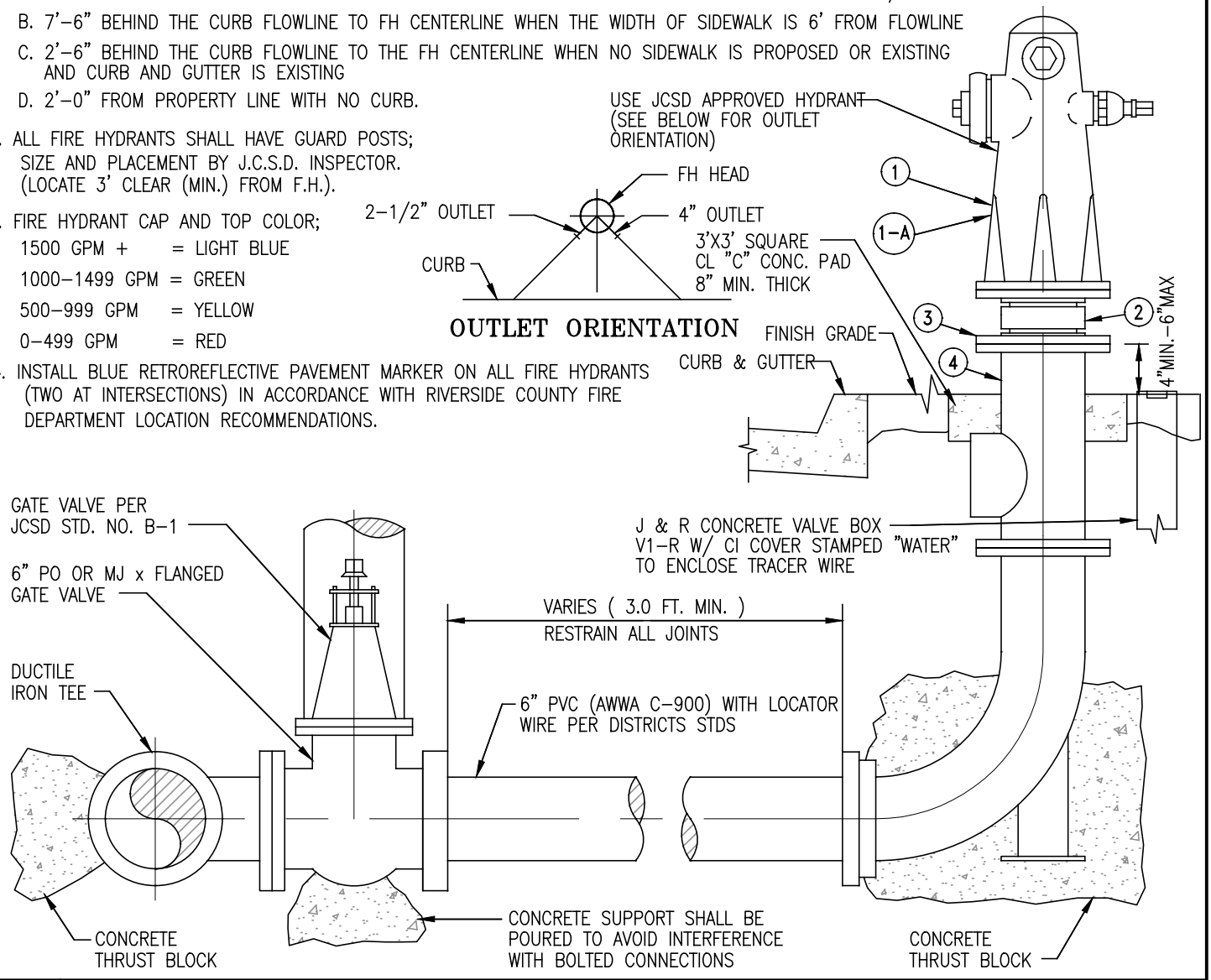
JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE	3/4" OR 1" METER, 1" WATER SERVICE DETAIL (W/OUT RESIDENTIAL FIRE SPRINKLERS)	DRAWING NO. D–1
DATE: SEPTEMBER 2020		
APPROVED BY: Sinnaro Yos, P.E. C68607	ALBERT A. WEBB ASSOCIATES CONSULTING ENGINEERS RIVERSIDE CALIFORNIA	W.O. 19–0248

REV.

1. FIRE HYDRANT SHALL BE PLACED:
   A. 2'–6" BEHIND THE CURB FLOWLINE TO THE FH CENTERLINE WHEN THE SIDEWALK IS ADJACENT TO R/W OR MEANDERING
   B. 7'–6" BEHIND THE CURB FLOWLINE TO FH CENTERLINE WHEN THE WIDTH OF SIDEWALK IS 6' FROM FLOWLINE
   C. 2'–6" BEHIND THE CURB FLOWLINE TO THE FH CENTERLINE WHEN NO SIDEWALK IS PROPOSED OR EXISTING AND CURB AND GUTTER IS EXISTING
   D. 2'–0" FROM PROPERTY LINE WITH NO CURB.
2. ALL FIRE HYDRANTS SHALL HAVE GUARD POSTS; SIZE AND PLACEMENT BY J.C.S.D. INSPECTOR. (LOCATE 3' CLEAR (MIN.) FROM F.H.).
3. FIRE HYDRANT CAP AND TOP COLOR;
   1500 GPM + = LIGHT BLUE
   1000–1499 GPM = GREEN
   500–999 GPM = YELLOW
   0–499 GPM = RED
4. INSTALL BLUE RETROREFLECTIVE PAVEMENT MARKER ON ALL FIRE HYDRANTS (TWO AT INTERSECTIONS) IN ACCORDANCE WITH RIVERSIDE COUNTY FIRE DEPARTMENT LOCATION RECOMMENDATIONS.

OUTLET ORIENTATION



ITEM	DESCRIPTION
(1)	STANDARD FIRE HYDRANT, HEAD & FLUTED SPOOL COMPLETE. 1–4" STEAMER HOSE OUTLET & 1–2 1/2 HOSE OUTLET, 6 HOLE PATTERN, JAMES JONES MODEL J–3700, W/BRONZE OR PLASTIC CAPS AND CHAIN.
*(1–A)	SUPER FIRE HYDRANT, COMPLETE; 1–4" STEAMER HOSE OUTLET AND 2–2 1/2" HOSE OUTLETS, 8 HOLE PATTERN, JAMES JONES MODEL J–3765, W/BRONZE OR PLASTIC CAPS AND CHAIN.
(2)	6" DIA. C.I. BREAK–OFF SPOOL, 6" LONG, ONE END FLG'D. TO MATE W/6" A.S.A. 150# SLIP–ON FLG., OTHER END FLG'D. TO MATE HYDRANT SPOOL. (SHOP FABRICATED).
(3)	6" A.S.A. 150# SLIP–ON FLG. TO MATE BREAK–OFF SPOOL. SHIP LOOSE FOR FIELD WELDING.
(4)	6" DIA. CLOW LBIW # 400A BREAK–OFF CHECK VALVE.

* UNLESS A "SUPER" FIRE HYDRANT IS DESIGNATED ON THE DRAWINGS, FIRE HYDRANT SHALL BE "STANDARD" PER (1) ITEM WHERE A "SUPER" FIRE HYDRANT IS SPECIFIED, HYDRANT SHALL BE PER ITEM. (1–A)

JURUPA COMMUNITY SERVICES DISTRICT

SCALE: NONE

DATE: SEPTEMBER 2020

APPROVED BY:
Sinnaro Yos, P.E. C68607

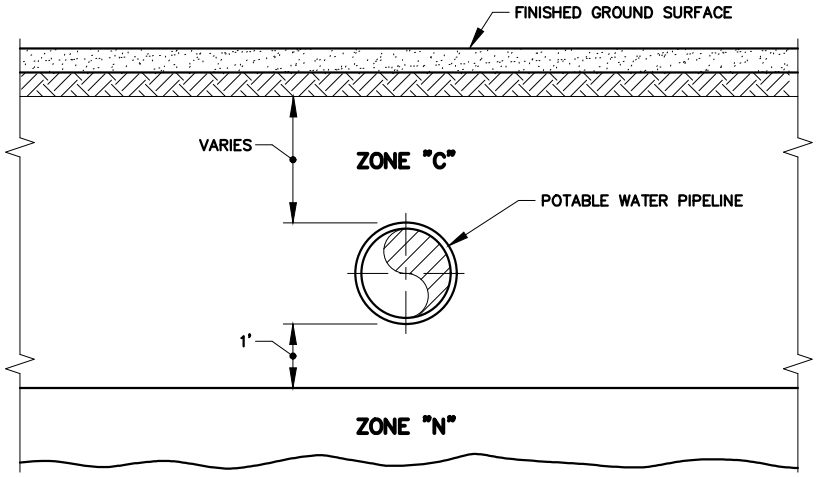
TYPICAL 6" FIRE HYDRANT INSTALLATION – PVC, DI PIPE

ALBERT A. WEBB ASSOCIATES
CONSULTING ENGINEERS
RIVERSIDE CALIFORNIA

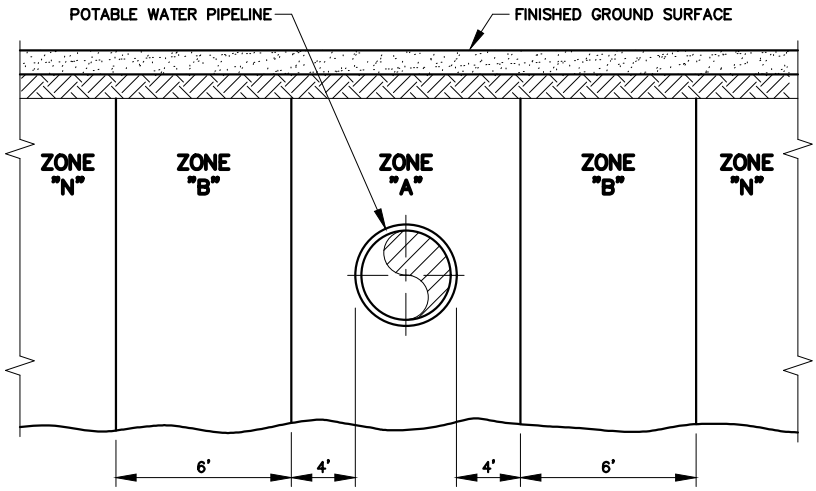
DRAWING NO.
G–2
G–2A

W.O. 19–0248

REV.



CROSSING CONDITION



PARALLEL CONDITION

LEGEND:

ZONE "A"

NO STORM DRAIN, RAW WATER, OR SEWER PIPELINES SHALL BE CONSTRUCTED WITHOUT SPECIAL PERMISSION FROM THE STATE WATER RESOURCES CONTROL BOARD – DIVISION OF DRINKING WATER. NO DRY UTILITIES MAY BE CONSTRUCTED WITHOUT WRITTEN DISTRICT AUTHORIZATION.

ZONE "B"

NO SEWER PIPELINES SHALL BE CONSTRUCTED WITHOUT SPECIAL PERMISSION FROM THE STATE WATER RESOURCES CONTROL BOARD – DIVISION OF DRINKING WATER. DRY UTILITIES MAY BE CONSTRUCTED.

ZONE "C"

NO STORM DRAIN, RAW WATER, OR SEWER PIPELINES SHALL BE CONSTRUCTED WITHOUT SPECIAL PERMISSION FROM THE STATE WATER RESOURCES CONTROL BOARD – DIVISION OF DRINKING WATER. DRY UTILITIES MAY BE CONSTRUCTED WITH 1' MINIMUM CLEARANCE (AS MEASURED FROM THE OUTSIDE OF THE PIPELINES).

ZONE "N"

NO SPECIAL REQUIREMENTS.

NOTES:

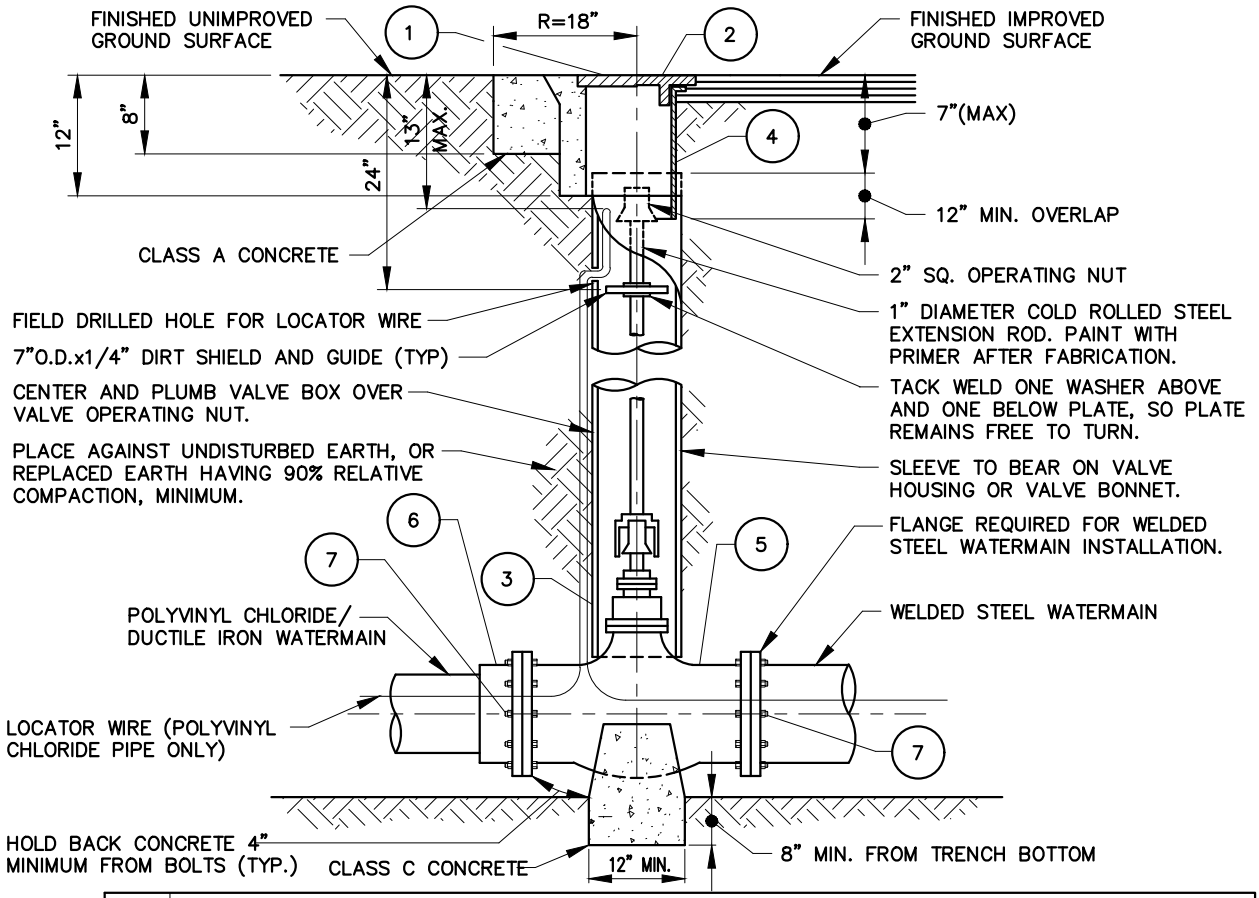
1) POTABLE WATER PIPELINES INCLUDE: MAINS, SERVICES, FIRE HYDRANT OR FIRE SERVICE LATERALS, APPURTENANCES, IRRIGATION LINES, AND SERVICES CONVEYING POTABLE WATER REGARDLESS OF PIPELINE DIAMETER.
2) STORM DRAIN PIPELINES INCLUDE: MAINS, LATERALS, APPURTENANCES, JUNCTION STRUCTURES, AND OTHER STORM DRAIN FACILITIES.
3) SEWER PIPELINES INCLUDE: MAINS, LATERALS, APPURTENANCES, MANHOLES, AND OTHER SEWER FACILITIES.
4) RAW WATER PIPELINES INCLUDE: MAINS, APPURTENANCES, AND OTHER RAW WATER FACILITIES.
5) CROSSINGS AT OTHER THAN 90° ANGLES SHALL BE AS SPECIFIED BY DISTRICT.
6) WHEN CROSSING A SEWER OR STORM DRAIN PIPELINE THE NEW WATER MAIN SHALL BE CONSTRUCTED NO LESS THAN 45° TO SAID SEWER OR STORM DRAIN PIPELINE. CROSSINGS LESS THAN 45° REQUIRE STATE WATER RESOURCES CONTROL BOARD – DIVISION OF DRINKING WATER APPROVAL.
7) NO CONNECTION JOINTS SHALL BE MADE IN THE WATER MAIN WITHIN 8 HORIZONTAL FEET OF A SEWER OR STORM DRAIN CROSSING.
8) DRY UTILITIES INCLUDE ELECTRIC, CABLE TV, TELEPHONE, FIBER OPTIC, GAS, AND SIMILAR NON–WATER/SEWER/STORM DRAIN FACILITIES.

APPROVED:

Jaclyn Makarzec
DIRECTOR OF ENGINEERING
DATE: AUGUST 2025

RUBIDOUX COMMUNITY SERVICES DISTRICT
WATERMAIN CROSSING /
PARALLELING EXISTING UTILITIES

STANDARD DRAWING | W1010



ITEM	DESCRIPTION
1	TRAFFIC BOX COVER FOR UNIMPROVED SURFACE (TRIANGULAR COVER WITH FRAME) – COVER MARKED "RCSD".
2	TRAFFIC BOX COVER FOR IMPROVED SURFACE (CIRCULAR COVER WITHOUT FRAME) – COVER MARKED "RCSD".
3	VALVE BOX EXTENSION, 8"I.D. SDR 35 POLYVINYL CHLORIDE PIPE.
4	20 GAUGE MIN. x 18" LONG GALVANIZED STEEL SLEEVE WITH 1-1/2" OVERLAP AND 3/16" MIN. LIP (FLARE) ON ONE END.
5	GATE VALVE SHALL HAVE FLANGED DUCTILE IRON OR CAST IRON BODY WITH RESILIENT SEAT. VALVE STEM SHALL BE NONRISING WITH 2" SQUARE OPERATING NUT AND SHALL TURN COUNTER-CLOCKWISE TO OPEN. VALVE SHALL HAVE "O" RING SEALS AND NON-SHOCK COLD WATER WORKING PRESSURE OF 200 P.S.I..
6	FLANGED ADAPTER REQUIRED FOR POLYVINYL CHLORIDE OR DUCTILE IRON WATERMAIN.
7	BOLTS SHALL BE IN ACCORDANCE WITH APPROVED MATERIALS LIST. THREADS SHALL BE LUBRICATED WITH AN APPROVED ANTI-SEIZE COMPOUND. ALL EXPOSED STEEL SHALL BE FIELD COATED WITH AN APPROVED NON-OX.

NOTES:

1) EXTENSION ROD REQUIRED WHENEVER TOP OF VALVE IS 3' OR MORE BELOW FINISHED GROUND SURFACE. REQUIRED LENGTH FOR EXTENSION ROD SHALL BE DETERMINED BY FIELD MEASUREMENT. EXTENSION ROD OPERATOR NUT SHALL BE 18" BELOW FINISHED GRADE. EXTENSION ROD SHALL BE SECURED TO VALVE OPERATING NUT BY WELDING A BEAD ON THE INSIDE OF THREE WALLS OF THE EXTENSION NUT CAP.

2) CHISEL 1-1/2" MINIMUM "V" ON ADJACENT CURB FACE WITH APPROXIMATE DISTANCE TO VALVE BOX, 2 LOCATIONS.

3) AIR VALVE VALVE BOX COVERS SHALL BE PAINTED TAN, FIRE HYDRANT VALVE BOX COVERS SHALL BE PAINTED YELLOW; NORMALLY CLOSED VALVES SHALL BE PAINTED RED. ALL OTHER VALVE BOX COVERS SHALL BE PAINTED BLUE, ALL IN ACCORDANCE WITH BASIC PAINTING SPECIFICATIONS.

4) LOCATOR WIRE FOR POLYVINYL CHOLRIDE PIPE SHALL BE INSULATED 14 GAUGE COPPER WIRE. IT SHALL BE CONTINUOUS ALONG THE PIPELINE, SECURED ALONG PIPE BY 10-MIL TAPE EVERY 5', AND LOOPED INTO VALVE BOXES SECURED WITH 10-MIL TAPE ALONG OUTSIDE OF VALVE RISER 24" FROM THE SURFACE AND WITH 3' OF SLACK.

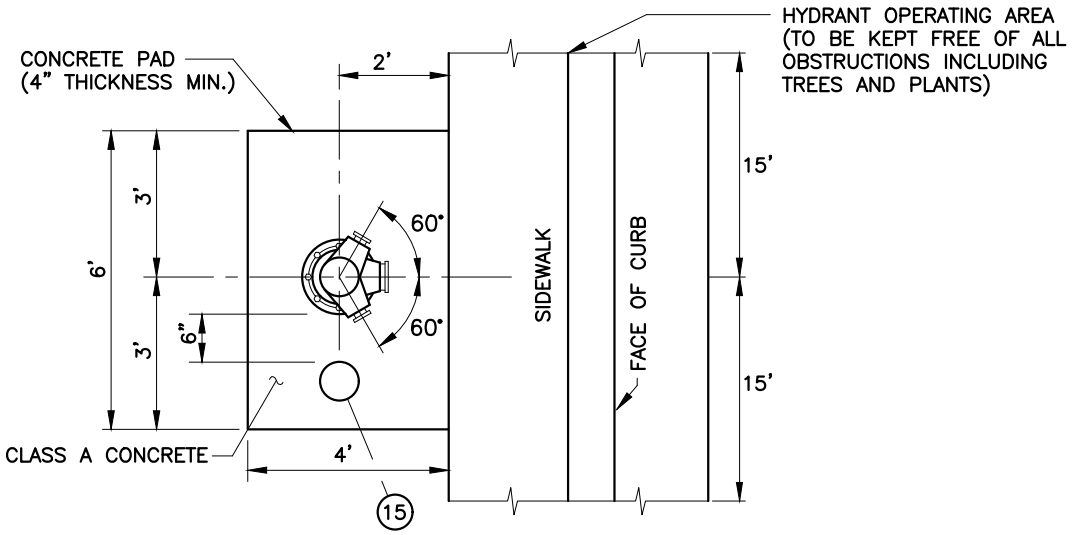
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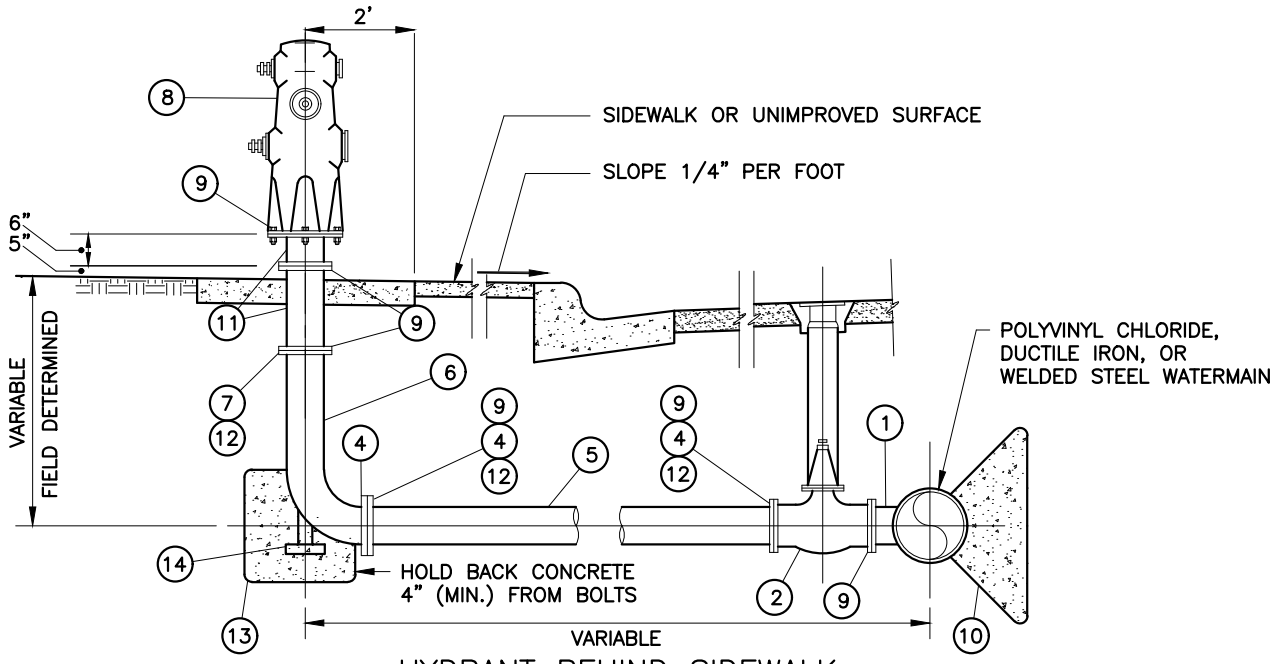
Jaclyn Makarzec
DIRECTOR OF ENGINEERING
DATE: AUGUST 2025

RUBIDOUX COMMUNITY SERVICES DISTRICT

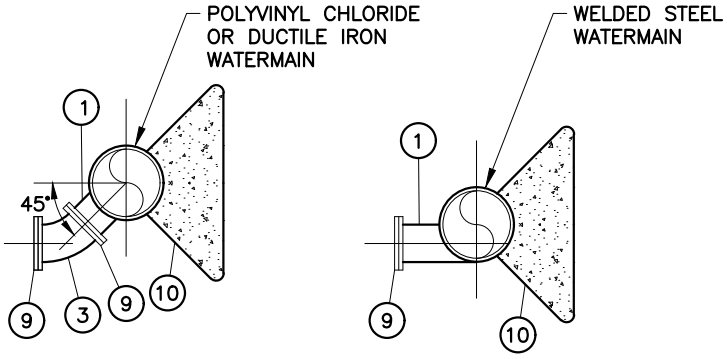
GATE VALVE INSTALLATION

STANDARD DRAWING | W1020





HYDRANT BEHIND SIDEWALK



OPTIONAL COMBINATION
FIRE HYDRANT AND BLOWOFF INSTALLATION

APPROVED:

Jaclyn Makarzec
DIRECTOR OF ENGINEERING
DATE: AUGUST 2025

RUBIDOUX COMMUNITY SERVICES DISTRICT

6" COMMERCIAL FIRE HYDRANT INSTALLATION

STANDARD DRAWING

W1060
SHEET 1 OF 2

ITEM	NUMBER REQUIRED	DESCRIPTION
1	1	6" FLANGED DUCTILE IRON TEE FOR POLYVINYL CHLORIDE OR DUCTILE IRON WATERMAINS, OR 6" FLANGED SIDE OUTLET FOR WELDED STEEL WATERMAIN. FOR COMBINATION FIRE HYDRANT AND BLOWOFF INSTALLATION SIDE OUTLET SHALL BE TANGENTIAL ON WELDED STEEL WATERMAIN.
2	1	6" FLANGED GATE VALVE INSTALLATION PER STANDARD DRAWING W1020.
3	1	6" FLANGED 45° DUCTILE IRON ELBOW.
4	3	6" A.W.W.A. CLASS E RING FLANGE.
5	VARIES	6" DIAMETER 10 GAUGE CEMENT MORTAR LINED AND CEMENT MORTAR COATED WELDED STEEL PIPE.
6	1	6" DIAMETER STANDARD WEIGHT CEMENT MORTAR LINED AND CEMENT MORTAR COATED WELDED STEEL PIPE WITH SMOOTH 90° ELBOW.
7	1	6" 6 BOLT FLANGE (1-5/16" THICK AND DRILLED TO MATCH 6 BOLT BREAKOFF CHECK VALVE ASSEMBLY FLANGE). SHIP FLANGE LOOSE.
8	1	FIRE HYDRANT SHALL BE IN ACCORDANCE WITH APPROVED MATERIALS LIST.
9	–	BOLTS SHALL BE IN ACCORDANCE WITH APPROVED MATERIALS LIST (TYP.)
10	–	CONCRETE THRUST PROTECTION PER STANDARD DRAWING G40.
11	1	BREAK-OFF CHECK VALVE WITH 6 BOLT PATTERN FLANGES (DRILLED TO MATCH 6 BOLT HYDRANT FLANGE).
12	–	2' CUT-TO-FIT (NOT REQUIRED FOR POLYVINYL CHLORIDE PIPE). SHIP FLANGE LOOSE.
13	–	CONCRETE THRUST PROTECTION, 2-1/2' CUBE. CONCRETE SHALL BE CLASS C.
14	1	STEEL BASE (1/4" THICK).
15	1	7-3/4" DIAMETER X 12" PRECAST CONCRETE VALVE BOX AND LID.

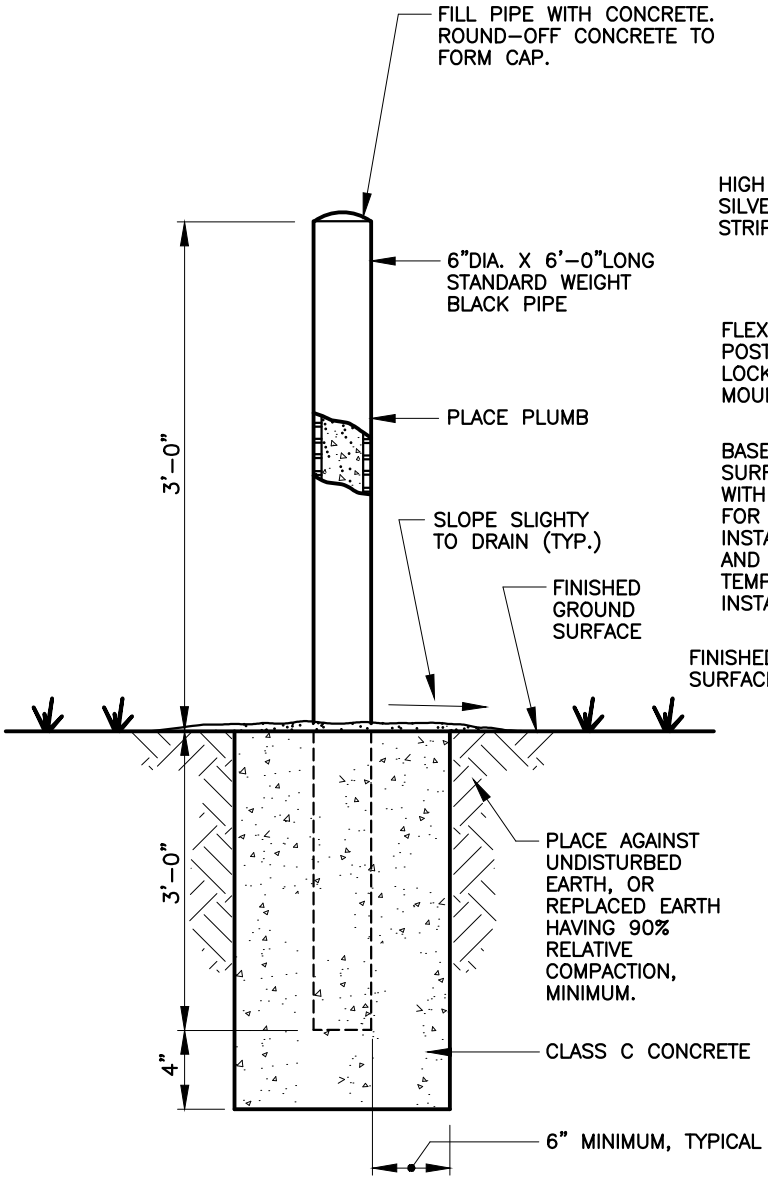
NOTES:

1. FIRE HYDRANT LOCATIONS NOTED HEREON ARE GENERAL. SPECIFIC LOCATIONS SHALL CONFORM TO THE REQUIREMENTS OF AGENCY HAVING FIRE PROTECTION RESPONSIBILITY (COUNTY OF RIVERSIDE FIRE DEPARTMENT). SAID AGENCY SHALL APPROVE ALL FIRE HYDRANT LOCATIONS.
2. PAINT ALL MATERIAL ABOVE GROUND WITH TWO COATS OF SAFETY YELLOW PAINT.
3. BLUE REFLECTORIZED STREET MARKER SHALL BE SET OPPOSITE FIRE HYDRANTS.
4. BOLTS SHALL BE IN ACCORDANCE WITH APPROVED MATERIAL LIST. THREADS SHALL BE LUBRICATED WITH AN APPROVED ANTI-SEIZE COMPOUND. ALL BURIED EXPOSED STEEL SHALL BE FIELD COATED WITH AN APPROVED NON-OX.
5. CURB IN FRONT OF FIRE HYDRANT (15' EACH SIDE) SHALL BE PAINTED RED IN ACCORDANCE WITH BASIC PAINTING SPECIFICATIONS.
6. IF NO CURB EXISTS, HYDRANT SHALL BE INSTALLED 2' FROM PROPERTY LINE OR AS DIRECTED BY DISTRICT.
7. IF ONLY CURB EXISTS, HYDRANT SHALL BE INSTALLED 2' FROM BACK OF CURB OR AS DIRECTED BY DISTRICT INSPECTOR.
8. ALTERNATE MATERIALS SHALL BE SUBMITTED TO DISTRICT AND REVIEWED ON A CASE BY CASE BASIS.
9. BOLLARDS REQUIRED IN NON-PAVED AREAS.
10. LOCATOR WIRE SHALL BE LOOPED IN AND ACCESSIBLE THROUGH PRECAST CONCRETE VALVE BOX.

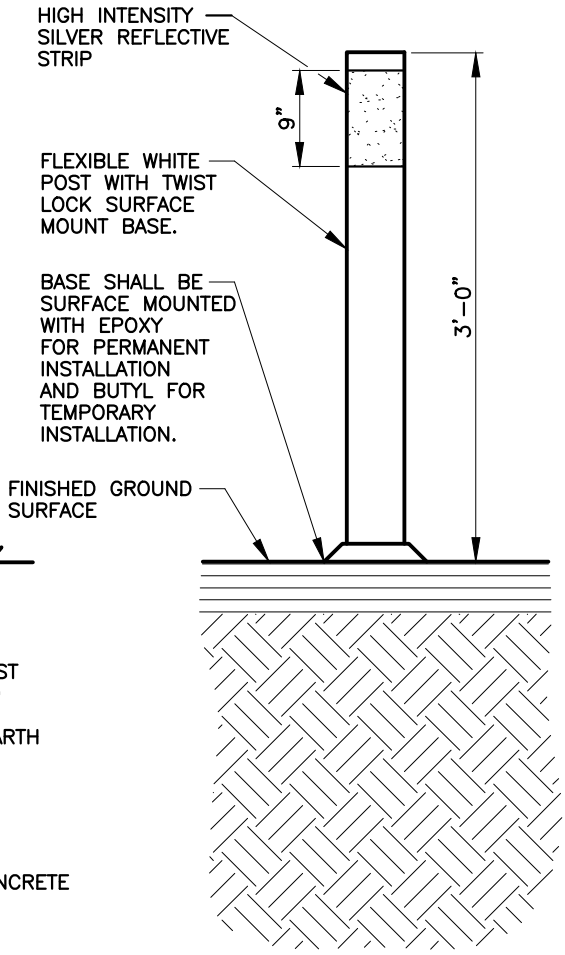
APPROVED:

Jaclyn Makarzec
DIRECTOR OF ENGINEERING
DATE: AUGUST 2025

RUBIDOUX COMMUNITY SERVICES DISTRICT
6" COMMERCIAL FIRE HYDRANT INSTALLATION
STANDARD DRAWING
W1060



GUARD POST



FLEXIBLE DELINEATOR

NOTES:

1) GUARD POST SHALL BE PAINTED YELLOW IN ACCORDANCE WITH THE BASIC PAINTING SPECIFICATIONS.

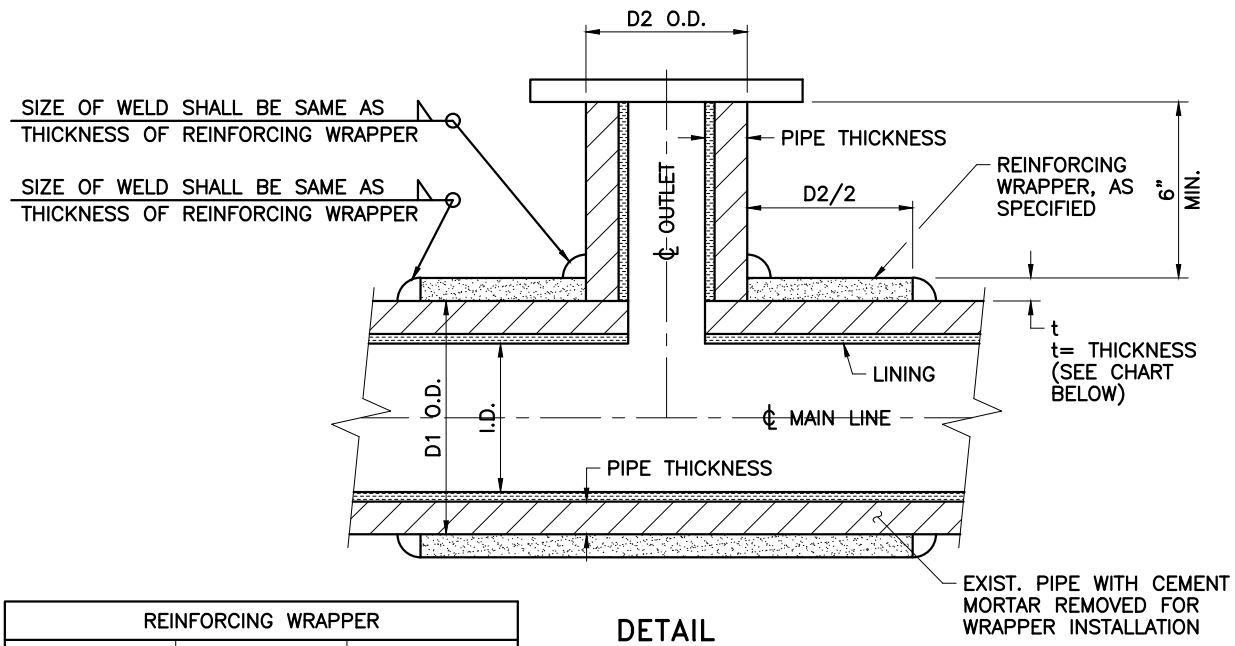
2) GUARD POST AND FLEXIBLE DELINEATOR SHALL BE LOCATED AS SPECIFIED BY DISTRICT.

APPROVED:

Jaclyn Makarzec
DIRECTOR OF ENGINEERING
DATE: AUGUST 2025

RUBIDOUX COMMUNITY SERVICES DISTRICT
GUARD POST / FLEXIBLE DELINEATOR INSTALLATION

STANDARD DRAWING | W1160



REINFORCING WRAPPER		
D1 (INCHES MIN.)	D2 (INCHES MIN.)	t (INCHES MIN.)
16	6–12	0.2500
24	6–16	0.2500

DETAIL

N.T.S.

MATERIAL LIST:

1. EXISTING CML&C WSP.
2. FLANGED CML NOZZLE SUITABLE FOR THE SAME PRESSURE AS THE EXISTING PIPE (0.25" THICK MIN) WITH FULL REINFORCING WRAPPER PER TABLE HEREON.
3. CONTRACTOR SHALL REMOVE CEMENT MORTAR COATING EXPOSING BARE STEEL AS REQUIRED FOR WRAPPER INSTALLATION.
4. THRUST BLOCK PER RCSD STD. DWG. G40.
5. GATE VALVE SHALL HAVE FLANGED DUCTILE IRON BODY WITH RESILIENT SEAT PER APPROVED MATERIALS LIST. VALVE STEM SHALL BE NONRISING, 2" SQUARE OPERATING NUT AND SHALL TURN COUNTER–CLOCKWISE TO OPEN. VALVE SHALL HAVE "O" RING SEALS AND NON–SHOCK COLD WATER WORKING PRESSURE OF 200 P.S.I.. WHERE SUFFICENT COVER IS NOT AVAILABLE, VALVE SHALL BE INSTALLED HORIZONTAL WITH BEVEL GEAR.
6. VALVE WELL, COVER, EXTENSION ROD, COMPACTION, AND CONCRETE PER RCSD STD. DWG. W1020.
7. FLANGED CML&C WSP OR PVC/DUCTILE IRON PIPE FULLY RESTRAINED WITH AN APPROVED FLANGE JOINT ADAPTER IF NEEDED.
8. BOLTS SHALL BE IN ACCORDANCE WITH APPROVED MATERIAL LIST. THREADS SHALL BE LUBRICATED WITH AN APPROVED ANTI–SEIZE COMPOUND. ALL BURIED EXPOSED STEEL SHALL BE FIELD COATED WITH AN APPROVED BITUMASTIC.

NOTES:

1. CONTRACTOR SHALL REMOVE EXISTING CEMENT MORTAR COATING PRIOR TO WELDING WRAPPER TO PIPE AS REQUIRED.
2. CONTRACTOR SHALL REPAIR CEMENT MORTAR LINING IF NEEDED PRIOR TO INSTALLATION OF THE GATE VALVE.
3. AFTER INSTALLATION OF GATE VALVE AND PRIOR TO HOT TAPPING, CONNECTION SHALL BE AIR TESTED TO ENSURE THAT THERE ARE NO PIN HOLES OR LEAKS. IF A PINHOLE OR LEAK IS FOUND, CONTRACTOR SHALL REPAIR AND RETEST.
4. HOT TAP AND WELDING SHALL BE COMPLETED WITH DISTRICT INSPECTOR PRESENT.
5. THEREAFTER, CONTRACTOR SHALL REPAIR CEMENT MORTAR COATING WITH WIRE MESH ALONG EXISTING PIPE, WRAPPER, AND NOZZLE TO MATCH EXISTING COATING.

APPROVED:

Jaclyn Makarzec
DIRECTOR OF ENGINEERING
DATE: AUGUST 2025

RUBIDOUX COMMUNITY SERVICES DISTRICT

HOT TAP FOR CML&C PIPELINE

STANDARD DRAWING

W1260
SHEET 2 OF 2

NOT TO SCALE

PREPARED UNDER THE SUPERVISION OF:

Mark Lancaster

DIRECTOR OF TRANSPORTATION
MARK LANCASTER, P.E.

11/30/22
DATE

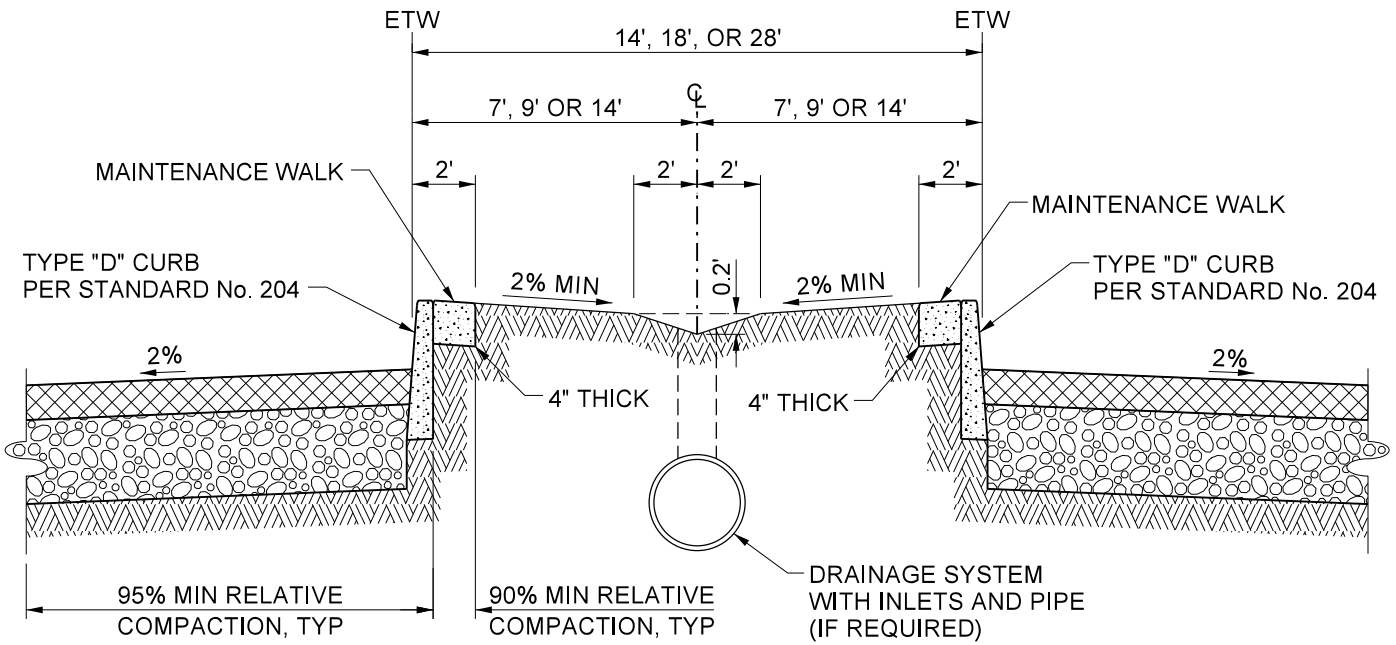
REVISION DESCRIPTION	MARK	DATE	APPROVED

REGISTERED PROFESSIONAL ENGINEER
MARK ALAN LANCASTER
C48048
CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

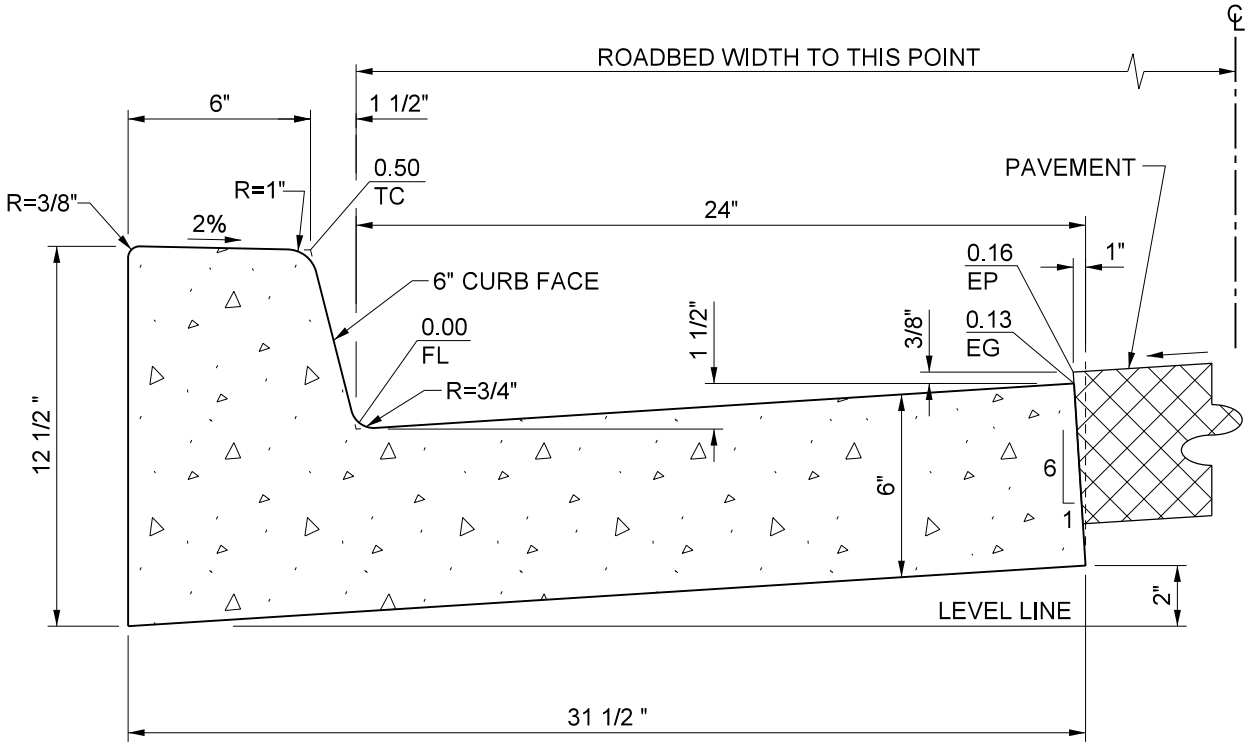
LANDSCAPED MEDIAN

STANDARD No. 113



NOTES:

1. ALL LANDSCAPING AND IRRIGATION PLANS MUST BE APPROVED BY THE TRANSPORTATION DEPARTMENT.
2. CONTINUED MAINTENANCE OF PLANTED LANSCAPING MUST BE GUARANTEED THROUGH A MAINTENANCE DISTRICT OR OTHER COUNTY APPROVED MECHANISM.
3. ANY IRRIGATION MUST BE PROVIDED BY A DRIP SYSTEM.
4. INSTALL 8" CURB AND GUTTER (STANDARD No. 201) IN PLACE OF TYPE "D" CURB WHEN FLOW LINE IS AGAINST MEDIAN IN CONDITIONS OF SUPERELEVATION.
5. RELATIVE COMPACTION SHALL BE A MINIMUM OF 95% UNDER ROADWAY AND CURB (AND GUTTER) AND 90% UNDER MAINTENANCE WALKS.
6. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, USE A MODIFIED CONCRETE MIX AND PLACE 6" MIN CLASS 2 AGGREGATE BASE AND 6 MIL PLASTIC SHEETING UNDER AND AROUND ALL SIDES OF CONCRETE IMPROVEMENTS. FOR EXPANSIVE SOIL, PLACE 6" MIN CLASS 2 AGGREGATE BASE UNDER CONCRETE IMPROVEMENTS AS DIRECTED BY THE ENGINEER. SEE SPECIFICATIONS SECTIONS 16.03 & 16.04 AND STANDARD No. 401 FOR REFERENCE.
7. PLACE WEAKEND PLANE AND EXPANSION JOINTS IN CURB (AND GUTTER) AND MAINTENANCE WALK PER STANDARD No. 205.



MINIMUM CEMENTITIOUS MATERIAL CONTENT = 505 LB / CU YD
1.601 CU FT / LF
1 CU YD = 16.86 LF

NOTES:

1. RELATIVE COMPACTION OF SUBGRADE UNDER CURB AND GUTTER SHALL BE 95% MINIMUM.
2. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, USE A MODIFIED CONCRETE MIX AND PLACE 6" MIN CLASS 2 AGGREGATE BASE AND 6 MIL PLASTIC SHEETING UNDER AND AROUND ALL SIDES OF CONCRETE IMPROVEMENTS. FOR EXPANSIVE SOIL, PLACE 6" MIN CLASS 2 AGGREGATE BASE UNDER CONCRETE IMPROVEMENTS AS DIRECTED BY THE ENGINEER. SEE SPECIFICATIONS SECTIONS 16.03 & 16.04 AND STANDARD No. 401 FOR REFERENCE.

NOT TO SCALE

PREPARED UNDER THE SUPERVISION OF:

Mark Lancaster 11/30/22

DIRECTOR OF TRANSPORTATION DATE
MARK LANCASTER, P.E.

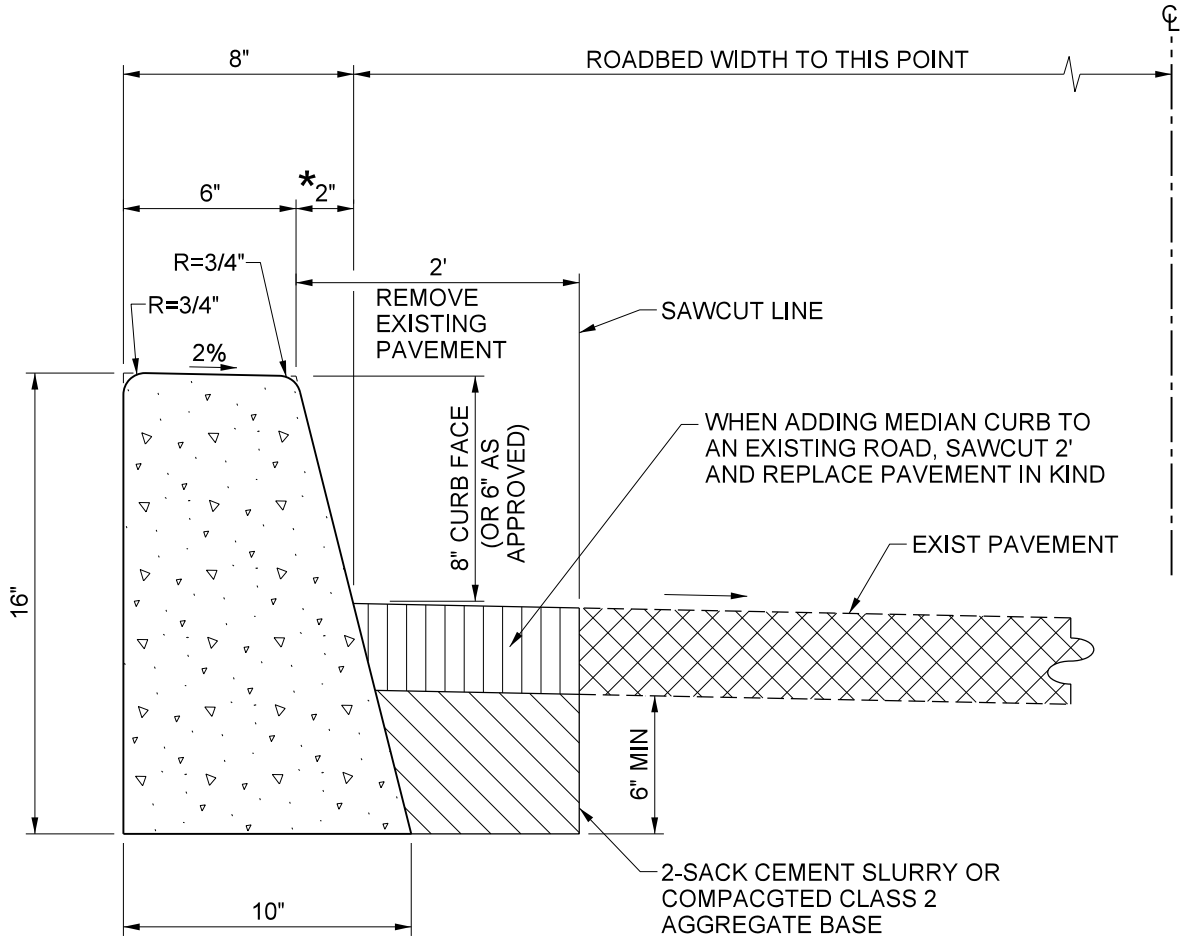
REVISION DESCRIPTION	MARK	DATE	APPROVED

REGISTERED PROFESSIONAL ENGINEER
MARK ALAN LANCASTER
C48048
CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE

TYPE A-6
CURB AND GUTTER
6" CURB FACE

STANDARD No. 200



*1 1/2" FOR 6" CURB FACE

MINIMUM CEMENTITIOUS MATERIAL CONTENT = 505 LB / CU YD
0.888 CU FT / LF
1 CU YD = 30.41 LF

NOTES:

1. RELATIVE COMPACTION OF SUBGRADE UNDER CURB AND GUTTER AND NEW PAVEMENT SHALL BE 95% MINIMUM.

2. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, USE A MODIFIED CONCRETE MIX AND PLACE 6" MIN CLASS 2 AGGREGATE BASE AND 6 MIL PLASTIC SHEETING UNDER AND AROUND ALL SIDES OF CONCRETE IMPROVEMENTS. FOR EXPANSIVE SOIL, PLACE 6" MIN CLASS 2 AGGREGATE BASE UNDER CONCRETE IMPROVEMENTS AS DIRECTED BY THE ENGINEER. SEE SPECIFICATIONS SECTIONS 16.03 & 16.04 AND STANDARD No. 401 FOR REFERENCE.

NOT TO SCALE

PREPARED UNDER THE SUPERVISION OF:

Mark Lancaster 11/30/22

DIRECTOR OF TRANSPORTATION DATE
MARK LANCASTER, P.E.

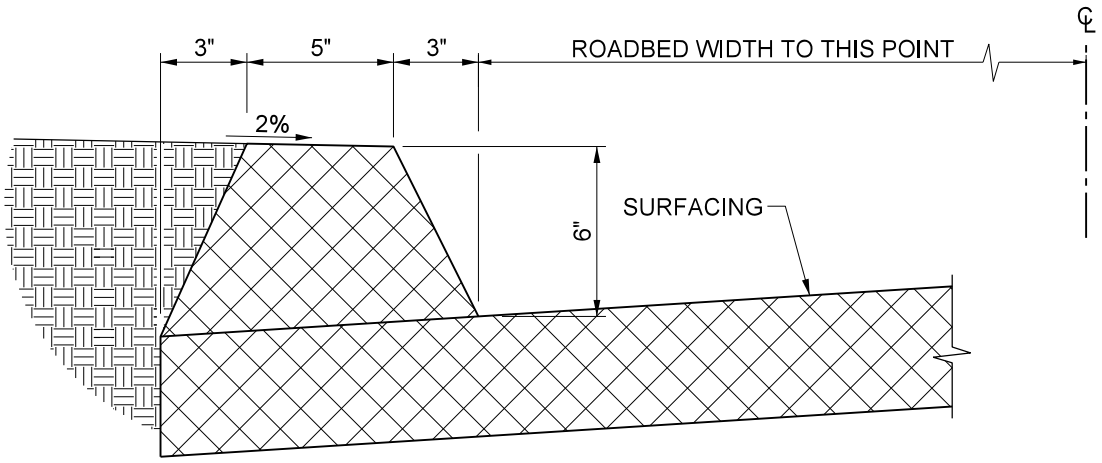
REVISION DESCRIPTION	MARK	DATE	APPROVED

REGISTERED PROFESSIONAL ENGINEER
MARK ALAN LANCASTER
C48048
CIVIL
STATE OF CALIFORNIA

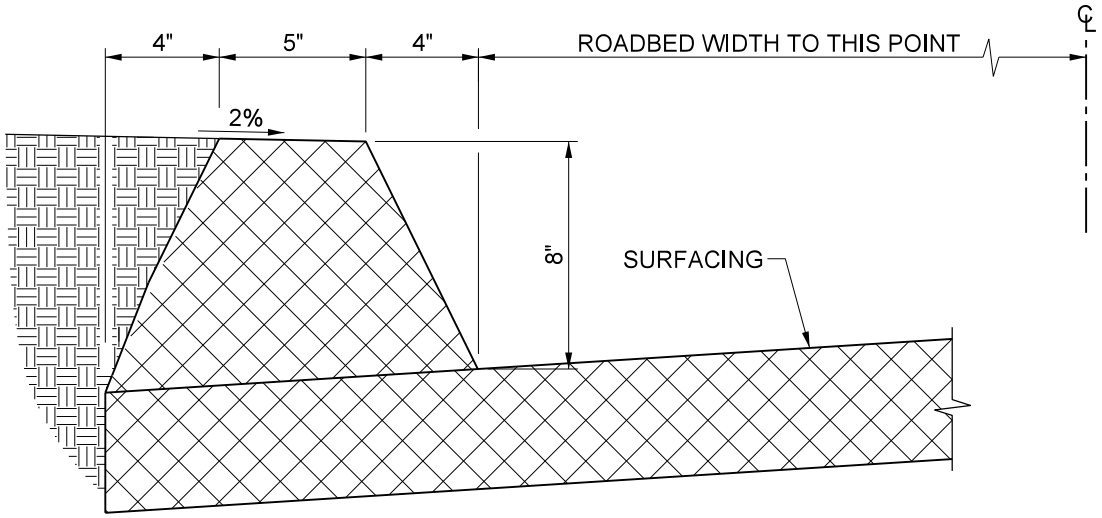
COUNTY OF RIVERSIDE

TYPE "D" CURB ONLY

STANDARD No. 204



6" HMA DIKE



8" HMA DIKE

NOTE:

1. HMA DIKE REQUIRED WHERE FILL SLOPES ARE STEEPER THAN 4:1, MATERIAL IS SUSCEPTIBLE TO EROSION, OR WHERE ROADWAY GRADIENT EXCEEDS 3%.

NOT TO SCALE

PREPARED UNDER THE SUPERVISION OF:

Mark Lancaster 11/30/22

DIRECTOR OF TRANSPORTATION DATE
MARK LANCASTER, P.E.

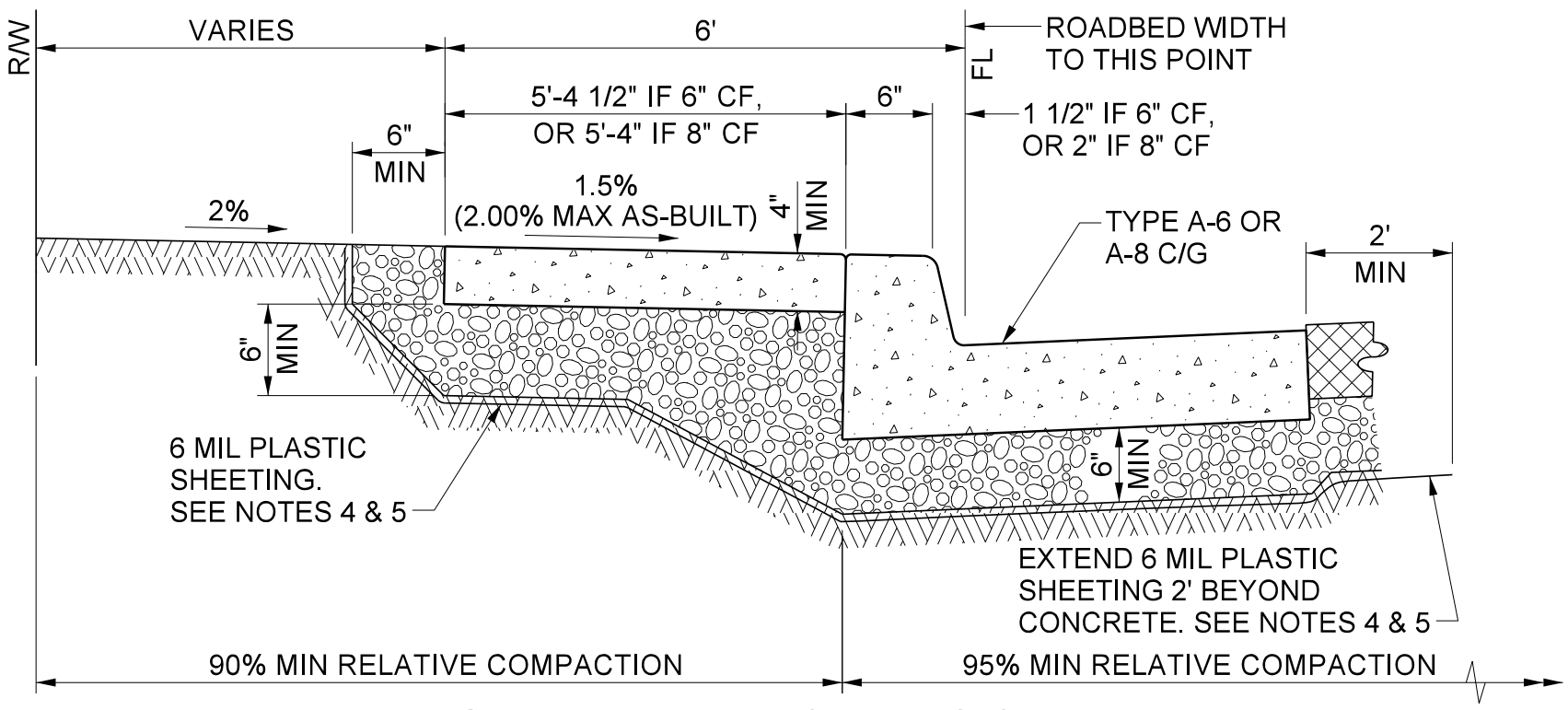
REVISION DESCRIPTION	MARK	DATE	APPROVED

REGISTERED PROFESSIONAL ENGINEER
MARK ALAN LANCASTER
C48048
CIVIL
STATE OF CALIFORNIA

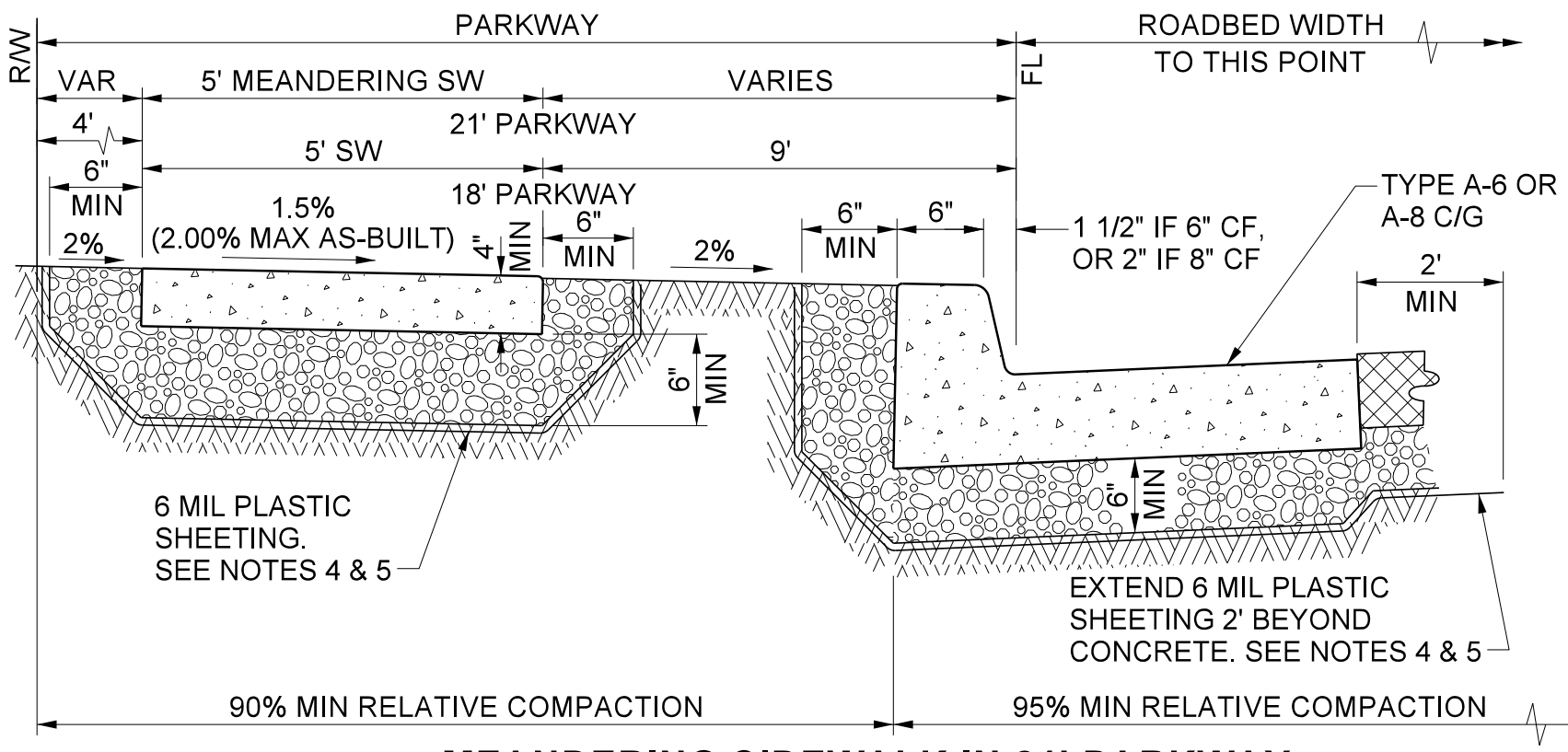
COUNTY OF RIVERSIDE

HOT MIX ASPHALT DIKES

STANDARD No. 212



SIDEWALK ADJACENT TO CURB



MEANDERING SIDEWALK IN 21' PARKWAY
SIDEWALK NOT ADJACENT TO CURB IN 18' PARKWAY

NOTES:

1. ALL CONSTRUCTION SHALL BE CONCRETE WITH MINIMUM CEMENTITIOUS MATERIAL CONTENT = 505 LB/CU YD.
2. TO MAINTAIN PUBLIC PEDESTRIAN ACCESS, TEMPORARY TRAP FENCES FOR MODEL HOMES SHALL BE PLACED BEHIND PUBLIC SIDEWALK AND NOT BETWEEN PUBLIC SIDEWALK AND CURB.
3. FOR EXPANSIVE SOIL, PLACE 6" MIN CLASS 2 AGGREGATE BASE UNDER CONCRETE IMPROVEMENTS AS DIRECTED BY THE ENGINEER. SEE STANDARD SPECIFICATIONS SECTION 16.03.
4. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, USE MODIFIED CONCRETE MIX AND PLACE 6" MIN CLASS 2 AGGREGATE BASE AND 6 MIL PLASTIC SHEETING UNDER AND AROUND ALL SIDES OF CONCRETE IMPROVEMENTS AND STRUCTURES. SEE COUNTY STANDARD SPECIFICATION SECTION 16.04.
5. WHEN USING 6 MIL PLASTIC SHEETING, PLACE THE SHEETING BETWEEN THE CLASS 2 AGGREGATE BASE AND THE COMPACTED NATIVE SOIL. EXTEND THE SHEETING 2 FEET BEYOND THE EDGE OF CONCRETE GUTTER INTO THE ROADWAY. IN ORDER TO PREVENT DAMAGE TO THE PLASTIC SHEETING RESULTING FROM LATER GRADING AND COMPACTING, PLACE THE EXTENDED 2 FEET OF SHEETING ONLY AFTER THE SUBGRADE HAS BEEN CERTIFIED BY THE SURVEYOR.

NOT TO SCALE

PREPARED UNDER THE SUPERVISION OF:

Mark Lancaster — 11/30/22

DIRECTOR OF TRANSPORTATION — DATE

MARK LANCASTER, P.E.

REGISTERED PROFESSIONAL ENGINEER
MARK ALAN LANCASTER
C48048
CIVIL
STATE OF CALIFORNIA

REVISION DESCRIPTION	MARK	DATE	APPROVED

COUNTY OF RIVERSIDE

SIDEWALK AND CURB

STANDARD No. 401

NOT TO SCALE

PREPARED UNDER THE SUPERVISION OF:

Mark Lancaster

DIRECTOR OF TRANSPORTATION
MARK LANCASTER, P.E.

11/30/22
DATE

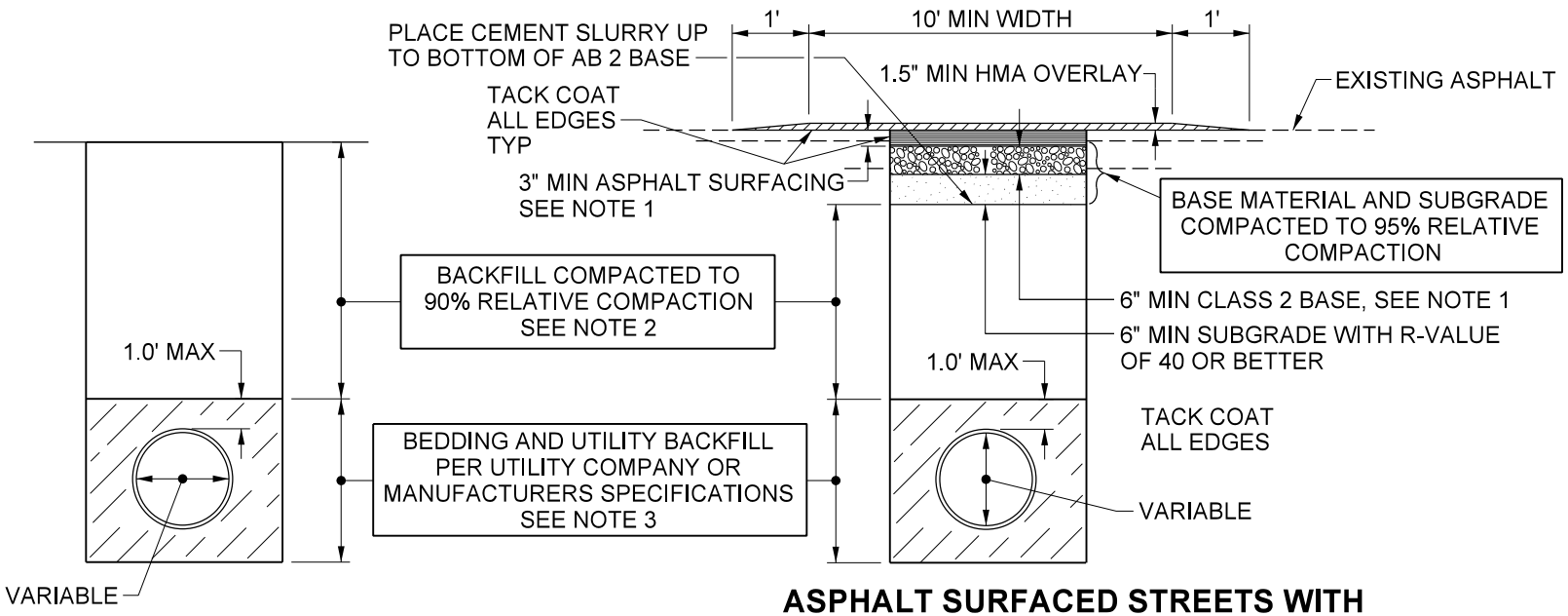
REVISION DESCRIPTION	MARK	DATE	APPROVED

REGISTERED PROFESSIONAL ENGINEER
MARK ALAN LANCASTER
C48048
CIVIL
STATE OF CALIFORNIA

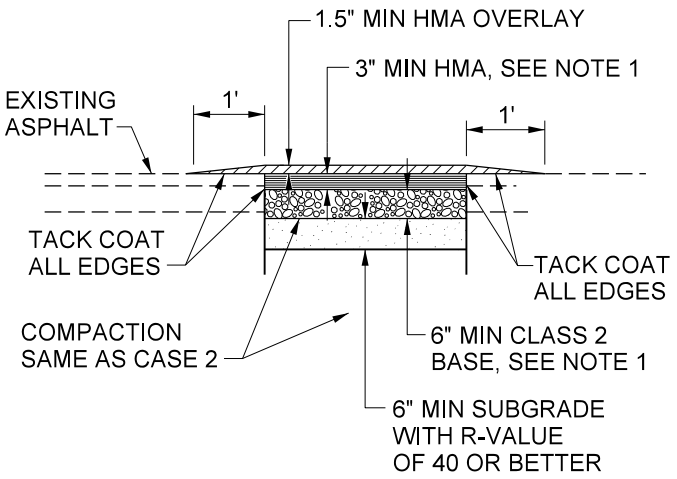
COUNTY OF RIVERSIDE

UTILITY TRENCH BACKFILL

STANDARD No. 818



NON-ASPHALT SURFACED AREAS CASE 1



ASPHALT SURFACED STREET WITHOUT OVERLAY PERPENDICULAR INSTALLATION CASE 3

ASPHALT SURFACED STREETS WITH OVERLAY PARALLEL INSTALLATION CASE 2

NOTES:

1. REPLACE STRUCTURAL SECTION AS FOLLOWS:
   SURFACING: EXISTING THICKNESS; OR 3" MIN HMA.
   BASE: CLASS 2 AB IN SAME THICKNESS AS EXISTING BASE.
   MATERIAL, 6" MIN AS DIRECTED BY THE INSPECTOR.
   IF A GEOSYNTHETIC MATERIAL (GEOGRID) IS ENCOUNTERED, TRENCH THROUGH GEOGRID AND PERFORM ONE OF THE FOLLOWING:
   1) REPLACE GEOGRID AT SAME ELEVATION WITH BUTT JOINT;
   2) DOUBLE THE THICKNESS OF EXISTING BASE; OR
   3) REPLACE EXISTING BASE WITH CEMENT SLURRY.
2. NO PONDING OR JETTING ALLOWED. A 1/2 SACK CEMENT SLURRY FOR DEEP(>4') AND 1 SACK CEMENT SLURRY FOR SHALLOW (<4') TRENCHES.
3. WHEN SOFT, SPONGY OR UNSUITABLE MATERIAL IN ENCOUNTERED, SUCH MATERIAL SHALL BE REMOVED TO THE LIMITS DIRECTED BY THE DIRECTOR OF TRANSPORTATION OR AFFECTED UTILITY COMPANY AND THE RESULTING EXCAVATION BACKFILLED WITH PIPE BEDDING MATERIAL.
4. WHEN REQUIRED IN THE ENCROACHMENT PERMIT OR AS DIRECTED BY THE INSPECTOR, THE NEW HMA SHOWN IN CASE 2 AND CASE 3 SHALL BE PLACED FLUSH WITH THE EXISTING ASPHALT. ADDITIONAL 1-FOOT GRNDING OF THE EXISTING ASPHALT BEYOND THE EXCAVATION LIMIT OF THE TRENCH SHALL BE REQUIRED AND AS DETERMINED BY THE COUNTY.

APPENDIX A

Materials List

LIST OF APPROVED MANUFACTURED MATERIALS

A. GENERAL

Jurupa Community Services District maintains a list of Approved Manufactured Materials for both water and sewer system improvements. Only those indicated on the most current list have been approved for use within the District. It is the sole responsibility of the user to assure that the product proposed for use is currently approved. The District may require installation of a different product in special circumstances.

Manufacturers may request approval by (1) submitting formal written request for approval, along with the necessary deposit for District and consultant review time, (2) providing detailed drawings and technical information on their product, and (3) providing a non-returnable sample of the product for District use. Documentation of use by other local water purveyors (with phone numbers and contact names) will assist the District in evaluating such requests. The District will evaluate the product and make a determination within 90 days. If determined as being suitable for District use, the product will be placed on this approved Manufactured Materials list. Inventory of spare parts is a consideration. All products shall always comply with District Standard Specifications.

B. LIST OF APPROVED MANUFACTURED MATERIALS

1. Steel Water Pipe (AWWA C200 - CML/CML WSP, 12 ga. Min.)

    a. Ameron, Pipe Division, Southern California
    P.O. Box 2024, Monterey Park, CA 91754

    b. Northwest Pipe & Casing Company
    12351 Rancho Road, Adelanto, CA 92301

    c. West Coast Pipe Linings Inc.
    8621 Beech Avenue, Fontana, CA 92335

    The following manufacturer is only approved for new residential development's pipelines of diameters less than 12" and requires District shop inspection of the pipe prior to job site delivery.

    d. Southland Pipe
    13989 Santa Ana Avenue, Fontana, CA 92335

    The following manufacturer is only approved for 12" or less.

    e. Imperial Pipe

2. Approved Pipe Fabricators

   a. Ameron, Pipe Division, Southern California
      4700 Ramona Blvd., Monterey Park, CA 91754

   b. Northwest Pipe & Casing Company
      12351 Rancho Road, Adelanto, CA 92301

   c. West Coat Pipe Linings, Inc.
      8621 Beech Ave., Fontana, CA 92335

   d. West Coast Welding
      P.O. Box 4799, Rancho Cucamonga, CA 91729-4799

   The following manufacturer is only approved for subdivision pipelines of diameters less than 12".

   e. Southland Pipe
      13989 Santa Ana Avenue, Fontana, CA 92335

3. PVC Water Pipe (AWWA C900)

   a. Pacific Western Extruded Plastics Company (PVC Pipe)
      P.O. Box 10049, Eugene, OR 97440

   b. J-M Manufacturing (Formosa Plastics)
      1051 Sperry Road, Stockton, CA 95026

   c. Vinyltech Corporation
      201 South 61st Ave., Phoenix, AZ 85043

   d. Diamond Plastics

4. Ductile Iron Pipe

   a. United States Pipe & Foundry Co.
      P. O. Box 939, Brea, CA 92622

   b. Pacific States Cast Iron Pipe Co.
      1375 Magnolia Ave., Corona, CA 91765

5. PVC Sewer Force Main Pipe (AWWA C900)

   a. Pacific Western Extruded Plastics Company (PVC Pipe)
      P.O. Box 10049, Eugene, OR 97440

   b. J-M Manufacturing (Formosa Plastics)
      1051 Sperry Road, Stockton, CA 95026

   c. Vinyltech Corporation

201 South 61st Ave., Phoenix, AZ 85043

6. Clay Sewer Pipe
   a. Gladding McBean, Inc.
      4301 East Firestone Blvd., South Gate, CA 90280
   b. Mission Clay Products (Compression Joint Pipe Only)
      28835 Temescal Canyon Rd., Corona, CA 91720
7. Gate Valves (Standard No. B-1)
   a. AVK American
   b. Kennedy
   c. M&H
   d. Mueller
   e. U.S. Pipe
8. Butterfly Valves (Standard No. B-3)
   a. Pratt
   b. Dezurik
   c. Mueller
   d. K-Flo 500 Series (3" – 20")
   e. K-Flo 47 Series (24" – 72")
9. Water Service Materials (Standard Nos. D-1 thru D-5)
   a. Double strap service saddle (brass only)
      1) R.H. Baker
      2) James Jones
      3) Smith-Blair
   b. Ball Corporate Stops
      1) Mueller (NP-25028) Std. D-1, D-2 & D-3
(NB-20013) Std. D-1A & D-1B
      2) James Jones
      3) Ford
   c. Service Stops
      1) James Jones
      2) Ford
      3) Mueller

d. Angle Meter Stops
    1) Mueller (NP-14258) Std. D-1 & D-2
       (NH-14266) Std. D-1A & D-1B
       (NP-24276) Std. D-3
    2) James Jones
    3) Ford
e. Bronze Spring Check Valve
    1) Milwaukee (UP548T)
f. Brass Ball Valve
    1) Mueller
g. Meter Boxes
    1) Brooks
    2) Quikset
    3) J&R
h. Precast Concrete Vaults
    1) Associated Concrete Products (Quikset)
    2) Utility Vault Co.
    3) Brooks
    4) Eisel Products
    5) Old Castle
i. Meters (all with radio reads)
    1) ≤ 2" furnished by District
    2) ≥ 3" furnished by Developer as approved by District

10. Air Valves (Standard Nos. E-1 & E-2)
    a. APCO
    b. Crispin
11. Blow-offs (Standard Nos. F-1 thru F-2)
    a. James Jones
12. Standard and Super Fire Hydrants (Standard No. G-1 thru G-2)
    a. James Jones
    b. Long Beach Iron Works

13. Reduced Pressure Backflow Device (Standard No. H-2)

    a. Any device approved by the California Department of Public Health (latest list) and USC approved.

14. Double Check Valve Assembly (Standard Nos. H-1 & H-3)

    a. Any device approved by the California Department of Health Services Office of Drinking Water (latest list) and USC approved.

15. Pressure Reducing/regulating Valves, Altitude Valves

    a. CLA-VAL Co.

    b. Ames

16. Water Sampling Station (Standard No. K-1)

    a. Koraleen Enterprises (only as approved in writing by District)

17. Approved Video Companies

    a. Houston & Harris

    b. National Plant Services

    c. Morrison Testing

18. Appurtenance Paint (Devoe or Tnemec)

    a. Color as selected or approved by District

    b. Surface preparation per manufacturer's recommendations

    <u>Devoe</u>

    c1. Zinc primer – ICI Paints – Devoe Cathacoat ® 302H (3.0 mils DFT)

    d1. Primer – ICI Paints – Devoe Bar-Rust ® 231 (6.0 mils DFT)

    e1. Finish Coat: ICI Paints – Devoe Devthane ® 378H (3.0 mils DFT)

    f1. Total Min. DFT: 12 mils

    <u>Tnemec</u>

    c2. Primer: Tnemec Series L69 (6 mils DFT)

    d2. Second and Finish (Third) Coats: Tnemec 1081 Polyurthane (2.5 mils DFT each coat)

    e2. Total Min. DFT: 11.0 mils

APPENDIX B

Sample of Pothole Report

UTILITY POTHOLE REPORT

Client: Jurupa Community Services District
Contractor: _____

Project:_____
_____
_____

[JCSD P.N. _____]

Date of Pothole: _____

Contractor's Signature: _____

SAMPLE

PROJECT NAME:

PROJECT NO: **DPN** **DATE OF POTHOLE:**

CLIENT: JURUPA COMMUNITY SERVICES DISTRICT

CONTRACTOR:

STREET	STATION	UTILITY	TYPE	SIZE	DEPTH TO TOP	DEPTH TO BOTTOM	NOTES

Contractor Signature:

APPENDIX C

City of Jurupa Valley
Encroachment Permit

City of Jurupa Valley
Engineering Division
Encroachment Permit

Permit No: EP22-312
Status: Applied
Submittal Date: 05/23/2022
Issue Date:
Expiration Date:

Project Address/Location:
Sewer Replacement Project - Hunter St. Area JCSD P.N.

Assessor's Parcel Number: 173151007

Description of Work: CONDITIONAL PERMIT** FY 21-22 The projects consist of furnish, install, test and make operational approximately 5,300 linear feet of 8-inch dia. sewer pipeline, the project also includes approximately 1,500 linear feet of 6-inch and 8-inch CML/C steel water pipelines, water services, water meters and water service re-connections, street pavement restoration in City of Jurupa Valley, and private property, as well as all other work and materials required per plan and specifications. DAYS IN ROW: 200 PER WATTCH HANDBOOK

Customer Reference Number:

Owner:	*Applicant:	Site Contact:
Jurupa Community Services District 11201 Harrel St Jurupa Valley CA 91752	Hunter Zahid Jurupa Community Services District 11201 Harrel St. Jurupa Valley CA 91752	
Contractor:		

INSPECTION REQUIRED: The City of Jurupa Valley Public Works Inspector must be notified 48 hours prior to starting work.
Phone: (951) 332-6464 Ext. 301, Email: pwinspections@jurupavalley.org

Use of City owned or controlled public right-of-way or easement is hereby authorized for the use or work described below subject to the provisions of Riverside County Ordinance No. 499, all the terms, conditions, restrictions, standards, rules, and regulations of the City of Jurupa Valley or any other public agency having interest in the work hereby authorized and as written below or printed as general or special provisions on the reverse hereof and attached hereto are as otherwise incorporated herein by reference. This permit is to be strictly construed and no use or work other than that specifically described below is authorized.

Estimated Start Date: 09/15/2022	Estimated Completion Date: 06/22/2023

ENCROACHMENT AGREEMENT: (Check if Applicable)
☐ Property owner acknowledges this encroachment requires execution of an Encroachment Agreement making the owner responsible for these improvements. City will provide the Agreement for execution at a later date.
Owner Name:_____ Owner Signature: _____ Date:_____

☒ Additional Special Provisions and/or Conditions of Approval are attached and incorporated herein.
THE PERMITTEE'S SIGNATURE BELOW ACKNOWLEDGES PERMITTEE'S ACCEPTANCE OF ALL TERMS AND CONDITIONS STATED ABOVE, THE STANDARD PROVISIONS CONTAINED ON BACKSIDE OF THIS PERMIT, ANY ADDITIONAL SPECIAL PROVISIONS, ALL OTHER CONDITIONS OF APPROVAL AND THE INDEMNIFICATION AND HOLD HARMLESS AGREEMENT RELATED TO THE ISSUANCE OF THIS PERMIT. PERMIT IS NOT VALID UNTIL SIGNED BY BOTH PERMITTEE AND CITY.

PERMITTEE'S ACCEPTANCE:

_____
Permittee Signature **Title**

CITY APPROVAL:

SALINA CANO
for Virpal Singh Toor, P.E., City Engineer

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ENCROACHMENT PERMIT SPECIAL PROVISIONS

1	Call or email City Public Works inspector at 951-332-6464 ext. 301, email: pwinspections@jurupavalley.org for Inspection request 48 hrs. before start of work. ...
2	All businesses, schools and property owners affected by the work performed under this permit shall be notified at least 72 hours prior to start of construction. Access to businesses shall be maintained at all times.
3	Work hours for lane closures are 9:00 a.m. to 3:00 p.m. Otherwise work hours are 7:30 a.m. to 4:30 p.m. Monday thru Friday except federal holidays. Contact City Inspector for changes.
4	Contractor shall protect existing street improvements and repair /replace street improvements under City Public Works Inspector's direction.
5	No trench shall be left exposed without final cap paving for more than 30 days.
6	All USA and construction markings shall be removed from concrete, asphalt, and landscaped areas before permit will be finalized (black spray paint is not an acceptable form of removal).
7	Permittee is requested to notify the City of any Sub-Contractor is hired to perform work under this encroachment permit.
8	Surface restoration to be per City of Jurupa Valley's Public Work's Inspector's direction. See attached City Standard #703 for trench backfill & roadway repair.
9	Installation of appurtenances in the City right-of-way must be installed per Green Book Standard Plan #101-2 (attached).

ENCROACHMENT PERMIT STANDARD PROVISIONS

1. Permits issued by City of Jurupa Valley are issued pursuant to the authority the California Streets and Highways Code and Riverside County Ordinance 499-12.
2. Permittee shall indemnify, defend and hold harmless the City, its officers, officials, employees, agents, consultants and volunteers in accordance with the provisions of Exhibit A, Indemnification, attached hereto and incorporated herein as though set forth in full.
3. Permittee shall pay for and maintain in full force and effect for the duration of the work all insurance as required in Exhibit B, Insurance, attached hereto and incorporated herein as though set forth in full.
4. Should any damage or injury to City of Jurupa Valley works or property occur during initial use and/or as a result of the contractor of Permittee, in the exercise of the rights herein granted, Permittee shall immediately, upon the written demand of City of Jurupa Valley, restore such works or property to the condition of same on the date of the occurrence of said damage or injury at Permittee's sole cost and expense. The question as to whether or not any such damage or injury has been caused to the works shall be determined by the City Engineer's Office and the City of Jurupa Valley and its determination shall be final. In the event any action or repair by City of Jurupa Valley is necessary, Permittee shall pay City of Jurupa Valley the cost of such actions and repairs.
5. City of Jurupa Valley reserves the right unto itself to perform any work, upon any portion or all of the area covered by this permit, or to do any other work necessary at any time. Such work may be performed without incurring any liability of any nature whatsoever to the Permittee. It is further understood and agreed that City of Jurupa Valley reserves unto itself the rights of ingress and access over all or any portion of the subject area.
6. Neither this permit nor any of the rights herein granted shall be assigned without the prior written approval of the City of Jurupa Valley. Permit is void upon expiration date unless otherwise extended by mutual agreement and payment of an extension. A new permit application and fee may be required at the sole discretion of the City of Jurupa Valley.
7. By acceptance of this permit, Permittee acknowledges and assumes all responsibility for compliance with requirements of other regulatory agencies including but not limited to zoning regulations, applicable ordinances and laws of the City of Jurupa Valley, County of Riverside, State of California, Federal Government or others having regulatory control over the use or work granted herein.
8. All underground work requires an 'Inquiry Identification Number' from Underground Service Alert Regional Notification Center. (Ref: Government Code, Section 42165 and 4217). **Call 811-Underground Service Alert-Southern California (USA), 2 working days prior to excavating. Call the Riverside County Transportation Department at 951-955-6894 for traffic signal markout.** This permit is not valid for excavation unless and until the Permittee has been provided an Inquiry Identification Number. All USA markings must be removed by the Permittee after the work is complete and before the Permit is closed.
9. A copy of this permit and approved plans, if applicable, shall be maintained at the site of work and be shown to any authorized representative of the City, or other regulatory governing agency upon request. Non-compliance may avoid this permit. Permit is non-transferable.
10. No work shall be performed within the City right of way without the full knowledge of City of Jurupa Valley Public Works Inspector, who shall be given not less than 48 hours advance notice of the initiation of the permitted use or work. Failure of Permittee to notify the Inspector and obtain all required inspections may void this permit and necessitate reapplication by Permittee. Ordinance 499 provides for penalties.
11. Permittee further agrees that all operations within City rights of way are subject to the jurisdiction of City of Jurupa Valley and must be performed to the satisfaction of City of Jurupa Valley City Engineer.
12. This permit may be immediately suspended or revoked for reasons in the best interest of the City of Jurupa Valley including violation of any permit provisions or other applicable laws, rules and regulations or for the creation of a nuisance upon notice given by the City of Jurupa Valley or authorized representative. In the event of such suspension or revocation, Permittee shall immediately

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cease all operations and restore City of Jurupa Valley right of way as directed by the City Engineer.

13. This permit is subject to the provisions referenced in Riverside County Ordinance 499-12 and all applicable laws, regulations and policies of the City of Jurupa Valley and all attached Special Conditions, if any.
14. No use other than that which is stated on this permit shall be exercised. Public right of way shall not be used for Permittee's or Permittee's Contractor's administrative operations or storage of equipment, materials, supplies, etc.
15. All work shall be performed in accordance with the Standard Specifications for Public Works Construction ("Greenbook") latest edition including all amendments thereto as promulgated by Public Works Standards, Inc.
16. **Work area traffic control shall be in accordance with the WATCH and California Manual of Uniform Traffic Control Devices (CMUTCO) latest edition including all amendments thereto and attached traffic control plans.**
17. **Pavement repair shall be made in accordance with City Standard "T" Cut trench repair detail.**

INDEMNIFICATION AND HOLD HARMLESS AGREEMENT FOR ENCROACHMENT PERMIT

In consideration for the issuance of an Encroachment Permit and to the furthest extent allowed by law, Permittee does hereby agree to indemnify, hold harmless and defend the City of Jurupa Valley ("City"), and its officers, officials, employees, agents and volunteers from any and all loss, liability, fines, penalties, forfeitures, costs and damages (whether in contract, tort or strict liability, including but not limited to personal injury, death at any time and property damage) incurred by City, Permittee or any other person, and from any and all claims, demands and actions in law or equity (including attorney's fees and litigation expenses), arising or alleged to have arisen directly or indirectly out of the issuance of the Encroachment Permit or any work permitted thereunder. Permittee's obligations under the preceding sentence shall apply regardless of whether City or any of its officers, officials, employees, agents or volunteers are passively negligent, but shall not apply to any loss, liability, fines, penalties, forfeitures, costs or damages caused by the active or sole negligence, or the willful misconduct, of City or any of its officers, officials, employees, agents or volunteers.

Throughout the life of the Encroachment Permit, Permittee shall pay for and maintain in full force and effect all insurance as required in Exhibit A, which is incorporated into and part of this Agreement, or as may be authorized or required in writing by City Manager or his/her designee at any time and in his/her sole discretion.

Permittee shall conduct all defense at his/her/its sole cost. The fact that insurance is obtained by Permittee shall not be deemed to release or diminish the liability of Permittee, including, without limitation, liability assumed under this Agreement. The duty to indemnify shall apply to all claims regardless of whether any insurance policies are applicable. The duty to defend hereunder is wholly independent of and separate from the duty to indemnify and such duty to defend exists regardless of any ultimate liability of Permittee. The policy limits do not act as a limitation upon the amount of defense and/or indemnification to be provided by Permittee. Approval or purchase of any insurance contracts or policies shall in no way relieve from liability nor limit the liability of Permittee, its principals, officers, employees, agents, persons under the supervision of Permittee, vendors, suppliers, invitees, consultants, sub-consultants, subcontractors, or anyone employed directly or indirectly by any of them.

City shall be reimbursed for all costs and attorney's fees incurred by City in enforcing this Agreement.

This Indemnification and Hold Harmless Agreement shall survive the expiration or revocation of the Encroachment Permit.

The permittee acknowledges that he/she (i) has read and fully understands the content of this Indemnification and Hold Harmless Agreement; (ii) is aware that this is a contract between the City and Permittee; (iii) has had the opportunity to consult with his/her attorney, in his/her discretion; (iv) is fully aware of the legal consequences of signing this document; and (v) is the Permittee or his/her/its authorized signatory.

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APPENDIX D

Sample of Project Sign

LIST NAMES OF JCSD'S BOARD OF DIRECTORS ON THE UPPER LEFT CORNER

Jurupa
COMMUNITY SERVICES DISTRICT

Reinvesting in Our Community and Improving Critical Infrastructure

Name of Project

Total Project Cost: $ Cost of Project

Project Dates: Phase ## - Dates Ranges
Locations

Phase ## - Dates Ranges
Locations

Be prepared for traffic delays. Please use caution when driving!

If you have any questions, please call Jurupa Community Services District

(951) 685-7434

www.jcsd.us @JCSDTweets www.youtube.com/jcsdvideos www.facebook.com/JCSDistrict

APPENDIX E

QSD Certificate

Qualified SWPPP Developer

Approval and Certification of the Stormwater Pollution Prevention Plan

Project Name: _____

Project Number/ID [if applicable] _____

"This Stormwater Pollution Prevention Plan and Attachments were prepared under my direction to meet the requirements of the California Construction General Permit (SWRCB Orders No. 2009-009-DWQ as amended by Order 2010-0014-DWQ). I certify that I am a Qualified SWPPP Developer in good standing as of the date signed below."

_____	_____
QSD Signature	*Date*
_____	_____
QSD Name	*QSD Certificate Number*
_____	_____
Title and Affiliation	*Telephone Number*
_____	
Email	

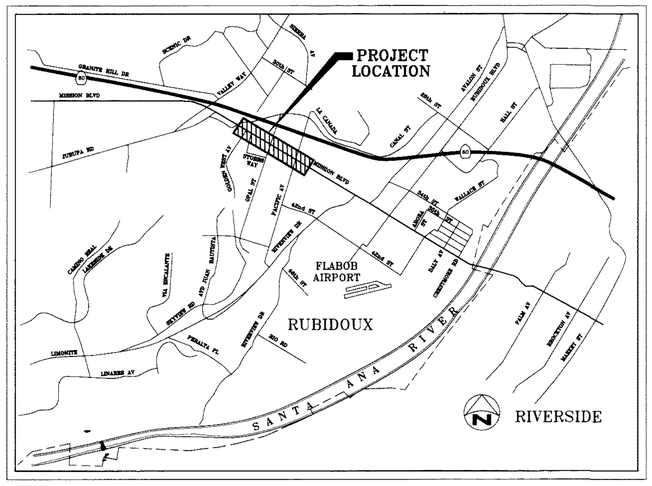
APPENDIX F

Reference Drawings

RUBIDOUX COMMUNITY SERVICES DISTRICT

12" MISSION BOULEVARD PIPELINE, PHASE I

LOCATION MAP



SHEET INDEX

SHEET NO.	DESCRIPTION
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DWG NO. 19-1751A FILE NO. 587-19.17 UPDATE BY: GKB PROJ ENG MPT PLOT DATE: 3/8/95 PLOT TIME: 11:30 AM PLOT SCALE: 1=1

RUBIDOUX COMMUNITY SERVICES DISTRICT
APPROVED BY Steven W. Appel ASSISTANT GENERAL MANAGER
DATE 3-14-95

RUBIDOUX COMMUNITY SERVICES DISTRICT
APPROVED BY M.C. Krieger DISTRICT ENGINEER
DATE 3-14-95

SYM	REVISIONS	DATE	BY
1	RECORD DRAWING	8/29/96	G.P.M

REGISTERED PROFESSIONAL ENGINEER — MICHAEL PATRICK TRIMMER — No. 44226 — Exp. 6-30-97 — CIVIL — STATE OF CALIFORNIA

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PREPARED BY M.C. Krieger
REGISTERED ENGINEER No. 44226 DATE 3/14/95

SCALE	NA
FIELD BOOK	163/112,116,124 160/72-77,90,91,124 165/12,14
DESIGN	MPT
DRAWN	AJR
CHECKED	MEM

RUBIDOUX COMMUNITY SERVICES DISTRICT
12" MISSION BOULEVARD PIPELINE, PHASE I
TITLE SHEET

MS 3654
SHEET 1 OF 7 SHEETS
W-95-003
R.C.S.D. PLAN No.

587-19.32

CONSTRUCTION NOTES

1. PUBLIC STREETS (COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT)

DISTRICT WILL OBTAIN AN ENCROACHMENT PERMIT FROM THE COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT FOR WORK TO BE PERFORMED WITHIN COUNTY RIGHT-OF-WAY. CONTRACTOR SHALL MAINTAIN AT LEAST ONE (1) COPY OF SAID PERMIT ON THE JOBSITE AT ALL TIMES. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF SAID PERMIT

DISTRICT WILL NOT ACCEPT THE CONTRACT WORK UNTIL CONTRACTOR HAS SUBMITTED A WRITTEN STATEMENT OF COMPLIANCE (SPECIFICALLY REFERENCING EXISTING IMPROVEMENT RESTORATIONS) ISSUED BY THE COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT ADVISING THAT THE CONTRACTOR HAS COMPLIED WITH ALL COUNTY REQUIREMENTS AND THAT THE COMPLETED WORK IS ACCEPTABLE

2. GENERAL STORM WATER NPDES PERMIT

IN ACCORDANCE WITH THE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (NPDES GENERAL PERMIT NO CAS000002), THE DISTRICT HAS PREPARED A NOTICE OF INTENT (NOI) AND SUBMITTED SIGNED NOI TO STATE WATER RESOURCES CONTROL BOARD WITH ANNUAL PERMIT FEES

IN ADDITION, THE DISTRICT HAS PREPARED A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) A COPY OF THE SWPPP IS AVAILABLE FOR CONTRACTOR REVIEW AT THE DISTRICT OFFICE

CONTRACTOR SHALL IMPLEMENT THE SWPPP, INCLUDING IMPLEMENTATION OF BEST MANAGEMENT PRACTICES AND THE MONITORING AND REPORTING PLAN, AND SHALL SUBMIT COPIES OF ALL INSPECTION RECORDS TO OWNER WITHIN SEVEN (7) DAYS AFTER EACH STORM EVENT.

3. NOTIFICATIONS

AT LEAST FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL NOTIFY RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT, PERMIT SECTION AT **RIVERSIDE, 909 275 6790**

CONTRACTOR SHALL NOTIFY THE COUNTY OF RIVERSIDE SHERIFF'S DEPARTMENT TWENTY-FOUR (24) HOURS IN ADVANCE OF ANY PERMITTED STREET CLOSURES. CONTRACTOR SHALL PROVIDE IMMEDIATE ACCESS FOR EMERGENCY VEHICLES ON ALL CLOSED STREETS

CONTRACTOR SHALL NOTIFY MR. JOHN HARKINS, TRAFFIC SIGNAL SUPERVISOR, AT (909) 275 6994 FORTY EIGHT (48) HOURS PRIOR TO BEGINNING CONSTRUCTION

CONTRACTOR SHALL NOTIFY MR. LOUIE AGUILAR OF THE RIVERSIDE TRANSIT AUTHORITY AT (909) 684-0850 EXT 52 TWO (2) WEEKS PRIOR TO BEGINNING CONSTRUCTION

CONTRACTOR SHALL NOTIFY SHARON DIMERY AND DON VAIL OF RUBIDOUX HIGH SCHOOL AT (909) 222 7775, JOHN WHEELER OF RUSTIC ELEMENTARY SCHOOL AT (909) 222 7850, AND ROBIN ROBINSON OF SCHOOL TRANSPORTATION DEPARTMENT OF (909) 360-2736 SEVEN (7) DAYS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR SHALL INDICATE DATES WHICH BUS TRAFFIC WILL BE DETOURED

CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ALL RESIDENTS AND COMMERCIAL ESTABLISHMENTS IN THE VICINITY OF THE WORK OF IMPENDING WORK AT LEAST SEVEN (7) DAYS PRIOR TO BEGINNING CONSTRUCTION. SAID NOTICES SHALL FIRST BE APPROVED BY DISTRICT AND SHALL CONTAIN A GENERAL DESCRIPTION OF THE WORK, DATES WORK WILL BE PERFORMED, DESCRIPTIONS OF AREAS WHERE TRAVEL AND PARKING WILL BE RESTRICTED, AND NAMES OF STREETS WHICH WILL BE CLOSED TO THROUGH TRAFFIC OR WHERE TRAFFIC WILL BE RESTRICTED. CONTRACTOR SHALL MAINTAIN, AS A MINIMUM, ONE (1) ACCESS LOCATION TO EACH ESTABLISHMENT AT ALL TIMES.

IF DISTRICT OR COUNTY RECEIVES COMPLAINTS FROM INDIVIDUALS AFFECTED BY THE PROJECT, CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO CORRECT SAID COMPLAINTS AS DIRECTED BY THE DISTRICT. IF CONTRACTOR RECEIVES COMPLAINTS DIRECTLY, CONTRACTOR SHALL REPORT SAID COMPLAINTS IMMEDIATELY TO DISTRICT THEREAFTER, CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO CORRECT SAME AS DIRECTED BY DISTRICT

CONTRACTOR SHALL POST THREE (3) 4 ' X 8 ' SIGNS ALONG THE PIPELINE ALIGNMENT AT LEAST THIRTY (30) DAYS PRIOR TO BEGINNING CONSTRUCTION. LOCATIONS SHALL BE APPROVED BY DISTRICT PRIOR TO INSTALLATION. LETTERING SHALL BE BLACK (2" MIN SIZE) AND SHALL BE PLACED ON A WHITE BACKGROUND. SIGNS SHALL HAVE THE FOLLOWING INFORMATION

RUBIDOUX COMMUNITY SERVICES DISTRICT
BOARD OF DIRECTORS
ANITA B SMITH
JAMES M GOULD
ARMANDO MUNIZ
GILBERT J CALZADA
KENNETH G HEDGPETH
(909) 684 7580
12" MISSION BOULEVARD PIPELINE, PHASE I
TRAFFIC WILL BE RESTRICTED OR DETOURED
TO
(DATE) (DATE)
(CONTRACTOR'S NAME) (CONTRACTOR'S TEL. NO.)

4. UTILITIES

APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN ON THE CONSTRUCTION DRAWINGS

EXISTING UTILITY LOCATIONS ARE BASED ON AVAILABLE RECORDS. WATER SERVICE LOCATIONS ARE APPROXIMATE AND ARE BASED ON LOCATIONS OF EXISTING WATER METERS. GAS SERVICE LOCATIONS, WHERE SHOWN, ARE BASED ON LOCATIONS OF EXISTING METERS

CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES AND IMPROVEMENTS, IN PARTICULAR, STORM DRAINS, GAS LINES, GAS SERVICES, SEWER LINES, SEWER MANHOLES, SEWER LATERALS, WATERLINES, WATER SERVICES, TELEPHONE FACILITIES, ELECTRIC FACILITIES, AND TRAFFIC SIGNAL FACILITIES

CONTRACTOR SHALL HAVE A SUFFICIENT SUPPLY OF REPAIR OR REPLACEMENT MATERIALS ON THE JOB SITE TO REPAIR OR REPLACE DAMAGED OR DESTROYED FACILITIES INCLUDING, BUT NOT LIMITED TO, SEWER LATERALS, SEWER MAINS, WATER SERVICES, WATERLINES, GAS SERVICES, TELEPHONE AND ELECTRICAL CONDUITS, AND IRRIGATION FACILITIES. REPAIRS SHALL BE MADE WITH LIKE MATERIALS AND SAID REPAIRS SHALL BE APPROVED BY DISTRICT AND OWNERS PRIOR TO BACKFILL

IF REQUIRED, BASED ON CONTRACTOR'S FIELD MEASUREMENTS, CONTRACTOR SHALL COORDINATE GAS RELOCATIONS WHICH CONFLICT WITH PROPOSED PIPELINE. CONTRACTOR SHALL PROVIDE ALL ASSISTANCE REQUIRED BY SOUTHERN CALIFORNIA GAS COMPANY (SCGC) COMPLETE ALL REQUIRED SCGC APPLICATIONS, ALLOW SCGC FORCES SUFFICIENT TIME TO COMPLETE FACILITY RELOCATIONS, AND PAY ALL REQUIRED SCGC FEES, ALL AT NO ADDITIONAL COST TO DISTRICT

5. EXISTING WATERLINE AND WATER SERVICES

EXISTING WATERLINE AND WATER SERVICES SHALL REMAIN IN SERVICE DURING CONSTRUCTION. THEREFORE, CONTRACTOR SHALL PROTECT SAID FACILITIES IN PLACE AND REPAIR ANY DAMAGES OR DEBRIS NECESSARY AND AS APPROVED BY DISTRICT. IF, BASED ON CONTRACTOR'S FIELD MEASUREMENTS, EXISTING WATER SERVICES INTERFERE WITH PIPELINE CONSTRUCTION, CONTRACTOR SHALL TEMPORARILY RELOCATE SERVICE PIPING AS APPROVED BY DISTRICT

6. PIPELINE MATERIALS

THE PIPELINE MATERIALS SHALL BE CLASS 350 CEMENT MORTAR LINED AND ASPHALT COATED DUCTILE IRON PIPE AND FITTINGS. ALL PIPE SHALL BE CEMENT MORTAR LINED WITH A MINIMUM THICKNESS OF 3/16" (DOUBLE THICKNESS) AND THE BITUMASTIC COATING SHALL NOT BE APPLIED OVER THE CEMENT LINING. ALL DUCTILE IRON PIPE SHALL BE ENCASED WITH POLYETHYLENE BAGS

ALL FIRE HYDRANT PIPING SHALL BE 10 GAUGE CEMENT MORTAR LINED AND CEMENT MORTAR COATED WELDED STEEL PIPE AND FITTINGS IN ACCORDANCE WITH THE STANDARD DRAWINGS. ALL CONNECTION PIPING SHALL BE 10 GAUGE CEMENT MORTAR LINED AND CEMENT MORTAR COATED WELDED STEEL PIPE AND FITTINGS WITH EITHER FLANGED, FULLY WELDED JOINTS, OR JOINTS WITH BUTT STRAPS AND HAND HOLES PER STANDARD DRAWING W137 (TYPE II)

7. EXCAVATION, BEDDING AND BACKFILL

CONTRACTOR IS ADVISED THAT ROCK OR UNACCEPTABLE TRENCH BACKFILL MATERIAL MAY BE ENCOUNTERED DURING TRENCHING OPERATIONS. WHERE SUCH MATERIALS ARE ENCOUNTERED, CONTRACTOR SHALL, AT NO ADDITIONAL COST TO DISTRICT, EXCAVATE SAID MATERIAL BY ANY METHOD CONTRACTOR DEEMS NECESSARY AND AS APPROVED BY DISTRICT AND FURNISH AND INSTALL SUITABLE BEDDING AND BACKFILL MATERIAL IN ACCORDANCE WITH THE CONTRACT DOCUMENTS

BEDDING AND BACKFILL MATERIALS SHALL BE EITHER COMMERCIAL IMPORTED MATERIAL OR SELECT NATIVE MATERIAL (SCREENED OR WASHED). ALL ROCK OR UNACCEPTABLE TRENCH BACKFILL MATERIAL SHALL BE HAULED TO AND DISCARDED AT A LEGAL DISPOSAL SITE. CONTRACTOR SHALL NOT DISPOSE OF SUCH MATERIAL ON VACANT PRIVATE OR PUBLIC PROPERTY WITH OR WITHOUT PERMISSION

8. TRENCH COMPACTION

TRENCH BACKFILL INCLUDING PIPE ZONE BACKFILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION MINIMUM AFTER ALL SHEETING, SHORING, OR SHIELDING HAS BEEN REMOVED. UPPER 12" OF SUBGRADE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION MINIMUM

CONTRACTOR SHALL ACCOMPLISH COMPACTION BY JETTING, FLOODING, ROLLING, OR ANY COMBINATION THEREOF. CONTRACTOR SHALL NOT USE STOMPING OR VIBRATING EQUIPMENT TO OBTAIN ACCEPTABLE TRENCH COMPACTION

9. WATER AND SEWER CROSSINGS

PIPELINES HAVE BEEN DESIGNED IN COMPLIANCE WITH STATE DEPARTMENT OF HEALTH SERVICES CRITERIA FOR THE SEPARATION OF WATERMAINS AND SANITARY SEWERS. CONTRACTOR SHALL PROTECT ALL SEWERS IN PLACE. ALL SEWERS SHALL BE MAINTAINED IN CONTINUOUS OPERATION DURING CONSTRUCTION

10. PIPELINE APPURTENANCES (WATER SERVICES, AIR VALVES, FIRE HYDRANTS, AND CONNECTIONS)

PRIOR TO ORDERING MATERIALS FOR WATER SERVICES, AIR VALVES, FIRE HYDRANTS, AND CONNECTION PIPING, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING UTILITIES WHICH CROSS PROPOSED APPURTENANCE ALIGNMENT AND CONNECTION LOCATIONS TO DETERMINE THE EXACT POSITION (HORIZONTAL AND VERTICAL) OF EACH CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES IN PLACE. IN PARTICULAR, THE EXISTING 8" WATERLINE LOCATED NEAR THE APPURTENANCE LOCATIONS. IN ADDITION, AND PRIOR TO INSTALLING EACH CONNECTION, CONTRACTOR SHALL DETERMINE OUTSIDE DIAMETER AND TYPE OF PIPE FOR EXISTING WATERLINE. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS, INCLUDING CUT-IN SLEEVES, COUPLINGS, CLOSE FLANGES, AND CONNECTION COUPLINGS REQUIRED FOR FIELD INSTALLATION NECESSARY TO CLEAR (6" MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS AND ALL AT NO ADDITIONAL COST TO DISTRICT

AIR VALVE PIPING SHALL HAVE A CONTINUOUS UPSLOPE (2% MAXIMUM) FROM PIPELINE TO AIR VALVE

FIRE HYDRANT PIPING SHALL BE LEVEL OR HAVE CONTINUOUS DOWNSLOPE (2% MAXIMUM) FROM PIPELINE TO HYDRANT RISER

FOR PROPOSED ANGLE METER STOPS PLACED ADJACENT TO EXISTING ANGLE METER STOPS, CONTRACTOR SHALL INSTALL NEW ANGLE METER STOP WITHIN EXISTING METER BOX. AFTER PIPELINE HAS BEEN TESTED, DISINFECTED, AND ACCEPTED BY DISTRICT, CONTRACTOR SHALL INSTALL NEW METER (FURNISHED BY DISTRICT) AND CONNECT NEW METER TO EXISTING CUSTOMER SERVICE PIPING METER AND REPLACE EXISTING METER BOX WITH NEW METER BOX

FOR PROPOSED ANGLE METER STOPS NOT PLACED ADJACENT TO EXISTING ANGLE METER STOPS, CONTRACTOR SHALL INSTALL NEW ANGLE METER STOP, METER (FURNISHED BY DISTRICT), AND METER BOX AT THE LOCATION SPECIFIED ON THE CONSTRUCTION DRAWINGS. AFTER PIPELINE HAS BEEN TESTED DISINFECTED, AND ACCEPTED BY DISTRICT, CONTRACTOR SHALL CONNECT METER TO EXISTING CUSTOMER SERVICE PIPING WITH LIKE MATERIALS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY PIPING, FITTINGS, COUPLINGS, AND ADAPTERS TO COMPLETE EACH CONNECTION

11. PAVEMENT GRINDING

IF APPROVED BY DISTRICT AND RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT, CONTRACTOR MAY GRIND PAVEMENT, IN LIEU OF SAW CUTTING AND REMOVING EXISTING PAVEMENT. PAVEMENT GRINDING, CONTRACTOR SHALL REMOVE GROUND PAVEMENT AS REQUIRED BY COUNTY STANDARD NO. 327, ASPHALT CONCRETE PAVEMENT 2" MINIMUM THICKNESS IN ACCORDANCE WITH NOTE 12 HEREON

12. TRAFFIC CONTROL AND RESTORATION REQUIREMENTS

A TRAFFIC CONTROL

CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE TRAFFIC CONTROL DRAWING (SHEET 7). TRAFFIC CONTROL REQUIREMENTS MAY BE MODIFIED DURING CONSTRUCTION BY DISTRICT OR RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT AS CONDITIONS WARRANT. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS SHOWN ON ITEMIZED CONTROL DRAWING AND AS MODIFIED BY DISTRICT OR COUNTY. ALL NOT AN ADDITIONAL COST TO DISTRICT. THROUGHOUT THE DURATION OF THE WORK, CONTRACTOR SHALL INSPECT TRAFFIC CONTROL (SIGNS, BARRICADES, ARROWBOARDS, AND DELINEATORS) AND SHALL MAINTAIN THEM IN ACCORDANCE WITH SAID TRAFFIC CONTROL DRAWING.

AS A MINIMUM, ALL CONSTRUCTION SIGNING, LIGHTING AND BARRICADING SHALL COMPLY WITH STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION **"MANUAL OF TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES"**, LATEST EDITION

FOR STREET CLOSURES, CONTRACTOR SHALL SUBMIT A WRITTEN REQUEST TO RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT, ATTENTION DAVE BARNHART, SPECIFYING LOCATION, DATE, AND DURATION OF STREET CLOSURE AT LEAST TWO WEEKS IN ADVANCE. CONTRACTOR SHALL ALLOW COUNTY FOUR (4) WEEKS TO APPROVE REQUEST. CONTRACTOR SHALL SUBMIT TO DISTRICT WRITTEN DOCUMENTATION OF BOARD APPROVAL TWENTY FOUR (24) HOURS PRIOR TO BEGINNING CONSTRUCTION.

CONTRACTOR SHALL POST "NO PARKING" SIGNS AS REQUIRED. CONTRACTOR SHALL NOTIFY THE COUNTY OF RIVERSIDE SHERIFF'S DEPARTMENT SEVENTY TWO (72) HOURS PRIOR TO START OF CONSTRUCTION AT EACH LOCATION. SAID SIGNS SEVENTY TWO (72) HOURS PRIOR TO START OF CONSTRUCTION AT 50' MAXIMUM SPACING. THE "NO PARKING" SIGNS SHALL INCLUDE THE DATES AND TIMES WHEN PARKING WILL BE PROHIBITED OR RESTRICTED. CONTRACTOR SHALL CHECK AND MAINTAIN SAID SIGNS ON A DAILY BASIS AND REPLACE THEM AS REQUIRED. SAID SIGNS SHALL BE REMOVED IMMEDIATELY AFTER CONSTRUCTION HAS BEEN COMPLETED

B WORK HOURS

ALL WORK SHALL BE PERFORMED BETWEEN THE HOURS OF 7:00 AM AND 5:00 PM, MONDAY THROUGH FRIDAY. HOWEVER, CONTRACTOR MAY BE REQUIRED TO WORK EVENINGS OR WEEKENDS TO FILL PIPELINE, FLUSH PIPELINE, AND/OR CONSTRUCT CONNECTIONS TO EXISTING SYSTEM

C RESTORATION REQUIREMENTS

CONTRACTOR SHALL PROTECT IN PLACE OR REMOVE AND REPLACE ALL EXISTING UTILITIES AND PUBLIC AND PRIVATE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, POWER POLES, BERMS, CURBS, GUTTERS, WALKWAYS, SIDEWALKS, GROSS GUTTERS, SPANDRELS, MEDIANS, DRIVEWAYS, STORM DRAINS, LANDSCAPING, IRRIGATION, PAINT MATERIALS, LANDSCAPE IRRIGATION SYSTEMS, MAIL BOXES, WALLS, AND FENCES. ALL SHALL BE REMOVED AND REPLACED AS DETERMINED BY DISTRICT OR RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT. SAID FACILITIES SHALL BE REMOVED AND REPLACED CONTRACTOR SHALL CORRECT ANY DAMAGED OR DESTROYED IMPROVEMENTS AS PART OF THE CONTRACT WORK ALL AT NO ADDITIONAL COST TO DISTRICT. ALL CURBS, GUTTERS, AND SIDEWALKS TO BE REPLACED SHALL BE COMPLETED WITHIN SEVEN (7) DAYS OF ACCEPTABLE HYDROSTATIC AND LEAKAGE TESTING OF THE PIPELINES

DURING REPLACEMENT OF CURB, GUTTER, AND SIDEWALK, CONTRACTOR SHALL REPLACE COMPLETE PANELS OF SIDEWALK. CONTRACTOR SHALL REPLACE CURB AND GUTTER BETWEEN CONSTRUCTION JOINTS

CONTRACTOR SHALL, AS A MINIMUM, HAVE ACCOMPLISHED BY THE END OF EACH WORK DAY (5:00 PM) THE FOLLOWING

1) REMOVE ALL DEBRIS, CONSTRUCTION MATERIALS, AND EQUIPMENT FROM PUBLIC STREETS, CONSTRUCTION RIGHTS OF WAY, AND PRIVATE PROPERTY

2) FILL ALL EXCAVATIONS WITH COMPACTED BACKFILL AND PLACE 2" MINIMUM TEMPORARY ASPHALT CONCRETE PAVEMENT IN ALL AREAS WHERE EXISTING PAVEMENT WAS REMOVED. TEMPORARY PAVEMENT SHALL BE COMPACTED, ROLLED SMOOTH AND FLUSH WITH ADJACENT PAVEMENT SUFFICIENT TO SUPPORT TRAFFIC. SAID PAVEMENT MAY BE PLACED COLD PROVIDED IT IS PLACED SMOOTH AND FLUSH WITH ADJACENT EXISTING PAVEMENT AND ROLLED WITH A STEEL WHEELED PAVEMENT ROLLER, AND PROPERLY MAINTAINED

3) CLEAN (INCLUDING SWEEPING AND WASHING) ALL STREETS, DRIVEWAYS, GUTTERS, SIDEWALKS AND ALL OTHER WORK AREAS. (CONTRACTOR MAY BE REQUIRED TO WASH-DOWN AND/OR SWEEP WORK AREAS MORE THAN ONCE A DAY, IF DIRECTED BY DISTRICT)

4) PLACE TEMPORARY TRAFFIC STRIPING

5) REMOVE ALL TRAFFIC CONTROL AND OPEN ALL STREETS TO TRAFFIC

CONTRACTOR SHALL INSPECT ENTIRE JOB SITES AT LEAST ONCE EACH DAY INCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS AND CORRECT ANY TRAFFIC CONTROL, PAVEMENT (TEMPORARY, PERMANENT, AND GROUND), OR BACKFILL DEFICIENCIES. CONTRACTOR SHALL MAINTAIN STREETS INCLUDING BACKFILLED TRENCHES IN GOOD REPAIR

CONTRACTOR SHALL RESPOND IMMEDIATELY TO ALL REQUESTS BY DISTRICT OR COUNTY FOR REMEDIAL WORK. CONTRACTOR SHALL AT ALL TIMES, HAVE A CREW AVAILABLE TO RESPOND TO SAID REQUESTS

1) PERMANENT ASPHALT CONCRETE PAVEMENT

PERMANENT ASPHALT CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH THESE CONSTRUCTION NOTES AND THE COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT ENCROACHMENT PERMIT REQUIREMENTS. THE MOST STRINGENT REQUIREMENTS SHALL PREVAIL

a PREPARATION

CONTRACTOR SHALL LEAVE TEMPORARY ASPHALT CONCRETE PAVEMENT IN PLACE FOR A MINIMUM THIRTY (30) DAYS. MAXIMUM THEREAFTER, CONTRACTOR SHALL REMOVE ALL TEMPORARY ASPHALT CONCRETE PAVEMENT, DISPOSE OF IT AT AN AUTHORIZED DISPOSAL SITE, AND THEN PLACE PERMANENT PAVEMENT.

CONTRACTOR SHALL SAW CUT PAVEMENT EDGES TO STRAIGHT, NEAT, VERTICAL EDGES, EITHER PERPENDICULAR TO OR PARALLEL TO THE TRENCH. ANY PAVEMENT PAVEMENT ADJACENT TO THE TRENCH THAT IS DAMAGED, UNDERMINED, OR SECONDARILY CRACKED AS DETERMINED BY DISTRICT OR RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT, SHALL BE REMOVED CONTRACTOR SHALL EXCAVATE UNDERLYING 12" OF SUBGRADE AND COMPACT IT TO 95% RELATIVE COMPACTION MINIMUM

b THICKNESS

PERMANENT ASPHALT CONCRETE PAVEMENT SHALL BE PLACED HOT. SAID PERMANENT ASPHALT CONCRETE PAVEMENT SHALL BE A MINIMUM OF 6" THICKNESS MINIMUM (5" BASE PAVEMENT PLUS 1" PAVEMENT OVERLAY) PLACED OVER 6" OF CLASS 2 BASE COMPACTED TO 95% RELATIVE COMPACTION MINIMUM. SAID PAVEMENT SHALL BE PLACED IN MAXIMUM 2 1/2" LIFTS. ALL LIFTS EXCEPT THE FINAL LIFT MAY BE PLACED WITH A BLADE AND ROLLER. THE FINAL LIFT (OVERLAY) SHALL BE COMPACTED WITH A BARBER GREENE OR APPROVED EQUAL

c ASPHALT CONCRETE PAVEMENT SPECIFICATIONS

PAVEMENT REPLACEMENT SHALL INCLUDE TRENCH PAVEMENT (PIPELINE AND APPURTENANCES) AND ANY ADJACENT DAMAGED PAVEMENT

IF EXISTING PAVEMENT ADJACENT TO THE TRENCH IS SCARRED, BROKEN, DAMAGED, OR REMOVED AS DETERMINED BY THE DISTRICT OR COUNTY, CONTRACTOR SHALL REMOVE SAID PAVEMENT AND REPLACE SAME WITH ASPHALT CONCRETE PAVEMENT AS NOTED ABOVE COMPACTED TO 95% RELATIVE COMPACTION MINIMUM IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, ALL AT NO ADDITIONAL COST TO DISTRICT

AS A MINIMUM, CONTRACTOR SHALL PLACE THE ASPHALT CONCRETE PAVEMENT OVERLAY (1" MINIMUM THICKNESS) FROM GUTTER LIP TO THE NORTHERLY EDGE OF THE MOST NORTHERLY TRAVEL LANE DISTURBED

OVERLAY SHALL BE A CONSTANT WIDTH THROUGH AND BETWEEN INTERSECTIONS

FOR CONNECTION PIPE TRENCHES WHICH EXTEND BEYOND OVERLAY LIMITS AS STATED ABOVE, CONTRACTOR SHALL PLACE ASPHALT CONCRETE PAVEMENT OVERLAY OVER EACH TRENCH TO A MINIMUM OF 1' BEYOND EACH EDGE OF TRENCH

IF ANY PORTION OF OTHER TRAVEL LANES ARE SCARRED, BROKEN, OR DAMAGED AS DETERMINED BY DISTRICT OR COUNTY, CONTRACTOR SHALL PLACE ASPHALT CONCRETE OVERLAY (1" MINIMUM THICKNESS) OVER THE ENTIRE TRAVEL LANE WIDTH. LENGTH OF SAID OVERLAY WILL BE AS DETERMINED BY DISTRICT

EDGES SHALL BE STRAIGHT AND PARALLEL WITH TRENCH OR TRAVEL LANE AS DETERMINED BY DISTRICT OR COUNTY, AND EDGES SHALL BE FEATHERED TO MEET EXISTING PAVEMENT AFTER PLACEMENT. PAVEMENT SHALL NOT VARY MORE THAN 0.01' FROM A STRAIGHT EDGE PLACED ACROSS THE LIMITS OF OVERLAY

PAVEMENT AND ITS PLACEMENT SHALL COMPLY WITH THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, JANUARY 1988, AND COUNTY STANDARDS IN ACCORDANCE WITH NOTE 12 HEREON

2) FOG SEAL

CONTRACTOR SHALL PLACE A FOG SEAL ON OVERLAY IN ACCORDANCE WITH RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT PERMIT ENCROACHMENT PERMIT. ALL AT NO ADDITIONAL COST TO DISTRICT

3) TRAFFIC STRIPING AND MARKINGS

CONTRACTOR SHALL PROTECT IN PLACE ALL EXISTING TRAFFIC SIGNS

ALL TRAFFIC STRIPING AND PAVEMENT MARKINGS INCLUDING BUT NOT LIMITED TO (CENTERLINES, LANE LINES, STOP BARS, AND CROSSWALKS) DESTROYED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH TEMPORARY STRIPING OR MARKINGS BY METHOD APPROVED BY DISTRICT. SAID TEMPORARY STRIPING SHALL BE PLACED AT THE END OF EACH WORK DAY, PRIOR TO REOPENING STREET TO TRAFFIC

WITHIN THREE (3) DAYS OF PLACEMENT OF FINAL ASPHALT CONCRETE PAVEMENT, ALL TRAFFIC STRIPING AND PAVEMENT MARKINGS SHALL BE PERMANENTLY RESTORED OR REPLACED IN ACCORDANCE WITH COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT STANDARDS

4) TRAFFIC LOOPS

ANY TRAFFIC LOOPS, DETECTORS, OR CONDUITS DAMAGED OR DESTROYED SHALL BE REPLACED BY CONTRACTOR WITHIN SEVENTY TWO (72) HOURS OF SAID DAMAGE. TEMPORARY REPAIR OF TRAFFIC LOOPS AND DETECTORS IS ACCEPTABLE UNTIL PLACEMENT OF FINAL ASPHALT CONCRETE PAVEMENT. FINAL REPLACEMENT OF TRAFFIC LOOPS AND DETECTORS SHALL BE COMPLETED WITHIN SEVENTY TWO (72) HOURS OF PLACEMENT OF FINAL PAVEMENT. ALL WORK SHALL BE IN ACCORDANCE WITH COUNTY OF RIVERSIDE TRANSPORTATION SPECIFICATIONS, STANDARDS, AND PERMITS

13 BORING AND JACKING

THE 12" WATERLINE SHALL BE INSTALLED UNDER SUNNYSLOPE CHANNEL (STATIONS 31+10.00 TO 31+40.00) BY BORING AND JACKING A 30" DIAMETER CASING. THE 12" PIPELINE SHALL BE INSTALLED IN SAID CASING IN ACCORDANCE WITH THE PIPELINE SPECIFICATIONS AND SECTION DETAIL, SHEET 5

BORING AND RECEIVING PITS SHALL BE SHORED IN ACCORDANCE WITH OSHA STANDARDS A 6' HIGH CHAIN LINK FENCE SHALL BE ERECTED AROUND SAID PITS AND SAID PITS SHALL BE PROTECTED WITH TYPE K BARRIERS

PRIOR TO CONSTRUCTING PITS, CONTRACTOR SHALL EXCAVATE BOTH SIDES OF EACH CROSSING TO DETERMINE EXACT LOCATION OF FACILITIES TO BE CROSSED (HORIZONTAL AND VERTICAL). CONTRACTOR SHALL ADJUST CASING LOCATION TO ACCOMMODATE CROSSING BASED ON CONTRACTOR'S FIELD MEASUREMENTS

AFTER THE BORING AND JACKING OPERATION IS COMPLETED CONTRACTOR SHALL BACKFILL PITS AND COMPACT MATERIAL IN ACCORDANCE WITH NOTES 7 AND 8 HEREON

14. CONSTRUCTION SEQUENCE, DISINFECTION AND TESTING PROCEDURE

PIPELINE, FITTINGS, VALVES, AND APPURTENANCES SHALL BE TESTED AT 229 PSI MAXIMUM

A GENERAL

IF DISTRICT AWARDS BID SCHEDULES I AND II TO A SINGLE BIDDER, CONSTRUCTION SHALL BE PERFORMED AS REQUIRED. IF DISTRICT AWARDS BID SCHEDULES I AND II TO SEPARATE BIDDERS, THEN CONSTRUCTION SHALL BE PHASED AS FOLLOWS

SCHEDULE I STATIONS 10+05.00 TO 24+75.00
SCHEDULE II STATIONS 24+85.00 TO 36+75.00

B GENERAL TESTING AND DISINFECTION PROCEDURES

CONTRACTORS SHALL KEEP PIPELINE CLEAN DURING CONSTRUCTION. THE PIPELINES SHALL BE FREE OF SAND, GRAVEL, AND ROCK, AS WELL AS ALL OTHER FOREIGN MATERIAL

AFTER THE PIPELINES HAVE BEEN INSTALLED, CONTRACTORS SHALL DISINFECT AND TEST SAID PIPELINES AS FOLLOWS

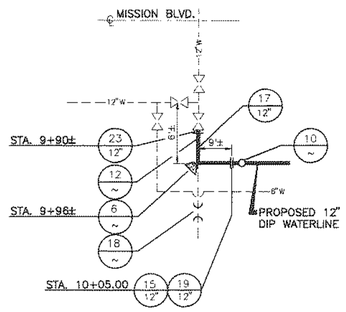
PIPELINE SHALL BE FILLED WITH WATER THROUGH FIRE HYDRANTS AND TOP OUTLETS FROM EXISTING FIRE HYDRANTS AS DETAILED IN NOTE 14C. PIPELINE SHALL BE FILLED BY FIRE HYDRANTS THROUGH CONSTRUCTION METERS (FURNISHED BY DISTRICT UPON PAYMENT OF DEPOSIT) AND BACKFLOW DEVICES (FURNISHED BY CONTRACTOR AND APPROVED BY DISTRICT). CONTRACTOR SHALL PROVIDE ALL NECESSARY PIPING AND APPURTENANCES TO CONVEY WATER TO SAID OUTLETS AND FIRE HYDRANTS. BECAUSE OF DEMAND ON THE EXISTING WATER SYSTEM, CONTRACTORS MAY BE REQUIRED TO FILL THE PIPELINES OVER A PERIOD OF SEVERAL DAYS, IN THE EVENINGS, OR BOTH

CONTRACTORS SHALL DISINFECT THE PIPELINES BY INTRODUCING CHLORINE THROUGH THE AFOREMENTIONED OUTLETS AND FIRE HYDRANTS. CONTRACTOR SHALL ALSO DISINFECT ALL PIPELINE APPURTENANCES INCLUDING WATER SERVICES WITH THE PIPELINES

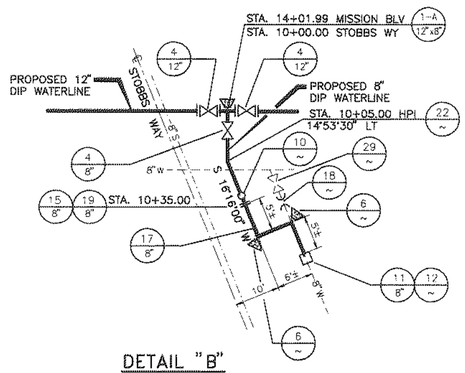
AFTER CHLORINATED WATER HAS BEEN MAINTAINED IN THE PIPELINES FOR A PERIOD OF TWENTY-FOUR (24) HOURS, CONTRACTOR SHALL PERFORM HYDROSTATIC AND LEAKAGE TESTS. CHLORINATED WATER SHALL BE USED FOR HYDROSTATIC AND LEAKAGE TESTS. THE TEST PUMPS SHALL BE CONNECTED TO THE FIRE HYDRANT AT STATIONS 24+70.00 (SCHEDULE I) AND 36+80.00 (SCHEDULE II). SHALL MAINTAIN A MINIMUM DISCHARGE PRESSURE AT 229 PSI FOR THE HYDROSTATIC TESTS AND 150 PSI FOR THE LEAKAGE TESTS

IF PIPELINES DO NOT PASS EITHER HYDROSTATIC OR LEAKAGE TESTS, CONTRACTOR SHALL, AT CONTRACTOR'S EXPENSE, PERFORM ALL WORK NECESSARY TO LOCATE AND REPAIR ALL LEAKS. CONTRACTOR SHALL ALSO CORRECT ALL OTHER DEFECTS DISCOVERED DURING FLUSH (BELOW). THEREAFTER, THE REQUIRED TESTS SHALL BE REPEATED UNTIL THE PIPELINES MEET SPECIFIED REQUIREMENTS. CONTRACTORS SHALL PAY FOR ANY WATER USED FOR REDISINFECTION OF THE PIPELINES

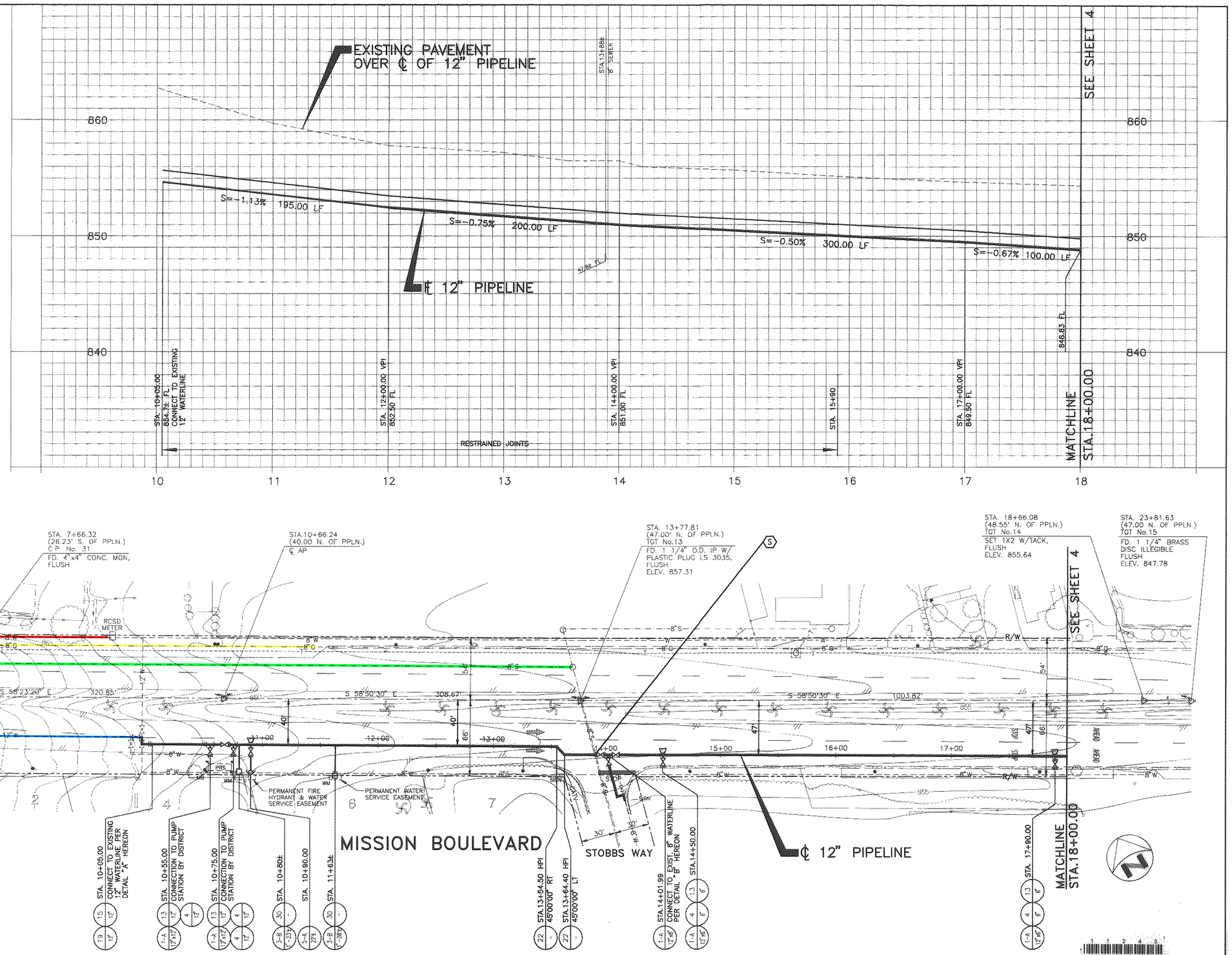
AFTER THE PIPELINES HAVE PASSED THE HYDROSTATIC AND LEAKAGE TESTS, CONTRACTORS SHALL TAKE CHLORINE RESIDUAL SAMPLES. SAID SAMPLES WILL BE TAKEN AT TOP OUTLETS AND WATER SERVICES AS DETAILED IN NOTE 14C. CONTRACTORS SHALL FURNISH CORP STOPS AND RISER PIPES ON TOP OUTLETS AND RISER PIPES ON THE WATER SERVICES TO SECURE WATER SAMPLES. THE CHLORINE RESIDUAL SHALL BE 25 PPM MINIMUM. ALL SAMPLING SHALL BE DONE BY THE CONTRACTOR IN PRESENCE

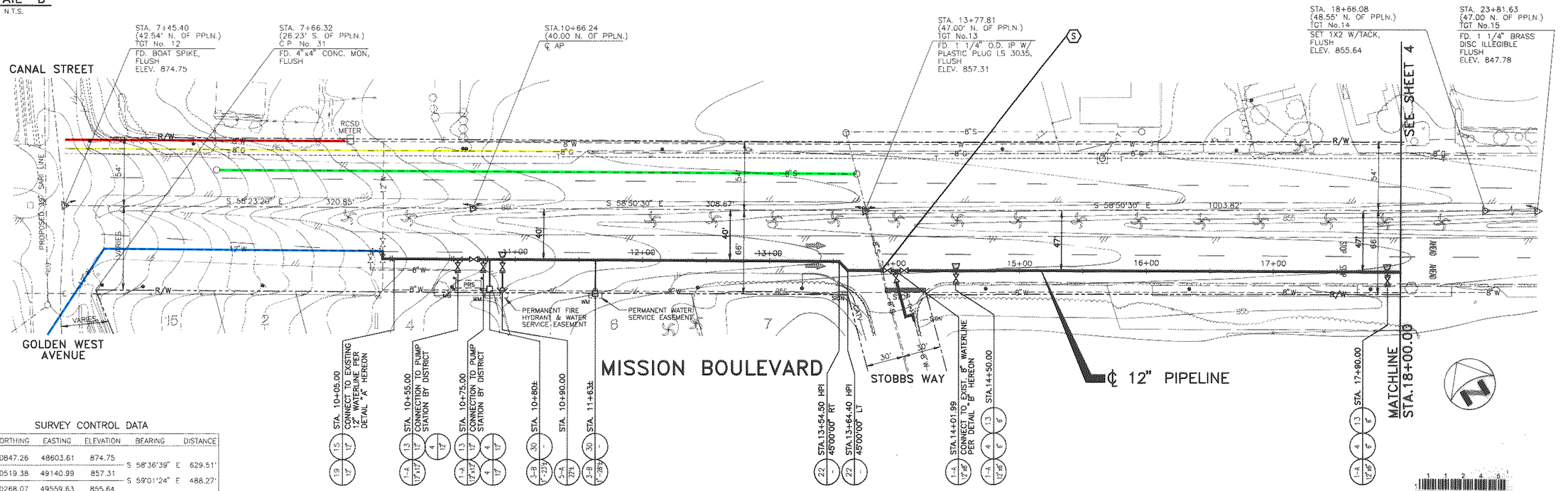


DETAIL "A"
N.T.S.



DETAIL "B"
N.T.S.





SURVEY CONTROL DATA

TGT#	NORTHING	EASTING	ELEVATION	BEARING	DISTANCE
12	10847.26	48603.61	874.75		
				S 58°36'39" E	629.51'
13	10519.38	49140.99	857.31		
				S 59°01'24" E	488.27'
14	10268.07	49559.63	855.64		
				S 58°40'11" E	515.55'
15	10000.00	50000.00	847.78		

RUBIDOUX COMMUNITY SERVICES DISTRICT

APPROVED BY _____ DISTRICT ENGINEER

DATE 3-14-95

SYM	REVISIONS	DATE	BY
1	RECORD DRAWING	8/29/96	GZM

REGISTERED PROFESSIONAL ENGINEER MICHAEL PATRICK JOHNSON No. 44226 Exp. 6-30-97 CIVIL STATE OF CALIFORNIA

KRIEGER & STEWART INCORPORATED
3602 University Ave. • Riverside, CA. 92501 • 909-684-6900

PREPARED BY Michael P. Johnson
REGISTERED ENGINEER No. 44226 DATE 3/14/95

SCALE HORIZ. 1" = 40' VERT. 1" = 4'	
FIELD BOOK 163/112,116,124 160/72-77,90,91,124 165/12,14	
DESIGN	MPT
DRAWN	AJR
CHECKED	MEM

RUBIDOUX COMMUNITY SERVICES DISTRICT

12" MISSION BOULEVARD PIPELINE, PHASE I

STA.10+05.00 TO STA.18+00.00

SHEET 3 OF 7 SHEETS

W-95-003
R.C.S.D. PLAN No.

587-19.32

DWG. NO.: 19-1754A FILE NO.: 587-19.17 UPDATE BY: GMB PROJ. ENG.: MPT PLOT DATE: 3/10/95 PLOT TIME: 9:20 AM PLOT SCALE: 1=40

RUBIDOUX COMMUNITY SERVICES DISTRICT

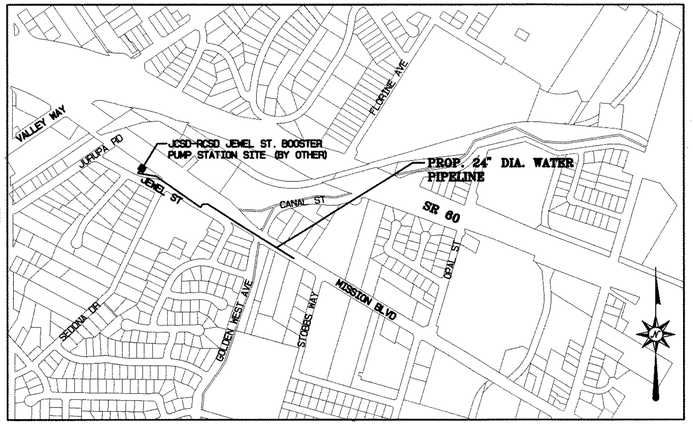
JURUPA VALLEY, CALIFORNIA

MISSION BLVD. 24-IN DIA. PIPELINE

(GOLDEN WEST AVE. TO SEDONA DR.)

GENERAL CONSTRUCTION NOTES FOR WATER PIPELINES

1. ALL WORK SHALL CONFORM TO THE DESIGN AND CONSTRUCTION STANDARDS OF THE RCSD FOR WATER AND SANITARY SEWER FACILITIES PER THIS CONTRACT.
2. WATER SYSTEM SHALL BE CONSTRUCTED BY THE CONTRACTOR FOR DEDICATION TO THE RUBIDOUX COMMUNITY SERVICES DISTRICT. CONSTRUCTION, MATERIALS, TESTING AND INSPECTION SHALL COMPLY WITH RUBIDOUX COMMUNITY SERVICES DISTRICT STANDARDS. THE INSTALLATION SHALL MEET OR EXCEED THE REQUIREMENTS OF ALL PUBLIC AGENCIES HAVING JURISDICTION AND THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS. FAILURE TO MEET THESE REQUIREMENTS WILL BE CAUSE FOR REJECTION.
3. PIPE, FITTINGS, VALVES AND APPURTENANCES SHALL BE OF THE PIPE PRESSURE CLASS (NOT W.W.P. CLASS) SHOWN ON THE PROFILE OF THESE PLANS. (NOTE: CAST IRON FITTINGS SHALL NOT BE ALLOWED.)
4. MINIMUM COVER OVER PIPE SHALL BE 42 INCHES. WHEN THE WATERLINE ENCOUNTERS AN OBSTRUCTION AND CROSSING OVER THE OBSTRUCTION WILL RESULT IN LESS THAN 42 INCHES OF COVER OVER THE WATERLINE, THE WATERLINE SHALL CROSS UNDER THE OBSTRUCTION (MIN. 12 INCHES CLEARANCE)
5. CONTRACTOR SHALL PROVIDE TRENCH PROTECTION AND CONDUCT ALL CONSTRUCTION IN ACCORDANCE WITH CAL OSHA REQUIREMENTS AND SHALL DETERMINE DEPTH AND LOCATION OF EXISTING UNDERGROUND FACILITIES PRIOR TO TRENCHING. OPEN TRENCH AT ANY ONE TIME SHALL BE LIMITED TO 500 FEET ALONG ROAD RIGHT OF WAY AND SHALL BE BACKFILLED AND COMPACTED AT THE CONCLUSION OF EACH DAY.
6. BACKFILL SHALL BE COMPACTED TO THE GREATER OF 90% RELATIVE DENSITY, EQUIVALENT TO THE SURROUNDING GROUND, OR TO THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION, WHICHEVER IS MORE STRINGENT. CONTACT UNDERGROUND SERVICE ALERT (800) 227-2600 PRIOR TO ANY EXCAVATION.
7. DEPTH AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHALL BE DETERMINED BY THE CONTRACTOR BY POTHOLING PRIOR TO TRENCHING. THE CONTRACTOR SHALL ALSO CONTACT UNDERGROUND SERVICE ALERT (800) 227-2600 PRIOR TO ANY EXCAVATION.
8. WHERE THE WATER MAIN CROSSES STORM DRAINS, OTHER PIPELINES, TELEPHONE AND ELECTRIC DUCTS, OR SIMILAR INSTALLATIONS, A MINIMUM OF 12 INCHES OF CLEARANCE SHALL BE PROVIDED BETWEEN THE MAIN AND OTHER INSTALLATIONS. SEPARATION OF THE WATER AND SEWER LINES MUST COMPLY WITH THE RIVERSIDE COUNTY HEALTH DEPARTMENT STANDARDS AS SHOWN ON RIVERSIDE COUNTY STANDARD PLAN 609 AND RCSD STANDARD DRAWING W1010 AND SHALL MEET OR EXCEED THE REQUIREMENTS OF THE STATE OF CALIFORNIA, DEPARTMENT OF HEALTH.
9. CONNECTIONS TO THE EXISTING RCSD WATERLINES SHALL BE IN ACCORDANCE WITH STANDARD RCSD PROCEDURES AND SHALL NO BE ACCOMPLISHED UNLESS AN RCSD INSPECTOR IS PRESENT. NO CONNECTIONS TO EXISTING RCSD WATERLINES WILL BE ALLOWED ON FRIDAYS.
10. ALL SERVICE LATERALS SHALL BE LOCATED AT RIGHT ANGLES TO THE MAIN UNLESS OTHERWISE INDICATED ON THE PLANS AND APPROVED BY THE RCSD.
11. PIPE SHALL BE HANDLED SO AS TO PROTECT THE PIPE AT ALL TIMES AND SHALL BE CAREFULLY BEDDED TO PROVIDE CONTINUOUS BEARING AND TO PREVENT UNEVEN SETTLEMENT. PIPE SHALL BE PROTECTED AGAINST FLOTATION AT ALL TIMES. OPEN ENDS SHALL BE SEALED AT ALL TIMES WHEN CONSTRUCTION IS NOT IN PROGRESS.
12. PIPE JOINTS SHALL NOT BE DEFLECTED AT ANY ANGLE GREATER THAN THE MAXIMUM ANGLE RECOMMENDED BY THE PIPE MANUFACTURER. ALL WELDED JOINTS SHALL BE MINIMUM DOUBLE PASS.
13. TAPS ON PIPELINE SHALL BE INSTALLED PER DISTRICT STANDARDS AND AS APPROVED IN THE FIELD BY THE RCSD INSPECTOR. CONNECTIONS TO EXISTING RCSD PIPELINES SHALL NOT BE ACCOMPLISHED UNLESS AN RCSD INSPECTOR IS PRESENT. RCSD MAY ELECT TO MAKE THE CONNECTION AT THE DEVELOPERS EXPENSE. CONTRACTOR TO FIELD VERIFY BOTH HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING WATERLINES PRIOR TO CONSTRUCTION.
14. TEST PRESSURE SHALL BE 150% OF PIPE CLASS RATING (I.E.: 150 = 225 PSI TEST), SHALL BE UNDER CONTINUOUS INSPECTION, AND SHALL BE IN ACCORDANCE WITH DISTRICT STANDARD PROCEDURES.
15. SURFACE IMPROVEMENTS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE RECONSTRUCTED BY THE CONTRACTOR TO THE REQUIREMENTS OF THE AGENCY HAVING JURISDICTION. NO ADDITIONAL COST WILL BE CONSIDERED.
16. FIRE HYDRANTS AND AIR VALVES TO BE LOCATED PER THE AGENCY HAVING JURISDICTION.
17. WATER METERS TO BE LOCATED PER PLAN; ANY RELOCATION SHALL BE APPROVED BY THE RCSD. A "W" SHALL BE IMPRINTED ON THE CURB FACE AT EACH SERVICE LATERAL (METER) LOCATION.
18. THE CONTRACTOR SHALL PROVIDE ONE SET OF PRINTS SHOWING ALL "AS-BUILT" CONDITIONS INCLUDING THE STATIONING OF SERVICE LATERAL CONNECTIONS.
19. ANY REVISION TO THESE DRAWINGS MUST BE APPROVED IN WRITING BY THE RUBIDOUX COMMUNITY SERVICES DISTRICT.
20. THE CONTRACTOR IS ADVISED THAT THE WORK ON THIS PROJECT MAY INVOLVE WORKING IN A CONFINED AIR SPACE. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH "CONFINED AIR SPACE" ARTICLE 108, TITLE 8 CALIFORNIA ADMINISTRATE CODE.
21. ALL PIPES LARGER THAN 12" IN DIAMETER SHALL BE INSPECTED BY VIDEO CAMERA PRIOR TO BACTERIOLOGICAL TESTING.
22. CONTRACTOR SHALL WARRANTY ALL WORK FOR 12 MONTHS AFTER THE DATE OF FINAL INSPECTION.
23. PRIOR TO CONSTRUCTION, CONTACTOR SHALL CONFIRM THE RECENTLY IMPROVED SITE CONDITIONS BY COUNTY MISSION BLVD. REVITALIZATION PROJECT, SUCH AS NEW CURB AND GUTTER LOCATION, NEWLY LANDSCAPED MEDIAN AREA, TREES, FIRE HYDRANTS, AIR VALVES, STORM DRAIN FACILITIES, TRAVEL LANES, NEWLY CONSTRUCTED DRIVEWAYS, AND NEW PAVEMENT MATERIALS AND CONDITION. THE PROJECT PLANS DOES NOT NECESSARILY REFLECT ALL THE STREET IMPROVEMENTS BY THE COUNTY PROJECT. IT IS CONTRACTOR'S OBLIGATION TO VISIT THE SITE, IDENTIFY ALL THE SURFACE FEATURES TO RESTORE, AND INCLUDE ALL THE ADDITIONAL EXPENSE IN THE BID PRICE. NO ADDITIONAL EXPENSE WILL BE PAID TO CONTRACTOR FOR ANY MISSED ITEMS ON THE PROJECT PLANS.



LOCATION MAP
NOT TO SCALE

LEGEND

- PROPOSED WATERLINE (SIZE NOTED)
- PROPOSED BUTTERFLY VALVE PER R.C.S.D STD. DWG. 1030 (LINE SIZE)
- PROPOSED AIR VALVE. (SIZE NOTED)
- PROPOSED BLOW-OFF (SIZE NOTED)
- PROPOSED FENCE
- THRUST BLOCK PER JCSD STANDARDS
- PROPOSED EDGE OF PAVEMENT
- 992 PROPOSED CONTOUR WITH ELEVATION
- T EXISTING UNDERGROUND TELEPHONE LINES
- 42"SS EXISTING SEWER MAIN (SIZE NOTED)
- SD EXISTING STORM DRAIN (SIZE NOTED)
- 2"G EXISTING GAS LINES (SIZE NOTED)
- OH EXISTING OVERHEAD LINES
- 8"W EXISTING WATERLINES (SIZE NOTED)
- EXISTING CURB/GUTTER
- EXISTING EDGE OF PAVEMENT
- EXISTING FENCE
- EXISTING RIGHT-OF-WAY LINE
- 992 EXISTING CONTOUR WITH ELEVATION

ABBREVIATIONS

APPROX.	= APPROXIMATELY	MH	= MANHOLE
BFV	= BUTTERFLY VALVE	MIN.	= MINIMUM
BOT	= BOTTOM	O.C.	= ON CENTER
C.L.	= CENTERLINE	PVC	= POLYVINYL CHLORIDE
℄	= CENTERLINE	PROP.	= PROPOSED
CL.	= CLASS	RCSD	= ROBIDOUX COMMUNITY SERVICES DISTRICT
CONC.	= CONCRETE	R/W	= RIGHT OF WAY
DIA.	= DIAMETER	SD	= STORM DRAIN
DIP	= DUCTILE IRON PIPE	S.S.	= STAINLESS STEEL
ELECT.	= ELECTRICAL	SCH.	= SCHEDULE
EG	= EXISTING GRADE	SPECS.	= SPECIFICATIONS
EL	= ELEVATION	STD.	= STANDARD
EX	= EXISTING	STL.	= STEEL
E.W.	= EACH WAY	TRANS.	= TRANSITION
FL	= FLOW LINE	TEMP.	= TEMPORARY
FL.	= FLANGED	W/	= WITH
FH	= FIRE HYDRANT		
FS	= FINISHED SURFACE		
H.P.	= HIGH POINT		
INV	= INVERT		
J.C.S.D.	= JURUPA COMMUNITY SERVICES DIST.		
L.F.	= LINEAR FEET		

SPECIAL CONSTRUCTION NOTES:

1. UNLESS OTHERWISE SPECIFIED OR INSTRUCTED BY THE ENGINEER, THE CONTRACTOR SHALL CONSTRUCT AND INSTALL ALL WATER PIPELINES PER THE RCSD STD. DWG. G-20.
2. CALL UNDERGROUND SERVICE ALERT (USA) 811 AT LEAST 48 HOURS PRIOR TO EXCAVATION AND HAVE ALL UNDERGROUND UTILITIES MARKED PRIOR TO CONSTRUCTION.
3. THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM AVAILABLE RECORDS AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL DETERMINE THE DEPTH AND LOCATION OF EXISTING UNDERGROUND FACILITIES PRIOR TO THE START OF CONSTRUCTION AND SHALL BE REQUIRED TO TAKE ANY PRECAUTIONARY MEASURES TO PROTECT ALL LINES SHOWN AND/OR ANY OTHER UNDERGROUND UTILITY LINES NOT OF RECORD OR NOT SHOWN ON THE PLANS.
4. NO WATER AND SEWER SERVICE LINES ARE SHOWN. CONTRACTOR SHALL COORDINATE WITH JCSD AND RCSD FOR FIELD LOCATION OF WATER AND SEWER SERVICES AND SHALL ASSUME THE RESPONSIBILITY FOR PROTECTING ALL EXISTING SERVICES AT NO ADDITIONAL COST TO THE DISTRICT.

SHEET INDEX

SHT. #	DESCRIPTION
1.	TITLE SHEET
2.	PIPELINE PLAN & PROFILE (STA 14+10.00 TO 21+00.00)
3.	PIPELINE PLAN & PROFILE (STA 21+00.00 TO 28+48.37)

AS-BUILT

BENCHMARK

RIVERSIDE COUNTY B.M. ML 8-11-64 RESET 1977" BRASS DISK NEAR THE W'LY END OF THE MEDIAN ISLAND ON MISSION BLVD AT THE INTERSECTION OF PACIFIC AVENUE. ELEV=834.096' DATUM 1929

BASIS OF BEARING

CENTERLINE OF MISSION BLVD TAKEN AS N58°36'09" PER MB 239/1-5

PLANS APPROVED BY:

RUBIDOUX COMMUNITY SERVICES DISTRICT

BY: Steven W. Appel — 2-27-13

STEVEN W. APPEL - ASSISTANT GENERAL MANAGER / DISTRICT ENGINEER — DATE

PAGES 1-3

DIGALERT — DIAL BEFORE YOU DIG TOLL FREE 811 — TWO WORKING DAYS BEFORE YOU DIG — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

MARK	DATE	BY		APPR.	DATE
1	2/26/13	SW	SEE SHEET 2	SW	2/26/13
		ENGINEER			ENGINEER

DESIGNED BY: S.W. DRAWN BY: S.W. CHECKED BY: D.M.A.

CONTRACTOR NOTE

CONTRACTOR SHALL VERIFY EXACT LOCATION AND ELEVATIONS OF ALL EXISTING FACILITIES PRIOR TO CONSTRUCTION

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

SEAL — REGISTERED PROFESSIONAL ENGINEER — DAVID M. KNIGHT — No. C73787 — CIVIL — STATE OF CALIFORNIA

PREPARED BY — DATE 2/26/13

R.C.E. NO. 73787

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (951) 686-1070 FAX (951) 788-1256

SCALE: NONE — BENCHMARK: SEE SHEET 1
PLAN: 120080_WA.PRO

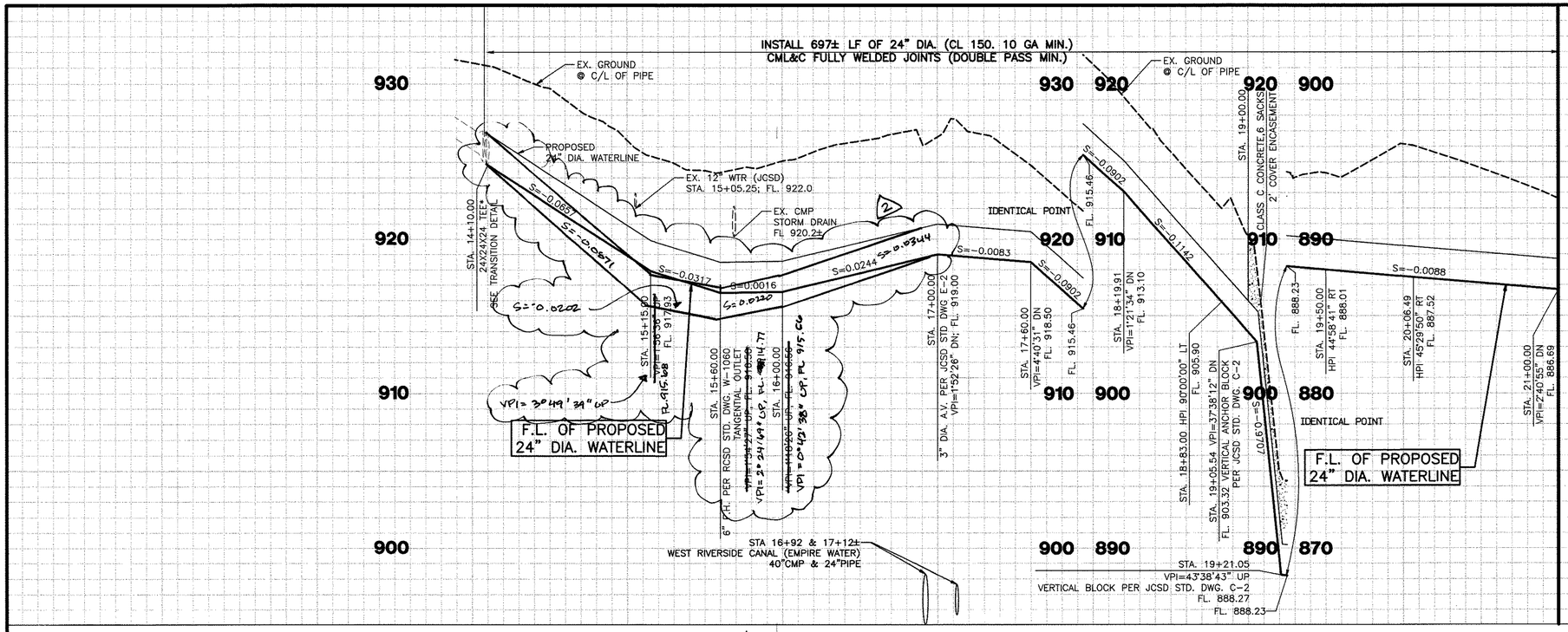
RUBIDOUX COMMUNITY SERVICES DISTRICT

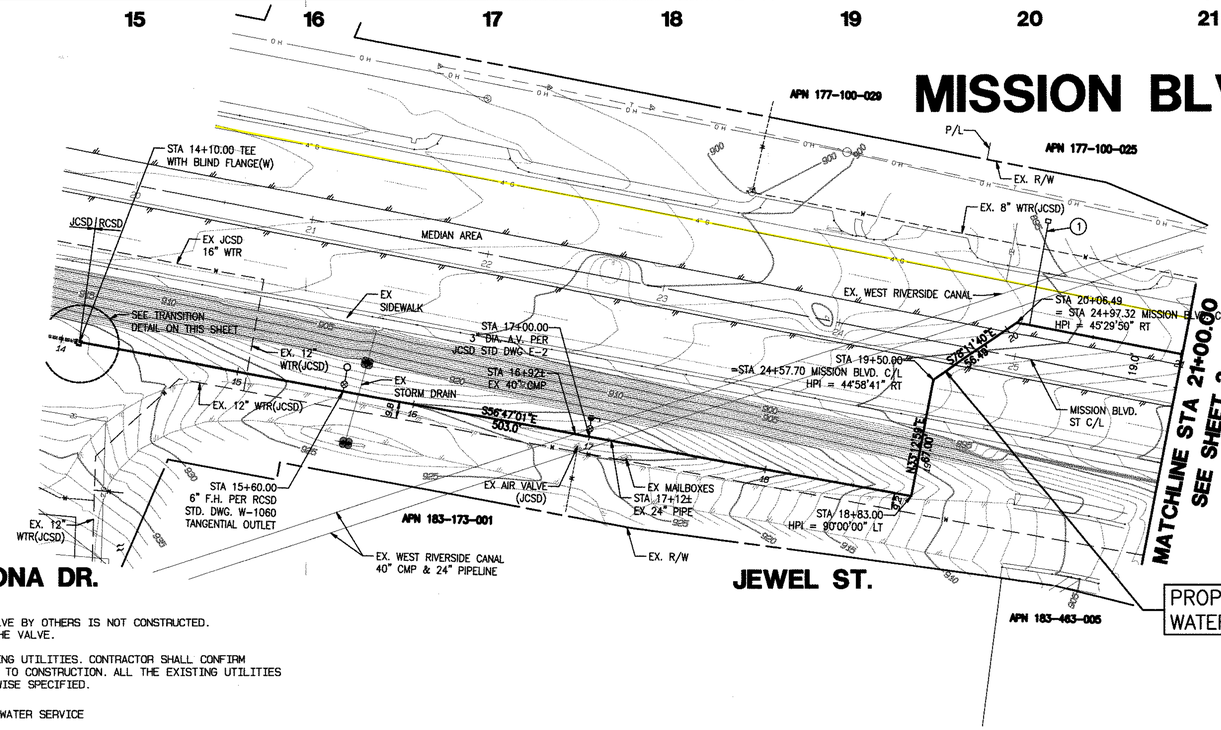
MISSION BLVD. 24-IN DIA. PIPELINE (GOLDEN WEST AVE. TO SEDONA DR.)

FOR: RCSD — W.O. 2012-0080

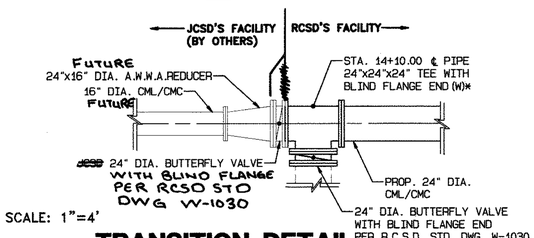
SHEET 1 OF 3 SHEETS — DWG. NO. 11829

* CONTRACTOR SHALL DETERMINE EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION

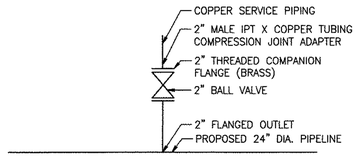




AS-BUILT



TRANSITION DETAIL



WATER SERVICE CONNECTION DETAIL

SCALES
HORIZ. 1"=40'
VERT. 1"=4'

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

*: INSTALL BLIND FLANGE END (W) IF THE VALVE BY OTHERS IS NOT CONSTRUCTED. IF THE VALVE IS CONSTRUCTED, CONNECT TO THE VALVE.

NO POTHOLING WAS PERFORMED FOR THE EXISTING UTILITIES. CONTRACTOR SHALL CONFIRM ALL THE EXISTING UTILITIES LOCATION PRIOR TO CONSTRUCTION. ALL THE EXISTING UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE SPECIFIED.

(1) CONSTRUCT 2" WATER SERVICE PIPELINE PER "WATER SERVICE CONNECTION DETAIL" ON THIS SHEET

DIGALERT — DIAL BEFORE YOU DIG TOLL FREE 811 — TWO WORKING DAYS BEFORE YOU DIG — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

NOTES:
CONTRACTOR SHALL VERIFY EXACT LOCATION AND ELEVATION OF ALL EXISTING FACILITIES PRIOR TO CONSTRUCTION

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

DATE	BY	MARK		APPR.	DATE
11/21/14	TMB	2	REVISED PROFILE (AS-BUILT)	11/21/14	TMB
9/15/14	SW	1	MODIFIED PROJECT LIMIT	9/15/14	SW
ENGINEER				COUNTY	

DESIGNED BY: S.W. DRAWN BY: S.W. CHECKED BY: D.M.A.

RECOMMENDED FOR APPROVAL

CHECKED: _____

DATE: _____

SEAL — REGISTERED PROFESSIONAL ENGINEER — SHANNON WEBB — No. C73787 — exp 6/30/15 — CIVIL — STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF: _____ DATE: 2/27/13

R.C.E. NO. C73787

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (951) 686-1070 FAX (951) 788-1256

SCALE: 1"=40' BENCHMARK:
PLAN: 120080_WA.PRO

RUBIDOUX COMMUNITY SERVICES DISTRICT

MISSION BLVD 24-IN DIA. PIPELINE (GOLDEN WEST AVE. TO SEDONA DR.) STA. 14+10.00 TO 21+00.00

FOR: RCSD W.O. 2012-0080

SHEET 2 OF 3 SHEETS
DWG. NO. 11830

2/27/2013 | G:\2012\12-0080\Drawings\120080_WA.dgn | 9:25AM

* CONTRACTOR SHALL DETERMINE EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION

INSTALL 695± LF OF 24" DIA. (CL 150. 10 GA. MIN.) CML&C FULLY WELDED JOINTS (DOUBLE PASS MIN.)

INSTALL 54 LF OF 12" DIA. (CL 150. 10 GA. MIN.) CML&C FULLY WELDED JOINTS (DOUBLE PASS MIN.)

SEE SHEET 2
MATCHLINE STA 21+00.00

STA. 21+00.00 VPI=2°40'55" DN FL. 886.69

EX. GROUND @ C/L OF PIPE

EX. TELE
EX. TRAFFIC LOOP TO BE REPLACED

EX.24"CMP STA. 24+14.56; FL. 872.8

EX. 2" GAS

EX. GROUND @ C/L OF PIPE

S=-0.0557

STA. 23+11.00 HPI 0°22'11" FL. 874.95

CLASS "C" LEAN CONCRETE FILL UP TO 1-FT ABOVE FROM CMP BOTTOM & MIN. 1-FT OUTSIDE OF CMP

STA. 23+95.00 6" F.H FL. 870.28

STA. 24+00.00 24" BFV FL. 870.00

STA. 24+04.56 VPI=45°00'00" DN FL. 869.74

EX. 6'(W)X3'(H) RCB STA. 24+28.00; BOT. 867.6

CLASS "C" LEAN CONCRETE FILL UP TO 1-FT ABOVE FROM RCB BOTTOM & MIN. 1-FT OUTSIDE OF RCB WALL*

STA 23+76.46 FL. 871.29

STA. 24+09.57 VPI=45°00'00" UP FL. 864.14

STA. 23+79.57 FL. 867.81

STA. 24+33.77

6" FIRE HYDRANT PER RCSD STD. DWG. 1060 VPI=45°00'00" UP; FL. 862.79

EX. 39" VCP SWR (SAWPA) IN 60-IN CONCRETE ENCASEMENT STA. 24+34.41; TOP 860.9

STA. 24+00.00 24" BFV; FL. 866.95

STA. 24+33.77 FL. 864.79

STA. 24+36.42 STA. 24+40.66 3" DIA. A.V. PER JCSD STD DWG E-2 VPI=45°22'56" DN; FL. 868.95

S=-0.0946

S=-0.0624

F.L. OF PROPOSED 24" DIA. WATERLINE

EX. 12" WTR (JCSD) STA. 26+01.28; FL. 862.6

STA. 25+90.00 VPI=2°00'05" UP FL. 859.64 FL. 859.49

ABANDONED 8" WTR (RCSD)

4"THICK CONC. CHANNEL

EX. 12" DIP WTR (RCSD) STA. 26+94.82; FL. 857.0

STA. 26+64.00 VPI=8°52'13" DN FL. 857.62

S=-0.0122

STA. 26+85.00; VPI=9°44'20"UP; FL. 853.75

STA. 27+14.34; HPI=1°28'00"LT; FL. 853.39

STA. 27+94.34 VPI=2°00'22" UP HPI=90°00'00"RT FL. 852.92

6" BLOWOFF; 24X24X12 TEE; FL. 852.42

S=0.0104

STA. 28+48.37 TIE TO EX. 12" WATERLINE 12X12X12 TEE; FL. 853.48

STA 26+23.41 FL. 862.72

880 / 870 / 860

21 22 23 24 25 26 27 28

SCALES
HORIZ. 1"=40'
VERT. 1"=4'

PROP. 24" DIA. CML/C WATER PIPELINE

CANAL ST.

APN 177-100-028 | APN 177-150-011 | APN 177-150-003 | APN 177-150-004

EX. R/W

EX.8" WTR (JCSD)

6" FIRE HYDRANT PER RCSD STD. DWG. 1060 TANGENTIAL OUTLET

EX. METER(RCSD)

STA 24+33.77

EX. 2" GAS

EX. METER(RCSD)

EX. JCSD-RCSD TIE POINT

REPLACE EX. TRAFFIC LOOP

EX.8" WTR (RCSD)

STA 27+94.34 HPI = 90°00'00" RT =STA 32+85.90 ST C/L INSTALL 24X24X12" TEE FOR FUTURE RCSD EXTENSION

EX. CURB & GUTTER

EX. 8" SWR.

ST C/L

STORM DRAIN CHANNEL

SEE SHEET 2
MATCHLINE STA 21+00.00

=STA 27+08.18 MISSION BLVD. C/L HPI = 0°49'38" LT

STA 23+11.00

EX. 24"CMP

STA 24+00.00 24" BFV PER R.C.S.D. STD. DWG. W-1030

EX. TELE

S56°18'30"E 304.5'

S57°08'08"E 403.35'

S58°36'08"E 80.0'

STA 27+14.34 HPI = 1°28'00" LT

EX.12" WTR (RCSD)

EX.39" SARI IN 60-IN DIA. CASING (SAWPA)

SURVEY MONUMENT(PROTECT IN PLACE) STA 29+31.64 MISSION BLVD C/L = STA 10+00.00 GOLDEN WEST AVE C/L

EX. 6'X3' RCB

EX.12" WTR (JCSD)

MEDIAN AREA

ABANDONED 8" WTR (RCSD)

EX. TREE PROTECT IN PLACE

SEE CONNECTION DETAIL ON THIS SHEET

EX. 12" DIP WATER LINE(RCSD)

INSTALL 12X12X12 TEE FL. 853.5

MEDIAN AREA

MISSION BLVD. ST C/L

STA 23+95.00

6" FIRE HYDRANT PER RCSD STD. DWG. W-1060 TANGENTIAL OUTLET

EX SIDEWALK

EX. 24"CMP

EX. R/W

EX. R/W

STA 24+40.66

3" DIA. A.V. PER JCSD STD DWG E-2

SURVEY MONUMENT PROTECT IN PLACE

APN 183-463-001

EX. CURB & GUTTER

NEWLY CONSTRUCTED DRIVEWAY

ABANDONED 8" WTR (RCSD)

EX. DRIVEWAY

EX. MISSION BOOSTER PUMP STATION (RCSD)

GOLDEN WEST AVE.

PROP. 12" DIA. CML/C WATER PIPELINE

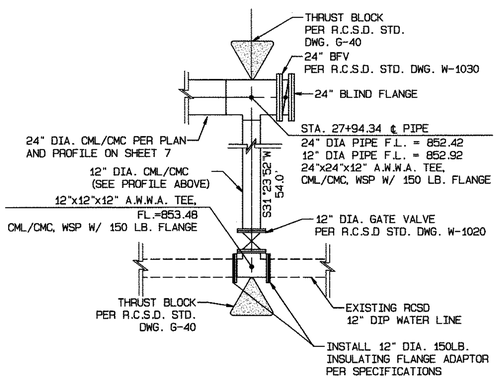
MISSION BLVD.

NO POTHOLING WAS PERFORMED FOR THE EXISTING UTILITIES. CONTRACTOR SHALL CONFIRM ALL THE EXISTING UTILITIES LOCATION PRIOR TO CONSTRUCTION. ALL THE EXISTING UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE SPECIFIED.

*CONTRACTOR SHALL PROVIDE SHORING DETAIL AND TEMPORARY SUPPORT SYSTEM TO PROTECT RCB IN PLANCE PREPARED AND STAMPED BY A REGISTERED ENGINEER.

① CONSTRUCT 2" WATER SERVICE PIPELINE PER "WATER SERVICE CONNECTION DETAIL" ON SHEET 2

AS-BUILT



CONNECTION DETAIL SCALE: 1"=4'

AS BUILT

GRAPHIC SCALE 1"=40'

40 20 0 40 80 120

DIGALERT — DIAL BEFORE YOU DIG TOLL FREE 811 — TWO WORKING DAYS BEFORE YOU DIG — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

NOTES:
CONTRACTOR SHALL VERIFY EXACT LOCATION AND ELEVATION OF ALL EXISTING FACILITIES PRIOR TO CONSTRUCTION

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

DATE	BY	MARK		APPR.	DATE
11/21/14	TMR	12	REVISE PROFILE (AS BUILT)	TMR	11/21/14
ENGINEER				COUNTY	

DESIGNED BY: S.W. DRAWN BY: S.W. CHECKED BY: D.M.A.

RECOMMENDED FOR APPROVAL

CHECKED:

DATE:

SEAL — REGISTERED PROFESSIONAL ENGINEER — RICHMON WONG — No. C73787 — CIVIL — STATE OF CALIFORNIA — exp 6/30/15

PREPARED UNDER THE SUPERVISION OF: DATE: 2/27/13

R.C.E. NO. C73787

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (951) 686-1070 FAX (951) 788-1256

SCALE: 1"=40' BENCHMARK:

PLAN: 120080_WA.PRO

RUBIDOUX COMMUNITY SERVICES DISTRICT

MISSION BLVD 24-IN DIA. PIPELINE (GOLDEN WEST AVE. TO SEDONA DR.) STA. 21+00.00 TO 28+48.37

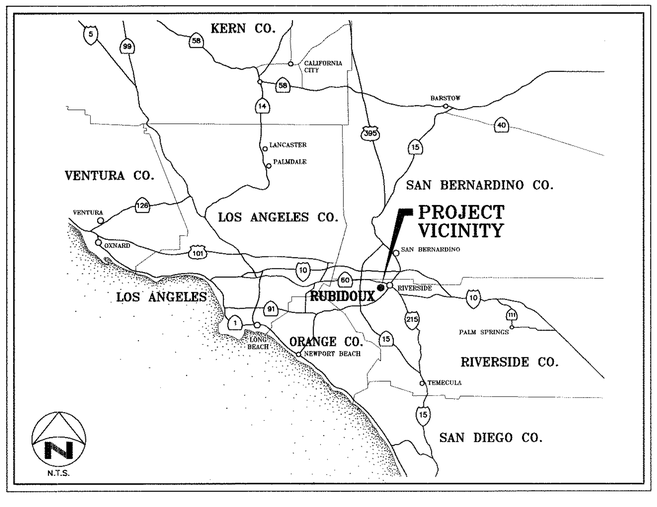
FOR. RCSD W.O. 2012-0080

SHEET 3 OF 3 SHEETS DWG. NO. 1183

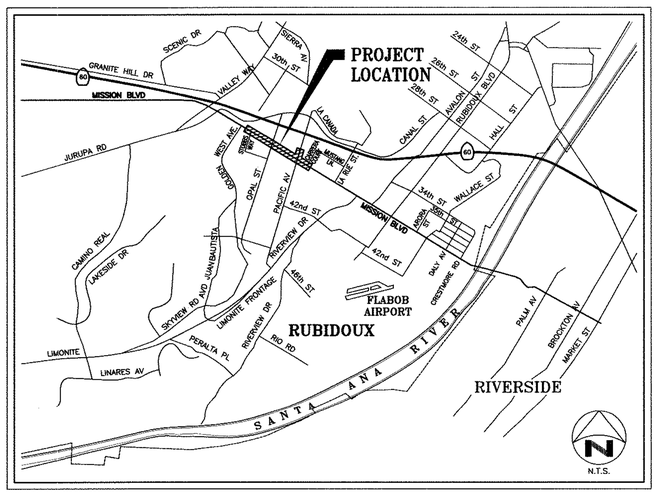
2/27/2013 | G:\2012\12-0080\Drawings\120080_WA.pro | 9:25AM

RUBIDOUX COMMUNITY SERVICES DISTRICT
RIVERSIDE, CALIFORNIA
CONSTRUCTION DRAWINGS
FOR
24" MISSION BOULEVARD PIPELINE
(GOLDEN WEST AVENUE TO CARRERA COURT)

VICINITY MAP



LOCATION MAP



LEGEND

SYMBOL	DESCRIPTION
	EXISTING CONCRETE
PP	EXISTING POWER POLE
	EXISTING EDGE OF PAVEMENT
	EXISTING VALVE
	EXISTING AIR VALVE
	EXISTING BLOWOFF
	EXISTING FIRE HYDRANT
—E—	EXISTING ELECTRICAL
—G—	EXISTING GAS
—S—	EXISTING SEWER
—SFM—	EXISTING SEWER FORCE MAIN
—T—	EXISTING TELEPHONE
—W—	EXISTING WATERLINE
—IRR—	EXISTING IRRIGATION LINE
R/W	EXISTING RIGHT-OF-WAY
	ROAD CENTERLINE
	PROPOSED WATER LINE
	PROPOSED GATE VALVE
	PROPOSED BUTTERFLY VALVE
	PROPOSED REDUCER
	PROPOSED AIR VALVE
	PROPOSED BLOWOFF
	PROPOSED FIRE HYDRANT
	PROPOSED WATER SERVICE
	UTILITY INTERFERENCE FLAG. APPROXIMATE LOCATION OF INTERFERENCE WITH TYPE OF UTILITY INDICATED BY ABBREVIATION: CATV– CABLE TV, E– ELECTRIC, G– GAS, S– SEWER, SD– STORM DRAIN, T– TELEPHONE, TR– TRAFFIC, AND W– WATER.

SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE – 24" PIPELINE STA.10+03± TO STA.15+00.00
3	PLAN AND PROFILE – 24" PIPELINE STA.15+00.00 TO STA.25+00.00
4	PLAN AND PROFILE – 24" PIPELINE STA.25+00.00 TO STA.35+00.00
5	PLAN AND PROFILE – 24" PIPELINE STA.35+00.00 TO STA.41+80±
6	PLAN AND PROFILE – 24" PIPELINE (PACIFIC AVENUE) STA.100+00.00 TO 103+00.00
7	CONNECTION DETAILS
8	CONNECTION DETAILS
9	TRAFFIC CONTROL – MISSION BOULEVARD
10	TRAFFIC CONTROL – MISSION BOULEVARD AND OPAL STREET
11	TRAFFIC CONTROL – MISSION BOULEVARD AND OPAL STREET
12	TRAFFIC CONTROL – MISSION BOULEVARD AND PACIFIC AVENUE
13	TRAFFIC CONTROL – MISSION BOULEVARD AND PACIFIC AVENUE PACIFIC AVENUE AND MOREY WAY
14	TRAFFIC CONTROL – MISSION BOULEVARD

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CENTERLINE OF MISSION BOULEVARD AS SHOWN ON COUNTY OF RIVERSIDE REDEVELOPMENT AGENCY CONSTRUCTION DRAWINGS FOR MISSION BOULEVARD REVITALIZATION PROJECT, PHASE 5–MS 4168.

ELEVATION DATUM:

NGVD 1929

THE ELEVATION DATUM FOR THIS SURVEY IS BASED ON NGVD 1929 PER B.M. LS 8846 PER RIVERSIDE COUNTY CORNER RECORD 11–0717, ELEVATION = 835.341. THE NETWORK WAS MEASURED BY DIFFERENTIAL LEVELS AND GPS OBSERVATIONS.

BENCHMARK:

BM LS 8846 ELEVATION 835.341' NGVD 1929

2" DIAMETER BRASS DISK FLUSH IN THE TOP OF THE EASTERLY MEDIAN CURB AT THE INTERSECTION OF MISSION BOULEVARD AND PACIFIC AVENUE ON THE NORTHERLY SIDE, 5' EASTERLY OF THE WESTERLY END OF THE MEDIAN. THIS REPLACES BENCH MARK M.L. 8–1–64 DESTROYED DURING CONSTRUCTION PER CORNER RECORD 11–0717.

AS-BUILT

RUBIDOUX COMMUNITY SERVICES DISTRICT

APPROVED BY Stan W. Abel
ASSISTANT GENERAL MANAGER/ DISTRICT ENGINEER

DATE 2-8-13

SYM	REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER MARK E. MESSERSMITH No. 22020 Exp. 9-30-13 CIVIL STATE OF CALIFORNIA

KRIEGER & STEWART INCORPORATED
3602 University Ave. • Riverside, CA. 92501 • 951–684–6900

APPROVED BY: Mark E Messersmith
REGISTERED ENGINEER No. 22020 DATE 02/07/13

SCALE	N.T.S.
FLD. BK.	192/84–94
DESIGN	SS
DRAWN	JGS
CHECKED	MEM

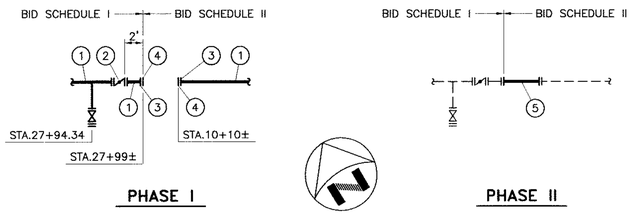
RUBIDOUX COMMUNITY SERVICES DISTRICT
24" MISSION BOULEVARD PIPELINE
(GOLDEN WEST AVENUE TO CARRERA COURT)
TITLE SHEET

SHEET 1 OF 14 SHEETS
R.C.S.D. PLAN No. 11842

587–19.55

DWG. NO.: 587–19.55s1 FILE NO.: 587–19.55 UPDATE BY: TMW PROJ. ENG.: MEM PLOT DATE: 02/07/13 PLOT TIME: 11:32AM PLOT SCALE: 1=1

NOTE:
EXISTING UTILITIES NOT SHOWN.



PHASE I

PHASE II

NOTES:

1. PHASE I WORK:

   BID SCHEDULE I:

   CONTRACTOR SHALL END CONSTRUCTION OF BID SCHEDULE I AT STATION 27+99± WITH A FLANGE AND BLIND FLANGE. CONTRACTOR SHALL INSTALL 24" PIPE SO CENTERLINE OF 24" PIPE MATCHES CENTERLINE OF THE BID SCHEDULE II 24" PIPE.

   BID SCHEDULE II:

   CONTRACTOR SHALL START CONSTRUCTION OF BID SCHEDULE II AT STA.10+10± WITH A FLANGE AND BLIND FLANGE.

2. PHASE II WORK:

   BID SCHEDULE II:

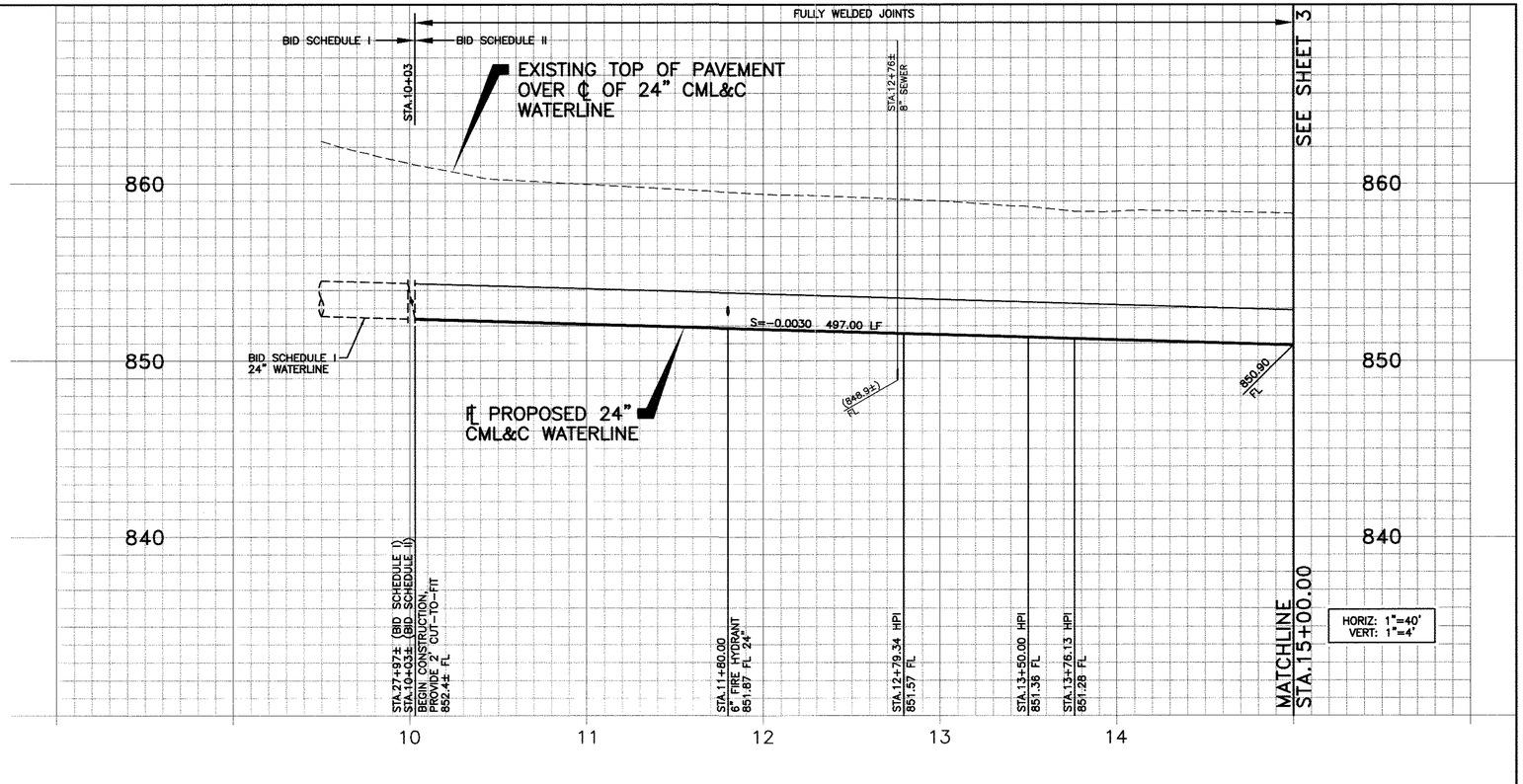
   AFTER 24" PIPELINE AND APPURTENANCES HAVE BEEN TESTED AND DISINFECTED BY CONTRACTORS AND ACCEPTED BY THE DISTRICT, CONTRACTOR SHALL REMOVE BLIND FLANGES AND INSTALL 24" CML&C CONNECTION PIPING AND FITTINGS. THE CONNECTION PIPING AND FITTINGS SHALL BE SWABBED WITH A CHLORINE SOLUTION PRIOR TO INSTALLATION.

NOTES:

1. 24" CML&C PIPELINE
2. 24" BUTTERFLY VALVE
3. 24" FLANGE
4. 24" BLIND FLANGE WITH 8" OUTLET AND 8" GATE VALVE
5. 24" CML&C FLANGED SPOOL (SHIP FLANGE LOOSE) PROVIDE 5' CUT-TO-FIT

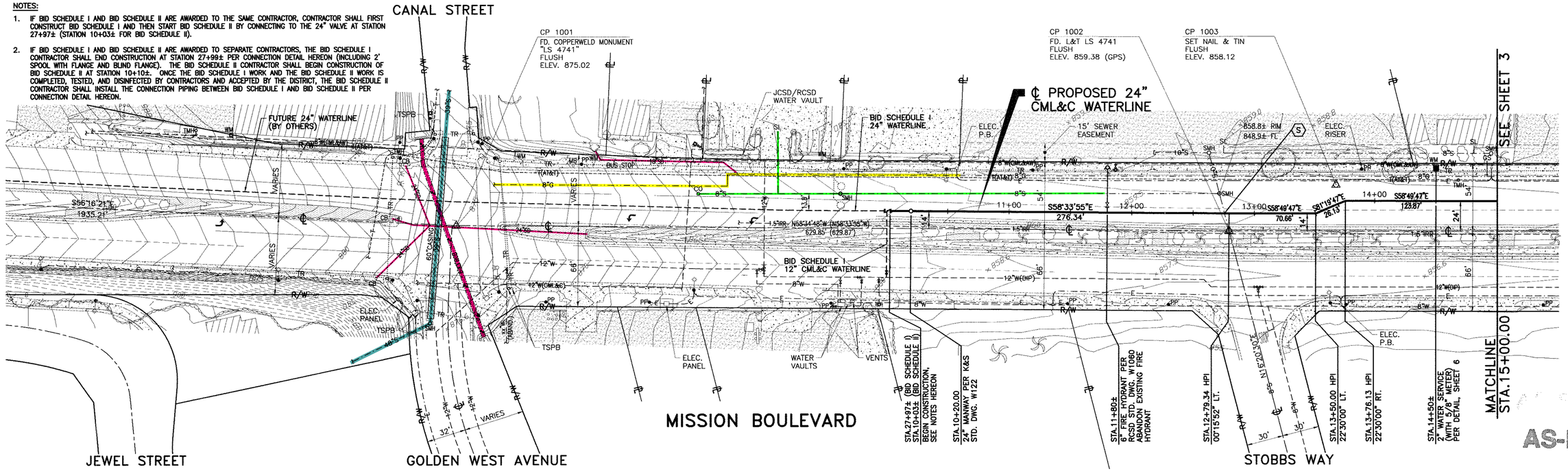
CONNECTION DETAIL
(ONLY APPLIES IF BID SCHEDULE I AND BID SCHEDULE II ARE AWARDED TO SEPARATE CONTRACTORS)

N.T.S.



NOTES:

1. IF BID SCHEDULE I AND BID SCHEDULE II ARE AWARDED TO THE SAME CONTRACTOR, CONTRACTOR SHALL FIRST CONSTRUCT BID SCHEDULE I AND THEN START BID SCHEDULE II BY CONNECTING TO THE 24" VALVE AT STATION 27+97± (STATION 10+03± FOR BID SCHEDULE II).
2. IF BID SCHEDULE I AND BID SCHEDULE II ARE AWARDED TO SEPARATE CONTRACTORS, THE BID SCHEDULE I CONTRACTOR SHALL END CONSTRUCTION AT STATION 27+99± PER CONNECTION DETAIL HEREON (INCLUDING 2' SPOOL WITH FLANGE AND BLIND FLANGE). THE BID SCHEDULE II CONTRACTOR SHALL BEGIN CONSTRUCTION OF BID SCHEDULE II AT STATION 10+10±. ONCE THE BID SCHEDULE I WORK AND THE BID SCHEDULE II WORK IS COMPLETED, TESTED, AND DISINFECTED BY CONTRACTORS AND ACCEPTED BY THE DISTRICT, THE BID SCHEDULE II CONTRACTOR SHALL INSTALL THE CONNECTION PIPING BETWEEN BID SCHEDULE I AND BID SCHEDULE II PER CONNECTION DETAIL HEREON.



48 hours BEFORE excavation
1-800-227-2600
CALL Underground Service Alert

RUBIDOUX COMMUNITY SERVICES DISTRICT

APPROVED BY Stan W. Reed
ASSISTANT GENERAL MANAGER/ DISTRICT ENGINEER

DATE 2-8-13

SYM	REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER SINISA SARIC No. 65367 Exp. 9-30-13 CIVIL STATE OF CALIFORNIA

KRIEGER & STEWART INCORPORATED
3602 University Ave. · Riverside, CA. 92501 · 951-684-6900

APPROVED BY
REGISTERED ENGINEER No. 65367 DATE 02/07/13

SCALE	1"=40'(H), 1"=4'(V)
FLD. BK.	192/84-94
DESIGN	SS
DRAWN	JGS
CHECKED	MEM

RUBIDOUX COMMUNITY SERVICES DISTRICT

24" MISSION BOULEVARD PIPELINE
(GOLDEN WEST AVENUE TO CARRERA COURT)

PLAN AND PROFILE
24" PIPELINE
STA.10+03± TO STA.15+00.00

SHEET 2 OF 14 SHEETS

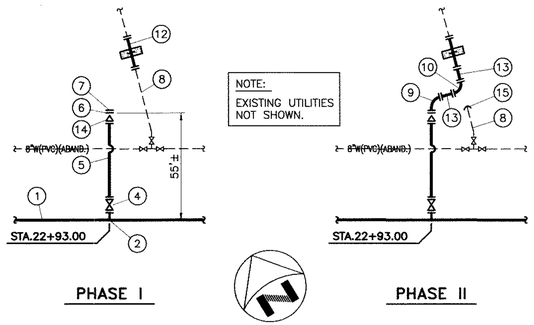
11843
R.C.S.D. PLAN No.

587-19.55

DWG. NO.:_587-19.55s2_ FILE NO.:_587-19.55_ UPDATE BY:_TMW_ PROJ. ENG.:_MEM_ PLOT DATE:_02/07/13_ PLOT TIME:_5:01PM_ PLOT SCALE:_1=1

NOTES:

1. 24" CML&C PIPELINE
2. 8" FLANGED SIDE OUTLET
3. NOT USED
4. 8" FLANGED GATE VALVE
5. 8" CML&C PIPE AND FITTINGS WITH FULLY WELDED JOINTS
6. 6" FLANGE
7. 6" BLIND FLANGE WITH 2" OUTLET AND 2" GATE VALVE
8. EXISTING 6" STEEL PIPELINE
9. 6" FLANGED CML&C ELBOW (ANGLE DETERMINED BY CONTRACTOR AND FLANGES SHIPPED LOOSE)
10. 6" 90° FLANGED CML&C ELBOW
11. NOT USED.
12. SHEAR SPOOL, SHEAR RING, AND THRUST BLOCK PER STD. DWGS. G50 AND W1230
13. 6" CML&C FLANGED SPOOL (SHIP FLANGES LOOSE)
14. 8"x6" CML&C REDUCER
15. CONCRETE PLUG (12" MINIMUM LENGTH)



PHASE I PHASE II

NOTES:

1. PRIOR TO ORDERING MATERIALS, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING 6" WATERLINE IN OPAL STREET AT THE CONNECTION POINT TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL), OUTSIDE DIAMETER, AND TYPE OF PIPE. IN ADDITION, CONTRACTOR SHALL EXPOSE EACH UTILITY THAT CROSSES THE PROPOSED PIPING AND DETERMINE THE EXACT LOCATION OF EACH UTILITY.
2. PHASE I WORK:

   CONTRACTOR SHALL INSTALL APPROXIMATELY 55 LF OF 8" CML&C PIPE AND FITTINGS AND SHALL END SAID PIPE WITH A 6" FLANGE AND 6" BLIND FLANGE. CONTRACTOR SHALL INSTALL 8" PIPE SO CENTERLINE OF 8" PIPE MATCHES CENTERLINE OF EXISTING 6" PIPELINE.

   IN ADDITION, CONTRACTOR SHALL REMOVE SECTION OF EXISTING PIPE AS REQUIRED AND FURNISH AND INSTALL A 10 FOOT SECTION OF CML&C WELDED STEEL PIPE WITH A SHEAR RING AND THRUST BLOCK AND ALL REQUIRED FITTINGS AND RECONNECT TO EXISTING PIPELINE. THE PIPE AND FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION PRIOR TO INSTALLATION.

   THE INSTALLATION OF THE PIPE, SHEAR RING, AND THRUST BLOCK AND ALL FITTINGS SHALL BE COMPLETED WITHIN AN EIGHT HOUR PERIOD AND SHALL BE COMPLETED AT LEAST 7 DAYS PRIOR TO THE CONNECTION WORK.
3. PHASE II WORK:

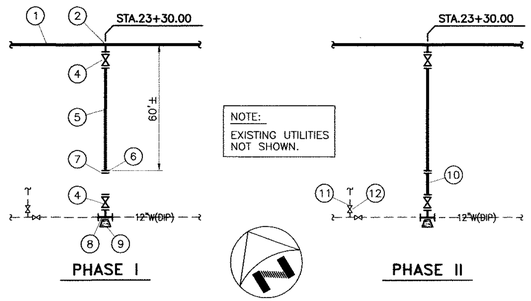
   AFTER 24" PIPELINE AND APPURTENANCES HAVE BEEN TESTED AND DISINFECTED BY CONTRACTOR AND ACCEPTED BY THE DISTRICT, CONTRACTOR SHALL REMOVE 6" BLIND FLANGE AND INSTALL CONNECTION PIPING AND FITTINGS. THE CONNECTION PIPING AND FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION PRIOR TO INSTALLATION. THEREAFTER, CONTRACTOR SHALL INSTALL THE CONCRETE PLUG IN THE END OF THE ABANDONED PIPELINE.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS AS REQUIRED FOR FIELD INSTALLATION NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND CONNECT TO EXISTING FACILITY, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS.
5. CONTRACTOR SHALL FURNISH ALL SURVEYING AND MEASUREMENTS REQUIRED TO DETERMINE EXACT LOCATION AND DIRECTION OF EXISTING 6" PIPELINE, REQUIRED ANGLE OF 6" FLANGED ELBOW, AND LOCATION OF ALL EXISTING UTILITIES.

CONNECTION TO 6" WATERLINE (STA.22+93.00)

N.T.S.

NOTES:

1. 24" CML&C PIPELINE
2. 12" FLANGED SIDE OUTLET
3. NOT USED
4. 12" FLANGED GATE VALVE
5. 12" CML&C PIPE AND FITTINGS WITH FULLY WELDED JOINTS
6. 12" FLANGE
7. 12" BLIND FLANGE WITH 2" OUTLET AND 2" GATE VALVE
8. 12"x12" TAPPING SLEEVE
9. THRUST BLOCK PER RCSD STD. DWG. G40 (USE DIMENSIONS FOR CL200 PIPE)
10. 12" CML&C FLANGED SPOOL (SHIP FLANGES LOOSE)
11. CUT, REMOVE, AND DISPOSE OF A SECTION OF EXISTING PIPELINE. INSTALL CONCRETE PLUG (12" MINIMUM LENGTH) IN END OF PIPELINE
12. ABANDON EXISTING VALVE IN PLACE BY INSTALLING BLIND FLANGE ON END OF VALVE AND REMOVING EXISTING VALVE CAN A MINIMUM OF 2 FEET BELOW EXISTING PAVEMENT AND FILLING VALVE CAN WITH A 2 SACK CEMENT SAND SLURRY



PHASE I PHASE II

NOTES:

1. PRIOR TO ORDERING MATERIALS, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING 12" PIPELINE AT THE CONNECTION POINT TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL), OUTSIDE DIAMETER, AND TYPE OF PIPE. IN ADDITION, CONTRACTOR SHALL EXPOSE EACH UTILITY THAT CROSSES THE PROPOSED PIPING AND DETERMINE THE EXACT LOCATION OF EACH UTILITY.
2. PHASE I WORK:

   CONTRACTOR SHALL INSTALL THRUST BLOCK, 12"x12" TAPPING SLEEVE, AND HOT TAP EXISTING 12" DIP PIPELINE INCLUDING A 12" FLANGED GATE VALVE.

   CONTRACTOR SHALL INSTALL APPROXIMATELY 60 LF OF 12" CML&C PIPE AND FITTINGS AND SHALL END SAID PIPE WITH A 12" FLANGE AND 12" BLIND FLANGE. CONTRACTOR SHALL INSTALL 12" PIPE SO CENTERLINE OF 12" PIPE MATCHES CENTERLINE OF 12" GATE VALVE.
3. PHASE II WORK:

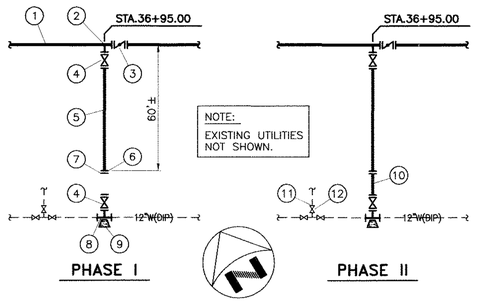
   AFTER 24" PIPELINE AND APPURTENANCES HAVE BEEN TESTED AND DISINFECTED BY CONTRACTOR AND ACCEPTED BY THE DISTRICT, CONTRACTOR SHALL REMOVE 12" BLIND FLANGE AND INSTALL CONNECTION PIPING AND FITTINGS. THE CONNECTION PIPING AND FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION PRIOR TO INSTALLATION. CONTRACTOR SHALL ALSO ABANDON EXISTING VALVE IN PLACE.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS AS REQUIRED FOR FIELD INSTALLATION NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND CONNECT TO EXISTING FACILITY, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS.
5. CONTRACTOR SHALL FURNISH ALL SURVEYING AND MEASUREMENTS REQUIRED TO DETERMINE EXACT LOCATION OF EXISTING 12" PIPELINE AND LOCATION OF ALL EXISTING UTILITIES.

CONNECTION TO 12" WATERLINE (STA.23+30.00)

N.T.S.

NOTES:

1. 24" CML&C PIPELINE
2. 12" FLANGED SIDE OUTLET
3. 24" FLANGED BUTTERFLY VALVE
4. 12" FLANGED GATE VALVE
5. 12" CML&C PIPE AND FITTINGS WITH FULLY WELDED JOINTS
6. 12" FLANGE
7. 12" BLIND FLANGE WITH 2" OUTLET AND 2" GATE VALVE
8. 12"x12" TAPPING SLEEVE
9. THRUST BLOCK PER RCSD STD. DWG. G40 (USE DIMENSIONS FOR CL200 PIPE)
10. 12" CML&C FLANGED SPOOL (SHIP FLANGES LOOSE)
11. CUT, REMOVE, AND DISPOSE OF A SECTION OF EXISTING PIPELINE. INSTALL CONCRETE PLUG (12" MINIMUM LENGTH) IN END OF PIPELINE
12. ABANDON EXISTING VALVE IN PLACE BY INSTALLING BLIND FLANGE ON END OF VALVE AND REMOVING EXISTING VALVE CAN A MINIMUM OF 2 FEET BELOW EXISTING PAVEMENT AND FILLING VALVE CAN WITH A 2 SACK CEMENT SAND SLURRY



PHASE I PHASE II

NOTES:

1. PRIOR TO ORDERING MATERIALS, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING 12" PIPELINE AT THE CONNECTION POINT TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL), OUTSIDE DIAMETER, AND TYPE OF PIPE. IN ADDITION, CONTRACTOR SHALL EXPOSE EACH UTILITY THAT CROSSES THE PROPOSED PIPING AND DETERMINE THE EXACT LOCATION OF EACH UTILITY.
2. PHASE I WORK:

   CONTRACTOR SHALL INSTALL THRUST BLOCK, 12"x12" TAPPING SLEEVE, AND HOT TAP EXISTING 12" DIP PIPELINE INCLUDING A 12" FLANGED GATE VALVE.

   CONTRACTOR SHALL INSTALL APPROXIMATELY 60 LF OF 12" CML&C PIPE AND FITTINGS AND SHALL END SAID PIPE WITH A 12" FLANGE AND 12" BLIND FLANGE. CONTRACTOR SHALL INSTALL 12" PIPE SO CENTERLINE OF 12" PIPE MATCHES CENTERLINE OF 12" GATE VALVE.
3. PHASE II WORK:

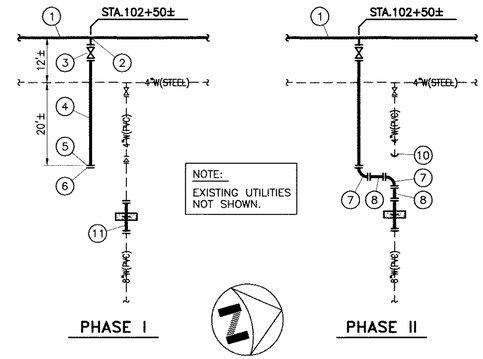
   AFTER 24" PIPELINE AND APPURTENANCES HAVE BEEN TESTED AND DISINFECTED BY CONTRACTOR AND ACCEPTED BY THE DISTRICT, CONTRACTOR SHALL REMOVE 12" BLIND FLANGE AND INSTALL CONNECTION PIPING AND FITTINGS. THE CONNECTION PIPING AND FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION PRIOR TO INSTALLATION. CONTRACTOR SHALL ALSO ABANDON EXISTING VALVE IN PLACE.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS AS REQUIRED FOR FIELD INSTALLATION NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND CONNECT TO EXISTING FACILITY, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS.
5. CONTRACTOR SHALL FURNISH ALL SURVEYING AND MEASUREMENTS REQUIRED TO DETERMINE EXACT LOCATION OF EXISTING 12" PIPELINE AND LOCATION OF ALL EXISTING UTILITIES.

CONNECTION TO 12" WATERLINE (STA.36+95.00)

N.T.S.

NOTES:

1. 24" CML&C PIPELINE
2. 8" FLANGED SIDE OUTLET
3. 8" FLANGED GATE VALVE
4. 8" CML&C PIPE AND FITTINGS WITH FULLY WELDED JOINTS
5. 8" FLANGE
6. 8" BLIND FLANGE WITH 2" OUTLET AND 2" GATE VALVE
7. 8" 90° FLANGED CML&C ELBOW
8. 8" CML&C FLANGED SPOOL (SHIP FLANGES LOOSE)
9. NOT USED.
10. CONCRETE PLUG (12" MINIMUM LENGTH)
11. SHEAR SPOOL, SHEAR RING, AND THRUST BLOCK PER STD. DWGS. G50 AND W1230



PHASE I PHASE II

NOTES:

1. PRIOR TO ORDERING MATERIALS, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING 8" PIPELINE IN MOREY WAY AT THE CONNECTION POINT TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL), OUTSIDE DIAMETER, AND TYPE OF PIPE. IN ADDITION, CONTRACTOR SHALL EXPOSE EACH UTILITY THAT CROSSES THE PROPOSED PIPING AND DETERMINE THE EXACT LOCATION OF EACH UTILITY.
2. PHASE I WORK:

   CONTRACTOR SHALL INSTALL APPROXIMATELY 32 LF OF 8" CML&C PIPE AND FITTINGS AND SHALL END SAID PIPE WITH A 8" FLANGE AND 8" BLIND FLANGE. CONTRACTOR SHALL INSTALL 8" PIPE SO CENTERLINE OF 8" PIPE MATCHES CENTERLINE OF EXISTING 8" PIPELINE.

   IN ADDITION, CONTRACTOR SHALL REMOVE SECTION OF EXISTING PIPE AS REQUIRED AND FURNISH AND INSTALL A 10 FOOT SECTION OF CML&C WELDED STEEL PIPE WITH A SHEAR RING AND THRUST BLOCK AND ALL REQUIRED FITTINGS AND RECONNECT TO EXISTING PIPELINE. THE PIPE AND FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION PRIOR TO INSTALLATION.

   THE INSTALLATION OF THE PIPE, SHEAR RING, AND THRUST BLOCK AND ALL FITTINGS SHALL BE COMPLETED WITHIN AN EIGHT HOUR PERIOD AND SHALL BE COMPLETED AT LEAST 7 DAYS PRIOR TO THE CONNECTION WORK.
3. PHASE II WORK:

   AFTER 24" PIPELINE AND APPURTENANCES HAVE BEEN TESTED AND DISINFECTED BY CONTRACTOR AND ACCEPTED BY THE DISTRICT, CONTRACTOR SHALL REMOVE 8" BLIND FLANGE, REMOVE AND DISPOSE OF PORTION OF EXISTING 4" PVC AND 8" PVC PIPELINES AS REQUIRED FOR CONSTRUCTION, AND INSTALL 8" CONNECTION PIPING AND FITTINGS. THE CONNECTION PIPING AND FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION PRIOR TO INSTALLATION. THEREAFTER, CONTRACTOR SHALL INSTALL THE CONCRETE PLUG IN THE END OF THE ABANDONED PIPELINE.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS AS REQUIRED FOR FIELD INSTALLATION NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND CONNECT TO EXISTING FACILITY, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS.
5. CONTRACTOR SHALL FURNISH ALL SURVEYING AND MEASUREMENTS REQUIRED TO DETERMINE EXACT LOCATION OF EXISTING 8" AND 4" PIPELINES AND LOCATION OF ALL EXISTING UTILITIES.

CONNECTION TO 8" WATERLINE (STA.102+50±)

N.T.S.

AS-BUILT

48 hours BEFORE excavation
1-800-227-2600
CALL Underground Service Alert

RUBIDOUX COMMUNITY SERVICES DISTRICT

APPROVED BY Steven W. Appel
ASSISTANT GENERAL MANAGER/ DISTRICT ENGINEER

DATE 2-8-13

SYM	REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER SIMSA SARIC No. 65367 Exp. 9-30-13 CIVIL STATE OF CALIFORNIA

KRIEGER & STEWART INCORPORATED
3602 University Ave. · Riverside, CA. 92501 · 951-684-6900

APPROVED BY
REGISTERED ENGINEER No. 65367 DATE 02/07/13

SCALE	N.T.S.
FLD. BK.	192/84-94
DESIGN	SS
DRAWN	JGS
CHECKED	MEM

RUBIDOUX COMMUNITY SERVICES DISTRICT
24" MISSION BOULEVARD PIPELINE
(GOLDEN WEST AVENUE TO CARRERA COURT)

CONNECTION DETAILS

SHEET 7 OF 14 SHEETS

R.C.S.D. PLAN No. 11848

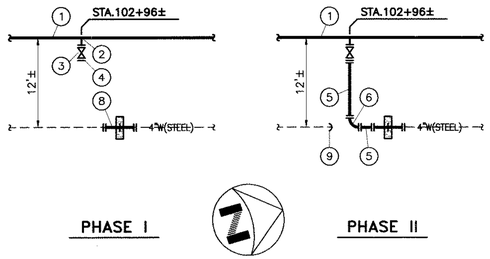
587-19.55

DWG. NO.: 587-19.55&7 FILE NO.: 587-19.55 UPDATE BY: TMW PROJ. ENG.: MEM PLOT DATE: 02/07/13 PLOT TIME: 2:28PM PLOT SCALE: 1=1

NOTES:

1. 24" CML&C PIPELINE
2. 4" FLANGED OUTLET
3. 4" FLANGED GATE VALVE
4. 4" BLIND FLANGE
5. 4" CML&C FLANGED SPOOL (SHIP FLANGES LOOSE)
6. 4" 90° FLANGED CML&C ELBOW
7. NOT USED
8. SHEAR SPOOL, SHEAR RING, AND THRUST BLOCK PER STD. DWGS. G50 AND W1230
9. CONCRETE PLUG (12" MINIMUM LENGTH)

NOTE:
EXISTING UTILITIES NOT SHOWN.



PHASE I PHASE II

NOTES:

1. PRIOR TO ORDERING MATERIALS, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING 4" PIPELINE AT THE CONNECTION POINT TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL), OUTSIDE DIAMETER, AND TYPE OF PIPE. IN ADDITION, CONTRACTOR SHALL EXPOSE EACH UTILITY THAT CROSSES THE PROPOSED PIPING AND DETERMINE THE EXACT LOCATION OF EACH UTILITY.
2. PHASE I WORK:

   CONTRACTOR SHALL INSTALL 4" GATE VALVE AND 4" BLIND FLANGE.

   IN ADDITION, CONTRACTOR SHALL REMOVE SECTION OF EXISTING PIPE AS REQUIRED AND FURNISH AND INSTALL A 10 FOOT SECTION OF CML&C WELDED STEEL PIPE WITH A SHEAR RING AND THRUST BLOCK AND ALL REQUIRED FITTINGS AND RECONNECT TO EXISTING PIPELINE. THE PIPE AND FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION PRIOR TO INSTALLATION.

   THE INSTALLATION OF THE PIPE, SHEAR RING, AND THRUST BLOCK AND ALL FITTINGS SHALL BE COMPLETED WITHIN AN EIGHT HOUR PERIOD AND SHALL BE COMPLETED AT LEAST 7 DAYS PRIOR TO THE CONNECTION WORK.
3. PHASE II WORK:

   AFTER 24" PIPELINE AND APPURTENANCES HAVE BEEN TESTED AND DISINFECTED BY CONTRACTOR AND ACCEPTED BY THE DISTRICT, CONTRACTOR SHALL REMOVE 4" BLIND FLANGE, REMOVE AND DISPOSE OF PORTION OF 4" STEEL PIPELINE AS REQUIRED FOR CONSTRUCTION, AND INSTALL 4" CONNECTION PIPING AND FITTINGS. THE CONNECTION PIPING AND FITTINGS SHALL BE SWABBED WITH CHLORINE SOLUTION PRIOR TO INSTALLATION. THEREAFTER, CONTRACTOR SHALL INSTALL THE CONCRETE PLUG IN THE END OF THE ABANDONED PIPELINE.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS AS REQUIRED FOR FIELD INSTALLATION NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND CONNECT TO EXISTING FACILITY, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS.
5. CONTRACTOR SHALL FURNISH ALL SURVEYING AND MEASUREMENTS REQUIRED TO DETERMINE EXACT LOCATION OF EXISTING 4" PIPELINE AND LOCATION OF ALL EXISTING UTILITIES.

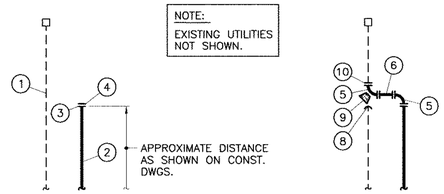
CONNECTION TO 4" WATERLINE (STA.102+96±)

N.T.S.

NOTES:

1. EXISTING FIRE SERVICE OR FIRE HYDRANT PIPING
2. CML&C PIPE AND FITTINGS WITH FULLY WELDED JOINTS (SIZE AS NOTED ON CONSTRUCTION DRAWINGS)
3. FLANGE
4. BLIND FLANGE WITH 2" OUTLET AND 2" GATE VALVE
5. 90° FLANGED CML&C ELBOW
6. CML&C FLANGED SPOOL (SHIP FLANGES LOOSE) WITH 2" CUT-TO-FIT
7. NOT USED.
8. CONCRETE PLUG (12" MINIMUM LENGTH)
9. THRUST BLOCK PER RCSD STD. DWG. G40 (USE DIMENSIONS FOR CL200 PIPE)
10. FLANGE OR FLANGE ADAPTER (DEPENDING ON THE TYPE OF EXISTING PIPE)

NOTE:
EXISTING UTILITIES NOT SHOWN.



PHASE I PHASE II

NOTES:

1. PRIOR TO ORDERING MATERIALS, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING FIRE SERVICE/FIRE HYDRANT PIPING AT THE CONNECTION POINT TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL), OUTSIDE DIAMETER, AND TYPE OF PIPE. IN ADDITION, CONTRACTOR SHALL EXPOSE EACH UTILITY THAT CROSSES THE PROPOSED PIPING AND DETERMINE THE EXACT LOCATION OF EACH UTILITY.
2. PHASE I WORK:

   CONTRACTOR SHALL INSTALL FIRE SERVICE OR FIRE HYDRANT PIPING, AND SHALL END SAID PIPING WITH A FLANGE AND BLIND FLANGE. CONTRACTOR SHALL INSTALL NEW PIPE SO CENTERLINE OF NEW PIPE MATCHES CENTERLINE OF EXISTING PIPELINE.
3. PHASE II WORK:

   AFTER 24" PIPELINE AND APPURTENANCES HAVE BEEN TESTED AND DISINFECTED BY CONTRACTOR AND ACCEPTED BY THE DISTRICT, CONTRACTOR SHALL REMOVE BLIND FLANGE, REMOVE AND DISPOSE OF PORTION OF EXISTING PIPING AS REQUIRED FOR CONSTRUCTION, AND INSTALL CONNECTION PIPING AND FITTINGS INCLUDING THRUST BLOCK. THE CONNECTION PIPING AND FITTINGS SHALL BE SWABBED WITH A CHLORINE SOLUTION PRIOR TO INSTALLATION. THEREAFTER, CONTRACTOR SHALL INSTALL THE CONCRETE PLUG IN THE END OF THE ABANDONED PIPELINE.

   CONCRETE FOR THRUST BLOCK SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND SHALL CONTAIN A NON-CORROSIVE AND NON-CHLORIDE ACCELERATING ADMIXTURE, POLARSET OR EQUAL. THE AMOUNT OF ADMIXTURE SHALL BE SUFFICIENT TO ALLOW THE CONCRETE TO REACH 50% OF ITS DESIGN STRENGTH WITHIN 8 HOURS.

   CONTRACTOR SHALL NOT PRESSURIZE THE CONNECTION UNTIL THE THRUST BLOCK HAS CURED A MINIMUM OF 8 HOURS.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS AS REQUIRED FOR FIELD INSTALLATION NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND CONNECT TO EXISTING FACILITY, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS.
5. CONTRACTOR SHALL FURNISH ALL SURVEYING AND MEASUREMENTS REQUIRED TO DETERMINE EXACT LOCATION AND DIAMETER OF EXISTING PIPING AND ALL EXISTING UTILITIES.

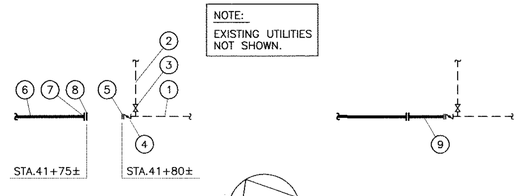
FIRE SERVICE OR FIRE HYDRANT PIPING CONNECTION DETAIL (STATIONS 15+70±, 17+48±, 20+50±, AND 33+20±)

N.T.S.

NOTES:

1. EXISTING 24" CML&C PIPELINE
2. EXISTING 12" PVC PIPELINE
3. EXISTING 12" GATE VALVE
4. EXISTING 24" BUTTERFLY VALVE
5. EXISTING 24" BLIND FLANGE
6. 24" CML&C PIPELINE
7. 24" FLANGE
8. 24" BLIND FLANGE WITH 8" OUTLET AND 8" GATE VALVE
9. 24" CML&C FLANGED SPOOL (SHIP FLANGE LOOSE) PROVIDE 5" CUT-TO-FIT

NOTE:
EXISTING UTILITIES NOT SHOWN.



PHASE I PHASE II

NOTES:

1. PRIOR TO ORDERING MATERIALS, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING 24" BUTTERFLY VALVE AT THE CONNECTION POINT TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL) OF SAME AND FLANGE DIAMETER AND THICKNESS. IN ADDITION, CONTRACTOR SHALL EXPOSE EACH UTILITY THAT CROSSES THE PROPOSED PIPING AND DETERMINE THE EXISTING LOCATION OF EACH UTILITY.
2. PHASE I WORK:

   CONTRACTOR SHALL END CONSTRUCTION AT STATION 41+75± WITH A FLANGE AND BLIND FLANGE. CONTRACTOR SHALL INSTALL 24" PIPE SO CENTERLINE OF 24" PIPE MATCHES CENTERLINE OF EXISTING 24" PIPE.
3. PHASE II WORK:

   AFTER 24" PIPELINE AND APPURTENANCES HAVE BEEN TESTED AND DISINFECTED BY CONTRACTOR AND ACCEPTED BY THE DISTRICT, CONTRACTOR SHALL REMOVE BLIND FLANGES AND INSTALL 24" CML&C CONNECTION PIPING AND FITTINGS. THE CONNECTION PIPING AND FITTINGS SHALL BE SWABBED WITH A CHLORINE SOLUTION PRIOR TO INSTALLATION.
4. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS AS REQUIRED FOR FIELD INSTALLATION NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND CONNECT TO EXISTING FACILITY, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS.
5. CONTRACTOR SHALL FURNISH ALL SURVEYING AND MEASUREMENTS REQUIRED TO DETERMINE EXACT LOCATION, DIAMETER, AND THICKNESS OF EXISTING 24" FLANGE AND ALL EXISTING UTILITIES.

CONNECTION TO 24" WATERLINE (STA.41+80±)

N.T.S.

AS-BUILT

48 hours BEFORE excavation
1-800-227-2600
CALL Underground Service Alert

RUBIDOUX COMMUNITY SERVICES DISTRICT

APPROVED BY Stan W. Agee
ASSISTANT GENERAL MANAGER
DISTRICT ENGINEER

DATE 2-8-13

SYM	REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER
SIMISA SARIC
No. 65367
Exp. 9-30-13
CIVIL
STATE OF CALIFORNIA

KRIEGER & STEWART INCORPORATED
3602 University Ave. · Riverside, CA. 92501 · 951-684-6900

APPROVED BY
REGISTERED ENGINEER No. 65367 DATE 02/07/13

SCALE	N.T.S.
FLD. BK.	192/84-94
DESIGN	SS
DRAWN	JGS
CHECKED	MEM

RUBIDOUX COMMUNITY SERVICES DISTRICT
24" MISSION BOULEVARD PIPELINE
(GOLDEN WEST AVENUE TO CARRERA COURT)
CONNECTION DETAILS

SHEET 8 OF 14 SHEETS
11849
R.C.S.D. PLAN No.

587-19.55

DWG. NO.: 587-19.55R8 FILE NO.: 587-19.55 UPDATE BY: TWW PROJ. ENG.: MEM PLOT DATE: 02/07/13 PLOT TIME: 5:00PM PLOT SCALE: 1=1

COUNTY OF RIVERSIDE
SEWER AND WATER
IMPROVEMENT PLANS
FOR
TRACT NO. 20420

TR 20420

GENERAL NOTES

1. ALL SEWER LATERAL LOCATIONS SHALL BE MARKED ON THE ADJACENT CURB FACE.
2. GRADING OVER SEWER MAIN SHALL BE DONE IN SUCH A MANNER AS TO PREVENT THE "PONDING" OF WATER.
3. WHEREVER A WATERLINE ENCOUNTERS A STORM DRAIN PIPE OR OTHER OBSTRUCTION AND CROSSING OVER THE OBSTRUTION WILL RESULT IN LESS THAN 48 INCHES OF COVER OVER THE WATER LINE, IT SHALL CROSS UNDER THE OBSTRUCTION (MINIMUM 6-INCH CLEARANCE).

WATER CERTIFICATION

I HEREBY CERTIFY THAT THE DESIGN OF THE WATER SYSTEM IN TRACT NO. 20420 IS IN ACCORDANCE WITH THE WATER SYSTEM EXPANSION PLANS OF THE RUBIDOUX COMMUNITY SERVICES DISTRICT AND THAT THE WATER SERVICE, STORAGE, AND DISTRIBUTION SYSTEM WILL BE ADEQUATE TO PROVIDE WATER SERVICE TO SUCH TRACT. THIS CERTIFICATION DOES NOT CONSTITUTE A GUARANTEE THAT IT WILL SUPPLY WATER TO SUCH TRACT AT ANY SPECIFIC QUANTITIES, FLOWS OR PRESSURES FOR FIRE PROTECTION OR ANY OTHER PURPOSE.

RUBIDOUX COMMUNITY SERVICES DISTRICT

DISTRICT ENGINEER _____ DATE _____

APPROVAL

RIVERSIDE COUNTY FIRE DEPT
BY _____
TITLE _____
DATE 2-28-92

SEWER CERTIFICATION

I HEREBY CERTIFY THAT THE DESIGN OF THE SEWER SYSTEM IN TRACT NO.20420 IS IN ACCORDANCE WITH THE SEWER SYSTEM EXPANSION PLANS OF THE RUBIDOUX COMMUNITY SERVICES DISTRICT AND THAT THE WASTE DISPOSAL SYSTEM IS ADEQUATE AT THIS TIME TO TREAT THE ANTICIPATED WASTE FROM PROPOSED TRACT.

RUBIDOUX COMMUNITY SERVICES DISTRICT

DISTRICT ENGINEER _____ DATE _____

NOTIFICATIONS

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR SHALL NOTIFY:

A. RUBIDOUX COMMUNITY SERVICES DISTRICT, (714) 684-7580
B. UNDERGROUND SERVICE ALERT (USA), 1- (800) 422 - 4133
C. RIVERSIDE COUNTY ROAD DEPARTMENT, CONSTRUCTION SECTION AT RIVERSIDE, (714) 787 - 2031

I CERTIFY THAT THE DESIGN OF THE WATER SYSTEM IS IN ACCORDANCE WITH THE REQUIREMENTS PRESCRIBED BY THE RIVERSIDE COUNTY FIRE DEPARTMENT.

By: Charles O. Hartman Date 7/23/91
RCE 29243 exp 3/31/1995

RIVERSIDE COUNTY
DEPARTMENT OF HEALTH

_____ WATER LINE LAYOUT _____ SEWER LINE LAYOUT

THIS IS TO CERTIFY THAT RIVERSIDE COUNTY DEPARTMENT OF HEALTH APPROVES THE DESIGN OF THE ITEM(S) CHECKED ABOVE.

DATE _____ BY _____

PRIVATE ENGINEER'S NOTICE CONTRACTORS

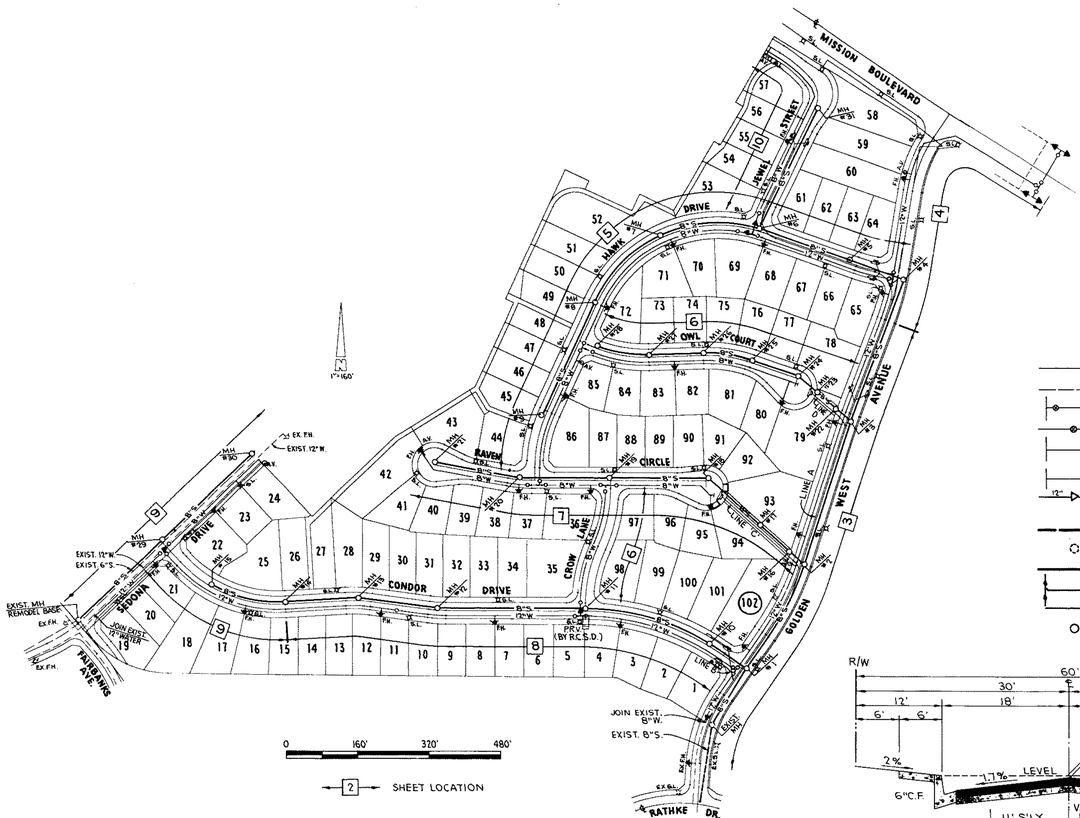
The existence and location of any underground utilities or structures shown on these plans were obtained by a search of available records and to the best of our knowledge, there are no existing utilities except those shown on this plan. The contractor is required to take due precautionary measures to protect the utilities shown, and any other lines or structures not shown on these plans, and is responsible for the protection of, and any damage to these lines or structures.
Construction contractor agrees that in accordance with generally accepted construction practices, construction contractor will be required to assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours, and construction contractor further agrees to defend, indemnify, and hold design professional and owner harmless from any and all liability, real or alleged, in connection with the performance of work on this project.
The contractor shall be responsible to report discrepancies in plans and/or conditions immediately to the design engineer for resolution prior to construction, and shall be responsible for discrepancies not so reported and resolved.

BASIS OF BEARINGS :

BASIS OF BEARINGS IS THE NORTH LINE OF SECTION 17/ SOUTH LINE OF SECTION 8 TAKEN AS BEING N89°52'17"W, AS SHOWN BY TRACT NO. 19479-1 ON FILE IN BOOK 231, PAGES 49 THROUGH 52, THERE OF, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

BENCH MARK

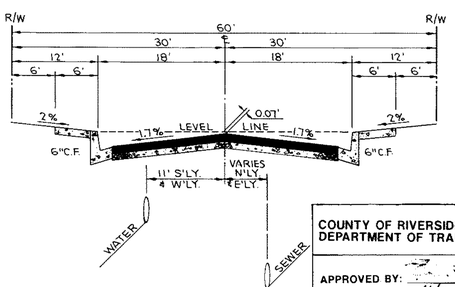
BRASS DISK IN THE EAST END OF A 10'X8' CONC. HEADWALL SET FLUSH & STAMPED M.L. 9-2-64 LOCATED @ S.E. COR. OF THE INT. OF MISSION BLVD. & CANAL ST. RIVERSIDE COUNTY - ELEV. = 873.884



NOTE:
THE FOLLOWING LOTS REQUIRE BACKFLOW PREVENTION VALVES.
2, 3, 5-8, 19-23, 33-36, 38, 39, 43, 44, 52, 61-63, 67-72, 74-77, 81, 82, 84, 86, 89, 90, 95-101.

WATER LEGEND
- PROP. WATER MAIN
- EXIST WATER MAIN
- FIRE HYDRANT ASS'Y
- GATE VALVE
- AIR VACUUM & AIR RELEASE VALVE ASS'Y
- WATER METER SERIVCE
- 12"x 8" REDUCER

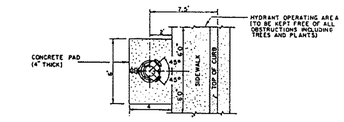
SEWER LEGEND
- EXIST. SEWER
- EXIST. M.H.
- NEW SEWER MAIN
- NEW LATERAL
- TEMP. END PLUG
- NEW MANHOLE

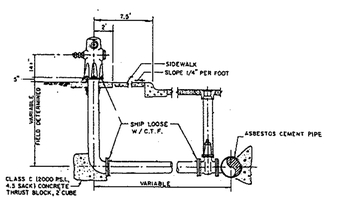


TYPICAL SECTION

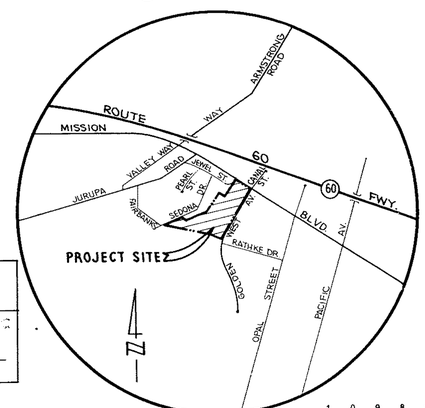
CONSTRUCTION NOTES

(1)	INSTALL 8" VCP SEWER MAIN	5,614	L.F.
(2)	INSTALL 4" VCP SEWER LATERAL PER STD. DWG. S-6	3,211	L.F.
(3)	CONST. SEWER MANHOLE PER STD. DWG. S-4	31	EA.
(4)	REMODEL EXIST. MANHOLE BASE TO ACCEPT NEW 8" VCP SEWER MAIN	1	EA.
(5)	INSTALL 8" SEWER PLUG	1	EA.
(6)	INSTALL 8" x 8" x 4" SEWER "Y"	102	EA.
(7)	BACKFLOW PREVENTION VALVE REQUIRED.	46	EA.
(8)	CONST. PCC PIPE SLOPE ANCHOR PER STD. DWG. W104	5	EA.
(11)	INSTALL 8" WATER MAIN CLASS 150.	1060	L.F.
(11A)	INSTALL 8" WATER MAIN CLASS 200.	1868	L.F.
(12)	INSTALL 12" WATER MAIN CLASS 150.	3191	L.F.
(12A)	INSTALL 12" WATER MAIN CLASS 200.	450	L.F.
(13)	INSTALL 1" WATER SERVICE PER STD. DWG. W126 W/ PRESS. REDUCING VALVE	102	EA.
(14)	INSTALL 8" GATE VALVE PER STD. DWG. W109	13	EA.
(15)	INSTALL 12" GATE VALVE PER STD. DWG. W109	16	EA.
(16)	INSTALL FIRE HYDRANT PER STD. DWG. W112 (STD HYDRANT, 6X4 X 2 ½)	22	EA.
(17)	INSTALL 1" AIR VALVE PER STD. DWG. W117	8	EA.
(18)	INSTALL 8" x 8" x 8" TEE & THRUST PROTECTION PER STD. DWG W106	3	EA.
(19)	INSTALL 12" x 12" x 12" TEE & THRUST PROTECTION PER STD. DWG W106	8	EA.
(20)	INSTALL 12" x 8" REDUCER	9	EA.
(21)	INSTALL 12" 90° ELBOW & THRUST PROTECTION PER STD. DWG W107	0	EA.
(22)	INSTALL 8" 90° ELBOW & THRUST PROTECTION PER STD. DWG W107	0	EA.
(23)	INSTALL 8" 45° ELBOW & THRUST PROTECTION PER STD. DWG W107	11	EA.
(24)	INSTALL 12" 45° ELBOW & THRUST PROTECTION PER STD. DWG. W107	14	EA.
(25)	INSTALL 8" BLIND FLANGE	5	EA.
(26)	INSTALL 8"-22½° ELBOW & THRUST PROTECTION PER STD. DWG. W107	1	EA.
(27)	INSTALL 8" X 6" REDUCER	3	EA.





TYPICAL FIRE HYDRANT LOCATION DETAIL (16)



Underground Service Alert
Call: TOLL FREE
1-800 422-4133
TWO WORKING DAYS BEFORE YOU DIG

COUNTY OF RIVERSIDE
DEPARTMENT OF TRANSPORTATION
APPROVED BY: _____
DATE _____

RECOMMENDED FOR APPROVAL	SEAL COUNTY	RUBIDOUX COMMUNITY SERVICES DISTRICT	
DATE 3-18-92		APPROVED BY _____ DISTRICT ENGINEER	
CHECKED BY MW		DATE 3/26/92	
DATE 3-18-92		APPROVED BY _____ GENERAL MANAGER	
		DATE 3/26/92	

SYM	REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER — CHARLES O. HARTMAN — RCE 29243 Exp. 3/31/95 — CIVIL — STATE OF CALIFORNIA

CHARCHOL / HARTMAN & ASSOC.
PLANNING • ENGINEERING • SURVEYING
27127 CALLE ARROYO - SUITE 1904
SAN JUAN CAPISTRANO, CALIFORNIA 92675 - (714) 661-8695

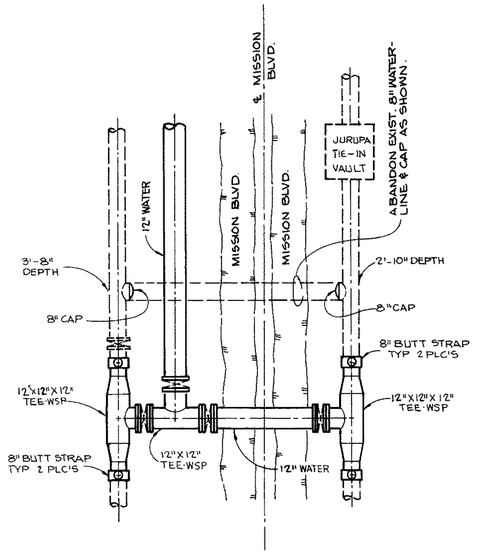
APPROVED BY Charles O. Hartman
REGISTERED ENGINEER NO. 29243 DATE 7/23/91

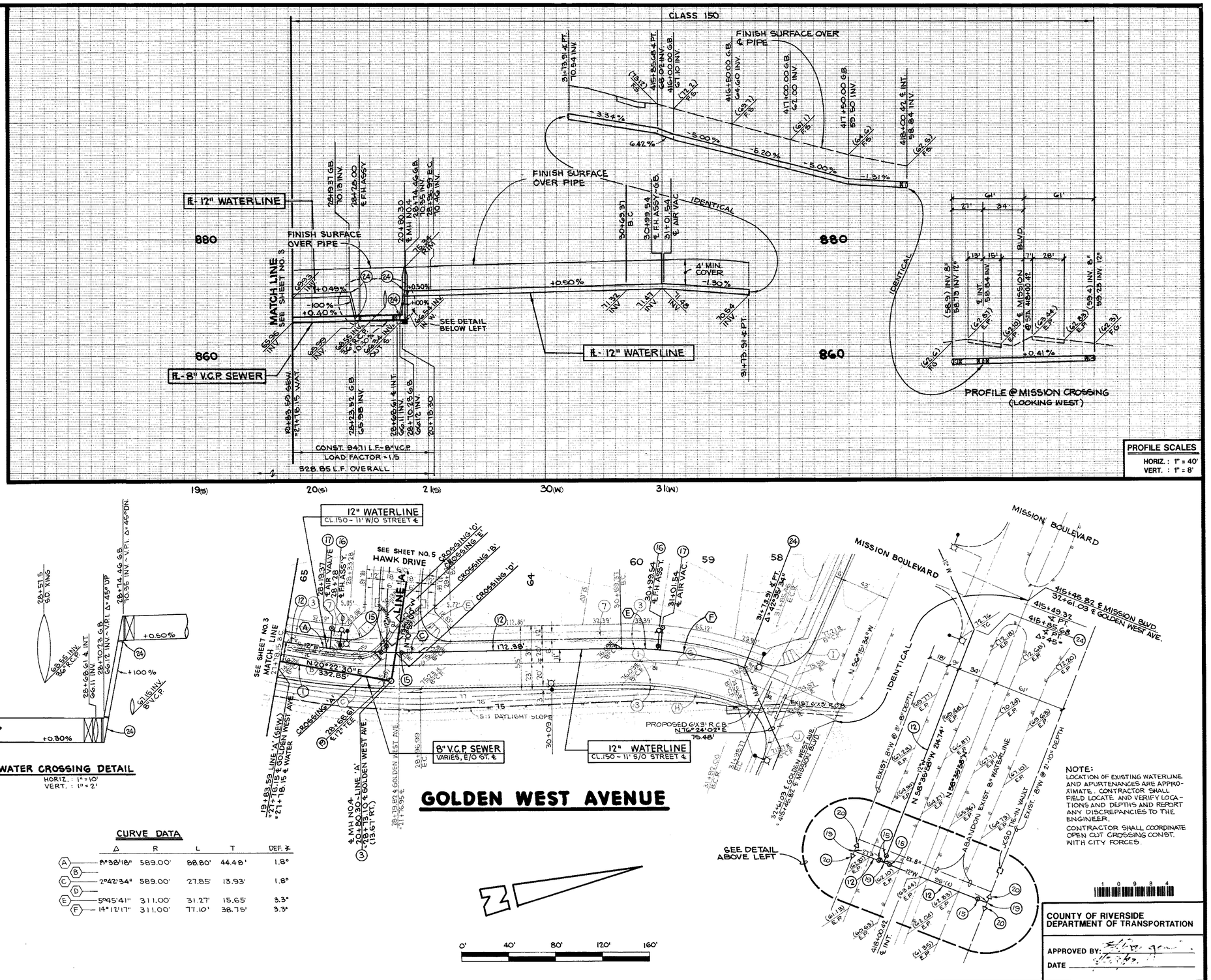
SCALE	HORIZ. 1"=40' VERT. 1"=8'
FIELD BOOK	
DESIGNED	A.S.M.
DRAWN	T.C.M.-W.G.E.
CHECKED	C.O.H.

RUBIDOUX COMMUNITY SERVICES DISTRICT
SEWER & WATER IMPROVEMENT PLANS
FOR
TRACT 20420
TITLE SHEET

SHEET 1 OF 10 SHEETS
W/S-92-009
R.C.S.D. PLAN NO.

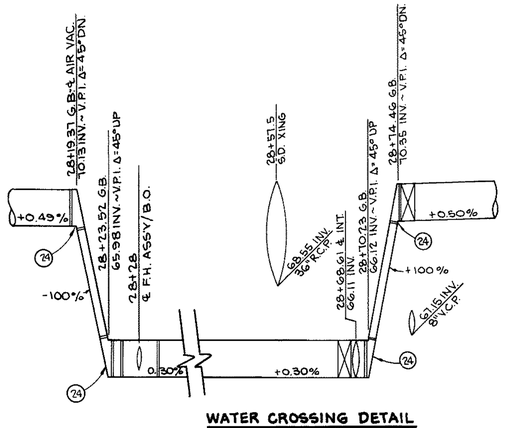
W/S-92-009





UTILITY CROSSING CHART

NO.	INV.	O.D.	PIPE	CLR
A	68.55	68.13	BOT 36" R.C.P.	1.00
	66.08	67.13	TOP 12" WATER	
B	68.60	68.18	BOT 36" R.C.P.	1.00
	66.13	67.18	TOP 12" WATER	
C	69.80	69.48	BOT 18" R.C.P.	1.00
	67.43	68.48	TOP 12" WATER	
D	70.36	70.31	BOT 12" WATER	2.41
	67.15	67.90	TOP 8" V.C.P.	
E	69.69	69.37	BOT 18" R.C.P.	0.81
	67.81	68.56	TOP 8" V.C.P.	



WATER CROSSING DETAIL

HORIZ. : 1" = 10'
VERT. : 1" = 2'

CURVE DATA

	Δ	R	L	T	DEF. ∡
A	8°38'18"	589.00'	88.80'	44.48'	1.8°
B					
C	2°42'34"	589.00'	27.85'	13.93'	1.8°
D					
E	5°45'41"	311.00'	31.27'	15.65'	3.3°
F	14°12'17"	311.00'	77.10'	38.75'	3.3°

CONSTRUCTION NOTES

1. INSTALL 8" V.C.P. SEWER MAIN.
3. CONSTRUCT SEWER MANHOLE PER STD. DWG. S-4.

11. INSTALL 8" WATER MAIN CL. 150.
12. INSTALL 12" WATER MAIN CL. 150.
14. INSTALL 8" GATE VALVE PER STD. DWG. W 109.
15. INSTALL 12" GATE VALVE PER STD. DWG. W 109.
16. INSTALL FIRE HYDRANT PER STD. DWG. W 112.
17. INSTALL 1" AIR VALVE PER STD. DWG. W 117.
20. INSTALL 12" X 8" REDUCER
21. INSTALL 12" - 90° ELBOW & THRUST PROTECTION PER STD. DWG. W 107.
22. INSTALL 8" - 90° ELBOW & THRUST PROTECTION PER STD. DWG. W 107.
19. INSTALL 12" X 12" X 12" TEE & THRUST PROTECTION PER STD. DWG. W 106.
24. INSTALL 12" X 45° ELBOW & THRUST PROTECTION PER STD. DWG. W 107.

GOLDEN WEST AVENUE

0' 40' 80' 120' 160'

RUBIDOUX COMMUNITY SERVICES DISTRICT

APPROVED BY _____ DISTRICT ENGINEER

DATE 7/23/91

SYM	REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER — CHARLES O. HARTMAN — RCE 29243 Exp. 3/31/95 — CIVIL — STATE OF CALIFORNIA

CHARCHOL/HARTMAN & ASSOC.
PLANNING • ENGINEERING • SURVEYING
27107 CALLE ARROYO - SUITE 1804
SAN JUAN CAPISTRANO, CALIFORNIA 92675 - (714) 661-6595

APPROVED BY Charles O. Hartman
REGISTERED ENGINEER NO. 29243 DATE 7/23/91

SCALE	HORIZ 1"=40' VERT. 1"=8'
FIELD BOOK	
DESIGNED	A.S.M.
DRAWN	T.C.M.
CHECKED	C.O.H.

RUBIDOUX COMMUNITY SERVICES DISTRICT

SEWER & WATER PLAN & PROFILE

GOLDEN WEST AVENUE

WATER ~ STA. 21+18.15 TO STA. 32+15.03
SEWER ~ STA. 19+83.59 TO STA. 20+80.30

TRACT NO. 20420

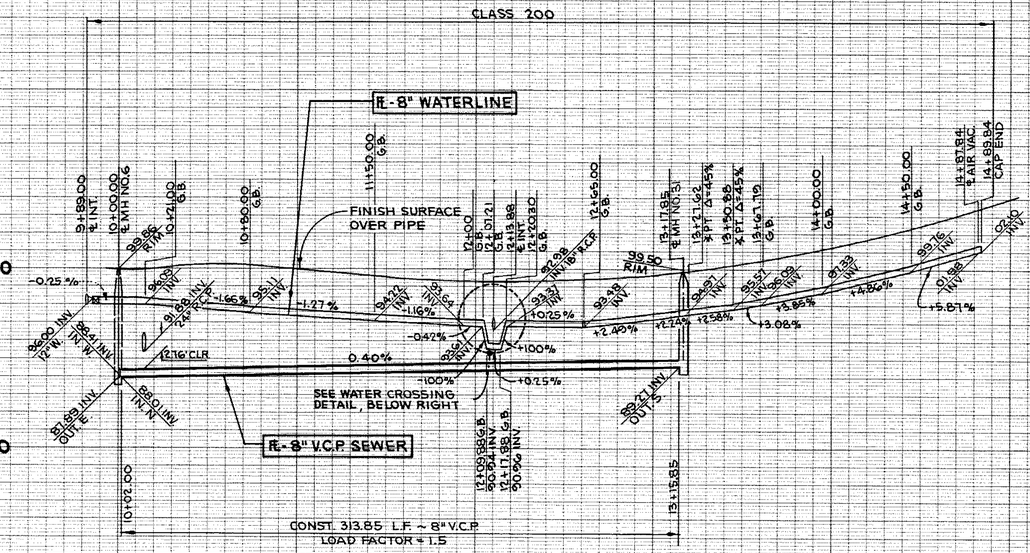
SHEET 4 OF 10 SHEETS

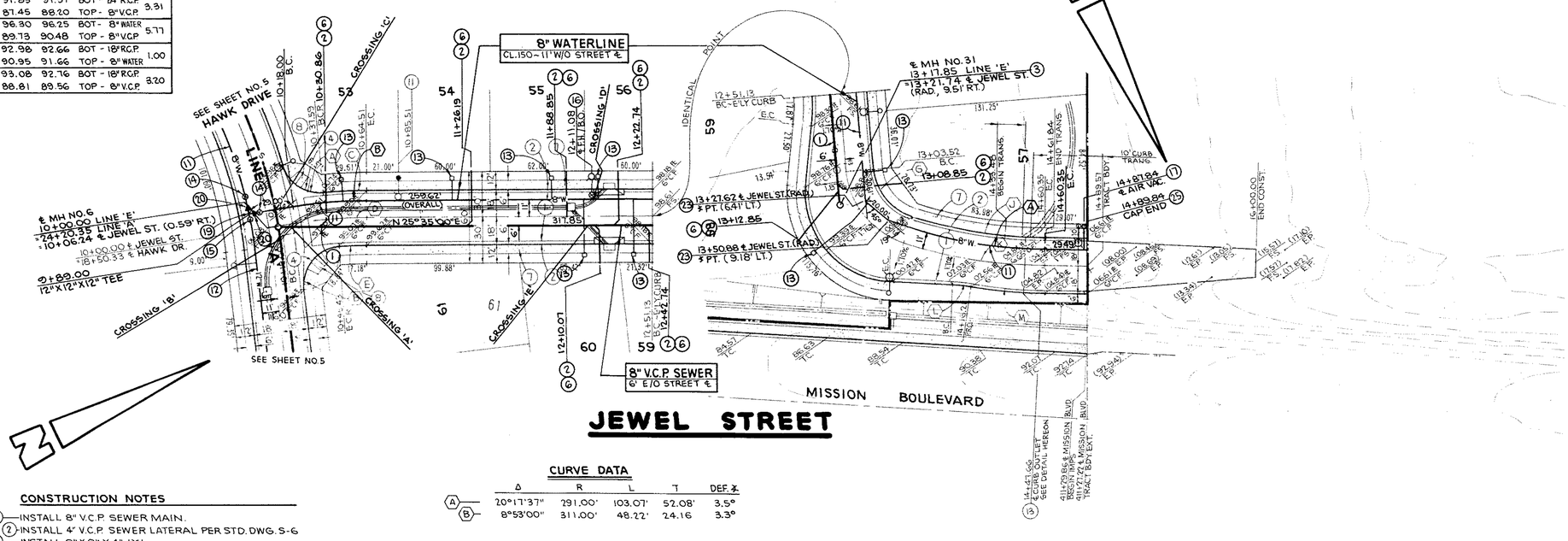
W/S-92-009
R.C.S.D. PLAN NO.

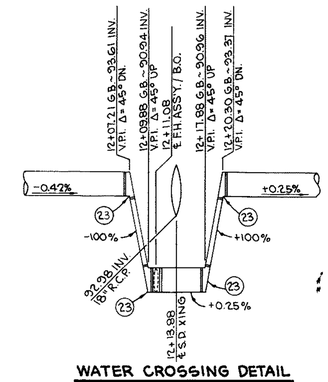
COUNTY OF RIVERSIDE
DEPARTMENT OF TRANSPORTATION

APPROVED BY: _____

DATE _____







UTILITY CROSSING CHART

NO.	INV.	O.D.	PIPE	CLR.
A	91.88	91.54	BOT - 24" R.C.P.	2.76
	88.03	88.78	TOP - 8" V.C.P.	
B	91.85	91.51	BOT - 24" R.C.P.	3.31
	87.45	88.20	TOP - 8" V.C.P.	
C	96.30	96.25	BOT - 8" WATER	5.77
	89.73	90.48	TOP - 8" V.C.P.	
D	92.98	82.66	BOT - 18" R.C.P.	1.00
	90.95	91.66	TOP - 8" WATER	
E	93.08	92.76	BOT - 18" R.C.P.	3.20
	88.81	89.56	TOP - 8" V.C.P.	

CURVE DATA

	Δ	R	L	T	DEF. ∡
A	20°17'37"	291.00'	103.07'	52.08'	3.5°
B	8°53'00"	311.00'	48.22'	24.16	3.3°

CONSTRUCTION NOTES

1. INSTALL 8" V.C.P. SEWER MAIN.
2. INSTALL 4" V.C.P. SEWER LATERAL PER STD. DWG. S-6
6. INSTALL 8" X 8" X 4" 'T'.
7. BACKFLOW PREVENTION VALVE REQUIRED.
11. INSTALL 8" WATER MAIN CL. 150.
12. INSTALL 12" WATER MAIN CL. 150.
13. INSTALL 1" WATER SERVICE PER STD. DWG. W 126 (ADD PRESSURE REDUCING VALVE).
14. INSTALL 8" GATE VALVE PER STD. DWG. W 109.
15. INSTALL 12" GATE VALVE PER STD. DWG. W 109.
16. INSTALL FIRE HYDRANT PER STD. DWG. W 112.
17. INSTALL 1" AIR VALVE PER STD. DWG. W 117.
19. INSTALL 12" X 12" X 12" TEE & THRUST PROTECTION PER STD. DWG. W 106.
20. INSTALL 12" X 8" REDUCER.
23. INSTALL 8" - 45° ELBOW & THRUST PROTECTION.
25. INSTALL 8" BLIND FLANGE.
3. CONST. SEWER MANHOLE PER STD. DWG. S-4.

PROFILE SCALES
HORIZ. : 1" = 40'
VERT. : 1" = 8'

0' 40' 80' 120' 160'
SCALE IN FEET

RUBIDOUX COMMUNITY SERVICES DISTRICT
APPROVED BY _____ DISTRICT ENGINEER
DATE 4/22/92

SYM	REVISIONS	DATE	BY

REGISTERED PROFESSIONAL ENGINEER — CHARLES O. HARTMAN — RCE 29243 Exp. 3/31/95 — CIVIL — STATE OF CALIFORNIA

CHARCHOL / HARTMAN & ASSOC.
PLANNING • ENGINEERING • SURVEYING
27127 CALLE ARROYO - SUITE 1904
SAN JUAN CAPISTRANO, CALIFORNIA 92675 - (714) 661-9855

APPROVED BY Charles O. Hartman
REGISTERED ENGINEER NO. 29243 DATE 7/23/91

SCALE HORIZ. 1"=40' VERT. 1"=8'
FIELD BOOK
DESIGNED A.S.M.
DRAWN T.C.M.
CHECKED C.O.H.

RUBIDOUX COMMUNITY SERVICES DISTRICT

SEWER & WATER PLAN & PROFILE

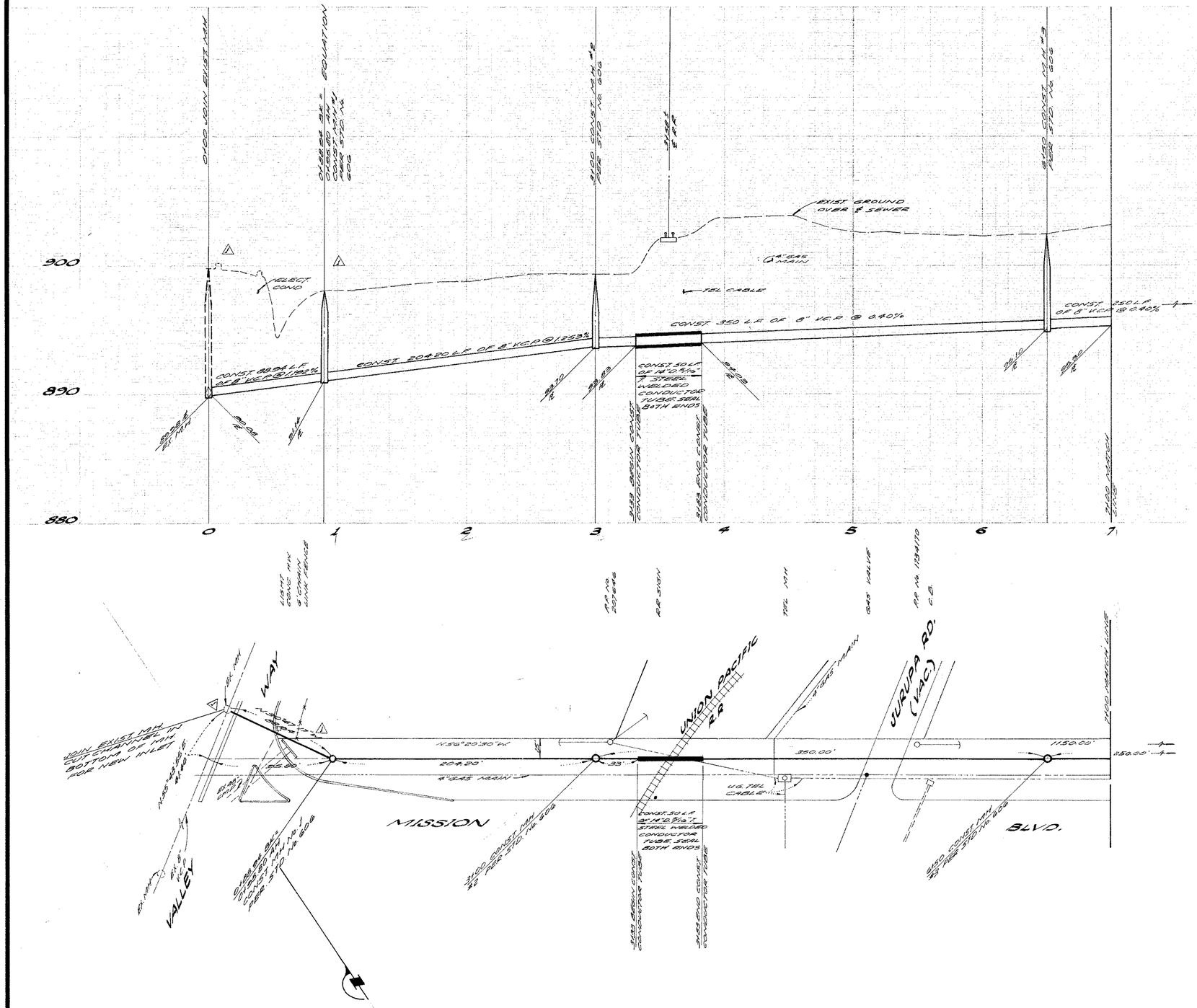
JEWEL STREET

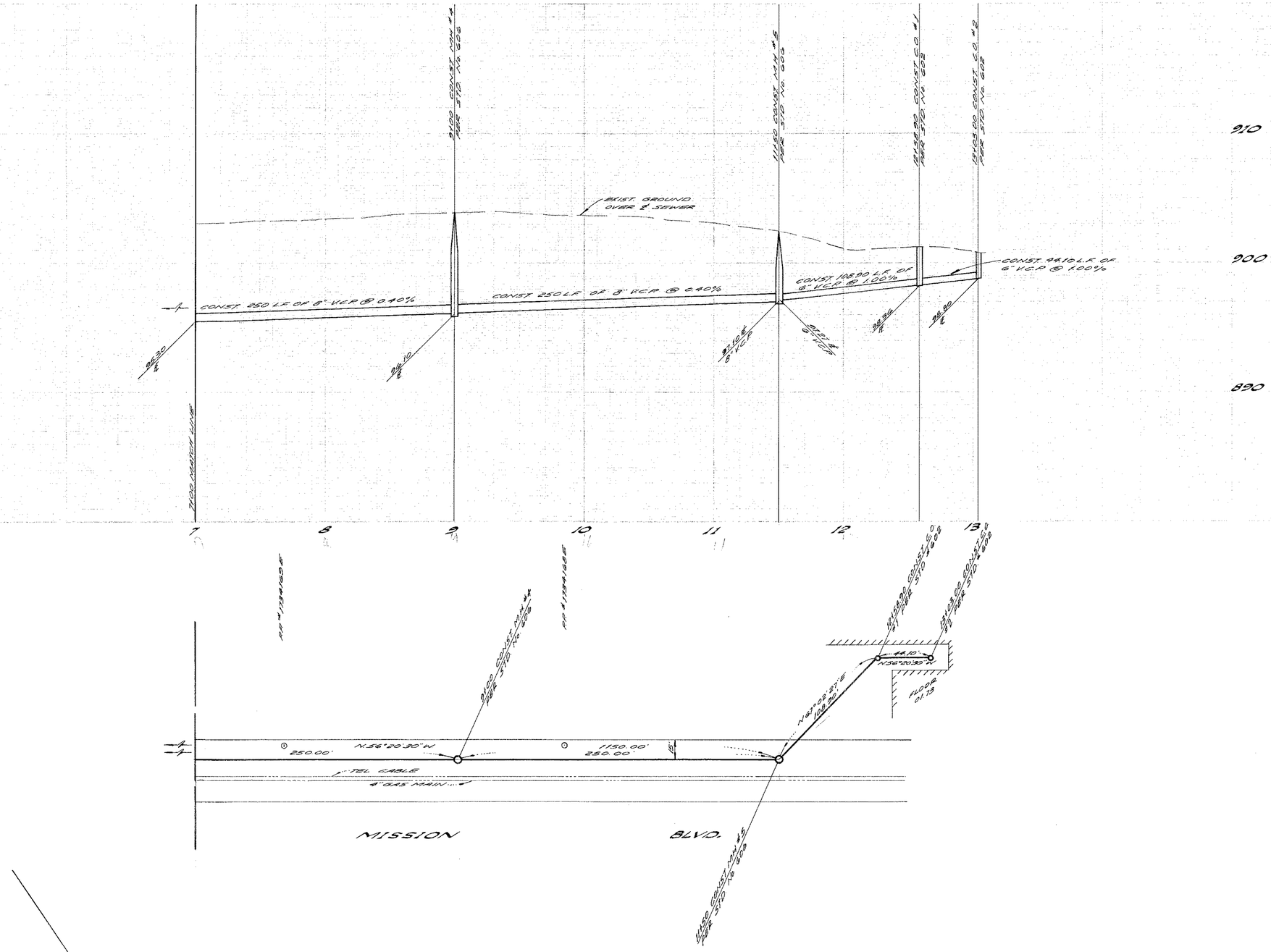
WATER ~ STA. 9+89.00 TO STA. 14+89.84
SEWER ~ STA. 10+00.00 TO STA. 12+96.86

TRACT NO. 20420

SHEET 10 OF 10 SHEETS
W/S-92-009
R.C.S.D. PLAN NO.

COUNTY OF RIVERSIDE
DEPARTMENT OF TRANSPORTATION
APPROVED BY _____
DATE 4-2-92


910
900
890
880
0
1
2
3
4
5
6
7
EXIST GROUND OVER ℄ SEWER
GAS MAIN
TEL CABLE
CONST 350 L.F. OF 8" V.C.P. @ 0.40%
CONST 204.20 L.F. OF 8" V.C.P. @ 12.53%
CONST 88.94 L.F. OF 8" V.C.P. @ 1.92%
CONST 250 L.F. OF 8" V.C.P. @ 0.40%
CONST 50 L.F. OF 14"O.D.5/16" A. STEEL WELDED CONDUCTOR TUBE SEAL BOTH ENDS
EXIST 8" V.C.P. SEWER
EXIST 8" V.C.P. SEWER
EXIST MH
EXIST 8" V.C.P. SEWER
EXIST MH
EXIST 8" V.C.P. SEWER
EXIST MH



REVISIONS:	APPROVED BY: C. Hubert Clabb — REGISTERED CIVIL ENGINEER NO. 11842 — DATE: 7-28-73		JURUPA COMMUNITY SERVICES DISTRICT	2 OF 2 SHEETS
	APPROVED BY: — RIVERSIDE COUNTY, CALIF. FOR ROAD COMMISSIONER — DATE:	SCALE: HORIZ. 1"=40' VERT. 1"=4" — DATE MAY 1973	BENCH MARK: Elev. 905.62 at CHISELED X ON S.E. SIDE OF A.R. SIGN E. SIDE JURUPA RD. 15' N. OF RR TRACKS	SEWER PLAN & PROFILE ON MISSION BLVD N.E. OF VALLEY WAY — W.O. 23-159 — FOR: RIV. RANCH CO. — F.B. 1089 — FILE NO.- 73-152

JURUPA COMMUNITY SERVICES DISTRICT

RIVERSIDE, CALIFORNIA

FLORINE LIFT STATION REPLACEMENT PROJECT

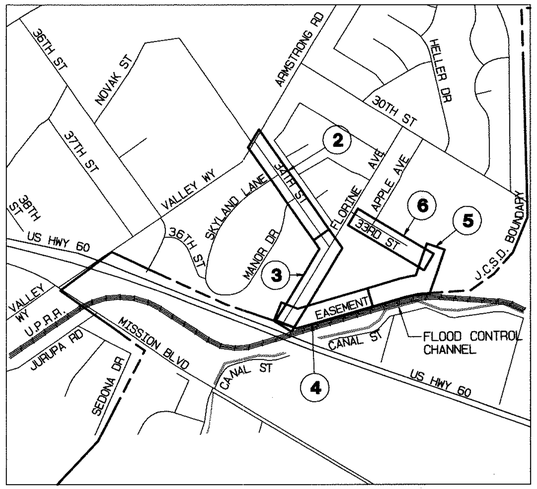
[DISTRICT PROJECT NO. 2760]

RECORD DRAWING

THE INFORMATION ON THIS DRAWING IS OBTAINED FROM OTHERS AND MUST BE VERIFIED IN THE FIELD BY ANYONE PRIOR TO USE OR CONSTRUCTION. THE ENGINEERS OF RECORD ARE NOT RESPONSIBLE FOR UNDERGROUND FACILITY LOCATIONS OR DEPICTIONS. ALL ABOVE GROUND FACILITIES CAN BE READILY SEEN AND VERIFIED BY THE PARTIES THAT INTEND TO USE SAME.

GENERAL NOTES AND REQUIREMENTS

1. TYPE OF SEWER PIPE FOR GRAVITY LINE USED SHALL BE VITRIFIED CLAY PIPE (EXTRA STRENGTH) AND SHALL HAVE TYPE "G" JOINTS (BELL AND SPIGOT), PER SECTIONS 207-8 AND 208-2.3, RESPECTIVELY, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION AND THE SPECIFICATIONS SECTION "D". THE TYPE OF SEWER PIPE USED FOR FORCEMAIN AND PLANT PIPING SHALL BE POLYVINYL CHLORIDE AND DUCTILE IRON AS DESIGNATED ON THE PLANS AND SPECIFICATIONS SECTION "D".
2. GRADING OVER SEWER MAINS SHALL BE DONE IN SUCH A MANNER AS TO PREVENT THE PONDING OF WATER.
3. THE TOP OF ALL MANHOLES LOCATED IN PAVEMENT SHALL BE RAISED TO PAVEMENT GRADE WITHIN 5 DAYS AFTER STREETS ARE CAPPED.
4. THE MINIMUM CLASS BEDDING FOR VCP SEWER GRAVITY MAIN SHALL BE PER CONSTRUCTION DRAWINGS IN ACCORDANCE WITH DISTRICT STD. DWG. NO. S-2 (CLASS B-2).
5. CONTRACTOR SHALL SUCCESSFULLY PERFORM TWO AIR VACUUM TESTS AT NO ADDITIONAL COST TO THE DISTRICT. THE FIRST AIR VACUUM TEST SHALL BE COMPLETED IMMEDIATELY AFTER INSTALLATION, BACKFILL AND COMPACTION OF THE SEWAGE SYSTEM. THE SECOND AIR VACUUM TEST SHALL BE CONDUCTED AFTER INSTALLATION OF ALL THE OTHER UTILITIES AND PRIOR TO FINAL PAVING OF THE STREETS.
6. CONNECTIONS TO EXISTING PIPELINES AND MANHOLES SHALL ONLY BE MADE WITH DISTRICT INSPECTOR'S PRESENT. TEST PLUGS SHALL ONLY BE REMOVED UPON DIRECTION OF THE DISTRICT.
7. SHOULD MODIFICATION AND/OR RECONSTRUCTION (INCLUDING RAISING MANHOLES TO GRADE) OF AN EXISTING MANHOLE BE REQUIRED, PRIOR TO THE REMOVAL OF THE FRAME OF THE SEWER MANHOLE, THE CHANNEL OF THE MANHOLE SHALL BE COMPLETELY COVERED WITH PLANKING OR OTHER SUITABLE MATERIAL SO AS TO PREVENT DEBRIS FROM ENTERING THE CHANNEL. AFTER THE MANHOLE RECONSTRUCTION HAS BEEN COMPLETED, ALL RECONSTRUCTION HAS BEEN COMPLETED, ALL DEBRIS SHALL BE REMOVED FROM WITHIN THE MANHOLE AND THE COVER OVER THE CHANNEL SHALL BE REMOVED.
8. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT IN PLACE ALL EXISTING UTILITIES TO THE PROPOSED SEWERLINE. EXISTING UTILITIES (WATER, TELEPHONE, GAS, ETC.) SHALL REMAIN IN OPERATION AT ALL TIMES, UNLESS APPROVED IN WRITING BY APPROPRIATE UTILITY COMPANY.
9. REPLACEMENT PAVING IN ALL PAVED ROADS, GRINDING AND CAPPING, TRAFFIC CONTROL, RESTRIPING, SPECIAL TRENCH BACKFILL, SPECIAL CLASS 2 BASE REQUIREMENTS, ETC. SHALL BE IN ACCORDANCE WITH THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT PERMIT REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT PERMIT SECTION AT (951) 955-6790 AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. IF THE PROPOSED PIPELINE CROSSES A PAVED STREET AT OTHER THAN 90 DEGREES, THE LIMITS OF PAVEMENT GRIND AND OVERLAY SHALL BE AT RIGHT ANGLES TO THE STREET CENTERLINE AND SHALL ENCOMPASS THE ENTIRE TRENCH PAVING.
10. IN THE EVENT TRAFFIC STRIPING AND/OR LANE MARKINGS ARE OBLITERATED, THEY SHALL BE REPLACED IN KIND AS DIRECTED BY AGENCY HAVING JURISDICTION.
11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL AND MAINTAIN ALL CONSTRUCTION, REGULATORY, GUIDE WARNING SIGNS WITHIN THE PROJECT LIMITS AND ITS SURROUNDINGS AND TO PROVIDE SAFE PASSAGE FOR THE TRAVELING PUBLIC AND WORKING UNTIL THE FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT BY THE COUNTY.
12. THE CONTRACTOR SHALL NOTIFY DISTRICT AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.
13. SEPARATION REQUIREMENTS BETWEEN WATER AND SEWER LINES (10' MIN. EDGE TO EDGE, 5' FOR LATERALS) SHALL CONFORM TO THE COUNTY OF RIVERSIDE HEALTH DEPARTMENT AND THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES REQUIREMENTS. THE AGENCY'S SPECIFICATIONS THAT ARE MORE RESTRICTIVE SHALL GOVERN IN ALL CASES.
14. PRIOR TO CONSTRUCTION OF THE WATER AND/OR SEWER LINES, THE CONTRACTOR SHALL EXPOSE THE EXISTING WATER AND/OR SEWER LINES WHERE CONNECTIONS WILL OCCUR AND VERIFY THE ELEVATION AND LOCATION, APPROVAL BY DISTRICT OF A PROPOSED CONNECTION TO A DISTRICT FACILITY DOES NOT IMPLY APPROVAL OF THE CORRECTNESS OF THE ELEVATION AND/OR LOCATION SHOWN ON THE PLANS.
15. CONTRACTOR SHALL NOT BACKFILL TRENCH UNTIL THE INSPECTOR HAS OBTAINED AS-BUILT STATIONING ON ALL STRUCTURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ACCURATE RECORD DRAWINGS THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE FINAL RECORD DRAWINGS TO THE DISTRICT IMMEDIATELY AFTER CONSTRUCTION.
16. APPROVAL BY DISTRICT IMPLIES NO PERMISSION OTHER THAN THAT WITHIN THE DISTRICT'S JURISDICTION. ALL PERMITS REQUIRED BY LAW SHALL BE ACQUIRED BY THE APPLICANT OR HIS CONTRACTOR. REQUIREMENTS OF DISTRICT SHALL TAKE PRECEDENCE OVER REQUIREMENTS OF OTHER AGENCIES ONLY WHERE DISTRICT REQUIREMENTS ARE MORE STRINGENT.
17. PIPE JOINTS SHALL NOT BE PULLED AT ANY ANGLE GREATER THAN THE MAXIMUM ANGLE RECOMMENDED BY THE PIPE MANUFACTURER.
18. THE PROPOSED WORK SHALL BE SUBORDINATED TO ANY OPERATIONS DISTRICT MAY CONDUCT, AND SHALL BE COORDINATED WITH SUCH OPERATIONS AS DIRECTED BY DISTRICT.
19. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) AND HAVE ALL UNDERGROUND UTILITIES MARKED PRIOR TO CONSTRUCTION, PER U.S.A. REQUIREMENTS.
20. CONTRACTOR SHALL FURNISH AND INSTALL ALL FACILITIES IN ACCORDANCE WITH THE DISTRICT'S STANDARD SPECIFICATIONS AND STANDARD DRAWINGS FOR WATER AND SANITARY SEWER FACILITIES (LATEST REVISION). THE SPECIFICATIONS AND STANDARD DRAWINGS ARE AVAILABLE FROM THE DISTRICT. CONTRACTOR SHALL BE IN POSSESSION OF DISTRICT'S SPECIFICATIONS AND STANDARD DRAWINGS ON THE JOB SITE AT ALL TIMES. ANY CONSTRUCTION AND/OR MATERIALS NOT COVERED IN DISTRICT STANDARDS SHALL BE APPROVED BY THE DISTRICT PRIOR TO CONSTRUCTION.
21. ALL PERMITS REQUIRED BY LAW SHALL BE ACQUIRED BY THE APPLICANT OR THEIR CONTRACTOR.
22. ALL CONSTRUCTION SHALL CONFORM TO CURRENT CAL OSHA SAFETY REQUIREMENTS.
23. CONTRACTOR SHALL SHORE ALL TRENCHES AND CONDUCT ALL CONSTRUCTION AND OPERATIONS IN ACCORDANCE WITH CAL-OSHA REQUIREMENTS.
24. CONTRACTOR SHALL DESIGNATE A QUALIFIED SUPERINTENDENT WITH FULL AUTHORITY TO ACT ON BEHALF OF THE CONTRACTOR. SAID SUPERINTENDENT SHALL BE ON THE JOB SITE AT ALL TIMES.
25. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL HIRE A DISTRICT APPROVED VIDEO COMPANY TO VIDEO THE SEWERMAINS IN DVD FORMAT (VIDEO FILE FORMAT TO BE VIEWABLE ON A STANDARD DVD PLAYER/COMPUTER AND/OR AS APPROVED BY THE DISTRICT). DISTRICT SHALL REVIEW SAID DVD'S FOR POTENTIAL CONSTRUCTION DEFECTS PRIOR TO ACCEPTANCE OF THE PROJECT. PAYMENT FOR ALL SUCH SERVICES SHALL BE BORNE BY THE CONTRACTOR.
26. CONTRACTOR SHALL FOLLOW THE LUMBER YARD'S DELIVERY SCHEDULE SET FORTH BY THE OWNER OF THE LUMBER YARD. NO EXTRA COMPENSATION WILL BE AWARDED TO THE CONTRACTOR DUE TO ANY DELAYS CAUSED BY LUMBER YARD'S DELIVERY SCHEDULE.
27. NIGHT WORK WILL NOT BE PERMITTED BY THE COUNTY DUE TO THE RESIDENTIAL AREAS OF 34TH STREET, ARMSTRONG ROAD, 33RD STREET AND FLORINE AVENUE, WORKING HOURS ARE LIMITED TO 9AM TO 2 PM.
28. DURING THE CONSTRUCTION AND INSTALLATION OF PROPOSED PIPELINES AND FACILITIES CLOSE TO EXISTING UTILITIES, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MEANS TO PROTECT IN PLACE AND SUPPORT ALL EXISTING UTILITIES, EXISTING BACKFILL MATERIAL, EXISTING PAVEMENT, ETC. IF SURROUNDING BACKFILL AND PAVING FAILS DURING CONSTRUCTION, CONTRACTOR SHALL PROVIDE FOR ALL RESTORATION OF BACKFILL, COMPACTION, SUB-BASE, BASE PAVEMENT, GRIND AND CAP PER COUNTY STANDARDS AND SPECIFICATIONS AT NO ADDITIONAL COST TO CONTRACT.



SECTIONS 8 AND 9, TOWNSHIP: 2 South, RANGE: 5 West
THOMAS GUIDE PAGE 645 GRID A7, B7

VICINITY MAP

N.T.S.

PLANS APPROVED BY:

JURUPA COMMUNITY SERVICES DISTRICT

BY: _____ 6-18-10
ELDON HORST - GENERAL MANAGER — DATE

BY: _____ 6/17/10
OPERATIONS DEPARTMENT — DATE

BY: _____ 6/17/2010
ENGINEERING DEPARTMENT — DATE

LEGEND

- PROPOSED SEWER FORCEMAIN
- PROPOSED SEWER MAIN
- PROPOSED SEWER MANHOLE
- SWR FM — EXISTING SEWER FORCE MAIN (SIZE NOTED)
- G — EXISTING GAS LINES (SIZE NOTED)
- EXISTING VALVE (WATER)
- E — EXISTING UNDERGROUND ELECTRIC LINES
- EXISTING SEWER LATERALS
- 15" S — EXISTING SEWERMAIN (SIZE NOTED)
- EXISTING SEWER MANHOLE
- EXISTING STORM DRAIN MANHOLE
- PROPERTY BOUNDARY
- EXISTING POWER POLE
- AC PAVEMENT
- SD — EXISTING STORM DRAIN (SIZE NOTED)
- G — EXISTING GAS LINES (SIZE NOTED)
- FO — EXISTING UNDERGROUND FIBER OPTIC LINES
- T — EXISTING UNDERGROUND TELEPHONE LINES
- W — EXISTING WATERLINES (SIZE NOTED)
- OH — OVERHEAD WIRE
- RAIL ROAD
- X — CHAIN LINK FENCE
- XX — WOODEN FENCE
- EXISTING EASEMENT LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF PAVEMENT
- CONCRETE SURFACE

SPECIAL SEWER NOTES:

1. CONTRACTOR SHALL ABANDON ALL EXISTING SEWER MANHOLES AND PIPELINES IN PLACE PER PLAN AND SPECIFICATIONS. ABANDONMENT SHALL CONFORM AND FOLLOW GREEN BOOK SECTION 306-5 AND THE CONTRACT DOCUMENTS.
2. ALL SEWER BYPASS OPERATIONS SHALL CONFORM TO SECTION 500-1.2.4. OF THE GREEN BOOK AND THE CONTRACT DOCUMENTS AND BE COORDINATED WITH THE SEWER SYSTEM SUPERVISOR SEVEN (7) DAYS PRIOR TO THE BYPASS OPERATION.
3. CONTRACTOR SHALL CONSTRUCT SEWER GRAVITY MAIN AND MANHOLES FROM DOWN STREAM AND MOVE TOWARDS UPSTREAM. SEWER PIPELINE AND MANHOLES SHALL BE TESTED AND ACCEPTED BY DISTRICT PRIOR TO MAKING CONNECTIONS. THE EXISTING SERVICES SHALL BE MAINTAINED AND NOT BE INTERRUPTED DURING CONSTRUCTION. CONTRACTOR SHALL USE NECESSARY EQUIPMENT AND METHOD INCLUDING BUT NOT LIMITED PUMPING, PIPING, SEWER TRUCK, BYPASS, ETC. CONTRACTOR SHALL INCLUDE THE ASSOCIATED COSTS IN HIS BID PROPOSAL AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.
4. ALL BOLT DOWN/WATER TIGHT MANHOLE FRAMES AND COVERS AS DESIGNATED ON THE PLANS HEREIN SHALL BE PROVIDED WITH PENTA-HEAD, STAINLESS STEEL BOLTS.
5. CONTRACTOR SHALL FURNISH AND INSTALL PERMANENT MARKERS INSCRIBED WITH THE SEWER FORCEMAIN INFORMATION AND LOCATION OF FORCEMAIN FROM MARKER. THE MINIMUM INFORMATION REQUIRED TO BE INSCRIBED ARE: OWNER, SIZE AND MATERIAL, DEFLECTION (IF APPLICABLE), MARKER SHALL BE A PERMANENT BRASS DISK, SET IN 1-FOOT DIAMETER x 6-INCH CONCRETE PAD INSTALLED BEHIND EXISTING CURB ALONG FORCEMAIN ALIGNMENT. THE LOCATION SHALL BE: EVERY 500-FEET, ALL DEFLECTIONS, AND CONNECTIONS TO LIFT STATION AND DISCHARGE MANHOLE.

NOTICE TO CONTRACTOR

1. THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (UTILITY PIPES, STRUCTURES, ETC.) SHOWN ON THESE PLANS (MAIN LINES ONLY - NO SERVICE LATERALS) WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY THESE MEMBER AGENCIES AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN.
2. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITIES SHOWN ON THESE PLANS AND/OR ANY OTHER UNDERGROUND UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
3. CALL UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-422-4133 AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION
4. IF THE SURVEY MONUMENTS ARE GOING TO BE DISTURBED, THE MONUMENT SHALL BE TIED OUT PRIOR TO START OF CONSTRUCTION BY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR. CONTRACTOR SHALL CONFIRM THAT THE MONUMENTS ARE RESTORED UPON COMPLETION OF WORK IF DISTURBED.

BASIS OF BEARING

RIVERSIDE COUNTY BENCHMARK, BM ML 3-64, RESET 1970, ELEVATION = 864.497

RIVERSIDE COUNTY BENCHMARK, BM ML 4-64, EST. 5-70, ELEVATION = 854.814

BENCHMARK

RIVERSIDE COUNTY B.M. ML4-64,
AT THE NORTHEAST CORNER OF THE HALL AVE BRIDGE #55-415 OVER HIGHWAY #60, 246.0 FEET SOUTHWEST OF 28TH AVE 15.0 FEET SOUTHEAST OF HALL AVENUE AT THE NORTHEAST END OF A RAIL ABUTMENT AND 2.0 FEET HIGHER THAN THE SIDEWALK. A BRASS DISK SET IN THE TOP OF A 1.0 FOOT x 2.5 FOOT CONCRETE POST AND MARKED M.L.4-64
ELEV=854.814

ABBREVIATIONS:

AH.	=	AHEAD
BOTT	=	BOTTOM
BK.	=	BACK
C.L.	=	CENTERLINE
℄	=	CENTERLINE
CL.	=	CLASS
C.O.	=	CLEAN OUT
CONC.	=	CONCRETE
DIA.	=	DIAMETER
DIP	=	DUCTILE IRON PIPE
ELECT.	=	ELECTRICAL
EL.	=	ELEVATION
EX.	=	EXISTING
F.F.	=	FINISH FLOOR
F.L.	=	FLOW LINE
FL.	=	FLANGED
F.M.	=	FORCE MAIN
FT	=	FOOT/FEET
HP	=	HORSE POWER
INV	=	INVERT
IRR.	=	IRRIGATION
J.C.S.D.	=	JURUPA COMMUNITY SERVICES DIST.
L.F.	=	LINEAR FEET
LT.	=	LEFT
L.S.	=	LIFT STATION
MH	=	MANHOLE
PE	=	PLAIN END
PT	=	POINT
PVC	=	POLYVINYL CHLORIDE
PROP.	=	PROPOSED
RT.	=	RIGHT
R.O.W.	=	RIGHT OF WAY
S.S.	=	STAINLESS STEEL
SCH.	=	SCHEDULE
SPECS.	=	SPECIFICATIONS
STA.	=	STATION
STL.	=	STEEL
TRANS.	=	TRANSITION
TEMP.	=	TEMPORARY
T.O.V.	=	TOP OF VAULT
T.O.P.	=	TOP OF PIPE
U.L.	=	UNDERWRITERS LABORATORY
VIC.	=	VICTAULIC
VCP	=	VITRIFIED CLAY PIPE
W/	=	WITH

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SHEET 3..... 34th ST AT VALLEY WAY/ARMSTRONG RD - PHASE II
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DATE	BY	MARK		APPR.	DATE
	ENGINEER		REVISIONS		DISTRICT
06/11	MAE	1	RECORD DRAWING		

DESIGNED BY: R.P. DRAWN BY: R.P. CHECKED BY: W.T.M.

SEAL

REGISTERED PROFESSIONAL ENGINEER — SINNARO YOS — 6/17/10 — NO. 68607 — CIVIL — STATE OF CALIFORNIA

PREPARED BY

SINNARO YOS — DATE 6/17/10

R.C.E. NO. 68607

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (951) 686-1070

SCALE: 1"=40'
PLAN: 06-0354_SWR.PRO

BENCHMARK: SEE SHT. NO. 1

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE, CALIFORNIA
FLORINE LIFT STATION REPLACEMENT PROJECT
TITLE SHEET

FOR: J.C.S.D. P.N. 2760 — W.O. 06-0354

SHEET 1 OF 18 SHEETS
DWG. NO. 06-0354

FILE: G:\2006\06-0354\ENGPROD\06-354_SWR.prg 6/17/2010

CAUTION: OVERHEAD LINES

CAUTION: OVERHEAD LINES

CAUTION: OVERHEAD LINES

EX. SEWER MH PROTECT IN PLACE (TYP.)

EX. 2" GAS*

RESTRAINED JOINTS PER J.C.S.D. STD. DWG. NO. C-28

EX. 8" WATER*

STA. 15+40.00

STA. 15+85.00
EX. ½" GAS STEEL

EX. 6" DIA. FORCEMAIN, SEE SHEET 12 FOR DEMOLITION AND ABANDONMENT PLANS

EX. ½" GAS STEEL

EX. ½" GAS STEEL

EX. ½" GAS STEEL

EX. ½" GAS STEEL

EX. ½" GAS STEEL

EX. ½" GAS STEEL

EX. TELE.*

EX 2"PVC PHONE

CAUTION: OVERHEAD LINES

STA. 10+20.75 ℄ MH #12
RIM EL=913.84
PROVIDE T-LOC PVC LINING OR EPOXY LINING FOR THIS MANHOLE PER SPECIFICATIONS

EX. TELE. DUCT*

EX. 10" ABAND.*

EX. TELE. DUCT*

EX. F.O.*

EX. 10" WATER*

EX. 8" SEWER*

STA. 10+78.99 ℄ MH #13
RIM EL=913.94
PROVIDE T-LOC PVC LINING OR EPOXY LINING FOR THIS MANHOLE PER SPECIFICATIONS

EX. ELECT.*

EXISTING GROUND @ C.L. PIPE

EX. AT&T CONDUIT

EX. 12" WATER

EX. 2" COPPER WATER (RELOCATED)

905.68 F.L.

S=-0.0133

S=-0.0196

S=-0.0196

IDENTICAL POINT

EXISTING GROUND @ C.L. PIPE

S=-0.0062

S=-0.0133

905.68 F.L.

EX AT&T FIBER OPTIC

S=0.939

(898.74) F.L.

898.91 F.L.

898.91 F.L.

STA. 15+00.00 ℄ 34TH ST.
V.P.I. = 0°21'40" DN
F.L. = 903.01

STA. 16+50.00 ℄ 34TH ST.
H.P.I. = 11°15'00" LT.
F.L. = 902.03

STA. 16+75.00 ℄ 34TH ST.
V.P.I. = 11°15'00" RT.
F.L. = 901.53

STA. 17+50.00 ℄ 34TH ST.
V.P.I. = 0°27'07" DN
F.L. = 900.06

STA. 13+50.00 ℄ 34TH ST.
V.P.I. = 0°24'31" DN
F.L. = 906.34

EX. 8" DIA. SEWERLINE

EX. 8" DIA. SEWERLINE

S=-0.0275

S=-0.0230

898.24 F.L.

STA. 20+50.00 ℄ 34TH ST.
V.P.I. = 0°45'25" UP
F.L. = 891.82

INSTALL 8" DIA. PVC C-900 (CL.150) SEWER FORCEMAIN PER J.C.S.D. STD. DWG. A-2 WITH LOCATOR WIRE

INSTALL 8" DIA. PVC C-900 (CL.150) SEWER FORCEMAIN PER J.C.S.D. STD. DWG. A-2 WITH LOCATOR WIRE

67.91 L.F. 12" DIA. VCP SEWER, INSTALL CLASS B-2 BEDDING PER J.C.S.D. STD. DWG. S-1

MATCHLINE STA. 22+00 SEE SHEET 3

920 910 900 890

10 11 12 13 14 15 16 17 18 19 20 21 22

SCALES
HORIZ. 1"=40'
VERT. 1"=4'

* CONTRACTOR SHALL DETERMINE EXACT LOCATION AND ELEVATION PRIOR TO CONSTRUCTION

ARMSTRONG ROAD

℄ 34TH STREET STA. 10+00.0
= ℄ ARMSTRONG ROAD 10+00.0

CONSTRUCT 12" DIA. VCP SEWER

STA. 10+78.99 ℄ 34TH ST.
C.L. 4' DIA. MH #13 PER J.C.S.D. STD. DWG. S-7

INSTALL 1,100 L.F. OF 8" DIA. PVC C-900 (CL.150) SEWER FORCEMAIN WITH LOCATOR WIRE

~~STA. 15+50.00 ℄ 34TH ST.~~
~~H.P.I. = 11°15'00" LT.~~

JOINTS PULLED BETWEEN THRU STA 15+45 TO STA 17+00

STA. 16+75.00 ℄ 34TH ST.
~~H.P.I. = 11°15'00" RT.~~

℄ 34th STREET STA. 17+46.58
= ℄ MANOR DRIVE

PROTECT EX. GAS IN PLACE

50' WIDE SCE EASEMENT

PROTECT EXIST. MH IN PLACE

EX. R/W

℄ 34TH STREET

EX. R/W

N35°06'49"W 575.00'

S35°06'49"E 525.00'

EX. R/W

EX. R/W

EX. R/W

EX. R/W

PROTECT EX. SEWER FACILITIES IN PLACE

1100-FOOT PRESSURE ZONE

MATCHLINE STA. 22+00 SEE SHEET 3

EX. MONUMENT, SEE SPECIFICATIONS FOR PROTECTION AND RESTORATION

SEE DETAIL 1 HEREON

REPLACE ALL EX. TRAFFIC SIGNAL LOOPS, CONDUITS AND APPURTENANCES IN KIND PER RIVERSIDE COUNTY STANDARDS, AS APPLICABLE AND AS REQUIRED TO PROVIDE FULLY FUNCTIONAL SYSTEM

STA. 10+20.75 ℄ 34TH ST.
C.L. 4' DIA. MH #12 PER J.C.S.D. STD. DWG. S-7

SKYLANE DRIVE

℄ 34th STREET STA. 14+36.58
= ℄ SKYLANE DRIVE

EX. 6" DIA. FORCEMAIN, SEE SHEET 12 FOR DEMOLITION AND ABANDONMENT PLANS FOR FORCEMAIN AND REPLACEMENT OF EX. MANHOLE

MANOR DRIVE

#	BEARING	LENGTH
1	S76°08'11"E	71.91'

EX. 10" DIA. SEWER

(898.75 F.L.)

INSTALL 12" DIA. VCP SEWER

INSTALL 4' DIA. MH PER J.C.S.D. STD. DWG. S-7

898.91 F.L.

STA. 10+20.75 ℄ 34TH ST.
C.L. MH.

REMOVE INTERFERING PORTION OF EX. 10" DIA. SEWER TO INSTALL MH AND SEWERLINE, REFER TO SPECIFICATIONS FOR TEMPORARY SEWER BYPASS

(898.74 F.L.)

EX. 10" DIA. SEWER

DETAIL 1 - ARMSTRONG RD. GRAVITY SEWER CONNECTION
NOT TO SCALE

34th STREET

RECORD DRAWING

THE INFORMATION ON THIS DRAWING IS OBTAINED FROM OTHERS AND MUST BE VERIFIED IN THE FIELD BY ANYONE PRIOR TO USE OR CONSTRUCTION. THE ENGINEERS OF RECORD ARE NOT RESPONSIBLE FOR UNDERGROUND FACILITY LOCATIONS OR DEPICTIONS. ALL ABOVE GROUND FACILITIES CAN BE READILY SEEN AND VERIFIED BY THE PARTIES THAT INTEND TO USE SAME.

PB = LOCATOR WIRE PULL BOX

PAVEMENT RESTORATION NOTES (COUNTY R.O.W.)

SUBGRADE, BASE PAVING, GRIND AND OVERLAY PER SPECIFICATIONS AND RIVERSIDE COUNTY PERMIT.

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

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A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

DATE	BY	MARK	REVISIONS	APPR.	DATE
06/11	MAE	/1\	RECORD DRAWING		

ENGINEER | DISTRICT

DESIGNED BY: R.P. DRAWN BY: R.P. CHECKED BY: W.T.M.

SEAL

REGISTERED PROFESSIONAL ENGINEER — SINNARO YOS — 6/17/10 — NO. 68607 — CIVIL — STATE OF CALIFORNIA

PREPARED BY

SINNARO YOS 6/17/10
SINNARO YOS DATE

R.C.E. NO. 68607

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (951) 686-1070

SCALE: 1"=40'
PLAN: 06-0354_SWR.PRO

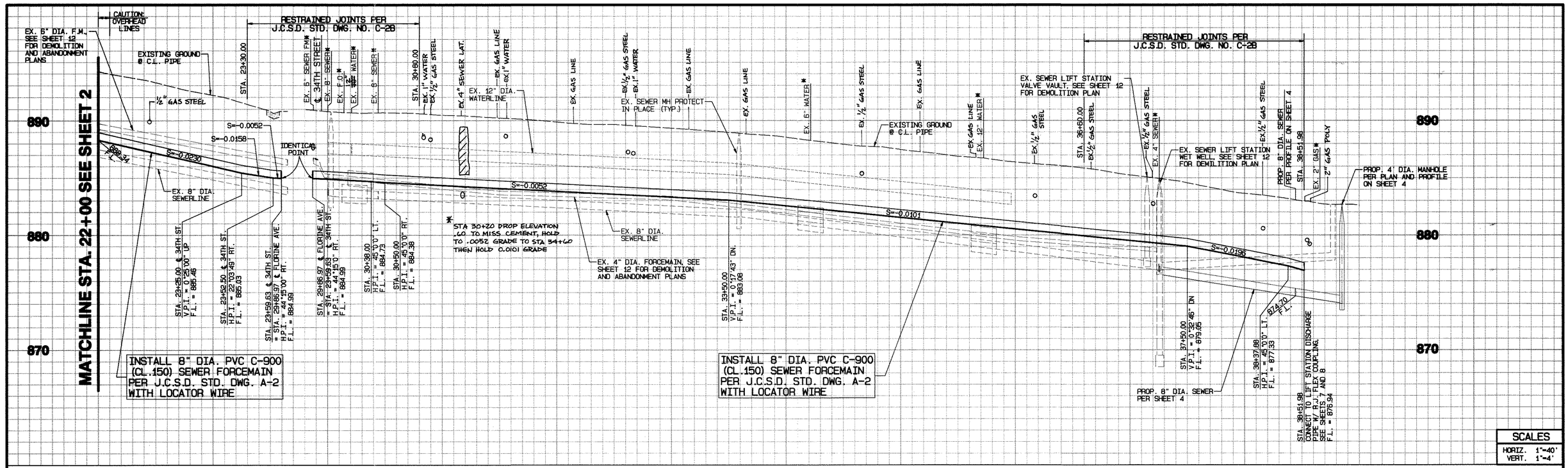
BENCHMARK: SEE SHT. NO. 1

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE, CALIFORNIA
FLORINE LIFT STATION REPLACEMENT PROJECT
PLAN & PROFILE
34TH STREET
STA. 10+00 TO STA. 22+00

FOR: J.C.S.D. P.N. 2760
W.O. 06-0354

SHEET 2 OF 18 SHEETS
DWG. NO. 06-0354

FILE: G:\2006\06-0354\ENGR\ROW\06-354_SWR.dwg 6/17/2010



#	BEARING	LENGTH
1	S13°48'00"E	19.94'

FLORINE AVENUE

PAVEMENT RESTORATION NOTES (COUNTY R.O.W.)

SUBGRADE, BASE PAVING, GRIND AND OVERLAY PER SPECIFICATIONS AND RIVERSIDE COUNTY PERMIT.

RECORD DRAWING

THE INFORMATION ON THIS DRAWING IS OBTAINED FROM OTHERS AND MUST BE VERIFIED IN THE FIELD BY ANYONE PRIOR TO USE OR CONSTRUCTION. THE ENGINEERS OF RECORD ARE NOT RESPONSIBLE FOR UNDERGROUND FACILITY LOCATIONS OR DEPICTIONS. ALL ABOVE GROUND FACILITIES CAN BE READILY SEEN AND VERIFIED BY THE PARTIES THAT INTEND TO USE SAME.

UNDERGROUND SERVICE ALERT
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1·800·227·2600
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A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

DATE	BY	MARK	REVISIONS	APPR.	DATE
06/11	MAE	1	RECORD DRAWING		

ENGINEER | DISTRICT

DESIGNED BY: R.P. DRAWN BY: R.P. CHECKED BY: W.T.M.

SEAL

REGISTERED PROFESSIONAL ENGINEER SINNARO YOS 6/17/10 NO. 68607 CIVIL STATE OF CALIFORNIA

PREPARED BY

SINNARO YOS 6/17/10
SINNARO YOS DATE

R.C.E. NO. 68607

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (951) 686-1070

SCALE: 1"=40'
PLAN: 06-0354_SWR.PRO

BENCHMARK: SEE SHT. NO. 1

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE, CALIFORNIA
FLORINE LIFT STATION REPLACEMENT PROJECT
PLAN & PROFILE
34TH STREET & FLORINE AVENUE
STA. 22+00 TO STA. 37+00

FOR: J.C.S.D. P.N. 2760 W.O. 06-0354

SHEET 3 OF 18 SHEETS
DWG. NO. 06-0354

FILE: G:\2006\06-0354\ENGPROS\06-354_SWR.pro 6/17/2010

JURUPA COMMUNITY SERVICES DISTRICT

RIVERSIDE COUNTY, CALIFORNIA

2001/2002 WATERLINE REPLACEMENT PROGRAM

VALLEY WAY/ARMSTRONG ROAD, MISSION BLVD, GRANITE HILL DRIVE, SIERRA AVENUE, APPLE AVENUE, HASTINGS BLVD.

GENERAL NOTES:

1. ALL CONSTRUCTION UNDER THIS CONTRACT SHALL CONFORM WITH ALL PROVISIONS OF THE SPECIAL REQUIREMENTS, BASIC SPECIFICATIONS, AND CONSTRUCTION DRAWINGS, ALL INCLUSIVE UNDER THIS CONTRACT.
2. PRIOR TO FABRICATION OF THE PIPELINES AND FITTINGS, CONTRACTOR SHALL EXPOSE ALL CONNECTION POINTS AND MEASURE OUTSIDE DIAMETER OF EXISTING WATERLINES FOR PURPOSES OF FABRICATING CONNECTING PIPE AND BUTT-STRAPS. THE CONTRACTOR SHALL ALSO VERIFY THE ELEVATION AND LOCATION OF THE EXISTING WATERLINES AT ALL POINTS OF CONNECTION. APPROVAL BY J.C.S.D. OF A PROPOSED CONNECTION TO A J.C.S.D. FACILITY DOES NOT IMPLY APPROVAL OF THE CORRECTNESS OF THE CORRECTNESS OF THE LOCATION AND ELEVATION SHOWN ON THE PLANS.
3. REPLACEMENT PAVING IN ALL PAVED ROADS, TRAFFIC CONTROL, RESTRIPING, SPECIAL TRENCH BACKFILL, SPECIAL CLASS 2 BASE REQUIREMENTS, ETC. SHALL BE IN ACCORDANCE WITH THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT PERMIT REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT PERMIT SECTION AT (909) 955-6790 AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. IF THE PROPOSED PIPELINE CROSSES A PAVED STREET AT OTHER THAN 90 DEGREES, THE LIMITS OF PAVEMENT OVERLAY SHALL BE AT RIGHT ANGLES TO THE STREET CENTERLINE AND SHALL ENCOMPASS THE ENTIRE TRENCH PAVING.
4. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS, ALL STEEL BENDS AND FITTINGS SHALL BE CEMENT MORTAR LINED AND CEMENT MORTAR COATED, AND SHOP FABRICATED PER AWWA STANDARDS (LATEST); MODIFIED PER DISTRICT SPECIFICATION. ALL FITTINGS THAT ARE NOT CONNECTED BY BUTTSTRAPS SHALL HAVE SIMULATED WELD BELLS WITH A PLATE THICKNESS OF AT LEAST 1/4 OF AN INCH.
5. ALL OUTLETS WHERE THE RATIO OF THE OUTLET DIAMETER TO THE MAINLINE DIAMETER IS 0.60 OR GREATER SHALL HAVE WRAPPER REINFORCEMENT AROUND THE MAINLINE WITH A PLATE THICKNESS OF AT LEAST 3/16 OF AN INCH. ALL OTHER OUTLETS SHALL HAVE REINFORCEMENT COLLARS, 3/16 OF AN INCH MIN.
6. ANY CONTRACTOR/SUB CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS. SAID EXISTING IMPROVEMENTS SHALL INCLUDE BUT NOT BE LIMITED TO BERMS, DITCHES, DRIVEWAYS, FENCES, AND PLANTS. ANY REMOVAL OR DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE AND SHALL BE APPROVED BY THE DISTRICT.
7. THE CONTRACTOR/SUB CONTRACTOR SHALL EXAMINE CAREFULLY THE SITE OF THE WORK CONTEMPLATED, ALSO THE PLANS AND SPECIFICATIONS. THE SUBMISSION OF A BID PROPOSAL SHALL BE CONCLUSIVE EVIDENCE THAT THE CONTRACTOR/SUB CONTRACTOR HAS INVESTIGATED THE PROJECT SITE AND IS SATISFIED AS TO THE CONDITIONS TO BE ENCOUNTERED, AS TO THE CHARACTER, QUALITY, AND SCOPE OF THE WORK TO BE PERFORMED, THE QUANTITIES OF MATERIAL TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THE BID PROPOSAL, PLANS AND GENERAL SPECIFICATIONS.
8. LINEAR FEET OF PIPE SHOWN ON THE DRAWINGS ARE HORIZONTAL MEASUREMENTS AND EXTEND THROUGH VALVES, BENDS, AND OTHER APPURTENANCES.
9. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH J.C.S.D. STANDARDS AND SPECIFICATIONS. ANY CONSTRUCTION AND/OR MATERIALS NOT COVERED IN THE J.C.S.D. STANDARDS SHALL BE APPROVED BY THE DISTRICT.
10. PIPE SHALL BE HANDLED SO AS TO PROTECT PIPE AND PIPE JOINTS, AND LINING AND COATING, AND CAREFULLY BEDDED TO PROVIDE CONTINUOUS BEARING AND PREVENT UNEVEN SETTLEMENT. PIPE SHALL BE PROTECTED AGAINST FLOTATION AT ALL TIMES. OPEN ENDS OF WATERLINE SHALL BE SEALED AT ALL TIMES WHEN CONSTRUCTION IS IN PROGESS.
11. FAILURE TO MEET ANY REQUIREMENTS OF RIVERSIDE COUNTY AND THE A.W.W.A. SPECIFICATIONS WILL BE CAUSE FOR REJECTION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL AND MAINTAIN ALL CONSTRUCTION, REGULATORY, GUIDE AND WARNING SIGNS WITHIN THE PROJECT LIMITS AND ITS SURROUNDINGS AND TO PROVIDE SAFE PASSAGE FOR THE TRAVELING PUBLIC AND WORKERS UNTIL THE FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT BY THE COUNTY.
13. CONTRACTOR SHALL NOT BACKFILL TRENCH UNTIL THE INSPECTOR HAS OBTAINED AS-BUILT STATIONING ON ALL STRUCTURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ACCURATE "AS BUILT" DRAWINGS TO THE DISTRICT IMMEDIATELY AFTER CONSTRUCTION.
14. TEST PRESSURE SHALL BE 150% OF PIPE CLASS RATING. (I.E. CLASS 150 = 225 PSI TEST PRESSURE) MAXIMUM ALLOWABLE LEAKAGE IS 10 GALLONS/ INCH OF PIPE DIAMETER/MILE OF PIPE LENGTH/24 HOURS. NO VISIBLE LEAKAGE IS PERMITTED. MINIMUM TEST DURATION IS 4 HOURS. DISTRICT INSPECTOR TO INSPECT TEST USING CONTRACTOR PROVIDED PRESSURE GAUGE. INSPECTOR TIME SPENT INSPECTING ANY REQUIRED RETESTS (INCLUDING RATE AND OVERHEAD) SHALL BE AT THE EXPENSE OF THE CONTRACTOR. FOR TESTING PURPOSES ALL PIPE SHALL BE CONSIDERED CLASS 150.
15. CONTRACTOR SHALL SHORE ALL TRENCHES AND CONDUCT ALL CONSTRUCTION AND OPERATIONS IN ACCORDANCE WITH CAL-OSHA REQUIREMENTS.
16. PIPE JOINTS SHALL NOT BE PULLED AT ANY ANGLE GREATER THAN THE MAXIMUM ANGLE RECOMMENDED BY THE PIPE MANUFACTURER.
17. NO EXISTING MAIN LINE VALVE SHALL BE OPERATED BY ANY ONE OTHER THAN A DISTRICT EMPLOYEE.
18. THE CONTRACTOR SHALL INSTALL CONCRETE THRUST BLOCKS AT ALL VERTICAL AND HORIZONTAL BENDS, TEES, OUTLETS, ETC., IN ACCORDANCE WITH SHT. N. Z-1.
19. THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN (MAIN LINES NO LATERALS OR SERVICES SHOWN) ON THE DRAWINGS WERE OBTAINED FROM AVAILABLE RECORDS AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL DETERMINE THE DEPTH AND LOCATION OF EXISTING UNDERGROUND FACILITIES PRIOR TO TRENCHING AND SHALL BE REQUIRED TO TAKE ANY PRECAUTIONARY MEASURES TO PROTECT ALL LINES SHOWN AND/OR ANY OTHER UNDERGROUND UTILITY LINES NOT OF RECORD OR NOT SHOWN ON THE PLANS. CALL UNDERGROUND SERVICE ALERT (USA) 1-800-227-2600 AT LEAST 48 HOURS PRIOR TO EXCAVATION.
20. IN ACCORDANCE WITH THE SPECIFICATIONS, ONLY UTILITY MAINS (NO LATERALS OR SERVICES) ARE SHOWN. CONTRACTOR SHALL COORDINATE WITH THE DISTRICT FOR FIELD LOCATION OF SERVICES AND CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR PROTECTING ALL EXISTING SERVICES (INCLUDING SEWER LATERALS) AT NO ADDITIONAL COST TO THE DISTRICT.
21. WHERE THE PROPOSED WATERLINES CROSS UNDER EXISTING SEWER LATERALS, THE CONTRACTOR SHALL ADHERE TO THE SPECIAL CONSTRUCTION REQUIREMENTS PER J.C.S.D. STD. DWG. NO. A-10 IN THE PROJECT SPECIFICATIONS.
22. ALL HIGH POINTS IN THE PIPELINE SHALL HAVE AN AIR-VAC INSTALLED PER J.C.S.D. STD. DWG. NO. E-1.
23. ALL WATERLINE INSTALLATIONS SHALL COMPLY WITH RIVERSIDE COUNTY STD. NO. 509 RE: WATER AND SEWERAGE FACILITIES SEPARATION.
24. APPROVAL BY J.C.S.D. IMPLIES NO PERMISSION OTHER THAN THAT WITHIN THE DISTRICT'S JURISDICTION. ALL PERMITS REQUIRED BY LAW SHALL BE ACQUIRED BY THE CONTRACTOR UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS. REQUIREMENTS OF J.C.S.D. SHALL TAKE PRECEDENCE OVER REQUIREMENTS OF OTHER AGENCIES ONLY WHERE J.C.S.D. REQUIREMENTS ARE GREATER.

SPECIAL CONSTRUCTION NOTES:

1. ALL PIPELINES LESS THAN 12" DIA. SHALL BE INSTALLED WITH A MINIMUM 36 INCH COVER AT THE FINISH GRADE OVER THE PIPE AND ALL PIPELINES 12" DIA. OR GREATER, SHALL HAVE 42 INCH MINIMUM COVER, UNLESS OTHERWISE NOTED.
2. THE PIPELINES ALIGNMENT SHOWN ON THE PLANS IS APPROXIMATE, AND MAY BE ADJUSTED (AS DIRECTED BY THE ENGINEER) IF NECESSARY DUE TO UTILITY CONFLICT.
3. FOR TYPES OF METERS/SERVICES, REFER TO THE LEGEND HEREON. LOCATION OF ALL SERVICES SHOWN ARE SCHEMATIC, AND SHALL BE INSTALLED AS DIRECTED IN THE FIELD BY THE ENGINEER. NEW SERVICE LINES CROSSING EXISTING PAVED ROADS SHALL BE BORED AS REQUIRED BY THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT ENCROACHMENT PERMIT.
4. THE LOCATION FOR FIRE HYDRANTS SHOWN ON EACH SHEET ARE SCHEMATIC WITH RESPECT TO THE STREET RIGHT OF WAY LINE. REFER TO J.C.S.D. STD. DWG. G-1 FOR PLACEMENT OF ALL FIRE HYDRANTS WITH RESPECT TO THE RIGHT OF WAY LINES AND THE CURB LINES. FIRE HYDRANTS SHALL BE CONSTRUCTED TO THE STATIONS INDICATED ON THE PLANS, UNLESS OTHERWISE DIRECTED BY THE DISTRICT INSPECTOR. (APPLICABLE TO ALL WATERLINE APPURTENANCES; AIR VALVES, BLOW-OFFS, METERS, ETC.)
5. ALL EXISTING ABOVE GROUND APPURTENANCES OFF OF EXISTING WATERLINES TO BE ABANDONED AS INDICATED ON THE PLANS SHALL BE REMOVED AND DELIVERED TO THE DISTRICT YARD UPON COMPLETION AND OPERATION OF THE NEW FACILITIES. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE CONTRACTORS BID AND NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFOR BY THE DISTRICT.

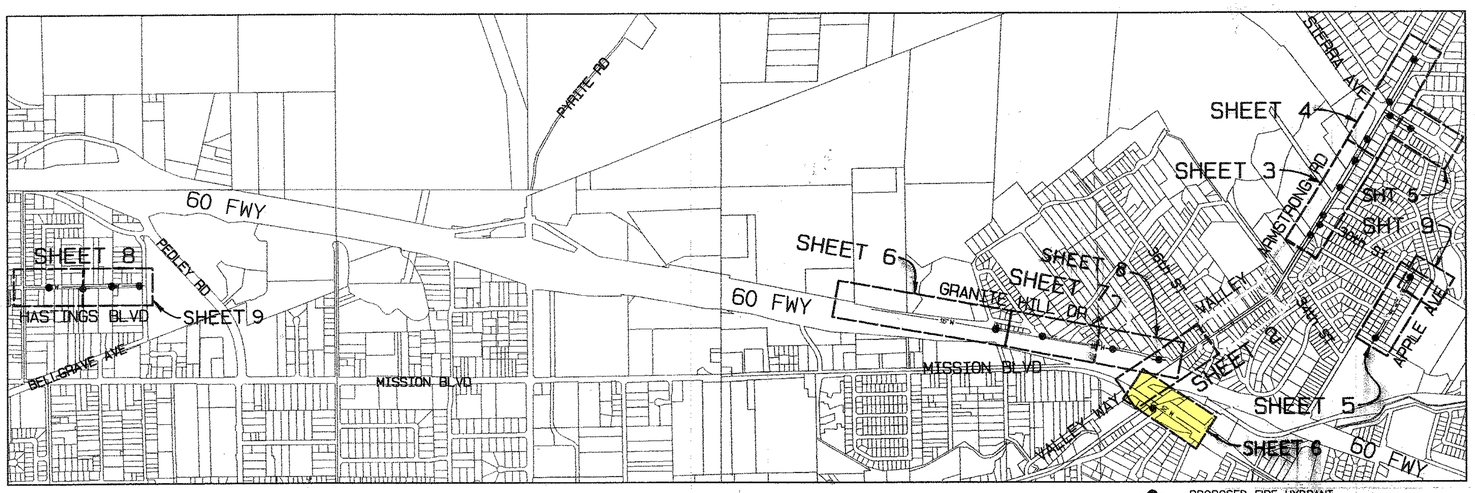
I CERTIFY THAT THE DESIGN OF THE WATER SYSTEM IS IN ACCORDANCE WITH THE REQUIREMENTS PRESCRIBED BY THE RIVERSIDE COUNTY FIRE DEPARTMENT.

BY: William T. Malone — 9/24/02
WILLIAM T. MALONE — DATE
R.C.E. 47569

COUNTY OF RIVERSIDE
FIRE DEPARTMENT

Cecilia V. — 10-4-02
APPROVED BY — DATE

LOCATION MAP



JURUPA COMMUNITY SERVICES DISTRICT

BOARD OF DIRECTORS

PAUL HAMRICK, PRESIDENT
JAMES C. HUBER, VICE PRESIDENT
CURTIS W. HUMMEL, DIRECTOR
KENNETH McLAUGHLIN, DIRECTOR
JACK SMITH, DIRECTOR

PLANS APPROVED BY:

JURUPA COMMUNITY SERVICES DISTRICT

BY: Carole McGreevy — 8/30/02
CAROLE MCGREEVY – GENERAL MANAGER — DATE

BY: Tom O'Neill — 8/29/2002
TOM O'NEILL – OPERATIONS MANAGER — DATE

- PROPOSED FIRE HYDRANT 24 EA.
- RETROREFLECTIVE MARKER 31 EA.
- = PROPOSED FIRE HYDRANT (AT INTERSECTION)

RECORD DRAWING
THE INFORMATION ON THIS DRAWING IS OBTAINED FROM OTHERS AND MUST BE VERIFIED IN THE FIELD BY ANYONE PRIOR TO USE OR CONSTRUCTION. ALBERT A. WEBB ASSOCIATES IS NOT RESPONSIBLE FOR UNDERGROUND FACILITY LOCATIONS OR DEPICTIONS. ALL ABOVE GROUND FACILITIES CAN BE READILY SEEN AND VERIFIED BY THE PARTIES THAT INTEND TO USE SAME.

LEGEND

- PROPOSED WATERLINE (SIZE NOTED)
- PROPOSED INLINE GATE VALVE PER J.C.S.D STD. NO. B-1. (LINE SIZE)
- PROPOSED INLINE BUTTERFLY VALVE PER J.C.S.D STD. NO. B-3. (LINE SIZE)
- PROPOSED SUPER FIRE HYDRANT (6"x 4"x (2)2 1/2") PER J.C.S.D. STD. NO. G-1A (PAINT FOR CLASS A-GREEN) ALL BARRELS TO BE CHROME YELLOW
- PROPOSED FIRE HYDRANT (6" x 4" x 2 1/2") PER J.C.S.D. STD. NO. G-1 (PAINT FOR CLASS A-GREEN) ALL BARRELS TO BE CHROME YELLOW
- PROPOSED AIR VALVE. (SIZE NOTED)
- PROPOSED BLOW-OFF (SIZE NOTED)
- PROPOSED NEW 1" SERVICE LINE CONNECTED TO EXISTING METER, OR NEW METER BOX AND PIPING AND FITTINGS INSTALLATION WHERE DIRECTED BY DISTRICT, PER J.C.S.D. STD. NO. D-1
- LIMITS OF EXISTING PAVING
- E — EXISTING UNDERGROUND ELECTRIC LINES
- 8"S — EXISTING SEWERMAIN (SIZE NOTED)
- SD — EXISTING STORM DRAIN (SIZE NOTED)
- 2"G — EXISTING GAS LINES (SIZE NOTED)
- T — EXISTING UNDERGROUND TELEPHONE LINES
- 8"W — EXISTING WATERLINES (SIZE NOTED)
- EXISTING EDGE OF PAVEMENT
- 8"S — EXISTING SEWER MANHOLE
- EXISTING RIGHT-OF-WAY LINE
- TRAF — EXISTING TRAFFIC LOOPS/CONDUITS
- 1234 — STREET ADDRESS
- BLUE RETRROREFLECTIVE PAVEMENT MARKER PLACE 6" INCHES FROM CENTER OF ROADWAY ON THE SIDE NEAREST THE FIRE HYDRANT

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FORASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

DATE	BY	MARK		APPR.	DATE
3/05	RLP	1	"RECORD DRAWING"		
ENGINEER				COUNTY	

DESIGNED BY: A.E. DRAWN BY: A.E. CHECKED BY: W.T.M.

RECOMMENDED FOR APPROVAL

CHECKED:

DATE:

SEAL: REGISTERED PROFESSIONAL ENGINEER — WILLIAM T. MALONE — NO. C47569 EXP. 12-31-03 — CIVIL — STATE OF CALIFORNIA

PREPARED BY William T. Malone DATE: 8/28/02
WILLIAM T. MALONE
R.C.E. NO. C47569 EXP. DATE 12-31-03

SCALE: NONE
CADPLAN: 01296WA.PRO

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (909) 686-1070

BENCHMARK: AT THE S.W. CORNER OF FELSPAR ST. AND 56th ST.; 174' WEST OF FELSPAR ST.; 17' SOUTH OF 56th ST.; A BRASS DISC SET IN THE EAST OF A ELEVATION = 687.713

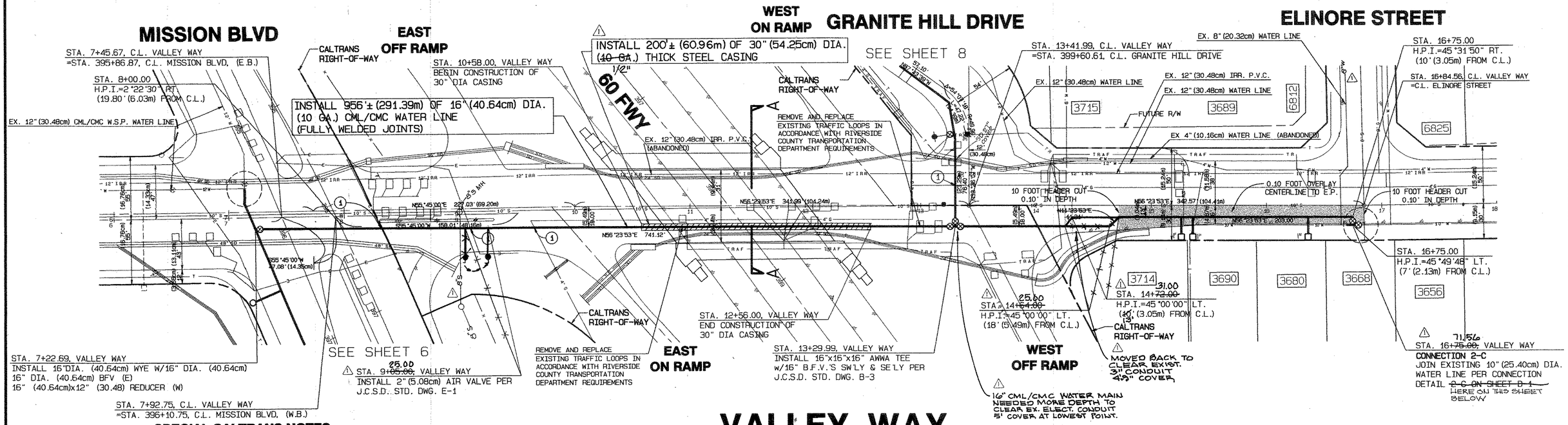
JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

WATERLINE REPLACEMENT PROGRAM
COVER SHEET

FOR. J.C.S.D. P.N. 2152 — W.O. 01-0296

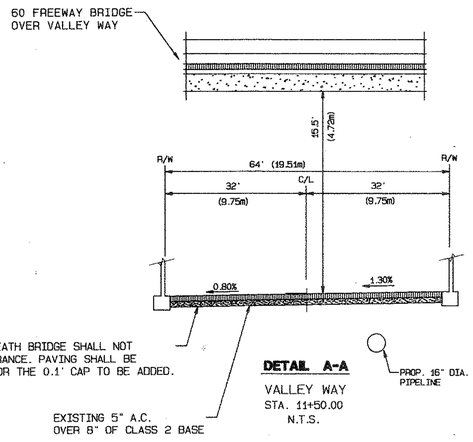
SHEET 1 OF 11 SHEETS
DWG. NO. 01-0296

FILE: G:\2001\01-0296\DWGS\PROS\01296WA.prs

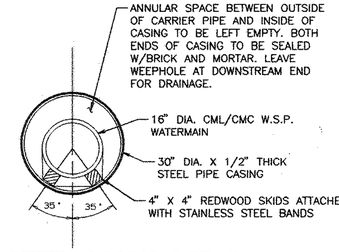


SPECIAL CALTRANS NOTES:

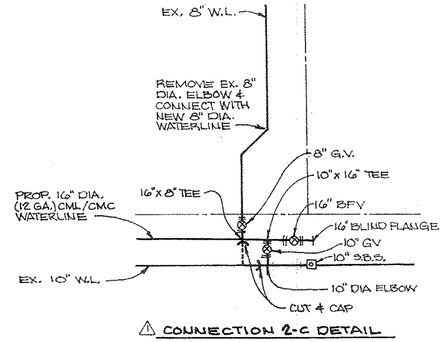
1. ANY SURFACE AND/OR SUBGRADE DISTRESS APPEARING ON CALTRANS R/W AND/OR NEARBY STRUCTURES SHOULD BE IMMEDIATELY REPAIRED TO CALTRANS STANDARDS.
2. THE CONTRACTOR SHALL APPLY AND OBTAIN AN ENCROACHMENT PERMIT FROM CALTRANS BEFORE BEGINNING ANY WORK WITHIN STATE RIGHT-OF-WAY.
3. THE INSTALLATION SHALL CONFORM TO ALL REQUIREMENTS OF TABLE 5.7 OF PERMIT MANUAL IN ADDITION TO THE REQUIREMENTS OF SECTION 623.
4. ALL DISTURBED AREAS IN THE STATE RIGHT-OF-WAY MUST BE TREATED FOR EROSION CONTROL (HYDRO SEEDING OR EQUIVALENT, OR AS DIRECTED BY THE STATE'S REPRESENTATIVE). THE RESPONSIBILITY FOR MAINTAINING EROSION CONTROL WILL NOT BE RELEASED UNTIL THE SEEDING IS WELL ESTABLISHED.
5. UPON COMPLETION OF THE WORK, THE PERMITTE SHALL PROVIDE THREE SETS OF ACCURATE AS-BUILT DRAWINGS OF THE INSTALLED PIPE.
6. ANY EXISTING LANDSCAPING DAMAGED, REMOVED OR ADVERSELY AFFECTED BY THE OPERATION SHALL BE REPLACED IN KIND.
7. ANY CHAIN-LINK FENCE RELOCATED TO FACILITATE THE CONSTRUCTION OF THIS PROJECT WITHIN THE STATE RIGHT-OF-WAY SHALL BE REPLACED WITH TYPE CL-6 FENCE PER STATE'S STANDARD PLANS.
8. NO EQUIPMENT OR MATERIALS SHALL BE STORED WITHIN THE STATE RIGHT-OF-WAY.
9. CONSTRUCTION AREA SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, INSTALLED, AND MAINTAINED DURING CONSTRUCTION, AND REMOVED WHEN NO LONGER REQUIRED.
10. ALL EXCAVATION SHALL BE BACKFILLED TO THE ORIGINAL CONDITION. RELATIVE COMPACTION OF NOT LESS THAN 95 PERCENT SHALL BE OBTAINED FOR BACKFILL. PLEASE REFER TO SECTION 19 "EARTHWORK" OF STATE STANDARD SPECIFICATIONS, DATED JULY 1999.
11. THE STATE INSPECTOR MAY STOP WORK IF THE STATE STANDARD PROCEDURES OR APPROVED LANE CLOSURE/TRAFFIC CONTROL PLANS ARE NOT FOLLOWED.
12. ALL STATE FACILITIES AND UTILITIES SHALL BE PROTECTED IN PLACE.
13. THE CONTRACTOR SHALL PROVIDE A NOTICE OF INTENT (NOI) TO THE SANTA ANA REGIONAL WATER QUALITY BOARD AT LEAST 30 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
14. THE CONTRACTOR SHALL SUBMIT 4 COPIES OF WATER POLLUTION CONTROL PLAN (WPCP) FOR THE WORK WITHIN STATE RIGHT-OF-WAY OR STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE ENTIRE PROJECT, INCLUDING THE PORTION WITHIN THE STATE RIGHT-OF-WAY.
15. CONTRACTOR MUST SUBMIT SHORING PLANS TO CALTRANS WHILE APPLING FOR ENCROACHMENT PERMIT INTO STATE RIGHT OF WAY.
16. WHERE SURVEY MONUMENTS EXIST, SUCH MONUMENTS SHALL BE PROTECTED OR SHALL BE REFERENCED AND RESET PURSUANT TO "BUSINESS AND PROFESSIONS CODE", SECTIONS 8700 TO 8805 (LAND SURVEY'S ACT).
17. FOR EXCAVATIONS EXCEEDING 5 FEET (1.52m), CONTRACTOR WILL REFER CAL-OSHA CONSTRUCTION SAFETY ORDERS FOR PROTECTIVE SYSTEMS TO PREVENT A "CAVE-IN".
18. ALL WORK WITHIN THE STATE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST STATE STANDARD PLANS AND SPECIFICATIONS OR AS DIRECTED BY THE STATE'S REPRESENTATIVE. STANDARDS OTHER THAN STATE STANDARDS MUST BE JUSTIFIED AND PRE-APPROVED.
19. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION AND CALTRAN'S CURRENT CONSTRUCTION REQUIREMENTS SHALL BE COMPLIED WITH.
20. WHERE DAMAGE IS CAUSED BY THE CONTRACTOR, THE CONTRACTOR SHALL AT HIS OWN EXPENSE REPAIR OR REPLACE DAMAGED FACILITIES ON VALLEY WAY STREET WITHIN CALTRANS R/W INCLUDING BUT NOT LIMITED TO STREET, LIGHTS, PULLBOXES, LOOPS, ELECTRICAL WIRING AND CONDUITS PROMPTLY AND IN ACCORDANCE WITH STATE STANDARDS AND SPECIFICATIONS THE CONTRACTOR SHALL RESTORE ALL CONDUIT AND LOOPS PER ATTACHED DRAWINGS FROM CALTRANS STANDARD PLANS AND MANUALS.
21. THE CONTRACTOR SHALL SUBMIT HIS PLAN FOR THE PROTECTION OF CALTRANS TRAFFIC LOOPS DURING CONSTRUCTION AT THE "PRE-CONSTRUCTION MEETING". CALTRANS WILL ISSUE THE CONTRACTOR'S DUPLICATE ENCROACHMENT PERMIT AFTER APPROVAL OF THE PLAN.
22. ANY EXISTING DRAINAGE STRUCTURES AND PATTERNS DAMAGED, REMOVED OR ADVERSELY AFFECTED BY THE OPERATION SHALL BE REPLACED IN KIND.



DETAIL A-A
VALLEY WAY
STA. 11+50.00
N.T.S.



STEEL CASING DETAIL
NOT TO SCALE



⚠ CONNECTION 2-C DETAIL

CONSTRUCTION NOTES:

(1) CONTRACTOR SHALL VERIFY EXACT LOCATION AND ELEVATION PRIOR TO TRENCHING

RECORD DRAWING
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GRAPHIC SCALE 1"=40'
40 20 0 40 80 120
IF GRAPHIC BAR DOES NOT SCALE 1", DRAWING IS NOT TO SCALE

CALTRANS PERMIT NO. 08-03-N-MC-0248

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

DATE	BY	MARK	REVISIONS	APPR.	DATE
3/08	RLP	⚠1	"RECORD DRAWING"		

ENGINEER | COUNTY
DESIGNED BY: A.E. DRAWN BY: A.E. CHECKED BY: W.T.M.

RECOMMENDED FOR APPROVAL
CHECKED:
DATE:

SEAL
REGISTERED PROFESSIONAL ENGINEER
WILLIAM T. MALONE
No. C47569
EXP. 12-31-03
CIVIL
STATE OF CALIFORNIA

PREPARED BY William T. Malone DATE: 12/3/03
WILLIAM T. MALONE
R.C.E. NO. C47569 EXP. DATE 12-31-03

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (909) 686-1070

SCALE: 1"=40'
CADPLAN: 01296WA.PRO
BENCHMARK: SEE SHT. NO. 1

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE COUNTY, CALIFORNIA
WATERLINE REPLACEMENT PROGRAM
VALLEY WAY
FOR: J.C.S.D. P.N. 2152
W.O. 01-296

SHEET 2 OF 11 SHEETS
DWG. NO. 01-0296

FILE: GV1200\101-029\DWGS\PRDS\01-296WA_3-15-03.prp

VALLEY WAY

SEE SHEET 2

STA. 396+10.75, C.L. MISSION BLVD, (W.B.)
=STA. 7+92.75, C.L. VALLEY WAY

STA. 395+63.43
H.P.I.=22°38'40" LT.
(25' FROM C.L.)

STA. 395+87.21, MISSION BLVD, (E.B.)
INSTALL 16" DIA. WYE W/ 16" DIA. OULET
16" DIA. BFV (E)
16"x12" REDUCER (W)
HPI = 66°53'37" LT

STA. 396+43.67, MISSION BLVD, (E.B.)
INSTALL 4" BLOW OFF PER
J.C.S.D. STD. DWG. F-1

4-FOOT COLDMILL CUT 0.10'
IN DEPTH AT LANE LINE AND
CURB AND GUTTER

STA. 395+86.87, C.L. MISSION BLVD, (E.B.)
=STA. 7+45.67, C.L. VALLEY WAY

0.10' OVERLAY
AS INDICATED

INSTALL 36'± OF 12" DIA.
(12 GA.) CML/CMC WATER LINE

EXIST. F.H.
(6"x4"x2 1/2")

STA. 398+85.47, C.L. MISSION BLVD, (E.B.)
BEGIN, ~~30~~"x 7/16" THK. STEEL BORE CASING WITH
4.50' MINIMUM COVER FOR 16" WATER LINE
29"

STA. 399+51.87, C.L. MISSION BLVD, (E.B.)
END ~~30~~"x 7/16" THK. STEEL BORE CASING WITH
4.50' MINIMUM COVER FOR 16" WATER LINE
29"

⚠ STA. ~~400+20.51~~ 399+85, MISSION BLVD, (E.B.)
INSTALL 6" FIRE HYDRANT PER
J.C.S.D. STD. DWG. G-1

STA. 395+52.50, MISSION BLVD, (E.B.)
CONNECTION 6-A
JOIN EXISTING 12" DIA.
WATER LINE PER CONNECTION
DETAIL 6-A ON SHEET D-1

RAILROAD

PACIFIC

UNION

CONTRACTOR SHALL VERIFY
EXACT ELEVATION AND
LOCATION PRIOR TO CONSTRUCTION.

STA. 401+04.76, C.L. MISSION BLVD, (E.B.)
=C.L. JURUPA ROAD

STA. 401+02.00, MISSION BLVD, (E.B.)
=STA. 1+00.00, C.L. PIPE
INSTALL 16"x16"x8" AWWA TEE WITH
8" R.S.G.V. SE'LY PER J.C.S.D. STD. DWG. B-1

⚠ STA. ~~401+28.25~~ 404+65, MISSION BLVD, (E.B.)
INSTALL 2" AIR VALVE PER
J.C.S.D. STD. DWG. E-1

4-FOOT COLDMILL CUT
0.10 FOOT IN DEPTH
AT LANE LINE

0.10' OVERLAY
AS INDICATED

STA. 1+05.00, C.L. PIPE
H.P.I.=22°37'30" RT.
(30' FROM C.L.)

INSTALL 217'± OF 8" DIA.
(12 GA.) CML/CMC WATER LINE

INSTALL 1088'± OF 16" DIA.
(10 GA.) CML/CMC WATER LINE

STA. 406+75.00, MISSION BLVD, (E.B.)
INSTALL 16"x16"x12" AWWA TEE WITH
16" BFV NW'LY PER J.C.S.D. STD. DWG. B-3 &
SW'LY PER J.C.S.D. STD. DWG. B-1

STA. 406+82.15, MISSION BLVD, (E.B.)
CONNECTION 6-C
JOIN EXISTING 12" DIA.
WATER LINE PER CONNECTION
DETAIL 6-C ON SHEET D-1

INSTALL 62'± OF 12" DIA.
(12 GA.) CML/CMC WATER LINE

STA. 406+75.00
H.P.I.=8°48'30" RT.
(40' FROM C.L.)

STA. 0+20.00, C.L. PIPE
H.P.I.=90°00' RT.
(29' FROM C.L.)

STA. 2+96.25, C.L. PIPE
CONNECTION 6-B
=STA 0+00.00
JOIN EXISTING 6" DIA.
WATER LINE PER CONNECTION
DETAIL 6-B ON SHEET D-1

MISSION BLVD

ANNULAR SPACE BETWEEN OUTSIDE OF CARRIER PIPE AND INSIDE OF CASING TO BE LEFT EMPTY. BOTH ENDS OF CASING TO BE SEALED W/BRICK AND MORTAR. LEAVE WEEPHOLE AT DOWNSTREAM END FOR DRAINAGE.

16" DIA. CML/CMC W.S.P. WATERMAIN

30" DIA. X 7/16" THICK STEEL PIPE BORE CASING

4" X 4" REDWOOD SKIDS ATTACHED WITH STAINLESS STEEL BANDS

35° 35°

STEEL CASING DETAIL

NOT TO SCALE

SEDONA DRIVE

JURUPA ROAD

INSTALL 410'± OF 16" DIA.
(10 GA.) CML/CMC WATER LINE

STA. 351+56.89, C.L. GRANITE HILL DRIVE
=C.L. PRIVATE ROAD

N78°16'00"W 363.96'

10° FOOT HEADER CUT
0.10' IN DEPTH

STA. 355+93.97, GRANITE HILL DRIVE
CONNECTION 6-D
JOIN EXISTING 18" DIA.
WATER LINE PER CONNECTION
DETAIL 6-D ON SHEET D-1
(14.1'± FROM C.L.)

STA. 356+04.00, GRANITE HILL DRIVE
INSTALL 2" AIR VALVE PER
J.C.S.D. STD. DWG. E-1

⚠ STA. 357+22.13
H.P.I.=22°00' RT.
(3' FROM C.L.)

Δ=3°50'39" R=3000.00' L=201.28' T=100.68'

0.10 FOOT OVERLAY
CENTERLINE TO E.P.

N82°06'39"W 789.43'

12" W ABANDONED

45°

STA. 356+93.21
⚠ H.P.I.=22°00' RT.
(11.9'± FROM C.L.)

EXIST. ~~F.H.~~ AV
(6"x4"x2 1/2")

4 FOOT COLDMILL CUT
0.10' IN DEPTH

MATCHLINE STA. 360+00.00
SEE SHEET 7

60 FWY

18" WATER MAIN FOUND
4' BEHIND CURB

GRANITE HILL DRIVE

RECORD DRAWING
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40 20 0 40 80 120
IF GRAPHIC BAR DOES NOT SCALE 1", DRAWING IS NOT TO SCALE

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

CONSTRUCTION NOTES:

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DATE	BY	MARK	REVISIONS	APPR. DATE
			ENGINEER	COUNTY
3/08	RLP	1	"RECORD DRAWING"	

DESIGNED BY: A.E. DRAWN BY: A.E. CHECKED BY: W.T.M.

RECOMMENDED FOR APPROVAL

CHECKED: _____

DATE: _____

SEAL

REGISTERED PROFESSIONAL ENGINEER WILLIAM T. MALONE No. C47569 EXP. 12-31-03 CIVIL STATE OF CALIFORNIA

PREPARED BY William T. Malone DATE: 12/6/03
WILLIAM T. MALONE
R.C.E. NO. C47569 EXP. DATE 12-31-03

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (909) 686-1070

SCALE: 1"=40'
CADPLAN: 01296WA.PRO
BENCHMARK: SEE SHT. NO. 1

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

WATERLINE REPLACEMENT PROGRAM
GRANITE HILL DRIVE

FOR: J.C.S.D. P.N. 2152
W.O. 01-296

SHEET 6 OF 11 SHEETS
DWG. NO. 01-0296

FILE: G:\2001\01-0296\CAD\SSPRDS\01-296WA_S-15-03.dgn

NOTES FOR CONNECTION DETAILS

1. ALL VALVES AND PIPING 8" DIA. AND LARGER SHOWN HEREON AND ON SHEET D-1, ARE TO BE BID SEPERATELY PER THE BIDDING SHEETS AND THEREFORE ARE NOT TO BE CONSIDERED AS PART OF THE CONNECTION COSTS. THE COST OF ALL VALVES AND PIPING LESS THAN 8" DIA. SHALL BE INCLUDED IN THE LUMP SUM COSTS FOR EACH CONNECTION. NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFORE BY THE DISTRICT.

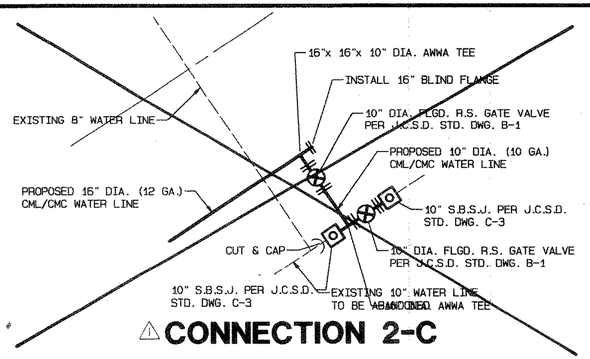
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND CAPPING EXISTING WATERLINES AND BLIND FLANGING EXISTING VALVES IN THE VICINITY OF EACH CONNECTION WHERE APPLICABLE. THE CUTTING AND CAPPING OF THE WATERLINES SHALL BE AS DIRECTED AND APPROVED BY THE DISTRICT'S INSPECTOR. ALL COSTS FOR CURTTING AND CAPPING SHALL BE INCLUDED IN THE LUMP SUM COSTS FOR EACH CONNECTION AND NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFORE BY THE DISTRICT.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING BLIND FLANGES TO THE END OF PROPOSED GATE VALVES AND TEES / CROSSES STUBBED OUT FOR FUTURE CONNECTIONS.

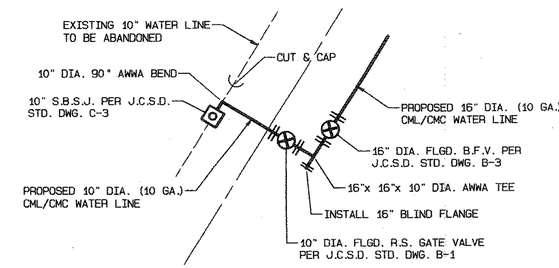
4. THE CONTRACTOR SHALL INSTALL THRUST BLOCKS AT ALL VERTICAL AND HORIZONTAL BENDS, TEES, OUTLETS, ETC. IN ACCORDANCE WITH SHEET Z-1. THE COST FOR THRUST BLOCKS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR MAINLINE PIPE AND NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFORE BY THE DISTRICT.

CONNECTIONS 2-A AND 2-B

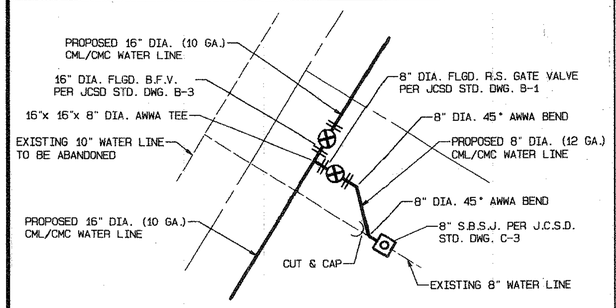
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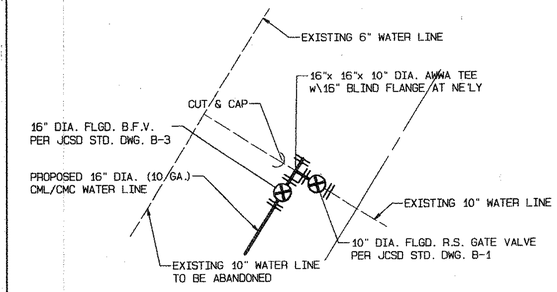
⚠ CONNECTION 2-C



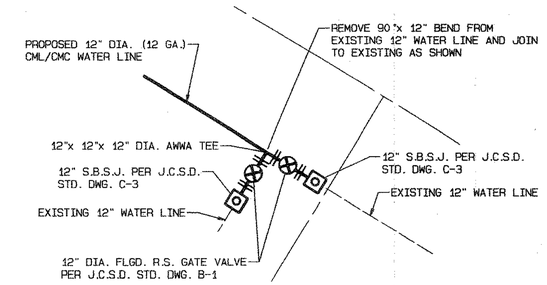
CONNECTION 3-A



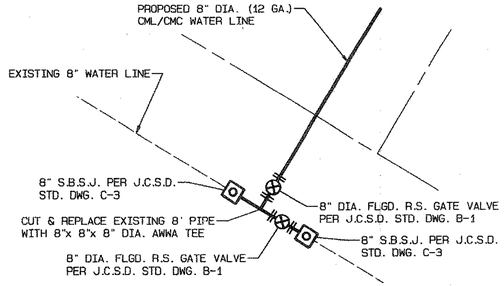
CONNECTION 3-B



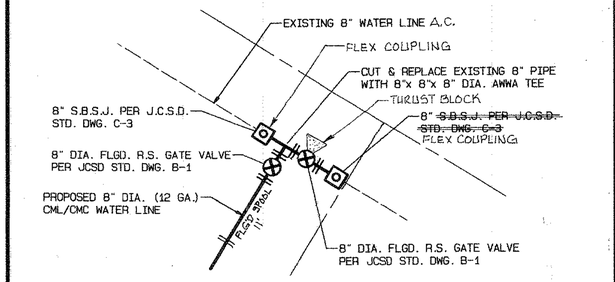
CONNECTION 4-A



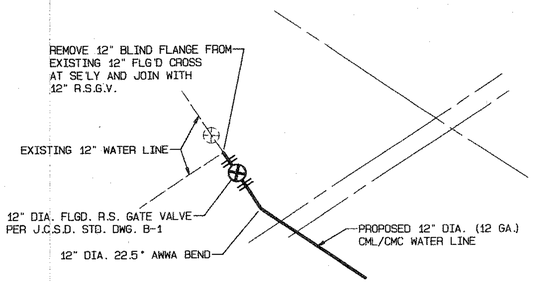
CONNECTION 5-A



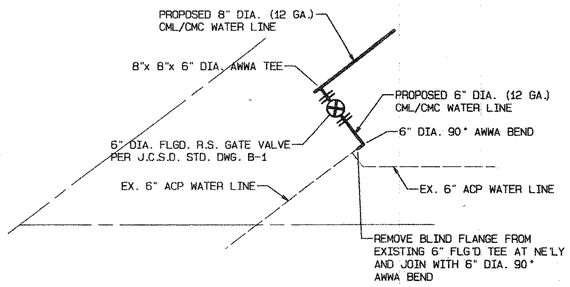
CONNECTION 5-B



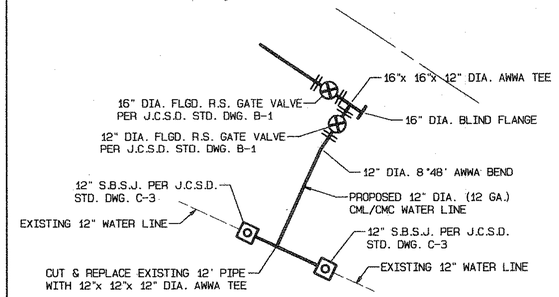
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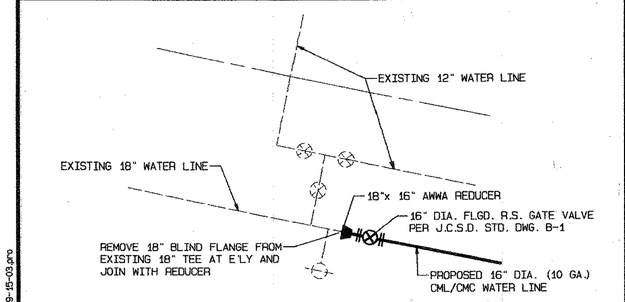
CONNECTION 6-A



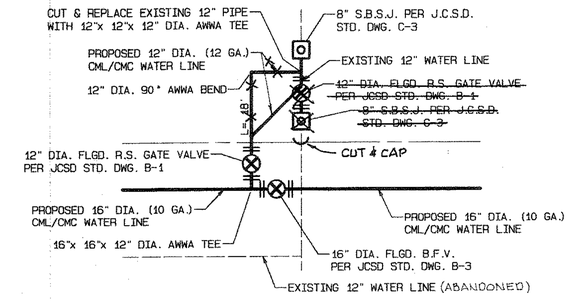
CONNECTION 6-B



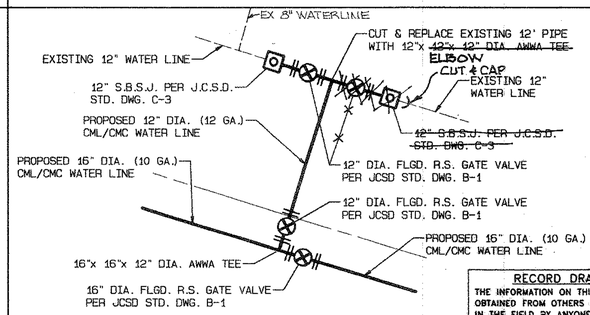
CONNECTION 6-C



CONNECTION 6-D

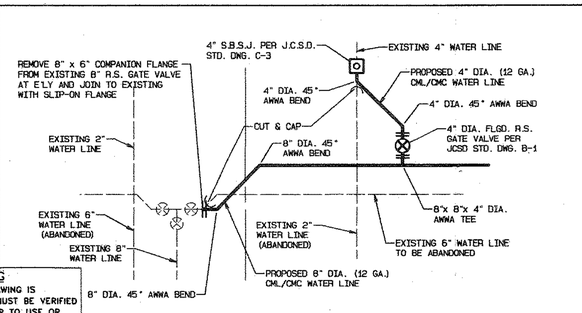


⚠ CONNECTION 7-A



⚠ CONNECTION 8-A ⚠

RECORD DRAWING
THE INFORMATION ON THIS DRAWING IS OBTAINED FROM OTHERS AND MUST BE VERIFIED IN THE FIELD BY ANYONE PRIOR TO USE OR CONSTRUCTION. ALBERT A. WEBB ASSOCIATES IS NOT RESPONSIBLE FOR UNDERGROUND FACILITY LOCATIONS OR DEPICTIONS. ALL ABOVE GROUND FACILITIES CAN BE READILY SEEN AND VERIFIED BY THE PARTIES THAT INTEND TO USE SAME



CONNECTION 8-B

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FORASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

DATE	BY	MARK		APPR.	DATE
				ENGINEER	
3/05	RLP	1	"RECORD DRAWING"	COUNTY	

DESIGNED BY: A.E. DRAWN BY: A.E. CHECKED BY: W.T.M.

RECOMMENDED FOR APPROVAL

CHECKED:

DATE:

SEAL — REGISTERED PROFESSIONAL ENGINEER — WILLIAM T. MALONE — No. C47569 EXP. 12-31-03 — CIVIL — STATE OF CALIFORNIA

PREPARED BY William T. Malone DATE: 12/6/03
WILLIAM T. MALONE
R.C.E. NO. C47569 EXP. DATE 12-31-03

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (909) 686-1070

SCALE: NONE
CADPLAN: 01296WA.PRD
BENCHMARK:

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

WATERLINE REPLACEMENT PROGRAM
CONNECTION DETAIL SHEET

FOR. J.C.S.D. P.N. 2152 W.O. 01-0296

SHEET D1 OF 11 SHEETS
DWG. NO. 01-0296

FILE: G:\2001\01-0296\DWGS\PRGS\01-295WA_9-15-03.prp

JURUPA COMMUNITY SERVICES DISTRICT

RIVERSIDE COUNTY, CALIFORNIA

1993/1994 WATERLINE REPLACEMENT PROJECT

MISSION BOULEVARD, CEDAR STREET
MANOR DRIVE, EASEMENT "A", EL PALOMINO DRIVE
SUNNYHILL DRIVE, OLIVE COURT, & 59TH STREET

RECORD DRAWING

THE INFORMATION ON THIS DRAWING IS OBTAINED FROM OTHERS AND MUST BE VERIFIED IN THE FIELD BY ANYONE PRIOR TO USE OR CONSTRUCTION. ALBERT A. WEBB ASSOCIATES IS NOT RESPONSIBLE FOR UNDERGROUND FACILITY LOCATIONS OR DEPICTIONS. ALL ABOVE GROUND FACILITIES CAN BE READILY SEEN AND VERIFIED BY THE PARTIES THAT INTEND TO USE SAME.

JURUPA COMMUNITY SERVICES DISTRICT

BOARD OF DIRECTORS

ROLIN R. BRUNO, PRESIDENT
JAMES C. HUBER, VICE PRESIDENT
DONALD D. GALLEANO
CURTIS HUMMEL
ROGER D. TEAGARDEN

PLANS APPROVED BY:

JURUPA COMMUNITY SERVICES DISTRICT

BY: Carole A. McKinney 6-29-94
EDWIN D. JAMES – GENERAL MANAGER DATE

PLANS APPROVED BY:

ALBERT A. WEBB ASSOCIATES

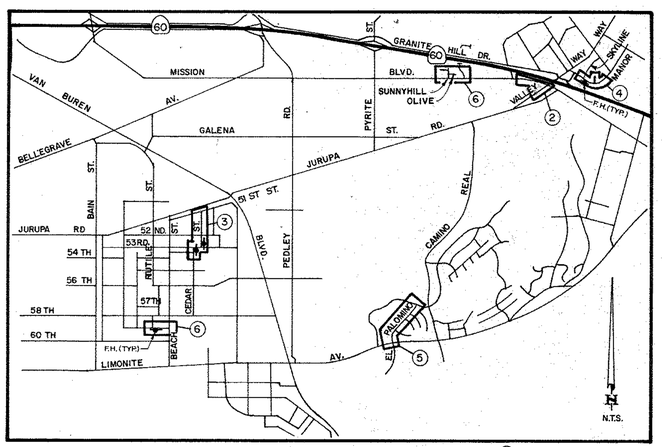
BY: Sam I. Gershon 29 JUNE 1994
SAM I. GERSHON, DISTRICT ENGINEER DATE
R.C.E. 14489

I CERTIFY THAT THE DESIGN OF THE WATER SYSTEM IS IN ACCORDANCE WITH THE REQUIREMENTS PRESCRIBED BY THE RIVERSIDE COUNTY FIRE DEPARTMENT.

BY: William T. Malone 7-5-94
WILLIAM T. MALONE DATE
R.C.E. 47569

COUNTY OF RIVERSIDE DEPARTMENT OF HEALTH	COUNTY OF RIVERSIDE FIRE DEPARTMENT
John L. Ohrs 6.30.94	Dawn Mason 7-7-94
APPROVED BY . DATE .	APPROVED BY DATE

LOCATION MAP



(X) INDICATES SHEET NUMBER

PROPOSED FIRE HYDRANT PER J.C.S.D. STD. NO. G-1

LEGEND

- PROPOSED WATERLINE (SIZE NOTED)
- PROPOSED INLINE VALVE PER J.C.S.D STD. NO. B-1. (LINE SIZE, TYPE NOTED)
- PROPOSED FIRE HYDRANT (6" x 4" x 2 1/2") PER J.C.S.D. STD. NO. G-1
- PROPOSED AIR VALVE. (SIZE NOTED)
- PROPOSED BLOW-OFF (SIZE NOTED)
- PROPOSED NEW 1" SERVICE LINE CONNECTED TO EXISTING METER, OR NEW METER BOX INSTALLATION WHERE DIRECTED BY DISTRICT, PER J.C.S.D. STD. NO. D-1
- PROPOSED WATER SAMPLING STATION PER J.C.S.D. STD. DWG. NO. K-1
- PROPOSED SUPER FIRE HYDRANT (6" x 4" x 2 1/2" x 2 1/2") PER J.C.S.D. STD. NO. G-1A
- EXISTING FENCE
- EXISTING BLOCK WALL
- E — EXISTING UNDERGROUND ELECTRIC LINES
- 8"S — EXISTING SEWERMAIN (SIZE NOTED)
- TRAF — EXISTING UNDERGROUND TRAFFIC SIGNAL
- SD — EXISTING STORM DRAIN (SIZE NOTED)
- 2"G — EXISTING GAS LINES (SIZE NOTED)
- T — EXISTING UNDERGROUND TELEPHONE LINES
- 8"W — EXISTING WATERLINES (SIZE NOTED)
- EXISTING POWER POLE
- EXISTING EDGE OF PAVEMENT
- 8"S — EXISTING SEWER MANHOLE
- EXISTING TREE
- EXISTING BUSH
- EXISTING RIGHT-OF-WAY LINE

GENERAL NOTES:

1. ALL CONSTRUCTION UNDER THIS CONTRACT SHALL CONFORM WITH ALL PROVISIONS OF THE SPECIAL REQUIREMENTS, BASIC SPECIFICATIONS, AND CONSTRUCTION DRAWINGS, ALL INCLUSIVE UNDER THIS CONTRACT.
2. PRIOR TO FABRICATION OF THE PIPELINES AND FITTINGS, CONTRACTOR SHALL EXPOSE ALL CONNECTION POINTS AND MEASURE OUTSIDE DIAMETER OF EXISTING WATERLINES FOR PURPOSES OF FABRICATING CONNECTING PIPE AND BUTT-STRAPS. THE CONTRACTOR SHALL ALSO VERIFY THE ELEVATION AND LOCATION OF THE EXISTING WATERLINES AT ALL POINTS OF CONNECTION. APPROVAL BY J.C.S.D. OF A PROPOSED CONNECTION TO A J.C.S.D. FACILITY DOES NOT IMPLY APPROVAL OF THE CORRECTNESS OF THE LOCATION AND ELEVATION SHOWN ON THE PLANS.
3. REPLACEMENT PAVING IN ALL PAVED ROADS, TRAFFIC CONTROL, RESTRIPING, SPECIAL TRENCH BACKFILL, SPECIAL CLASS 2 BASE REQUIREMENTS, ETC. SHALL BE IN ACCORDANCE WITH THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT PERMIT REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT PERMIT SECTION AT (909) 275-6790 AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. IF THE PROPOSED PIPELINE CROSSES A PAVED STREET AT OTHER THAN 90 DEGREES, THE LIMITS OF PAVEMENT OVERLAY SHALL BE AT RIGHT ANGLES TO THE STREET CENTERLINE AND SHALL ENCOMPASS THE ENTIRE TRENCH PAVING.
4. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS, ALL STEEL BENDS AND FITTINGS SHALL BE CEMENT MORTAR LINED AND CEMENT MORTAR COATED. AND SHOP FABRICATED PER AWWA STANDARDS (LATEST); MODIFIED PER DISTRICT SPECIFICATION. ALL FITTINGS THAT ARE NOT CONNECTED BY BUTTSTRAPS SHALL HAVE SIMULATED WELD BELLS WITH A PLATE THICKNESS OF AT LEAST 1/4 OF AN INCH.
5. ALL OUTLETS WHERE THE RATIO OF THE OUTLET DIAMETER TO THE MAINLINE DIAMETER IS 0.60 OR GREATER SHALL HAVE WRAPPER REINFORCEMENT AROUND THE MAINLINE WITH A PLATE THICKNESS OF AT LEAST 3/16 OF AN INCH. ALL OTHER OUTLETS SHALL HAVE REINFORCEMENT COLLARS, 3/16 OF AN INCH MIN.
6. ANY CONTRACTOR/SUB CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS. SAID EXISTING IMPROVEMENTS SHALL INCLUDE BUT NOT LIMITED TO BERMS, DITCHES, DRIVEWAYS, FENCES, AND PLANTS. ANY REMOVAL OR DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AT HIS EXPENSE AND SHALL BE APPROVED BY THE DISTRICT.
7. THE CONTRACTOR/SUB CONTRACTOR SHALL EXAMINE CAREFULLY THE SITE OF THE WORK CONTEMPLATED, ALSO THE PLANS AND SPECIFICATIONS. THE SUBMISSION OF A BID PROPOSAL SHALL BE CONCLUSIVE EVIDENCE THAT THE CONTRACTOR/ SUB CONTRACTOR HAS INVESTIGATED THE PROJECT SITE AND IS SATISFIED AS TO THE CONDITIONS TO BE ENCOUNTERED, AS TO THE CHARACTER, QUALITY, AND SCOPE OF THE WORK TO BE PERFORMED, THE QUANTITIES OF MATERIAL TO BE FURNISHED, AND AS TO THE REQUIREMENTS OF THE BID PROPOSAL, PLANS AND GENERAL SPECIFICATIONS.
8. LINEAR FEET OF PIPE SHOWN ON THE DRAWINGS ARE HORIZONTAL MEASUREMENTS AND EXTEND THROUGH VALVES, BENDS, AND OTHER APPURTENANCES.
9. ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH J.C.S.D. STANDARDS AND SPECIFICATIONS. ANY CONSTRUCTION AND/OR MATERIALS NOT COVERED IN THE J.C.S.D. STANDARDS SHALL BE APPROVED BY THE DISTRICT.
10. PIPE SHALL BE HANDLED SO AS TO PROTECT PIPE AND PIPE JOINTS, AND LINING AND COATING, AND CAREFULLY BEDDED TO PROVIDE CONTINUOUS BEARING AND PREVENT UNEVEN SETTLEMENT. PIPE SHALL BE PROTECTED AGAINST FLOTATION AT ALL TIMES. OPEN ENDS OF WATERLINE SHALL BE SEALED AT ALL TIMES WHEN CONSTRUCTION IS IN PROCESS.
11. FAILURE TO MEET ANY REQUIREMENTS OF RIVERSIDE COUNTY AND THE A.W.W.A. SPECIFICATIONS WILL BE CAUSE FOR REJECTION.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL AND MAINTAIN ALL CONSTRUCTION, REGULATORY, GUIDE AND WARNING SIGNS WITHIN THE PROJECT LIMITS AND ITS SURROUNDINGS AND TO PROVIDE SAFE PASSAGE FOR THE TRAVELING PUBLIC AND WORKERS UNTIL THE FINAL COMPLETION AND ACCEPTANCE OF THE PROJECT BY THE COUNTY.
13. CONTRACTOR SHALL NOT BACKFILL TRENCH UNTIL THE INSPECTOR HAS OBTAINED AS-BUILT STATIONING ON ALL STRUCTURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ACCURATE "AS BUILT" DRAWINGS TO THE DISTRICT IMMEDIATELY AFTER CONSTRUCTION.
14. TEST PRESSURE SHALL BE 150% OF PIPE CLASS RATING. (I.E. CLASS 150 = 225 PSI TEST PRESSURE) MAXIMUM ALLOWABLE LEAKAGE IS 10 GALLONS/INCH OF PIPE DIAMETER/MILE OF PIPE LENGTH/24 HOURS. NO VISIBLE LEAKAGE IS PERMITTED. MINIMUM TEST DURATION IS 4 HOURS. DISTRICT INSPECTOR TO INSPECT TEST USING CONTRACTOR PROVIDED PRESSURE GAUGE. INSPECTOR TIME SPENT INSPECTING ANY REQUIRED RETESTS (INCLUDING RATE AND OVERHEAD) SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
15. CONTRACTOR SHALL SHORE ALL TRENCHES AND CONDUCT ALL CONSTRUCTION AND OPERATIONS IN ACCORDANCE WITH CAL-OSHA REQUIREMENTS.
16. PIPE JOINTS SHALL NOT BE PULLED AT ANY ANGLE GREATER THAN THE MAXIMUM ANGLE RECOMMENDED BY THE PIPE MANUFACTURER.
17. NO EXISTING MAIN LINE VALVE SHALL BE OPERATED BY ANY ONE OTHER THAN A DISTRICT EMPLOYEE.
18. THE CONTRACTOR SHALL INSTALL CONCRETE THRUST BLOCKS AT ALL VERTICAL AND HORIZONTAL BENDS, TEES, OUTLETS, ETC., IN ACCORDANCE WITH SHT. NO. Z-1.
19. THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN (MAIN LINES – NO LATERALS OR SERVICES SHOWN) ON THE DRAWINGS WERE OBTAINED FROM AVAILABLE RECORDS AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL DETERMINE THE DEPTH AND LOCATION OF EXISTING UNDERGROUND FACILITIES PRIOR TO TRENCHING AND SHALL BE REQUIRED TO TAKE ANY PRECAUTIONARY MEASURES TO PROTECT ALL LINES SHOWN AND/OR ANY OTHER UNDERGROUND UTILITY LINES NOT OF RECORD OR NOT SHOWN ON THE PLANS. CALL UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133 AT LEAST 48 HOURS PRIOR TO EXCAVATION.
20. IN ACCORDANCE WITH THE SPECIFICATIONS, ONLY UTILITY MAINS (NO LATERALS OR SERVICES) ARE SHOWN. CONTRACTOR SHALL COORDINATE WITH THE DISTRICT FOR FIELD LOCATION OF SERVICES AND CONTRACTOR SHALL ASSUME THE RESPONSIBILITY FOR PROTECTING ALL EXISTING SERVICES (INCLUDING SEWER LATERALS) AT NO ADDITIONAL COST TO THE DISTRICT.
21. WHERE THE PROPOSED WATERLINES CROSS UNDER EXISTING SEWER LATERALS, THE CONTRACTOR SHALL ADHERE TO THE SPECIAL CONSTRUCTION REQUIREMENTS PER J.C.S.D. STD. DWG. NO. A-10 IN THE PROJECT SPECIFICATIONS.
22. ALL HIGH POINTS IN THE PIPELINE SHALL HAVE AN AIR-VAC INSTALLED PER J.C.S.D. STD. DWG. NO. E-1.
23. ALL WATERLINE INSTALLATIONS SHALL COMPLY WITH RIVERSIDE COUNTY STD. NO. 609 RE: WATER AND SEWERAGE FACILITIES SEPARATION.
24. APPROVAL BY J.C.S.D. IMPLIES NO PERMISSION OTHER THAN THAT WITHIN THE DISTRICT'S JURISDICTION. ALL PERMITS REQUIRED BY LAW SHALL BE ACQUIRED BY THE CONTRACTOR UNLESS OTHERWISE NOTED IN THE SPECIFICATIONS. REQUIREMENTS OF J.C.S.D. SHALL TAKE PRECEDENCE OVER REQUIREMENTS OF OTHER AGENCIES ONLY WHERE J.C.S.D. REQUIREMENTS ARE GREATER.

SPECIAL CONSTRUCTION NOTES:

1. ALL PIPELINES LESS THAN 12" DIA. SHALL BE INSTALLED WITH A MINIMUM 36 INCH COVER AT THE FINISH GRADE OVER THE PIPE AND ALL PIPELINES 12" DIA. OR GREATER, SHALL HAVE 48 INCH MINIMUM COVER, UNLESS OTHERWISE NOTED.
2. THE PIPELINES ALIGNMENT SHOWN ON THE PLANS IS APPROXIMATE, AND MAY BE ADJUSTED (AS DIRECTED BY THE ENGINEER) IF NECESSARY DUE TO UTILITY CONFLICT.
3. FOR TYPES OF METERS/SERVICES, REFER TO THE LEGEND HEREON. LOCATION OF ALL SERVICES SHOWN ARE SCHEMATIC, AND SHALL BE INSTALLED AS DIRECTED IN THE FIELD BY THE ENGINEER. NEW SERVICE LINES CROSSING EXISTING PAVED ROADS SHALL BE BORED AS REQUIRED BY THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT ENCROACHMENT PERMIT.
4. PAYMENT FOR ALL CAPPING AND PLUGGING OF EXISTING WATERLINES SHALL BE INCLUDED IN THE UNIT BID PRICES, AND NO ADDITIONAL COMPENSATION WILL BE MADE.
5. THE LOCATION FOR FIRE HYDRANTS SHOWN ON EACH SHEET ARE SCHEMATIC WITH RESPECT TO THE STREET RIGHT OF WAY LINE. REFER TO J.C.S.D. STD. DWG. G-1 FOR PLACEMENT OF ALL FIRE HYDRANTS WITH RESPECT TO THE RIGHT OF WAY LINES AND THE CURB LINES. FIRE HYDRANTS SHALL BE CONSTRUCTED TO THE STATIONS INDICATED ON THE PLANS, UNLESS OTHERWISE APPROVED BY THE ENGINEER. (APPLICABLE TO ALL WATERLINE APPURTENANCES; AIR VALVES, BLOW-OFFS, METERS, ETC.)

APR - 6 1995

SHEET 1 OF 8 SHEETS

DWG. NO. 93-314

M.S. 3636

J.C.S.D. P.N. 1485

STA. 20+50 C.L. MISSION BLVD.
INSTALL 2" AIR VALVE PER
J.C.S.D. STD. DWG. E-1

STA. 20+50 C.L. MISSION BLVD.
CONNECTION 2-A
JOIN EXISTING 12" DIA.
WATERLINE PER CONNECTION
DETAIL B ON SHEET D-1

INSTALL 1035 ± L.F. OF 12" DIA.
(12 GA.) CML/CMC W.S.P. WATERLINE

STATE HIGHWAY 60

N

REMOVE & REPLACE
EXISTING TRAFFIC LOOPS

SECOND ROAD
BED - 3' F.G.

48" RCP

STA. 29+27.20 C.L. MISSION BLVD. E.C.

START OF CONC. TREATED CLASS II BASE

STA. 29+79 C.L. MISSION BLVD.
H.P.I. = 22°30' ±
TWO-PIECE AWWA BEND

STA. 30+00 C.L. MISSION BLVD.
=STA. 10+00 C.L. VALLEY WAY

EXISTING MEDIAN

ABAND.
30" CMP

48" RCP

EXISTING AIR VALVE

STA. 9+00 C.L. VALLEY WAY
CONNECTION 2-B
JOIN EXISTING 12" DIA.
WATERLINE PER CONNECTION
DETAIL C ON SHEET D-1

PROTECT EXISTING TRAFFIC
CONTROL CONDUITS

STA. 29+79 C.L. MISSION BLVD.
=STA. 9+60 C.L.VALLEY WAY
INSTALL 12" X 12" X 12" X 12"
AWWA CROSS W/ G.V. NW'LY PER
J.C.S.D. STD. DWG. B-1

EXISTING FIRE HYDRANT
(6" X 4" X 2-1/2")

VALLEY WAY

STA. 20+70 C.L. MISSION BLVD.
INSTALL 6" FIRE HYDRANT PER
J.C.S.D. STD. DWG. G-1

STA. 20+50 C.L. MISSION BLVD.
H.P.I. = 90°00' ±
FIVE-PIECE AWWA BEND

SCE TOWER

A.C. BERM

STORM DRAIN

EXISTING 6" DIA. WATERLINE
TO BE ABANDONED

2" MTR.

STA 24+55
EXISTING SUPER FIRE HYDRANT
(6" X 4" X (2) 2-1/2")
RECONNECT TO PROPOSED
12" WATERLINE

EXISTING RESIDENTIAL ZONING

COMMERCIAL ZONING

MISSION BOULEVARD

(BID SCHEDULE I)

SPECIAL CONSTRUCTION NOTE

THE LOCATION FOR FIRE HYDRANTS SHOWN ON EACH SHEET ARE SCHEMATIC WITH RESPECT TO THE STREET RIGHT OF WAY LINE. REFER TO J.C.S.D. STD. DWG. G-1 FOR PLACEMENT OF ALL FIRE HYDRANTS WITH RESPECT TO THE RIGHT OF WAY LINES AND THE CURB LINES. FIRE HYDRANTS SHALL BE CONSTRUCTED TO THE STATIONS INDICATED ON THE PLANS, UNLESS OTHERWISE APPROVED BY THE ENGINEER. (APPLICABLE TO ALL WATERLINE APPURTENANCES; AIR VALVES , BLOW-OFFS, METERS, ETC.)

RECORD DRAWING

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UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1·800
422·4133
TWO WORKING DAYS BEFORE YOU DIG

M.S. 3636

THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF THE EXISTING SEWERLINE AT PROPOSED WATERLINE CROSSINGS AND MAINTAIN A MINIMUM OF 1' VERTICAL SEPARATION BETWEEN THE PROPOSED WATERLINE AND EXISTING SEWERLINE.

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

DATE	BY	MARK	REVISIONS	W.T.M. / APPR. DATE
3/95	C.B.	/1\	"RECORD DRAWING"	W.T.M. 3/95
INSPECTOR				ENGINEER

DESIGNED BY: WTM DRAWN BY: WTM CHECKED BY: SIG

RECOMMENDED FOR APPROVAL

CHECKED:

DATE:

SEAL COUNTY

SEAL — REGISTERED PROFESSIONAL ENGINEER — WILLIAM T. MALONE — NO. C47569 EXP. 12-31-95 — CIVIL — STATE OF CALIFORNIA

APPROVED BY DATE:
FOR TRANSPORTATION DEPT., RIVERSIDE COUNTY, CALIFORNIA
R.C.E. NO. EXP. DATE

APPROVED BY DATE: 6/29/94
William T. Malone
R.C.E. NO. 47569 EXP. DATE 12-31-95

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (909) 686-1070

SCALE: 1" = 40'
CAD PLAN: 933142

BENCHMARK: AT THE S.W. CORNER OF FELSPAR ST. AND 56TH ST.; 174' WEST OF FELSPAR ST.; 17' SOUTH OF 56TH ST.; A BRASS DISC SET IN THE EAST END OF A 10" X 16" HEADWALL AND MARKED M.L. 13-1-64.
ELEVATION = 687.713

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

1993/1994 WATERLINE REPLACEMENT PROJECT
MISSION BOULEVARD

FOR. J.C.S.D. P.N. 1485 W.O. 93-314

SHEET 2 OF 8 SHEETS
DWG. NO. 93-314

36TH STREET

SKYLANE DRIVE

STATE HIGHWAY 60

STA. 20+00.00 C.L. MANOR DR.

EXISTING BLOW-OFF

STA. 20+15 ± C.L. MANOR DR.
H.P.I.= 28°00' ±
3-PIECE AWWA BEND

STA. 20+30 C.L. MANOR DR..
INSTALL 6" FIRE HYDRANT PER
J.C.S.D. STD. DWG. G-1

STA. 21+00 ± C.L. MANOR DR.
H.P.I.= 23°00' ±
3-PIECE AWWA BEND

STA. 21+75 ± C.L. MANOR DR.
H.P.I.= 25°00' ±
3-PIECE AWWA BEND

STA. 20+00 C.L. MANOR DR.
CONNECTION 4-A
JOIN EXISTING 6" DIA.
WATERLINE PER CONNECTION
DETAIL I ON SHEET D-1

RESIDENTIAL

ZONING

INSTALL 1380 ± L.F. OF 8" DIA.
(12 GA.) CML/CMC W.S.P. WATERLINE

STA. 22+05.07 C.L. MANOR DRIVE

STA. 22+40 ± C.L. MANOR DR.
H.P.I.= 12°30' ±
2-PIECE AWWA BEND

STA. 12+59 ± C.L. EASEMENT "A"
H.P.I.= 32°00' ±
3-PIECE AWWA BEND

STA. 11+66 ± C.L. EASEMENT "A"
H.P.I.= 11°00' ±
2-PIECE AWWA BEND

STA. 10+33 ± C.L. EASEMENT "A"
H.P.I.= 45°00' ±
4-PIECE AWWA BEND

STA. 23+20 ± C.L. MANOR DR.
H.P.I.= 15°00' ±
2-PIECE AWWA BEND

EXISTING GUARDRAIL

STA. 23+90 ± C.L. MANOR DR.
H.P.I.= 13°45' ±
2-PIECE AWWA BEND

22+71
STA. ~~24+50~~ C.L. MANOR DR.
=STA 00+00 C.L. EASEMENT "A"
INSTALL 8" X 8" X 8" AWWA TEE
WITH 8" G.V.'S N'LY & W'LY
PER J.C.S.D. STD. DWG. B-1

STA. 24+55 C.L. MANOR DR.
INSTALL 6" FIRE HYDRANT PER
J.C.S.D. STD. DWG. G-1

STA. 24+70± C.L. MANOR DR.
H.P.I.= 14°30' ±
2-PIECE AWWA BEND

STA. 25+40 ± C.L. MANOR DR.
H.P.I.= 23°00' ±
3-PIECE AWWA BEND

STA. 11+19 ± C.L. EASEMENT "A"
H.P.I.= 29°00' ±
3-PIECE AWWA BEND

EXISTING 25' WIDE
DISTRICT EASEMENT

ADDED 1" W.S.

5+35
STA. ~~13+88~~ C.L. EASEMENT "A"
END OF WATERLINE
INSTALL 1" AIR VALVE PER
J.C.S.D. STD. DWG. E-1

FULLY WELD WATERLINE
STA. 10+00 TO STA. 13+88
℄ EASEMENT "A"

EASEMENT "A"
(BID SCHEDULE I)

CONTRACTOR SHALL REPAVE EXISTING ROAD FOR EASEMENT "A" WITH 3" A.C. ON COMPACTED NATIVE MATERIAL 12 FT. IN WIDTH CENTERED ON EXISTING PAVED SURFACE.

EXISTING 12" DIA. WATERLINE
TO BE ABANDONED

STA. 30+94.12 C.L. MANOR DRIVE

STA. 26+24.12 C.L. MANOR DRIVE

STA. 28+50 C.L. MANOR DR.
INSTALL 6" FIRE HYDRANT PER
J.C.S.D. STD. DWG. G-1

STA. 29+05 C.L. MANOR DR.
INSTALL 1" AIR VALVE PER
J.C.S.D. STD. DWG. E-1

29+36
STA. ~~29+10~~ C.L. MANOR DR.
CONNECTION 4-B
JOIN EXISTING 12" DIA.
WATERLINE PER CONNECTION
DETAIL J ON SHEET D-1

MANOR DRIVE
(BID SCHEDULE I)

THE HORIZONTAL ALIGNMENT (STATIONS & FITTINGS) ALONG MANOR DR. AND EASEMENT "A" IS APPROXIMATE AND SHOWN FOR BIDDING PURPOSES. THE CONTRACTOR SHALL VERIFY ALIGNMENT PRIOR TO FABRICATION OF FITTINGS.

RECORD DRAWING

THE INFORMATION ON THIS DRAWING IS OBTAINED FROM OTHERS AND MUST BE VERIFIED IN THE FIELD BY ANYONE PRIOR TO USE OR CONSTRUCTION. ALBERT A. WEBB ASSOCIATES IS NOT RESPONSIBLE FOR UNDERGROUND FACILITY LOCATIONS OR DEPICTIONS. ALL ABOVE GROUND FACILITIES CAN BE READILY SEEN AND VERIFIED BY THE PARTIES THAT INTEND TO USE SAME.

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
422-4133
TWO WORKING DAYS BEFORE YOU DIG

M.S. 3636

THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND ELEVATION OF THE EXISTING SEWERLINE AT PROPOSED WATERLINE CROSSINGS AND MAINTAIN A MINIMUM OF 1' VERTICAL SEPARATION BETWEEN THE PROPOSED WATERLINE AND EXISTING SEWERLINE.

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

DATE	BY	MARK	REVISIONS
3/95	C.B.	1	"RECORD DRAWING"
INSPECTOR			

W.T.M. 3/95 | APPR. DATE | ENGINEER

DESIGNED BY: WTM DRAWN BY: WTM CHECKED: SIG

RECOMMENDED FOR APPROVAL

CHECKED:

DATE:

SEAL COUNTY

SEAL
REGISTERED PROFESSIONAL ENGINEER
WILLIAM T. MALONE
W.T.M.
NO. C47569
EXP. 12-31-95
CIVIL
STATE OF CALIFORNIA

APPROVED BY DATE:
FOR TRANSPORTATION DEPT., RIVERSIDE COUNTY, CALIFORNIA
R.C.E. NO. EXP. DATE

APPROVED BY DATE: 6/29/94
William T. Malone
R.C.E. NO. 47569 EXP. DATE 12-31-95

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (909) 686-1070

SCALE: 1" = 40'
CAD PLAN: 933144

BENCHMARK: AT THE S.W. CORNER OF FELSPAR ST. AND 56TH ST.; 174' WEST OF FELSPAR ST.; 17' SOUTH OF 56TH ST.; A BRASS DISC SET IN THE EAST END OF A 10" X 16" HEADWALL AND MARKED M.L. 13-1-64.
ELEVATION = 687.713

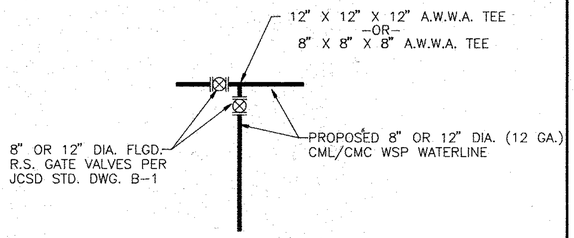
JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

1993/1994 WATERLINE REPLACEMENT PROJECT

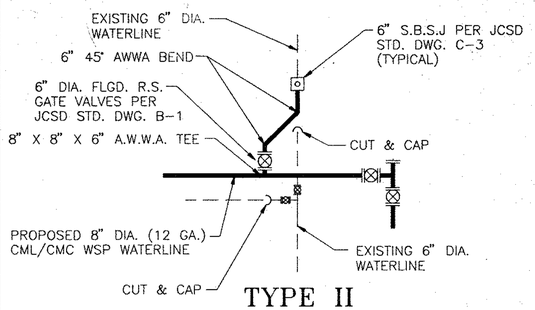
MANOR DRIVE & EASEMENT "A"

FOR. J.C.S.D. P.N. 1485 W.O. 93-314

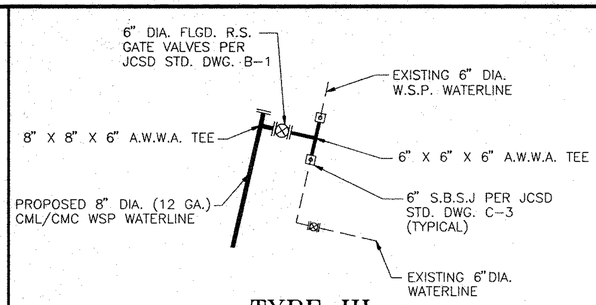
SHEET 4 OF 8 SHEETS
DWG. NO. 93-314



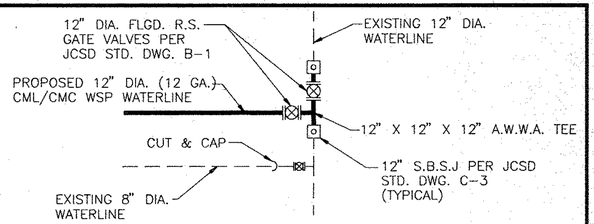
VALVE DETAIL A
TYPICAL



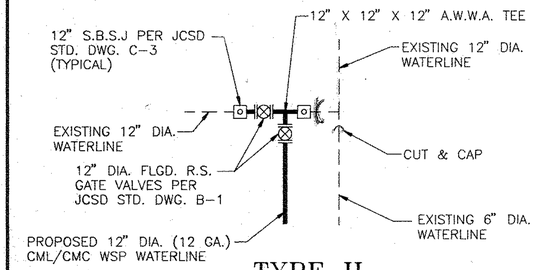
TYPE II
CONNECTION DETAIL E
TYPICAL OF CONNECTION 3-B



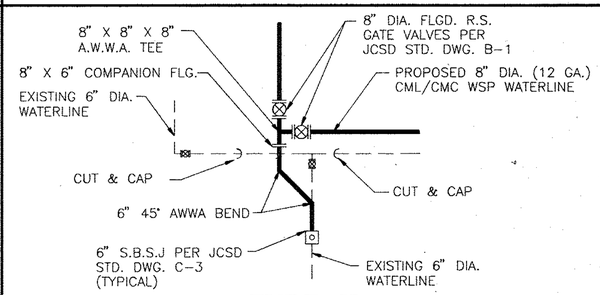
TYPE III
CONNECTION DETAIL I
TYPICAL OF CONNECTION 4-A



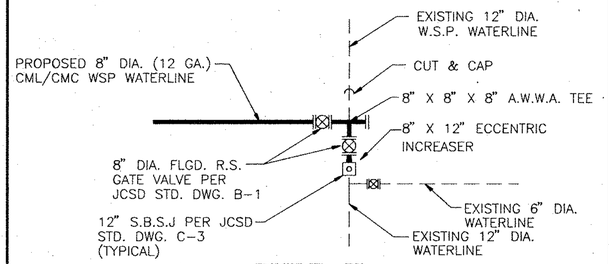
TYPE II
CONNECTION DETAIL M
TYPICAL OF CONNECTION 5-E



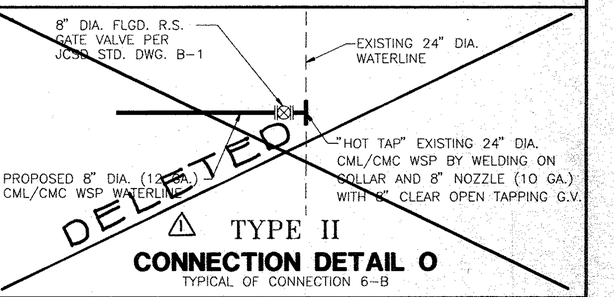
TYPE II
CONNECTION DETAIL B
TYPICAL OF CONNECTION 2-A



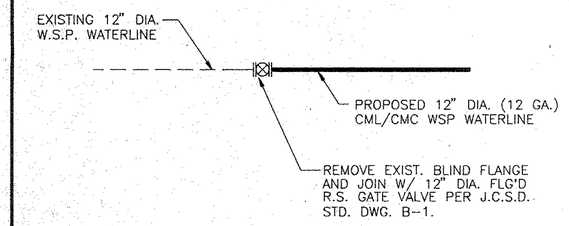
TYPE II
CONNECTION DETAIL F
TYPICAL OF CONNECTION 3-C



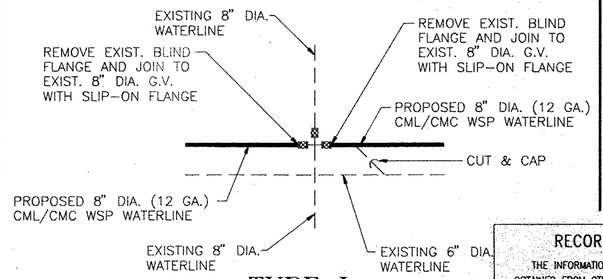
TYPE II
CONNECTION DETAIL J
TYPICAL OF CONNECTION 4-B



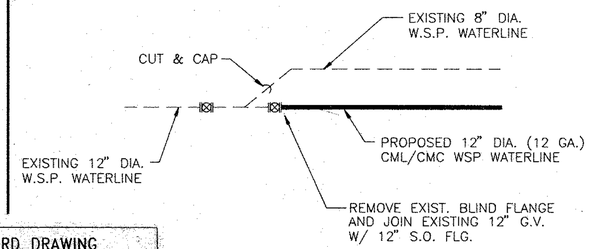
TYPE II
CONNECTION DETAIL O
TYPICAL OF CONNECTION 6-B



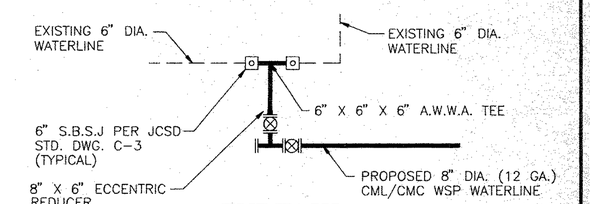
TYPE I
CONNECTION DETAIL C
TYPICAL OF CONNECTION 2-B



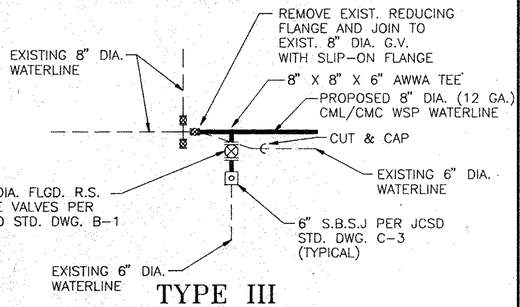
TYPE I
CONNECTION DETAIL G
TYPICAL OF CONNECTION 3-D



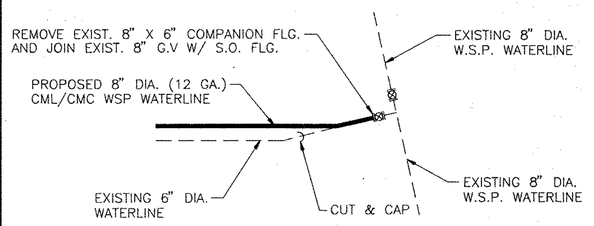
TYPE I
CONNECTION DETAIL K
TYPICAL OF CONNECTION 5-A



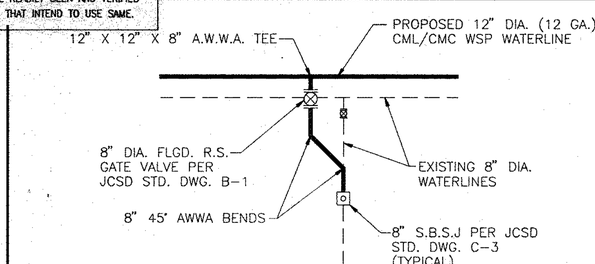
TYPE III
CONNECTION DETAIL P
TYPICAL OF CONNECTION 6-C



TYPE III
CONNECTION DETAIL D
TYPICAL OF CONNECTION 3-A



TYPE I
CONNECTION DETAIL H
TYPICAL OF CONNECTION 3-E



TYPE II
CONNECTION DETAIL L
TYPICAL OF CONNECTIONS 5-B, 5-C & 5-D

M.S. 3636

NOTES FOR CONNECTION DETAILS

1. ALL VALVES AND PIPING 8" DIA. AND LARGER SHOWN HEREON ARE TO BE BID SEPERATELY PER THE BIDDING SHEETS AND THEREFORE ARE NOT TO BE CONSIDERED AS PART OF THE CONNECTION COSTS. THE COST OF ALL VALVES AND PIPING LESS THAN 8" DIA. SHALL BE INCLUDED IN THE LUMP SUM COSTS FOR EACH CONNECTION AND NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFORE BY THE DISTRICT.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND CAPPING EXISTING WATERLINES AND BLIND FLANGING EXISTING VALVES IN THE VICINITY OF EACH CONNECTION WHERE APPLICABLE. THE CUTTING AND CAPPING OF THE WATERLINES SHALL BE AS DIRECTED AND APPROVED BY THE DISTRICT'S INSPECTOR. ALL COSTS FOR CUTTING AND CAPPING SHALL BE INCLUDED IN THE LUMP SUM COSTS FOR EACH CONNECTION AND NO ADDITIONAL COMPENSATION SHALL BE MADE THEREFORE BY THE DISTRICT.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING BLIND FLANGES TO THE END OF PROPOSED GATE VALVES STUBBED OUT FOR FUTURE CONNECTIONS.

RECORD DRAWING

THE INFORMATION ON THIS DRAWING IS OBTAINED FROM OTHERS AND MUST BE VERIFIED IN THE FIELD BY ANYONE PRIOR TO USE OR CONSTRUCTION. ALBERT A. WEBB ASSOCIATES IS NOT RESPONSIBLE FOR UNDERGROUND FACILITY LOCATIONS OR DEPICTIONS. ALL ABOVE GROUND FACILITIES CAN BE READILY SEEN AND VERIFIED BY THE PARTIES THAT INTEND TO USE SAME.

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DATE	BY	MARK	REVISIONS	APPR.	DATE
3/95	C.B.	1	"RECORD DRAWING"	W.T.M.	3/95
INSPECTOR				ENGINEER	

DESIGNED BY: WTM DRAWN BY: WTM CHECKED BY: SIG

RECOMMENDED FOR APPROVAL

CHECKED:

DATE:

SEAL COUNTY

SEAL: REGISTERED PROFESSIONAL ENGINEER, WILLIAM T. MALONE, NO. C47569, EXP. 12-31-95, CIVIL, STATE OF CALIFORNIA

APPROVED BY DATE:

FOR TRANSPORTATION DEPT., RIVERSIDE COUNTY, CALIFORNIA

R.C.E. NO. EXP. DATE

APPROVED BY DATE: 6/29/94

William T Malone

R.C.E. NO. 47569 EXP. DATE 12-31-95

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY ST. RIVERSIDE, CA. 92506
PH. (909) 686-1070

SCALE: N.T.S.

CAD PLAN: 93314D

BENCHMARK: AT THE S.W. CORNER OF FELSPAR ST. AND 56TH ST.; 174' WEST OF FELSPAR ST.; 17' SOUTH OF 56TH ST.; A BRASS DISC SET IN THE EAST END OF A 10" X 16" HEADWALL AND MARKED M.L. 13-1-64. ELEVATION = 687.713

JURUPA COMMUNITY SERVICES DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

1993/1994 WATERLINE REPLACEMENT PROJECT

CONNECTION DETAIL SHEET

FOR. J.C.S.D. P.N. 1485 W.O. 93-314

SHEET D-1 OF 8 SHEETS

DWG. NO. 93-314

Attachment 8

Rubidoux Community Services District
Water Capital Improvement Project (CIP) Budget

		Actual YTD March 2026	Annual Budget 2025/2026[1]	Projected Year End 2025/2026	Favorable (Unfavorable) Variance	Audited 2024/2025	Proposed Budget 2026/2027
	Income						
1	Grant Income - USBR - AMI	$ -	$ 1,500,000	$ -	$ (1,500,000)	$ -	$ 1,500,000
TOTAL WATER CAPITAL PROJECT REVENUE		**$ -**	**$ 1,500,000**	**$ -**	**$ (1,500,000)**	**$ -**	**$ 1,500,000**
	Expense						
2	Well 4 Rehab	20,646	200,000	20,646	179,354	-	-
3	Well 6 Rehab	-	200,000	-	200,000	-	-
4	Well 8 Rehab	187,706	187,000	130,000	57,000	-	-
5	Well 11 Rehab (Irrigation)	-	100,000	-	100,000	-	-
6	Well 14 Rehab (Irrigation)	-	75,000	-	75,000	-	-
7	Well Rehabs	-	-			-	300,000
8	District at JV Well Sites/LT Expansion (LT Exansion Lot)	57,706	-	57,706	(57,706)	-	-
9	Annexation Work - Water Pipeline Move (Design)	-	55,000	-	55,000	-	-
10	AMI Project (Grant Funding Approx. 50%)	8,653	3,200,000	30,000	3,170,000	28,184	3,200,000
11	**Thompson Plant Fe/Mn Vessel Rehab'**	186,066	305,000	250,000	55,000	-	-
12	Reservoir Design - All Four Tanks	-	430,000	-	430,000	-	430,000
13	2026 Regional Geotechnical Report	-	200,000	-	200,000	-	200,000
14	Pipeline Replacement						200,000
15	JCSD Line Separation	-	-	-	-	-	115,000
	Total Expense	**460,777**	**4,952,000**	**488,352**	**4,463,648**	**28,184**	**4,445,000**
	Transfers						
16	Transfer to/(from) Water Fund Unrestricted	-	(2,555,000)	-	-	-	(2,945,000)
	Total Transfers	**-**	**(2,555,000)**	**-**	**-**	**-**	**(2,945,000)**
TOTAL WATER CAPITAL PROJECT EXPENSES AND TRANSFE		**$460,777**	**$2,397,000**	**$488,352**	**$4,463,648**	**$28,184**	**$1,500,000**
	Fund Excess (Deficit)						$ -

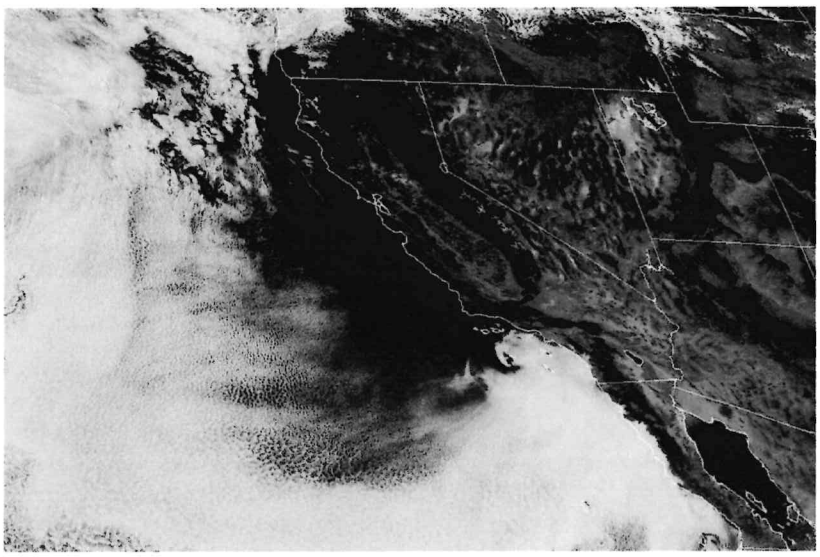
[1] Includes budget amendments adopted by Board of Directors up through May 7, 2026.

ESTIMATED JULY 1, 2026 CAPITAL RESERVE	$ -
ESTIMATED FISCAL YEAR 26/27 EXCESS (DEFICIT)	$ -
ESTIMATED JUNE 30, 2027 CAPITAL RESERVE	$ -

6. CORRESPONDENCE AND RELATED INFORMATION

A. El Niño looks like a whopper. Here's how that changes California's rainfall.

El Niño looks like a whopper. Here's how that changes California's rainfall. "The telltale signs have become strong signals."



After months of anticipation, the National Weather Service's Climate Prediction Center declared on Thursday that El Niño conditions have developed.

The latest data shows a 63% chance that El Niño, the seasonal climate pattern that generally brings a wet winter to California along with a cascade of global weather impacts, will become "very strong" from November 2026 through January 2027.

California experts are closely monitoring the potency of this El Niño, which some models show as on par with the previous seven very strong events since 1950 and others forecast will make history by the end of the year.

"El Niño kept brewing, and now the telltale signs have become strong signals," Alexander Gershunov, a research meteorologist at the Scripps Institution of Oceanography at UC San Diego, told SFGATE. "All the models basically came into agreement to predict El Niño, and most of them are predicting a very strong El Niño."

El Niño is the warm phase of a pattern that develops in the tropical Pacific Ocean, called the El Niño-Southern Oscillation, or ENSO. During El Niño events, weak trade winds are associated with above-average surface temperatures in those waters. The other phase, La Niña, brings stronger winds that promote cooler ocean conditions. The pattern alternates irregularly, with neutral phases in between.



Generally, the stronger the event — meaning the warmer those seas get along the equator — the more reliable the impacts of El Niño are for forecasters. Across the U.S., scientists typically associate El Niño with drier, warmer winters in some northern parts of the country and with wetter winters in areas like the Gulf Coast and Southeast. Eastern Pacific hurricane activity can intensify. Combined with the extreme marine heat wave already baking the Pacific Ocean, the current El Niño will not only affect the weather but also likely marine life.

"A strong El Niño ensures that we're going to break a new global temperature record this year, and this additional warmth, energy in the global environment will also foster more extremes, especially heat waves and extreme storms," Gershunov said. "There are regional caveats like, for example, the Atlantic hurricane season is going to be diminished because of this El Niño."

In California, the El Niño pattern tips the odds in favor of a wetter winter season, especially in the southern part of the state. The seemingly endless

string of rainy days from past El Niño winters such as 1997-1998 loom large in the collective memory of residents.

Yet scientists have to come to appreciate that El Niño years can lead to a variety of outcomes locally. In the winter of 2015-2016, for example, the infamous "Godzilla" El Niño — one of the strongest ever recorded — did not deliver the expected precipitation in Southern California.

Michelle L'Heureux, who leads the ENSO team at the Climate Prediction Center, explained the significance of Thursday's El Niño forecast for California.

"A stronger El Nino historically means an increased chance of above-average [precipitation] for California," L'Heureux wrote to SFGATE by email. "However, the CPC outlook takes in account other factors too and the El Nino signal is not very strong over California. In particular, over the recent decade or so, there has been a drying trend which complicates the El Nino signal for California."

Jan Null, a meteorologist and private weather consultant with Golden Gate Weather Services, told SFGATE a similar story about the Golden State based on the records of past El Niños.

"Let's say we know for sure that it's going to be a strong or very strong El Niño, and that's a fairly good likelihood, but what does that mean for California rainfall?" he said. "It tilts the meter toward more rain than normal, but there are no absolutes in this game."

7. REPORTS

A. Operations Report – None

7. **REPORTS** (continued)

B. Emergency and Incident Report – None

7. **REPORTS** (continued)

C. General Manager and Staff Reports / Updates

7. **REPORTS** (continued)

D. Committee Reports – None

7. **REPORTS** (continued)

E. Jurupa Unified School District – Student Liaison Report – None

8. ACTION / DISCUSSION ITEMS

A. **DM 2026-59**: Consideration to Award Advanced Metering Infrastructure (AMI) Implementation Project (Rebid)

Rubidoux Community Services District

Board of Directors
Diana Leja, President
Leslie Altamirano, Vice-President
Bernard Murphy
John Skerbelis
Hank Trueba Jr.

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

DIRECTORS MEMORANDUM 2026-59 July 2, 2026

To: Rubidoux Community Services District
Board of Directors

Subject: Consideration to Award Advanced Metering Infrastructure (AMI) Implementation Project (Rebid)

BACKGROUND:

The Rubidoux Community Services District ("District") is pursuing the conversion of approximately 5,000 existing water meters to Advanced Metering Infrastructure ("AMI") as part of its ongoing efforts to improve water use efficiency, reduce system water loss, and comply with evolving state regulatory requirements. This project ("Project") is a budgeted capital improvement previously authorized by the Board of Directors ("Board") and is supported by a $1.5 million grant funding match from the United States Bureau of Reclamation ("USBR"), under its WaterSMART Water and Energy Efficiency Grant Program.

Following issuance of the original AMI bid solicitation, the District received one bid. Subsequent to receipt of the bid, District staff identified the need to revise the AMI technical specifications to incorporate additional functionality, including acoustic leak detection, to better support compliance with California's *Making Conservation a California Way of Life* framework and the State's increasing focus on water loss accountability.

The *Making Conservation a California Way of Life* framework establishes long term water use efficiency standards that require permanent and measurable reductions in water use and water loss. Water utilities are expected to quantify distribution system losses, proactively identify leaks, and demonstrate ongoing reductions through data driven tools such as AMI systems equipped with acoustic leak detection capabilities.

On February 5, 2026, the Board rejected the bid received from Ferguson to supply Neptune meters for $3,217,511.59 and authorized the rebid of the project per Directors Memorandum ("DM") 2026-07 (**Attachment 1**) with revised specifications as documented in DM 2025-117 (**Attachment 2**). The revised

specifications expand functional requirements, including systemwide leak detection capabilities, and increases warranty requirements (to include battery life and accuracy).

Additionally, on February 19, 2026, during the Manager's Comments of the Board Meeting (Item 7C), the Director of Engineering provided the Board with a presentation identifying the quantity and age of the existing meters (**Attachment 3**). The Director of Engineering also reviewed the claims filed against the District over the last two (2) years. The presentation identified that approximately 50% of the District's meters are older than 15 years and are due for replacement; as the meters continue to age, the accuracy of the meters will decrease resulting in water loss and lost revenue.

On February 26, 2026, the AMI project was rebid through PlanetBids in accordance with the District's Procurement Policy. The initial bid period was 63 days to allow Contractors to ensure compliance with Grant requirements. After the initial question period, the District extended the bid period an additional 21 days to allow Contractors to review responses to questions and prepare a comprehensive bid package.

The District received one responsive bid from Core & Main proposing to provide Kamstrup Flow IQ meters (an acceptable meter which meets the revised specifications); a second bid was received but determined to be incomplete and therefore considered an unresponsive bid.

The bid from Core & Main is for Bid Schedule II Composite/Stainless Steel Option in the amount of $2,616,125.23 and is lower than the previously rejected bid from Ferguson of $3,217,511.59 from the original bid period. It is important to note that the quantity and diameters of the meters required for the project were consistent from the original bid and rebid (see table below).

Meter Size	**Quantity**	**Ferguson Unit Cost (Bronze)**	**Core & Main Unit Cost (Stainless Steel Unless Noted Otherwise)**
3/4"	4,725	$477.41	$383.62 (Composite – 3,725) $395.84 (Stainless Steel – 1,000)
1"	106	$519.82	$464.80
1-1/2"	58	$1,265.72	$1,284.77
2"	83	$1,470.59	$1,621.72
3"	2	$3,722.25	$2,480.96
4"	5	$4,595.50	$3,035.63
6"	3	$6,893.69	$5,685.72

The District's Consultant, Krieger & Stewart ("K&S") reviewed the Contract Documents and Core & Main's response to the Request for Proposals (**Attachments 4** and **5**, respectively) and worked with the Bidder to correct any minor errors. District Staff reviewed the Response to RFP provided as a supplementary document to the bid (**Attachment 5**) which identifies any minor deviations from the Specifications. The District determined that the minor deviations from the Specifications primarily consist of minor changes due to proprietary information and do not affect the materials, quantity, accuracy, warranty, or function.

In accordance with Grant requirements, BABA compliance must be met, the District has received an approved BABA waiver for the proposed meter which is valid until December 19, 2027, (**Attachment 6**), this is sufficient

as the Contract completion date is 280 days after the Notice to Proceed (approximate completion date of April 8, 2027). As a condition of the Grant Funding, and general best practices, the District verified that the proposed Contractors are not disbarred (**Attachment 7**).

Therefore, K&S has prepared the Recommendation of Award, wherein, K&S recommends that the Board of Directors award the Project to Core & Main (**Attachment 8**).

Additionally, District Staff corresponded with USBR Representatives to confirm compliance with grant procurement requirements and received concurrence with the rebid approach and process (**Attachment 9**).

The Notice of Award from USBR lists a cost share up to $1,500,000 based on actual costs (see excerpt below).

Excerpt from USBR Notice of Award:

"*7.2 Cost Sharing Requirement*

At least 50% non-Federal cost-share is required for costs incurred under this Agreement. Based on the budget estimate reflected in Section 7.1 above, the estimated Federal share of allowable costs is 45% ($1,500,000) and the Recipient's estimated non-Federal cost share is 55% ($1,846,653). The Federal share of allowable costs shall not be expended in advance of the Recipient's non-Federal share. It is expected that expenditure of Federal and non-Federal funds based upon the estimated cost share percentages shall occur concurrently. At the end of the period of performance, if the final costs are lower than the original estimate and the 50% non-Federal cost share is met, the final payment and financial report can reflect a lower Recipient cost share than the original budget estimate.

If a bona fide need arises which requires the expenditure of Federal funds in advance of the Recipient share, then the Recipient must request written approval from the Reclamation GO prior to the expenditure. Recipient may not expend their agreed upon share of costs in advance of the expenditure of Federal funds without prior written approval."

Customer Impacts

As this project will be broad in nature and encompass the vast majority of our District, potential impacts to customers are an important consideration. District Staff is currently working on an outreach campaign to notify customers of anticipated work, how they will be impacted, and what to expect. The notifications are anticipated to occur within statements, website, social media, and other customer communications. The benefits to customers will also be highlighted within the notification to advise customers of the ability to quickly identify when a leak is present (on either side of the utility) and assist them with the ability to track and take ownership of their water use.

Staff Impacts

The District anticipates that by implementing this AMI Project, Staff time associated with meter reads and rereads can be repurposed for more proactive leak detection, meter replacement, and water loss system audits. The Meter Reader will be key throughout the installation process to assist with a smooth transition and to act as the District's Field Customer Service Representative, the extents of which will be documented formally separately.

Budget Consideration

The AMI project remains within the current budget previously approved by the Board of Directors and is less than budgeted amount of $3,200,000. The District received a matching grant in the amount of $1,500,000 (see excerpt 7.2 of the Notice of Award listed above) which advises that the total project cost may be reduced such that the match is a 50% cost share rather than a 45% cost share. As such, the District would like to award the Project to Core & Main for $2,616,125.23 from the FY 2026|2027 Water Capital Improvement Project (CIP) Budget Line Item 10 (**Attachment 10**) with authorization to issue supplementary change orders to increase the quantity of meters to meet a total project cost of $3,000,000 and to assign $200,000 as a project contingency for a total project amount of $3,200,000. This Project will initially be funded from the District's Water Fund Operating Reserve, which has a projected balance of approximately $6.9 million as of July 2, 2026, more than sufficient to cover the District's estimated net project cost of approximately $1.7 million after accounting for the $1.5 million grant award. No additional budget appropriation is requested as part of this action.

RECOMMENDATION:

Staff recommends the Board of Directors take the following actions:

1. Accept the Core & Main Bid of $2,616,125.23 received for the Rebid AMI project and issue Notice to Proceed to Core & Main.
2. Authorize the District Staff to initiate and execute change orders for the project as needed to increase the quantity of meters and ancillary items supplied by $383,874.77 (resulting in a total project cost of $3,000,000).
3. Authorize District Staff to utilities $200,000 as a contingency for the Project.

Respectfully,

BRIAN R. LADDUSAW, CPA
General Manager

Attachment(s):

1. Directors Memorandum 2026-07
2. Directors Memorandum 2025-117
3. Manager's Comments Presentation February 19, 2026
4. Contract Documents (Available at the following link: https://www.rcsd.org/2026-07-02-board-of-directors-board-meeting)
5. Core & Main's response to the Request for Proposals (Available at the following link: https://www.rcsd.org/2026-07-02-board-of-directors-board-meeting)
6. BABA waiver
7. Contractor Verification
8. Recommendation of Award
9. USBR Correspondence
10. FY 2026|2027 Water Capital Improvement Project (CIP) Budget (Page 8)

Attachment 1

Rubidoux Community Services District

Board of Directors
Diana Leja, President
Leslie Altamirano, Vice-President
Bernard Murphy
John Skerbelis
Hank Trueba Jr.

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

DIRECTORS MEMORANDUM 2026-07 February 5, 2026

To: Rubidoux Community Services District
Board of Directors

Subject: Rejection of Bids Received Under Prior Advanced Metering Infrastructure (AMI) Specifications and Authorization to Rebid Using Approved Revised Specifications

BACKGROUND:

The Rubidoux Community Services District ("District") is pursuing the conversion of approximately 5,000 existing water meters to Advanced Metering Infrastructure (AMI) as part of its ongoing efforts to improve water use efficiency, reduce system water loss, and comply with evolving state regulatory requirements. This project is a budgeted capital improvement previously authorized by the Board and is supported by $1.5 million in grant funding.

Following issuance of the original AMI bid solicitation, the District received bids that were responsive to the technical specifications in effect at that time. Subsequent to receipt of those bids, District staff identified the need to revise the AMI technical specifications to incorporate additional functionality, including acoustic leak detection, to better support compliance with California's *Making Conservation a California Way of Life* framework and the State's increasing focus on water loss accountability.

The *Making Conservation a California Way of Life* framework establishes long term water use efficiency standards that require permanent and measurable reductions in water use and water loss. Water utilities are expected to quantify distribution system losses, proactively identify leaks, and demonstrate ongoing reductions through data driven tools such as AMI systems equipped with acoustic leak detection capabilities.

On December 18, 2025, the Board of Directors ("Board") approved revisions to the District's Approved Materials List and Technical Specifications for AMI, as documented in Directors Memorandum ("DM") 2025-117 (Attachment 1). The revised specifications expand functional requirements, including systemwide leak detection capabilities, and increases warranty requirements (to include battery life and accuracy). Staff

RECOMMENDATION:

Staff recommends the Board of Directors take the following actions:

1. Reject all bids received for the AMI project that were submitted under the prior technical specifications.

2. Authorize the General Manager to rebid the AMI project using the revised AMI technical specifications previously approved by the Board.

Respectfully,

BRIAN R. LADDUSAW, CPA
General Manager

Attachments available online in Board Packet for February 5, 2026 Board Meeting

Attachment(s):

1. Directors Memorandum 2025-117
2. District Procurement Policy, Section 1040.3.1
3. Response to AMI RFP prior to Technical Specification Revision

Attachment 2

Rubidoux Community Services District

Board of Directors
Diana Leja, President
Leslie Altamirano, Vice-President
Bernard Murphy
John Skerbelis
Hank Trueba Jr.

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

DIRECTORS MEMORANDUM 2025-117 December 18, 2025

To: Rubidoux Community Services District
Board of Directors

Subject: Consideration to Revise the Approved Materials List and Technical Specifications for Advanced Meter Infrastructure (AMI) in the Rubidoux Community Services District Water and Sanitary Sewer Design and Construction Manual

BACKGROUND:

The Rubidoux Community Services District ("District") was awarded a Water and Energy Efficiency Grant ("Grant") in the amount of $1,500,000 from the United States Bureau of Reclamation ("USBR") to convert approximately 5,000 existing District meters to AMI meters. Accordingly, the District revised the Approved Materials List and Technical Specifications per DM 2024-30 to change the standard meter from a mechanical meter (which will become inaccurate over time due to wearing out of mechanical parts), to an ultrasonic water meter with no moving parts.

The selected ultrasonic meter for DM 2024-30 was Neptune Mach 10 which provided enhanced features such as the ability to receive the data in multiple ways (AMI and Automatic Meter Reading ("AMR")), no wires (tamper resistant), BABA compliance, and history of use. It is important to note that the technical specifications incorporated features consistent with the Neptune Mach 10 Meter and, as adopted, limited the number of manufacturers able to fully meet all specified requirements.

AMI/AMR will assist the District in tracking water more accurately and thereby reducing lost water in accordance with "Making Conservation a California Way of Life" (Senate Bill ("SB") 606/Assembly Bill ("AB") 1668), adopted in 2024, which seeks to reduce water waste and increase climate resilience. Yearly reporting associated with SB 606/AB 1668 which includes documenting efficiency standards and the Urban Water Use Objective (UWUO) began January 1, 2025 with required compliance to the UWUO by January 1, 2027 (**Attachment 1**).

Recently, the District was made aware of a different ultrasonic meter (manufactured by Kamstrup) with many of the same features of the previously selected Neptune Mach 10, but with the added ability to detect leaks within the system with a longer warranty period (for meters 1 ½" and smaller).

With the upcoming regulatory compliance and the need for the District to develop a proactive approach to address water loss (namely leaks in the system), District Staff has prepared a draft of the revised Technical Specifications for AMI for the Rubidoux Community Services District Water and Sanitary Sewer Design and Construction Manual. The revised Technical Specification was developed to encourage competition by removing specific model references, opening up the acceptable criteria (but remaining within AWWA Standards), and by removing criteria specific to a single manufacturer.

The revised Technical Specification for AMI also includes the requirement for a leak detection device (either integral to the meter or external) on all service lines 2" and smaller to assist in meeting the UWUO and identifying water loss in the system (**Attachment 2**).

Leak detection at each service line (2" and smaller) will allow the District to address water leaks proactively rather than reactively and assist the District with the following:

- Regulatory requirements
- Identify unseen leaks/Identify water loss
- Prioritize replacement pipeline projects
- Assist customers experiencing high water use due to an unknown leak on their side of the service line
- Reduce water loss and reduce water demand (water treated can be used more efficiently instead of lost from unknown leaks)

RECOMMENDATION:

Staff recommends the Rubidoux Community Services District Board of Directors authorize the General Manager to:

1. Revise the Approved Materials List and Technical Specifications for Advanced Meter Infrastructure (AMI) in the Rubidoux Community Services District Water and Sanitary Sewer Design and Construction Manual

Respectfully,

BRIAN R. LADDUSAW, CPA
General Manager

Attachments available online in Board Packet for December 18, 2026 Board Meeting

Attachment(s):

1. ACWA Fact Sheet – Making Conservation a California Way of Life Regulation
2. Draft Revised Technical Specifications for Advanced Meter Infrastructure (AMI)

Attachment 3

Review of Meter Replacements 2024-2025

Staff Presentation

2/19/2026

Background

RCSD serves approximately 40,000 customers from about 7,000 water services with meters at each connection to identify water use (consumption).

- Total Number of Water Meters is approximately 6,900
- Average life expectancy for residential meters (dependent on type) = 15 to 20 years
- Approximately 50% of Districts meters are older than 15 years

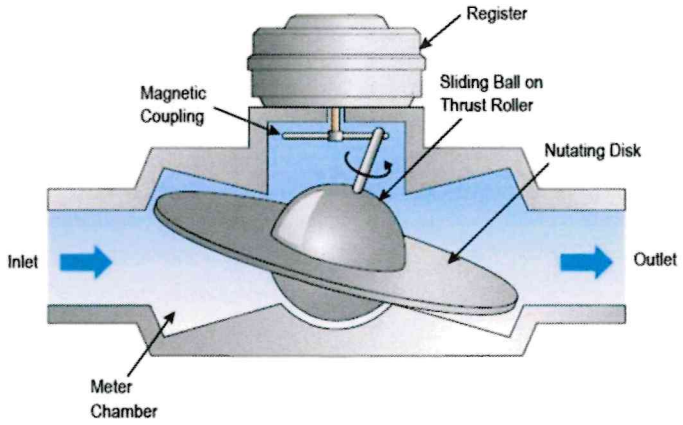
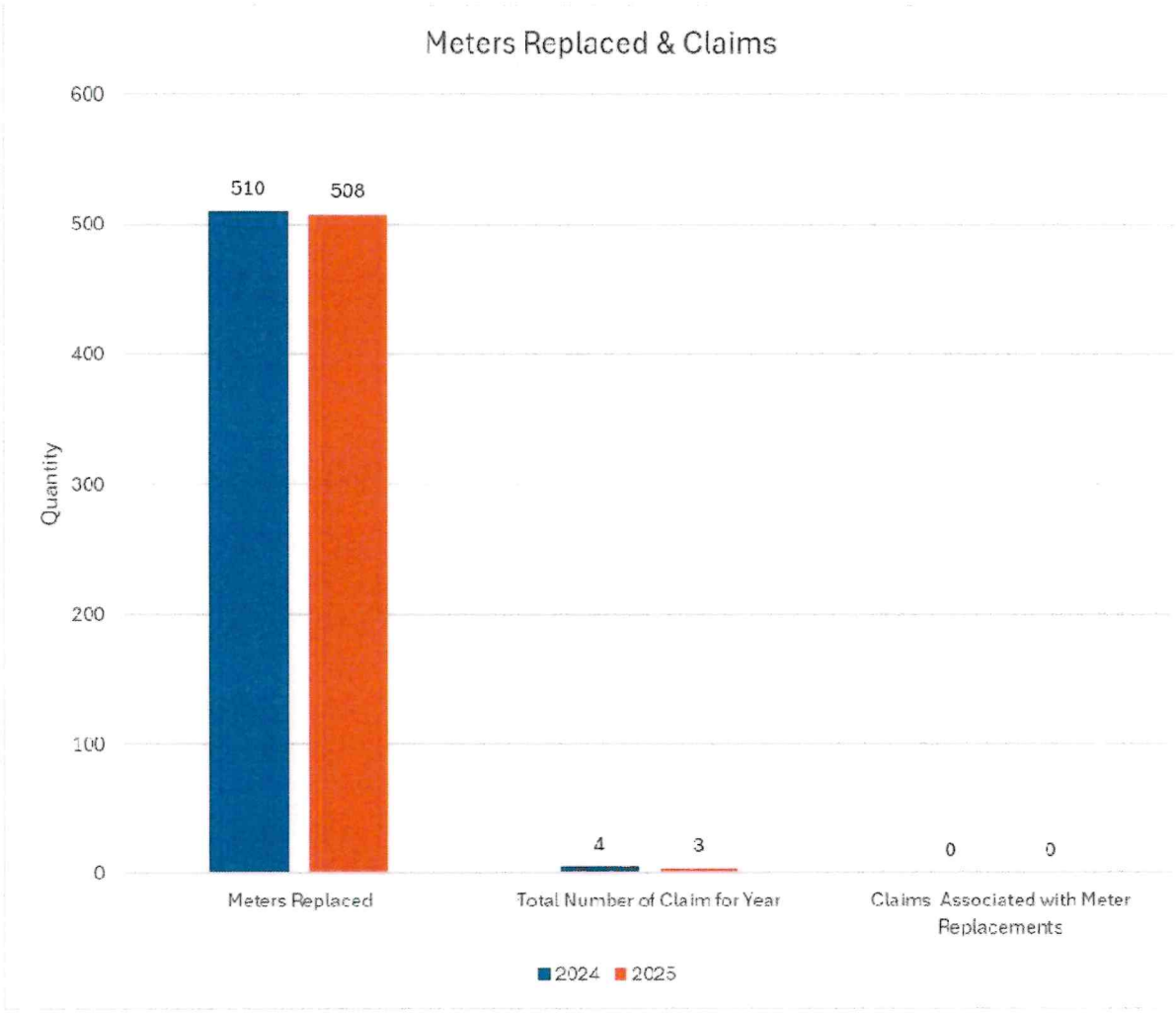


Image: https://www.pnnl.gov/projects/femp-metering-best-practices/water-metering

Meters Replaced and Claims Over Last Two Years



Questions

Rubidoux Community Services District
Office: 951.684.7580
www.rcsd.org

Attachment 4

RUBIDOUX COMMUNITY SERVICES DISTRICT
JURUPA VALLEY, CALIFORNIA

BIDDING DOCUMENTS

FOR
ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I

A. INSTRUCTIONS TO BIDDERS

1. Responsible Bidders

Bidders are advised that in selecting the Contractor, Owner reserves the right to consider the financial responsibility and general competency of each Bidder, his trustworthiness, quality, fitness, capacity, and experience to satisfactorily perform the public works contract, as well as his reputation within the industry. Owner expects each Bidder to fully and truthfully disclose all information required of the Bidder by the Bidding Documents. Each Bidder must be properly licensed and must sign and submit with his bid proposal the Bidder's Statement of Experience, Bidding Sheets, and Certified Data Sheet. Please note that similar information is required in said Bidder's Statement of Experience with respect to any proposed subcontractors (Not required for materials only proposal).

2. Completion of Bid Proposal and Supporting Documents

Bidder shall submit his bid proposal on the forms contained within these Bidding Documents (Bid Proposal Packet) provided with the Contract Documents issued by Owner or Owner's representative directly to Bidder. Owner will not accept bid proposals submitted on forms other than those contained within said Bid Proposal Packet included in the Contract Documents. Any addenda or bulletins issued prior to the bid shall be incorporated into the bid proposal and shall be evidenced by Bidder's inclusion of the signed acknowledgement of receipt for each addendum or bulletin with Bidder's submitted bid proposal.

Bidder shall complete the attached bid proposal and supporting documents including any addenda or bulletins issued before receipt of bids together with Statement of Experience (not required for materials only proposal), Bid Schedule, Certified Data, Certified Worker Craft and Classification, Certification of Bidder's Work Site Inspection, Statement on Bonds and Insurance, Certification of Bidding Documents, Non-Collusion Declaration, Public Works Contractor Registration Certification, Fleet Compliance Certification, Iran Contracting Act Certification, Executive Order N-6-22 Certification, and Bid Proposal Guarantee. Bidder shall also complete all additional forms required by state or federal funding sources, including Certification of No Debarment Under Federal Law; Build America, Buy America Act Certification; DBE Good Faith Efforts Verification; Bidder's List; DBE Subcontractor Performance Form; DBE Subcontractor Utilization Form; Certification of Disclosure of Lobbying Activities; Certification Regarding Lobbying; and Disclosure of Lobbying Activities.

As an option, Bidder may submit the following forms no later than three (3) business days after the bid due date specified in the Notice Inviting Bids to be eligible for Contract Award:

- Subbidder Experience (Section B.2.h)
- Fleet Compliance Certification from Subbidders (Section B.13)
- Bidder's List (Section B.19)
- DBE Subcontractor Performance Form (Section B.20)
- DBE Subcontractor Utilization Form (Section B.21)
- Form 6600-6 Certification Regarding Lobbying from Subbidders (per Section B.22.d)
- Form SF-LLL Disclosure of Lobbying Activities from Subbidders (per Section B.22.e)

All other pages of the Bidder's proposal shall be properly completed and submitted by the bid time and date.

The California Air Resources Board ("CARB") implemented amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulations ("Regulation") which went into effect on January 1, 2024 and apply broadly to all self-propelled off road diesel vehicles 25 horsepower or greater and other forms of equipment used in California. A copy of the Regulation is available at https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/off-roaddiesel/appa-1.pdf. Bidders are required to comply with all CARB and Regulation requirements, including, without limitation, all applicable sections of the Regulation, as codified in Title 13 of the California Code of Regulations section 2449 *et seq.* throughout the duration of the Project. Bidders must provide, with their Bid, Bidder's and all listed subbidders' completed Fleet Compliance Certification forms (Section B.13 herein) and required support documentation. Failure to provide same may render the Bid non-responsive. (Note: subbidder certification form(s) and documentation may be provided subsequent to bid, if allowed for herein.)

Pursuant to Labor Code sections 1725.5 and 1771.1, no bid will be accepted nor any contract entered into without proof of Bidder's and subbidders' current registration with the Department of Industrial Relations. Bidder shall sign and submit with its bid the Public Works Contractor Registration Certification on the form provided, attesting to the facts contained therein. Failure to submit this form may render the Bid non-responsive. Each Bidder shall provide the Public Works Contractor Registration Number for each listed subbidder in the space provided in the listing of subbidders.

Bidder shall complete by hand in black or blue ink or typewritten each blank (including inserting "N/A" if necessary) on each page; forms shall be signed in accordance with Item A.4 herein. The completed forms shall be without alterations, erasures, or interlineations. Bidder shall correct errors by striking or lining out mistakes and entering and initialing corrections immediately thereabove. Unless otherwise provided in the Supplemental Instructions to Bidders, Owner will not consider any bid proposal which does not include bids on all bid items set forth in the Bid Schedule(s). Owner will not consider alternative proposals unless they are called for by these instructions or the supplemental instructions appearing in the Bidding Documents themselves.

Owner may, at its sole discretion, reject any bid to which the Bidder has added conditions, limitations, provisions, or any alterations or interlineations. Owner may also, at its discretion, reject any bid for which the Bidder has failed to supply all requested information or has misrepresented any such information or any matter whatever. Pursuant to Business and Professions Code Section 7028.15, Owner will consider non-responsive and reject any bid submitted by a Contractor not licensed as required by law.

3. Omissions and Discrepancies

Should a Bidder find purported discrepancies in, or omissions from the Special Requirements, Basic Specifications, Construction and Standard Drawings, or other documents bound herein, or should Bidder be in doubt as to their meaning, Bidder shall **immediately** notify Owner in writing. Owner may then send written instructions or notification to all Bidders.

4. Signature and Seal

If the bid proposal is made by an individual, it shall be signed and his full name and his address shall be given; if it is made by a partnership, it shall be signed with the partnership name by one of the partners, who shall sign his own name and, in addition, the name and address of each partner shall be given; if it is made by a corporation, the name of the corporation shall be signed by its duly authorized officer, or officers, attested by the corporation seal, and the names and titles of all current officers of the corporation shall be given.

5. Bid Proposal Guarantee

Each bid proposal shall be accompanied by cash, a certified or cashier's check, or bid bond issued by a surety or sureties admitted in and regulated by the State of California and further, if the Work or project is financed in whole or in part with federal grant or loan funds, listed in the Treasury Department's most current Circular 570 (bid bond shall be submitted on the form attached herein or on an equivalent form approved by Owner), or equivalent substitution in lieu of a bond as authorized by Civil Procedure Code Section 995.710, for an amount not less than 10% of the maximum amount bid.

Said check, bond, or substitute shall be made payable to the Owner and shall be given as a guarantee that the Bidder will enter into the Contract described in the Notice Inviting Bids herein if awarded the Work. By submitting a bid proposal, each Bidder agrees that its failure to enter the Contract if awarded the Work would result in damage to the Owner and that it would be impracticable or extremely difficult to ascertain the actual amount of that damage. For this reason, each Bidder agrees that the Owner may retain the bid proposal guarantee as liquidated damages if the Bidder is awarded the Work but fails to or refuses to timely enter the Contract.

6. Packaging and Delivery of Bid Proposal and Guarantee

Once the bid proposal and supporting documents herein have been completed and signed as set forth above, they shall be submitted, along with all other required materials, via PlanetBids before the time and date set for the receipts of bids. The Bid Proposal Guarantee, **to be received by the District prior to the deadline for receipt of Bids**, shall be submitted in an envelope, sealed and addressed, and delivered or mailed, postage prepaid, to:

Street Address	**Mailing Address**
RUBIDOUX COMMUNITY SERVICES DISTRICT	
3590 Rubidoux Boulevard **Jurupa Valley, CA 92509**	**P. O. Box 3098** **Jurupa Valley, CA 92519**

Said envelope shall also contain the following in the lower left-hand corner thereof:

Bid Proposal Guarantee of _____(Bidder's Name)_____
for _____(Project Name Appearing on Cover Sheet)_____

No consideration shall be given by the Owner to bid proposals and/or bid proposal guarantees received after the date and time set by the Notice Inviting Bids herein for the opening of bids.

7. Withdrawal of Bid Proposal

Any Bidder may, without prejudice, withdraw his bid proposal at any time prior to the date and time set by the Notice Inviting Bids herein for the opening of bids; provided that any request to withdraw is made via PlanetBids or in writing and duly executed by the Bidder or the Bidder's duly authorized representative and delivered to the Owner at the address set forth in Instruction 6 herein. A bid proposal shall be deemed withdrawn once it has been delivered by the Owner to the Bidder requesting withdrawal, either by personal delivery or deposit in the United States mail, addressed to the address originally given by the Bidder. After withdrawal, the Owner will not recognize modifications of bid proposals attempted by methods other than as set forth in Instruction 8 herein.

8. Modification of Bid Proposal

Any Bidder who may wish to modify the bid proposal previously submitted by him may do so only by (a) following the withdrawal procedure set forth in Instruction 7 hereof prior to the date and time set by the Notice Inviting Bids herein for the opening of bids, and (b) submitting a substituted bid proposal which conforms to the requirements set forth in Instruction 1, 2, 4, 5, and 6 hereof. A bid proposal shall be deemed withdrawn once it has been delivered by the Owner to the one requesting withdrawal, either by personal delivery or deposit in the United States mail, addressed to the address originally given by the Bidder. After withdrawal, the Owner will not recognize modifications of bid proposals attempted by methods other than as set forth in this Instruction 8.

9. Opening and Awarding of Bids

All bid proposals shall be publicly opened and read at the time and place set forth in the Notice Inviting Bids herein. Bidders and their authorized representatives are invited to be present. The award, if made, will be made within 60 days of the opening. The Owner's policy is to award to the lowest responsible Bidder submitting a responsive bid who can comply with the projected delivery and/or completion schedules. However, the Owner reserves the right to reject any and all bids, to waive any irregularity, or to award the subject Contract to other than the lowest Bidder. Owner may, at its sole discretion, disregard any added conditions, limitations, provisions, or any interlineations or alterations. Notice of Award shall be made to a successful Bidder in writing and mailed to the address as set forth on the signature page of the Bidding Documents.

In the event there are unit price bid items in a bidding schedule and the "amount" indicated for a unit price bid item does not equal the product of the unit price and quantity, the unit price shall govern and the amount will be corrected accordingly. However, if the amount set forth as a unit price is ambiguous, illegible or uncertain for any cause, or is omitted, or is the same amount as the entry in the item cost column, then the amount set forth in the item cost column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price. In the event there is more than one bid item in a bidding schedule and the total indicated for the schedule does not agree with the sum of the prices bid on the individual items, the prices bid on the individual items shall govern and the total for the schedule will be corrected accordingly. Where applicable, in case of discrepancy between the written price and the numerical price, the written price shall prevail.

10. Return of Proposal Guarantees

Bid proposal guarantees will be returned to unsuccessful bidders within 60 days from the date that the Contract is awarded to the successful bidder.

11. Bond(s) and Certificates Required of Successful Bidder

The successful Bidder shall, upon receipt of notice of acceptance of his bid, promptly secure with a responsible corporate surety or sureties admitted in and regulated by the State of California and, if the Work or project is financed in whole or in part with federal grant or loan funds, listed in the Treasury Department's most current Circular 570, a contract performance bond in an amount of not less than 100% of the total bid price, conditioned upon faithful performance by said Bidder of all requirements under the Contract.

In addition, the successful Bidder shall promptly secure with a responsible corporate surety or sureties admitted in and regulated by the State of California and, if the Work or project is financed in whole or in part with federal grant or loan funds, listed in the Treasury Department's most current Circular 570, a payment bond (not required for materials only proposal) in an amount of not less than 100% of the total bid price, conditioned upon payment in full of the claims of all persons performing labor upon or furnishing materials to be used in or furnishing appliances or power contributing to the Work to be performed under the Contract.

Owner may request the successful Bidder submit a certified copy of the certificate of authority of the surety insurer issued by the California Insurance Commissioner and to submit copies of the surety insurer's most recent quarterly and annual statements filed with the Department of Insurance pursuant to California Insurance Code, Section 900, et seq.

The successful Bidder shall also furnish Certificates of Insurance as evidence of coverage in accordance with the Contract Appendix.

All bonds shall be subject to the approval of the Owner, and shall be submitted on the forms provided in the Contract section of the Contract Documents. All Certificates of Insurance shall be subject to the approval of the Owner and shall be submitted on the forms provided in the Contract section of the Contract Documents.

12. Execution of the Contract

The Bidder to whom award is made shall execute a written contract with the Owner on the form of Contract provided herein (which shall incorporate by reference the Proposal, addenda or bulletins issued before receipt of bids and public opening of same, Bidder's Statement of Experience (not required for materials only proposal), Bidding Sheet, Certified Data Sheet, Special Requirements, Basic Specifications, and Construction and Standard Drawings), together with the Labor Code Certification (not required for materials only proposal) therein, and furnish good and approved bond(s) and Certificates of Insurance as required in the preceding paragraph within 10 days from the date of mailing the Notice from the Owner to the Bidder, as set forth above, of the acceptance of his proposal.

No bid proposal shall be considered binding upon the Owner until the Contract has been executed. Failure or refusal by the successful Bidder to so enter into a Contract, as herein provided, or to conform to any of the stipulated requirements in connection therewith, shall be just cause for the annulment of the award and the retention by the Owner of the bid proposal guarantee. If the successful Bidder refuses or fails to execute the Contract, the Owner may award the Contract to the Bidder whose bid proposal is next most acceptable to said Owner; and such Bidder shall fulfill every stipulation embraced herein as if he were the party to whom the first award was made.

A corporation to which an award is made will be required, before the Contract is finally executed, to furnish evidence of its corporate existence and of the authority of the officer signing the Contract and bond for the corporation to so sign.

13. Withheld Contract Funds

Bidder is advised that Contractor, at his request and expense and in accordance with Section 22300 of the California Public Contract Code, will be permitted to substitute securities equivalent to monies withheld by Owner to insure performance under the Contract. Alternatively, the Contractor may request to have earned retentions paid directly to the escrow agent in accordance with Public Contract Code Section 22300. Refer to Section 30 of the Contract Appendix and the Escrow Agreement for Security Deposits in Lieu of Payment Retention included within the Contract section of the Contract Documents.

B. BIDDER'S PROPOSAL WITH SUPPORTING DOCUMENTS

TO THE PRESIDENT OF THE BOARD OF DIRECTORS, RUBIDOUX COMMUNITY SERVICES DISTRICT, JURUPA VALLEY, CALIFORNIA (Owner):

1. Proposal

The undersigned proposes to construct, furnish and install, or furnish only the components or items as set forth in the Bidding Documents for ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I.

In submitting this Proposal, the undersigned declares that he has read the Notice Inviting Bids, the Instructions to Bidders, the unexecuted Contract, and all other documents incorporated by reference, including the Special Requirements, the Basic Specifications, and the Construction and Standard Drawings and that he has inspected the Work site.

In exchange for consideration of this Proposal by the Owner, the Bidder agrees that if his bid is accepted by the Owner, the Bidder shall execute said Contract, construct, furnish and install, or furnish the items set forth in this Proposal and required by the Contract, Special Requirements, Basic Specifications, and Construction and Standard Drawings (all within the time provided), and shall accept as full payment the prices set forth in the Bid Schedule(s).

The Bidder further agrees that he shall execute such Contract within ten days from the date of mailing to him written notice of the Owner's acceptance of this proposal, that within the same time he shall furnish performance and payment bonds*, along with required certificates of insurance, and that upon failure to do so within said time, the proposal guaranty shall become the property of the Owner as liquidated damages for such failure or refusal, and shall be deposited as moneys belonging to the Owner; provided that if said Bidder executes the Contract and furnishes the required performance and payment bonds* and certificates of insurance within the time aforesaid, his proposal guaranty shall be returned to him within ten days thereafter.

In submitting a bid to a public body, the Bidder offers and agrees that if the bid is accepted, it will assign to the Owner all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the Bidder pursuant to the bid. Such assignment shall be made and become effective at the time the Owner tenders final payment to the Contractor, without further acknowledgment by the parties.

*Payment bond not required for materials only proposal.

2. Statement of Experience*

a. Bidder

Each Bidder (Contractor) shall list, in addition to name and address, the type of work in which it is qualified, and its years of experience in that type of work.

Name: Core & Main LP

Address: 3155 N Indian Ave, Perris, CA 92571

Contractor License No.: 1097128 Class: A

Type of Work: Waterworks, Fire Protection, and Storm Drainage Distributor

Years of Experience: Novemeber 22, 2004 Formation

DIR Registration No.: 1000054898 (also complete certification form herein)

b. Bidder Projects

Each Bidder (Contractor) shall furnish work record for Bidder (Contractor), listing at least three (3) projects similar to the type of work specified that the Bidder has completed within the past six (6) years. Responses shall be full and explicit.

1) Project Name: Temescal Valley Water District, CA

Contract Amount: $5M Date Completed: 02/2026

Type of Work: AMI Deployment

Owner (Name, Address, & Phone): Jeff Pape; 22646 Temescal Canyon Rd Temescal Valley, CA 92883

Office: (951) 277-1414, Direct (951) 667-6323

Engineer (Name, Address, & Phone): Andy Honeycutt

301 McDowell St. Suite 125 Charlotte, NC 28204/ (910) 690-7734

Person in Charge of Project (Name, Phone & Email): See owner info.

2) Project Name: Heber Public Utility District, CA

Contract Amount: $1.5M Date Completed: 11/2025

Type of Work: AMI Deployment

Owner (Name, Address, & Phone): Madeline Dessert; 1078 Dogwood Rd #103 Heber, CA 92249

(760) 482-2440

Engineer (Name, Address, & Phone): N/A.

Person in Charge of Project (Name, Phone & Email): See owner details.

* Not required for materials only proposal

2. Statement of Experience* (Continued)

b. Bidder Projects (Continued, attach additional sheets if necessary)

3) Project Name: Walnut Park, CA

Contract Amount: $3M Date Completed: 2023

Type of Work: AMI Deployment

Owner (Name, Address, & Phone): Eddie Vira, Operations Mgr.
2400 E Florence Ave. Walnut Park, CA 90255, (323) 585-7321

Engineer (Name, Address, & Phone): N/A.

Person in Charge of Project (Name, Phone & Email): See owner details.

4) Project Name: _____

Contract Amount: _____ Date Completed: _____

Type of Work: _____

Owner (Name, Address, & Phone): _____

Engineer (Name, Address, & Phone): _____

Person in Charge of Project (Name, Phone & Email): _____

5) Project Name: _____

Contract Amount: _____ Date Completed: _____

Type of Work: _____

Owner (Name, Address, & Phone): _____

Engineer (Name, Address, & Phone): _____

Person in Charge of Project (Name, Phone & Email): _____

* Not required for materials only proposal

2. Statement of Experience* (Continued)

c. Bidder's Principals and Key Personnel (attach additional sheets if necessary)

If Bidder (Contractor) has less than 5 years' experience in the type of work specified, it shall list the work experience for principals and key personnel to demonstrate that Bidder (Contractor) has sufficient work experience to warrant consideration for award; Owner will determine whether Bidder (Contractor) has sufficient work experience to meet the 5 years' work experience requirement.

1) Name: N/A. Core & Main LP has 21+ years of experience.

Address: _____

Type of Work:_____ Years of Experience: _____

Capacity (Title): _____

2) Name: _____

Address: _____

Type of Work:_____ Years of Experience: _____

Capacity (Title): _____

d. Has Bidder been involved in litigation with any owner of any project within the last 10 years? No. If so, please describe the project and the nature and results of any litigation including any lawsuits settled prior to trial. (Attach additional sheets if necessary.)

Core & Main is involved in various legal proceedings arising in the normal course of its business. The Company establishes reserves for litigation and similar matters when those matters present loss contingencies that it determines to be both probable and reasonably estimable, which as of the most recent reporting period are not expected to have a material adverse effect on the Company's financial condition. For all other matters, management believes the possibility of losses from such matters is not probable, the potential loss from such matters is not reasonably estimable, or such matters are of such kind or involve such amounts that would not have a material adverse effect on the financial position of the Company if resolved unfavorably.

e. Bidder is advised that it may be required to submit a signed financial statement, financial data, or other information and references sufficiently comprehensive to permit an appraisal of its current financial condition prior to award of Contract. Said statement, data, or information may be considered in selecting the successful Bidder.

*See supplemental bid packet for Core & Main's financial information.

* Not required for materials only proposal

2. Statement of Experience* (Continued)

f. Each Bidder (Contractor), at its option, may provide pertinent data or other information which may help Owner properly evaluate bid proposal.

Please refer to Core & Main's supplemental bid packet for more information on Core & Main's Metering Expertise.

* Not required for materials only proposal

2. Statement of Experience* (Continued)

g. List of Subbidders (copy and attach additional sheets if necessary)

Each Bidder (Contractor) shall list the name and address of each subbidder (subcontractor) who will perform work in excess of one-half of one percent (1/2%) of the total bid amount. Attach additional sheets if necessary. State the subbidders' names, addresses, contractor license information, DIR public works contractor registration number, and the portion of Work to be performed by each. Only one subbidder shall be listed for each specific portion of the Work. Subbidders' experience shall be included in Section B.2.h herein.

If Bidder fails to specify a subbidder for a portion of Work to be performed in excess of one-half of one percent of the Contractor's total bid amount, the Contractor agrees, pursuant to Section 4106 of the California Public Contract Code, that the Contractor is fully qualified to perform that portion, and will perform such portion of the Work.

1) Subbidder Name: D&B Utility

Address: 2309 N Shields Dr Austin, TX 78727

Contractor License No.: 1139990 Class: A - General Engineering

Type of Work: Utility metering and infrastructure Years of Experience: 5

DIR Registration No.: 2000010993

2) Subbidder Name: _____

Address: _____

Contractor License No.: _____ Class: _____

Type of Work: _____ Years of Experience: _____

DIR Registration No.: _____

3) Subbidder Name: _____

Address: _____

Contractor License No.: _____ Class: _____

Type of Work: _____ Years of Experience: _____

DIR Registration No.: _____

4) Subbidder Name: _____

Address: _____

Contractor License No.: _____ Class: _____

Type of Work: _____ Years of Experience: _____

DIR Registration No.: _____

* Not required for materials only proposal

2. Statement of Experience* (Continued)

h. Subbidder Experience (copy and attach for each selected subbidder, two pages)

Subbidder Name: D&B Utility

1) Subbidder Projects:

Bidder (Contractor) shall furnish work record for subbidder (subcontractor) listing at least two (2) projects each that the subbidders have completed within the past three (3) years. Responses shall be full and explicit.

a) Project Name: Camrosa, CA

Contract Amount: $300,000 Date Completed: 4/3/26

Type of Work: Meter installation, MTU installation, 2" replumbs

Owner (Name, Address, & Phone):
Kevin Wahl, kwahl@camrosa.com, (805) 469-6401

Engineer (Name, Address, & Phone):

Person in Charge of Project (Name, Phone, & Email):
Kevin Wahl, kwahl@camrosa.com, (805) 469-6401

b) Project Name: Breckenridge, CO

Contract Amount: $1,250,000 Date Completed: 3/31/26

Type of Work: Meter install, endpoint installation, and collectors

Owner (Name, Address, & Phone):
Brandon Anderson brandona@hdfowler.com360-789-0591

Engineer (Name, Address, & Phone):

Person in Charge of Project (Name, Phone, & Email):
Brandon Anderson brandona@hdfowler.com360-789-0591

* Not required for materials only proposal

2. Statement of Experience* (Continued)

h. Subbidder Experience (Continued, copy and attach for each subbidder)

Subbidder Name: D&B Utility

2) Subbidder's Principals and Key Personnel (use reverse side or attach additional sheets if necessary)

If any subbidder (subcontractor) has less than 5 years' experience in the type of work indicated, it shall list the work experience for principals and key personnel to demonstrate that subbidder (subcontractor) has sufficient work experience to warrant consideration for award; Owner will determine whether subbidder (subcontractor) has sufficient work experience to meet the 5 years' work experience requirement.

a) Name: Matthew Swindell

Address: 9425 W 74th Ave, Arvada, CO 80005

Type of Work: AMI project manager Years of Experience: 6

Capacity (Title): Project Manager

b) Name: Kyle Schuetze

Address: 1682 E Aspen Way, Gilbert, AZ 85234

Type of Work: AMI/Collectors Years of Experience: 8

Capacity (Title): Head of Operations

3) Has subbidder been involved in litigation with any owner of any project within the last 10 years? No. If so, please describe the project and the nature and results of any litigation including any lawsuits settled prior to trial. (Attach additional sheets if necessary.)

* Not required for materials only proposal

3. Supplemental Instructions to Bidders

a. Bidder has the option of submitting Bid Schedule I (Bronze Option), Bid Schedule II (Composite/Stainless Steel Option), or both. Bidder shall submit a cost for each bid item within the selected Bid Schedule(s). If award is made, Owner will award the Work to a single Bidder for a single Bid Schedule. Basis of award will be the Total Bid Amount for the lowest cost option (Bid Schedule I or Bid Schedule II).

b. All Work under these Contract Documents shall be completed in accordance with the Contract Completion Schedule.

c. Bidder shall be licensed in accordance with the California Contractors State License Law of the Business and Professions Code and shall have a minimum of 5 years' experience in the type of work specified. Subbidders, if any, shall also be licensed in accordance with the same law and shall also have a minimum of 5 years' experience in the type of work specified.

d. Bidder shall visit and inspect each Work site and complete Certification of Bidder's Work Site Inspection to verify same.

e. In accordance with the USBR Agreement and requirements, Bidder shall complete the following forms: Certification of No Debarment Under Federal Law; Build America, Buy America Act Certification; DBE Good Faith Efforts Verification; Bidder's List; DBE Subcontractor Performance Form; DBE Subcontractor Utilization Form; and Anti-Lobbying Certification.

4. Bid Schedule

The undersigned hereby proposes to furnish all labor, materials, equipment and methods necessary for constructing all Work specified, all in strict accordance with these Contract Documents, at the bid prices and the Completion Date set forth hereafter. The undersigned also acknowledges that all bid prices include sales tax and all other applicable taxes and fees. The costs for any work shown or required in the Contract Documents, but not specifically identified as a bid line item are to be included in the related bid line items and no additional compensation shall be due to Contractor for the performance of the Work. The estimated quantities for unit price items are for purposes of comparing bids only and Owner makes no representation that the actual quantities of Work performed will not vary from the estimates. Final payment shall be determined by Owner from measured quantities of Work performed based upon the unit price.

BID SCHEDULE I – BRONZE OPTION
ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
101	Furnish contract bonds, project insurance, project permits, and project management.	N/A	L.S.		
102	Mobilization of equipment, materials, and labor.	N/A	L.S.		
103	Furnish trench protection in accordance with Cal/OSHA Standards for all trenches greater than 5' deep.	N/A	L.S.		
104	Furnish, install, and maintain traffic control, including approved traffic control plans, all signs, delineators, arrowboards, flagmen, and all related work, all in accordance with the Contract Documents.	N/A	L.S.		
105	Furnish and install 3/4" diameter bronze flow meters, appurtenant piping and fittings; install District-furnished adapters (1" x 3/4"); and all related work.	4,725	EA	Enter in PlanetBids	Enter in PlanetBids
106	Furnish and install meter box lids with quick read port for 3/4" diameter flow meters (for meters with antenna in lid).	1,000	EA		
107	Furnish and install plug for quick read port for 3/4" diameter meter box (for meters without antenna in lid).	3,725	EA		
108	Furnish and install 1" diameter bronze flow meters, appurtenant piping and fittings, and all related work.	106	EA		

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
109	Furnish and install meter box lids with quick read port for 1" diameter flow meters (for meters with antenna in lid).	20	EA		
110	Furnish and install plug for quick read port for 1" diameter meter box (for meters without antenna in lid).	86	EA		
111	Furnish and install 1-1/2" diameter bronze flow meters and appurtenant piping and fittings; install District-furnished adapters (2" x 1-1/2"); and all related work.	58	EA		
112	Furnish and install meter box lids with quick read port for 1-1/2" diameter flow meters (for meters with antenna in lid).	10	EA		
113	Furnish and install plug for quick read port for 1-1/2" diameter flow meters (for meters without antenna in lid).	48	EA		
114	Furnish and install 2" diameter bronze flow meters, appurtenant piping and fittings, and all related work.	83	EA	**Enter in PlanetBids**	**Enter in PlanetBids**
115	Furnish and install meter box lids with quick read port for 2" diameter flow meters (for meters with antenna in lid).	16	EA		
116	Furnish and install plug for quick read port for 2" diameter flow meters (for meters without antenna in lid).	67	EA		
117	Furnish and install 3" diameter bronze flow meters, appurtenant piping and fittings, and all related work.	2	EA		
118	Furnish and install 4" diameter bronze flow meters, appurtenance piping and fittings, and all related work.	5	EA		
119	Furnish and install 6" diameter bronze flow meters, appurtenance piping and fittings, and all related work.	3	EA		

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
120	Furnish and install fixed data collection systems, including all components, software, permanent power distribution facilities, software, and all related work.	____	EA		
121	Repair of existing residential water services as a result of installation.	250	EA		
122	Remove and dispose of debris (clean out) existing residential meter boxes up to 6" deep.	250	EA		
123	Remove and dispose of debris (clean out) existing residential meter boxes from 6" to 12" deep.	250	EA		
124	Furnish drive-by data collection systems, software, and all related work.	1	EA		
125	Furnish walk-by data collection systems, software, and all related work.	1	EA	**Enter in PlanetBids**	**Enter in PlanetBids**
126	Furnish one-year software service contract and all related work.	1	EA		
127	Furnish one-year customer portal interface access and all related work.	1	EA		
128	Furnish training of District personnel and all related work.	1	EA		
129	Provide system testing and all related work.	N/A	L.S.		
130	Furnish operation and maintenance manuals.	N/A	L.S.		

BID SCHEDULE I – BRONZE OPTION
ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
131	Allowance for unforeseen conditions.	N/A	L.S.	N/A	$100,000.00

TOTAL BID SCHEDULE I (Sum of Bid Items 101 through 131):

No Bid (words) Dollars $ N/A (figures)

Bidder hereby acknowledges that all bid prices include any amounts payable by Owner for taxes which may result from this proposal.

Bidder's Authorized Representative

Signature

Shawn Proudlove
Name (Print)

Meter Specialist II
Title (Print)

BID SCHEDULE II – COMPOSITE/STAINLESS STEEL OPTION
ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
201	Furnish contract bonds, project insurance, project permits, and project management.	N/A	L.S.		
202	Mobilization of equipment, materials, and labor.	N/A	L.S.		
203	Furnish trench protection in accordance with Cal/OSHA Standards for all trenches greater than 5' deep.	N/A	L.S.		
204	Furnish, install, and maintain traffic control, including approved traffic control plans, all signs, delineators, arrowboards, flagmen, and all related work, all in accordance with the Contract Documents.	N/A	L.S.		
205	Furnish and install 3/4" diameter PPS composite flow meters, appurtenant piping and fittings; install District-furnished adapters (1" x 3/4"); and all related work.	3,725	EA		
206	Furnish and install 3/4" diameter stainless steel flow meters, appurtenant piping and fittings; install District-furnished adapters (1" x 3/4"); and all related work.	1,000	EA	**Enter in PlanetBids**	**Enter in PlanetBids**
207	Furnish and install meter box lids with quick read port for 3/4" diameter flow meters (for meters with antenna in lid).	1,000	EA		
208	Furnish and install plug for quick read port for 3/4" diameter meter box (for meters without antenna in lid).	3,725	EA		
209	Furnish and install 1" diameter stainless steel flow meters, appurtenant piping and fittings, and all related work.	106	EA		
210	Furnish and install meter box lids with quick read port for 1" diameter flow meters (for meters with antenna in lid).	20	EA		
211	Furnish and install plug for quick read port for 1" diameter meter box (for meters without antenna in lid).	86	EA		

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
212	Furnish and install 1-1/2" diameter stainless steel flow meters and appurtenant piping and fittings; install District-furnished adapters (2" x 1-1/2"); and all related work.	58	EA		
213	Furnish and install meter box lids with quick read port for 1-1/2" diameter flow meters (for meters with antenna in lid)..	10	EA		
214	Furnish and install plug for quick read port for 1-1/2" diameter flow meters (for meters without antenna in lid).	48	EA		
215	Furnish and install 2" diameter stainless steel flow meters, appurtenant piping and fittings, and all related work.	83	EA		
216	Furnish and install meter box lids with quick read port for 2" diameter flow meters (for meters with antenna in lid).	16	EA		
217	Furnish and install plug for quick read port for 2" diameter flow meters (for meters without antenna in lid).	67	EA	**Enter in PlanetBids**	**Enter in PlanetBids**
218	Furnish and install 3" diameter stainless steel flow meters, appurtenant piping and fittings, and all related work.	2	EA		
219	Furnish and install 4" diameter stainless steel flow meters, appurtenance piping and fittings, and all related work.	5	EA		
220	Furnish and install 6" diameter stainless steel flow meters, appurtenance piping and fittings, and all related work.	3	EA		
221	Furnish and install fixed data collection systems, including all components, software, permanent power distribution facilities, software, and all related work.	____	EA		
222	Repair of existing residential water services as a result of installation.	250	EA		
223	Remove and dispose of debris (clean out) existing residential meter boxes up to 6" deep.	250	EA		

BID SCHEDULE II – COMPOSITE/STAINLESS STEEL OPTION
ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I

ITEM	DESCRIPTION	QTY	UNIT	UNIT PRICE	AMOUNT
224	Remove and dispose of debris (clean out) existing residential meter boxes from 6" to 12" deep.	250	EA		
225	Furnish drive-by data collection systems, software, and all related work.	1	EA		
226	Furnish walk-by data collection systems, software, and all related work.	1	EA		
227	Furnish one-year software service contract and all related work.	1	EA		
228	Furnish one-year customer portal interface access and all related work.	1	EA	Enter in PlanetBids	Enter in PlanetBids
229	Furnish training of District personnel and all related work.	1	EA		
230	Provide system testing and all related work.	N/A	L.S.		
231	Furnish operation and maintenance manuals.	N/A	L.S.		
232	Allowance for unforeseen conditions.	N/A	L.S.	N/A	$100,000.00

TOTAL BID SCHEDULE II (Sum of Bid Items 201 through 232): 05/21/26

~~Two million two hundred eighty six thousand~~ Ninety ~~eight hundred fourteen dollars forty four cents~~ Dollars ~~$2,286,814.44~~

(words) (figures)

Two million six hundred sixteen thousand one hundred thirty five dollars thirty three cents 05/21/26 ~~$2,616,135.33~~ $2,616,135.23 05/21/26

Bidder hereby acknowledges that all bid prices include any amounts payable by Owner for taxes which may result from this proposal.

Bidder's Authorized Representative

Signature

Shawn Proudlove

Name (Print)

Meter Specialist II

Title (Print)

Date/Initial: 05/20/26

The exceptions of Core & Main LP is attached hereto and incorporated by reference as though fully set forth herein. 05/20/26

SUMMARY OF BID SCHEDULES

Enter Totals from Bid Schedules I and II, or N/A if a Bid Schedule is left blank.

BID SCHEDULE I – BRONZE OPTION $ No Bid

BID SCHEDULE II – COMPOSITE/STAINLESS STEEL OPTION $ ~~2,286,814.44~~

~~$2,296,814.44~~

$2,616,135.23

05/21/26

5. Contract Completion Schedule

a. Contract Completion Schedule

Contractor will be advised of award, if made, immediately following Owner's regular scheduled Board meeting (telephone conversation with letter confirmation). Contract Work shall be complete within two-hundred eighty (280) calendar days after date of Notice to Proceed.

b. Liquidated Damages

Contractor is advised that "Liquidated Damages" of $1,000.00 per calendar day may be assessed for each calendar day that the Work remains incomplete following the date established by the Contract Completion Schedule, as adjusted for due cause by Change Order.

6. Certified Data

In the blanks provided, fill in the required Certified Data relating to the Bidder's Proposal.

a. Manufacturer of Ultrasonic Flow Meters
Kamstrup

b. Manufacturer of Meter Box Lids
Jensen

c. Manufacturer of AMI/AMR Data Collection Systems
Kamstrup

7. Certified Worker Craft and Classification

Bidder hereby states that the bid proposal has been based on the worker craft and classification set forth below and the Work will be performed by personnel within these classifications unless Bidder specifically requests change in writing and Owner approves same in writing.

	Work*	Craft	Classification
Examples:			
	Steel Tank Work	Operating Engineer	Group B-Crane Operator
	Electrical Work	Electrician	Cable Splicer
	Plant Work	Roofer	Helper
a.	Water Meter Replacement	Laborer	Group 4 - Pipelayer
b.	Meter Box / Vault Installation	Laborer	Group 1 - General Construction Laborer
c.	AMI Endpoint / Transmitter Installation	Laborer	Group 1 - General Construction Laborer
d.			
e.			
f.			
g.			
h.			
i.			
j.			
k.			
l.			
m.			

* Designate Type of Work, i.e. Earthwork, Concrete Work, Electrical Work, Mechanical Work, Pump Work, Plant Work, Tank Work, Fencing, Painting, Piping

8. Certification of Bidder's Work Site Inspection

I certify that I have visited and inspected the Work sites on the following dates:

Site	Date Visited
District Main Office (3590 Rubidoux Blvd)	
District Field Office (6131 Limonite Ave)	
Anita B. Smith Water Treatment Facility (Smith WTF) (2100 Fleetwood Dr)	
Leland J. Thompson Water Treatment Facility (Thompson WTF) (5245 34th St)	
Ridgeline Booster Station (7268 Ridgeline Dr)	
Atkinson Reservoir (76 La Cadena/Muriel)	March 23rd, 2026
Hunter 1 Reservoir (7268 Ridgeline Dr)	March 23rd, 2026
Perrone Reservoir (4096 Margie Wy)	
Watson Reservoir (1530 Rubidoux Blvd)	
Juan Diaz Lift Station (5780 Riverview Dr)	
Regional Lift Station (5248 Riverview Dr)	
Jurupa Lift Station (1 Moraga Linares)	

I also certify that I am familiar with local conditions which may affect the performance of the Work and propose to perform the Work generally as follows:

Core & Main LP and Kamstrup visited the two sites above that are used in the AMI propagation study to achieve adequate coverage of the service area.

Bidder's Authorized Representative

Signature

Shawn Proudlove

Name (Print)

Meter Specialist II

Title (Print)

9. Statement on Bonds and Insurance

a. Names and addresses of all members of partnership or names and titles of all corporate officers:

Core & Main Intermediate GP, LLC – General Partner (Delaware LLC)

Core & Main Midco, LLC – Limited Partner (Delaware LLC)

Address for all Partners: 1830 Craig Park Court, St. Louis, MO 63146

b. The Bidder declares that the surety or sureties named below have agreed to furnish bonds in the aggregate amounts set forth in the Instructions to Bidders, in the event the Contract is awarded on the basis of this proposal.

Name(s) and address(es) of surety or sureties agreeing to furnish bond

Liberty Mutual Insurance Company

175 Berkeley Street

Boston, MA 02116

c. The Bidder declares that the insurers named below have reviewed the insurance requirements set forth in the Contract Appendix (Section 8. Insurance) and have agreed to furnish all insurance specified.

Name(s) and address(es) of insurers agreeing to insurance coverage

Insurer: AXA XL

Agent WTW. Jolanta Babka

Street: Willis Towers Watson Northeast, Inc.

200 Liberty Street, New York, NY 10281

10. **Certification of Bidding Documents**

The Bidder hereby declares and certifies under penalty of perjury that the foregoing statements and all of Bidder's Proposal and Supporting Documents herewith submitted are accurate and correct.

BIDDER

Name: Shawn Proudlove

Address: 3155 N Indian Ave, Perris, CA 92571

Email: Shawn.Proudlove@coreandmain.com

Telephone (310) 569-7685

By: _____
(Authorized Representative, Written Signature)

Shawn Proudlove
(Authorized Representative, Typed or Printed Name)

Title: Meter Specialist II
[Individual, Partner, Corporate Officer (Title)]

Federal Tax Identification Number or Social Security Number: 03-0550887

Corporation organized under the laws of the State of: _____

CALIFORNIA CONTRACTOR'S LICENSE:

Class A

(Class A is required)

Number 1097128

Expiration Date 09/30/2026

(Corporate Seal)

NOTARY

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF California)
COUNTY OF Los Angeles)

On May 20th 2026, 2026, before me, Isaiah Ruiz, Notary public, personally appeared Shawn Jammar Proudlove, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Signature of Notary

(Notary Seal)

ISAIAH RUIZ
Notary Public - California
Los Angeles County
Commission # 2340745
My Comm. Expires Dec 8, 2029

NOTE: If Notary elects to attach an acknowledgment form, Notary shall use the Notary Acknowledgment form attached at the end of this section (Bidding Documents), or, alternatively, Notary may use a California All-Purpose Acknowledgment form, provided Notary completes the entire form, both the required and optional portions.

11. **Non-Collusion Declaration**
(TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID)

The undersigned declares:

I am the Representative of Core & Main LP, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on 05/20/26 [date], at Los Angeles [city], California [state].

BIDDER

Name: Core & Main LP

By: _____
(Authorized Representative, Written Signature)

Shawn Proudlove
(Authorized Representative, Typed or Printed Name)

Title: Meter Specialist II
[Individual, Partner, Corporate Officer (Title)]

12. Public Works Contractor Registration Certification

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal for, or enter into a Contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html for additional information.

No bid will be accepted nor any contract entered into without proof of the Bidder's and subbidders' current Public Works Contractor Registration with the Department of Industrial Relations.

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and that Bidder and all listed subbidders (subcontractors) are currently registered with the Department of Industrial Relations.[1]

Name of Bidder: Core & Main LP

DIR Registration Number: 1000054898

DIR Registration Expiration: 06/30/2028

Small Project Exemption: ___ Yes or ✓ No

Bidder further acknowledges:

1. Bidder shall maintain its current DIR registration for the duration of the project.
2. Bidder shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors maintain DIR registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the Bid is non-responsive.

Signed: _____

Name: Shawn Proudlove

Title: Meter Specialist II

Date: 05/20/26

[1] If the project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

12. Public Works Contractor Registration Certification

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal for, or enter into a Contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html for additional information.

No bid will be accepted nor any contract entered into without proof of the Bidder's and subbidders' current Public Works Contractor Registration with the Department of Industrial Relations.

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and that Bidder and all listed subbidders (subcontractors) are currently registered with the Department of Industrial Relations.[1]

Name of Bidder: D&B Utility

DIR Registration Number: 2000010993

DIR Registration Expiration: _____

Small Project Exemption: ____ Yes or ✓ No

Bidder further acknowledges:

1. Bidder shall maintain its current DIR registration for the duration of the project.

2. Bidder shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors maintain DIR registration status for the duration of the project.

3. Failure to submit this form or comply with any of the above requirements may result in a finding that the Bid is non-responsive.

Signed: _____

Name: Serenity Ferguson

Title: Administrative Coordinator

Date: 04/27/2026

[1] If the project is exempt from the contractor registration requirements pursuant to the small project exemption under Labor Code Sections 1725.5 and 1771.1, please mark "Yes" in response to "Small Project Exemption."

13. Fleet Compliance Certification

Bidder/subbidder hereby acknowledges that they have reviewed the California Air Resources Board's (CARB's) policies, rules and regulations and are familiar with the requirements of Title 13, California Code of Regulations, Division 3, Chapter 9, effective on January 1, 2024 (the "Regulation"). Bidder/subbidder hereby certifies, subject to penalty for perjury, that the option checked below relating to their fleet ("Fleet") is true and correct:

☑ The Fleet is subject to the requirements of the Regulation, and the appropriate Certificate(s) of Reported Compliance (CRCs) issued by CARB have been attached hereto.

☐ The Fleet is exempt from the Regulation under section 2449.1(f)(2), and a signed description of the subject vehicles, and reasoning for exemption has been attached hereto.

☐ Bidder/subbidder is unable to procure R99 or R100 renewable diesel fuel as defined in the Regulation pursuant to section 2449.1(f)(3). Bidder/subbidder shall keep detailed records describing the normal refueling methods, their attempts to procure renewable diesel fuel and proof that shows they were not able to procure renewable diesel (i.e. third party correspondence or vendor bids).

☐ The Fleet is exempt from the requirements of the Regulation pursuant to section 2449(i)(4) because this Project has been deemed an Emergency, as defined under section 2449(c)(18). Bidder/subbidder shall only operate the exempted vehicles in the emergency-situation and records of the exempted vehicles must be maintained, pursuant to section 2449(i)(4).

☐ The Fleet does not fall under the Regulation or are otherwise exempted and a detailed reasoning is attached hereto.

Bidder/Subbidder: Core & Main LP -Prime Contractor

Signed: _____

Name: Shawn Proudlove

Title: Meter Specialist II

Date: May 20, 2026

Failure to provide this form and supporting documentation as required herein may render the Bid non-responsive.

13. Fleet Compliance Certification

Bidder/subbidder hereby acknowledges that they have reviewed the California Air Resources Board's (CARB's) policies, rules and regulations and are familiar with the requirements of Title 13, California Code of Regulations, Division 3, Chapter 9, effective on January 1, 2024 (the "Regulation"). Bidder/subbidder hereby certifies, subject to penalty for perjury, that the option checked below relating to their fleet ("Fleet") is true and correct:

☐ The Fleet is subject to the requirements of the Regulation, and the appropriate Certificate(s) of Reported Compliance (CRCs) issued by CARB have been attached hereto.

☐ The Fleet is exempt from the Regulation under section 2449.1(f)(2), and a signed description of the subject vehicles, and reasoning for exemption has been attached hereto.

☐ Bidder/subbidder is unable to procure R99 or R100 renewable diesel fuel as defined in the Regulation pursuant to section 2449.1(f)(3). Bidder/subbidder shall keep detailed records describing the normal refueling methods, their attempts to procure renewable diesel fuel and proof that shows they were not able to procure renewable diesel (i.e. third party correspondence or vendor bids).

☐ The Fleet is exempt from the requirements of the Regulation pursuant to section 2449(i)(4) because this Project has been deemed an Emergency, as defined under section 2449(c)(18). Bidder/subbidder shall only operate the exempted vehicles in the emergency-situation and records of the exempted vehicles must be maintained, pursuant to section 2449(i)(4).

☑ The Fleet does not fall under the Regulation or are otherwise exempted and a detailed reasoning is attached hereto.
*No diesel powered vehicles or equipment.

Bidder/Subbidder: D&B Utility

Signed: _____

Name: Serenity Ferguson

Title: Administrative Coordinator

Date: 04/27/2026

Failure to provide this form and supporting documentation as required herein may render the Bid non-responsive.

14. **Iran Contracting Act Certification**
(Public Contract Code Section 2200 *et seq.*)

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 *et seq.*) is true and correct:

☑ The Contractor is not:

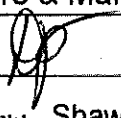
(i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or

(ii) a financial institution that extends, for 45 days or more, credit in the amount of $20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

☐ Owner has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, Owner will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

☐ The amount of the Contract payable to the Contractor for the Project does not exceed $1,000,000.

Bidder: Core & Main LP

Signed: 

Name and Title: Shawn Proudlove - Meter Specialist II

Date: May 20, 2026

NOTE: In accordance with Public Contract Code Section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of $250,000 or twice the Contract amount, termination of the Contract and/or ineligibility to bid on contracts for three years.

15. Executive Order N-6-22 Certification

Executive Order N-6-22 issued by Governor Gavin Newsom on March 4, 2022, directs all agencies and departments that are subject to the Governor's authority to (a) terminate any contracts with any individuals or entities that are determined to be a target of economic sanctions against Russia and Russian entities and individuals; and (b) refrain from entering into any new contracts with such individuals or entities while the aforementioned sanctions are in effect.

Executive Order N-6-22 also requires that any contractor that: (1) currently has a contract with the Owner funded through grant funds provided by the State of California; and/or (2) submits a bid or proposal or otherwise proposes to or enter into or renew a contract with the Owner with State of California grant funds, certify that the person is not the target of any economic sanctions against Russia and Russian entities and individuals.

The Bidder (contractor) hereby certifies, SUBJECT TO PENALTY OF PERJURY, that a) the contractor is not a target of any economic sanctions against Russian and Russian entities and individuals as described in Executive Order N-6-22 and b) the person signing below is duly authorized to legally bind the contractor. This certification is made under the laws of the State of California.

Bidder: Core & Main LP

Signed: 

Name: Shawn Proudlove

Title: Meter Specialist II

Date: May 20, 2026

16. Certification of No Debarment Under Federal Law

Pursuant to 2 CFR Part 180 and Part 1400 (Executive Order 12549, 51 FR 6370, February 21, 1986) or Section 306 of the Clean Air Act or Section 508 of the Clean Water Act, Bidder and/or Subbidder hereby certifies that it and its principal(s):

i. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency.

ii. Have not within a three (3) year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

iii. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (ii) above.

iv. Have not within a three (3) year period preceding this bid had one or more public transactions (federal, state or local) terminated for cause or default.

v. Have not knowingly entered into a contract with anyone who is ineligible to participate in the Project.

Suspension or debarment information can be accessed at sam.gov. Contractor represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its contracts and subcontracts under this Agreement or provide certifications from all subcontractors.

Failure to submit this form or any violations of the above representations at time of bid will result in a finding that the Bid is non-responsive.

Bidder/Subbidder: Core & Main LP

Signed: _____

Name: Shawn Proudlove

Title: Meter Specialist II

Date: May 20, 2026

16. Certification of No Debarment Under Federal Law

Pursuant to 2 CFR Part 180 and Part 1400 (Executive Order 12549, 51 FR 6370, February 21, 1986) or Section 306 of the Clean Air Act or Section 508 of the Clean Water Act, Bidder and/or Subbidder hereby certifies that it and its principal(s):

i. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any federal department or agency.

ii. Have not within a three (3) year period preceding this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.

iii. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in paragraph (ii) above.

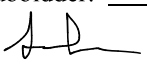
iv. Have not within a three (3) year period preceding this bid had one or more public transactions (federal, state or local) terminated for cause or default.

v. Have not knowingly entered into a contract with anyone who is ineligible to participate in the Project.

Suspension or debarment information can be accessed at sam.gov. Contractor represents and warrants that it has or will include a term or conditions requiring compliance with this provision in all of its contracts and subcontracts under this Agreement or provide certifications from all subcontractors.

Failure to submit this form or any violations of the above representations at time of bid will result in a finding that the Bid is non-responsive.

Bidder/Subbidder: D&B Utility

Signed: 

Name: Serenity Ferguson

Title: Administrative Coordinator

Date: 04/27/2026

17. Build America, Buy America Act Certification

a. Identification of American-Made Products: The Bidder certifies that this bid reflects the Bidder's best, good faith effort to identify domestic sources of iron and steel products, manufactured products, and construction materials for every component contained in the bid solicitation where such American-made components are required.

b. Verification of U.S. Production: If this bid is accepted, the Bidder agrees that it will provide, to Owner, reasonable, sufficient, and timely verification of the U.S. production of each iron and steel product, manufactured product, and construction material incorporated into the Project.

c. Documentation Regarding Non-American-Made Products: The Bidder certifies that any iron and steel product, manufactured product, or construction material that is not American-made but was incorporated in the development of this bid, is allowed by waiver of the U.S. Environmental Protection Agency and such waiver is attached to this certification.

d. Warranty of Bidder: The Bidder hereby represents and warrants to and for the benefit of Owner that (a) Bidder has reviewed and understands the Build America, Buy America (BABA) Act requirements, and (b) if the bid is selected, all of the iron and steel products, manufactured products, and construction materials used in the project will be produced in the United States in a manner that complies with the BABA Act requirements, unless a waiver of the requirement is attached to this certification.

Failure to submit this form at time of bid will result in a finding that the Bid is non-responsive.

Bidder: Core & Main LP

Signed: _____

Name: Shawn Proudlove

Title: Meter Specialist II

Date: May 20, 2026

Q&A's, waiver request instructions, and a list of approved waivers can be found at https://www.doi.gov/grants/BuyAmerica.

18. DBE Good Faith Efforts Verification
(Form must be completed and submitted with Bid)

Project: **ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I**
Bid Opening Date: **3:00 p.m. local time on Thursday, July 31, 2025** (electronically via PlanetBids)

Bidder Name: Core & Main LP
Bidder Phone Number: 310-569-768
Bidder Address: 3155 Indian Ave, Perris, CA

Owner, in accordance with the Federal Code of Regulations, Section 200.321, requires bidders to provide information pertaining to the use of minority businesses, women's business enterprises, and labor surplus area firms (referred to herein as "DBE").

Please provide the following information, using additional sheets of paper if necessary, and submit this form with your bid. Bidder should also submit mail logs, phone logs, electronic searches and communication, newspaper clippings, or similar records documenting efforts to meet the Good Faith Effort requirements.

A. Solicitation Lists/Publications. The names and dates of each publication in which a request for DBE participation for this project was placed by the bidder (please attach copies of advertisements or proofs of publication) or information related to solicitation lists on which DBEs were included:

Publications/Solicitation Lists	Dates of Advertisement
https://www.gfeoutreach.com/	Thursday, March 26,

B. Soliciting DBEs as Potential Sources. The names and dates of written notices sent to certified DBEs soliciting bids for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested (please attach copies of solicitations, telephone records, fax confirmations, etc.):

Name of DBEs Solicited	Date of Initial Solicitation	Follow Up Methods and Dates
J&H Engineering	April 9th, 2026	Email - April 14th
IENOCO	April, 9th, 2026	Email - April 15th
Bayside Engineering Construction	April 9th, 2026	Email - April 14th
Joseph	April 9th, 2026	Email - April 16th

C. Division of Requirements. The items of work that the bidder made available to DBE firms, including, where appropriate, any breaking down of the contract work items (including those items normally performed by the bidder with its own forces) into economically feasible units to facilitate DBE participation. It is the bidder's responsibility to demonstrate that sufficient work to facilitate DBE participation was made available to DBE firms.

Items of Work	Bidder Normally Performs Item? (Yes/No)	Breakdown of Items	Amount ($)	Percentage of Contract (%)
Meter Installation	Y	Meter Installation/ Infrastructure	$826,607.47	30%

18. DBE Good Faith Efforts Verification Form (Continued)

D. Delivery Schedules. Efforts made to establish delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises:

Delivery schedules and procurement timelines will be established to allow adequate opportunity for participation by qualified small business, minority owned businesses, and women owned businesses where applicable.

E. Services of Other Agencies. The names of agencies, organizations, or groups contacted to provide assistance in contacting, recruiting, and using DBE firms, such as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce [please attach copies of requests to agencies and any responses received (i.e., lists, Internet page download, etc.)]:

Name of Agency/Organization	Method/Date of Contact	Results
https://californiaucp.dbesystem.com/	Internet Search/ April 13th, 2026	ENGCO, J&H Engineering, Joseph Engineering, Bayside Engineering Construction, V3 Construction Inc.
https://www.diversitycertification.mass.gov	Internet Search/ April 13th, 2026	

Any additional data to support a demonstration of good faith efforts (use additional sheets if necessary):

19. Bidder's List

Bidder is required to provide the following information for all DBE and non-DBE subcontractors (subbidders) who provided a proposal, bid, or quote (attach copy for each). **This information is required and must be submitted as specified in the Instructions to Bidders.**

Bidder (Prime Contractor): Core & Main LP

Project: : ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT

Subbidder (Subcontractor):

Firm Name: DB Utility Phone: (303) 900-8602

Business Address: 2309 N Shields Dr. Austin, TX 78727

Email: Trevor.Beck@db-utility.com Fax: _____

License No. and Classification: Class A 1139990 Years in Business: 5

Contact Person: Trevor Beck

Is the firm currently certified as a DBE? No ____ Yes X Certification Number: _____

Type of work / services / materials proposed by the firm:

AMI Deployment

infrastructure installation

Amount of Bid/Quote: $826, 607.47

Date of Bid/Quote: 03/24/2026

20. DBE Subcontractor Performance Form

Not Applicable

This form is intended to capture the DBE[1] subcontractor's[2] description of work to be performed and the price of the work submitted to the prime contractor. Bidder shall have its DBE subcontractors complete this form and include all completed forms in the Bid. **This information is required and must be submitted as specified in the Instructions to Bidders.**

Subbidder (Subcontractor) Name	
Project Name	
Bid / Proposal No.	***Assistance Agreement ID No. (if known)***
Point of Contact	
Address	
Telephone No.	**Email Address**
Prime Contractor Name	***Issuing / Funding Entity***

Contract Item Number	**Description of Work Received from the Prime Contractor Involving Construction, Services, Equipment, or Supplies**	**Amount Received by Prime Contractor**

DBE Certified By: DOT ____ SBA _____ Other:	Meets/Exceeds EPA certification standards? YES NO Unknown

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33.204-33.2015 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33.202.

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance.

20. DBE Subcontractor Performance Form (Continued) Not Applicable

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.202 (c).

Prime Contractor Name: _____

Signature: _____

Name: _____

Title: _____

Dated: _____

Subcontractor Name: _____

Signature: _____

Name: _____

Title: _____

Dated: _____

21. DBE Subcontractor Utilization Form

This form is intended to capture the prime contractor's actual and/or anticipated use of identified certified DBE[1] subcontractors[2] and the estimated dollar amount of each subcontract. **This information is required and must be submitted as specified in the Instructions to Bidders.** Prime contractors should also maintain a copy of this form on file.

Prime Contractor Name Core & Main LP	
Project Name RCSD AMI RFP	
Bid / Proposal No.	***Assistance Agreement ID No. (if known)***
Point of Contact Shawn Proudlove	
Address 3155 Jadran Ave, Perris, CA	
Telephone No. 310-567-7685	***Email Address*** Shawn.proudlove@coreandmain.com
Issuing / Funding Entity	

I have identified potential DBE certified subcontractors. ***YES*** (NO)
If YES, please complete the table below. If NO, please explain:

After evaluating available DBE installers and based on their qualifications, experience and schedule requirements. None of the DBE's could meet the project's needs therefore a non-DBE installer was selected to ensure compliance with the project specifications and needs

Subcontractor Name/ Company Name	Company Address / Phone / Email	Estimated Dollar Amount	Currently DBE Certified?
DB-utility ~~Contractor~~	treviro@DB-utility.com 801-541-9421	$26,607.46	Not currently

Use additional sheets if needed.

[1] A DBE is a Disadvantaged, Minority, or Woman Business Enterprise that has been certified by an entity from which EPA accepts certifications as described in 40 CFR 33 204-33 205 or certified by EPA. EPA accepts certifications from entities that meet or exceed EPA certification standards as described in 40 CFR 33 202

[2] Subcontractor is defined as a company, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an award of financial assistance

21. DBE Subcontractor Utilization Form (Continued)

I certify under penalty of perjury that the foregoing statements are true and correct. Signing this form does not signify a commitment to utilize the subcontractors above. I am aware that in the event of a replacement of a subcontractor, I will adhere to the replacement requirements set forth in 40 CFR Part 33 Section 33.202 (c).

Prime Contractor Name: Core & Main LP

Signature: [signature]

Name: Shawn Proudfoot

Title: Meter Specialist

Dated: 06/05/2026

22. Certification and Disclosure of Lobbying Activities

a. Recipients of federal financial assistance may not pay any person for influencing or attempting to influence any officer or employee of a federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress with respect to the award, continuation, renewal, amendment, or modification of a federal grant, loan, or contract. These requirements are implemented for US Department of the Interior in 43 CFR Part 18, which also describes types of activities, such as legislative liaison activities and professional and technical services, which are not subject to this prohibition.

b. Bidders shall complete EPA Form 6600-06 (following pages) regarding certification of lobbying activities in accordance with 43 CFR Part 18. **Failure to include completed Form 6600-06 at the time of bid will render the Bid nonresponsive.**

c. Bidders shall complete EPA Form SF-LLL (following pages) regarding disclosure of lobbying activities in accordance with 43 CFR Part 18. If bidder does not have any lobbying activities to disclose, bidder shall note "not applicable" on EPA Form SF-LLL and submit a signed copy with their bid. **Failure to include completed Form SF-LLL at the time of bid will render the Bid nonresponsive.**

d. Contractor shall also require all subbidders and suppliers of any tier awarded a subcontract to similarly complete and submit EPA Form 6600-06 (following pages) regarding certification of lobbying activities pursuant to the process set forth in 43 CFR 18.110. **Failure to submit completed Form 6600-06 for said subbidders and suppliers at the time specified in the Instructions to Bidders will render the Bid nonresponsive.**

e. Contractor shall also require all subbidders and suppliers of any tier awarded a subcontract to similarly complete and submit EPA Form SF-LLL (following pages) regarding disclosure of lobbying activities pursuant to the process set forth in 43 CFR 18.110. If subbidders or suppliers do not have any lobbying activities to disclose, the subbidders and suppliers shall note "not applicable" on EPA Form SF-LLL and provide a signed copy to bidder to include with their bid. **Failure to submit completed Form SF-LLL for said subbidders and suppliers at the time specified in the Instructions to Bidders will render the Bid nonresponsive.**

Blank copies of Form 6600-06 and SF-LLL are attached at the end of this section.

23. Bid Bond

KNOW ALL MEN BY THESE PRESENTS, that we (Contractor), Core & Main LP as Bidder and Principal, and Liberty Mutual Insurance Company as Surety, are held firmly bound unto the RUBIDOUX COMMUNITY SERVICES DISTRICT, situated in Riverside County, California, hereinafter called the Owner, in the penal sum of Ten Percent of Total Amount Bid dollars, $ 10% of total amount bid for the payment of which sum, well and truly to be made, we bind ourselves, and our successors and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is that whereas Bidder has submitted the accompanying bid dated May 21, 2026, for ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I for Owner.

NOW THEREFORE, (1) if the Bidder shall not withdraw said bid within sixty days after the opening of the same, and (2) shall within ten days after the award of the Contract furnish the required certificates of insurance and enter into a written contract with the Owner in accordance with the bid as accepted, and (3) if the Bidder shall give the required bonds with good and sufficient sureties for the faithful performance and proper fulfillment of said Contract and for the protection of laborers and material men, or (4) in the event of the withdrawal of said bid within the periods specified, or the failure to enter into said Contract, if the Bidder shall within thirty days after request by the Owner pay the Owner the difference between the amount specified in said bid and the amount for which the Owner may procure the required Work or supplies, if the latter amount be in excess of the former, then the above obligations shall be void and of no effect, otherwise they remain in full force and effect.

In the event suit is brought upon this bond by the Owner and judgment is recovered, the Surety shall pay all costs incurred by the Owner in such suit, including reasonable attorney's fee, to be fixed by the court.

For value received, the Surety hereby stipulates and agrees that the obligation of said Surety and its bond shall in no way be impaired or affected by any bid errors or by an extension of time within which the Owner may accept such bid, and said Surety hereby waives notice of any such extension.

IN WITNESS WHEREOF, Bidder and Surety have duly and fully executed this instrument this 7th day of May, 2026.

PRINCIPAL:	SURETY:
Name Core & Main LP	Name Liberty Mutual Insurance Company
By _____ (Authorized Representative, Written Signature)	By _____ (Authorized Representative, Written Signature)
Wayne McVaugh (Authorized Representative, Typed or Printed Name)	Annmarie Breene (Authorized Representative, Typed or Printed Name)
Title Attorney-in-Fact [Individual, Partner, Corporate Officer (Title)]	Title Attorney-in-Fact [Individual, Partner, Corporate Officer (Title)]
Attest: (If Corporation)	Attest: (If Corporation)
By _____	By _____
Title Sara Owens, Witness	Title Casey Smith, Witness
(Corporate Seal)	(Corporate Seal)

NOTE: Both Principal and Surety signatures must be notarized. A copy of the power of attorney to local representatives of the bonding company must be attached hereto.

23. Bid Bond (Continued)

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

NOTARY FOR PRINCIPAL

STATE OF New Jersey)
COUNTY OF Camden)

On May 7, 2026, before me, Wayne McVaugh, personally appeared Attorney-in-Fact, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Lori S. Shelton, Notary Commission Expires 8/14/2027

(Notary Seal)

LORI S SHELTON
NOTARY PUBLIC, STATE OF NEW JERSEY
COMMISSION # 50066039
MY COMMISSION EXPIRES 08/14/2027

NOTARY FOR SURETY

STATE OF New Jersey)
COUNTY OF Camden)

On May 7, 2026, before me, Annmarie Breene, personally appeared Attorney-in-Fact, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Lori S. Shelton, Notary Commission Expires 8/14/2027

(Notary Seal)

LORI S SHELTON
NOTARY PUBLIC, STATE OF NEW JERSEY
COMMISSION # 50066039
MY COMMISSION EXPIRES 08/14/2027

NOTE: If Notary elects to attach an acknowledgment form, Notary shall use the Notary Acknowledgment form attached at the end of this section (Bidding Documents), or, alternatively, Notary may use a California All-Purpose Acknowledgment form, provided Notary completes the entire form, both the required and optional portions.

IMPORTANT: Surety companies executing Bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write Surety insurance defined in Section 105 of the California Insurance Code and, if the Work or project is financed, in whole or in part, with federal grant or loan funds, said Surety companies must also appear on the Treasury Department's most current list (Circular 570 as amended).

Any claims under this bond may be addressed to:

Name and address of Surety

Liberty Mutual Insurance Company
1001 4th AVenue, Suite 1700
Seattle, WA 98154

Attn: Surety Claims Department

Name and address of agent or representative for service of process in California, if different from above

Aon Risk Insurance Services West, Inc.
c/o Tracy Aston

707 Wilshire Blvd, Suite 2600
Los Angeles, CA 90017

Telephone number of Surety and agent or representative for service of process in California

213-630-3349

LIMITED POWER OF ATTORNEY

The undersigned, Core & Main LP, a Florida limited partnership (the "Company"), hereby designates Susan Welsh, Frances Rodriguez, Sara Owens, Ben Stahl, Sandra Diaz, Anne Potter, Francesca Kazmierczak, Elizabeth Sterling, Jennifer Jakaitis, Marisa Thielen and Wayne McVaugh of Aon Corporation as its attorneys in fact (referred to individually or collectively as "the Agent") on the following terms and conditions:

1. **Authority to Act.** The Agent is authorized to act for the Company under this Power of Attorney.

2. **Powers of Agent.** The Agent shall have the full power and authority to execute and deliver surety, performance, bid and payment bonds (collectively, "Bonds") in an amount not to exceed $10,000,000.00 per Bond, upon receipt by the Agent of a written request for a Bond from an individual or individuals at the Company or its subsidiaries duly authorized to make such a request.

3. **Reliance by Third Parties.** Third parties may rely upon the representations of the Agent as to all matters regarding powers granted to the Agent. No person who acts in reliance on the representations of the Agent or the authority granted under this Power of Attorney shall incur any liability to the Company for permitting the Agent to exercise any power prior to actual knowledge that the Power of Attorney has been revoked or terminated by operation of law or otherwise.

4. **Indemnification of Agent.** No agent named or substituted in this power shall incur any liability to the Company for acting or refraining from acting under this power, except for such agent's own misconduct or negligence.

5. **Original Counterparts.** Photocopies of this signed Power of Attorney shall be treated as original counterparts.

6. **Compensation.** The Agent shall be reimbursed for reasonable expenses incurred while acting as Agent and may receive reasonable compensation for acting as Agent.

Dated: July 17, 2025

Robyn Bradbury

Name: Robyn Bradbury

Signed in the presence of:

Witness

Witness

Subscribed and Sworn to before me on 07-17-2025

Notary Public, [County/State] Saint Louis, Missouri

My commission expires: 08-22-2025

(Seal)

SARA J CAMPBELL
Notary Public, Notary Seal
State of Missouri
St. Louis County
Commission # 13743647
My Commission Expires 08-22-2025

Liberty Mutual SURETY

LIBERTY MUTUAL INSURANCE COMPANY

FINANCIAL STATEMENT – DECEMBER 31, 2025

Assets

Cash and Bank Deposits	$4,639,129,070.00
*Bonds – U.S Government	$24,121,444,319.00
*Other Bonds	$2,170,686,911.00
*Stocks	$17,859,797,169.00
Real Estate	$82,931,297.00
Agents' Balances or Uncollected Premiums	$6,938,791,711.00
Accrued Interest and Rents	$264,147,662.00
Other Admitted Assets	$23,084,138,197.00
Total Admitted Assets	**$79,161,066,336.00**

Liabilities

Unearned Premiums	$9,548,471,466.00
Reserve for Claims and Claims Expense	$28,631,659,506.00
Funds Held Under Reinsurance Treaties	$318,121,716.00
Reserve for Dividends to Policyholders	$924,130.00
Additional Statutory Reserve	$190,397,000.00
Reserve for Commissions, Taxes and Other Liabilities	$7,407,537,792.00
Total	**$46,097,112,301.00**
Special Surplus Funds	$157,770,770.00
Capital Stock	$10,000,075.00
Paid in Surplus	$13,694,993,624.00
Unassigned Surplus	$19,201,189,566.00
Surplus to Policyholders	$33,063,954,035.00
Total Liabilities and Surplus	**$79,161,066,336.00**

* Bonds are stated at amortized or investment value; Stocks at Association Market Values.
The foregoing financial information is taken from Liberty Mutual Insurance Company's financial statement filed with the Massachusetts Department of Insurance.

I, NATHAN J. ZANGERLE, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the foregoing is a true, and correct statement of the Assets and Liabilities of said Corporation, as of December 31, 2025, to the best of my knowledge and belief.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Corporation at Plymouth Meeting, Pennsylvania, this 10th day of March, 2026.

Teresa Pastella

Teresa Pastella, Notary Public

TERESA PASTELLA COMMONWEALTH OF PENNSYLVANIA NOTARY PUBLIC

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2029
Commission number 1126044
Member, Pennsylvania Association of Notaries

Nathan J. Zangerle, Assistant Secretary

LIBERTY MUTUAL INSURANCE COMPANY INCORPORATED 1912 MASSACHUSETTS

LMS-1262/ASI

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

Certificate No: **8212350-019022**

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Annmarie Breene, Patrick Breene, Dana Donahue, Patricia Dorsaneo, Pedro Gonzalez, Jr., Cathy H. Ho, Wayne G. McVaugh, Sara Owens, Patricia A. Rambo, Lori S. Shelton, Kimberly G. Sherrod, Marisa Thielen, Joanne C. Wagner, Babette Ward

all of the city of Philadelphia state of PA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 30th day of August, 2024.

Liberty Mutual Insurance Company
The Ohio Casualty Insurance Company
West American Insurance Company

By: _____
Nathan J. Zangerle, Assistant Secretary

State of PENNSYLVANIA
County of MONTGOMERY ss

On this 30th day of August, 2024 before me personally appeared Nathan J. Zangerle, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.

Commonwealth of Pennsylvania - Notary Seal
Teresa Pastella, Notary Public
Montgomery County
My commission expires March 28, 2025
Commission number 1126044
Member, Pennsylvania Association of Notaries

By: _____
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV – OFFICERS: Section 12. Power of Attorney.
Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.
Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Nathan J. Zangerle, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 7th day of May, 2026.

By: _____
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.

№ 2131

STATE OF CALIFORNIA

DEPARTMENT OF INSURANCE

SAN FRANCISCO

AMENDED

Certificate of Authority

THIS IS TO CERTIFY, *That, pursuant to the Insurance Code of the State of California,*

LIBERTY MUTUAL INSURANCE COMPANY

of BOSTON, MASSACHUSETTS *, organized under the laws of* MASSACHUSETTS *, subject to its Articles of Incorporation or other fundamental organizational documents, is hereby authorized to transact within this State, subject to all provisions of this Certificate, the following classes of insurance:* FIRE, MARINE, SURETY, DISABILITY, PLATE GLASS, LIABILITY, WORKMEN'S COMPENSATION, COMMON CARRIER LIABILITY, BOILER AND MACHINERY, BURGLARY, CREDIT, SPRINKLER, TEAM AND VEHICLE, AUTOMOBILE, AIRCRAFT and MISCELLANEOUS

as such classes are now or may hereafter be defined in the Insurance Laws of the State of California.

THIS CERTIFICATE *is expressly conditioned upon the holder hereof now and hereafter being in full compliance with all, and not in violation of any, of the applicable laws and lawful requirements made under authority of the laws of the State of California as long as such laws or requirements are in effect and applicable, and as such laws and requirements now are, or may hereafter be changed or amended.*

IN WITNESS WHEREOF, *effective as of the* 15TH *day of* NOVEMBER, 1961, *I have hereunto set my hand and caused my official seal to be affixed this* 15TH *day of* NOVEMBER, 1961.

INSURANCE COMMISSIONER · STATE OF CALIFORNIA

F. BRITTON McCONNELL
Insurance Commissioner

By _____
Deputy

NOTARY ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Los Angeles } ss.

On May 20th 2026 before me, Isaiah Ruiz, a Notary Public, personally appeared DYShawn Jammar Proulove, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (seal)

ISAIAH RUIZ
Notary Public - California
Los Angeles County
Commission # 2340745
My Comm. Expires Dec 8, 2029

REQUIRED INFORMATION

Capacity Claimed by Signer

- ☐ Corporate Officer - Title(s): _____ (Title(s))
- ☐ Partner(s): ☐ Limited ☐ General
- ☒ Individual
- ☐ Attorney-in-Fact
- ☐ Trustee(s)
- ☐ Guardian or Conservator
- ☐ Other: _____

Signer is Representing:
Name of Person(s) or Entity(ies)

_____

Description of Attached Document

_____ Document Title or Type

_____

_____ Number of Pages

_____ Document Date

_____ Signer(s) Other Than Above

United States
ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460

OMB Control No. 2030-0020
Approval expires 06/30/2024

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2030-0020). Responses to this collection of information are required to obtain an assistance agreement (40 CFR Part 30, 40 CFR Part 31, and 40 CFR Part 33 for awards made prior to December 26, 2014, and 2 CFR 200, 2 CFR 1500, and 40 CFR Part 33 for awards made after December 26, 2014). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 0.25 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

R24AP00038-00
EPA Project Control Number

CERTIFICATION REGARDING LOBBYING

CERTIFICATION FOR CONTRACTS, GRANTS, **LOANS AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31 U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Shawn Proudlove - Meter Specialist II
Typed Name & Title of Authorized Representative

05/20/26
Signature and Date of Authorized Representative

EPA Form 6600-06 (Rev. 06/2014) Previous editions are obsolete.

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB
4040-0013

Not Applicable.

1. * Type of Federal Action:
- [ ] a. contract
- [x] b. grant
- [ ] c. cooperative agreement
- [ ] d. loan
- [ ] e. loan guarantee
- [ ] f. loan insurance

2. * Status of Federal Action:
- [ ] a. bid/offer/application
- [x] b. initial award
- [ ] c. post-award

3. * Report Type:
- [x] a. initial filing
- [ ] b. material change

For Material Change Only:
year _____ quarter _____
date of last report _____

4. Name and Address of Reporting Entity:

[ ] Prime [x] SubAwardee Tier if known: _____

*Name _____

*Street 1 _____ Street 2 _____

*City _____ State _____ Zip _____

Congressional District, if known: _____

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

Rubidoux Community Services District
3590 Rubidoux Blvd
Jurupa Valley, CA 92509

6. * Federal Department/Agency:
Department of the Interior

7. * Federal Program Name/Description:

CFDA Number, *if applicable:*

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*
$

10. a. Name and Address of Lobbying Registrant:

*Prefix _____ *First Name Not Applicable. Middle Name _____

*Last Name _____ Suffix _____

*Street 1 _____ Street 2 _____

*City _____ State _____ Zip _____

b. Individual Performing Services (including address if different from No. 10a)

*Prefix _____ *First Name _____ Middle Name _____

*Last Name _____ Suffix _____

*Street 1 _____ Street 2 _____

*City _____ State _____ Zip _____

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

*Signature: _____

*Name: Prefix _____ *First Name Shawn Middle Name _____

*Last Name Proudlove Suffix _____

Title: Meter Specialist II Telephone No.: (310) 569-7685 Date: 05/20/26

Federal Use Only:

Authorized for Local Reproduction
Standard Form - LLL (Rev. 7-97)

United States
ENVIRONMENTAL PROTECTION AGENCY
Washington, DC 20460

OMB Control No. 2030-0020
Approval expires 06/30/2024

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2030-0020). Responses to this collection of information are required to obtain an assistance agreement (40 CFR Part 30, 40 CFR Part 31, and 40 CFR Part 33 for awards made prior to December 26, 2014, and 2 CFR 200, 2 CFR 1500, and 40 CFR Part 33 for awards made after December 26, 2014). An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 0.25 hours per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the Regulatory Support Division Director, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

R24AP00038-00
EPA Project Control Number

CERTIFICATION REGARDING LOBBYING

CERTIFICATION FOR CONTRACTS, GRANTS, **LOANS AND COOPERATIVE AGREEMENTS**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including sub-contracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31 U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Serenity Ferguson, Administrative Coordinator
Typed Name & Title of Authorized Representative

04/27/2026
Signature and Date of Authorized Representative

EPA Form 6600-06 (Rev. 06/2014) Previous editions are obsolete.

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB
4040-0013

1. * Type of Federal Action:
- [ ] a. contract
- [x] b. grant
- [ ] c. cooperative agreement
- [ ] d. loan
- [ ] e. loan guarantee
- [ ] f. loan insurance

2. * Status of Federal Action:
- [ ] a. bid/offer/application
- [x] b. initial award
- [ ] c. post-award

3. * Report Type:
- [x] a. initial filing
- [ ] b. material change

For Material Change Only:
year _____ quarter _____
date of last report _____

4. Name and Address of Reporting Entity:

[ ] Prime [x] SubAwardee Tier if known: _____

** Name*

** Street 1* *Street 2*

** City* *State* *Zip*

Congressional District, if known:

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

Rubidoux Community Services District
3590 Rubidoux Blvd
Jurupa Valley, CA 92509

6. * Federal Department/Agency:

Department of the Interior

7. * Federal Program Name/Description:

CFDA Number, *if applicable:*

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*

$

10. a. Name and Address of Lobbying Registrant:

Prefix ** First Name* *Middle Name*

** Last Name* *Suffix*

** Street 1* *Street 2*

** City* *State* *Zip*

b. Individual Performing Services (including address if different from No. 10a)

Prefix ** First Name* *Middle Name*

** Last Name* *Suffix*

** Street 1* *Street 2*

** City* *State* *Zip*

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

*** Signature:**

***Name:** *Prefix* ** First Name* *Middle Name*

** Last Name* *Suffix*

Title: **Telephone No.:** **Date:**

Federal Use Only:

Authorized for Local Reproduction
Standard Form - LLL (Rev. 7-97)

RUBIDOUX COMMUNITY SERVICES DISTRICT
CONTRACT DOCUMENTS FOR
ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I
(REBID)

ADDENDUM NO. 1

PLEASE BE ADVISED:

1. Reference: Construction Specifications, Change of Bid Date and Date of Questions Due:

A. Notice Inviting Bids

1) **Replace** the second sentence of the first paragraph in its entirety with the following:

Such bid proposals will be received no later than **3:00 p.m. on Thursday, May 21, 2026**.

2) **Replace** the first sentence of the fifth paragraph in its entirety with the following:

All questions must be submitted in writing via PlanetBids by **5:00 p.m. on Thursday, April 23, 2026**.

B. Bidding Documents, Section B. Bidder's Proposal with Supporting Documents, Item 18. DBE Good Faith Efforts Verification, Page BD-37:

Replace the Bid Opening Date in its entirety with the following:

3:00 p.m. local time on Thursday, May 21, 2026 (electronically via PlanetBids)

2. Reference: Construction Specifications, Special Requirements Item 8, Pre- and Post-Construction Inspection, Documentation of Existing and New Service Meters, Removal of Existing Service Meters, and Installation of New Service Meters, Pages SR-3 and SR-4:

Replace Paragraphs L and M on Pages SR-3 and SR-4 in their entirety with the following Paragraphs L through V:

L. Existing lids for residential meter boxes located in travelled ways, such as sidewalks, roadways, driveways, and un-landscaped areas (including residential property front-yards) shall be replaced with new lids. Existing lids for residential meter boxes located outside travelled ways, such as landscaped areas and residential property front-yards, shall remain. Quantity of lids assumed to be replaced are identified in the Bid Schedule(s). New lids shall be recessed-type constructed of polymer concrete per Standard Drawings W1101 and W1110 with openings suitable for meter antenna mounting. Contractor shall assume that all existing residential meter box dimensions are nominally 28" long x 18" wide. Contractor shall determine exact meter box lid requirements prior to submitting shop drawings for same.

M. After Contract execution, the District will provide an Excel file(s) to the Contractor identifying all existing meters, including location addresses, meter sizes, meter numbers, meter lay lengths, route numbers, read sequence numbers, and radio identification numbers. Contractor is advised that GPS coordinates or notes identifying meters that are difficult to locate will not be provided.

N. Contractor shall assume that all existing meters, piping, valves, boxes, and appurtenances are installed per Standard Drawings W1101, W1110, and W1111, including configuration, materials, and distance from ground surface to meter centerline and shut-off valve.

O. Contractor shall assume that all existing shut-off valves are quarter-turn. Contractor shall operate shut-off valves slowly and carefully to prevent damage to the valve and to prevent surging the existing customer piping. District staff will operate valves on service laterals located in the street, if required. Contractor shall operate valves in meter boxes located in the street.

P. Contractor is advised that existing meters are manufactured by Sensus, Master Meter, Hersey, and Neptune. Contractor is advised that approximately 95% of the existing meters are brass and that approximately 5% of the existing meters are plastic/composite.

Q. Contractor shall assume that all residential meters are located in front yards. Contractor is advised that approximately 5% of meters are located behind locked front yard gates, that between five (5) and ten (10) meters are located within roadways, and that approximately twenty-five (25) meters are located in alleyways. Contractor is advised that some meters are located in residential driveways. Contractor is advised that no meters are located in backyards. Contractor is advised that approximately 50% of meters are located in hardscaped areas.

R. Contractor is advised that the majority of the existing meter box lids that will be re-used with the new meters contain a 2" diameter read-port in accordance with RCSD Standard Drawing Nos. W1101, W1110, and W1111 and that, depending on the meter furnished for the project, field drilling may be required.

S. For meters with a significant alignment offset, Contractor shall notify the District of the affected service and shall proceed with cutting back the existing service, installing a repair coupling, and realigning service for meter installation. For meters with a minor alignment offset, Contractor shall install brass or stainless steel AMI meters.

T. Contractor is advised that some service laterals are unrestrained and shall therefore exercise caution when replacing all meters to ensure the safety of all persons and protection of existing piping.

U. Contractor shall be responsible for determining the order in which existing meters are replaced. It is the District's preference that older meters be replaced before newer meters; however, Contractor shall determine order of meter replacements to ensure that the Project Completion Schedule is satisfied.

V. Contractor shall maintain continuous access for District staff to all existing District facilities.

3. **Reference:** Special Requirements Item 14, Notifications and Coordination with Property Owners, Page SR-6:

Add the following after Paragraph B:

14-day and 48-hour notices shall be made via door hangers printed in color on 14-point thick (minimum) gloss-coated paper in both English and Spanish single or double-sided. 14-day notices may be delivered up to a maximum of twenty-one (21) days in advance of the proposed work affecting subject customers.

4. **Reference:** Special Requirements Item 32, Storage of Materials and Equipment, Site and Adjacent Property Security, and Backfill of Excavations, Page SR-12:

Replace the second paragraph in its entirety with the following two (2) paragraphs:

Contractor's designated storage area for materials and equipment for installation of fixed data collection systems is limited to each Owner facility site where fixed data collection systems will be installed.

Space will be provided at the Owner's Main Office for two (2) 40' long x 8' wide storage containers (or equivalent area for smaller containers or other Contractor facilities) and two (2) full-size pick-up type service/equipment trucks.

5. **Reference:** Construction Specifications, Basic and Technical Specifications:

Add Technical Specification Section 01381, Preconstruction Audio Video Recording Technical Specifications attached to this Addendum No. 1.

6. **Reference:** Construction Specifications, Basic and Technical Specifications, Section 17335, AMI/AMR Data Collection Systems Technical Specifications:

Replace Part 2.04B.1 in its entirety with the following:

1. The AMI/AMR software application shall have the capability of interfacing with the District's CIS/billing software (InvoiceCloud) via flat file data exchange.

7. **Bidder Clarifications:**

The following information is provided in response to questions submitted by bidders:

Question 1: On Pages 8 and 93 it references the prevailing wage determinations on file with RCSD. Would you be able to provide the classifications and determinations the District expects contractors to use for this project? Additionally, did RCSD submit or receive a special determination from DIR specific to the labor and installation scope?

Answer 1: Bidder/Contractor shall determine the appropriate labor classifications. Current California Department of Industrial Relations (DIR) Prevailing Wage Rate Determinations for journeymen and apprentices for California, Southern California, and Riverside County as of February 22, 2026, are applicable to this project, copies of which are available for review at the District's office as stated in Contract Appendix Item 15. Contractor may also obtain the applicable DIR Prevailing Wage Rate Determinations

from the California DIR's website. RCSD did not request or receive any special determinations from DIR specific to this project.

Question 2: Is there an anticipated Notice to Proceed (NTP) date or projected board award timeline for the project?

Answer 2: Per Notice Inviting Bids and Bidding Documents Item A.9, Opening and Awarding of Bids, award, if made, will be made within 60 days of bid opening.

Question 3: The contract duration is stated as 280 calendar days. Please confirm whether this duration includes all project activities (mobilization, AMI network deployment, system integration workshops, testing, and training), or if it applies only to meter installation deployment activities.

Answer 3: Per Bidding Documents Item B.5, Contract Completion Schedule, all Contract Work shall be complete within 280 calendar days after Notice to Proceed. Contract Work includes, but is not limited to, mobilization, meter installation, AMI network deployment, system integration workshops, testing, and training.

Question 4: The project is titled AMI Implementation Phase I. Please confirm whether additional future phases are planned and whether Phase I includes the entire meter deployment scope for the District or only a portion of the system.

Answer 4: This project is Phase I and covers a portion of the District's service meters. Future phases are anticipated in order to replace all District service meters. Per Technical Specification Section 17335, AMI/AMR Data Collection Systems, Part 1.04A, fixed data collection systems shall be designed to collect data from residential, commercial, and industrial flow meters throughout the District's service area, which is shown on Figure 1 included in the Contract Documents.

Question 5: The project references funding through the U.S. Bureau of Reclamation (USBR). Please confirm whether Davis Bacon wage requirements apply, or if California prevailing wage requirements are the only applicable labor compliance requirements.

Answer 5: Davis-Bacon wage requirements do not apply to this project.

Question 6: Please confirm whether the District has requested or received a special prevailing wage determination from the California Department of Industrial Relations (DIR).

Answer 6: RCSD did not request or receive any special determinations from DIR specific to this project. Current California Department of Industrial Relations (DIR) Prevailing Wage Rate Determinations for journeymen and apprentices for California, Southern California, and Riverside County as of February 22, 2026, are applicable to this project, copies of which are available for review at the District's office as stated in Contract Appendix Item 15. Contractor may also obtain the applicable DIR Prevailing Wage Rate Determinations from the California DIR's website.

Question 7: The bid documents reference DBE good faith effort requirements. Please confirm whether there is a specific DBE participation goal for this project or if compliance is limited to documentation of outreach and good faith efforts.

Answer 7: Per the Notice Inviting Bids and Special Requirements Item 43A, Federal Disadvantaged Business Enterprise (DBE) Requirements, compliance is limited to the EPA's Six Good Faith Efforts only.

Question 8: Please identify the District's current billing or CIS platform that the AMI system must interface with.

Answer 8: InvoiceCloud. See Addendum No. 1, Item 6.

Question 9: Please confirm the data exchange format required for installation data and whether an API, flat file, or other structured file format will be required.

Answer 9: Flat file. See Addendum No. 1, Item 6.

Question 10: Please confirm the manufacturer, type, and general material composition of the existing legacy meters scheduled for replacement.

Answer 10: Manufacturers of existing legacy meter consist of Sensus, Master Meter, Hersey, and Neptune. General material composition includes brass and plastic/composite. See Addendum No. 1, Item 2.

Question 11: Please provide the approximate material distribution of legacy meters (brass, plastic/composite, or other).

Answer 11: Approximately 95% of the legacy meters are brass and approximately 5% of the legacy meters are plastic/composite. See Addendum No. 1, Item 2.

Question 12: The specifications indicate the District will provide a meter inventory file after contract execution. Please confirm whether this file will also include: • Route numbers • Read sequence numbers • Old meter serial numbers • Old radio IDs • GPS coordinates • Notes identifying difficult to locate meters

Answer 12: The District can provide route numbers, read sequence numbers, the old meter numbers, and the old radio identification numbers. The District will not provide GPS coordinates or notes identifying difficult-to-locate meters. See Addendum No. 1, Item 2.

Question 13: Please confirm whether this meter data file can be provided prior to bid for planning purposes, or only after contract award.

Answer 13: As specified in Special Requirements Item 8.M, the existing meter data file will be provided after Contract execution.

Question 14: The specifications require 14 day and 48 hour advance notifications. Please confirm whether the 14 day notice may be delivered via postcard mailer to affected customers.

Answer 14: The 14-day notices may not be delivered via postcard mailer to affected customers. Contractor is required to distribute door hangers for the 14-day notice. See Addendum No. 1, Item 3.

Question 15: Please confirm whether the 14 day notice may be distributed earlier than fourteen days (for example three weeks in advance) to accommodate mailing time. See Addendum No. 1, Item 3.

Answer 15: The 14-day notice door hangers may be distributed up to a maximum of 21 days in advance of disturbance. See Addendum No. 1, Item 3.

Question 16: For the 48 hour notice, please confirm whether the District requires door hangers, or whether door knock / in person notification prior to installation will be acceptable.

Answer 16: Door hangers only are required for the 48-hour notice. See Addendum No. 1, Item 3.

Question 17: Please confirm whether the contractor will be responsible for producing and distributing all outreach materials.

Answer 17: Per Special Requirements Item 14.B, Contractor shall notify residents, commercial, and public establishments of impending work.

Question 18: Please confirm whether outreach materials must be printed in color, double sided, or translated into multiple languages, and if so which languages are required.

Answer 18: Outreach materials shall be printed in color and be made available in English and Spanish. Double-sided is preferred but not required. In addition, door hangers shall be printed on heavy-weight gloss-coated paper. See Addendum No. 1, Item 3.

Question 19: Please confirm whether the contractor is required to provide a customer call center, and if so the required hours of operation and language capabilities.

Answer 19: The Contractor is not required to provide a customer call center.

Question 20: Please confirm whether the District will provide a central staging yard or contractor laydown area for meter deployment activities.

Answer 20: Space will be provided at the District's Main Office for two (2) 40' long x 8' wide storage containers (or equivalent area for smaller containers or other facilities) and two (2) full-size pick-up type service trucks. No amenities or other space will be provided. See Addendum No. 1, Item 4.

Question 21: If a staging area is provided, please provide the location and available amenities, including: • Access to power • Office trailer space • Restrooms • Parking for installation vehicles • Forklift or pallet jack availability

Answer 21: Space will be provided at the District's Main Office for two (2) 40' long x 8' wide storage containers (or equivalent area for smaller containers or other facilities) and two (2) full-size pick-up type service trucks. No amenities or other space will be provided. See Addendum No. 1, Item 4.

Question 22: Please confirm whether District facilities may be used for temporary storage of new meters and installation materials, or only for AMI network equipment.

Answer 22: In addition to the storage/staging allowances specified for the fixed data collection systems, space will be provided at the District's Main Office for two (2) 40' long x 8' wide storage containers (or equivalent area for smaller containers or other facilities) and

two (2) full-size pick-up type service trucks. No amenities or other space will be provided. See Addendum No. 1, Item 4.

Question 23: Please confirm whether the District will provide disposal containers or roll off bins for any of the following materials: • Salvageable meters and metal lids • Recyclable packaging materials • Excavated dirt or debris from meter pits • Hazardous waste such as legacy endpoints or batteries

Answer 23: The District will not provide disposal containers or roll-off bins for any materials. Salvaged materials shall be delivered by the Contractor to the District's Main Office located at 3590 Rubidoux Boulevard, Jurupa Valley, California or the District's Field Office located at 6106 Horizon Lane, Jurupa Valley, California, as determined by District in accordance with Technical Specification Section 02050, Part 1.01C.

Question 24: Please confirm whether the contractor is responsible for all disposal logistics for project waste streams not explicitly accepted by the District.

Answer 24: Per Special Requirements Item 28, Preservation of Paved Surfaces, Restoration of Work Site, and Disposal of Spoil and Waste Materials, and Technical Specification Section 02050, Part 1.01D, Contractor shall be responsible for proper "Final Disposal Offsite" of all debris, waste materials, rubbish, packing materials, discarded equipment parts, and damaged construction materials, in a manner and at locations that comply with all local, state, and federal laws, regulations, and ordinances.

Question 25: Please confirm whether traffic control is anticipated to be required for meter installation activities performed by the meter installation contractor. If traffic control is expected, please describe the typical conditions where it will be required (e.g., roadway meters, intersections, arterial streets) and whether the contractor will be responsible for preparing traffic control plans, providing flaggers, and obtaining any required permits.

Answer 25: Per Section 01000, General Requirements, Part 20.h, Traffic; Special Requirements Item 16, Traffic Control; Bid Item 104; and Bid Item 204, Contractor shall be responsible for traffic control and preparation of traffic control plans. If necessary, Contractor shall obtain an encroachment permit from the City of Jurupa Valley in accordance with Special Requirements Item 12, Permits, Certificates, Laws, and Ordinances.

Question 26: Please confirm whether installation work orders will be organized into contiguous geographic routes or provided as individual service locations.

Answer 26: Contractor shall be responsible for determining the order in which existing meters are replaced. It is the District's preference that older meters be replaced before newer meters; however, Contractor shall determine order of meter replacements to ensure that the Project Completion Schedule is satisfied. See Addendum No. 1, Item 2.

Question 27: Please confirm whether the District will assist with locating meters that are difficult to locate or buried.

Answer 27: No, the District will not assist with locating meters that are difficult to locate or are buried. Contractor shall coordinate with homeowners and business owners as necessary for locating meters that are difficult to locate or buried.

Question 28: Please provide the estimated service type distribution (Residential, Irrigation, Commercial, Industrial).

Answer 28: Quantity and size of residential meters are specified in the Bid Schedules and Technical Specification Section 17330, Residential Flow Meters, Part 1.04, Specific Project Requirements. Quantity and size of commercial and industrial meters are specified in the Bid Schedules and Technical Specification Section 17335, Commercial and Industrial Flow Meters, Part 1.04A, Specific Project Requirements.

Question 29: Please provide the estimated distribution of meter locations in the following environments: • Indoors • Front yards • Backyards • Behind locked gates • Driveways • Alleyways • Roadways

Answer 29: The majority of meters are located in front yards. Approximately 5% of meters are located behind locked gates. Approximately 5 to 10 meters are located within roadways and approximately 25 meters are located within alleyways. Some meters are also located in driveways. There are no meters located indoors or in backyards. See Addendum No. 1, Item 2.

Question 30: Please provide the estimated number or percentage of services located in hardscape areas (concrete or asphalt).

Answer 30: Approximately 50% of meters are located in hardscape areas. See Addendum No. 1, Item 2.

Question 31: Please provide the typical depth from ground surface to the top of the meter register.

Answer 31: Bidder shall assume that existing meters are installed in accordance with Standard Drawings W1101, W1110, and W1111. See Addendum No. 1, Item 2.

Question 32: Please identify the typical shut off valve configuration used in the system (angle stop, curb stop, or other).

Answer 32: Bidder shall assume that all valves are quarter-turn angle stops. See Addendum No. 1, Item 2.

Question 33: Please confirm whether existing meters are typically installed on setters, risers, or straight pipe.

Answer 33: Bidder shall assume that all meters are installed in accordance with Standard Drawings W1101, W1110, and W1111. See Addendum No. 1, Item 2.

Question 34: Please confirm whether existing service connections typically include adapters, and whether replacement of these adapters should be assumed.

Answer 34: Per Bid Schedules and Special Requirements Item 8, Pre- and Post-Construction Inspection, Documentation of Existing and New Service Meters, Removal of Existing Service Meters, and Installation of New Service Meters, Paragraph J, 3/4" diameter meters are provided with 1" x 3/4" adapters and 1-1/2" diameter meters are provided with 2" x 1-1/2" adapters that will be furnished by the District and installed by the Contractor.

Question 35: Please provide the existing meter box size distribution for the system.

Answer 35: Bidder shall assume that all existing residential meter box dimensions are 28" long x 18" wide. Contractor is required to verify existing meter box sizes prior to submitting shop drawings for new lids. See Addendum No. 1, Item 2.

Question 36: Please confirm whether meter boxes are expected to require removal and reset during installation and provide an estimated quantity or percentage.

Answer 36: Bidder shall assume that no existing meter boxes are expected to require removal and reset during installation.

Question 37: Please confirm whether any meter box replacements are anticipated and provide estimated quantities.

Answer 37: Bidder shall assume that no existing meter boxes are anticipated to be replaced.

Question 38: Please provide the material composition of existing meter boxes and lids and whether boxes are straight sided or tapered.

Answer 38: Bidder shall assume that existing meter boxes are provided in accordance with Standard Drawing Nos. W1101, W1110, and W1111. See Addendum No. 1, Item 2.

Question 39: Please confirm whether existing lids will require field drilling for antenna installation, and if so provide required hole size and expected quantities.

Answer 39: The majority of meter box lids contain a 2" diameter read-port in accordance with RCSD Standard Drawing Nos. W1101, W1110, and W1111. Depending on AMI meter furnished by the Contractor, field drilling may be required. Note that meter antennas may be integral to the AMI meter or may protrude through the meter box but shall not be a tripping hazard. See Addendum No. 1, Item 2.

Question 40: Please confirm responsibility if a service side water line fails during installation due to aged or deteriorated infrastructure.

Answer 40: Per Bid Items 121 and 222, Bidders shall include cost for repair of 250 residential services.

Question 41: Please define the expected procedure if a service line elevation is too high and the new endpoint cannot fit beneath the lid.

Answer 41: For meters with a significant offset of alignment, Contractor shall notify the District of the affected service and shall proceed with cutting back the existing service, installing a repair coupling, and realigning service for meter installation. For meters with a minor offset of alignment, Contractor shall install brass or stainless steel AMI meter. See Addendum No. 1, Item 2.

Question 42: Please provide the estimated service side piping material distribution (copper, galvanized, poly, CTS, PVC).

Answer 42: Bidders shall assume that existing piping is furnished in accordance with Standard Drawings W1101, W1110, and W1111. See Addendum No. 1, Item 2.

Question 43: Please provide the estimated customer side piping material distribution (copper, galvanized, poly, CTS, PVC).

Answer 43: Bidders shall assume that existing piping is furnished in accordance with Standard Drawings W1101, W1110, and W1111. See Addendum No. 1, Item 2.

Question 44: Please confirm whether all service connections can be accessed within the meter box, or if excavation outside the box may be required.

Answer 44: Bidders shall assume that existing piping is furnished in accordance with Standard Drawings W1101, W1110, and W1111. See Addendum No. 1, Item 2.

Question 45: Please confirm whether Utility staff will be responsible for shutting down service laterals in the street, if required.

Answer 45: District staff will operate valves located on service laterals in the street, if required. Contractor shall operate valves in meter boxes located in the street. See Addendum No. 1, Item 2.

Question 46: Please confirm whether all service line laterals are restrained for larger meters.

Answer 46: Contractor is advised that some service laterals are unrestrained and shall therefore exercise caution when replacing all meters to ensure the safety of all persons and protection of existing piping. See Addendum No. 1, Item 2.

Question 47: The project scope includes multiple components, including AMI infrastructure, meter procurement, and meter installation. Golden Meters Service Inc. holds a California C-36 Plumbing Contractor License and has over 16 years of experience performing municipal water meter replacement and installation services for water agencies throughout Southern California. Would the District consider separating the meter installation portion of the work into its own bid package, or otherwise allowing qualified specialty contractors to perform or bid the meter installation scope independently of the AMI infrastructure and meter supply components? Additionally, would the District consider allowing contractors holding a C-36 Plumbing Contractor License with demonstrated municipal meter replacement experience to perform this portion of the work?

Answer 47: The work for the project will remain as specified and will not be divided into multiple projects. Bidders (Prime Contractors) must have a Class A license as specified in the Notice Inviting Bids. Plumbing contractors can be included as subcontractors in another Bidder's bid package.

Question 48: What are the qualifications needed for the position of professional videographer?

Answer 48: See Addendum No. 1, Item 5.

Question 49: If your intent is to base decision on low bid, will you be comparing a meter with integral components to a meter with all the same external components, ie. Meter/radio/ex. Leak detection sensor – to make an apples-to-apples fair comparison?

Answer 49: Per Bidding Documents Item B.3.a, basis of award will be the Total Bid Amount for the lowest cost option of Bid Schedule I or Bid Schedule II irrespective of meters having integral or external components.

Question 50: What is the expected scope of this documentation of video, including: Coverage area Required video format Deliverable requirements?

Answer 50: See Addendum No. 1, Item 5.

By: Brandon C. Valadez
Brandon C. Valadez, RCE No. 78326

REGISTERED PROFESSIONAL ENGINEER
BRANDON CARY VALADEZ
No. 78326
CIVIL
STATE OF CALIFORNIA

Date: April 15, 2026

Bidder hereby acknowledges receipt of Addendum No. 1 and the incorporation thereof in bid proposal for Advanced Metering Infrastructure Implementation Project Phase I.

Bidder: Core & Main LP

By: Shawn Proudlove
(Bidder's Authorized Representative)

Date: 05/20/26

Title: Meter Specialist

587-19P68Rebid-Add-1

RUBIDOUX COMMUNITY SERVICES DISTRICT
CONTRACT DOCUMENTS FOR
ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I
(REBID)

ADDENDUM NO. 2

PLEASE BE ADVISED:

1. **Reference:** Construction Specifications, Basic and Technical Specifications, Section 17335, AMI/AMR Data Collection Systems Technical Specifications and Addendum No. 1, Item 6:

   Replace Part 2.04B.1 in its entirety with the following:

   1. The AMI/AMR software application shall have the capability of interfacing with the District's CIS/billing software (Northstar) via flat file data exchange.

2. **Bidder Clarifications:**

   The following information is provided in response to questions submitted by bidders:

   Question 8: Please identify the District's current billing or CIS platform that the AMI system must interface with.

   Answer 8 (revised): Northstar. See Addendum No. 2, Item 1.

   Question 51: Is there an engineer's estimate for this project?

   Answer 51: There is no Engineer's Estimate for the project.

By: Brandon C. Valadez
Brandon C. Valadez, RCE No. 78326

REGISTERED PROFESSIONAL ENGINEER
BRANDON CARY VALADEZ
No. 78326
CIVIL
STATE OF CALIFORNIA

Date: April 30, 2026

Bidder hereby acknowledges receipt of Addendum No. 2 and the incorporation thereof in bid proposal for Advanced Metering Infrastructure Implementation Project Phase I.

Bidder: Core & Main LP

By: Shawn Proudlove
(Bidder's Authorized Representative)

Date: 05/20/26

Title: Meter Specialist

587-19P68Rebid-Add-2

RUBIDOUX COMMUNITY SERVICES DISTRICT
CONTRACT DOCUMENTS FOR
ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT PHASE I
(REBID)

ADDENDUM NO. 3

PLEASE BE ADVISED:

1. Reference: Construction Specifications, Special Requirements Item 8, Pre- and Post-Construction Inspection, Documentation of Existing and New Service Meters, Removal of Existing Service Meters, and Installation of New Service Meters, Pages SR-3 and SR-4:

Replace Paragraph A in its entirety with the following:

A. Contractor, in the presence of the Owner and/or Inspector, shall photograph and document (logs, addresses, dates, remarks, etc.) the conditions of all existing service flow meters, piping, valves, fittings, boxes, etc. prior to beginning meter replacement/construction, with conditions identified as specifically pertaining to the Owner's facilities and residents' facilities. Photographic documentation shall also include, but not be limited to, streets, curbs, gutters, sidewalks, driveways, landscaped areas, un-landscaped areas, meter boxes, piping, residential front yards, front of residential structures, fences, and gates pertaining to the residence.

In the event that any resident's facilities are in poor condition or damaged prior to beginning construction, Owner will coordinate with the resident to ensure that Contractor is not liable for the pre-existing conditions.

Upon completion of construction of each service meter replacement, Contractor, in the presence of the Owner and/or Inspector shall photograph and document the conditions of same.

Pre-construction photographs shall be high-resolution, timestamped, digital photographs furnished to the Owner daily by secure file sharing links via email.

Two (2) DVDs, two (2) flash drives, and one (1) secure file sharing link via email of all photographs and documentation shall be provided to the Owner upon completion of construction.

Add the following to the end of Paragraph C (after the bulleted list):

Photographs shall be high-resolution, timestamped, digital photographs furnished to the Owner daily by secure file sharing links via email.

Two (2) DVDs, two (2) flash drives, and one (1) secure file sharing link via email of all photographs and documentation shall be provided to the Owner upon completion of construction.

2. **Reference:** Construction Specifications, Basic and Technical Specifications, Section 01381, Preconstruction Audio Video Recording Technical Specifications added by Addendum No. 1, Item 5:

Replace Part 1.02A in its entirety with the following:

A. Meter Installations

Refer to Special Requirements Item 8.

By: Brandon C. Valadez
Brandon C. Valadez, PE No. 78326



Date: May 13, 2026

Bidder hereby acknowledges receipt of Addendum No. 3 and the incorporation thereof in bid proposal for Advanced Metering Infrastructure Implementation Project Phase I.

Bidder: Core & Main LP

By: Shawn Proudlove
(Bidder's Authorized Representative)

Date: 05/20/2026

Title: Meter Specialist

587-19P68Rebid-Add-3

Attachment 5

CORE & MAIN'S RESPONSE TO REQUEST FOR PROPOSAL FOR THE RUBIDOUX COMMUNITY SERVICES DISTRICT, CALIFORNIA

Advanced Metering Infrastructure Implementation Project Phase 1



SUBMISSION DEADLINE:
Date: May 21st, 2026
Time: 3:00 PM PDT

SUBMITTED TO:
PlanetBids Vendor Portal

PRIMARY CORE & MAIN CONTACT:
Shawn Proudlove
Meter Specialist II
Shawn.Proudlove@coreandmain.com
(310) 569-7685

SECONDARY CORE & MAIN CONTACT:
Brent Olson
Kamstrup Initiative Manager
Brent.Olson@coreandmain.com
(623) 745-5251

Core & Main – Perris, CA
3155 N Indian Ave.
Perris, CA 92571
coreandmain.com

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CERTIFICATE OF AUTHORITY

Core & Main LP
1830 Craig Park Court
St Louis, MO 63146

CERTIFICATE OF AUTHORITY
Regional Vice Presidents

Name of Company:	Core & Main LP, a Florida limited partnership
Reference:	Customer Sales Contracts, RFPs, Bids, and Related Matters
Date:	March 31, 2025

THE UNDERSIGNED DOES HEREBY CERTIFY that I am the CEO of Core & Main LP, a Florida limited partnership ("Core & Main") and am authorized to sign on behalf of Core & Main. As CEO, I am authorized to make and deliver this certificate. I do hereby designate each of the following Regional Vice Presidents of Core & Main: Ray Seigworth, Ogonna Hymes, Richard Schaefer, Donald Taylor, Christopher Conde, Don Teter, Ryan Johnson and Charles Zappola, as my designees, and authorize each of them to execute and deliver, or cause to be executed and delivered, any and all bids and offers for furnishing materials and/or services, including related non-disclosure agreements, requests for qualifications, requests for proposals, customer sales contracts, supply agreements, distributor agreements, purchase orders and similar agreements, provided that the total bid or contract price is not in excess of $6,000,000 (the "Documents"), and to take or cause to be taken any and all actions in connection therewith as such individual or individuals may consider necessary or desirable, with such necessity or desirability being conclusively evidenced by the actions so taken. Further I hereby ratify and approve all previous actions taken with respect to the execution and delivery of such Documents in the name of and on behalf of Core & Main.

The authorization hereunder is effective as of the date hereof, and shall continue until the earlier of the undersigned's revocation of such authorization in writing, or the last date of the applicable employee's employment with Core & Main.

IN WITNESS WHEREOF, the undersigned has executed this instrument with an effective date of March 31, 2025.

Mark Witkowski, CEO

Confidential

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DELEGATION OF AUTHORITY

Docusign Envelope ID: 5C898F5F-641C-47AE-82A4-ACB55FEDC26A

DELEGATION OF AUTHORITY

I, Ogonna Hymes, Vice-President for Core & Main LP, a Florida limited partnership (the "Company"), hereby delegate authority to Shawn Proudlove, Meter Specialist (the "Delegate"), to execute and deliver a bid in response to an Invitation for Bids for Advanced Metering Infrastructure Implementation Project Phase 1 (the "Document") to the Rubidoux Community Services District, and to take or cause to be taken any and all actions in connection therewith as such individual may consider necessary or desirable, with such necessity or desirability being conclusively evidenced by the actions so taken, on behalf of the Company.

This Delegation is limited to the Document as described above.

The Delegation is personal to the Delegate. The Delegate may not further delegate the authorities granted in this Delegation.

IN WITNESS WHEREOF, I have hereunto set my hand on March 20, 2026.

CORE & MAIN LP, a Florida limited partnership

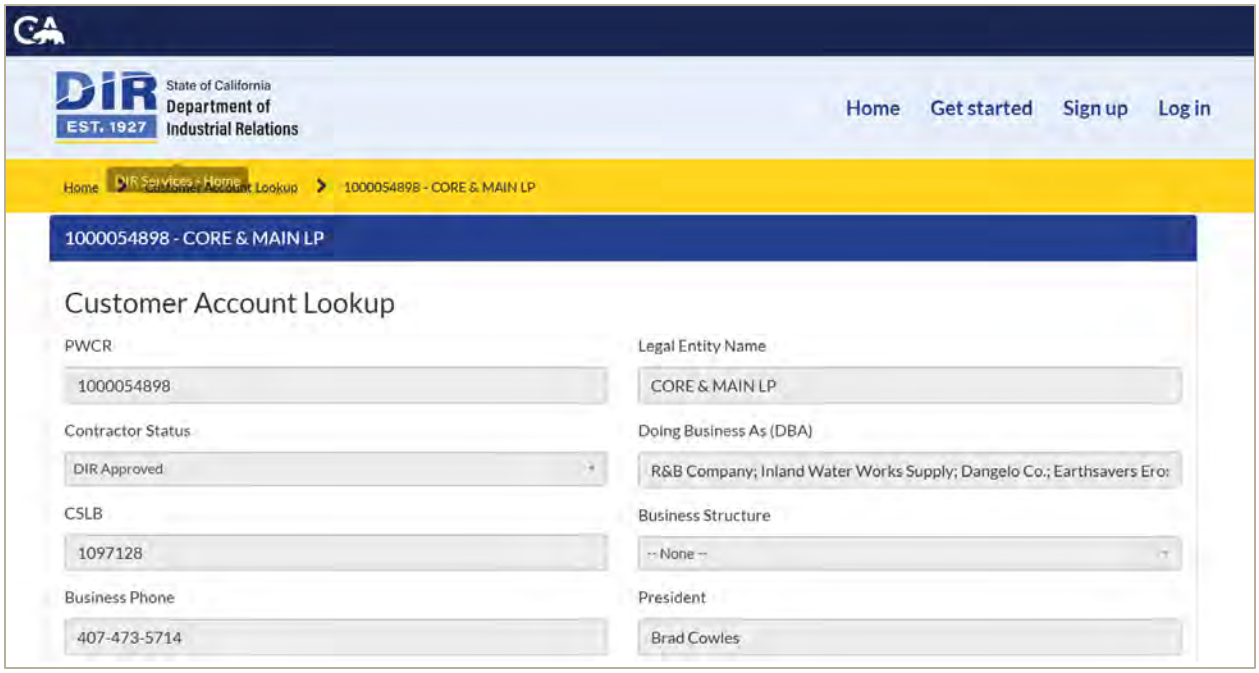
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Ogonna Hymes

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BID PROPOSAL PACKET – REQUESTED DOCUMENTATION

CORE & MAIN DIR REGISTRATION CONFIRMATION



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CORE & MAIN CA CONTRACTOR LICENSE


STATE OF CALIFORNIA
dca
DEPARTMENT OF CONSUMER AFFAIRS

CONTRACTORS
STATE LICENSE BOARD
ACTIVE LICENSE

License Number 1097128
Entity PART
Business Name CORE & MAIN LP

Classification(s) A

Expiration Date 09/30/2026
www.cslb.ca.gov

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CORE & MAIN FINANCIALS

Core & Main has provided a condensed version of our last 3 years of audited financial statements below. For additional information on our financials, please refer to Core & Main, Inc. - Financials - Annual Reports.

Item 8. Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Core & Main, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Core & Main, Inc. and its subsidiaries (the "Company") as of February 2, 2025 and January 28, 2024, and the related consolidated statements of operations, of comprehensive income, of stockholders' equity and of cash flows for each of the three years in the period ended February 2, 2025, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of February 2, 2025, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of February 2, 2025 and January 28, 2024, and the results of its operations and its cash flows for each of the three years in the period ended February 2, 2025 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of February 2, 2025, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

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Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition – Net Product Sales

As described in Notes 2 and 3 to the consolidated financial statements, the Company's total net sales were $7,441 million, of which $7,412 million relates to product sales for the year ended February 2, 2025. The Company's revenues are earned from contracts with customers. These contracts include written agreements and purchase orders as well as arrangements that are implied by customary business practices or law. The revenue contracts are primarily single performance obligations for the sale of product. Revenue is recognized when title is passed to the customer in an amount that reflects the consideration the Company expects to be entitled to in exchange for the products, which is net of sales tax, customer incentives, returns and discounts. For product sales, the transfer of title generally occurs at the point of destination for products shipped by internal fleet and at the point of shipping for products shipped by third-party carriers. Estimates for expected customer incentives, returns and discounts are based on historical experience, anticipated performance and management's judgement. Generally, the Company's contracts do not contain significant financing as the standard terms are short term in nature.

The principal consideration for our determination that performing procedures relating to revenue recognition of net product sales is a critical audit matter is a high degree of auditor effort in performing procedures related to the Company's revenue recognition of net product sales.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process of net product sales, (i) testing the completeness, accuracy, and existence of revenue recognized for a sample of net product sales revenue transactions by obtaining and inspecting source documents, such as invoices, pick tickets, shipping documents, cash receipts from customers, and, where applicable, customer contracts and (ii) testing, for a sample of net product sales revenue transactions on or before February 2, 2025, the cutoff of net product sales revenue transactions.

/s/ PricewaterhouseCoopers LLP
St. Louis, Missouri
March 25, 2025

We have served as the Company's auditor since 2021

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CORE & MAIN, INC.
CONSOLIDATED BALANCE SHEETS
Amounts in millions (except share and per share data)

	February 2, 2025	January 28, 2024
ASSETS		
Current assets:		
Cash and cash equivalents	$ 8	$ 1
Receivables, net of allowance for credit losses of $18 and $12	1,066	973
Inventories	908	766
Prepaid expenses and other current assets	43	33
Total current assets	2,025	1,773
Property, plant and equipment, net	168	151
Operating lease right-of-use assets	244	192
Intangible assets, net	935	784
Goodwill	1,898	1,561
Deferred income taxes	558	542
Other assets	42	66
Total assets	$ 5,870	$ 5,069
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current maturities of long-term debt	$ 24	$ 15
Accounts payable	562	504
Accrued compensation and benefits	123	106
Current operating lease liabilities	67	55
Other current liabilities	90	94
Total current liabilities	866	774
Long-term debt	2,237	1,863
Non-current operating lease liabilities	178	138
Deferred income taxes	87	48
Tax receivable agreement liabilities	706	706
Other liabilities	22	16
Total liabilities	4,096	3,545
Commitments and contingencies		
Class A common stock, par value $0.01 per share, 1,000,000,000 shares authorized, 189,815,899 and 191,663,608 shares issued and outstanding as of February 2, 2025 and January 28, 2024, respectively	2	2
Class B common stock, par value $0.01 per share, 500,000,000 shares authorized, 7,936,061 and 9,630,186 shares issued and outstanding as of February 2, 2025 and January 28, 2024, respectively	—	—
Additional paid-in capital	1,220	1,214
Retained earnings	449	189
Accumulated other comprehensive income	27	46
Total stockholders' equity attributable to Core & Main, Inc.	1,698	1,451
Non-controlling interests	76	73
Total stockholders' equity	1,774	1,524
Total liabilities and stockholders' equity	$ 5,870	$ 5,069

The accompanying notes are an integral part of these consolidated financial statements.

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CORE & MAIN, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
Amounts in millions (except share and per share data)

	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Net sales	$ 7,441	$ 6,702	$ 6,651
Cost of sales	5,461	4,884	4,856
Gross profit	1,980	1,818	1,795
Operating expenses:			
Selling, general and administrative	1,078	931	880
Depreciation and amortization	183	147	140
Total operating expenses	1,261	1,078	1,020
Operating income	719	740	775
Interest expense	142	81	66
Income before provision for income taxes	577	659	709
Provision for income taxes	143	128	128
Net income	434	531	581
Less: net income attributable to non-controlling interests	23	160	215
Net income attributable to Core & Main, Inc.	$ 411	$ 371	$ 366
Earnings per share			
Basic	$ 2.14	$ 2.15	$ 2.16
Diluted	$ 2.13	$ 2.15	$ 2.13
Number of shares used in computing EPS			
Basic	191,617,275	172,839,836	169,482,199
Diluted	201,442,750	227,818,077	246,217,004

The accompanying notes are an integral part of these consolidated financial statements.

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CORE & MAIN, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
Amounts in millions

	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Net income	$ 434	$ 531	$ 581
Net comprehensive (loss) gain, net of tax benefit (expense) of $6, $(1) and $(9)	(20)	(22)	44
Total comprehensive income	414	509	625
Less: comprehensive income attributable to non-controlling interests	22	156	232
Total comprehensive income attributable to Core & Main, Inc.	$ 392	$ 353	$ 393

The accompanying notes are an integral part of these consolidated financial statements.

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CORE & MAIN, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
Amounts in millions (except share and per share data)

	Class A Common Stock		Class B Common Stock		Additional Paid In Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Non-Controlling Interests	Total Stockholders' Equity
	Shares	Amount	Shares	Amount					
Balances at January 30, 2022	**167,522,403**	**$ 2**	**78,398,141**	**$ 1**	**$ 1,214**	**$ 16**	**$ 92**	**$ 506**	**$ 1,831**
Net income	—	—	—	—	—	—	366	215	581
Equity-based compensation	—	—	—	—	8	—	—	3	11
Net comprehensive gain, net of tax	—	—	—	—	—	27	—	17	44
Distributions to non-controlling interest holders	—	—	—	—	(6)	—	—	(48)	(54)
Exchange of Partnership Interests and Class B Shares for Class A Shares	5,132,134	—	(5,133,763)	—	40	2	—	(42)	—
Establishment/adjustment of deferred tax asset associated with Core & Main investment in Core & Main Holdings, LP	—	—	—	—	30	—	—	—	30
Establishment of Tax Receivable Agreement Liabilities	—	—	—	—	(34)	—	—	—	(34)
Activity under equity-based compensation plans, net of tax withholdings	110,644	—	—	—	1	—	—	—	1
Forfeiture of Class A Shares and Partnership Interests	(20)	—	(34,703)	—	—	—	—	—	—
Non-controlling interests' adjustment for purchase of Partnership Interests and vesting of Core & Main Holdings, LP Partnership Interests held by non-controlling interests	—	—	—	—	(12)	—	—	12	—
Balances at January 29, 2023	**172,765,161**	**2**	**73,229,675**	**1**	**1,241**	**45**	**458**	**663**	**2,410**
Net income	—	—	—	—	—	—	371	160	531
Equity-based compensation	—	—	—	—	8	—	—	2	10
Net comprehensive loss, net of tax	—	—	—	—	—	(18)	—	(4)	(22)
Distributions to non-controlling interest holders	—	—	—	—	(5)	—	—	(37)	(42)
Repurchase and Retirement of equity interests	(28,131,551)	—	(16,868,449)	—	(324)	—	(640)	(380)	(1,344)
Exchange of Partnership Interests and Class B Shares for Class A Shares	46,683,021	—	(46,731,040)	(1)	313	19	—	(331)	—
Establishment/adjustment of deferred tax asset associated with Core & Main investment in Core & Main Holdings, LP	—	—	—	—	515	—	—	—	515
Establishment of Tax Receivable Agreement Liabilities	—	—	—	—	(537)	—	—	—	(537)
Activity under equity-based compensation plans, net of tax withholdings	346,977	—	—	—	3	—	—	—	3
Balances at January 28, 2024	**191,663,608**	**2**	**9,630,186**	**—**	**1,214**	**46**	**189**	**73**	**1,524**
Net income	—	—	—	—	—	—	411	23	434
Equity-based compensation	—	—	—	—	14	—	—	—	14
Net comprehensive loss, net of tax	—	—	—	—	—	(19)	—	(1)	(20)
Distributions to non-controlling interest holders	—	—	—	—	(3)	—	—	(5)	(8)
Repurchase and Retirement of equity interests	(3,974,820)	—	—	—	(20)	—	(151)	(5)	(176)
Exchange of Partnership Interests and Class B Shares for Class A Shares	1,684,022	—	(1,694,125)	—	9	—	—	(9)	—
Establishment/adjustment of deferred tax asset associated with Core & Main investment in Core & Main Holdings, LP	—	—	—	—	23	—	—	—	23
Establishment of Tax Receivable Agreement Liabilities	—	—	—	—	(19)	—	—	—	(19)
Activity under equity-based compensation plans, net of tax withholdings	443,089	—	—	—	2	—	—	—	2
Balances at February 2, 2025	**189,815,899**	**$ 2**	**7,936,061**	**$ —**	**$ 1,220**	**$ 27**	**$ 449**	**$ 76**	**$ 1,774**

The accompanying notes are an integral part of these consolidated financial statements.

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CORE & MAIN, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
Amounts in millions

	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Cash Flows From Operating Activities:			
Net income	$ 434	$ 531	$ 581
Adjustments to reconcile net cash from operating activities:			
Depreciation and amortization	194	154	148
Equity-based compensation expense	14	10	11
Deferred income tax expense	13	2	(7)
Other	8	5	7
Changes in assets and liabilities:			
(Increase) decrease in receivables	(2)	21	(51)
(Increase) decrease in inventories	(36)	328	(149)
(Increase) decrease in other assets	(13)	2	(4)
Increase (decrease) in accounts payable	14	11	(140)
Increase (decrease) in accrued liabilities	(5)	5	5
Net cash provided by operating activities	621	1,069	401
Cash Flows From Investing Activities:			
Capital expenditures	(35)	(39)	(25)
Acquisitions of businesses, net of cash acquired	(741)	(231)	(128)
Other	(12)	—	1
Net cash used in investing activities	(788)	(270)	(152)
Cash Flows From Financing Activities:			
Repurchase and retirement of equity interests	(176)	(1,344)	—
Distributions to non-controlling interest holders	(11)	(41)	(57)
Payments pursuant to Tax Receivable Agreements	(11)	(5)	—
Borrowings on asset-based revolving credit facility	774	665	244
Repayments on asset-based revolving credit facility	(1,110)	(235)	(244)
Issuance of long-term debt	950	—	—
Repayments of long-term debt	(223)	(15)	(15)
Debt issuance costs	(15)	—	(2)
Other	(4)	—	1
Net cash provided by (used in) financing activities	174	(975)	(73)
Increase (decrease) in cash and cash equivalents	7	(176)	176
Cash and cash equivalents at the beginning of the period	1	177	1
Cash and cash equivalents at the end of the period	$ 8	$ 1	$ 177
Cash paid for interest (excluding effects of interest rate swap)	$ 197	$ 105	$ 74
Cash paid for income taxes	143	116	147

The accompanying notes are an integral part of these consolidated financial statements.

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1) BASIS OF PRESENTATION & DESCRIPTION OF BUSINESS

Organization

Core & Main, Inc. ("Core & Main" and collectively with its subsidiaries, the "Company") is a leading specialty distributor dedicated to advancing reliable infrastructure with local service, nationwide. With a focus on water, wastewater, storm drainage and fire protection products, and related services, the Company provides solutions to municipalities, private water companies and professional contractors across municipal, non-residential and residential end markets, nationwide. The Company's specialty products and services are used in the maintenance, repair, replacement, and construction of water and fire protection infrastructure. The Company reaches customers through a nationwide network of over 370 branches across 49 United States ("U.S.") states. The Company's products include pipes, valves, fittings, storm drainage products, fire protection products, meter products and other products. The Company has complemented its core products through additional offerings, including smart meter systems, fusible high-density polyethylene ("fusible HDPE") piping solutions, specifically engineered treatment plant products and geosynthetics and erosion control products. The Company's services and capabilities allow for integration with customers and form part of their sourcing and procurement function. Substantially all of the Company's long-lived assets are located within the U.S.

Core & Main is a holding company that indirectly owns Core & Main LP through its ownership interest in Core & Main Holdings, LP ("Holdings"). Core & Main's primary material assets are its direct and indirect ownership interest in Holdings and deferred tax assets associated with such ownership.

Secondary Offerings and Repurchase Transactions

On June 12, 2024, the Company's board of directors authorized a share repurchase program (the "Repurchase Program"), pursuant to which the Company may purchase up to $500 million of the Company's Class A common stock. Shares repurchased under the Repurchase Program are retired immediately and are accounted for as a decrease to stockholders' equity. During the fiscal year ended February 2, 2025 ("fiscal 2024"), the Company repurchased 3,974,820 shares of Class A common stock for a total of $176 million through open market transactions.

During the fiscal year ended January 28, 2024 ("fiscal 2023") and the fiscal year ended January 29, 2023 ("fiscal 2022"), secondary public offerings of Class A common stock were completed by certain selling stockholders (the "Selling Stockholders") affiliated with Clayton, Dubilier & Rice, LLC ("CD&R"). As part of the secondary public offerings, the Selling Stockholders sold to the public (i) existing shares of our Class A common stock and (ii) shares of Class A common stock received in exchange for an equal number of limited partner interests of Holdings ("Partnership Interests"), together with the retirement of a corresponding number of shares of our Class B common stock. Below is a summary of the secondary public offerings completed during fiscal 2023 and fiscal 2022 (collectively the "Secondary Offerings").

Secondary Offering Date	Existing Shares of Class A Common Stock Sold to the Public	Partnership Interests Exchanged for Class A Common Stock Prior to Sale to the Public	Total Shares of Class A Common Stock Sold	Price Per Share
Fiscal 2023 Secondary Offerings				
January 25, 2024	12,366,683	7,415,404	19,782,087	$40.985
January 10, 2024[1]	12,084,902	7,465,098	19,550,000	$38.120
December 11, 2023[1]	10,783,760	6,466,240	17,250,000	$35.540
November 9, 2023[1]	13,659,431	8,190,569	21,850,000	$30.440
September 19, 2023	11,252,620	6,747,380	18,000,000	$29.015
June 12, 2023	8,752,038	5,247,962	14,000,000	$28.215
April 14, 2023	3,125,728	1,874,272	5,000,000	$22.151
Fiscal 2022 Secondary Offering				
September 19, 2022	6,876,601	4,123,399	11,000,000	$23.750

(1) Includes shares of Class A common stock purchased by the underwriter, pursuant to the exercise in full of the option granted in connection with the secondary public offering.

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The Company did not receive any of the proceeds from the Secondary Offerings. The Company paid the costs associated with the sale of shares by the Selling Stockholders in the Secondary Offerings, other than underwriting discounts and commissions.

Concurrently with the completion of the Secondary Offerings completed in fiscal 2023, (i) the Company repurchased from the Selling Stockholders shares of our Class A common stock, and Holdings redeemed from the Company a corresponding number of Partnership Interests, and (ii) Holdings redeemed Partnership Interests from one of the Selling Stockholders, with the Company repurchasing a corresponding number of shares of our Class B common stock from such Selling Stockholder for no additional consideration. Below is a summary of the repurchase transactions completed during fiscal 2023 (the "Repurchase Transactions").

Repurchase Transaction Date	Shares of Class A Common Stock Repurchased	Partnership Interests Redeemed	Total Repurchase Amount	Price Per Share/Partnership Interest	Total Consideration Paid (in millions)
January 25, 2024	3,125,728	1,874,272	5,000,000	$40.985	$205
January 10, 2024	3,125,728	1,874,272	5,000,000	$38.120	$191
December 11, 2023	3,125,728	1,874,272	5,000,000	$35.540	$178
November 9, 2023	3,125,728	1,874,272	5,000,000	$30.440	$152
September 19, 2023	3,125,728	1,874,272	5,000,000	$29.015	$145
June 12, 2023	3,125,728	1,874,272	5,000,000	$28.215	$141
April 14, 2023	9,377,183	5,622,817	15,000,000	$22.151	$332

Following the completion of the Secondary Offerings and the Repurchase Transactions during fiscal 2023, investors affiliated with CD&R no longer own shares of Core & Main.

Basis of Presentation

The accompanying consolidated financial statements present the results of operations, financial position and cash flows of Core & Main and its subsidiaries, which includes the consolidated financial statements of Holdings and its consolidated subsidiary, Core & Main LP, as the legal entity that conducts the operations of the Company. Certain reclassification have been made to previously reported financial information to conform to the Company's current period presentation. All intercompany balances and transactions have been eliminated in consolidation. The Partnership Interests not held by Core & Main are reflected as non-controlling interests in the consolidated financial statements.

Segments

The Company's chief operating decision maker ("CODM") is the Chief Executive Officer. The CODM manages the business as a single operating and reportable segment. The Company operates over 370 branch locations across the U.S. The nature of the products and services, suppliers, customers and distribution methods are similar across branches. The consolidated performance of the Company is utilized to determine incentive compensation for executive officers, annual merit decisions, management of national supplier relationships, allocation of resources and in evaluating acquisitions and the Company's capital structure. Performance is most notably measured by the CODM based on net sales and net income at the consolidated level, as reported in the consolidated statement of operations. Significant expenses within net income include cost of sales and selling, general and administrative expense, which are each separately presented in the consolidated statement of operations. Other segment items within net income include depreciation and amortization expense, interest expense and income tax expense.

Fiscal Year

The Company's fiscal year is a 52- or 53-week period ending on the Sunday nearest to January 31st. Quarters within the fiscal year include 13-week periods, unless a fiscal year includes a 53rd week, in which case the fourth quarter of the fiscal year will be a 14-week period. Fiscal 2024 included 53 weeks and fiscal 2023 and fiscal 2022 included 52 weeks. The next fiscal year ending February 1, 2026 ("fiscal 2025") will include 52 weeks.

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2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Estimates

Management has made a number of estimates and assumptions relating to the reporting of certain assets and liabilities, the disclosure of contingent assets and liabilities, and reported amounts of revenues and expenses in preparing the elements of these financial statements in conformity with U.S. generally accepted accounting principles ("GAAP"). Actual results could differ from these estimates.

Cash and Cash Equivalents

The Company classified all highly liquid investments with maturities of three months or less when purchased to be cash equivalents. The Company maintains cash deposits according to a banking policy that requires diversification across a variety of highly-rated financial institutions. However, this could result in concentration of cash and cash equivalents across these financial institutions in excess of Federal Deposit Insurance Corporation-insured limits.

Allowance for Credit Losses

Accounts receivable are evaluated for collectability based on numerous factors, including past transaction history with customers, their credit-worthiness, and an assessment of lien and bond rights. An allowance for credit losses is estimated as a percentage of aged receivables. This estimate is periodically adjusted when management becomes aware of a specific customer's inability to meet its financial obligations (e.g., a bankruptcy filing) or as a result of changes in historical collection patterns.

Inventories

Inventories consist primarily of finished goods and are carried at the lower of cost or net realizable value. The cost of substantially all inventories is determined by the weighted average cost method. The carrying value of inventory includes the capitalization of inbound freight costs and is net of supplier rebates and purchase discounts for products not yet sold. The inventory reserve is based on an analysis of historical physical inventory results, a review of excess and obsolete inventories based on inventory aging and anticipated future demand.

Consideration Received from Suppliers

The Company enters into agreements with many of its suppliers providing for inventory purchase rebates ("supplier rebates") upon achievement of specified volume purchasing levels and purchase discounts. The Company accrues the receipt of supplier rebates and purchase discounts as part of its cost of sales for products sold based on progress towards earning the supplier rebates, taking into consideration cumulative purchases of inventory to the measurement date and projected purchases through the end of the year. An estimate of supplier rebates and purchase discounts is included in the carrying value of inventory at each period end for supplier rebates to be received on products not yet sold. Supplier rebates and purchase discounts included in inventory were $54 million and $43 million at February 2, 2025 and January 28, 2024, respectively.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method based on the following estimated useful lives of the assets:

Buildings and improvements	5 - 39 years
Transportation equipment	5 - 7 years
Furniture, fixtures and equipment	3 - 10 years
Capitalized software	3 years

Property and equipment assets are assessed for recovery when a triggering event occurs. A potential impairment is first evaluated by comparing the undiscounted cash flows associated with the asset, or the asset group it is part of, to its carrying value. If the carrying value is greater than the undiscounted cash flows, the amount of potential impairment is measured by comparing the fair value of the asset, or the asset group it is part of, with its carrying value. The Company assesses the remaining useful life and the recoverability of property and equipment assets whenever events or circumstances indicate that the carrying value of an asset may not be recoverable. Judgments regarding the existence of a triggering event are based on market and operational performance. Evaluating potential impairment also requires estimates of future operating results and cash flows. There were no impairments of property and equipment assets during fiscal 2024, fiscal 2023 or fiscal 2022.

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Acquisitions and Goodwill

Amounts paid for acquisitions are allocated to the tangible assets acquired and liabilities assumed based on their estimated fair values at the date of acquisition. The Company then allocates the purchase price in excess of net tangible assets acquired to identifiable intangible assets. The fair value of identifiable intangible assets is based on detailed valuations. The Company allocates any excess purchase price over the fair value of the net tangible and intangible assets acquired to goodwill.

The Company does not amortize goodwill but does conduct an impairment test of goodwill on an annual basis or whenever events or circumstances indicate that it is "more likely than not" that the fair value of its reporting unit has dropped below its carrying value. The annual goodwill impairment assessment for fiscal 2024, fiscal 2023 and fiscal 2022 consisted of a qualitative assessment to determine whether it is "more likely than not" that the fair value of the reporting unit exceeds its carrying value. The quantitative assessment, when applicable, is comprised of comparing the carrying value of a reporting unit to its estimated fair value. The Company estimates the fair value of the reporting unit based on a detailed valuation, utilizing an income approach based on the present value of future cash flows, a market approach based on multiples of sales and profit metrics of similar public companies and a market approach based on multiples of sales and profit metrics for purchase transactions of similar companies (all of which are considered level three measurement techniques). If the carrying value of the reporting unit exceeds its fair value, the Company will recognize the excess of the carrying value over the fair value as a goodwill impairment loss.

Intangible Assets

Finite-lived intangible assets consist primarily of customer relationships which are amortized over the periods during which the Company expects to generate net sales from these customer relationships. The initial amortization life of finite-lived intangible assets primarily ranged from 10 to 15 years. Finite-lived intangible assets are assessed for impairment when a triggering event occurs. A potential impairment of finite-lived intangible assets is first evaluated by comparing the undiscounted cash flows associated with the asset, or the asset group it is part of, to its carrying value. If the carrying value is greater than the undiscounted cash flows, the amount of potential impairment is measured by comparing the fair value of the asset, or the asset group it is part of, with their carrying value. The Company assesses the remaining useful life and the recoverability of finite-lived intangible assets whenever events or circumstances indicate that the carrying value of an asset may not be recoverable. Judgments regarding the existence of a triggering event are based on market and operational performance. Evaluating potential impairment also requires estimates of future operating results and cash flows.

Internal use software is recognized separately as an intangible asset and is carried at cost less accumulated amortization. Cost may include external and internal costs directly attributable to the development, design and implementation of the computer software. Costs related to training and data conversion are expensed as incurred.

All of the Company's intangible assets are subject to amortization.

Fair Value Measurement

The carrying amounts of cash and cash equivalents, accounts receivable and accounts payable, accrued compensation and benefits and other current liabilities approximate fair value due to the short-term nature of these financial instruments. The Company's long-term financial assets and liabilities are generally recorded at historical costs. The carrying amounts of derivative assets or liabilities (see Note 6) are recorded at fair value.

Revenue Recognition

The Company's revenues are earned from contracts with customers. These contracts include written agreements and purchase orders as well as arrangements that are implied by customary business practices or law. The revenue contracts are primarily single performance obligations for the sale of product or performance of services for customers. Revenue is recognized when title is passed to the customer or services are provided in an amount that reflects the consideration the Company expects to be entitled to in exchange for the products and services, which is net of sales tax, customer incentives, returns and discounts. For product sales, the transfer of title generally occurs at the point of destination for products shipped by internal fleet and at the point of shipping for products shipped by third-party carriers. Revenues related to services are recognized in the period the services are performed and were approximately $29 million, $23 million and $17 million during fiscal 2024, fiscal 2023 and fiscal 2022, respectively. Estimates for expected customer incentives, returns and discounts are based on historical experience, anticipated performance and management's judgment. Generally, the Company's contracts do not contain significant financing as the standard sales terms are short term in nature.

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Shipping and Handling Fees and Costs

The Company includes shipping and handling fees billed to customers in net sales. Shipping and handling costs associated with inbound freight are capitalized to inventories and relieved through cost of sales as inventories are sold. Shipping and handling costs associated with outbound freight are included in selling, general and administrative expenses and totaled $46 million, $43 million and $37 million during fiscal 2024, fiscal 2023 and fiscal 2022, respectively.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating losses and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities from a change in tax rates is recognized in income in the period that includes the enactment date.

The Company recognizes deferred tax assets to the extent that it believes that these assets are more likely than not to be realized. In making such a determination, the Company considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies and results of recent operations. If it is determined that the Company is not able to realize deferred tax assets in the future, a valuation allowance would be established, which would impact the provision for income taxes.

Uncertain tax positions are recorded on the basis of a two-step process in which (1) it is determined if a tax position is more-likely-than-not of being sustained on the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, the Company recognizes the largest amount of tax benefit that is more than 50% likely to be realized upon ultimate settlement with the related tax authority. The Company records interest and penalties related to uncertain tax positions in the provision for income taxes in the audited Consolidated Statements of Operations.

Concentration of Credit Risk

The majority of the Company's revenues are credit sales which are made primarily to customers whose ability to pay is dependent, in part, upon the economic strength of the construction industry in the areas where they operate and availability of municipal funding. Concentration of credit risk with respect to trade accounts receivable is limited by the large number of customers comprising the Company's customer base. The Company performs ongoing credit evaluations of its customers.

Leases

The Company determines if an arrangement is or contains a lease at inception. Obligations under operating leases are included in the Balance Sheets in both current and non-current operating lease liabilities, while the corresponding rights to use the leased assets are presented as operating lease right-of-use ("ROU") assets. Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the remaining lease payments. As the rate implicit in the lease is not readily determinable, the Company uses its incremental borrowing rate, which is based on information available at the commencement date of the relevant lease, in determining the present value of future payments. The lease term includes an option to extend the lease when it is reasonably certain that the Company will exercise that option. Payment obligations related to real estate taxes, insurance and other lease components are excluded from the measurement of operating lease ROU assets and lease liabilities. The Company's lease agreements generally do not contain any material residual value guarantees or material restrictive covenants. The Company recognizes expense within selling, general and administrative expense associated with the accretion of operating lease liabilities and amortization of ROU assets in an amount calculated to result in straight-line expense over the lease terms.

Tax Receivable Agreements

In connection with the initial public offering and other related transactions, Core & Main entered into a tax receivable agreement with the Former Limited Partners (as defined below) (the "Former Limited Partners Tax Receivable Agreement") and a tax receivable agreement with the Continuing Limited Partners (as defined below) (the "Continuing Limited Partners Tax Receivable Agreement") (collectively, the "Tax Receivable Agreements"). Core & Main has generated, and expects to generate additional, tax attributes associated with future exchanges of Partnership Interests by Continuing Limited Partners, that will reduce amounts that it would otherwise pay in the future to various tax authorities.

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The "Former Limited Partners" are defined as CD&R Fund X Advisor Waterworks B, L.P., CD&R Fund X Waterworks B1, L.P., CD&R Fund X-A Waterworks B, L.P. and the other Original Limited Partners (as defined below) that transferred all or a portion of their Partnership Interests (including those held indirectly through CD&R WW Advisor, LLC and CD&R WW Holdings, LLC) for shares of Class A common stock in connection with the initial public offering and other related transactions, and represent entities that transferred all of their Partnership Interests (including Partnership Interests held indirectly through certain "blocker" corporations) for shares of Class A common stock in connection with the consummation of certain reorganization transactions.

The "Original Limited Partners" are defined as CD&R Waterworks Holdings, LLC ("CD&R Waterworks Holdings"), the Former Limited Partners and Core & Main Management Feeder, LLC ("Management Feeder") and represent the direct and indirect owners of Holdings prior to the initial public offering and other related transactions.

The "Continuing Limited Partners" are defined as CD&R Waterworks Holdings and Management Feeder, and represent the Original Limited Partners that continued to own Partnership Interests after the reorganization transactions and that are entitled to exchange their Partnership Interests, together with the retirement of a corresponding number of shares of Class B common stock for shares of Class A common stock.

The Former Limited Partners Tax Receivable Agreement provides for the payment by Core & Main to certain Former Limited Partners, or their permitted transferees, of 85% of the tax benefits, if any, that Core & Main realizes, or in some circumstances is deemed to realize, as a result of (i) certain tax attributes of the Partnership Interests Core & Main holds in respect of such Former Limited Partners' interest in Core & Main, including such attributes which resulted from such Former Limited Partners' prior acquisition of ownership interests in Holdings and Core & Main's allocable share of existing tax basis acquired in connection with the initial public offering attributable to the Former Limited Partners and (ii) certain other tax benefits.

The Continuing Limited Partners Tax Receivable Agreement provides for the payment by Core & Main to the Continuing Limited Partners, or their permitted transferees, of 85% of the benefits, if any, that Core & Main realizes, or in some circumstances is deemed to realize, as a result of (i) increases in tax basis or other similar tax benefits as a result of exchanges of Partnership Interests for cash or shares of Class A common stock pursuant to the Exchange Agreement, dated as of July 22, 2021 (the "Exchange Agreement"), by and among Core & Main, Holdings, CD&R Waterworks Holdings and Management Feeder, (ii) Core & Main's allocable share of existing tax basis acquired in connection with the initial public offering attributable to the Continuing Limited Partners and in connection with exchanges of Partnership Interests for cash or shares of Class A common stock pursuant to the Exchange Agreement and (iii) Core & Main's utilization of certain other tax benefits related to Core & Main's entering into the Continuing Limited Partners Tax Receivable Agreement, including tax benefits attributable to payments under the Continuing Limited Partners Tax Receivable Agreement. Core & Main expects to obtain an increase in its share of the tax basis in the net assets of Holdings as Partnership Interests are exchanged by Continuing Limited Partners. Core & Main intends to treat any exchanges of Partnership Interests as direct purchases of Partnership Interests for U.S. federal income tax purposes. These increases in tax basis may reduce the amounts that it would otherwise pay in the future to various tax authorities.

Except to the extent that any benefits are deemed realized, Core & Main will receive the full benefit in tax savings from relevant taxing authorities and provide payment of 85% of the amount of any tax benefits to the Former Limited Partners or the Continuing Limited Partners, as applicable, or their permitted transferees. Core & Main expects to benefit from the remaining 15% of any cash tax savings, except to the extent of any deemed realizations. For the Tax Receivable Agreements, Core & Main assesses the tax attributes to determine if it is more likely than not that the benefit of any deferred tax assets will be realized. Following that assessment, Core & Main recognizes a liability under the applicable Tax Receivable Agreements, reflecting approximately 85% of the expected future realization of such tax benefits. Amounts payable under the Tax Receivable Agreements are contingent upon, among other things, (i) generation of sufficient future taxable income during the term of the applicable Tax Receivable Agreements and (ii) future changes in tax laws.

Upon an exchange transaction that increases the tax attributes available to Core & Main, an increase to deferred tax assets or reduction to deferred tax liabilities is recorded with a corresponding increase to equity. The recognition of the liability under the Tax Receivable Agreement is recorded with a corresponding reduction to equity. Both of these transactions impact equity as they are transactions with shareholders.

Equity-Based Compensation

The Company recognizes the cost of employee services received in exchange for awards of equity instruments based on the grant date fair value of those awards. That cost is recognized over the requisite service period (generally the vesting period), which is the period during which an employee is required to provide service in exchange for the award.

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Basic and Diluted Earnings per Share

The accounting policy for basic and diluted earnings per share is described in Note 12.

Non-controlling Interests

The accounting policy for non-controlling interests is described in Note 11.

Recent Accounting Pronouncements

Segment Reporting - In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures" ("ASU 2023-07"). The new guidance expands reportable segment disclosure requirements primarily through enhanced disclosures about significant segment expenses. ASU 2023-07 requires disclosure of (i) significant segment expenses that are regularly provided to the segment's CODM and included within the segment measure of profit or loss, (ii) an amount and description of its composition for other segment items to reconcile to segment profit or loss, and (iii) the title and position of the Company's CODM. The ASU does not change how a public entity identifies its operating segments, aggregates them, or applies the quantitative thresholds to determine its reportable segments. ASU 2023-07 is effective for annual periods beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. The adoption of ASU 2023-07, as of February 2, 2025, resulted in additional disclosures, but did not have a material impact on the consolidated financial statements.

Income Tax Disclosures - In December 2023, the FASB issued ASU No. 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures" ("ASU 2023-09"). The new guidance requires, on an annual basis, disclosure of specific categories in the rate reconciliation and disclosure of income taxes paid disaggregated by jurisdiction. ASU 2023-09 is effective for annual periods beginning after December 15, 2024. The adoption of ASU 2023-09 is expected to result in additional disclosures, but not have a material impact on the consolidated financial statements.

Disaggregation of Income Statement Expenses - In November 2024, the FASB issued ASU No. 2024-03, "Disaggregation of Income Statement Expenses" ("ASU 2024-03"). The new guidance requires additional disclosure related to the disaggregation of income statement expense categories. ASU 2024-03 is effective for annual periods beginning after December 15, 2026 and interim periods within fiscal years beginning after December 15, 2027, with early adoption permitted. The adoption of ASU 2024-03 is expected to result in additional disclosures and the Company is currently evaluating the effect this standard will have on the consolidated financial statements.

3) REVENUE

Disaggregation of Revenue

The following table represents net sales disaggregated by product category:

	Fiscal Years Ended		
Product Category	**February 2, 2025**	**January 28, 2024**	**January 29, 2023**
Pipes, valves & fittings products	$ 5,006	$ 4,504	$ 4,548
Storm drainage products	1,147	985	949
Fire protection products	596	688	701
Meter products	692	525	453
Total Net Sales	$ 7,441	$ 6,702	$ 6,651

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4) ACQUISITIONS

The Company made various acquisitions during fiscal 2024 (the "Fiscal 2024 Acquisitions"), fiscal 2023 (the "Fiscal 2023 Acquisitions") and fiscal 2022 (the "Fiscal 2022 Acquisitions") with an aggregate transaction value of $769 million, $244 million and $124 million, subject to working capital adjustments, respectively. These transactions were funded with cash and borrowings under the Senior Term Loan Credit Facility (as defined in Note 6).

Fiscal 2024 Acquisitions

- On November 7, 2024, the Company acquired certain assets and assumed certain liabilities of ARGCO Northeast LLC ("ARGCO"). ARGCO has one location and is a distributor of fire protection products.
- On October 30, 2024, the Company acquired certain assets and assumed certain liabilities of Eastcom Associates, Inc. ("Eastcom"). Eastcom has one location and is a provider of underground utility protection equipment.
- On September 16, 2024, the Company acquired certain assets and assumed certain liabilities of Green Equipment Company ("Green Equipment"). Green Equipment has one location and is a provider of underground utility protection equipment.
- On September 9, 2024, the Company acquired certain assets and assumed certain liabilities of GroGreen Solutions Georgia, LLC ("GroGreen"). GroGreen has four locations and is a provider of geosynthetics products.
- On August 12, 2024, the Company acquired certain assets and assumed certain liabilities of HM Pipe Products LP and HM Pipe Products Kitchner LP (collectively, "HM Pipe Products"). HM Pipe Products has two locations and is a Canadian distributor of water and wastewater products.
- On May 6, 2024, the Company acquired certain assets and assumed certain liabilities of Geothermal Supply Company Inc. ("GSC"). GSC has one location and is a distributor and fabricator of fusible HDPE pipe and other related products, primarily serving the geothermal, water and sewer industries.
- On April 30, 2024, the Company acquired certain assets and assumed certain liabilities of EGW Utilities Inc. ("EGW"). EGW has one location and is a provider of underground utility infrastructure products and services.
- On April 1, 2024, the Company acquired all of the outstanding shares of NW Geosynthetics Inc. ("ACF West"). ACF West has six locations and is a distributor of geosynthetics products and provider of soil stabilization solutions.
- On March 7, 2024, the Company acquired all of the membership interests of DKC Group Holdings, LLC, and associated entities (collectively, "Dana Kepner"). Dana Kepner has twenty-one locations and is a distributor of water, wastewater and storm drainage products.
- On February 12, 2024, the Company acquired certain assets and assumed certain liabilities of Eastern Supply Inc. and a related entity (collectively, "Eastern Supply"). Eastern Supply has two locations and is a distributor of a broad range of storm drainage products, with custom fabrication capabilities.

Fiscal 2023 Acquisitions

- On January 16, 2024, the Company acquired certain assets and assumed certain liabilities of Lee Supply Company, Inc. ("Lee Supply"). Lee Supply has four locations and is a leading specialty distributor and fabricator of fusible HDPE pipe and other related services, including HDPE fusion equipment rentals and custom fabrication.
- On December 4, 2023, the Company acquired certain assets and assumed certain liabilities of Granite Water Works, Inc. ("Granite Water Works"). Granite Water Works has one location and is a provider of water, wastewater and storm drainage products.
- On November 28, 2023, the Company acquired certain assets and assumed certain liabilities of Enviroscape Erosion Control Materials Ltd. and three affiliated entities (collectively "Enviroscape"). Enviroscape has one location and is a provider of geosynthetics and erosion control products.
- On July 12, 2023, the Company acquired all of the outstanding shares of J.W. D'Angelo Company, Inc. ("D'Angelo"). D'Angelo has three locations and is a full-service provider of fire protection and waterworks products.
- On July 10, 2023, the Company acquired certain assets and assumed certain liabilities of Foster Supply Inc. and R.P. Foster Inc. (collectively, "Foster Supply"). Foster Supply has seven locations and is a full-service provider of precast concrete structures, pipe, drainage materials and related geosynthetics products.
- On April 17, 2023, the Company acquired certain assets and assumed certain liabilities of Midwest Pipe Supply Inc. ("Midwest Pipe"). Midwest Pipe has one location and is a distributor of drainage and waterworks products.

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- On April 10, 2023, the Company acquired certain assets and assumed certain liabilities of UPSCO Manufacturing & Distribution Company, UPSCO, Inc. and TMB Holdings, LLC (collectively, "UPSCO"). UPSCO is a provider of utility infrastructure products and services.
- On March 6, 2023, the Company acquired certain assets and assumed certain liabilities of Landscape & Construction Supplies LLC ("LCS"). LCS has two locations and is a provider of geosynthetics products.

Fiscal 2022 Acquisitions

- On December 5, 2022, the Company acquired certain assets and assumed certain liabilities of Lanier Municipal Supply Co. Inc. ("Lanier"). Lanier has four locations and is a full-service distributor of water, wastewater, storm drainage, agricultural and irrigation products.
- On October 10, 2022, the Company acquired certain assets and assumed certain liabilities of Distributors, Inc. ("Distributors"). Distributors has one location and distributes fire protection products.
- On October 3, 2022, the Company acquired certain assets and assumed certain liabilities of the municipal waterworks division of Trumbull Industries, Inc., and acquired certain assets and assumed certain liabilities of an affiliated entity, Trumbull Manufacturing, Inc. (collectively "Trumbull"). Trumbull has three locations and distributes a variety of infrastructure products to the waterworks industry.
- On August 8, 2022, the Company acquired certain assets and assumed certain liabilities of Inland Water Works Supply, Co. ("Inland"). Inland has one location and distributes waterworks products.
- On June 28, 2022, the Company acquired certain assets and assumed certain liabilities of Earthsavers Erosion Control, LLC ("Earthsavers"). Earthsavers has three locations and produces and distributes a variety of geosynthetics products.
- On May 2, 2022, the Company acquired certain assets and assumed certain liabilities of Lock City Supply, Inc. ("Lock City"). Lock City has one location and distributes waterworks products.
- On March 21, 2022, the Company acquired certain assets and assumed certain liabilities of Dodson Engineered Products, Inc. ("Dodson"). Dodson has one location and distributes waterworks products.

The following table represents the preliminary allocation of the transaction price to the fair value of identifiable assets acquired and liabilities assumed in the Fiscal 2024 Acquisitions and final allocation of the transaction price to the fair value of identifiable assets acquired and liabilities assumed in the Fiscal 2023 Acquisitions and Fiscal 2022 Acquisitions:

	Fiscal 2024 Acquisitions[1]	Fiscal 2023 Acquisitions	Fiscal 2022 Acquisitions
Cash	$ 31	$ 5	$ —
Receivables	96	48	22
Inventories	113	52	44
Intangible assets	284	107	43
Goodwill	336	26	21
Property, plant and equipment	16	35	7
Operating lease right-of-use assets	22	8	5
Other assets, current and non-current	2	4	4
Total assets acquired	900	285	146
Accounts payable	44	13	11
Deferred income taxes	41	8	—
Operating lease liabilities, current and non-current	22	8	5
Deferred consideration	14	12	3
Other liabilities, current and non-current	6	7	—
Net assets acquired	$ 773	$ 237	$ 127

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(1) Amounts include the preliminary purchase price allocation of Dana Kepner net assets of $262 million to goodwill, $184 million to intangible assets, $90 million to net working capital, $29 million to cash and $8 million to fixed assets. Additionally, includes a deferred income tax liability of $36 million for the Dana Kepner acquisition.

The net outflow of cash in respect of the purchase of businesses is as follows:

	Fiscal 2024 Acquisitions	Fiscal 2023 Acquisitions	Fiscal 2022 Acquisitions
Net assets acquired	$ 773	$ 237	$ 127
Plus: Working capital adjustment	(1)	(1)	1
Less: Cash acquired in acquisition	(31)	(5)	—
Total consideration, net of cash; investing cash outflow	$ 741	$ 231	$ 128

In the above transactions, to the extent applicable, the excess of purchase price over net tangible and intangible assets acquired resulted in goodwill, which represents the assembled workforce and anticipated long-term growth in new markets, customers and products. Goodwill of $260 million, $11 million and $21 million associated with the Fiscal 2024 Acquisitions, Fiscal 2023 Acquisitions, and Fiscal 2022 Acquisitions, respectively, are fully deductible by the Company for U.S. income tax purposes.

Intangible Assets

For the Fiscal 2024 Acquisitions, Fiscal 2023 Acquisitions and Fiscal 2022 Acquisitions discussed above, the intangible assets acquired consist of customer relationships and other intangible assets.

The customer relationship intangible assets represent the value associated with those customer relationships in place at the date of the Fiscal 2024 Acquisitions, Fiscal 2023 Acquisitions and Fiscal 2022 Acquisitions. The Company valued the customer relationships using an excess earnings method using various inputs such as customer attrition rate, revenue growth rate, gross margin percentage and discount rate. Cash flows associated with the existing relationships are expected to diminish over time due to customer turnover. The Company reflected this expected diminishing cash flow through the utilization of an annual customer attrition rate assumption and in its method of amortization.

The other intangible assets primarily consist of trademark intangible assets that represent the value associated with the brand names in place at the date of the applicable closing.

A summary of the intangible assets acquired and assumptions utilized in the valuation, for the acquisitions is as follows:

	Intangible Asset Amount	Weighted Average Amortization Period	Weighted Average Discount Rate	Weighted Average Attrition Rate
Customer Relationships				
Fiscal 2024 Acquisitions[1]	$ 279	10 years	13.5 %	12.5 %
Fiscal 2023 Acquisitions	106	10 years	16.0 %	13.2 %
Fiscal 2022 Acquisitions	43	10 years	15.6 %	12.1 %
Other Intangible Assets				
Fiscal 2024 Acquisitions	$ 5	5 years	13.6 %	N/A
Fiscal 2023 Acquisitions	1	2 years	15.5 %	N/A

(1) Customer relationships acquired and assumptions utilized in the valuation for the Dana Kepner acquisition were as follows: $181 million customer relationship intangible asset, 10 years amortization period, 13.0% discount rate and 12.5% attrition rate.

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Pro Forma Financial Information

The following pro forma information presents a summary of the results of operations for the periods indicated as if the Dana Kepner acquisition had been completed as of January 30, 2023. The pro forma financial information is based on the historical financial information for the Company and Dana Kepner, along with certain pro forma adjustments. These pro forma adjustments consist primarily of:

- increased amortization and depreciation expense related to the intangible assets and fixed assets acquired, respectively, in the Dana Kepner acquisition;
- increased interest expense to reflect the borrowings under the Senior Term Loan Credit Facility including the interest and amortization of deferred financing costs;
- reclassification of direct acquisition transaction costs, retention bonuses and inventory fair value adjustments from the period incurred to periods these expenses would have been recognized given the assumed transaction date identified above; and
- the related income tax effects of the aforementioned adjustments to the provision for income taxes for Core & Main.

The following pro forma information has been prepared for comparative purposes only and is not necessarily indicative of the results of operations as they would have been had the Dana Kepner acquisition occurred on the assumed date, nor is it necessarily an indication of future operating results. In addition, the pro forma information does not reflect the cost of any integration activities, benefits from any synergies that may be derived from the Dana Kepner acquisition or revenue growth that may be anticipated.

	Fiscal Years Ended	
	February 2, 2025	January 28, 2024
Net sales	$ 7,470	$ 7,034
Net income	435	519

As a result of integration of the Dana Kepner acquisition with existing operations of the Company it is impracticable to identify the discrete financial performance associated with the Dana Kepner acquisition. As such, the Company has not presented the post-acquisition net sales and net income for the Dana Kepner acquisition.

5) GOODWILL AND INTANGIBLE ASSETS

Goodwill

The carrying amount of the Company's goodwill included in its Balance Sheets is as follows:

	February 2, 2025	January 28, 2024
Gross Goodwill	$ 1,898	$ 1,561
Accumulated Impairment	—	—
Net Goodwill	$ 1,898	$ 1,561

The changes in the carrying amount of goodwill are as follows:

	Fiscal Years Ended	
	February 2, 2025	January 28, 2024
Beginning Balance	$ 1,561	$ 1,535
Goodwill acquired during the year	336	25
Goodwill adjusted during the year	1	1
Ending balance	$ 1,898	$ 1,561

Goodwill acquired during fiscal 2024 and fiscal 2023 was related to the Fiscal 2024 Acquisitions and Fiscal 2023 Acquisitions, respectively, as further discussed in Note 4.

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During the fiscal 2024, fiscal 2023 and fiscal 2022 annual goodwill impairment assessment, the Company performed a qualitative assessment. The qualitative assessment included evaluating economic, industry, regulatory and company specific factors that could impact the reporting unit fair value. These factors included historical and projected financial metrics (including net sales, operating cash flow and discount rate trends), public equity market trends and evaluation of the markets the Company serves. Based on the assessment it was determined that it is not "more likely than not" that the fair value of its reporting unit is less than the carrying value of its reporting unit in fiscal 2024, fiscal 2023 and fiscal 2022. Therefore, no further assessment was necessary. There was no goodwill impairment during fiscal 2024, fiscal 2023 or fiscal 2022.

The Company's analyses were based in part on the expectation of future market conditions, future net sales and operating cash flow growth and discount rates that would be used by market participants in an arms-length transaction. Should actual performance or expectations of long-term assumptions be lower than presently expected, the Company's goodwill could be impaired.

Intangible Assets

The Company's intangible assets included in its Balance Sheets consist of the following:

	February 2, 2025			January 28, 2024		
	Gross Intangible	Accumulated Amortization	Net Intangible	Gross Intangible	Accumulated Amortization	Net Intangible
Customer relationships	$ 1,775	$ 868	$ 907	$ 1,496	$ 718	$ 778
Internal use software	23	—	23	4	—	4
Other intangible assets	10	5	5	6	4	2
Total	$ 1,808	$ 873	$ 935	$ 1,506	$ 722	$ 784

Amortization expense related to intangible assets was as follows:

	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Amortization expense	$ 151	$ 122	$ 120

There were no intangible asset impairments during fiscal 2024, fiscal 2023 or fiscal 2022.

The estimated aggregate amortization expense on intangible assets owned by the Company as of February 2, 2025 was expected to be as follows:

Fiscal 2025	$ 148
Fiscal 2026	138
Fiscal 2027	129
Fiscal 2028	120
Fiscal 2029	106

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6) DEBT

Debt consisted of the following:

	February 2, 2025		January 28, 2024	
	Principal	Unamortized Discount and Debt Issuance Costs	Principal	Unamortized Discount and Debt Issuance Costs
Current maturities of long-term debt:				
Senior Term Loan due July 2028	$ 15	$ —	$ 15	$ —
Senior Term Loan due February 2031	9	—	—	—
	24	—	15	—
Long-term debt:				
Senior ABL Credit Facility due February 2029	93	—	430	—
Senior Term Loan due July 2028	1,233	12	1,448	15
Senior Term Loan due February 2031	933	10	—	—
	2,259	22	1,878	15
Total	$ 2,283	$ 22	$ 1,893	$ 15

The debt obligations as of February 2, 2025 include the following debt agreements:

Senior Term Loan Credit Facility

On July 27, 2021, Core & Main LP entered into a Senior Term Loan Credit Facility (as defined herein) under which it can incur tranches of indebtedness. On May 21, 2024, Core & Main LP amended the terms of the $1,500 million senior term loan (as amended, the "2028 Senior Term Loan"), in order to reduce the effective applicable margin from 2.60% to 2.00%. The 2028 Senior Term Loan requires quarterly principal payments on the last business day of each fiscal quarter in an amount equal to approximately 0.25% of the original principal amount. The remaining balance is payable upon final maturity of the 2028 Senior Term Loan on July 27, 2028. The 2028 Senior Term Loan bears interest at a rate equal to (i) term secured overnight financing rate ("Term SOFR") plus, in each case, an effective applicable margin of 2.00% or (ii) the base rate, which will be the highest of (x) the corporate base rate established by the administrative agent as its prime rate in effect at its principal office in New York City from time to time, (y) the overnight federal funds rate plus 0.50% per annum and (z) one-month Term SOFR (adjusted for maximum reserves) plus 1.00% per annum, plus, in each case, an applicable margin of 1.50%. The 2028 Senior Term Loan is subject to a Term SOFR "floor" of 0.00%. The weighted average interest rate, excluding the effect of the interest rate swap, of Core & Main LP's outstanding borrowings under the 2028 Senior Term Loan as of February 2, 2025 was 6.31%. See further discussion of the interest rate swap below. Based on quotes from financial institutions (i.e., level 2 of the fair value hierarchy), the fair value of the 2028 Senior Term Loan was $1,254 million as of February 2, 2025.

On February 9, 2024, Core & Main LP entered into an additional $750 million senior term loan (the "2031 Senior Term Loan" and, together with the 2028 Senior Term Loan, the "Senior Term Loan Credit Facility"). On December 17, 2024, Core & Main LP amended the terms of the 2031 Senior Term Loan, in order to reduce the effective applicable margin from 2.25% to 2.00% and increase the principal balance by $200 million to $944 million with the proceeds used to repay outstanding borrowings under the 2028 Senior Term Loan. The 2031 Senior Term Loan requires quarterly principal payments, payable on the last business day of each fiscal quarter, in an amount equal to approximately 0.25% of the amended principal amount of the 2031 Senior Term Loan. The remaining balance is payable upon final maturity of the 2031 Senior Term Loan on February 9, 2031. The 2031 Senior Term Loan bears interest at a rate equal to (i) Term SOFR plus, in each case, an applicable margin of 2.00% or (ii) an alternate base rate plus an applicable margin of 1.00%. The 2031 Senior Term Loan is subject to a Term SOFR "floor" of 0.00%. The weighted average interest rate, excluding the effect of the interest rate swap, of Core & Main LP's outstanding borrowings under the 2031 Senior Term Loan as of February 2, 2025 was 6.31%. See further discussion of the interest rate swap below. Based on quotes from financial institutions (i.e., level 2 of the fair value hierarchy), the fair value of the 2031 Senior Term Loan was $946 million as of February 2, 2025.

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Asset-Based Credit Facility

On February 9, 2024, Core & Main LP amended the terms of the credit agreement governing its senior asset-based revolving credit facility (as amended, the "Senior ABL Credit Facility") in order to, among other things, extend the maturity from July 27, 2026 to February 9, 2029 and amend the credit agreement governing the Senior ABL Credit Facility to the extent necessary or appropriate to reflect the extension of the amended maturity. The Senior ABL Credit Facility has a borrowing capacity of up to $1,250 million, subject to borrowing base availability. Borrowings under the Senior ABL Credit Facility bear interest at either a Term SOFR rate plus an applicable margin ranging from 1.25% to 1.75%, or an alternate base rate plus an applicable margin ranging from 0.25% to 0.75%, depending on the borrowing capacity under the Senior ABL Credit Facility. Additionally, Core & Main LP pays a fee of 0.25% on unfunded commitments under the Senior ABL Credit Facility. As of February 2, 2025 and January 28, 2024 there were $93 million and $430 million amounts outstanding, respectively, under the Senior ABL Credit Facility with a weighted average interest rate of 7.75% as of February 2, 2025.

The aforementioned debt agreements include customary affirmative and negative covenants, which include, among other things, restrictions on Core & Main LP's ability to make distributions, pay dividends, create liens, incur additional indebtedness, make investments, dispose of assets and merge or consolidate with any other person. The Senior Term Loan Credit Facility may require accelerated repayment based upon cash flows generated in excess of operating and investing requirements when the Consolidated Secured Leverage Ratio (as defined in the agreement governing the Senior Term Loan Credit Facility) is greater than or equal to 3.25. In addition, the Senior ABL Credit Facility requires Core & Main LP to comply with a consolidated fixed charge coverage ratio of greater than or equal to 1.00 when availability under the Senior ABL Credit Facility is less than 10.0% of the lesser of (i) the then applicable borrowing base or (ii) the then aggregate effective commitments. The Company was in compliance with all debt covenants as of February 2, 2025.

Substantially all of Core & Main LP's assets are pledged as collateral for the Senior Term Loan Credit Facility and the Senior ABL Credit Facility.

The aggregate amount of debt payments for the next five fiscal years are as follows:

Fiscal 2025	$ 24
Fiscal 2026	24
Fiscal 2027	24
Fiscal 2028	1,212
Fiscal 2029	102

Interest Rate Swaps

Core & Main LP entered into an instrument in which it makes payments to a third party based upon a fixed interest rate of 0.693% and receives payments based upon the one-month Term SOFR rate. The interest rate swap has a notional amount of $800 million as of February 2, 2025. The notional amount decreases to $700 million on July 27, 2025 through the instrument maturity on July 27, 2026. This instrument is intended to reduce the Company's exposure to variable interest rates under the Senior Term Loan Credit Facility. As of February 2, 2025, this instrument resulted in an effective fixed rate of 2.693%, based upon the 0.693% fixed rate plus an effective applicable margin of 2.00%.

On February 12, 2024, Core & Main LP entered into an additional instrument pursuant to which it will make payments to a third party based upon a fixed interest rate of 3.913% and receive payments based upon the one-month Term SOFR rate. The interest rate swap has a starting notional amount of $750 million that increases to $1,500 million on July 27, 2026 through the instrument maturity on July 27, 2028. The instrument is intended to reduce the Company's exposure to variable interest rates under the Senior Term Loan Credit Facility. As of February 2, 2025, this instrument resulted in an effective fixed rate of 5.913%, based upon the 3.913% fixed rate plus an effective applicable margin of 2.00%.

The fair value of these cash flow interest rate swaps was a $40 million and $67 million asset as of February 2, 2025 and January 28, 2024, respectively, which is included within other assets in the Balance Sheet.

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Accumulated Other Comprehensive Income	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Beginning of period balance	$ 48	$ 70	$ 26
Measurement adjustment gain for interest rate swap	23	21	66
Reclassification of (income) expense to interest expense	(47)	(42)	(13)
Tax benefit (expense) on interest rate swap adjustments			
Measurement adjustment gain for interest rate swap	(6)	(4)	(11)
Reclassification of (income) expense to interest expense	12	8	2
Tax impact of exchange of Partnership Interests	—	(5)	—
End of period balance	$ 30	$ 48	$ 70

The cash flows related to settlement of the interest rate swaps are classified in the consolidated statements of cash flows based on the nature of the underlying hedged items. Fair value is based upon the present value of future cash flows under the terms of the contract and observable market inputs (level 2). Significant inputs used in determining fair value include forward-looking one-month Term SOFR rates and the discount rate applied to projected cash flows.

As of February 2, 2025, the Company estimates $28 million of the cash flow interest rate swap gains will be reclassified from accumulated other comprehensive income into earnings over the next 12 months.

7) INCOME TAXES

Core & Main is the general partner of Holdings, which is treated as a partnership for U.S. federal and most applicable state and local income tax purposes. As a partnership, Holdings is generally not subject to U.S. federal and certain state and local income taxes. Any taxable income or loss generated by Holdings is passed through to and included in the taxable income or loss of its partners, including Core & Main. Core & Main is subject to U.S. federal income taxes, in addition to state and local income taxes, with respect to its allocable share of any taxable income of Holdings.

The provision for income taxes consisted of the following:

	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Current:			
Federal	$ 101	$ 98	$ 110
State	29	28	25
	130	126	135
Deferred:			
Federal	11	2	(5)
State	2	—	(2)
	13	2	(7)
Total	$ 143	$ 128	$ 128

The reconciliations of the provision for income taxes at the federal corporate statutory rate of 21% to the tax provision for fiscal 2024, fiscal 2023 and fiscal 2022 are as follows:

	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Income taxes at federal statutory rate	21.0 %	21.0 %	21.0 %
State income taxes	4.5	3.5	3.2
Partnership income not subject to U.S. tax	(0.8)	(5.0)	(6.3)
Corporate subsidiary tax	—	(0.3)	0.1
Permanent differences	0.3	0.4	0.3
Other	(0.2)	(0.2)	(0.2)
Total provision	24.8 %	19.4 %	18.1 %

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The variations between the Company's estimated effective tax rate and the U.S. and state statutory rates are primarily due to the portion of the Company's earnings attributable to non-controlling interests partially offset by certain permanent book-tax differences.

The tax effects of temporary differences that give rise to the deferred tax assets and liabilities were as follows:

	February 2, 2025	January 28, 2024
Deferred Tax Assets:		
Basis difference in partnership investments of Core & Main, Inc.	$ 503	$ 489
Imputed interest on Tax Receivable Agreements	49	48
Intangibles	4	5
Other	2	—
Deferred Tax Liabilities:		
Basis difference in partnership investments of Core & Main Buyer, Inc.	(87)	(48)

The Company's operations have resulted in income, and as such, the Company maintains no valuation allowance against its deferred tax assets.

Core & Main, Inc. Partnership Investment

As part of the reorganization transactions performed at the time of the initial public offering, the Company assumed a deferred tax liability associated with the difference between its financial reporting investment and tax basis in Holdings. The assumed deferred tax liability was adjusted to reflect the initial public offering and subsequent book-tax differences. Subsequent exchanges of Partnership Interests by certain stockholders affiliated with CD&R and Management Feeder that continued to own Partnership Interests beyond the time of the initial public offering created additional tax basis that may reduce taxable income in the future. This resulted in the recognition of deferred tax assets that have been partially offset by incremental recognition of the deferred tax liability assumed at the initial public offering. As of February 2, 2025 and January 28, 2024, the Company had a $503 million and $489 million, respectively, in deferred tax asset associated with the difference between Core & Main's financial reporting basis and the tax basis of Core & Main's investment in Holdings.

Buyer Deferred Tax Liability

The Company completed the acquisitions of all the outstanding shares of certain acquired companies through Core & Main Buyer, Inc. ("Buyer"), a wholly-owned subsidiary of the Company. Buyer subsequently contributed these acquired companies to Core & Main LP. As part of the opening balance sheets, Buyer recorded deferred tax liabilities of $41 million during fiscal 2024 related to the difference between Buyer's financial reporting basis and tax basis of Buyer's investment in Core & Main LP. The taxable income that is allocated to Buyer, for its contribution of these acquired companies to Core & Main LP, is subject to corporate federal and state income tax in substantially all fifty states. As of February 2, 2025 and January 28, 2024, this deferred tax liability was $87 million and $48 million, respectively.

Tax Receivable Agreements and Reorganization Transactions

The Company is party to the Former Limited Partners Tax Receivable Agreement and the Continuing Limited Partners Tax Receivable Agreement. The Company has generated tax attributes, and expects to generate additional tax attributes with future exchanges of Partnership Interests, that will reduce amounts that it would otherwise pay in the future to various tax authorities. The Tax Receivable Agreements provide payments to the parties subject to the Tax Receivable Agreements, or their permitted transferees, of 85% of the tax benefits realized by the Company, or in some circumstances are deemed to be realized.

The Company recorded payables to related parties pursuant to the Tax Receivable Agreements of $725 million and $717 million as of February 2, 2025 and January 28, 2024, respectively. Payments under the Tax Receivable Agreements within the next 12 months are expected to be $19 million, which is included within other current liabilities in the Balance Sheet.

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The actual amount and timing of any potential additional payments under the Tax Receivable Agreements will vary depending upon a number of factors, including the timing of exchanges by the holders of Partnership Interests, the amount of gain recognized by such holders of Partnership Interests, the amount and timing of the taxable income the Company generates in the future and the federal tax rates then applicable. Assuming (i) that Management Feeder exchanged all of their remaining Partnership Interests at $56.44 per share of our Class A common stock (the closing stock price on January 31, 2025), (ii) no material changes in relevant tax law, (iii) a constant corporate tax rate of 25.1%, which represents a pro forma tax rate that includes a provision for U.S. federal income taxes and assumes the highest statutory rate apportioned to each state and local jurisdiction and (iv) that the Company earns sufficient taxable income in each year to realize on a current basis all tax benefits that are subject to the Continuing Limited Partners Tax Receivable Agreement, the Company would recognize a deferred tax asset (subject to offset with existing deferred tax liabilities) of approximately $131 million and a liability of approximately $111 million, payable over the life of the Continuing Limited Partners Tax Receivable Agreement. The full exchange will also decrease Core & Main's aforementioned deferred tax asset associated with its investment in Holdings by $5 million, as Core & Main recognizes the deferred tax consequences associated with the non-controlling Partnership Interests being exchanged. These amounts are estimates only and are subject to change.

Uncertain tax positions

Total gross unrecognized tax benefits as of February 2, 2025 and January 28, 2024, as well as activity within each of the years, were not material.

8) LEASES

The Company occupies certain facilities and operates certain equipment and vehicles under operating leases that expire at various dates through the year 2038.

The table below presents lease costs associated with facility, equipment and vehicle operating leases:

		Fiscal Years Ended		
Lease Cost	**Classification**	**February 2, 2025**	**January 28, 2024**	**January 29, 2023**
Operating Lease Cost	Selling, general, and administrative expense	$ 98	$ 80	$ 69

Future aggregate rental payments under non-cancelable operating leases as of February 2, 2025 are as follows:

	February 2, 2025
Fiscal 2025	$ 78
Fiscal 2026	66
Fiscal 2027	52
Fiscal 2028	34
Fiscal 2029	19
Thereafter	26
Total minimum lease payments	275
Less: present value discount	(30)
Present value of lease liabilities	$ 245

To calculate the present value of the operating lease liabilities, the Company determined its incremental borrowing rate by considering market and company specific factors, including interest rates for borrowings secured by collateral and adjusted for the remaining term of the leased facility, machinery, or vehicle categories. The table below presents the weighted average remaining lease term (years) and the weighted average discount rate of the Company's operating leases:

Operating Lease Term and Discount Rate	**February 2, 2025**	**January 28, 2024**
Weighted average remaining lease term (years)	3.9	4.0
Weighted average discount rate	5.8 %	5.3 %

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The table below presents cash and non-cash impacts associated with leases:

	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Operating cash flow payments for operating lease liabilities	$ 64	$ 54	$ 50
Operating cash flow payments for non-lease components	34	26	19
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 93	$ 65	$ 68

The non-cash impact related to ROU assets obtained in exchange for new operating lease liabilities in the table above excludes the impact from acquisitions ROU assets acquired as part of the acquisitions are presented in Note 4.

9) COMMITMENTS AND CONTINGENCIES

Purchase Obligations

As of February 2, 2025, the Company had agreements in place with various suppliers to purchase goods and services, primarily inventory, in the aggregate amount of $1,225 million. These purchase obligations are generally cancellable, but the Company does not currently intend to cancel. Payment is dependent on lead times from our suppliers, and could be extended due to supply chain disruptions. Payments are generally expected to be made during fiscal 2025 for these obligations.

Encumbered Assets

As of February 2, 2025, substantially all of the Company's assets were pledged as collateral for the Company's credit facilities.

Legal Matters

The Company is involved in various legal proceedings arising in the normal course of its business. The Company establishes reserves for litigation and similar matters when those matters present loss contingencies that it determines to be both probable and reasonably estimable. As of February 2, 2025 and January 28, 2024, these established reserves for litigation were not material. In the opinion of management, based on current knowledge, all probable and reasonably estimable matters are believed to be adequately reserved for or covered by insurance and are not expected to have a material adverse effect on the Company's financial condition, results of operations or cash flows. For all other matters, management believes the possibility of losses from such matters is not probable, the potential loss from such matters is not reasonably estimable, or such matters are of such kind or involve such amounts that would not have a material adverse effect on the financial position, results of operations or cash flows of the Company if resolved unfavorably.

Self-Insurance

The Company has high deductible insurance programs for most losses related to general liability, product liability, automobile liability and workers' compensation, and is self-insured for medical claims, while maintaining per employee stop loss coverage, and certain legal claims. The expected ultimate cost for claims incurred as of the balance sheet date is not discounted and is recognized as a liability in the accompanying Balance Sheets. The Company's self-insurance losses for claims filed and claims incurred but not reported are accrued based upon estimates of the aggregate liability for uninsured claims using loss development factors and actuarial assumptions followed in the insurance industry and historical loss development experience. At February 2, 2025 and January 28, 2024, the Company's self-insurance liabilities totaled $29 million and $28 million, respectively.

Continuing Limited Partners Tax Receivable Agreement

Core & Main is party to the Continuing Limited Partners Tax Receivable Agreement, which will result in the recognition of deferred tax benefits and liabilities upon the exchange of Partnership Interests, together with the retirement of a corresponding number of shares of the Company's Class B common stock, by Management Feeder for shares of Class A common stock of Core & Main or cash pursuant to the Exchange Agreement. See further discussion in Note 2 and Note 7.

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10) SUPPLEMENTAL FINANCIAL STATEMENT INFORMATION

Receivables

Receivables consisted of the following:

	February 2, 2025	January 28, 2024
Trade receivables, net of allowance for credit losses	$ 986	$ 888
Supplier rebate receivables	80	85
Receivables, net of allowance for credit losses	$ 1,066	$ 973

Property, Plant and Equipment

Property, plant and equipment consisted of the following:

	February 2, 2025	January 28, 2024
Land	$ 38	$ 38
Buildings and improvements	85	80
Transportation equipment	55	41
Furniture, fixtures and equipment	122	98
Capitalized software	26	23
Construction in progress	10	5
Property, plant and equipment	336	285
Less accumulated depreciation and amortization	(168)	(134)
Property, plant and equipment, net	$ 168	$ 151

Depreciation expense is classified within cost of sales and depreciation and amortization within the Statement of Operations. Depreciation expense related to property, plant and equipment, including capitalized software, was as follows:

	Fiscal Years Ended		
	February 2, 2025	January 28, 2024	January 29, 2023
Depreciation expense	$ 35	$ 27	$ 23

Accrued Compensation and Benefits

Accrued compensation and benefits consisted of the following:

	February 2, 2025	January 28, 2024
Accrued bonuses and commissions	$ 91	$ 82
Other compensation and benefits	32	24
Accrued compensation and benefits	$ 123	$ 106

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11) NON-CONTROLLING INTERESTS

Core & Main is the general partner of Holdings and operates and controls all of the business and affairs of Holdings and, through Holdings and its subsidiaries, conducts the Company's business. Core & Main consolidates the consolidated financial statements of Holdings and attributes a portion of net income and equity of Holdings to non-controlling interests related to the vested Partnership Interests not held by the Company. Income or loss is attributed to the non-controlling interests based on the weighted average percentage of Partnership Interests held by Management Feeder, excluding unvested Partnership Interests held, relative to all Partnership Interests of Holdings during the period. Holdings equity is attributed to non-controlling interests based on the Partnership Interests not held by the Company, excluding unvested Partnership Interests, relative to all Partnership Interests as of the balance sheet date multiplied by the equity of Holdings prior to distributions, less distributions made to non-controlling interest holders. The non-controlling interests' ownership percentage may fluctuate over time as Partnership Interests are exchanged, together with the retirement of a corresponding number of shares of Class B common stock, for shares of Class A common stock and Partnership Interests held by Management Feeder vest. The following table summarizes the ownership of Partnership Interests of Holdings (excluding unvested Partnership Interests held by Management Feeder):

	Partnership Interests			Ownership Percentage		
	Core & Main	Continuing Limited Partners	Total	Core & Main	Continuing Limited Partners	Total
Balances at January 29, 2023	172,765,161	72,471,473	245,236,634	70.4 %	29.6 %	100.0 %
Retirement of Partnership Interests	(28,131,551)	(16,868,449)	(45,000,000)	1.8 %	(1.8)%	—
Issuance of Partnership Interests	346,977	—	346,977	0.1 %	(0.1)%	—
Exchange of Partnership Interests	46,683,021	(46,731,040)	(48,019)	23.2 %	(23.2)%	—
Vesting of Partnership Interests	—	371,292	371,292	(0.1)%	0.1 %	—
Balances at January 28, 2024	191,663,608	9,243,276	200,906,884	95.4 %	4.6 %	100.0 %
Retirement of Partnership Interests	(3,974,820)	—	(3,974,820)	(0.1)%	0.1 %	—
Issuance of Partnership Interests	443,089	—	443,089	— %	— %	—
Exchange of Partnership Interests	1,684,022	(1,694,125)	(10,103)	0.9 %	(0.9)%	—
Vesting of Partnership Interests	—	164,614	164,614	(0.1)%	0.1 %	—
Balances at February 2, 2025	189,815,899	7,713,765	197,529,664	96.1 %	3.9 %	100.0 %

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12) BASIC AND DILUTED EARNINGS PER SHARE

The following table presents the calculation of basic and diluted earnings per share for fiscal 2024, fiscal 2023 and fiscal 2022.

Basic earnings per share is computed by dividing net income attributable to Core & Main by the weighted average number of shares of Class A common stock outstanding during the same period. Shares of Class A common stock issued during the period were weighted for the portion of the period in which the shares of Class A common stock were outstanding. The Company did not apply the two-class method because shares of Class B common stock do not participate in earnings of Core & Main. As a result, the shares of Class B common stock are not considered participating securities and are not included in the weighted average shares outstanding for purposes of basic earnings per share. Net income allocated to holders of non-controlling interests was excluded from net income available to the Class A common stock. There were no preferred dividends and no shares of preferred stock outstanding for the period.

The diluted net earnings per share calculation includes the basic weighted average number of shares of Class A common stock outstanding plus the dilutive impact of potential outstanding shares of Class A common stock that would be issued upon exchange of Partnership Interests, together with the retirement of a corresponding number of shares of Class B common stock, under the if-converted method, if dilutive. The treasury stock method is applied to outstanding awards, including unvested Partnership Interests and outstanding stock appreciation rights, restricted stock units and stock options.

	Fiscal Years Ended		
Basic earnings per share:	**February 2, 2025**	**January 28, 2024**	**January 29, 2023**
Net income	$ 434	$ 531	$ 581
Net income attributable to non-controlling interests	23	160	215
Net income available to Class A common stock	411	371	366
Weighted average shares outstanding	191,617,275	172,839,836	169,482,199
Net income per share	$ 2.14	$ 2.15	$ 2.16
Diluted earnings per share:			
Net income available to common shareholders - basic	$ 411	$ 371	$ 366
Increase to net income attributable to dilutive instruments	18	118	159
Net income available to common shareholders - diluted	429	489	525
Weighted average shares outstanding - basic	191,617,275	172,839,836	169,482,199
Incremental shares of common stock attributable to dilutive instruments	9,825,475	54,978,241	76,734,805
Weighted average shares outstanding - diluted	201,442,750	227,818,077	246,217,004
Net income per share - diluted	$ 2.13	$ 2.15	$ 2.13

13) EQUITY-BASED COMPENSATION

Equity-Based Compensation Plan

Prior to the initial public offering, the board of Holdings approved the Core & Main Holdings, LP Equity Incentive Plan. Employees and independent directors of the Company previously received profits units and unit appreciation rights in Holdings indirectly through Management Feeder. These awards were issued from Management Feeder, which in turn received grants from Holdings in the amounts and terms that were identical to those that were issued to employees and independent directors.

Treatment of Core & Main Holdings, LP Equity Incentive Plan

In connection with the reorganization transactions performed as part of the initial public offering, Holdings was recapitalized and its common units and profits units were converted to a single class of Partnership Interests. Partnership Interests in the recapitalized Holdings, which correspond to prior profits units of Holdings, which were held by Management Feeder (which relate to profits units in Management Feeder held by the Company's employees and directors), remain subject to the same time-based vesting requirements that existed prior to the reorganization transactions. As part of the recapitalization of Holdings, the quantity of Partnership Interests issued in the recapitalization contemplated the settlement of the historical benchmark prices and the public offering price of Class A common stock in the initial public offering.

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In addition, in connection with the reorganization transactions, unit appreciation rights of Holdings were converted to stock appreciation rights denominated in shares of Class A common stock with adjustments to the number of awards and benchmark prices.

Partnership Interests

A summary of the Partnership Interests is presented below (shares in thousands):

	Number of Shares	Weighted Average Benchmark Price
Outstanding as of January 28, 2024	8,669	$ —
Exchanged	(1,546)	—
Outstanding as of February 2, 2025	7,123	$ —

	Number of Shares	Weighted Average Benchmark Price
Unvested as of January 28, 2024	387	$ —
Vested	(165)	—
Unvested as of February 2, 2025	222	$ —

The estimated fair value of the profits units when granted was amortized to expense over the vesting period. The fair value for these profits units was estimated by management, after considering a third-party valuation specialist's assessment, at the date of grant based on the expected life of the profits units, using a Black-Scholes pricing model.

Stock Appreciation Rights

A summary of the stock appreciation rights is presented below (shares in thousands):

	Number of Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value
Outstanding as of January 28, 2024	332	$ 5.28	
Exchanged	(160)	4.46	
Outstanding as of February 2, 2025	172	$ 6.03	$ 9
Exercisable as of February 2, 2025	109	$ 4.59	$ 6

The estimated fair value of the stock appreciation rights when granted was amortized to expense over the vesting or required service period. The fair value for these stock appreciation rights was estimated by management, after considering a third-party valuation specialist's assessment, at the date of grant based on the expected life of the unit appreciation rights, using a Black-Scholes pricing model.

Omnibus Incentive Plan

In July 2021, in connection with the initial public offering, Core & Main's sole stockholder approved and Core & Main's board of directors adopted the 2021 Omnibus Equity Incentive Plan (the "Omnibus Incentive Plan"). Under the Omnibus Incentive Plan, 12.6 million shares of Class A common stock, plus 634 thousand shares of Class A common stock in respect of stock appreciation rights that were converted from unit appreciation rights of Holdings outstanding prior to the initial public offering, are reserved for the awards granted and available for future issuances.

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Restricted Stock Units

A summary of the restricted stock units granted under the Omnibus Incentive Plan is presented below (shares in thousands):

	Number of Shares	Weighted Average Grant Date Fair Value
Outstanding and Unvested as of January 28, 2024	359	$ 23.10
Granted	123	50.28
Distributed	(162)	23.83
Forfeited	(3)	32.92
Outstanding and Unvested as of February 2, 2025	317	$ 33.23

The restricted stock units generally vest over a three-year period. The estimated fair value of the restricted stock units when granted was amortized over the vesting period. The grant date fair value of RSUs was determined based on the price of the Company's Class A common stock on the grant date.

Stock Options

A summary of the stock options granted under the Omnibus Incentive Plan is presented below (shares in thousands):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding as of January 28, 2024	1,720	$ 21.54		
Granted	512	50.32		
Exercised	(135)	21.36		
Forfeitures	(4)	36.11		
Outstanding as of February 2, 2025	2,093	$ 28.56	8.0	$ 58
Exercisable as of February 2, 2025	698	$ 21.32	7.5	$ 25

The stock options generally vest over a three-year period and expire after ten years. The estimated grant-date fair value of stock options when granted was amortized to expense over the vesting period. The fair value for these stock options was estimated by management, after considering a third-party valuation specialist's assessment, at the date of grant based on the expected life of the stock options, using a Black-Scholes pricing model with the following weighted-average assumptions:

	February 2, 2025	January 28, 2024	January 29, 2023
Risk-free interest rate	4.04%	3.87%	1.85%
Dividend yield	1.0%	2.0%	—%
Expected volatility factor	36.5%	40.0%	40.0%
Expected life in years	6.0	6.0	6.0
Weighted-average fair value	$ 19.15	$ 8.06	$ 8.55

The risk free interest rate was determined based on an analysis of U.S. Treasury zero-coupon market yields as of the date of the stock options grant for issues having expiration lives similar to the expected life of the stock options. The expected volatility was based on an analysis of the historical volatility of a peer group over the expected life of the stock options. The expected term in years for each stock option was calculated using a simplified method based on the average of each option's vesting term of three years and contractual term of ten years.

Employee Stock Purchase Plan

In July 2021, Core & Main's sole stockholder approved and Core & Main's board of directors adopted the Employee Stock Purchase Plan (the "ESPP"). Under the ESPP, 2.5 million shares of Class A common stock are reserved and available for future purchase. For fiscal 2024, 92 thousand shares of Class A common shares were purchased under the ESPP at a weighted-average price of $47.41 per share, resulting in cash proceeds of approximately $4 million. For fiscal 2023, 108 thousand shares of Class A common shares were purchased under the ESPP at a weighted-average price of $33.28 per share, resulting in cash proceeds of approximately $3 million.

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Compensation Expense

The Company evaluated the conversions of the profits units and unit appreciation rights as part of the reorganization transactions and concluded that each represented an accounting modification of the original awards. As such, the Company is required to recognize the incremental fair value immediately after each modification compared with immediately before as additional compensation expense. Incremental compensation expense for awards that were vested as of the reorganization transactions were recognized immediately and expense for unvested awards will be recognized over the remaining service period. The Company recognized compensation expense of $14 million, $10 million and $11 million during fiscal 2024, fiscal 2023 and fiscal 2022, respectively. As of February 2, 2025, the unrecognized share based compensation was $15 million which is expected to be recognized over a weighted average period of 0.9 years.

Employee Benefit Plans

The Company offers a comprehensive Health & Welfare Benefits Program (the "Program") which allows employees who satisfy certain eligibility requirements to choose among different levels and types of coverage. The Program provides employees healthcare coverage in which the employer and employee share costs. In addition, the Program offers employees the opportunity to participate in various voluntary coverages, including flexible spending accounts and health savings accounts. The Company maintains a 401(k) defined contribution plan that is qualified under Sections 401(a) and 501(a) of the Internal Revenue Code. Employees of the Company who satisfy the plan's eligibility requirements may elect to contribute a portion of their compensation to the plan on a pre-tax basis. The Company may match a percentage of the employees' contributions to the plan based on eligible compensation deferred. Matching contributions are generally made shortly after the end of each pay period. The Company recorded expenses of $14 million, $12 million and $11 million related to matching contributions during fiscal 2024, fiscal 2023 and fiscal 2022, respectively.

14) RELATED PARTIES

Tax Receivable Agreements

Core & Main is party to the Former Limited Partners Tax Receivable Agreement and the Continuing Limited Partners Tax Receivable Agreement, see further discussion in Note 2 and Note 7.

Exchange Agreement

Core & Main entered into the Exchange Agreement as further described in Note 2. Pursuant to the Exchange Agreement, certain stockholders affiliated with CD&R and Management Feeder that continued to own Partnership Interests beyond the time of the initial public offering (or their permitted transferees) will have the right, subject to the terms of the Exchange Agreement, to exchange their Partnership Interests, together with the retirement of a corresponding number of shares of Class B common stock, for shares of Class A common stock generally on a one-for-one basis or for cash in limited circumstances as specified in the Exchange Agreement. Holders of Partnership Interests will not have the right to exchange Partnership Interests if Core & Main determines that such exchange would be prohibited by law or regulation or would violate other agreements with Core & Main or its subsidiaries to which the holder of Partnership Interests may be subject. Core & Main may also refuse to honor any request to effect an exchange if it determines such exchange would pose a material risk that Holdings would be treated as a "publicly traded partnership" for U.S. federal income tax purposes. Notwithstanding the foregoing, Management Feeder is generally permitted to exchange Partnership Interests, subject to the terms of the Exchange Agreement.

The Exchange Agreement also provides that, in connection with any such exchange, to the extent that Holdings has, since the initial public offering, made distributions that are proportionately lesser or greater than the distributions made to Core & Main, on a pro rata basis, the number of shares of Class A common stock to be issued or cash to be paid to Management Feeder will be adjusted to take into account the amount of such discrepancy that is allocable to the Partnership Interests, and Class B common stock, subject to such exchange. As of February 2, 2025, the Company had a shareholder receivable of $15 million recorded within additional paid in capital related to distributions in excess of shareholders' pro rata share. Core & Main expects to cause Holdings to make distributions to its partners in such a manner as generally to limit increases to the number of shares of Class A common stock to be issued or cash to be paid to Management Feeder in connection with the adjustment described in the preceding sentence.

15) SUBSEQUENT EVENTS

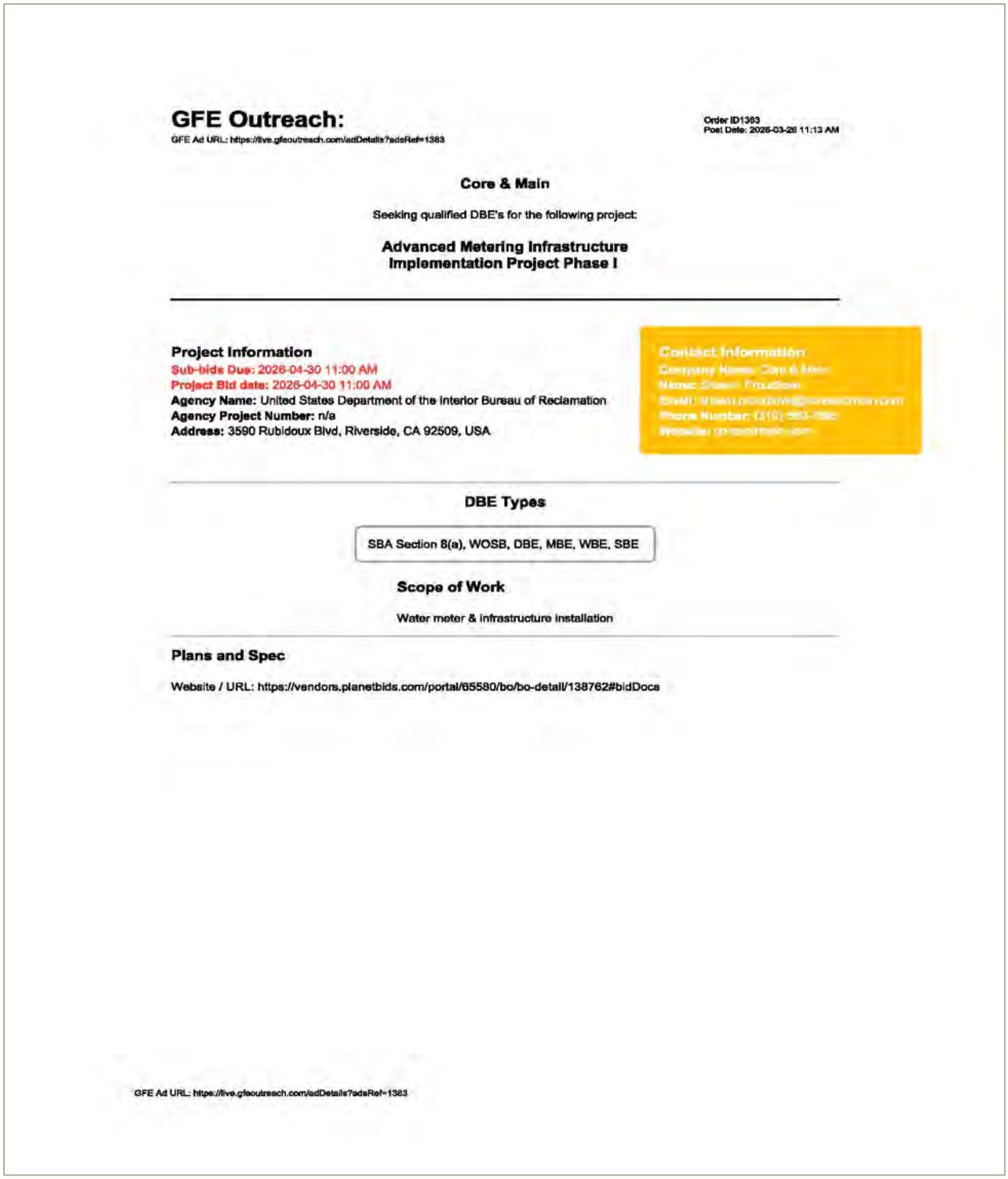
Management has evaluated events or transactions that may have occurred that would merit recognition or disclosure in the condensed consolidated financial statements. No subsequent events were identified.

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DBE GOOD FAITH EFFORTS VERIFICATION

Solicitation Lists/Publications

GFE Outreach Advertisement



GFE Outreach:

GFE Ad URL: https://live.gfeoutreach.com/adDetails?adsRef=1383

Order ID1383
Post Date: 2026-03-26 11:13 AM

Core & Main

Seeking qualified DBE's for the following project:

Advanced Metering Infrastructure Implementation Project Phase I

Project Information

Sub-bids Due: 2026-04-30 11:00 AM
Project Bid date: 2026-04-30 11:00 AM
Agency Name: United States Department of the Interior Bureau of Reclamation
Agency Project Number: n/a
Address: 3590 Rubidoux Blvd, Riverside, CA 92509, USA

Contact Information

DBE Types

SBA Section 8(a), WOSB, DBE, MBE, WBE, SBE

Scope of Work

Water meter & infrastructure installation

Plans and Spec

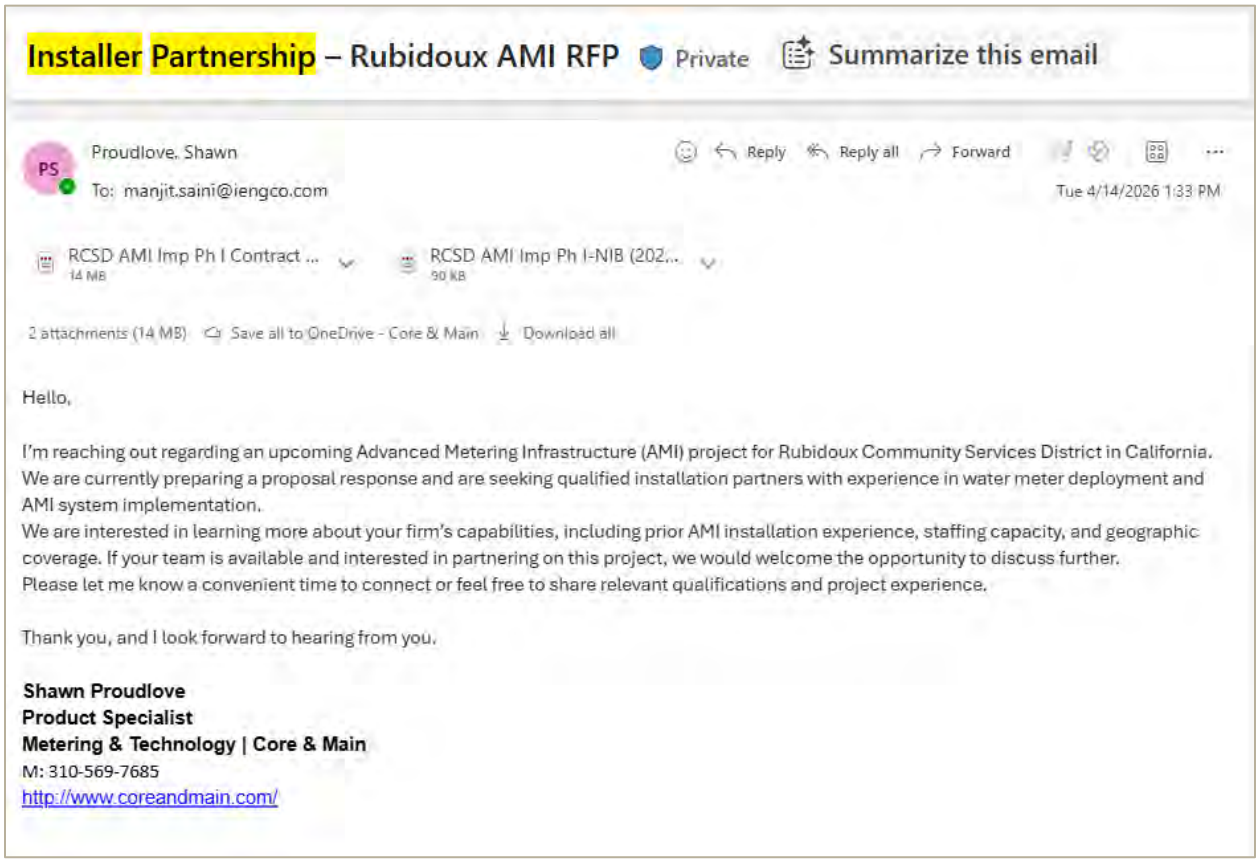
Website / URL: https://vendors.planetbids.com/portal/65580/bo/bo-detail/138762#bidDocs

GFE Ad URL: https://live.gfeoutreach.com/adDetails?adsRef=1383

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Mail Logs

Inder Design Build (ENGCO) – SBE



Installer Partnership – Rubidoux AMI RFP Private Summarize this email

PS Proudlove, Shawn

To: manjit.saini@iengco.com

Reply Reply all Forward

Tue 4/14/2026 1:33 PM

RCSD AMI Imp Ph I Contract ... 14 MB

RCSD AMI Imp Ph I-NIB (202... 90 KB

2 attachments (14 MB) Save all to OneDrive - Core & Main Download all

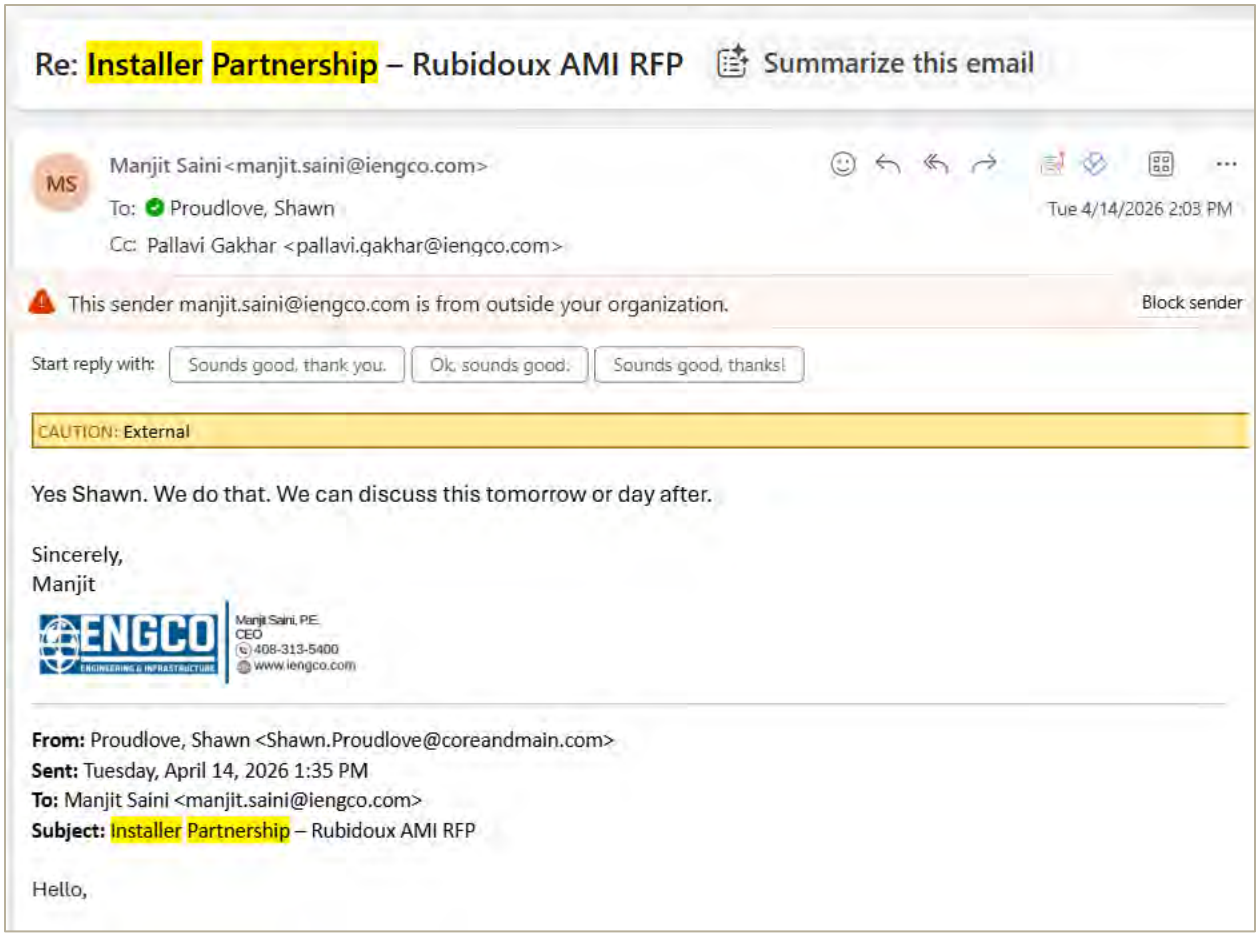
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We are interested in learning more about your firm's capabilities, including prior AMI installation experience, staffing capacity, and geographic coverage. If your team is available and interested in partnering on this project, we would welcome the opportunity to discuss further.
Please let me know a convenient time to connect or feel free to share relevant qualifications and project experience.

Thank you, and I look forward to hearing from you.

Shawn Proudlove
Product Specialist
Metering & Technology | Core & Main
M: 310-569-7685
http://www.coreandmain.com/

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Re: Installer Partnership – Rubidoux AMI RFP Summarize this email

MS

Manjit Saini <manjit.saini@iengco.com>

To: Proudlove, Shawn

Cc: Pallavi Gakhar <pallavi.gakhar@iengco.com>

Tue 4/14/2026 2:03 PM

This sender manjit.saini@iengco.com is from outside your organization. Block sender

Start reply with: Sounds good, thank you. | Ok, sounds good. | Sounds good, thanks!

CAUTION: External

Yes Shawn. We do that. We can discuss this tomorrow or day after.

Sincerely,
Manjit

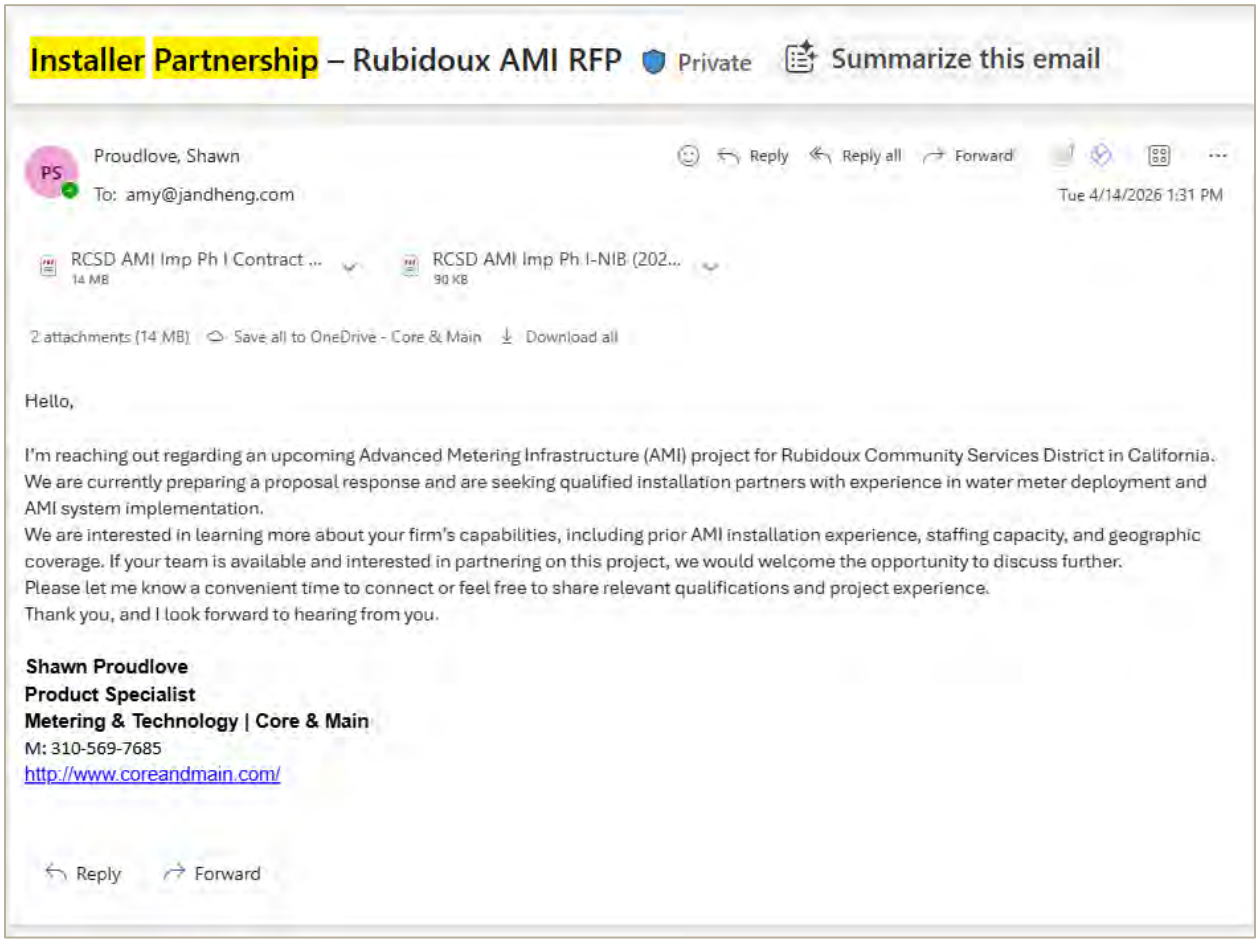
ENGCO ENGINEERING & INFRASTRUCTURE
Manjit Saini, P.E.
CEO
408-313-5400
www.iengco.com

From: Proudlove, Shawn <Shawn.Proudlove@coreandmain.com>
Sent: Tuesday, April 14, 2026 1:35 PM
To: Manjit Saini <manjit.saini@iengco.com>
Subject: Installer Partnership – Rubidoux AMI RFP

Hello,

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J&H Engineering



Installer Partnership – Rubidoux AMI RFP Private Summarize this email

PS Proudlove, Shawn
To: amy@jandheng.com

Reply Reply all Forward

Tue 4/14/2026 1:31 PM

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RCSD AMI Imp Ph I-NIB (202... 90 KB

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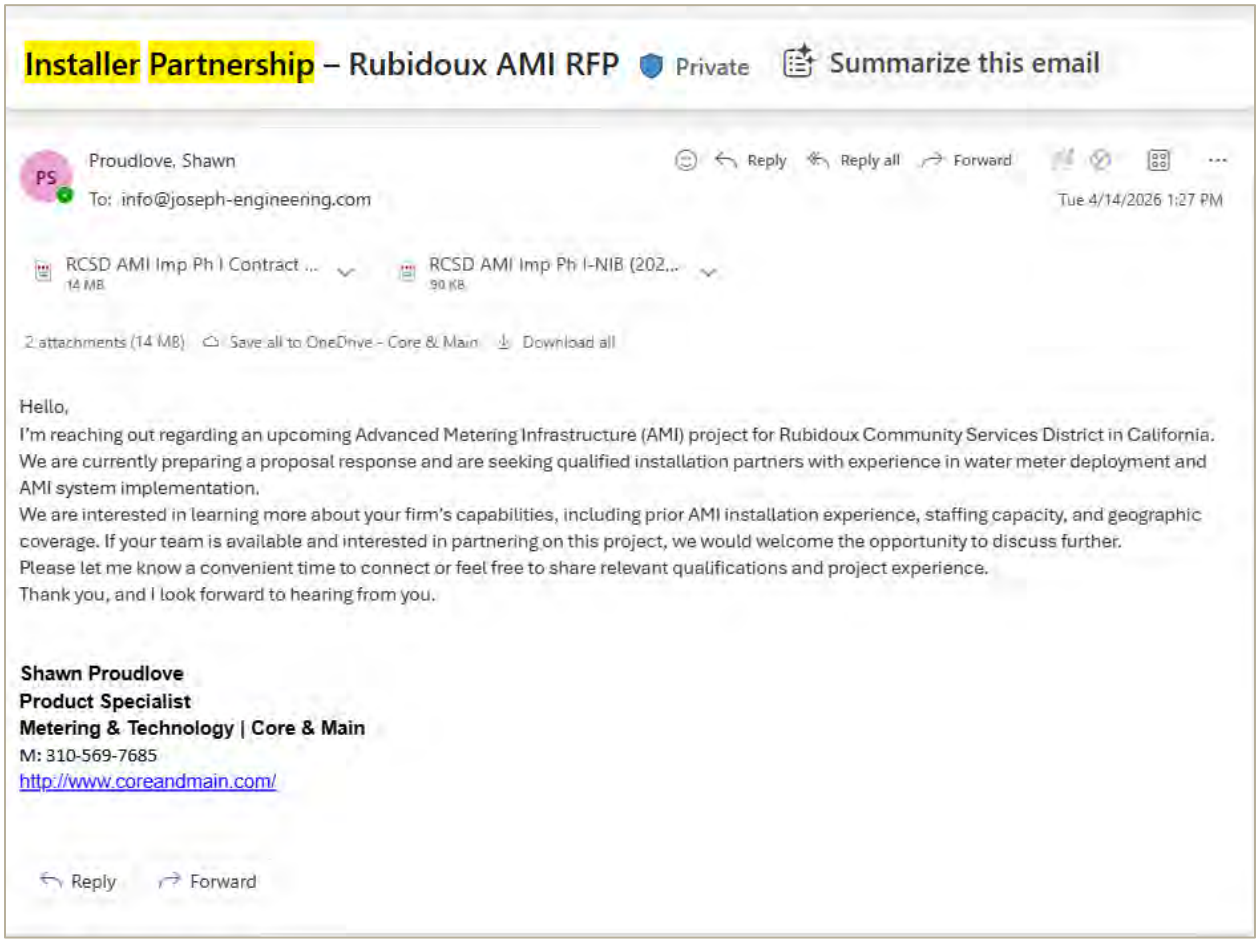
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Thank you, and I look forward to hearing from you.

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Product Specialist
Metering & Technology | Core & Main
M: 310-569-7685
http://www.coreandmain.com/

Reply Forward

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Joseph Engineering – SBE



Installer Partnership – Rubidoux AMI RFP Private Summarize this email

PS Proudlove, Shawn

To: info@joseph-engineering.com

Reply Reply all Forward

Tue 4/14/2026 1:27 PM

RCSD AMI Imp Ph I Contract ... 14 MB

RCSD AMI Imp Ph I-NIB (202... 90 KB

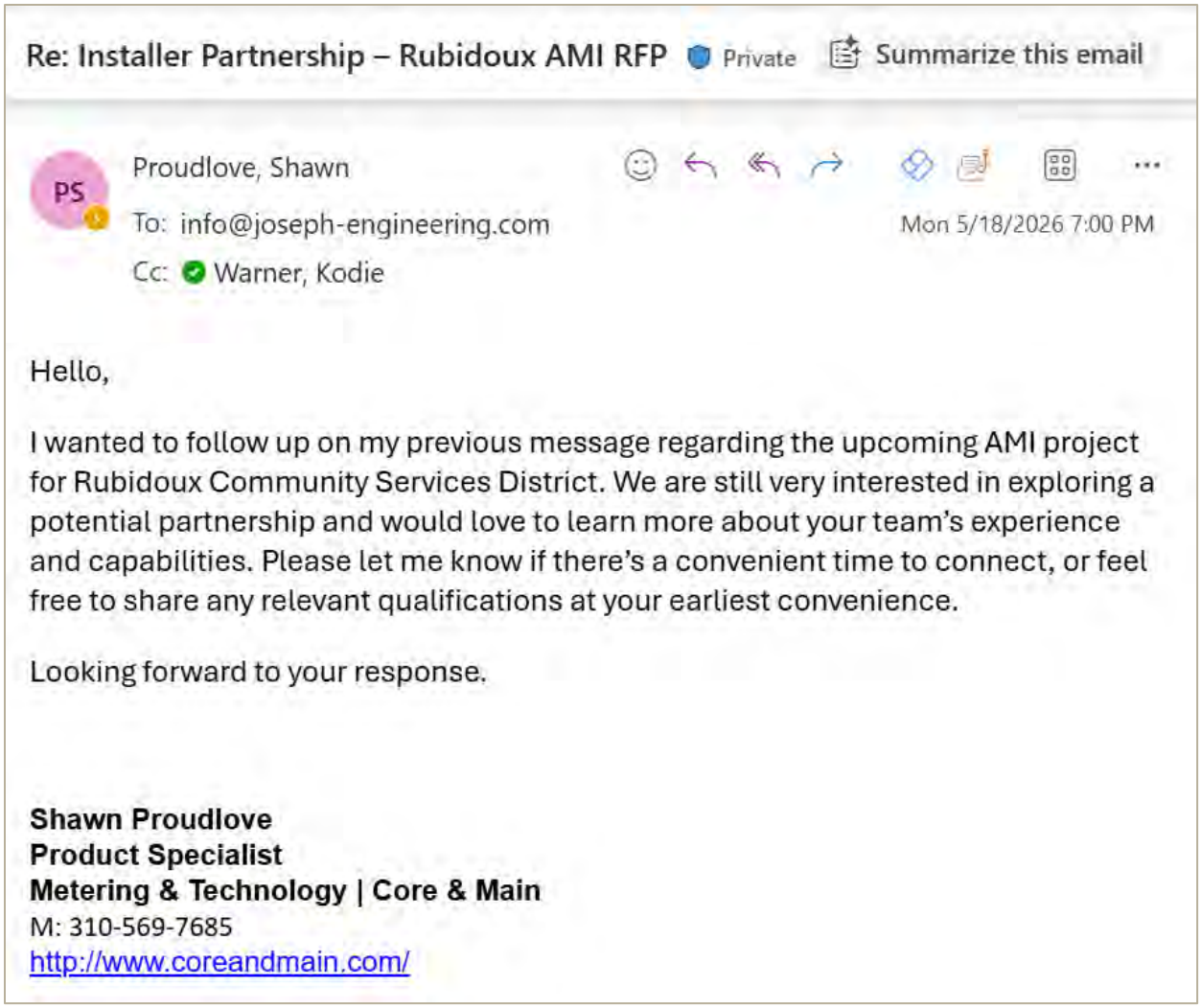
2 attachments (14 MB) Save all to OneDrive - Core & Main Download all

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Shawn Proudlove
Product Specialist
Metering & Technology | Core & Main
M: 310-569-7685
http://www.coreandmain.com/

Reply Forward

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Re: Installer Partnership – Rubidoux AMI RFP Private Summarize this email

PS

Proudlove, Shawn

To: info@joseph-engineering.com

Cc: Warner, Kodie

Mon 5/18/2026 7:00 PM

Hello,

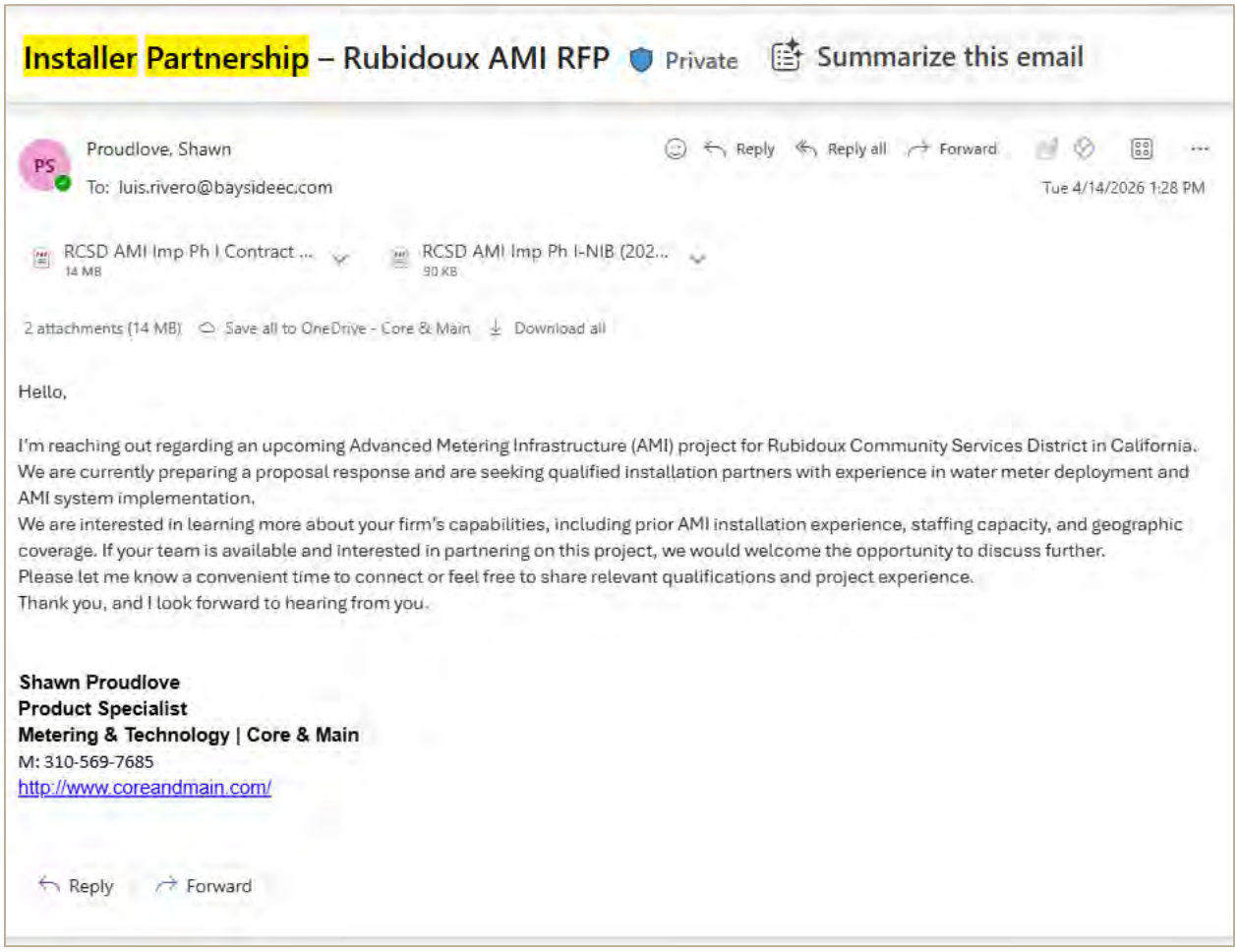
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http://www.coreandmain.com/

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Bayside Engineering Construction



Installer Partnership – Rubidoux AMI RFP Private Summarize this email

PS Proudlove, Shawn

To: luis.rivero@baysideec.com

Reply Reply all Forward

Tue 4/14/2026 1:28 PM

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RCSD AMI Imp Ph I-NIB (202... 90 KB

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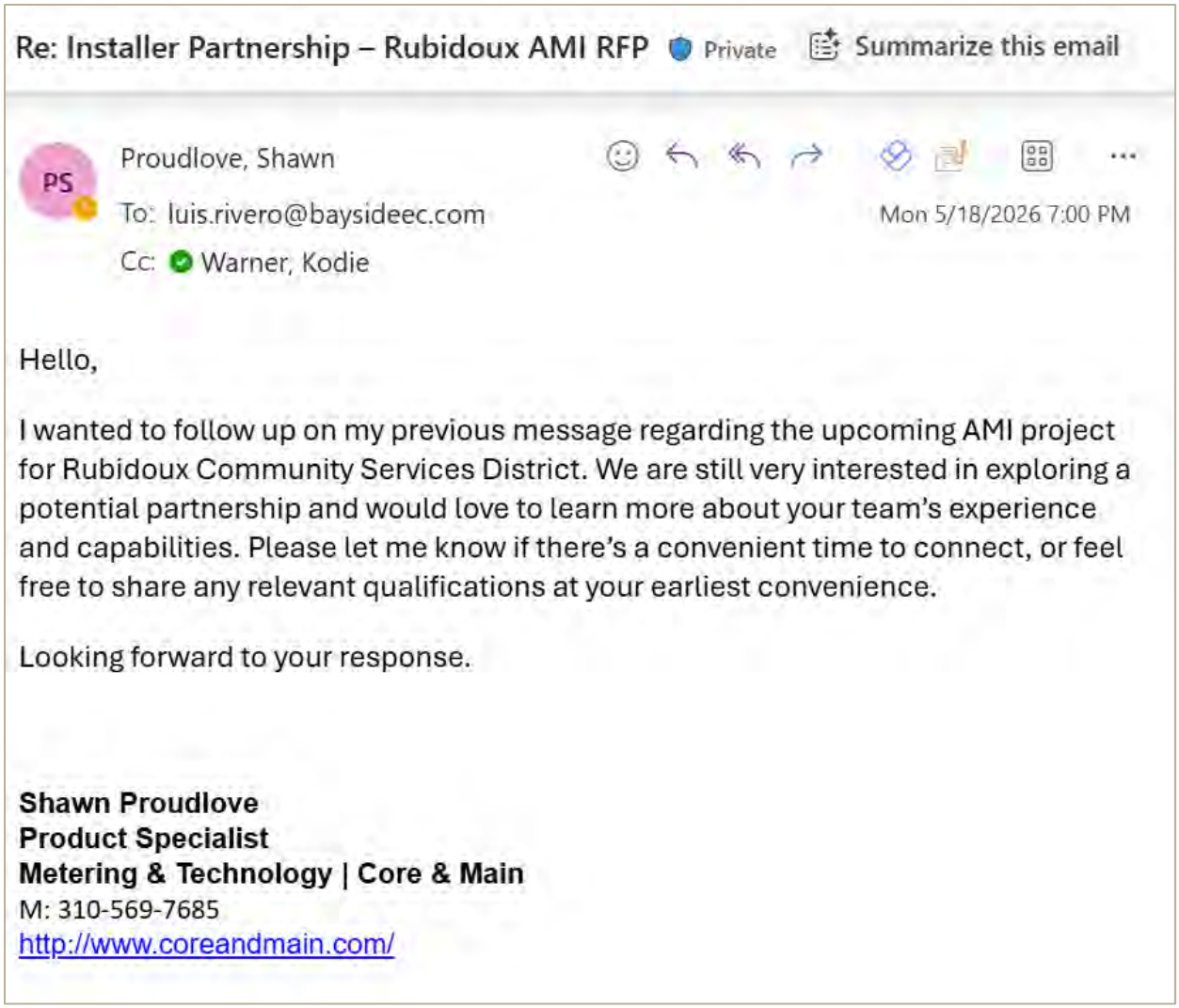
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Reply Forward

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Re: Installer Partnership – Rubidoux AMI RFP Private Summarize this email

PS

Proudlove, Shawn

To: luis.rivero@baysideec.com

Cc: Warner, Kodie

Mon 5/18/2026 7:00 PM

Hello,

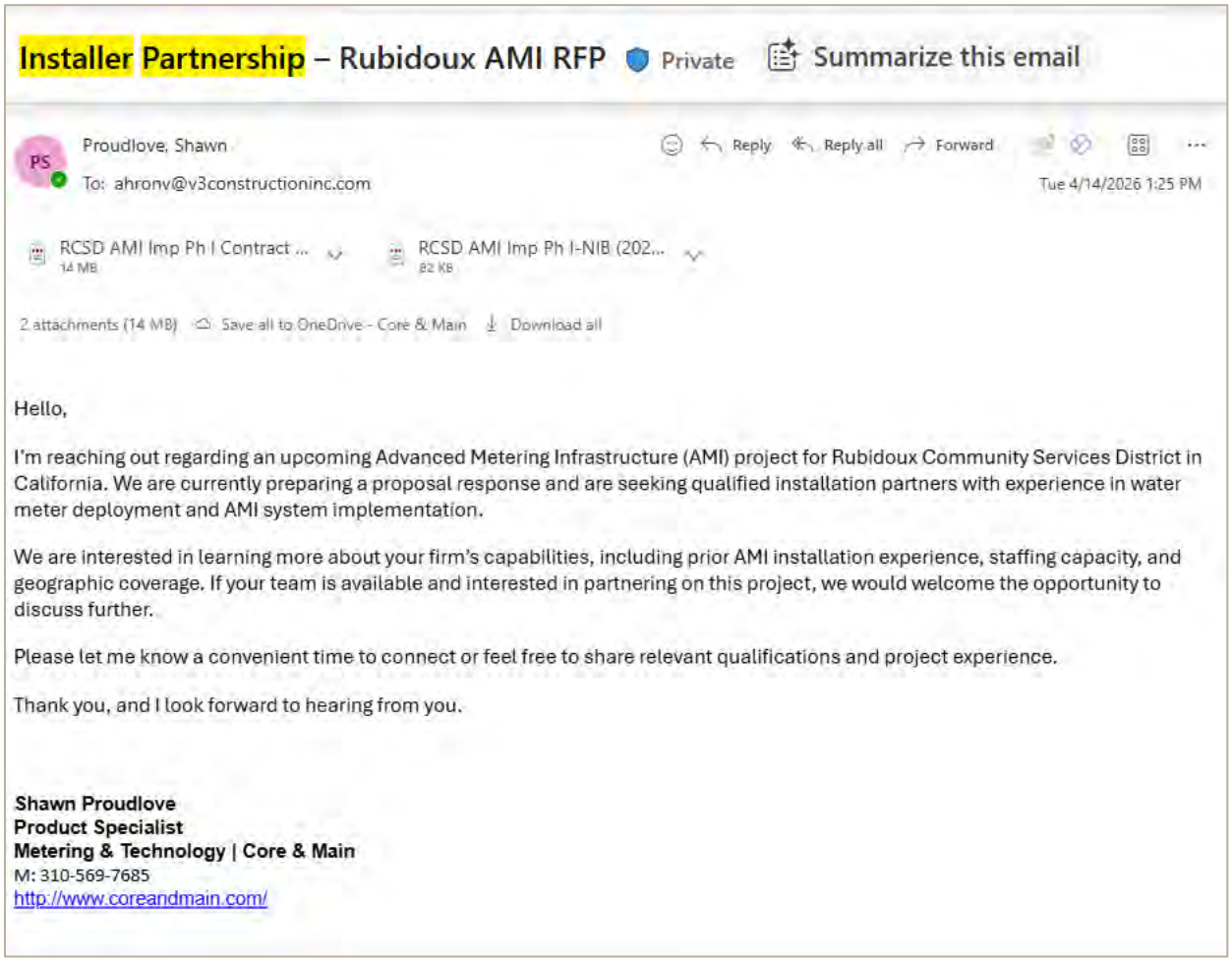
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http://www.coreandmain.com/

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V3 Construction Inc.



Installer Partnership – Rubidoux AMI RFP Private Summarize this email

Proudlove, Shawn
To: ahronv@v3constructioninc.com
Reply Reply all Forward
Tue 4/14/2026 1:25 PM

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RCSD AMI Imp Ph I-NIB (202... 82 KB

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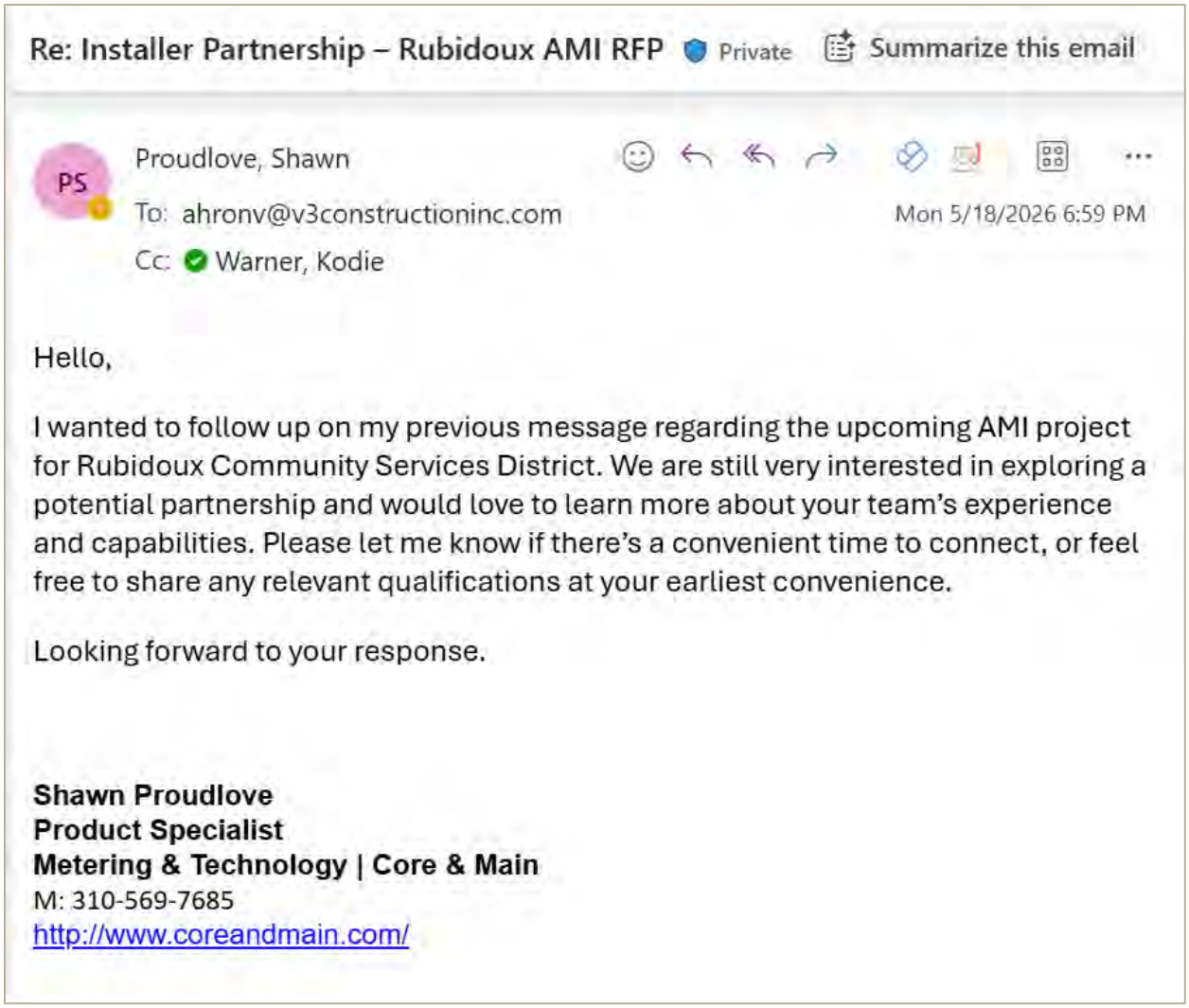
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M: 310-569-7685
http://www.coreandmain.com/

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Re: Installer Partnership – Rubidoux AMI RFP Private Summarize this email

PS

Proudlove, Shawn

To: ahronv@v3constructioninc.com

Cc: Warner, Kodie

Mon 5/18/2026 6:59 PM

Hello,

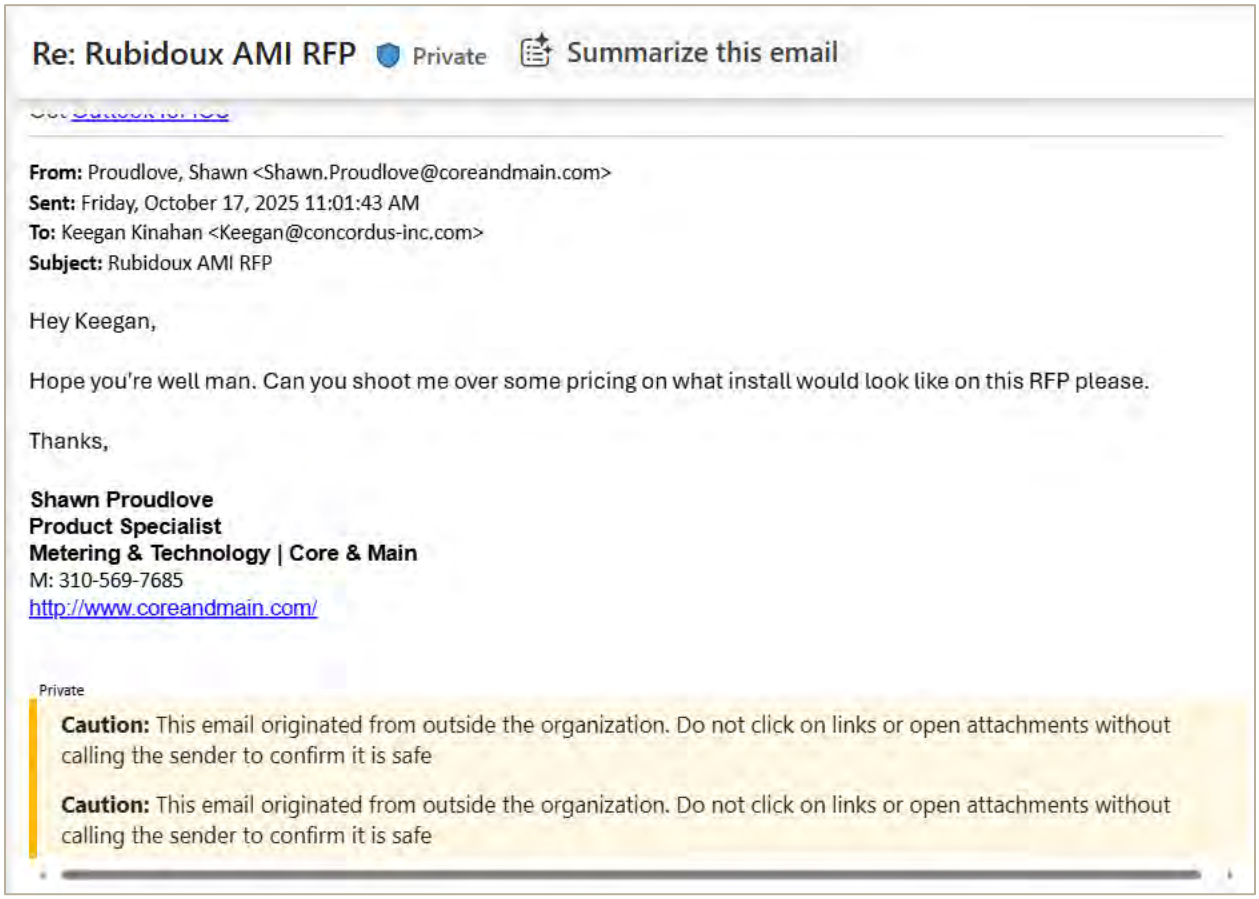
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Product Specialist
Metering & Technology | Core & Main
M: 310-569-7685
http://www.coreandmain.com/

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Concord – WBE



Re: Rubidoux AMI RFP Private Summarize this email

From: Proudlove, Shawn <Shawn.Proudlove@coreandmain.com>
Sent: Friday, October 17, 2025 11:01:43 AM
To: Keegan Kinahan <Keegan@concordus-inc.com>
Subject: Rubidoux AMI RFP

Hey Keegan,

Hope you're well man. Can you shoot me over some pricing on what install would look like on this RFP please.

Thanks,

Shawn Proudlove
Product Specialist
Metering & Technology | Core & Main
M: 310-569-7685
http://www.coreandmain.com/

Private

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FLEET CERTIFICATION DOCUMENTATION

CALIFORNIA AIR RESOURCES BOARD

CLEAN TRUCK CHECK

Vehicle Compliance Certification

Issue Date: 3/4/2026

Start Date: 4/30/2026

Expiration Date: 10/30/2026

Certification ID: VCC1003620147

Vehicle Information

Vehicle Identification Number (VIN): 3AKJHLDV6SSWB0046
Vehicle License Plate: 3648783
Vehicle Make: FREIGHTLINER
Vehicle Model Year: 2025
Vehicle Model: CASCADIA 126

Business Information

Company/Entity Name: Core & Main
Entity ID: E163251
Primary Address: 1830 Craig Park Ct, Saint Louis, MO 63146-4122, USA

CARB reserves the right to invalidate this certificate if the vehicle is found violating the Clean Truck Check requirements prior to the certificate expiration date.

Future certificates may be denied if the vehicle has any outstanding CARB Enforcement actions.

Non-compliant vehicles could also have their registration denied by the Department of Motor Vehicles.

This compliance certificate does not exempt the vehicle from emissions-related inspection or audit.

For more information on Clean Truck Check, visit https://ww2.arb.ca.gov/cleantruckcheck.

To verify this certification: https://cleantruckcheck.arb.ca.gov.

CARB's Clean Truck Check team can be reached at hdim@arb.ca.gov.

Page 1

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CALIFORNIA AIR RESOURCES BOARD

CLEAN TRUCK CHECK

Vehicle Compliance Certification

Issue Date: 12/10/2025

Start Date: 12/10/2025

Expiration Date: 5/31/2026

Certification ID: VCC1003620166

Vehicle Information

Vehicle Identification Number (VIN): 3ALACXFC7NDNA8986
Vehicle License Plate: 33402F3
Vehicle Make: FRTL
Vehicle Model Year: 2022
Vehicle Model: M2 106 MEDIUM DUTY

Business Information

Company/Entity Name: Core & Main
Entity ID: E163251
Primary Address: 1830 Craig Park Ct, Saint Louis, MO 63146-4122, USA

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Page 1

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CALIFORNIA AIR RESOURCES BOARD

CLEAN TRUCK CHECK

Vehicle Compliance Certification

Issue Date: 12/22/2025

Start Date: 12/22/2025

Expiration Date: 5/31/2026

Certification ID: VCC1003620151

Vehicle Information

Vehicle Identification Number (VIN): 3AKJHLDV8SSWB0047
Vehicle License Plate: 3648784
Vehicle Make: FREIGHTLINER
Vehicle Model Year: 2025
Vehicle Model: CASCADIA 126

Business Information

Company/Entity Name: Core & Main
Entity ID: E163251
Primary Address: 1830 Craig Park Ct, Saint Louis, MO 63146-4122, USA

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To verify this certification: https://cleantruckcheck.arb.ca.gov.

CARB's Clean Truck Check team can be reached at hdim@arb.ca.gov.

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BABA PRODUCT WAIVER

Approved: December 20, 2024
Expires: December 19, 2027

DEPARTMENT OF THE INTERIOR
Bureau of Reclamation
and
The U.S. Environmental Protection Agency

General Applicability Non-Availability Waiver
Build America, Buy America Product Waiver: AMI Water Meters

1. Summary

Agency: Department of the Interior (DOI/Department)'s Bureau of Reclamation (USBR) and the U.S. Environmental Protection Agency (EPA)

Final Waiver: The Department is joining the EPA to issue a partial general applicability/nonavailability waiver of the requirements of section 70914 of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58) for Advanced Metering Infrastructure (AMI) water meters used in infrastructure projects funded through USBR and the EPA, while requiring certain components of the water meters to be manufactured in the United States according to the phased implementation schedule below. This waiver is in effect for three (3) years from the date of approval. DOI and the EPA are implementing a phased approach during the waiver period, whereby, for two years from the date of approval, purchases of AMI meters and all components (the entire "manufactured product") are waived. Two (2) years from the date of approval, AMI meter housings shall be domestically manufactured or produced and excluded from the waiver scope; all other components continue to be waived through the end of the three-year period. This waiver only applies to products purchased after the effective date of this waiver and may not be used for products purchased after the expiration date of the waiver. At the conclusion of the full three-year waiver period, DOI and the EPA expect AMI water meters to be manufactured in the United States and their total cost of components to be greater than 55 percent domestically manufactured or produced.

Waiver type: Nonavailability of domestic products

Waiver level: General Applicability, Product level waiver

Waiver justification summary: There are no AMI water meters manufactured in the United States meeting BABA's 55 percent total cost of components domestic content requirement.

Length of the waiver: This waiver is in effect for three (3) years from the date of approval. DOI and the EPA are implementing a phased approach during the waiver period, whereby, for two years from the date of approval, purchases of AMI meters and all components (the entire "manufactured product") are waived. Two (2) years from the date of approval, AMI meter housings shall be domestically manufactured or produced components and will be excluded from the waiver scope. This waiver only applies to products purchased after the effective date of this waiver and may not be used for products purchased after the expiration date of the waiver.

Summary of items covered in the waiver:

- AMI water meters.

1

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NAICS: 334514
PSC: 6632

2. Background

The Buy America Preference set forth in section 70914 of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58), requires all iron, steel, manufactured products, and construction materials used for infrastructure projects under Federal financial assistance awards be produced in the United States.

Under section 70914(b), a Federal agency may waive the application of the Buy America Preference, in any case in which it finds that: applying the domestic content procurement preference would be inconsistent with the public interest; types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent. All waivers must have a written explanation for the proposed determination; provide a period of not less than 15 calendar days for public comment on the waiver; and submit the waiver to the Office of Management and Budget Made in America Office for review to determine if the waiver is consistent with policy.

3. Description of Covered Items

Manufactured products: AMI water meters collect water usage information. When used as a fixed network across a community, AMI water meters automatically collect and store consumption data, aiding in water conservation and water use efficiency, improved water management, and energy savings. Information provided helps identify high water usage that could indicate leaks, providing time sensitive leak detection alerts. AMI water meter networks reduce water demand by enhancing conservation, reduce energy use/operating costs, and reduce carbon emissions using remote/automated meter reads.

AMI water meters are composed of meter housings, end points/transmitters, printed circuit boards, meter electronics, batteries, base stations, repeaters and associated equipment. Based on market research completed within the last two years, some manufacturers source the materials for the meter housings domestically. A few manufacturers indicated that their meter housings are 100 percent manufactured or produced within the United States. However, the industry universally sources the end points/transmitters, printed circuit boards, meter electronics, and batteries internationally. As these components are the most expensive parts of the water meter, the meter system as a whole does not meet BABA's 55 percent of total cost of components domestic content requirement.

Based on the market research described below, there are currently no AMI water meters manufactured domestically that meet BABA requirements.

4. Waiver Justification

Based on cumulative and collaborative market research efforts, DOI and the EPA are issuing a three-year waiver split into two phases. In the first phase, a waiver shall be provided for two years from the date of approval to cover AMI meters and all their components. Two (2) years

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from the date of approval, AMI meter housings shall be a domestically manufactured or produced component, but other AMI water meter components will continue to be waived. At the conclusion of the three-year waiver period, DOI and the EPA anticipate that AMI water meters (i.e., bundled with their component parts) will be available as a manufactured product with 55 percent or more of the components domestically manufactured or produced.

This waiver's purpose is to incentivize production of BABA compliant AMI water meters. Based on stakeholder feedback, DOI and the EPA have identified that significant challenges prevent AMI water meters from being BABA compliant. However, with appropriate market signals, AMI water meters could be BABA compliant by the expiration of the waiver. DOI and the EPA are seeking this waiver specifically to send the appropriate market signals to the AMI water meter manufacturing community. DOI and the EPA's expectation is that AMI water meters be BABA compliant. This waiver identifies a realistic phased pathway for domestic manufacture of these products, first by targeting the domestic manufacture of meter housings, with the second phase for the remaining components of an AMI water meter that are not currently available to be manufactured or produced within the United States. As an incentive, while this waiver is active, manufacturers may still receive the benefit of Federal funding by providing products to be used under Federal awards, with the phased approach rewarding those manufacturers that take advantage of the waiver period to transition to domestic content.

Anticipated impact if no waiver were issued: DOI's USBR provides annual funding for the competitive Water and Energy Efficiency Grant (WEEG) program, which regularly funds AMI water meter projects. As no BABA compliant AMI water meter is available, there is no alternative but for these projects to be covered by a product or project waiver. In FY23 alone, USBR's WEEG program competitively selected water meter grants totaling $43 million Federal and $90 million non-Federal funding. This $134 million investment is expected to result in an annual water savings of over 20,000 acre-feet. Based on historical data, the EPA anticipates that at least 10 percent of all EPA funded water infrastructure projects will purchase and install AMI water meters. The majority of these will occur through the State Revolving Fund, the Water Infrastructure Finance and Innovation Act program, and other funding programs. As no BABA compliant AMI water meter is available, there is no alternative but for these projects to be covered by a product or project waiver.

In the absence of this waiver, DOI, the EPA, and the Federal grant-making community will miss an opportunity to clearly articulate expectations for creating a domestically manufactured or produced market to the AMI water meter manufacturing community. This could have the impact of slowing the long-term domestic sourcing transition, and curtailing Federal participation in AMI water meter projects, which would weaken support for communities throughout the West that are struggling to conserve their declining water supply.

Market Research to Justify Product Non-Availability Waiver: From 2022 through 2024, DOI, the EPA, and grant recipients conducted market research to assess the availability of domestically manufactured AMI water meters. As a result of this cumulative market research, there is no known manufacturer of AMI water meters, that meet BABA's domestic production requirements.

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All manufacturers responsive to market research inquiries stated that they are in the process of evaluating the idea of moving manufacturing to the U.S., but have no immediate plans or timeframes identified. As there are upwards of fifty (50) components to an AMI water meter system, evaluating the domestic sourcing of the manufactured product as a whole through the component cost break down is a significant effort. Should key high-cost components of an AMI water meter be manufactured within the U.S. in the future, this could lead to a domestically produced manufactured product meeting the 55 percent BABA requirement.

DOI and the EPA considered whether an AMI water meter waiver could target certain components, such as the internal electronics and end points, rather than the AMI water meter as a whole. Transmitters, printed circuit boards, meter electronics, batteries, and end points used within AMI water meters were identified as the components most difficult to source domestically. Market research feedback has indicated that one component of the AMI meter -- the meter housings -- are manufactured domestically by several manufacturers. However, BABA-compliant water meter housings are not available immediately in sufficient quantities to meet demand, nor are they universally compatible. This waiver, through the phased approach, reflects market research and public comments confirming that water meter housing components can be manufactured domestically within two years. DOI and the EPA also considered whether this waiver could be targeted to AMI water meters below a size threshold but found no evidence to support targeting specific size thresholds.

To gain additional industry feedback on materials used in water infrastructure products, such as AMI water meters, the EPA published a Request for Information (RFI) *Request for Information Regarding Products and Categories of Products Used in Water Infrastructure Programs* in the Federal Register on November 20, 2023, which closed on December 20, 2023, EPA-HQ-OW-2023-0396-0001). The RFI requested feedback detailing domestic materials sourcing, market readiness, other product supply considerations, and whether water infrastructure products are manufactured in the U.S. The EPA and DOI examined the 12 comments that provided feedback on the domestic availability of water meters.

In general, commentors to the RFI noted that manufacturers need time to assess, design, develop, and test new lines of domestically produced products consistent with BABA requirements. Component changes on manufactured goods require re-evaluation periods to reduce major issues in manufacturing. This includes establishing new domestic production facilities, new BABA compliant lines of domestic products, and staffing for the new facilities. Commenters also reported significant concerns with stocking burdens, customer communication issues, and production capacity issues. Commenters noted that there are significant issues related to the domestic sourcing of electronics. Commenters note that there is no support to offset the foreign procurement of the electronics. One commentor shared that they were unlikely to meet the BABA domestic component sourcing requirements within five years, as the effort requires a significant time and funding investment.

Given that it is not possible for all future funded AMI water meter projects to source the meter housings from the few domestic sources, (for the above described compatibility and market lead times concerns), DOI and the EPA are issuing a time-limited three-year phased waiver, in which all components of the water meter product are waived in phase one. This initial, two-year phase

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of the waiver covers all components of the AMI smart meter to provide an opportunity for manufacturers to assess the sourcing of their meter housings and transition to a domestic supply for that component. The second phase of this waiver, which begins two (2) years from the date of approval, extends waiver coverage to components of the AMI water meter except the meter housing, for the third of three years, whereby AMI water meter housings will be required to be domestically manufactured at that time.

DOI and the EPA consider this waiver to provide a significant market signal and time for manufacturers to analyze current issues and develop strategies to create domestically manufactured or produced products that are consistent with BABA requirements. This will also give time to assess, design, develop, and test new lines of the domestic products. Responses to the EPA's RFI were generally consistent with the feedback DOI had previously received.

DOI and the EPA consider this waiver's incentive-based approach to be appropriate and fair for both manufacturers that have manufactured or produced some of their AMI water meter components domestically and those that have not prioritized a domestic supply of components prior to the enactment of the Infrastructure Investment and Jobs Act, sometimes referred to the Bipartisan Infrastructure Law. Manufacturers not sourcing their components domestically will have sufficient and reasonable time to reassess, plan, and implement changes. Manufacturers currently sourcing some of their products domestically will have sufficient and reasonable time to source the high-cost components of AMI water meters domestically. While the industry as a whole manages this transition, DOI and the EPA may continue to fund projects to conserve and efficiently use water resources through the use of AMI water meters. An analysis will be required immediately prior to the conclusion of the waiver period to identify how the AMI water meter industry has shifted in response to changing market conditions.

Expectation for the agency, award recipients, and industry at the conclusion of the waiver:
DOI and the EPA expect to continue to engage in conversations with grant recipients and other Federal agencies to encourage the AMI water meter manufacturing industry to meet the 55 percent of total cost domestic content requirement for BABA compliance.

DOI and the EPA will review this waiver annually to assess whether it remains necessary. DOI and the EPA may, based on the results of that review, terminate, or narrow the scope or duration of this waiver, or take such other action deemed as appropriate.

5. Assessment of Cost Advantage of a Foreign-Sourced Product

Under OMB Memorandum M–24-02, Federal agencies are expected to assess "whether a significant portion of any cost advantage of a foreign-sourced product is the result of the use of dumped steel, iron, or manufactured products or the use of injuriously subsidized steel, iron, or manufactured products" as appropriate before granting a public interest waiver. DOI and the EPA's analysis has concluded that this assessment is not applicable to this waiver as this waiver is not based on the cost of foreign-sourced products.

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6. Summary of Public Comments

The waiver received sixteen (16) public comments over the thirty (30) day publication period from August 30, 2024 through September 28, 2024. Five (5) municipal water authorities, four (4) manufacturing entities, three (3) state revolving fund programs, two (2) water infrastructure associations, one (1) national manufacturing association, and one (1) consulting engineer submitted comments. None of the comments opposed the waiver, in general. Most comments included detailed information for consideration, all of which were substantive. While commenters expressed support for the waiver generally, many raised concerns with aspects of the waiver including the phasing and overall duration, component specificity, nomenclature, and scope.

Many commenters requested the waiver duration be extended beyond the three years proposed, noting that additional time appears necessary to scale up and build production for the potential demand cited in the proposal. DOI and the EPA considered the comments regarding waiver duration and determined that the points raised did not warrant extension beyond the proposed three-year duration. Market research for this waiver identified several domestic manufacturing entities that have made recent investments in domestic manufacturing, and comments to the waiver confirm that increasing domestic supply will be available nearing the end of the waiver period. Extension of the waiver beyond three years may disincentivize potential investment and expansion of the developing domestic sources. Before the conclusion of the waiver, DOI and the EPA will re-evaluate the conditions of supply chains for water meters. Should domestic availability continue to be a concern and the identified domestic manufacturing base is unable to ramp up production to meet expected demand, the expiring waiver will be re-considered.

Comments also asked for clarification on the timing of the waiver phases, noting that the language in the proposal caused some confusion about the sequence of the phases whereby some commenters interpreted the total waiver time period as five years, which was not the intent of the proposal. This final waiver includes adjusted language to clarify the phases of the waiver, as follows: The first phase, which is two (2) years in duration, covers AMI meters and all their components. Two (2) years from the date of approval, AMI meter housings shall be a domestically manufactured or produced component, but all other components continue to be waived for the final year of the waiver. The total duration of the waiver is three (3) years.

Several comments expressed concerns with terminology used in the waiver, including references to water meter "bodies" and "resins," in addition to requesting clarification regarding the components of a water meter manufactured product. The consensus of comments recommended changing "bodies" to "housings" to clarify and avoid confusion, a change which is reflected in the final waiver. Additionally, comments recommended striking "resins" from inclusion in the components list describing typical water meter products, noting that the resins are typically input materials that are used to produce components (such as meter housings), and therefore are not directly incorporated into the final manufactured product. The term "resins" has been removed from the final waiver. The final waiver does not, however, include any other changes in reference to the components of a water meter product. DOI and the EPA examined the comments and while the consensus of comments requests delineation of all known, specific components of a water meter product, or to refer to the products as "systems," the final waiver is unchanged from the proposal in this aspect. Several comments noted that the technologies can differ

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significantly across brands and models, and that products are evolving rapidly. In order to avoid confusion and mischaracterization of product types, the final waiver retains the example list of water meter product components (such as meter housings, end points/transmitters, printed circuit boards, meter electronics, batteries, base stations, repeaters, and associated equipment), noting that components can differ depending on the water meter system in use or the needs of specific projects. DOI and the EPA view this list of components as a reasonable instructive example of what comprises a water meter manufactured product.

The waiver requested comments regarding the substitutability and compatibility of meter housings and meters from different manufacturers. Six (6) commenters responded that AMI water meters from different manufacturers are not compatible without loss of "AMI" features. One (1) commenter shared that intermingling components would likely void product warranties. DOI and EPA, therefore, consider it important to provide sufficient time and appropriate phasing of this waiver to encourage a market-wide domestic sourcing transition.

The waiver requested comments regarding a potential domestic assembly requirement, to which two (2) commenters responded substantively. One (1) commenter requested expanding the timeframe of the waiver significantly in order to include a domestic assembly requirement after four (4) years. Another commenter responded noting that they could presently domestically assemble a portion of the projected national supply for AMI water meters and could expand that domestic assembly capability to a larger portion (though far less than half of the total) of the demand with further investment, but the timing for the expansion was not provided. While DOI and the EPA appreciate the manufacturing entities' encouraging efforts toward domestic assembly, and strongly recommend recipients to utilize domestically assembled water meters when available, comments did not indicate market readiness for domestic assembly across the industry. The comments did not address or remove concerns that including a domestic assembly requirement within the three-year waiver period would alleviate existing supply chain issues. In light of many comments received emphasizing compatibility issues for municipal projects, the evidence for domestic assembly sourcing to supply the wide range and full projected needs of recipient projects does not warrant inclusion of an assembly requirement during the waiver period.

The waiver applies coverage at the point of purchase. Several comments requested that the final waiver include a change or further clarification to the applicability point for the acquisition of water meters. DOI and the EPA consider the purchase date stipulation to be a clear signal point of waiver applicability for manufacturers and a workable definition for recipients and oversight authorities. Other commenter suggested reference points could create confusion between manufacturers and recipients, ultimately undermining the waiver intent and potentially inviting noncompliance through misapplication of the waiver. The EPA has demonstrated success from past national waivers with the use of purchase date as the waiver applicability point, providing clarity for manufacturers, financial assistance recipients (including sub-recipients), and compliance oversight authorities.

Several comments requested expansion of the waiver to include other types of flow meters beyond AMI water meters. DOI and the EPA are not expanding the waiver to include additional meter types at this time. Although the comments shared supply chain concerns for additional

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meter types, the information available does not provide sufficient detail to support expansion of the waiver. DOI and the EPA will continue to evaluate supply chains for these products and may examine future waiver actions based on additional market research or project-specific waiver requests.

Multiple commenters requested the waiver apply to projects with AMI water meter projects already underway, noting that supply chain issues identified in the waiver apply to current activity equally as to future purchases. DOI and the EPA acknowledge that active water meter projects that have already received federal financial assistance for AMI smart water meters are not within the scope of this waiver, noting that extension of this waiver for these situations would "retroactively" apply the waiver, a policy prohibited through M-24-02. If a project has concerns or uncertainty about the status of their project relative to this waiver, DOI and the EPA recommend that projects contact the appropriate funding authority to discuss the specifics of ongoing projects.

For more information on the Buy America Preference, please reference www.doi.gov/grants/buyamerica or MadeinAmerica.gov and www.epa.gov/cwsrf/build-america-buy-america-baba.

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The EPA hereby issues this general applicability/nonavailability waiver of the requirements of section 70914 of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58) for AMI water meters used in infrastructure projects.

Michael S. Regan, Administrator
U.S. Environmental Protection Agency

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PROPAGATION STUDY

***START OF CONFIDENTIAL INFORMATION**

kamstrup

Propagation Study

Rubidoux, CA

Consultant/Radio Planner	DEGN
Date	March 16th, 2026
Version	01.00
Approver	MAHS

Facts – from the questionnaire

No. of Meters: 4,982
No. of Collectors: 2
Meter location: 100% pit; mix of lids
Requested Performance: Hourly
Extra info:

Conditions

The following situations are not included in the measured performance:

- Failure of third-party communications (e.g. GSM network or IP infrastructure)
- Defective meters or collectors
- Poor meter box/pit maintenance
- Meters or collectors that have been affected by external factors (e.g. vandalism, physical harm or enclosure)
- Installations that are not performed or not possible to perform in accordance with the installation instructions and training of the vendor.
- The sites should be established within 150 feet of the specified locations. Alternative locations need approval by Kamstrup.
- Antenna must be placed at minimum the specified height (above ground) and free from surrounding roofs and structures.

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Service Area

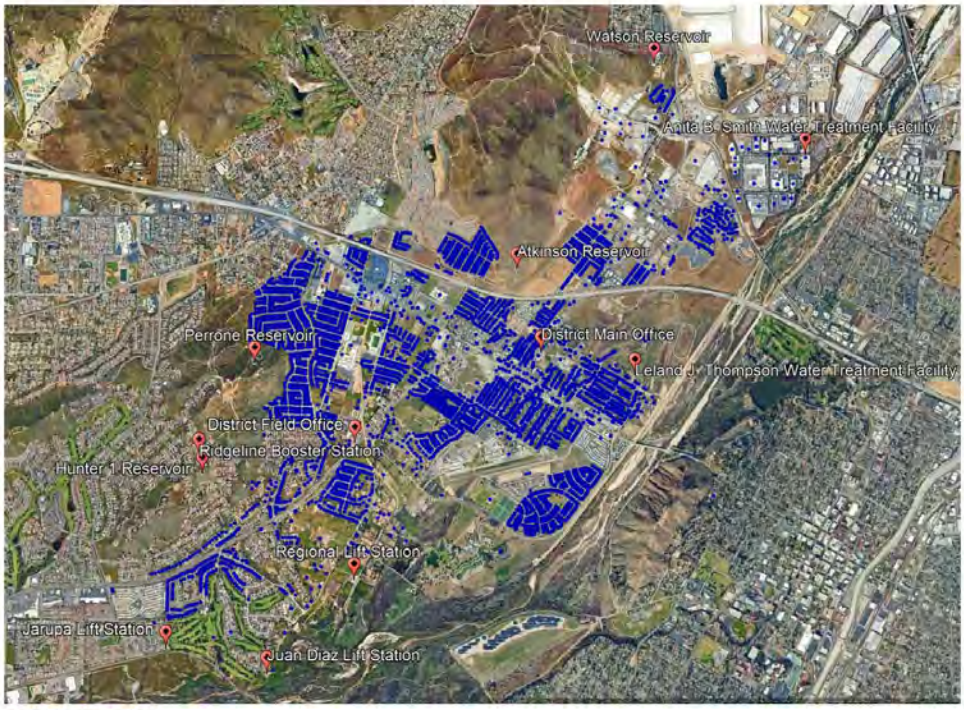


Figure 1: Service Area

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Site placement & Radio cover

Assets Used

Asset Name	Structure Type	Address/Coordinates	Min. antenna height
Atkinson Reservoir	Existing Tank	34.006760°, -117.407747°	37'
Hunter 1 Reservoir	Existing Tank	33.988446°, -117.441249°	40'

Table 1 Assets Used

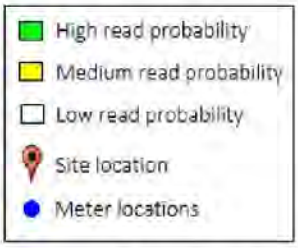
Assets Not Used

Asset Name	Structure Type	Address/Coordinates	Min. antenna height
Anita B. Smith Water Treatment Facility	New Pole	34.01762576, -117.3755908	40'
District Field Office	New Pole	33.99131465, -117.42481573	40'
District Main Office	New Pole	33.99910399, -117.40446093	40'
Jarupa Lift Station	New Pole	33.97342969, -117.44373926	40'
Juan Diaz Lift Station	New Pole	33.97094011, -117.43321416	40'
Leland J. Thompson Water Treatment Facility	New Pole	33.99743981, -117.39397966	40'
Perrone Reservoir	Existing Tank	33.99797305, -117.43387809	40'
Regional Lift Station	New Pole	33.97917548, -117.42414074	40'
Ridgeline Booster Station	New Pole	33.99019007, -117.44091647	40'
Watson Reservoir	Existing Tank	34.02594309, -117.39188534	37'

Table 2 Assets Not Used

Study results

When analyzing the scenarios presented in this section, refer to the legend below:



High Read Probability: Highlighted Green on the Map – very likely to receive daily reads from meter

Medium Read Probability: Highlighted Yellow on the map – likely to receive reads every other day to every seven days

Low read Probability: No highlighting shown on map – likely to not have radio signal coverage from collector

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Coverage - Dry pit with polymer lids

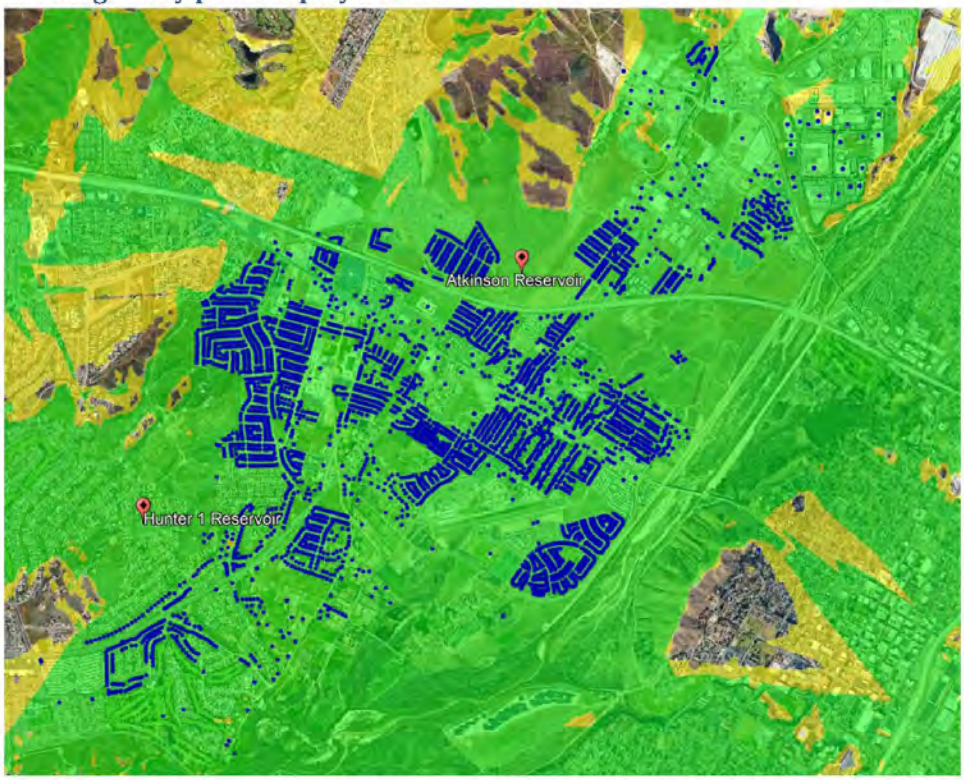


Figure 2: Dry pit with polymer lids

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Coverage - Dry pit with concrete lids

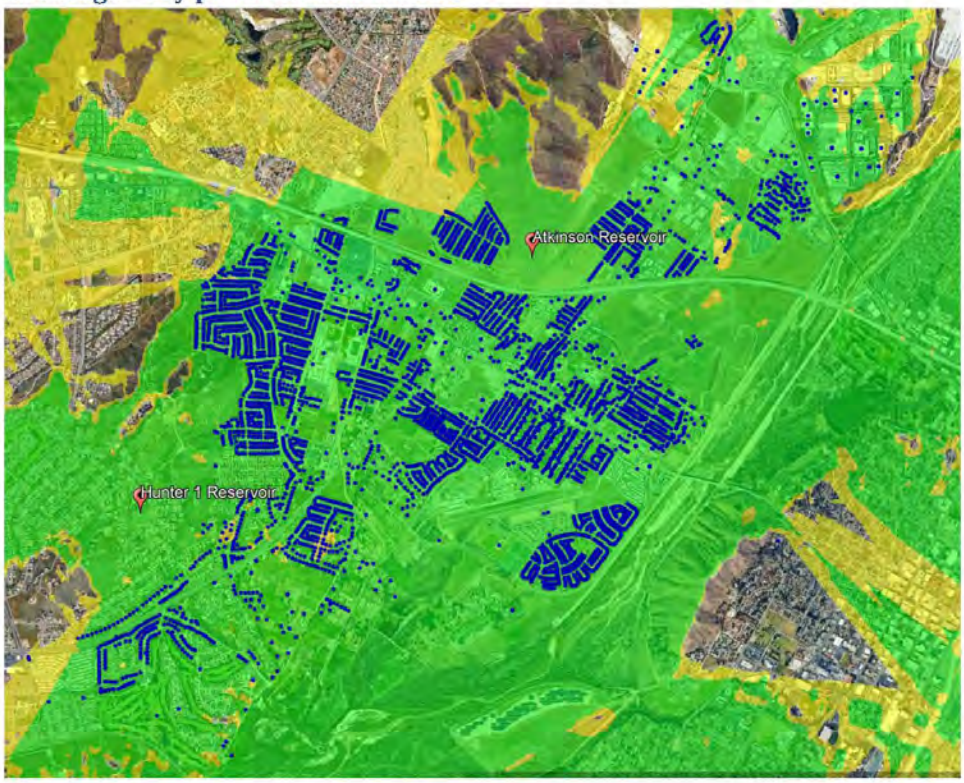


Figure 3: Dry pit with concrete lids

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Coverage – Flooded pits or cast-iron lids

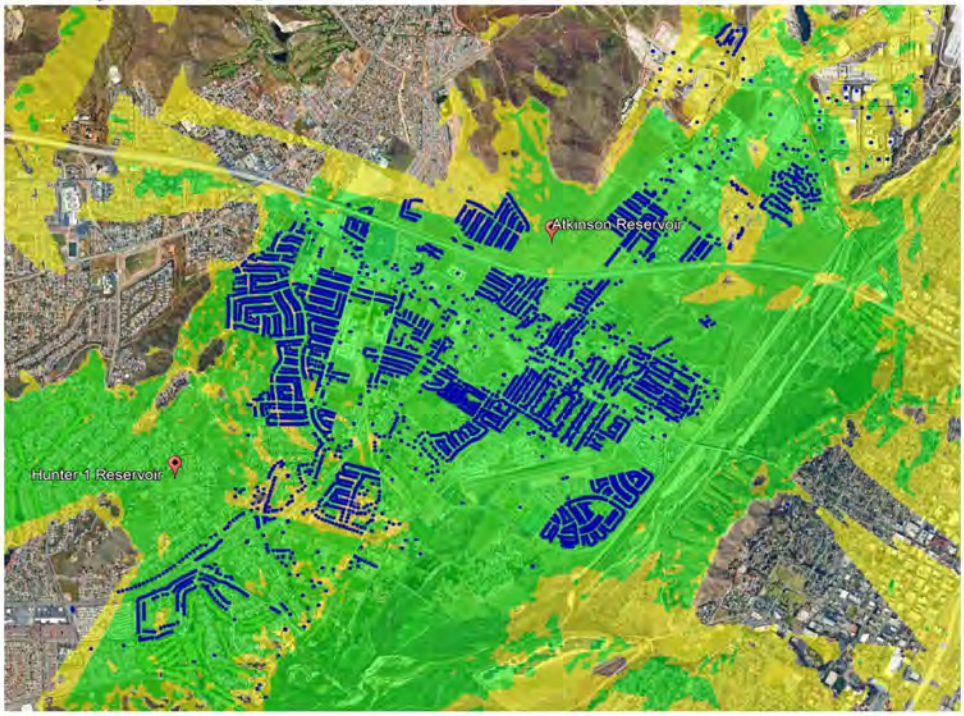


Figure 4: Flooded pits or cast-iron lids

Results of the propagation study

Budget with 2 collectors and 2-3% external antennas for full coverage and a maximum of 99% hourly reads for a mix of lids, or 1% external antennas for all polymer lids.

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***END OF CONFIDENTIAL INFORMATION**

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EXCEPTIONS OF CORE & MAIN LP

The replacement pages supersede and replace the corresponding original pages in their entirety.

Shawn Proudlove
Shawn Proudlove (Jun 25, 2026 13:16:09 PDT) Jun 25, 2026

Docusign Envelope ID: A6B0D5D2-6408-8A4F-8087-3B141AACEB23

Exceptions of Core & Main LP

Submitted to the Rubidoux Community Services District, CA
Invitation for Bids: Advanced Metering Infrastructure Implementation Project Ph 1

Core & Main LP ("Core & Main") hereby qualifies its bid and takes exception to the provisions of any Invitation for Bids as follows. The bid of Core & Main and acceptance by Core & Main of any subsequent agreement is made expressly conditioned upon assent of the Rubidoux Community Services District (the "Owner") to the following additional or different terms, which shall supersede and control over the terms of any invitation for bids, any contract documents and specifications, and any prior addenda thereto:

1. **INSURANCE.** A certificate of insurance (COI) is attached to demonstrate the level of coverage carried by Core & Main. Core & Main will not be required to provide copies of its policies or carry owner's/contractor's protective liability coverage. However, Core & Main will provide an updated COI showing the Owner as additional insured on liability policies. Notice of cancellation or reduction of coverage will be per policy terms. Property (install floater) insurance will not cover materials post install, but this shall in no way diminish, impair or in any other way affect warranty rights and obligations.

2. **INDEMNITY.** Core & Main shall not be required to defend or indemnify Owner or any other persons or parties except to the extent claims are alleged or determined to have been caused by the negligence, willful misconduct, or breach of contract of Core & Main or anyone for whose acts it is contractually or otherwise legally responsible.

3. **RISK OF LOSS.** Risk of loss of or damage to all equipment and materials shall pass from Core & Main to the Owner (or Owner's individual customer) at the time they are installed and confirmed as operating properly. However, the foregoing shall in no way diminish, impair or in any other way affect warranty rights and obligations.

Dated this 30th day of April, 2026; revised June 25, 2026.

CORE & MAIN LP

Signed by:
Shawn Proudlove
F606F2745EE3478...

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CORE & MAIN WARRANTY

RUBIDOUX COMMUNITY SERVICES DISTRICT WARRANTY

The warranties on meters, equipment and services included within the scope of Core & Main LP's proposal and any resulting agreement, shall be as follows:

1. Project Materials and Equipment.

(a) General. Materials and equipment included in the project scope purchased from Core & Main are warranted by the manufacturers to be free from defects for the period specified in the manufacturers' warranties, upon the terms and subject to any limitations stated therein. A copy of the present warranty of each manufacturer that will supply materials and equipment as part of the project is attached hereto as Exhibit A. The duration of any such manufacturer's warranty shall be as set forth in such warranty ("Manufacturer's Warranty Period"). CORE & MAIN DOES NOT PROVIDE ANY WARRANTY FOR PROJECT MATERIALS AND EQUIPMENT BEYOND THE MANUFACTURER'S WARRANTY.

(b) Core & Main's Responsibility. Upon any breach of the manufacturer's warranty on materials or equipment noticed to Core & Main during the applicable Manufacturer's Warranty Period, Core & Main's sole responsibility shall be to cooperate with the District in arranging for the manufacturer to repair or replace any defective material or equipment.

2. Services Work.

(a) General. Core & Main warrants that all services provided by Core & Main or its subcontractors shall be performed in a workmanlike manner and in compliance with any specifications set forth in the agreement between the parties, with such warranty to expire one year from the date when such services were provided (the "Services Warranty Period").

(b) Exclusive Remedy. Upon any breach of Core & Main's warranty as to services during the Services Warranty Period, Core & Main's sole responsibility shall be to perform any corrective work necessary to bring Core & Main's services into compliance with such requirements.

3. DISCLAIMER OF FURTHER WARRANTIES. EXCEPT FOR THE FOREGOING EXPRESS WARRANTIES, CORE & MAIN DISCLAIMS ALL WARRANTIES INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT, WHETHER ARISING OUT OF WARRANTY, INDEMNITY, TORT, CONTRACT OR OTHERWISE, SHALL CORE & MAIN BE LIABLE FOR ANY INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND.

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MEMORANDUM OF INSURANCE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 07/30/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Willis Towers Watson Certificate Center
Willis Towers Watson Northeast, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 372305191 USA	PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378 E-MAIL ADDRESS: certificates@willis.com

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
Core & Main LP 1830 Craig Park Court Saint Louis, MO 63146	INSURER A: Greenwich Insurance Company	22322
	INSURER B: XL Insurance America Inc	24554
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

COVERAGES **CERTIFICATE NUMBER:** W39898704 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X SIR: Each Occurence$1,000,000 GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY X PRO-JECT LOC OTHER:			RGE3002852	08/01/2025	08/01/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ $ $ $ $ $	2,000,000 2,000,000 15,000 2,000,000 4,000,000 4,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY HIRED AUTOS ONLY SCHEDULED AUTOS NON-OWNED AUTOS ONLY			RAD9439188	08/01/2025	08/01/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $	5,000,000
B	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			US00155968LI25A	08/01/2025	08/01/2026	EACH OCCURRENCE AGGREGATE SIR	$ $ $	10,000,000 10,000,000 10,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N No (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		RWD3002853	08/01/2025	08/01/2026	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ $ $	1,000,000 1,000,000 1,000,000
B	Workers Compensation and Employers Liability Per Statute - AK, DE, WI			RWR3002854	08/01/2025	08/01/2026	E.L. EACH ACCIDENT E.L. DISEASE - EA EMP E.L. DISEASE-POL LMT	$1,000,000 $1,000,000 $1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Per Project Aggregate applies where required by contract.

CERTIFICATE HOLDER

Evidence of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Patricia A Fray

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Core & Main Cost Proposal

Notwithstanding the cost in the bids as described, the following costs are determinative and controlling and signed.

Shawn Proudlove
Shawn Proudlove (Jun 25, 2026 13:16:09 PDT)

Jun 25, 2026

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Submission

Bidder Details

Vendor Name	Core & Main LP
Address	3155 Indian Ave Perris, California 92571 United States
Respondee	Shawn Proudlove
Respondee Title	Meter Specialist
Phone	310-569-7685
Email	shawn.proudlove@coreandmain.com
Vendor Type	CASoS
License #	1097128
CADIR	

Submission Detail

Submission Format	Electronic
Submitted	05/21/2026 2:48 PM (PDT)
Delivery Method	
Responsive	
Submission Status	Submitted
Confirmation #	488433

Respondee Comment

Buyer Comment

Attachments

File Title	File Name	File Type
20260227033344558 RCSD AMI Imp Ph I-Bid Proposal Packet (2026-02-26).pdf	20260227033344558 RCSD AMI Imp Ph I-Bid Proposal Packet (2026-02-26).pdf	RCSD AMI Imp Ph I-Bid Proposal Packet
CNM Response to Rubidoux CA FINAL COMPRESSED.pdf	CNM Response to Rubidoux CA FINAL COMPRESSED.pdf	General Attachment
		General Attachment
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		General Attachment

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Line Items

Discount Terms No Discount

Item #	Item Code	Type	Item Description	UOM	QTY	Unit Price	Line Total	Response	Comment

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Bid Schedule I - Bronze Option							$0			
[redacted]										
Bid Schedule II - Composite Stainless Steel Option							$2,616,135.23			
32	201		Furnish contract bonds, project insurance, project permits, and project management.	L.S.	1	$25,000.00	$25,000.00	Yes	
33	202		Mobilization of equipment, materials, and labor.	L.S.	1	$24,266.00	$24,266.00	Yes	
34	203		Furnish trench protection in accordance with Cal/OSHA Standards for all trenches greater than 5' deep.	L.S.	1	$0.00	$0.00	Yes	In pricing
35	204		Furnish, install, and maintain traffic control, including approved traffic control plans, all signs, delineators, arrowboards, flagmen, and all related work, all in accordance with the Contract Documents.	L.S.	1	$0.00	$0.00	Yes	In pricing
36	205		Furnish and install 3/4" diameter PPS composite flow meters, appurtenant piping and fittings; install District-furnished adapters (1" x 3/4"); and all related work.	EA	3725	$383.62	$1,428,984.50	Yes	
37	206		Furnish and install 3/4" diameter stainless steel flow meters, appurtenant piping and fittings; install District-furnished adapters (1" x 3/4"); and all related work.	EA	1000	$395.84	$395,840.00	Yes	
38	207		Furnish and install meter box lids with quick read port for 3/4" diameter flow meters (for meters with antenna in lid).	EA	1000	$0.00	$0.00	Yes	N/A
39	208		Furnish and install plug for quick read port for 3/4" diameter meter box (for meters without antenna in lid).	EA	3725	$10.67	$39,745.75	Yes	
40	209		Furnish and install 1" diameter stainless steel flow meters, appurtenant piping and fittings, and all related work.	EA	106	$464.80	$49,268.80	Yes	
41	210		Furnish and install meter box lids with quick read port for 1" diameter flow meters (for meters with antenna in lid).	EA	20	$0.00	$0.00	Yes	N/A
42	211		Furnish and install plug for quick read port for 1" diameter meter box (for meters without antenna in lid).	EA	86	$116.80	$10,044.80	Yes	
43	212		Furnish and install 1-1/2" diameter stainless steel flow meters and appurtenant piping and fittings; install District-furnished adapters (2" x 1-1/2"); and all related work.	EA	58	$1,284.77	$74,516.66	Yes	
44	213		Furnish and install meter box lids with quick read port for 1-1/2" diameter flow meters (for meters with antenna in lid)..	EA	10	$0.00	$0.00	Yes	N/A
45	214		Furnish and install plug for quick read port for 1-1/2" diameter flow meters (for meters without antenna in lid).	EA	48	$116.80	$5,606.40	Yes	
46	215		Furnish and install 2" diameter stainless steel flow meters, appurtenant piping and fittings, and all related work.	EA	83	$1,621.72	$134,602.76	Yes	
47	216		Furnish and install meter box lids with quick read port for 2" diameter flow meters (for meters with antenna in lid).	EA	16	$0.00	$0.00	Yes	N/A
48	217		Furnish and install plug for quick read port for 2" diameter flow meters (for meters without antenna in lid).	EA	67	$116.80	$7,825.60	Yes	

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Item #	Item Code	Type	Item Description	UOM	QTY	Unit Price	Line Total	Response	Comment
49	218		Furnish and install 3" diameter stainless steel flow meters, appurtenant piping and fittings, and all related work.	EA	2	$2,480.96	$4,961.92	Yes	
50	219		Furnish and install 4" diameter stainless steel flow meters, appurtenance piping and fittings, and all related work.	EA	5	$3,035.63	$15,178.15	Yes	
51	220		Furnish and install 6" diameter stainless steel flow meters, appurtenance piping and fittings, and all related work.	EA	3	$5,685.72	$17,057.16	Yes	
52	221		Furnish and install fixed data collection systems, including all components, software, permanent power distribution facilities, software, and all related work.	EA	1	$59,054.60	$59,054.60	Yes	
53	222		Repair of existing residential water services as a result of installation.	EA	250	$0.00	$0.00	Yes	Included in pricing
54	223		Remove and dispose of debris (clean out) existing residential meter boxes up to 6" deep.	EA	250	$33.34	$8,335.00	Yes	
55	224		Remove and dispose of debris (clean out) existing residential meter boxes from 6" to 12" deep.	EA	250	$33.34	$8,335.00	Yes	
56	225		Furnish drive-by data collection systems, software, and all related work.	EA	1	$0.00	$0.00	Yes	N/A
57	226		Furnish walk-by data collection systems, software, and all related work.	EA	1	$0.00	$0.00	Yes	N/A
58	227		Furnish one-year software service contract and all related work.	EA	1	$76,537.13	$76,537.13	Yes	This includes first time initiation fee and optional leak detector (refer to ps bid)
59	228		Furnish one-year customer portal interface access and all related work.	EA	1	$30,975.00	$30,975.00	Yes	This includes first time initiation fee (refer to ps bid)
60	229		Furnish training of District personnel and all related work.	EA	1	$0.00	$0.00	Yes	included
61	230		Provide system testing and all related work.	L.S.	1	$0.00	$0.00	Yes	included
62	231		Furnish operation and maintenance manuals.	L.S.	1	$0.00	$0.00	Yes	included
63	232		Allowance for unforeseen conditions.	L.S.	1	$200,000	$200,000	Yes	

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Line Item Subtotals

Section Title	Line Total
Bid Schedule I - Bronze Option	N/A
Bid Schedule II - Composite Stainless Steel Option	$2,616,135.23
Grand Total	$2,616,135.23

Shawn Proudlove
06/25/26

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SECTION 17330 – RESIDENTIAL FLOW METERS TECHNICAL SPECIFICATIONS

PART 1 – GENERAL

1.01 General Requirements

Contractor shall furnish and install residential flow meter systems, meter box lids, and all appurtenant materials, equipment, and work suitable for the services listed, complete and operable in accordance with requirements of the Contract Documents and in conformance with the manufacturer's recommendations. Upon completion of installation, the work shall be tested to demonstrate compliance with these specifications. All materials and equipment supplied under this Section shall be new, of good quality, and in good condition.

Core & Main complies with this requirement.

1.02 AMI/AMR Systems Supplier

All equipment specified herein, in Section 17331 – Commercial and Industrial Flow Meters Technical Specifications, and in Section 17335 – AMI/AMR Data Collection Systems Technical Specifications, shall be supplied by a single manufacturer (AMI/AMR Systems Supplier) to assure compatibility and unit responsibility for operation and performance.

Core & Main and Kamstrup comply with this requirement.

1.03 Related Sections

A. Section 17331 – Commercial and Industrial Flow Meters Technical Specifications

B. Section 17335 – AMI/AMR Data Collection Systems Technical Specifications

Core & Main acknowledges these specification sections.

1.04 Specific Project Requirements

A. Contractor shall replace the following quantity and sizes of existing residential flow meters:

Meter Size	Quantity
3/4"	4,725
1"	106
1-1/2"	58
2"	83[1]

[1] 78 potable water and 5 reclaimed water

Core & Main complies with this requirement.

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B. Contractor shall replace damaged meter box lids. Meter box lids shall be compatible with meter appurtenances.

Core & Main complies with this requirement.

1.05 Submittals

All submittals shall be in accordance with Section 01300, Contractor Submittals and Requests Technical Specifications.

Core & Main complies with this requirement.

A. Shop Drawings

Contractor shall submit shop drawings in accordance with the Contractor Submittals Technical Specifications, including, but not be limited to, the following:

1. Details and specifications of all components of all meters including detailed installation instructions.

2. Wiring and connection schematics.

3. Manufacturer's application performance guarantee for each meter location, and recommendations for installation at each location.

4. Factory accuracy test reports for each meter furnished per ANSI/AWWA C715.

5. Manufacturer's guarantee for acoustic leak detection compatibility with flow meter.

Core & Main complies with this requirement.

B. Operation and Maintenance

Manual Contractor shall submit a detailed operation and maintenance manual for the complete flow metering system(s) with acoustic leak detection specified herein.

Core & Main complies with this requirement.

C. Billing Integration

Contractor shall submit a description of proposed software and guarantee of compatibility from the Manufacturer with Owner’s existing billing software.

Please refer to the Solution Overview section of our response for a description of the AMI software and Customer Portal.

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Kamstrup's READy AMI Headend will support integration to any Utility Enterprise System required by the utility. Integrating between the utility's enterprise systems and the Kamstrup READy Manager Head-end System (HES) can be accomplished in a number of ways. The most common integration is simple file transfer. This interface can be formatted using any fixed width or CSV format and the transfer can be automated through a SFTP or FTPS server if the utility needs a continuous flow of data between the software platforms. API integrations are also available to continuously sync data if required. Because of the flexibility in its integration formats, Kamstrup has not run into any significant integration issues in any previous deployment.

PART 2 - PRODUCTS

2.01 General

A. Residential flow meter system shall consist of a flow meter with integral factory-programmed electronic register/interface device. Water services with flow meter systems 2" and smaller shall consist of integral acoustic leak detection capabilities or compatible external devices on each water service.

The Kamstrup integrated flowIQ® 2200 meters serve as residential flow meter systems with a factory-programmed electronic register device. These meters integrate Acoustic Leak Detection (ALD) technology to continuously monitor water services up to 2", effectively detecting leaks on service connections and distribution mains. No additional external devices or infrastructure are required.

B. Flow meter systems shall be contained within existing meter boxes.

The proposed metrology complies with this requirement.

C. Acoustic leak detection shall be either integral to the flow meter or an external compatible device. For external leak detection devices, data shall be transmitted automatically.

Kamstrup's flowIQ® 2200 meters have integral acoustic leak detection capabilities, eliminating the need for external devices. Acoustic data is continuously monitored and transmitted automatically through secure RF messaging. This ensures streamlined leak detection without additional infrastructure or devices.

D. Flow meter shall be solid-state with no moving parts

The proposed metrology complies with this requirement. The proposed Kamstrup metrology utilizes **ultrasonic technology,** ensuring no moving parts. This eliminates mechanical wear, enhancing long-term performance and accuracy over the product's lifetime while removing maintenance costs typically associated with moving component meters.

E. All sensors and electronics shall be designed so that they are fully protected against internal and external penetration of fluid.

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The Kamstrup metrology complies with this requirement. The **flowIQ® 2200** meter is hermetically sealed and built to an IP68 rating, which ensures complete protection of all sensors and electronics against internal and external fluid penetration. The IP68 rating confirms that the meter is fully submersible and designed to prevent water ingress under prolonged submersion and harsh environmental conditions.

F. The meter shall be to NSF/ANSI 61 certified.

Kamstrup meters comply with the NSF/ANSI 61 certification requirements. Both residential and commercial meter options are constructed with certified materials and conform to ANSI/NSF Standard 61, ensuring they meet Safe Drinking Water Act standards.

G. The meter shall fully comply with AWWA C715-18 guidelines.

The Kamstrup flowIQ® 2200 complies with all the AWWA C715-18 guideline for Ultrasonic Water Meters.

H. All radio communications shall comply with relevant FCC rules, including Part 15. Meters shall have been tested by FCC to ensure that they meet requirements regarding EMC emissions and FCC ID shall be laser printed or permanently engraved on each meter.

The proposed Kamstrup metrology complies with this requirement.

I. All flow meters shall be provided with new gaskets.

Core & Main acknowledges this requirement.

J. Flow meter system shall be manufactured to order with a manufacturing date no earlier than three (3) months prior to order date.

Kamstrup Complies with this requirement.

K. Flow meter system shall be manufactured by Kamstrup, Neptune, or approved equal.

The proposed Kamstrup metrology complies with this requirement.

2.02 Flow Meter

A. Meter Body

1. The meter body shall be NSF/ANSI 61 certified lead-free materials and shall be either cast bronze, 316L stainless steel, or fiberglass reinforced polyphenylene sulfide (PPS) composite material. PPS composite material shall not be used when there is significant misalignment of the service line. Service line connections shall be protected from galvanic corrosion. Other material bodies or flow tubes are not acceptable.

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Kamstrup meters comply with NSF/ANSI 61 certification and are constructed from lead-free materials. Meter bodies are available in composite fiberglass-reinforced PPS, 316L stainless steel.

2. Meter size, model, direction of flow, and NSF 61 certification shall be indicated on the meter body.

The proposed Kamstrup metrology complies with this requirement.

3. All fastening hardware shall be constructed of Type 316 non-magnetic corrosion resistant stainless steel to prevent corrosion.

Core & Main and DB Utility comply with this requirement.

4. Meters 5/8" through 1" in size shall be provided with National Pipe Straight Mechanical (NPSM) threaded end connections and meters larger than 1" shall be provided with 2-bolt oval flanged end connections. Contractor shall coordinate connection type and size based on actual meters furnished.

Core & Main and DB Utility acknowledge this requirement.

5. Meter shall be suitable for a operating pressures up to 175 psi (minimum).

Kamstrup meters meet the specified requirement. The residential and light commercial ultrasonic meters are rated for operating pressures up to a maximum of 250 PSI, while commercial-sized meters (1.5”–12”) can withstand pressures ranging from 275 PSI to 300 PSI depending on flange type.

B. Meter Register/Interface Device

1. The meter register/interface device shall consist of a meter register and meter interface unit (MIU), housed within the same enclosure.

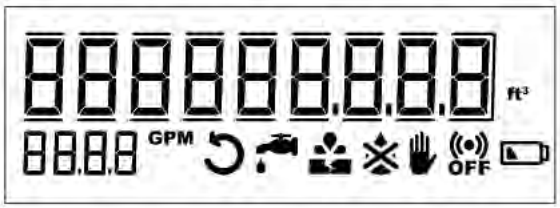
Kamstrup metrology complies with this requirement. The flowIQ® water meters have integrated registers and RF communication capabilities contained within the same enclosure, simplifying installation and minimizing components. The meter's all-in-one design eliminates the need for separate meter interface units (MIU) or external connections, ensuring a more robust and tamper-resistant solution.

2. The device shall be provided with a 9-digit LCD display, unit of measure, billable digits, all active alarm codes (leak, burst, dry, reverse, tamper, low battery) radio off, and visual flow rate indicator.

All registers feature 9 digit LCD display. Unit of measurement options include: gallons, liters, and cubic feet.

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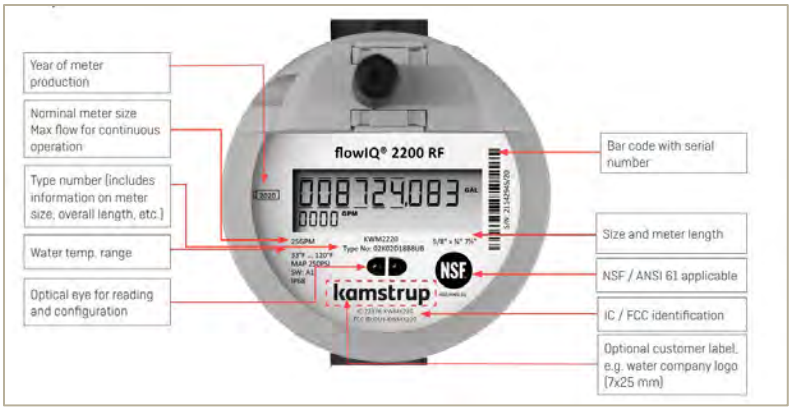
What is shown on the meter LCD is what is transmitted over the AMI network. As a visual aid for end customers, the LCD can be configured to have hash marks above and below the billing digits so that customers can easily compare their bill to the read on the meter.



Info code	Meaning
	The water in the meter has not been stagnant for one continuous hour during the last 24 hours. This can be a sign of a leaky faucet or toilet cistern or indicate a leakage after the meter.
	The water consumption has been consistently high for half an hour, which indicates a pipe burst.
	Attempt of fraud. The meter is no longer valid for billing.
	The meter is dry. In this case nothing will be measured.
	The water flows through the meter in the wrong direction.
OFF	RADIO OFF flashes. The meter is still in transport mode with the built-in radio transmitter turned off. The transmitter turns on automatically when water runs through the meter for the first time.*
OFF	RADIO OFF lights permanently. The radio is switched off permanently. Can be activated via METERTOOL.*
	The symbol appears when the expected capacity left is 6 months or less.

3. Meter serial number, meter size, FCC identification, NSF compliance, production year, and maximum operating pressure shall be displayed in a permanent location on the register.

The proposed Kamstrup metrology complies with this requirement.



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4. The device shall be hermetically sealed or fully potted with no exposed wires connecting the MIU and register.

Kamstrup meters are hermetically sealed under vacuum in a humidity controlled environment during manufacturing. All meters exceed IP-68 ratings for 0-100% humidity and are designed and tested in environmental chambers simulated for both temperature and humidity extremes.

5. The device shall transmit seamlessly in both advanced metering infrastructure (AMI) and automated meter reading (AMR) mode without any additional programming.

In a dual mode operation involving both AMI and AMR, the system can seamlessly switch between modes as needed. When operating in AMI mode, the system uses scheduled transmissions, typically every three hours, to send data from the meters to the collectors. If the AMI network experiences communication issues, the system can revert to AMR mode, allowing for drive-by readings to be collected in the field using a mobile receiver. This ensures continuous data collection and billing accuracy despite potential network interruptions.

Reprogramming or changing the conditions for transmission is managed through the Kamstrup READy Head End System, which allows for remote configuration and updates. The system's flexibility supports both network-based and field-based operations, ensuring that utilities can maintain accurate data collection under varying conditions.

6. The device shall be capable of operating at external ambient temperatures of 35°F to 130°F (1.5°C to 55°C) and operating humidity factor of 0 to 100% condensing.

The flowIQ complies with this requirement. Please refer to the Product Data Sheet for more information.

7. The radio circuit board and battery shall be protected by a hard-potting material or hermetically sealed.

Kamstrup complies with this requirement. The **flowIQ® meters** feature integrated registers and radios that are **hermetically sealed** within the enclosure. This design ensures safeguarding against environmental impacts like moisture, temperature fluctuations, and submersion, conforming to **IP68 standards** for prolonged reliability.

8. The device shall either have an integral antenna mounted to the meter or be designed for a remote antenna capable of being installed through an industry standard 1-3/4" hole in a meter box lid for maximum transmission range.

No wires are required between the meter, encoder, and radio. The majority of meters in the system will be able to transmit under the lid, whether metal or composite, without issue. In the event that communication is not consistent, the easiest course of action is to swap a

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metal lid for a composite. The next is to raise the signal out of the pit using and external antenna. An external antenna is available as a wall mount option in lengths of 6.6ft or 65.6ft and in a pit mount option in lengths of 2ft, 6.6ft, and 24.6 ft for use in situations like meter vaults and inside sets. The pit mount option goes through the industry standard 1' –¼" hole. Because of it's backfill capabilities, even an inconsistent connection can often show no data gaps in the HES.

9. Remote antennas shall be capable of mounting to various thicknesses of meter box lids from 1/2" to 2-1/2" and various distances from meters.

The Kamstrup solution complies with this requirement.

10. Remote antennas shall be rigid in design to withstand traffic loads and shall not pose a tripping hazard to pedestrian traffic.

Kamstrup Complies with this requirement.

11. The MIU device shall be protected against static discharge without loss of data per IEC 801-2, Issue 2.

Kamstrup complies with this requirement.

12. Power shall be supplied to the MIU by a lithium battery with capacitor.

The Kamstrup flowIQ® 2200 is powered by an internal lithium battery which can provide up to 20 years operating life.

13. The number of radio-based meter reads performed must not affect the battery life.

The Kamstrup AMI solution guarantees that the number of radio-based meter reads performed does not adversely affect the battery life due to **automatic power optimization** built into the system. The radios dynamically adjust their transmission power based on communication signal strength, conserving battery life under optimal conditions.

14. The battery life shall not be affected by outside erroneous wake-up tones (e.g., other water, gas, or electric utilities reading and therefore sending out a wakeup tone).

Kamstrup's AMI system operates on a secure FCC-licensed 450 MHz frequency, which prevents interference from external signals, including wake-up tones from other utilities (e.g., water, gas, or electric). AES encryption and proprietary data transmission protocols further safeguard against erroneous triggers or unauthorized interactions. The transmitter does not respond to non-designated signals, ensuring that battery life is not affected by outside erroneous wake-up tones.

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15. The battery shall be hermetically sealed or a fully potted component of the MIU with no external wires.

Kamstrup hermetically seals the electronics of the meter with a low pressure helium and gasket. This takes advantage of the higher pressure of the surrounding environment to increase the effectiveness of the seal and actually leads to an even tighter seal with the added pressure of full immersion.

16. The device shall be rated IP68 suitable for continuous submergence in water.

Kamstrup meters are designed for rigorous environmental conditions, meeting IP68 standards for water resistance, and are suitable for continuous submergence in water. The meters are hermetically sealed under vacuum in a controlled manufacturing environment to protect against humidity and water ingress, ensuring long-term durability and performance under full immersion.

Please refer to the Product Data Sheet for more information.

C. Performance

1. All meters shall be capable of the following flow ranges at the listed accuracies.

Meter Size	Extended Low Flow @ 100% Accuracy (U.S. gpm ± 5%)	Normal Operating Range @ 100% Accuracy (U.S. gpm ± 1.5%)	Safe Maximum Operating Capacity (U.S. gpm)	
			Normal Operation	Fire Service
5/8"	0.05	0.10 to 20	20	N/A
3/4"	0.05	0.10 to 30	30	30
1"	0.25	0.40 to 50	50	50
1-1/2"	0.30	0.80 to 100	100	100
2"	0.50	1.5 to 160	160	160

Comply. Please refer to the Product Data Sheets for more information.

2. Meters shall not require a strainer for accurate operation.

Kamstrup meters comply with this requirement. Ultrasonic technology ensures accurate operation without the need for a strainer. This design eliminates dependence on additional components for debris management while maintaining high accuracy.

3. All meters shall have the ability to log a total of historic volumes by flow rate range to conduct a consumption profile for the installation.

All Kamstrup flowIQ meters retain 100 days worth of hourly data and 460 days of daily data that can be locally pulled and logged. This ensures meter data is preserved even when meter communication is disrupted.

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D. Distribution Acoustic Leak Detection

1. Meters up to 2" shall have the capability to monitor and record acoustic noise to enable distribution side leak detection.

Kamstrup's AMI solution provides comprehensive leak detection capabilities using both **acoustic leak detection (ALD)** technology and **advanced flow analytics**, enabling utilities to identify leaks on both the **customer side** and across the **distribution network**.

Distribution side leak detection is achieved through the integrated acoustic leak detection (ALD) sensor in every flowIQ 2200. This device works by sampling the noise 26x per day and sending the lowest recorded value into the analytics platform, and with meters being installed within the water column, this makes pipe material agnostic and leaks are detectible across all pipe material and can be heard greater distances. **Advanced data analytics** are automatically applied to detect abnormal acoustic patterns indicative of leaks. The system also generates **prioritized alerts** based on historical trends, deviation from baselines, and proximity of suspected leaks, enabling efficient field investigation and repair.

Customer side leak detection is achieved through the flowIQ meter's **Leak alarm**, which will flag 24 hours of continuous flow. This alarm threshold is a % of maximum flow for the meter size and is configurable through the HES.

2. Meters with integral (built-in) leak detection capabilities shall consist of acoustic leak detection sensor and electronics hermetically sealed with no external wires integral in the meter body.

The Kamstrup flowIQ® 2200 meters offer acoustic leak detection capabilities integrated directly into the meter body. These sensors and electronics are hermetically sealed, eliminating the need for external wires or additional infrastructure. This integration allows utilities to continuously monitor for leaks on service lines and mains without requiring separate devices.

3. Meters without built-in leak detection shall be supplied with an external acoustic leak detection device.

Kamstrup's flowIQ® 2200 water meters include integrated Acoustic Leak Detection (ALD) technology within the ultrasonic meter design, eliminating the need for external acoustic leak detection devices. This built-in system provides continuous, proactive monitoring of leaks in both customer-side connections and distribution mains. As such, for operational uses where external acoustic leak detection would otherwise be needed, the flowIQ® 2200 meters provide an all-inclusive solution without requiring separate hardware or additional infrastructure.

4. The device shall be rated IP68 suitable for continuous submergence in water.

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All Kamstrup products are rigorously tested beyond IP68 applications needed for harsh pit environments (0-100% humidity and varying temperatures).

5. External acoustic leak detection devices shall be supplied with certificate of affidavit from manufacturer for compatibility with meter.

Not applicable. Kamstrup's ALD solution is an intrinsic component of their meters and does not require additional external hardware, ensuring full compatibility without separate certifications or affidavits from the manufacturer.

6. External acoustic leak detection devices shall be hermetically sealed or potted with no electrical wires and shall be contained in the meter box.

Not applicable. Kamstrup's flowIQ® 2200 water meters include integrated Acoustic Leak Detection (ALD) technology within the ultrasonic meter design, eliminating the need for external acoustic leak detection devices.

The ALD solution requires no additional sensors, as it utilizes the same acoustic transducers used for water flow measurement, ensuring no impact on meter battery life and no additional maintenance requirements. Loudness measurements are taken every 55 minutes, and the lowest volume sound is sent once per day. The software tracks noise values and compares them to nearby meters to localize leaks and alert the utility.

7. External acoustic leak detection devices shall not have any protruding components from the meter box and shall not interfere with the operation of the meter.

Not applicable. Kamstrup's flowIQ® 2200 water meters include integrated Acoustic Leak Detection (ALD) technology within the ultrasonic meter design, eliminating the need for external acoustic leak detection devices.

8. External acoustic leak detection devices shall be supplied with a lithium-ion battery with a minimum battery life equal to the meter.

Not applicable. Kamstrup's flowIQ® 2200 water meters include integrated Acoustic Leak Detection (ALD) technology within the ultrasonic meter design, eliminating the need for external acoustic leak detection devices.

9. The acoustic leak data shall be captured and communicated regardless of reading method (AMR or AMI) and shall be transmitted without interruption or interference of meter data.

Kamstrup's integrated acoustic leak detection solution ensures that acoustic leak data is captured and transmitted without interruption or interference, regardless of the reading method used—both AMR and AMI modes.

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Advanced Metering Infrastructure

The system uses integrated acoustic leak detection (ALD) sensors in every flowIQ 2200 meter, which sample noise 26 times per day and transmits the lowest recorded value to the analytics platform for evaluation. Advanced data analytics are applied automatically to detect abnormal acoustic patterns indicative of leaks, and the system generates prioritized alerts based on historical trends, deviation from baselines, and proximity of suspected leaks. This enables utilities to monitor for leaks and respond efficiently to potential issues.

Automated Meter Reading (AMR)

All Kamstrup flowIQ meters 2" and below listen every 55 minutes and store the lowest level of sound that is heard. This ensures the meter has the highest chance of reporting actual leak noise, rather than unrelated noises such as pumps. The meter internally stores 460 days of daily acoustic noise data. When a meter is read using drive-by, it reports the acoustic noise value for the previous day, along with 7, 14, and 21 days before that. In other words, the utility gets the previous three weeks of data on the same day of the week as when the meter is read. So, if the utility were to read everyday of the week once per month, all acoustic leak data for the month would be available in the Leak Detector software.

2.03 Data Transport

A. All Data communicated over a radio network, AMR or AMI, shall always be encrypted.

The Kamstrup READy AMI system operates on a secure FCC-licensed 450-470 MHz frequency, providing protection against interference and ensuring reliable data transmission. It employs AES encryption, with 128-bit encryption from the meter to the collector and 256-bit encryption from the collector to the READy Head End System (HES), to maintain data security. RF transmissions occur every three hours, delivering the current read along with the previous two hourly reads to the collector. If a transmission is missed, the system can reconcile reading gaps for up to 24 hours by including the current hour read and the previous five hours of data in the next transmission.

B. The MIU shall provide 8-digit reading resolution from encoded registers using either Neptune ProRead™/E-CODER protocol or Sensus UI-1203 protocol in mobile as well as AMI network data collection applications, simultaneously, without need for programming.

Kamstrup Encoded Output supports the Neptune ProRead™/E-CODER protocol and Sensus UI-1203 protocol in both mobile and AMI network data collection applications simultaneously without requiring additional programming. This compatibility ensures seamless integration with these systems, facilitating efficient and accurate utility data collection across various applications.

C. The MIU shall read the encoded register at hourly intervals to provide accurate leak and reverse flow detection using 8-digit resolution reads.

Kamstrup's flowIQ meters, paired with integrated AMI technology, read the encoded register at hourly intervals with a resolution of up to 8 digits. This ensures high accuracy in detecting leaks and reverse flow. The meters transmit this data in three-hour intervals to the head-end system, and

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adjustments can be made over the air using the READy Manager platform. Any changes to reading intervals may affect the warranty for battery life depending on frequency.

D. The MIU shall transmit the meter reading continuously at a predetermined transmission interval.

The Kamstrup AMI system operates with a mode of three-hour RF transmission intervals from the meters to the collectors. During each transmission, the current hour's read along with the previous two hours of data are sent to ensure overlap and successful collection. If a transmission is missed, the next scheduled transmission will attempt to reconcile the missed read by including the most recent hour and up to the previous five hours. This reconciliation behavior continues for up to 24 hours.

E. The MIU shall transmit AMI network messages every three (3) hours – standard. No programming shall be necessary to activate transmission of AMI network messages.

Comply. Please refer to the answer above.

F. Each AMI network message shall include capability to backfill missed reading data for redundancy and to improve read success rates.

The proposed Kamstrup metrology and network complies with this requirement. Please refer to our response for 2.03 D.

G. No programming shall be necessary to activate or revert to transmission of AMR messages.

Comply. In a dual mode operation involving both AMI and AMR, the system can seamlessly switch between modes as needed. When operating in AMI mode, the system uses scheduled transmissions, typically every three hours, to send data from the meters to the collectors. If the AMI network experiences communication issues, the system can revert to AMR mode, allowing for drive-by readings to be collected in the field using a mobile receiver. This ensures continuous data collection and billing accuracy despite potential network interruptions.

H. In the event of a cut wire, the MIU shall not send the last good read as this can lead to missbilling. The MIU shall transmit a trouble code in lieu of the meter reading.

The Kamstrup solution complies with this requirement.

I. Tamper – If wiring has been disconnected, a "non-reading" shall be provided indicating wire tamper; a reading that gives the last available reading is an incorrect reading.

The Kamstrup solution complies with this requirement.

J. Each device shall have unique preprogrammed identification numbers (ID) of nine (9) characters. ID numbers shall be permanent and shall not be altered. Each device shall be

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labeled with the ID number in numeric and barcode form. The label shall also display FCC approval information, manufacturer's designation, and date of manufacture.

Kamstrup flowIQ meters comply with this requirement. Each device is manufactured with a unique nine-character identification number that is permanent and cannot be altered. The ID number is displayed in both numeric and barcode format. Additionally, each label includes FCC approval information, the manufacturer's designation, and the date of manufacture. Please refer to 2.02 #3 for a graphic of the Meter Face and items included.

K. The MIU shall transmit the encoder meter reading and a unique MIU ID number. The MIU shall interface to encoder registers using Neptune E-CODER or Sensus UI-1203 communication protocol via a 3-conductor wire without need for special configuration to the MIU.

Not applicable, as Core & Main and Kamstrup are proposing an **integrated proprietary MIU solution** where compatibility with external encoder protocols, such as Neptune E-CODER or Sensus UI-1203, is inherently unnecessary due to the fully integrated design.

L. The MIU shall transmit time-synchronized, top-of-the-hour readings as part of its scheduled, periodic AMI network transmission.

Kamstrup AMI Endpoints, READy MTUs and Integrated flowIQ RF meters, transmit hourly readings every 3 hours at the top of the hour to the Network (8x per day). With every transmission to the Network time synchronization occurs and accuracy drift is kept within a +/-10 second tolerance.

M. The MIU shall periodically transmit a packet that includes the register information such as register ID, register type, and other status information no less than weekly.

Kamstrup's integrated AMI system ensures periodic transmission of key register information, including register ID, register type, and status details:

1. Transmission Frequency: AMI endpoints transmit readings, alarms, and register information every 3 hours as standard practice. This data includes hourly usage values, sequential hourly reads for reconciliation, and critical identification and operational statuses.

2. Additional Fallback: In case of communication gaps, AMR fallback transmissions occur every 32 seconds, ensuring billing continuity.

3. Status Information: With each transmission, the AMI endpoint delivers updates on battery health, tamper alarms, and environmental data, meeting the requirement for regular and comprehensive reporting.

N. The MIU shall automatically attempt to join an AMI network on a periodic basis and once provisioned and authorized, shall begin transmission of AMI network messages for

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consumption by host software as part of simultaneous operation of walk-by, mobile, or AMI network without any site visits or reprogramming of MIU.

The Kamstrup transmitter is preprogrammed before installation according to specifications desired by the utility. The programming includes embedding the FCC licensed network and security encryption keys within the device. The meters activate automatically and begin registering flow and connecting to the AMI network upon water flow. No field programming is required during installation, and any necessary programming adjustments or updates can be done remotely via Over The Air (OTA) updates using the system's software tools.

2.04 FCC Licensing and Certification

A. If applicable, AMR communications shall operate within Federal Communications Commission (FCC) Part 15.247 regulations for devices operating in the 902 MHz to 928 MHz unlicensed band. The output power of the devices shall be governed by their conformance to these relevant FCC standards.

Comply. Kamstrup AMR communications comply with Federal Communications Commission (FCC) Part 15.247 regulations for devices operating within the 902 MHz to 928 MHz unlicensed band. Kamstrup's AMR system transmits over the unlicensed 900 MHz band as part of its drive-by fallback functionality, ensuring compatibility with these FCC standards.

B. If operating on the 902 MHz to 928 MHz unlicensed band, the MIU shall transmit using a frequency hopping, spread spectrum technique comprised of alternating pseudo-random frequencies and/or transmit using the LoRaWAN™ protocol using spread spectrum modulation.

The Kamstrup AMI network uses an FCC-licensed 450-470 MHz frequency that is unique to the Utility and is protected from outside interference by the FCC. Reads collected in AMR, or drive-by mode, operate on the 902 MHz to 928 MHz on an unlicenced band which uses frequency hopping. LoRaWAN not currently supported.

C. AMI communications that utilize an FCC assigned frequency within the licensed 450 MHz to 470 MHz frequency range are preferred. For those that do not utilize an FCC assigned frequency, the system must operate in the 902 MHz to 928 MHz unlicensed band.

The Kamstrup AMI system primarily operates on an FCC-licensed frequency between 450 MHz and 470 MHz, ensuring secure and reliable communication protected from interference by regulatory measures. The system adheres to FCC requirements and includes AES-128 encryption from meter to collector and AES-256 encryption from collector to the Head End System (HES), delivering robust security and integrity during data transmission

D. The system must be expandable at any time without getting authorization from the FCC.

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The Kamstrup AMI system is designed to be fully scalable, allowing for expansion at any time without requiring authorization from the FCC. The network operates on an FCC-licensed 450-470 MHz frequency and supports straightforward addition of collectors or endpoints while maintaining compatibility across the infrastructure.

2.05 Meter Software Requirements

A. The software shall be a cloud-based solution. It shall include online help describing all menus and feature sets with step-by-step tutorials.

The Kamstrup Head End System (HES), READy Manager, is a Software as-a-Service (SaaS) offering that is cloud hosted on secure Microsoft Azure US database servers. The City can download READy Manager for free onto any Windows based PC.

READy Manager is where all meter readings and alarm info codes are stored and easily managed. The software is optimized for simple navigation, group/route management, customer consumption evaluation, Radio Frequency (RF) performance monitoring, alarm info code assessment and customer billing transfers to/from the City's CIS.

READy HES includes a searchable, up-to-date help section with step-by-step guides showing how to perform any functions within the software.

B. Data Hosting

All data shall be hosted on multiple US based servers.

The Kamstrup Meter Data Management System (MDMS) is hosted on secure Microsoft Azure cloud servers located in the United States, ensuring SOC2 compliance. This setup provides robust security and data protection measures, including AES encryption and regular audits to maintain security standards.

C. Data Storage

Historical reading data shall be hosted for up to thirteen months for hourly data and five years for daily data.

READy Manager HES stores hourly usage values for 13 months, daily values for 5 years, and monthly values for 10 years. This data storage capacity is first-in first-out. However, for additional data hosting, the utility can opt to store data in a data lake or cloud data warehouse from a 3rd party provider.

D. Billing Systems Integration

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The software interface to and from Owner's billing software shall be flexible supporting with single record fixed width or delimited (CSV) file formats that can be customized to easily integrate to the billing system.

Kamstrup's READy AMI Headend will support integration to any Utility Enterprise System required by the utility. Integrating between the utility's enterprise systems and the Kamstrup READy Manager Head-end System (HES) can be accomplished in a number of ways. The most common integration is simple file transfer. This interface can be formatted using any fixed width or CSV format and the transfer can be automated through a SFTP or FTPS server if the utility needs a continuous flow of data between the software platforms. API integrations are also available to continuously sync data if required. Because of the flexibility in its integration formats, Kamstrup has not run into any significant integration issues in any previous deployment.

E. File Scheduler

User defined custom data imports and exports shall have the ability to be scheduled as automatic jobs to an FTPS/SFTP server or email.

The HES supports automatic integration via an SFTP server, allowing data synchronization at any desired frequency of hourly or greater intervals. Additionally, an API solution is available for near real-time data transfer to external systems.

F. Features

1. The software shall have search capabilities to search all or specific fields such as address, meter serial number, account number, customer name, etc.

READy Manager utilizes a dynamic search bar that can search by any data field provided by the CIS system including all of those listed above as well as any custom field data the District provides.

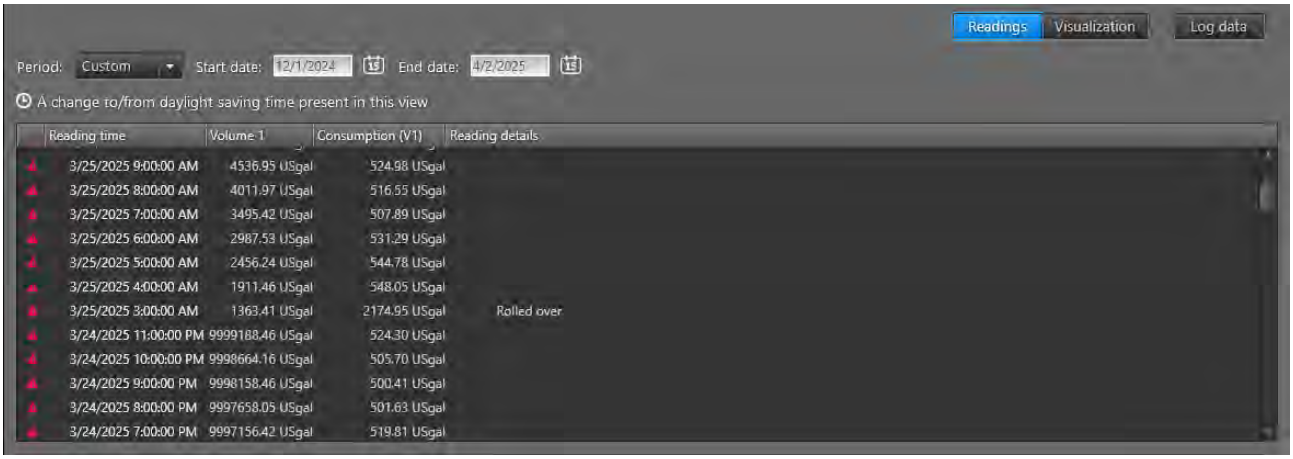
Once a CSR has located the consumer's account, they can assist the consumer in understanding their consumption by showing the consumer their hourly usage over the month as a graph or in a list view. This data can be useful to identify whether the consumer might have a leak or offer a reminder of times when the consumer might have been using more water than they realized (Ex: Filling a pool, watering their yard, or washing a car). The data can be exported from READy and emailed or printed so that the consumer can have a copy as well.

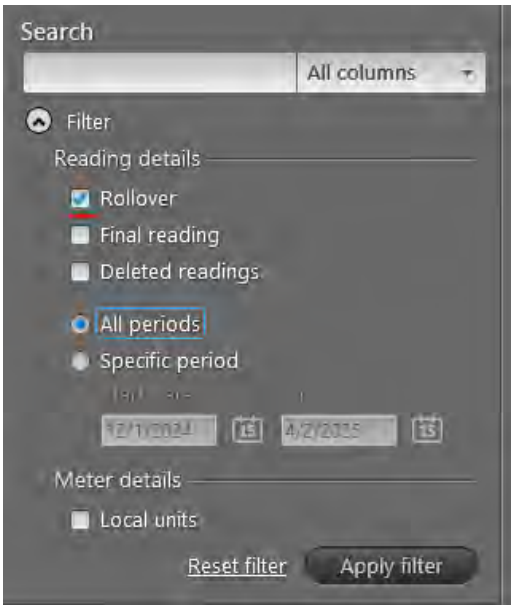
2. The software shall be able to filter on meter rollovers and final readings.

All readings for Kamstrup meters are collected via radio communication, either via AMR or AMI. This ensures complete data integrity as there is no point in the reading process that the readings can be manipulated. Meter rollovers are handled as normal hourly reading intervals

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in the HES and are labeled as 'Rolled Over' for the reading details. Note that the Rollover event is a searchable field in the HES search menu.





3. The software shall provide hourly readings, bar graph chart visualization of average flow per hour to easily identify trends, and anomalies and hourly, daily, monthly, yearly consumption over a user defined date range.

Yes, the READy software can meet all of the specifications mentioned and over a custom date range defined by the user.

4. The software shall be able to send notifications for meter alarms via email or text message when they are detected or on a scheduled basis.

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Comply. Notifications included in the software package, where you can be automatically notified of important meter events that appear in your supply network as soon as they are detected or on a regular basis. The notifications are sent via email or SMS.

5. The software shall allow the creation of meter groups automatically through imports or manually

Comply.

The District has the ability to create, edit, or delete any groups desired within the HES. Creating custom groups is easy by selecting multiple meters and selecting 'Add to New Group' or by right clicking and selecting those meters to be added to a new group. At this time a custom group name can be created specifically for that District personnel to utilize and add/remove meters from the group as needed. Groups are used within READy to everything from reporting to meter reading. Groups can be automatically setup from routes created in the CIS.

6. The software shall allow a user to perform meter exchanges, so that historical data may be referenced under the account with associated meter data history.

Asset data is maintained the Meter Exchange page or READy HES and includes all meter swap information including, Model number, install date, old meter final read, old meter s/n, new meter start read, new meter s/n etc.

7. The software shall have consumption reporting capabilities by group and custom date range.

The READy Manager reporting functionality is robust and customizable to fit the Water District's needs. Any data field can be exported as its own report either as an excel file for data evaluation or to a text file for standard reporting structure. Reports are built for the customer during the initial rollout and testing phase of the project. Training is provided to the City personnel to empower them with the ability to create ad-hoc reports to fit a wide variety of reporting needs.

READy also contains several pre-defined reports for utility use. For individual meters, these include Hourly, Daily, Monthly, and Yearly consumption reports with graphs. Using meter grouping functionality, utilities can generate consumption reports to find abnormally high or low usage over a day, month, year, or custom defined amount of time. The Data Comparison report can compare the usage of up to four individual meters over a definable amount of time. Finally, the Water Loss Analysis report can compare a master meter or upstream meter's usage to the combined usage of all the downstream meters combined into a virtual meter. This is the perfect way for a utility to precisely measure their real system losses and get an extremely accurate idea of the non-revenue water that is being created by leaks in their system.

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8. The software shall allow import and display of custom fields which also may be exported back to the CIS.

Kamstrup complies with this requirement.

9. The software shall allow the reading to be displayed and exported as read from the meter in US gal or ft3, (Us Gallons and cubic feet).

Comply.

G. Fallback Mobile Drive-By Reading

1. The AMI software shall include the ability to read meters via AMR mobile drive by and AMI without installing additional PC software or add on module components.

The District will always have the option to collect contingency mobile readings for an AMI meter as each device continues to transmit this fallback capability read over the life of the product. This fallback capability is typically used for disaster recovery reads but can be used for a monthly billing cycle read if desired. These readings are collected using the READy App paired with the READy Converter and can be done remotely from the curb without physically needing to visit the meter.

A fallback read will provide a single volumetric read for the date and time the meter is read in the field. If additional data history is desired, the meter can be logged instead which would provide the most recent 100 days of hourly usage and also the most recent 460 days of daily usage data.

Once the network connectivity is restored the collector will backfill hourly interval reading data for up to the previous 30 days.

2. The mobile collection system data may be synchronized to the head end servers via Wi-Fi or cellular network without the loss of captured data.

The Kamstrup mobile collection system ensures seamless data synchronization with the Head End System (HES) via Wi-Fi or cellular networks, with robust safeguards to prevent data loss during the process. The system uses buffer storage in network collectors, which can retain up to 30 days of hourly readings for up to 25,000 endpoints in case of backhaul communication interruptions. Once communication is restored, the data is transmitted to the HES without any loss.

Additionally, individual meter endpoints store data locally for up to 100 days of hourly interval reads, which can be retrieved remotely via the READy mobile app or manually if necessary. For immediate synchronization, both mobile reads and regular transmissions update to the HES when cellular or Wi-Fi connections become available, maintaining data integrity throughout.

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3. In addition, if readings were missed by the fixed network system, the mobile collection system shall allow a data log of the meter's internal read data to be sent back to the head end system.

A fallback read will provide a single volumetric read for the date and time the meter is read in the field. If additional data history is desired, the meter can be logged instead which would provide the most recent 100 days of hourly usage and also the most recent 460 days of daily usage data.

Once the network connectivity is restored the collector will backfill hourly interval reading data for up to the previous 30 days.

H. Mapping Visualization

The software shall have the ability to import GIS coordinates or be able to geocode by address, city and zip code. The meter may be viewed graphically in the host software and in the mobile application when in the field.

Kamstrup's READy Manager software supports the import of GIS coordinates and geocoding by address, city, and zip code. Meters can be viewed graphically within the system via the map-based interface, allowing visualization of both meter and collector locations using integrated terrain, street, and satellite views from Google Maps. This mapping functionality is also available in the READy mobile app for field use, enabling technicians to access meter locations and associated data efficiently.

I. Performance Reporting

The software shall provide performance analytics to recognize data collection success of all meters or meter groups on user defined parameters such as daily or hourly reads as a percentage or number to monitor the health of the system.

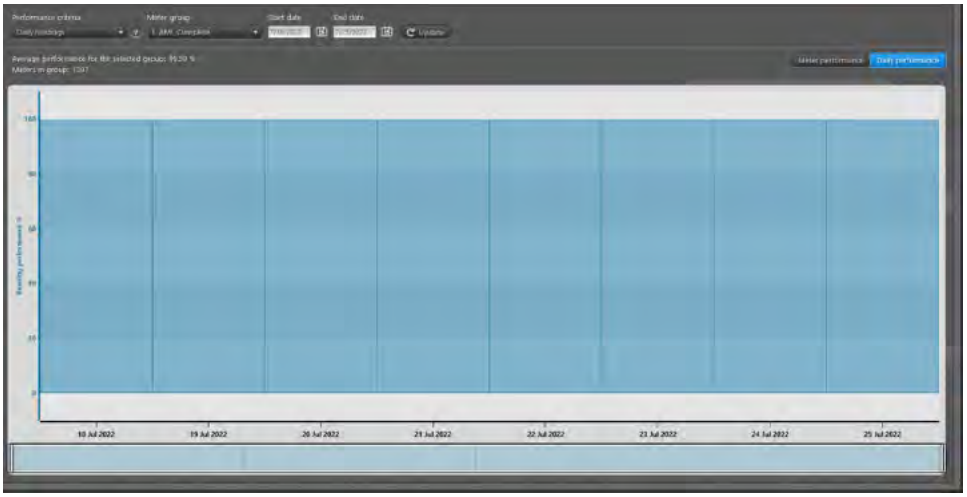
Kamstrup's READy Manager software provides tools for monitoring meter performance on user-defined parameters such as daily or hourly reads. Performance analytics can be accessed via two primary tabs:

Monitoring of the consumption limit can be active for a specified period of time, or be set up without an end date.

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Performance Report – Meter Performance



Performance Report – Daily Performance

To ensure proper operation of the AMI system and accurate billing of the consumers, a reading performance report is available to assess the read rate percentage for meters in your network. READy Manager enables you to see the reading performance either as an average per meter in the Meter performance tab, or as an average per day in the Daily performance tab.

J. Data Security and Integrity

1. Hosted data shall be stored in a SOC 2 or ISO 27001 certified environment including firewalls, antimalware systems and encryption for data protection.

Kamstrup holds to the most stringent security certifications including ISO 27001:2022.

Kamstrup solution and service delivery dept. (GOE) is using CIS18, ISO/IEC 27017 and ISO/IEC 27018 frameworks to measure the effectiveness of internal processes. The 27017 and 27018 standards have been implemented following ISO 27001:2022 as of September 2023.

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READy SaaS data is hosted on Microsoft Azure cloud based software meeting SOC2 Type 2 Compliance. SOC2 Type 2 attestation is performed under:

2. Meter encryption keys are assigned to the utility to prevent unauthorized access to meter reading data. Data sent to the host software shall use TLS 1.2 protocol with AES 256-bit encryption.

The AMI system is protected at all component levels utilizing standard communication protocols such as TLS 1.2 AES 256 encryption from collector to the head end and CCM AES 128 encryption from meter to collector. All data transfers between mobile devices are encrypted and use a secure TLS connection. Mobile devices use a unique token by scanning a QR code and can be revoked if the device is lost or stolen.

3. The import of meter data shall prevent human data entry errors, prevent duplication of meter serial numbers, and distinguish between meters with integrated or separate endpoints.

The READy Manager system prevents human data entry errors, eliminates duplication of meter serial numbers, and differentiates between meters with integrated or separate endpoints through its efficient data import features.

- **Error Prevention:** Meter data is preprogrammed to avoid manual entry mistakes, ensuring system accuracy. The system checks for inconsistencies or missing fields during data import processes.
- **Duplicate Serial Number Prevention:** Every meter and endpoint is assigned a unique identifier, which is verified during the import process to prevent duplication.
- **Identification of Meters:** The system supports differentiation between meters with integrated endpoints or separate configurations by utilizing distinct attributes and metadata for each type during setup and operation.

These features ensure reliable integration of meter data into the system and eliminate potential inaccuracies.

4. The system shall enable the utility to assign and customize user access and permissions based on each user's role within the organization.

READy Manager supports customizable user access and permissions based on organizational roles. Key details include:

- **Role-Based Permissions**: READy Manager offers three main permission levels: User, Superuser, and Administrator. These default role settings can be further customized to tailor access based on user responsibilities

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2.06 Acoustic Leak Detection Software Requirements

A. The software shall support the collection of acoustic noise data from integrated acoustic smart meters or external acoustic noise detection devices and automatically prioritize them based on customer defined levels.

Kamstrup's advanced AMI solution supports the collection of acoustic noise data from its integrated flowIQ® 2200 meters with Acoustic Leak Detection (ALD) technology. The system automatically prioritizes noise readings within the Leak Detector software based on utility-defined acoustic thresholds. Meters are categorized into high, medium, and low noise levels, effectively streamlining detection and management of potential leaks in customer service lines and distribution mains.

B. The software shall be accessible via desktop computer or mobile device. The software shall graph acoustic noise trends over time and allow the user to select the desired date range to facilitate the finding of distribution leaks.

Kamstrup's Leak Detector software is accessible via desktop and mobile devices. It enables utilities to graph acoustic noise trends over time, providing historical data visualization for precise analysis. Users can select and customize the desired date range to track noise development and identify potential issues, facilitating the proactive detection and management of distribution leaks.

C. The software shall visually display meters or external acoustic noise detection devices by noise level geographically in map view and allow customization of which meters or devices are displayed or hidden.

Kamstrup's Leak Detector software includes GIS-based mapping capabilities to visually display noise levels from meters or external acoustic noise devices geographically. Users can customize the display to show or hide specific meters based on defined acoustic thresholds, enabling targeted analysis of noise data for efficient leak detection and prioritization.

D. The software shall support acoustic event tracking, leak type categorization, commenting, and final resolution reporting after field leak investigations.

Kamstrup complies with this requirement.

E. The software shall provide manual or auto-generated reports indicating possible leak events.

Leak Detector allows for data gathering of the number of leaks found/fixed and the estimated cost of leaks assisting the reporting water loss. This data can not only be used to validate water loss for internal and external reporting, but other Utilities have also used this data as evidence to validate the need and provide assistance in requesting grant money to replace pipe assets.

READY Manager has very robust and customizable export options. The District has full autonomy to create and edit formats to extract any data from the READy HES instance. These exports can be formatted in CSV or text file formats.

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F. The software shall provide a list view of meters or sensors with a corresponding overlay of both leak data and relevant meter data including customer side constant consumption alarms, high consumption alarms, and latest reading date.

The Kamstrup solution complies with this requirement.

G. The software shall have the ability to incorporate meter flow conditions to determine if the leak may be before or after the meter.

The Kamstrup solution complies with this requirement.

H. The software shall provide the option to integrate a distribution pipe layer network to aid in visualization of meter and external device locations in relation to distribution main lines and utility service lines.

Acoustic noise value from the meter is transmitted through the AMR or AMI Network and viewed in Leak Detector web-based software where information is easily digested in dashboard format for Meters of Interest, Meters in Warning, and availability to view all in map or list view. Integration of pipe overlay from GIS is also available. Leak data patterns can be easily managed and compared to neighboring meters ensuring quicker localization of potential leaks before even visiting the field. Reports are also available and can be automated to be sent to City personnel responsible for managing Non-Revenue Water initiatives or weekly leak investigations. Leak Detector also allows for data gathering of the number of leaks found/fixed and the estimated cost of leaks assisting the reporting or water loss for the city. This data can not only be used to validate water loss for internal and external reporting, but other Utilities have also used this data as evidence to validate the need and aid in requesting grant money to replace critical pipe assets. Ability to integrate with third party sensors on software roadmap.

I. The software shall be able to export data in CSV and PDF formats.

READY Manager has very robust and customizable export options. The District has full autonomy to create and edit formats to extract any data from the READy HES / MDM instance. These exports can be formatted in CSV or text file formats.

PART 3 - EXECUTION

3.01 Factory Testing

Each meter shall be factory-tested for accuracy in accordance with AWWA C715 to demonstrate compliance with these specifications.

Kamstrup water meters, including the flowIQ® 2200, comply with AWWA C715 standards for accuracy. Each meter undergoes 100% factory testing for compliance, and electronic or paper test results are provided for verification upon shipment. This ensures accuracy and performance align with specifications before installation.

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3.02 Installation

A. Installation of residential flow meter systems shall be in strict accordance with the manufacturer's written instructions.

Core & Main and its installation partner, DB Utility, comply with this requirement.

B. The meter may be installed at any angle and position with no minimum straight pipe and meet applicable AWWA accuracy standards.

One of flowIQ® 2200's many advantages is the fact that it has no wearing parts, which ensures a high and stable accuracy throughout its lifetime. flowIQ® 2200 complies with all the AWWA C715-18 guideline for Ultrasonic Water Meters.

The Kamstrup flowIQ® 2200 is easy to install in all operating environments, horizontally as well as vertically, independent of piping and installation conditions

C. When the meter is installed, the use of a mobile application shall confirm that the meters signal is being received by one or more AMI data collector and verify the signal strength to determine whether the installation is good before leaving the installation site.

Yes, the mobile application allows users to verify the signal strength and readability of the desired meter.

3.03 Warranty

A. Materials and Workmanship

The manufacturer warrants that the products shall be free from defects in materials and workmanship during the warranty period defined as follows:

1. Smaller than 1-1/2" – the Warranty Period shall be a full twenty (20) years from the date of delivery to buyer.

Yes, the warranty period will be a 10/10. 10 year full replacement in the first ten years and the following ten years the warranty will be prorated.

2. 1-1/2" and larger – the Warranty Period shall be a full ten (10) years from date of delivery to buyer.

Yes, the warranty period will be a 5/5. 5 year full replacement in the first five years and the following five years the warranty will be prorated.

B. Accuracy

Manufacturer shall warrant that the meters will perform to the accuracy as defined in AWWA C715-18 and AWWA M6 manual. In event that the meters do not comply with

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the warranties, the manufacturer shall repair or replace any defective meter at no cost or shall refund the purchase price of such defective meters during the warranty period defined as follows:

1. Smaller than 1-1/2" – the Warranty Period shall be a full twenty (20) years from the date of delivery to buyer.

The accuracy warranty is for the life of the meter. 20 years.

2. 1-1/2" and larger – the Warranty Period shall be a full ten (10) years from date of delivery to buyer.

The accuracy warranty is for the life of the meter. 10 years.

C. Battery Life

Based on operation of the meters at an ambient operating temperature not higher than stated in the technical documentation, the manufacturer shall warrant the system battery during the warranty period defined as follows:

1. ***Smaller than 1-1/2" – the Warranty Period shall be twenty (20) years (10 full/ 10 prorated) from the date of delivery to buyer. Manufacturer shall replace any meters that contain defective batteries at a cost to buyer equal to the price set out in the price list valid at the time of return of the meter, minus the discount according to the following schedule:***

Year	Discount	Year	Discount
11	75%	16	40%
12	75%	17	30%
13	50%	18	20%
14	50%	19	10%
15	50%	20	10%

Comply.

2. 1-1/2" and larger – the Warranty Period shall be a full ten (10) years from date of delivery to buyer.

Correct, however on meters 6'' and above we offer a field replaceable battery that doesn't intercept the metrology of the meter.

D. Warranty shall be provided in the District's name.

Kamstrup complies with this requirement.

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3.04 Training

AMI/AMR System Supplier shall provide training to District personnel, including operation, maintenance, and troubleshooting. Training shall include a minimum of one (1) hour classroom training and a minimum of two (2) hours field training for the residential flow meters.

Core & Main and Kamstrup comply with this requirement. We have provided a sample training plan under the *AMI Support and Customer Training* section of our response.

3.05 Field Testing AMI/AMR System

Supplier shall demonstrate to the Owner that the equipment operates as designed and specified with internal or external acoustic leak detection device.

The Kamstrup flowIQ® 2200 meters incorporate integrated Acoustic Leak Detection (ALD) technology, enabling consistent monitoring of both customer-side and utility distribution leaks directly through the water. Data collected via these internal sensors is transmitted daily to the Leak Detector platform. Demonstration can be provided to verify that the metering equipment functions as specified, showcasing its ability to analyze water network conditions efficiently without external devices or additional infrastructure while maintaining performance compliance standards.

SECTION 17331 – COMMERCIAL AND INDUSTRIAL FLOW METERS TECHNICAL SPECIFICATIONS

PART 1 – GENERAL

1.01 General Requirements

Contractor shall furnish and install commercial and industrial flow meter systems and all appurtenant materials, equipment, and work suitable for the services listed, complete and operable in accordance with requirements of the Contract Documents and in conformance with the manufacturer's recommendations. Upon completion of installation, the work shall be tested to demonstrate compliance with these specifications.

Core & Main complies with this requirement.

1.02 AMI/AMR Systems Supplier

All equipment specified herein, in Section 17330 – Residential Flow Meters Technical Specifications, and in Section 17335 – AMI/AMR Data Collection Systems Technical Specifications shall be supplied by a single manufacturer (AMI/AMR Systems Supplier) to assure compatibility and unit responsibility for operation and performance.

Core & Main complies with this requirement.

1.03 Related Sections

A. Section 17330 – Residential Flow Meters Technical Specifications

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B. Section 17335 – AMI/AMR Data Collection Systems Technical Specifications

Core & Main acknowledges these Technical Specification sections.

1.04 Specific Project Requirements

Contractor shall replace the following quantity and sizes of existing commercial and industrial flow meters:

Meter Size	Quantity
3"	2
4"	5
6"	3

Core & Main complies with this requirement.

1.04 Submittals

All submittals shall be in accordance with Section 01300, Contractor Submittals and Requests Technical Specifications.

A. Shop Drawings

Contractor shall submit shop drawings in accordance with the Contractor Submittals Technical Specification and shall include, but not be limited to, the following:

1. Details and specifications of all components of all meters including detailed installation instructions.

2. Wiring and connection schematics.

3. Manufacturer's application performance guarantee for each meter location, and recommendations for installation at each location.

4. Factory accuracy test reports for each meter furnished.

Core & Main complies with this requirement. Kamstrup complies with this requirement, these reports can be provided upon request.

B. Operation and Maintenance Manual

Contractor shall submit a detailed operation and maintenance manual for the flow metering system(s) specified herein.

Comply

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PART 2 - PRODUCTS

2.01 General

A. Commercial and industrial flow meter systems shall consist of a flow meter with integral factory-programmed electronic register/interface device.

Kamstrup's flow meters, including the **flowIQ® 2200**, **3200**, and **4200**, incorporate fully integrated electronic registers and transmitters, eliminating external wiring or adapters. These meters are factory-programmed and ready for immediate integration into AMI systems.

B. Flow meter shall be solid-state with no moving parts and utilize two (2) ultrasonic transducers to measure flow rate.

Comply

C. Flow meter size, capacity, and length shall be as specified in AWWA C715.

Comply.

D. All flow meters shall be provided with new gaskets.

Core & Main acknowledges this requirement.

E. Flow meter system shall be manufactured to order with a manufacturing date no earlier than three (3) months prior to order date.

Kamstrup Complies with this requirement.

F. Flow meter system shall be Kamstrup (flowIQ), Neptune, or approved equal or approved equal.

For Rubidoux Community Services District, Core & Main is proposing the approved Kamstrup metrology and network.

2.02 Flow Meter

A. Meter Body

1. The meter body shall be NSF/ANSI 61 certified lead-free materials and shall be either cast bronze, or 316L stainless steel. Insulating or isolation fittings shall be provided at connections to dissimilar metals.

Comply. The flowIQ 3200 and 4200 meter has been approved according to Drinking Water Standards and is certified to NSF/ANSI 61 and the meter body is stainless steel.

2. Meter size, model, direction of flow, and NSF 61 certification shall be indicated on the meter body.

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Comply

3. All fastening hardware shall be constructed of Type 316 non-magnetic corrosion-resistant stainless steel to prevent corrosion.

Kamstrup Complies with this requirement.

4. Meters 3" through 12" in size shall be provided with Class 150 flat-faced flanges conforming to ASME B16.24. Contractor shall coordinate connection type and size based on actual meters furnished.

Kamstrup Complies with this requirement.

5. Meter shall be suitable for a maximum operating pressure of 175 psi (minimum).

Kamstrup meters are pressure-tested to ensure performance and durability. Residential meters are rated for a maximum operating pressure of 250 psi, while commercial meters range between 275 psi and 300 psi, exceeding the minimum requirement of 175 psi.

B. Meter Register/Interface Device

1. The meter register/interface device shall consist of a meter register and meter interface unit (MIU), housed within the same enclosure. The meter register/MIU enclosure shall contain all the elements necessary for accurate measurement and registration of water flow rate.

Comply. Kamstrup complies with this requirement. The flowIQ® water meters have integrated registers and RF communication capabilities contained within the same enclosure, simplifying installation and minimizing components. The meter's all-in-one design eliminates the need for separate meter interface units (MIU) or external connections, ensuring a more robust and tamper-resistant solution.

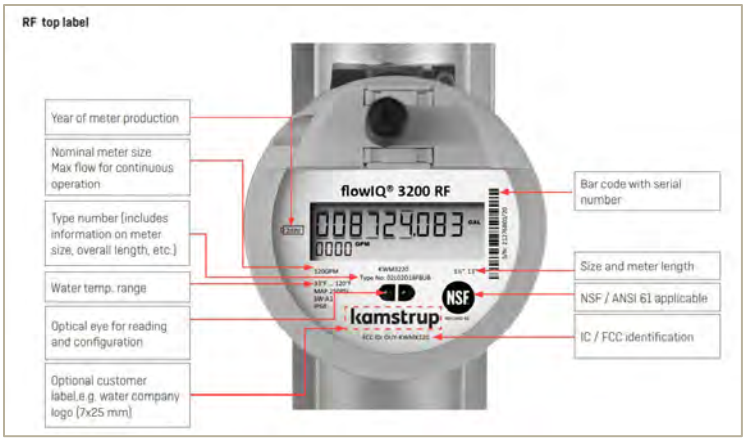
2. The device shall be provided with a 9-digit LCD display.

Comply. Kamstrup meters are equipped with a 9-digit LCD display.

3. The meter serial number shall be displayed in a permanent location on the register.

Comply.

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4. The device shall be hermetically sealed or fully potted with no exposed wires connecting the MIU and register.

The integrated meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display.

5. The device shall transmit seamlessly in both advanced metering infrastructure (AMI) and automated meter reading (AMR) mode without any additional programming.

Comply.

6. The device shall be capable of operating at external ambient temperatures of 35°F to 130°F (1.5°C to 55°C) and operating humidity factor of 0 to 100% condensing.

Comply.

7. The radio circuit board and battery shall be protected by hard-potting material or hermetically sealed.

The integrated meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display.

8. The device shall either have an integral antenna mounted to the meter or be designed for a remote antenna capable of being installed through an industry standard 1-3/4" diameter hole in a meter box lid for maximum transmission range.

Comply

No wires are required between the meter, encoder, and radio. The majority of meters in the system will be able to transmit under the lid, whether metal or composite, without issue. In the event that communication is not consistent, the easiest course of action is to swap a metal lid for a composite. The next is to raise the signal out of the pit using and external antenna. An external antenna is available as a wall mount option in lengths of 6.6ft or 65.6ft

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and in a pit mount option in lengths of 2ft, 6.6ft, and 24.6 ft for use in situations like meter vaults and inside sets. The pit mount option goes through the industry standard 1' –¼" hole. Because of it's backfill capabilities, even an inconsistent connection can often show no data gaps in the HES.

9. If using an external antenna, it shall be capable of mounting to various thicknesses of meter box lids from 1/2" to 2-1/2" and various distances from meters.

Comply

10. Remote antennas shall be rigid in design to withstand traffic and shall have a dual-seal connection to the MIU housing.

Kamstrup Complies with this requirement.

11. The MIU device shall be protected against static discharge without loss of data per IEC 801-2, Issue 2.

Kamstrup Complies with this requirement.

12. Power shall be supplied to the MIU by a lithium battery with capacitor.

The MIU is powered by a **long-life lithium battery** designed for extended operational life. The device incorporates **internal power management components** to support reliable operation during transmission events and varying load conditions.

13. The number of radio-based meter reads performed must not affect the battery life.

Comply. Please refer to our response within the Residential Meter Specifications.

14. The battery life shall not be affected by outside erroneous wake-up tones (e.g., other water, gas, or electric utilities reading and therefore sending out a wake-up tone).

Comply.

15. The battery shall be hermetically sealed or a fully potted component of the MIU with no external wires.

Comply. Please refer to our response within the Residential Meter Specifications.

16. The device shall be rated IP68 suitable for continuous submergence in water.

Comply. The meter is IP68 (submersible) type tested and suitable for installation in meter pits.

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C. Performance

1. All meters shall be capable of the following flow ranges at the listed accuracies.

Meter Size	Extended Low Flow @ 100% Accuracy (U.S. gpm ± 10%)	Normal Operating Range @ 100% Accuracy (U.S. gpm ± 1.5%)	Safe Maximum Operating Capacity (U.S. gpm)	
			Normal Operation	Fire Service
3"	0.50	7.5 to 350	350	420
4"	0.75	5.0 to 700	700	700
6"	1.4	5.0 to 1400	1400	1400
8"	4.0	6.0 to 40280000	2800	2800
10"	6.0	7.0 to 4500	4500	4500
12"	8.0	8.0 to 5500	5500	5500

Comply

2. Meters shall not require a strainer for accurate operation.

Comply.

2.03 Data Transport

A. The MIU shall provide 8-digit reading resolution from encoded registers using either Neptune ProRead™/E-CODER protocol or Sensus UI-1203 protocol in mobile as well as AMI network data collection applications, simultaneously, without need for programming.

Kamstrup **Encoded Output** supports the Neptune ProRead™/E-CODER protocol and Sensus UI-1203 protocol in both mobile and AMI network data collection applications simultaneously without requiring additional programming. This compatibility ensures seamless integration with these systems, facilitating efficient and accurate utility data collection across various applications.

B. The MIU shall read the encoded register at hourly intervals to provide accurate leak and reverse flow detection using 8-digit resolution reads.

Comply

C. The MIU shall transmit the meter reading continuously at a predetermined transmission interval.

Comply. Please refer to our response within the Residential Meter Specifications.

D. The MIU shall transmit AMI network messages every three (3) hours – standard. No programming shall be necessary to activate transmission of AMI network messages.

Comply. Please refer to our response within the Residential Meter Specifications.

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E. Each AMI network message shall be capable of including 24-meter readings for redundancy to improve read success rates.

Comply. If a transmission is missed, the system uses Reading Gap Reconciliation to reconcile reading gaps for up to 24 hours by including the current hour read and the previous five hours of data in the next transmission.

F. The MIU shall transmit AMR Fallback messages every 32 seconds – standard. No programming shall be necessary to activate or revert to transmission of AMR Fallback messages.

Comply. Kamstrup meters comply with the AMR fallback feature, transmitting messages every 32 seconds. The feature does not require programming for activation or reversion to AMR fallback mode.

G. Each device shall have unique preprogrammed identification numbers (ID) of nine (9) characters. ID numbers shall be permanent and shall not be altered. Each device shall be labeled with the ID number in numeric and barcode form. The label shall also display FCC approval information, manufacturer's designation, and date of manufacture.

Comply. Please refer to our response within the Residential Meter Technical Specifications.

H. The MIU shall transmit the encoder meter reading and a unique MIU ID number. The MIU shall interface to encoder registers using Neptune E-CODER or Sensus UI-1203 communication protocol via a 3-conductor wire without need for special configuration to the MIU.

Not applicable, as Core & Main and Kamstrup are proposing an **integrated proprietary MIU solution** where compatibility with external encoder protocols, such as Neptune E-CODER or Sensus UI-1203, is inherently unnecessary due to the fully integrated design.

I. The MIU shall transmit time-synchronized, top-of-the-hour readings as part of its scheduled, periodic AMI network transmission.

Comply.

J. The MIU shall periodically transmit a packet that includes the register information such as register ID, register type, and other status information no less than weekly.

Comply. Please refer to our response within the Residential Meter Technical Specifications.

K. The MIU shall automatically attempt to join an AMI network on a periodic basis and, once provisioned and authorized, shall begin transmission of AMI network messages for consumption by host software as part of simultaneous operation of walk-by, mobile, or AMI network without any site visits or reprogramming of MIU.

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Comply. The Kamstrup transmitter is preprogrammed before installation according to specifications desired by the utility. The programming includes embedding the FCC licensed network and security encryption keys within the device. The meters activate automatically and begin registering flow and connecting to the AMI network upon water flow. No field programming is required during installation, and any necessary programming adjustments or updates can be done remotely via Over The Air (OTA) updates using the system's software tools.

L. The MIU shall provide empty pipe detection that is visibly displayed on the meter's LCD register.

Comply.

M. The MIU shall provide and display low battery detection on the meter LCD and shall communicate low battery detection to the AMI network.

Comply.

2.04 FCC Licensing and Certification

A. The MIU shall operate within Federal Communications Commission (FCC) Part 15.247 regulations for devices operating in the 902 MHz to 928 MHz unlicensed band. The output power of the devices shall be governed by their conformance to these relevant FCC standards.

Comply.

B. AMI communications that utilize an FCC assigned frequency within the licensed 450 MHz to 470 MHz frequency range are preferred. For those that do not utilize an FCC assigned frequency, the system must operate in the 902 MHz to 928 MHz unlicensed band.

The Kamstrup READy AMI system operates on a secure FCC-licensed 450-470 MHz frequency, providing protection against interference and ensuring reliable data transmission.

C. The system must be expandable at any time without authorization from the FCC.

The Kamstrup AMI system is designed to be fully scalable, allowing for expansion at any time without requiring authorization from the FCC. The network operates on an FCC-licensed 450-470 MHz frequency and supports straightforward addition of collectors or endpoints while maintaining compatibility across the infrastructure.

D. No wake-up tone shall be necessary.

Comply

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PART 3 - EXECUTION

3.01 Factory Testing

Every meter shall be factory-tested for accuracy in accordance with AWWA C715 to demonstrate compliance with these specifications.

Kamstrup complies with this requirement.

3.02 Installation

Installation of commercial and industrial flow meter systems shall be in strict accordance with the manufacturer's written instructions.

Comply.

3.03 Warranty

Manufacturer shall guarantee electrical equipment against defects in material and workmanship for a period of ten (10) years from date of manufacture. Warranty shall include battery life for a period of ten (10) years. Warranty shall be for full replacement of the meter. Warranty shall be provided in the District's name.

Comply. Please refer to the Warranty Statement attached.

3.04 Training

AMI/AMR System Supplier shall provide training to District personnel, including operation, maintenance, and troubleshooting. Training shall include a minimum of one (1) hour classroom training and two (2) hours field training for the commercial and industrial flow meters.

Core & Main and Kamstrup comply with this requirement. A training plan has been provided below.

SECTION 17335 – AMI/AMR DATA COLLECTION SYSTEMS TECHNICAL SPECIFICATIONS

PART 1 – GENERAL

1.01 General Requirements

Contractor shall furnish and install AMI Data Collection System including and all appurtenant materials, equipment, and work suitable for the services listed, complete and operable in accordance with requirements of the Contract Documents and in conformance with the manufacturer's recommendations. Upon completion of installation, the work shall be tested to demonstrate compliance with these specifications. All materials and equipment supplied under this Section shall be new, of good quality, and in good condition.

Core & Main and Kamstrup comply with this requirement.

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A. The system network design shall achieve a minimum of +98.5% daily reading performance over a 3-day billing read window.

Comply. Please refer to the Propagation Study attached above.

B. The system network design shall achieve 100% coverage of meter population.

Comply

1.02 AMI/AMR Systems Supplier

All equipment specified herein, in Section 17330 – Residential Flow Meters Technical Specifications, and in Section 17331 – Commercial and Industrial Flow Meters Technical Specifications shall be supplied by a single manufacturer (AMI/AMR Systems Supplier) to assure compatibility and unit responsibility for operation and performance.

Core & Main complies with this requirement.

1.03 Related Sections

A. Section 17330 – Residential Flow Meters Technical Specifications

B. Section 17331 – Commercial and Industrial Flow Meters Technical Specifications

Core & Main acknowledges these Technical Specification sections.

1.04 Specific Project Requirements

A. Fixed Data Collection Systems

1. Contractor shall furnish and install fixed data collection systems at existing District facilities as required to collect data from residential, commercial, and industrial flow meters throughout the District's service area. The District's service area boundary is shown on Figure 1 included in these Contract Documents.

Core & Main complies with this requirement.

2. AMI System Supplier shall visit existing District facilities and determine the exact quantity and location of fixed data collection systems required for a complete and operable system. Existing District facilities available for installing fixed data collection systems are shown on Figures 1 through 5 included in these Contract Documents.

Core & Main and Kamstrup comply with this requirement; a site survey was conducted during the solicitation process.

3. Contractor shall furnish and install permanent 120VAC power distribution facilities for each proposed fixed data collection system. Contractor shall connect proposed power distribution facilities to existing 120VAC power supply facilities at each site.

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Comply.

B. Drive-By Data Collection Systems

Contractor shall furnish one (1) drive-by data collection system.

Core & Main and Kamstrup comply with this requirement.

C. Walk-By Data Collection Systems

Contractor shall furnish one (1) walk-by data collection system.

Core & Main and Kamstrup comply with this requirement.

D. Software Service

Contractor shall furnish a one (1) year software service contract as specified herein.

Core & Main and Kamstrup comply with this requirement.

E. Customer Portal Interface Access

Contractor shall furnish a one (1) year customer portal interface access contract.

Core & Main and H2O Analytics comply with this requirement. Please refer to the Solution Overview section of our response for an overview on the Customer Portal solution.

1.05 Submittals

All submittals shall be in accordance with Section 01300, Contractor Submittals and Requests Technical Specifications.

Core & Main complies with this requirement.

A. Shop Drawings

Contractor shall submit shop drawings in accordance with the Contractor Submittals Technical Specification and shall include, but not be limited to, the following:

1. Manufacturer's product data sheets for all equipment, materials, and components specified herein.

2. Details and specifications of all data collection system components.

3. Fabrication and assembly drawings for fixed data collection system components.

4. Detailed installation instructions for all components furnished.

5. Wiring and connection schematics.

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6. Manufacturer's application performance guarantee for each fixed data collection system location.

7. Calculations and details signed and stamped by a civil or structural engineer registered in the State of California for the free-standing antenna tower base and reinforced concrete foundation prepared in accordance with the California Building Code (latest).

8. Fabrication drawings and details for electrical enclosure mounting frames and stanchions.

Core & Main complies with this requirement.

B. Post Warranty Support Plan

Contractor shall submit a Post-Warranty Support Plan identifying software update frequency, software support contact structure, field service and troubleshooting response times, and spare parts availability.

1. Software Update Frequency:

Kamstrup's READy Head End System (HES) receives approximately two updates/upgrades annually. Updates are automatically pushed to users' instances when logging into the system.

2. Software Support Contact Structure:

Core & Main provides support alongside Kamstrup’s resources. Utilities get access to a MyKamstrup account, allowing easy access to manuals, troubleshooting guides, videos, customer support, and issue reporting.

3. Field Service and Troubleshooting Response Times:

Personnel trained by the manufacturer are available for support, with troubleshooting response capability in accordance with Service Level Agreement (SLA) requirements, including severity levels and guaranteed response times.

4. Spare Parts Availability:

Spare parts and system scalability are ensured through Kamstrup’s modular system design, with documentation supporting future scalability and additional collectors to expand coverage seamlessly.

Kamstrup software and system maintenance align with ISO standards and rigorous quality assurance protocols for testing updates, securing against vulnerabilities, and ensuring compliance with cybersecurity frameworks.

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C. Operation and Maintenance Manual

Contractor shall submit detailed operation and maintenance manuals for the data collection systems specified herein.

Core & Main complies with this requirement. Upon award, Core & Main and Kamstrup will provide O&M documentation for the AMI system.

PART 2 - PRODUCTS

2.01 General

A. Data collection systems shall provide a means of communication between the data collection devices and flow meters.

The Kamstrup AMI solution provides a robust means of communication between data collection devices (collectors) and flow meters using an FCC-licensed 450 MHz frequency, ensuring reliable and secure long-range communications.

Key components include:

1. Integrated Radio Communication: Kamstrup meters, such as flowIQ® 2200, flowIQ® 3200, and flowIQ® 4200, have built-in radios that eliminate the need for separate wired communication devices. This simplifies installation and reduces maintenance requirements. Each meter transmits hourly consumption data and alarm information (e.g., leaks, tampering) to the nearest collector.

2. Collectors: Kamstrup READy Collectors are central to the system's fixed network infrastructure, designed to receive meter data and transmit it to the Head-End System (READy Manager). These collectors can store up to 30 days of hourly readings for up to 25,000 meters, ensuring data continuity even during backhaul interruptions.

3. Two-Way Communication: The system supports true two-way communication. Meters can send hourly data and alerts to the collector, while utilities can remotely perform updates, reprogram, and schedule readings through the Head-End System.

4. Automated Data Transmission: Meters operate on a routine RF transmission schedule of every three hours to ensure consistent data delivery (including current and previous reads). Missed transmissions are reconciled in subsequent schedules, with capabilities to restore up to 100 days of hourly data via AMR fallback if necessary.

5. READy Manager Integration: The collected data is transmitted securely to the cloud-based READy Manager platform for storage, monitoring, and analysis. It supports data encryption, ensuring the integrity of communication between collectors and the meters/head-end system.

This communication framework ensures comprehensive data collection and management, scalability, and secure transmission, making it suitable for efficient utility operations and billing purposes.

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B. Data collection systems shall provide a means for communication with the District's software system.

The proposed Kamstrup AMI solution complies with this requirement. Please refer to the answer above.

1. The AMI network shall allow for collector redundancy.

Kamstrup complies with this requirement.

2. An AMI network capable of self-healing by automatically monitoring reading performance and adjusting power output of meter transmissions is preferred.

The Kamstrup AMI solution incorporates self-healing capabilities to optimize the functionality and reliability of the network. Key features addressing automatic monitoring and adjustment of power output include:

1. Automatic Power Optimization: Meters dynamically adjust output transmission power based on the signal strength received from the connected collector. This ensures efficient communication and minimizes energy consumption, providing the highest chance of reliable data transmission without manual intervention.

2. Automatic Path Optimization: Meter radios actively scan and store paths to multiple collectors upon activation or if communication with the current collector is lost. This feature enables the meter to immediately attempt a connection with the next collector based on signal strength before rescanning the network, ensuring uninterrupted data collection.

3. Reading Gap Reconciliation: If a scheduled transmission is missed, the system includes the most recent meter reading along with the previous five hours of data in the next transmission. This approach continues up to 24 hours, ensuring high data integrity despite network disruption.

4. Fallback AMR Operation: Meters maintain a continuous backup capability for AMR drive-by readings, ensuring billing reads can still be obtained reliably even during unexpected network interruptions.

5. Network Collector Data Retention: Collectors store up to 30 days of hourly data for up to 25,000 meters, enabling backhaul communications to be restored without data loss or affecting system accuracy. Once communication is re-established, stored data is automatically updated to the Head End System (HES).

This combination of features enables a resilient and adaptive network infrastructure ensuring uninterrupted performance and reliable operations over the long lifecycle of the system.

3. The AMI network software shall include the ability to read meters via AMR mobile drive by and AMI without reprogramming of the meter or MIU.

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Comply.

4. The AMI network shall provide two-way communication in order to perform firmware updates on devices as needed.

The proposed Kamstrup AMI solution complies with this requirement. The Kamstrup AMI system provides true two-way communication between the Head End System (HES) and the transmitter. The system supports Over The Air (OTA) updates, allowing commands and configuration changes to be sent from the HES to individual meters or groups of meters. This includes scheduling updates, reprogramming read intervals, and pushing firmware updates. The communication is secured with AES 128 and AES 256 encryption, ensuring data integrity and security in both directions. Additionally, on-demand readings can be initiated remotely, allowing the utility to collect data or perform diagnostics as needed without physical meter access.

2.02 Fixed Data Collection Systems

A. General

Each fixed data collection system shall consist of a data collection device, antenna, antenna support system, communication cable, radio lightning arrestor, uninterruptible power supply (UPS), and electrical enclosure support frames and stanchions.

Kamstrup complies with this requirement.

B. AMI Network Collectors

1. AMI network collectors shall be housed in rugged NEMA 4, (IP66) enclosure class with built-in lightning protection.

The proposed Kamstrup READy Collector complies with this requirement.

2 AMI network collector shall operate from -4° F to 130° F and 10% to 100% condensing humidity.

The Kamstrup READy Collector exceeds these requirements with an operating temperature range of -22° F to 149 ° F. Please refer to the Product Data Sheet for more information.

3. AMI network collectors shall automatically perform required updates such as firmware without user intervention.

Comply. Code or firmware upgrades for the collectors are automatically performed over-the-air (OTA) from the Head End System (HES).

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4. AMI network data backhaul communication options shall include either cellular modem or ethernet network.

The proposed Kamstrup READy Collector complies with this requirement.

5. AMI network collectors shall have onboard storage and support up to 30 days of hourly data for up to 20,000 meters.

Comply. Collectors store up to 30 days of hourly reads for up to 25,000 endpoints in case of backhaul communication interruption.

6. AMI network collectors shall require minimal maintenance. Contractor shall provide any manufacturer-required maintenance instructions.

The recommended maintenance intervals for collectors are as follows:

- **Year 3:** Visually check the collector installation. Replace any chaffed wires or pieces showing signs of wear.
- **Year 8:** Visually check the collector installation. Replace any chaffed wires or pieces showing signs of wear. Replace units degrading in performance, expecting a 20% replacement of infrastructure.
- **Year 13:** Visually check the collector installation. Replace any chaffed wires or pieces showing signs of wear.
- **Year 18:** Visually check the collector installation. Replace any chaffed wires or pieces showing signs of wear. Replace units degrading in performance, expecting a 50% replacement of infrastructure.

The useful life expectancy of collectors is estimated at 20 years.

Code or firmware upgrades for the collectors are automatically performed over-the-air (OTA) from the Head End System (HES). This process does not require manual intervention, ensuring collectors remain updated with the latest software enhancements and security measures.

7. Collector shall offer an optional solar power input, to ensure functionality in locations where mains power is unavailable.

Comply.

C. Antenna

1. Antenna shall be suitable for 100 mph wind.

Kamstrup complies with this requirement.

2. DC grounded electrostatic discharge (ESD) protection.

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Kamstrup complies with this requirement.

3. Antenna shall be provided with a corrosion resistant metal mounting mast as necessary for required mounting height.

Kamstrup complies with this requirement.

4. Antenna shall be furnished with all necessary mounting clips, adapters, supports, hardware, and appurtenance. Said components shall be corrosion resistant metal.

Comply.

D. Antenna Support System

1. Reservoir Handrail At reservoir sites, antenna shall be mounted to handrail on reservoir roofs with strut channel when handrail is present. Strut channel shall be hot dip galvanized steel, 1-5/8" by 1-5/8" by 12 gauge thick (minimum) with hot-dip galvanized hardware and fittings. Cut edges of strut shall be ground smooth and coated with Cold Galvanizing Compound or equivalent repair method.

Comply

2. Free-Standing Tower

a. A 40-foot tall (minimum) free-standing, aluminum tower with hinged base shall be provided for mounting the fixed data collection system antenna and cables when the antenna cannot be located on the roof of a reservoir.

Comply

b. 10-foot high anti-climb panels shall be provided on all sides of the tower near the bottom of the tower and secured with stainless steel hardware.

Comply

c. Tower base shall be embedded in a cast-in-place reinforced concrete foundation designed by a civil or structural engineer registered in the State of California. Foundation shall be 5-foot square by 8-foot high structural concrete with #6 reinforcing bars each way at 12" on center spacing, minimum. Concrete shall be Class 650 CW 4000 concrete conforming to SSPWC Section 201 1.3.3 and reinforcing bars shall be Grade 60 conforming to SSPWC Section 2001-2.2.1. Exposed subgrade shall be scarified 12" and recompacted to 95% (minimum relative compaction) prior to placing concrete.

Not applicable as the propagation study requires use of the existing water tank sites.

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d. Tower shall be located where it can pivot and lay down flat on the ground.

Not applicable. The Propagation Study utilizes the utility's existing water tank sites.

e. Lighting Rod and Grounding

1) A lightning rod, Novalynx Model 190-121 or equal, shall be attached to the tower with two (2) stainless steel pole mount brackets and U-bolts.

Comply

2) A #2/0 bare copper ground conductor shall be attached to the lighting rod and clamped to the tower with stainless steel clamps at 24" spacing. At the base of the tower, the ground conductor shall be installed in conduit and run to outside the limits of the tower foundation and connected to a bare copper ground rod. Open end of exposed conduit above grade shall be sealed with duct seal to prevent entry of water and debris.

Comply

3) A #4 AWG bare copper ground conductor shall be attached to the tower base above grade and run to the ground rod per Item b above (installation in conduit not necessary).

Comply

E. Radio Lightning Arrestor

1. A radio lightning arrestor shall be provided between the antenna and data collection device.

Kamstrup complies with this requirement.

2. A #3/0 bare copper conductor shall be installed in conduit from the radio lightning arrestor to a ground rod.

Kamstrup complies with this requirement.

F. Communication Cable

1. Communication cable shall be watertight, flexible, low-loss communications coaxial cable rated for outdoor use and suitable for an operating temperature range of -4°F to +140°F.

Kamstrup complies with this requirement.

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2. Minimum velocity of propagation shall be 85%.

Kamstrup complies with this requirement.

3. Maximum impedance shall be 50 ohms.

Kamstrup complies with this requirement.

4. Maximum DC resistance of inner conductor shall be 1.39 ohms per 1000 feet and 1.65 ohms per 1000 feet for outer conductor.

Kamstrup complies with this requirement.

5. Communication cable shall be able to withstand 2500 volts DC.

Kamstrup complies with this requirement.

6. When the antenna is located on top of a reservoir, communication cable shall be installed in conduit mounted to reservoir shell. When antenna is located on top of a free-standing tower, communication cable shall be attached to tower with stainless steel clamps.

Kamstrup complies with this requirement.

7. Communication cable shall be provided with all necessary fittings and connectors.

Comply.

G. Uninterruptible Power Supply (UPS)

1. UPS shall supply 120VAC, 60 Hz, 1-phase power to the fixed data collection system.

Yes, UPS output will be 120 vac, 60 hz, single-phase (note: maximum UPS output current is 1A).

2. Input power shall be 120VAC, 60 Hz, 1-phase.

Yes, input power for the UPS is 120 vac, 60 hz, single phase (note: maximum input current is 8.3A)

3. UPS shall be capable of operating the fixed data collection system for a period of 18 hours in the event of a power failure.

Partial compliance as UPS will provide about 15 hours of battery-backed 120 vac, 1A (120 watts) power to the data collection system in event of AC input power failure

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4. UPS shall be suitable for an operating temperature range of -40°F to 130°F at 0% to 95% non-condensing relative humidity.

Yes.

5. Battery(ies) shall be sealed lead acid-type.

Yes.

6. UPS shall be provided with a NEMA 3R forced-air ventilated enclosure suitable for wall or stanchion mounting.

Comply. Please refer to the Product Data Sheet for the UPS.

7. UPS shall have alarms for low battery and no battery.

Partial compliance as UPS will provide "AC input failure" and "Low battery" alarms. However, it does not provide "No Battery" alarm.

8. UPS shall have a five (5)-year warranty.

UPS includes 5 year warranty.Please refer to the Warranty Statement attached.

H. Support Frames and Stanchions for Electrical Enclosures

1. Electrical enclosures shall be mounted on support frames or stanchions. Support frames and stanchions shall be constructed of hot dip galvanized steel strut channel systems or custom fabricated structural shapes.

Comply.

2. Strut channels shall be hot dipped galvanized steel, 1-5/8" by 1-5/8" by 12 gauge thick (minimum) with hot-dip galvanized hardware and fittings. Cut edges of strut shall be ground smooth and coated with Cold Galvanizing Compound or equivalent repair method.

Comply.

3. Support frames and stanchions shall be anchored to reinforced concrete pads with Type 316 stainless steel anchor bolts.

Comply.

4. Support frames, stanchions, reinforced concrete pads, and anchorage shall be designed by a civil or structural engineer registered in the State of California.

Comply.

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2.02 AMR Fallback Equipment

A. AMR fallback equipment shall be handheld and battery powered.

Comply. The **READy Converter** is a portable, battery-powered handheld device used for fallback AMR readings. It communicates wirelessly with meters using a Bluetooth connection and a 900 MHz radio frequency, ensuring field operators can efficiently collect readings without physically accessing the meters.

B. The mobile drive by application shall support Android or iOS devices (smart phones or tablets). Data may be synchronized from the mobile app and host software at any time via Wi-Fi or cellular network without the loss of captured data.

The Kamstrup AMI solution supports mobile drive-by applications with seamless integration for Android devices using the READy App.

Key capabilities include:

1. Platform Compatibility: The READy App is specifically designed for Android devices and allows use on smartphones or tablets.

2. Data Synchronization: The app supports near real-time synchronization with the READy Head-End System (HES) through Wi-Fi or cellular network connectivity. This ensures data captured during mobile drive-by readings is promptly updated to the central database without any loss of captured data.

3. Continuous Data Integrity: All captured data is securely stored in the mobile app until synchronization is completed, preventing loss during transmission or transfer interruptions.

4. Flexible Deployment: Field personnel can view current assignments, retrieve meter logs, verify installation, and perform diagnostics while ensuring all updates are successfully reflected in the HES.

The READy App's features allow utilities to streamline mobile operations effectively while maintaining data security and integrity during synchronization.

2.03 Data Transport

1. All data communicated over a radio network, AMR or AMI, shall always be encrypted.

The Kamstrup AMI solution ensures encrypted communication for all data transmitted over its radio network, complying with stringent security standards. The details are as follows:

Encryption Protocols:

- Meter to Collector Communication: Utilizes AES 128-bit encryption to protect data during transmission.
- Collector to Head-End System (HES): Employs AES 256-bit encryption for enhanced security.

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Through these measures, the Kamstrup solution guarantees the integrity and confidentiality of all data transmitted via its AMR and AMI networks.

2. The MIU shall provide 8-digit reading resolution from encoded registers using either Neptune ProRead™/E-CODER protocol or Sensus UI-1203 protocol in mobile as well as AMI network data collection applications, simultaneously, without need for programming.

Comply

3. The MIU shall read the encoded register at hourly intervals to provide accurate leak and reverse flow detection using 8-digit resolution reads.

Comply.

4. The MIU shall transmit the meter reading continuously at a predetermined transmission interval.

Comply.

5. No programming shall be necessary to activate transmission of AMI network messages.

Comply.

6. Each AMI network message shall include capability to backfill missed reading data for redundancy and to improve read success rates.

The Kamstrup AMI system operates with a mode of three-hour RF transmission intervals from the meters to the collectors. During each transmission, the current hour's read along with the previous two hours of data are sent to ensure overlap and successful collection. If a transmission is missed, the next scheduled transmission will attempt to reconcile the missed read by including the most recent hour and up to the previous five hours. This reconciliation behavior continues for up to 24 hours.

Collectors store up to 30 days of hourly reads for up to 25,000 endpoints in case of backhaul communication interruption. Once communication is restored, data is transmitted to the READy Headend System (HES) using either cellular or ethernet backhaul. The HES stores hourly data for 13 months, daily data for 5 years, and monthly data for 10 years, with first-in-first-out data management. The system is designed to provide reliable data retention and transmission, ensuring comprehensive coverage and data integrity.

7. No programming shall be necessary to activate or revert to transmission of AMR messages.

Comply.

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8. In the event of a cut wire, the MIU shall not send the last good read as this can lead to missbilling. The MIU shall transmit a trouble code in lieu of the meter reading.

Comply

9. Tamper – If wiring has been disconnected, a "non-reading" shall be provided indicating wire tamper; a reading that gives the last available reading is an incorrect reading.

Comply

10. Each device shall have unique preprogrammed identification numbers (ID) of nine (9) characters. ID numbers shall be permanent and shall not be altered. Each device shall be labeled with the ID number in numeric and barcode form. The label shall also display FCC approval information, manufacturer's designation, and date of manufacture.

Comply.

11. The MIU shall transmit the encoder meter reading and a unique MIU ID number. The MIU shall interface to encoder registers using Neptune E-CODER or Sensus UI-1203 communication protocol via a 3-conductor wire without need for special configuration to the MIU.

Not applicable, as Core & Main and Kamstrup are proposing an **integrated proprietary MIU solution** where compatibility with external encoder protocols, such as Neptune E-CODER or Sensus UI-1203, is inherently unnecessary due to the fully integrated design.

12. The MIU shall transmit time-synchronized, top-of-the-hour readings as part of its scheduled, periodic AMI network transmission.

Comply.

13. The MIU shall periodically transmit a packet that includes register information such as register ID, register type, and other status information no less than weekly.

Comply.

14. The MIU shall automatically attempt to join an AMI network on a periodic basis and, once provisioned and authorized, shall begin transmission of AMI network messages for consumption by host software as part of simultaneous operation of walk-by, mobile, or AMI network without any site visits or reprogramming of MIU.

Comply.

2.04 AMI/AMR Software Application

A. The software application shall provide all controls needed in the network for the essential functions of the metering data output received through communication with the data

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collection systems. The software application shall present this data within an intuitive user interface that is easy to interpret and understand. It shall integrate seamlessly with other third-party applications the District utilizes, such as customer information systems (CIS) software, billing software applications, and work order management systems.

Comply. The Kamstrup Head End System (HES), READy Manager, is a Software as-a-Service (SaaS) offering that is cloud hosted on secure Microsoft Azure US database servers. The City can download READy Manager for free onto any Windows based PC.

READy Manager is where all meter readings and alarm info codes are stored and easily managed. The software is optimized for simple navigation, group/route management, customer consumption evaluation, Radio Frequency (RF) performance monitoring, alarm info code assessment and customer billing transfers to/from the City's CIS.

Integration between READy Manager, the City's CIS, and the H20 Analytics customer engagement platform will most likely occur through automatic file transfer using a secure SFTP server. READy Manager is incredibly flexible when it comes to file structure and data requirements and Kamstrup has not run into a CIS system it was unable to integrate with.

B. Basic Functionality for AMR and AMI

1. The AMI/AMR software application shall have the capability of interfacing with the District's CIS/billing software through a file layout that meets the specifications provided by the systems vendor.

Comply. Integrations between READy Manager and other municipal software can be completed using the same REST (REpresentational State Transfer) API as the CIS integration or via a standard file transfer in any CSV or fixed width format required by the municipal software.

File transfer can also be automated to send or receive files to/from a SFTP server to eliminate the manual process of synchronizing files with other software platforms.

2. The software application shall have a method of importing and exporting files for billing processes.

Comply.

3. A method shall be available for a user to specify the routes to be exported and for transferring files from the software application to the billing system.

Comply. Kamstrup's systems comply with the requirement for users to specify routes for data export and facilitate file transfers to billing systems.

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4. The software application shall be accessible through an internet web browser for accessibility anywhere.

Comply.

5. The software application shall operate within a Microsoft Windows platform and be hosted by the system's vendor.

Comply.

6. A geographical view of metering assets shall be available within the user interface.

Comply

7. The software application shall allow AMI and AMR metering processes to run in parallel within a single user interface.

Comply. **READy Manager** integrates AMR mobile reading and AMI fixed network reading seamlessly into one platform.

8. Graphical presentation of consumption data shall be viewable within the user interface.

Comply.

9. The software application shall have a method to display individual account consumption based on meter size, meter type, and unit of measure.

Comply.

10. Multiple levels of user security access shall be available within the software application.

Comply. The Kamstrup READy Manager system provides different user permission levels to control access and interaction with the Meter Data Management System (MDMS). Here are the key permission levels and recommended roles for different positions:

User Permission Levels:

- User: Basic access suitable for field technicians to perform essential tasks without altering system settings.
- Superuser: Enhanced access for customer service representatives, allowing them to handle customer interactions, generate reports, and address common issues.
- Administrator: Full access for leadership and systems/network management personnel, enabling them to configure system settings, manage user accounts, and perform comprehensive data analysis.

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Recommended Permission Levels:

- Field Technician: Assigned 'User' level to perform tasks such as data retrieval and basic diagnostics, ensuring they cannot modify critical system configurations.
- Customer Service Representative: Assigned 'Superuser' level to access customer accounts, analyze consumption data, and manage customer inquiries effectively.
- Leadership: Assigned 'Administrator' level to oversee system operations, generate strategic reports, and make high-level decisions based on system data.
- Systems/Network Management: Also assigned 'Administrator' level to manage system configurations, ensure data security, and maintain overall network health.

These permission levels ensure that each role has the appropriate access needed to perform their duties without compromising system integrity or security.

11. A method to search for records matching flow meter ID, account, name, or address shall be available within the software application.

Comply.

12. The software application shall support meter readings (4-8 digits) and flow meter ID numbers up to 10 digits.

Comply

13. All metering output data, such as leaks and reverse flow indications, shall be viewable within the software application. Granular reporting shall be available and define all accounts that have triggered the event.

Comply

14. The software application shall display the top ten (10) consumers with the highest consumption within the user interface. A method to view additional high usage consumers should be available.

Comply. The software includes **Consumption Reports**, which provide ranking data for individual customers or groups based on consumption levels.

Beyond the top ten consumers, additional high-usage consumers can be identified using filtering and sorting functionalities.

15. Reading performance reports and usage analysis capabilities shall be available within the software application.

Comply.

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The District can access data on network and transmitter health and performance using the Kamstrup READy Head End System (HES). This system provides comprehensive monitoring capabilities, including:

- Received Signal Strength Indicator (RSSI): Allows evaluation of the communication quality between endpoints and collectors.
- Signal to Noise Ratios: Provides insights into the clarity of the signal versus background noise.
- Packet Success Rates: Measures the efficiency and reliability of data transmission across the network.
- Channel Utilization: Assesses how effectively network channels are being used.
- Backhaul Performance: Evaluates the stability and speed of data transmission from collectors to the head-end system.

These metrics help the City ensure optimal network performance and quickly identify and address any issues.

16. All available reports shall be exportable to Microsoft Excel or PDF formats.

Comply.

17. The software application shall present to the user the number of successful, unsuccessful, and invalid readings.

Comply

C. AMI Network Software Functionality

1. The software application shall have the capability to store all meter data information obtained from the data collection systems.

Comply.

2. The software application shall provide system critical alarms, such as reverse flow and potential continuous consumption, in a statistical view within the software application and provide notification to District personnel.

Comply.

The District will have access to various active alerts through the Kamstrup READy Head End System, which can be configured to meet specific needs. These alerts include:

- Consumption Alerts: These can be set up for a meter if a specified consumption limit is exceeded. Alerts appear within READy as orange exclamation points for easy

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identification and navigation. Monitoring can be configured for specific periods or set indefinitely.

- Alarm Info Code Alerts: Provides an overview of all meter alarms registered during the last meter reading. Filters can be applied to show only high-priority or active info codes. Alerts can be exported to Excel for further analysis.
- Notifications: Automatic alerts for important meter events can be sent via email or SMS. These notifications are customizable to allow regular updates or immediate alerts as events are detected.

The HES includes a 'notification' feature that allows the Utility to configure text or email messages alerting on potential high-usage anomalies or other alarm info codes. These messages can be customized to send to specific District personnel and can be limited to specific alarm codes if desired.

These messages can be scheduled for a specific time and day of the week or can be set up to send 'At detection'. At detection codes will send a message to the District personnel after every info code received from the network.

3. The software application shall have a method to clone a specific AMI data collection device for replacement device when required.

Comply

4. The software application shall have the capability to monitor flow meters that have transmitted for the first time to identify reading success.

Comply

5. Monthly, daily, and hourly consumption shall be viewable within the user interface in a tabular and graphical data presentation.

Comply.

6. Daily and hourly readings shall be viewable within the user interface in a tabular format.

Comply.

D. AMR System Software Functionality

1. The cloud platform shall provide the capabilities of collecting metering data from the Mobile AMR collection devices and present the data in a user-friendly view for consumption by District users.

Comply.

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2. The District application shall have a method to view, load, and make route assignments for meter readers.

Comply.

3. A method of loading routes to drive-by data collection devices, walk-by data collection devices, mobile phones, and tablet devices shall be viewable within the software application.

Comply.

4. The software application shall provide a method of data transfer to the drive-by data collection device and accept data from the device.

Comply.

5. The software application shall manage the routes that are loaded into the data collection device.

Comply.

6. The software application shall have a method to communicate wirelessly to handheld, cellular phones, or tablet devices.

Comply.

7. The software application shall have a method to split routes by collection method or into equal parts for managing meter reading load activities.

Comply.

E. Mobile Software Application Device Compatibility

1. The mobile software application shall contain a method of completing meter reading tasks via an Android or Apple iOS mobile phone or tablet device.

READy manager is designed for use with PC and **Android** systems and is dependent on data from Kamstrup's flowIQ meter product line.

2. The mobile software application shall contain a method to provide data log capabilities via a mobile phone or tablet device.

Comply. All meters continuously store the most recent 100 days of hourly data and 460 days of daily data. This data can be remotely logged via the READy App paired with the READy Converter.

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3. When using a drive-by or walk-by device for meter reading, the software platform shall provide a method of real-time synchronization for loading and unloading routes on the device.

Comply. In AMR (Automated Meter Reading) mode, meter readings are collected by a vehicle equipped with a receiver and antenna that drives through a service area. This vehicle gathers data from meters as it passes, using radio signals transmitted from the meters. The drive-by method allows for efficient data collection without the need for manual reading at each meter location. The frequency of data collection depends on the schedule set by the utility and the range of the transmission capabilities of the meters.

In AMR mode, the interval at which reads are received depends on the frequency of the drive-by data collection. The meters continuously broadcast their readings at set intervals, but the actual collection of these reads occurs when the vehicle equipped with a receiver drives by the meters. The specific interval for receiving reads is determined by how often the utility schedules the drive-by sessions.

4. The mobile software application shall log flow meter data and shall include graphical and tabular views that include any meter output such as leaks and reverse flow indications.

Comply.

F. Cybersecurity

Meter data, customer records, configurations, and system information shall remain the exclusive property of the District. The AMI/AMR software shall maintain the following minimum security standards:

1. National Institute of Standards and Technology (NIST) Cybersecurity Framework alignment

Comply. All data is securely hosted and replicated **within U.S. borders**, and the system is fully compliant with **NIST, FedRAMP, and ISO/IEC 27001** standards.

2. U.S.-based encrypted data storage

The proposed READy Manager HES is hosted on **Microsoft Azure**, which is designed to meet the high security, compliance, and performance standards required by public sector utilities. Kamstrup leverages Microsoft's geographically redundant architecture to ensure **high availability**, **disaster recovery**, and **data residency within the United States**.

Due to security protocols and nondisclosure policies governed by Microsoft's cloud service architecture, the specific geographic data center locations are not shared. However, all data

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is securely hosted and replicated **within U.S. borders**, and the system is fully compliant with **NIST, FedRAMP, and ISO/IEC 27001** standards.

3. End-to-end encryption (at rest and in transit)

The Kamstrup AMI system is protected at all component levels utilizing standard communication protocols such as TLS 1.2 AES 256 encryption from collector to the head end and CCM AES 128 encryption from meter to collector. All data transfers between mobile devices are encrypted and use a secure TLS connection. Mobile devices use a unique token by scanning a QR code, which can be revoked if the device is lost or stolen. Data is stored in an ISO27001 certified environment and follows backup and recovery procedures according to this certification. All data is backed up daily and necessary procedures are implemented to prevent data loss. The Azure Cloud Platform provides built-in monitoring and correction of potential database errors, and Kamstrup adds a service setup for additional monitoring and detection of abnormalities.

4. Role-based access control and user audit logging

The system supports internal and external users, where the Administrators can invite internal and external users into the system. External users are handled on a separate management layer to further ensure control and security.

The Application Programming Interface (API) is secured with an OAuth 2.0 protocol where a tenant ID with a client ID and secret is needed to create a token to access data. Audit logging and traceability is enabled for all API transactions as well as controls to restrict access.

Users are granted functional access based on roles with the District's administrative users having control over user directories. Optionally, Single-Sign-On (SSO) can be implemented for internal users with SAML-compliant user authentication/authorization systems. API access is secured by the use of Service Accounts.

G. Software Service

1. Contractor shall furnish the services of a vendor to provide Software-as-Service (SaaS) support services that is responsible for ownership of the AMI/AMR software and all associated hardware to operate the software. The District shall only be responsible for the computers or laptops needed to access the AMI/AMR software applications via a web browser. The District shall maintain ownership of all data received by the AMI network and AMR system and shall be provided online access to all data during an active subscription. In the event the subscription terminates, the SaaS vendor shall provide the data to the District in an agreed upon media format.

The proposed system architecture centers on the Kamstrup READy Manager Headend System (HES), which is delivered as a **SaaS solution hosted on secure US-based**

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Microsoft Azure cloud servers. All meter data is securely stored and managed in the Azure environment, supporting both production and backup operations. On-premises infrastructure such as network servers, switches, or hubs is not required for the AMI headend, as all core functionalities—including monitoring, maintenance, upgrades, and data storage—are managed in the cloud. The architecture includes FlowIQ water meters with integrated RF radios, AMI collectors, and supporting field tools. The system supports both ethernet and cellular backhaul for collectors, ensuring reliable transmission of meter data to the cloud-hosted HES. The SaaS model ensures that all HES components, including system software and databases, operate in a virtualized cloud environment, eliminating the need for physical servers or network appliances at the utility site. All upgrades and maintenance are handled by Kamstrup, and data is backed up nightly with a 14-day retention schedule, stored in a physically separate location from the operating server.

2. The software service vendor shall provide the following services to the District during the subscription:

The proposed system architecture centers on the Kamstrup READy Manager Headend System (HES), which is delivered as a **SaaS solution hosted on secure US-based Microsoft Azure cloud servers**. All meter data is securely stored and managed in the Azure environment, supporting both production and backup operations. On-premises infrastructure such as network servers, switches, or hubs is not required for the AMI headend, as all core functionalities—including monitoring, maintenance, upgrades, and data storage—are managed in the cloud. The architecture includes FlowIQ water meters with integrated RF radios, AMI collectors, and supporting field tools. The system supports both ethernet and cellular backhaul for collectors, ensuring reliable transmission of meter data to the cloud-hosted HES. The SaaS model ensures that all HES components, including system software and databases, operate in a virtualized cloud environment, eliminating the need for physical servers or network appliances at the utility site. All upgrades and maintenance are handled by Kamstrup, and data is backed up nightly with a 14-day retention schedule, stored in a physically separate location from the operating server.

a. The SaaS vendor shall have a minimum of two years of experience providing hosting services for municipal water providers.

Comply. READy Manager has been available in the U.S. market for over **eight years**,

b. The SaaS subscription shall cover all software patches, operating system updates, security and network monitoring, and platform preventive maintenance.

Comply. The SaaS model ensures that all HES components, including system software and databases, operate in a virtualized cloud environment, eliminating the

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need for physical servers or network appliances at the utility site. All upgrades and maintenance are handled by Kamstrup.

c. The SaaS vendor shall provide the District with a service level agreement that meets 99% application availability during business hours of operation, excluding corporate holidays.

The Supplier will use commercially reasonable efforts to provide a target monthly uptime of at least ninety-eight percent (98%) for the hosted AMI Software, measured as a thirty (30) calendar day average. Availability excludes approved Service Windows, scheduled or emergency maintenance, Force Majeure events, and outages caused by external or third-party systems outside the Supplier's reasonable control.

d. The SaaS vendor shall provide a disaster recovery plan for any failures at the managed services center to ensure continuity of the District's data and continued access.

Kamstrup's READy software employs Microsoft Azure's cloud platform to deploy replication, failover, and recovery processes across multiple and geographically diverse data Microsoft data centers to keep our HES running during planned and unplanned outages. Backup data is stored in a separate physical location from the operating server providing data redundancy in the event of a server failure and ensuring quick and easy access to historical data.

e. The SaaS vendor shall have a data backup strategy and process.

All READy HES data is cloud hosted securely on Microsoft Azure located in US database centers. All data is subject to an extensive backup strategy where all data is backed up on a nightly basis on a 14-day retention schedule. Backups are stored on appropriate media and under conditions so that the environmental effect on the media is controlled and the backup is stored in a physically different location than the operating server. A separate backup is stored on a monthly basis in a fireproof box at Kamstrup and as an additional precaution in another physical location away from where the server is located. Recovery of data from backups is tested minimum four times each year. This is documented in accordance with Kamstrup's ISO 27001 certification.

f. The SaaS vendor shall provide a method of communicating or alerting the District in the event of system failure or downtime.

Comply.

g. The SaaS vendor shall have security and monitoring services in place that ensures the privacy and security of the District's data.

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Kamstrup ensures the privacy and security of the District's data through robust security and monitoring services. Kamstrup's solution is hosted on Microsoft Azure, maintaining SOC2 Type 2 compliance.

h. The SaaS vendor shall ensure that the data and all redundant data is housed in the country in which the District resides.

All READy HES data is cloud hosted securely on Microsoft Azure located in US database centers. All data is subject to an extensive backup strategy where all data is backed up on a nightly basis on a 14-day retention schedule. Backups are stored on appropriate media and under conditions so that the environmental effect on the media is controlled and the backup is stored in a physically different location than the operating server.

i. All data in transit to the cloud shall be encrypted.

The Kamstrup AMI system is protected at all component levels utilizing standard communication protocols such as TLS 1.2 AES 256 encryption from collector to the head end and CCM AES 128 encryption from meter to collector. All data transfers between mobile devices are encrypted and use a secure TLS connection.

2.05 FCC Licensing and Certification

A. If applicable, AMR communications shall operate within Federal Communications Commission (FCC) Part 15.247 regulations for devices operating in the 902 MHz to 928 MHz unlicensed band. The output power of the devices shall be governed by their conformance to these relevant FCC standards.

The proposed Kamstrup AMR solution complies with this requirement.

B. If operating on the 902 MHz to 928 MHz unlicensed band, the MIU shall transmit using a frequency hopping, spread spectrum technique comprised of alternating pseudo-random frequencies and/or transmit using the LoRaWAN™ protocol using spread spectrum modulation.

The Kamstrup AMI network uses an FCC-licensed 450-470 MHz frequency that is unique to the Utility and is protected from outside interference by the FCC. Reads collected in AMR, or drive-by mode, operate on the 902 MHz to 928 MHz on an unlicenced band which uses frequency hopping. LoRaWAN not currently supported.

C. AMI communications that utilize an FCC assigned frequency within the licensed 450 MHz to 470 MHz frequency range are preferred. For AMI communications that do not utilize an FCC assigned frequency, the system must operate in the 902 MHz to 928 MHz unlicensed band.

Kamstrup operates on an FCC-licensed 450–470 MHz frequency. The licensed frequency provides protection against interference, ensuring reliable and secure communication.

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D. The system must be expandable at any time without authorization from the FCC.

The Kamstrup AMI system is designed to be fully scalable, allowing for expansion at any time without requiring authorization from the FCC. The network operates on an FCC-licensed 450-470 MHz frequency and supports straightforward addition of collectors or endpoints while maintaining compatibility across the infrastructure.

PART 3 - EXECUTION

3.01 Installation

A. Installation of AMI network collectors shall be in strict accordance with the manufacturer's written instructions.

Core & Main and DB Utility comply with this requirement.

B. The AMI network collectors shall be installed at the locations and heights as determined by an AMI network propagation study.

Core & Main and DB Utility comply with this requirement.

C. AMI network collectors shall be confirmed to be online and operating before installation is completed.

Core & Main and Kamstrup comply with this requirement.

3.02 Field Testing

AMI/AMR System Supplier shall demonstrate to the Owner that the equipment operates as designed and specified.

Core & Main and Kamstrup comply with this requirement.

3.03 Training

AMI/AMR System Supplier shall provide training to District personnel, including operation, maintenance, and troubleshooting. Training shall include classroom and field training as specified in the following table:

Item	Training Type	Duration (Minimum)
AMI Network Software Application	Classroom	2 Hours
AMR Systems Software Application	Classroom	2 Hours
Customer Billing Interface	Classroom	2 Hours
Customer Portal Interface Access	Classroom	2 Hours
Fixed Data Collection Systems	Classroom	2 Hours
	Field	2 Hours

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Item	Training Type	Duration (Minimum)
Drive-By Data Collection System	Classroom	1 Hour
	Field	2 Hours
Walk-By Data Collection System	Classroom	1 Hours
	Field	2 Hours

Comply.

3.03 Warranty

A. Materials And Workmanship

The manufacturer warrants that the products shall be free from defects in materials and workmanship during the warranty period defined as follows:

AMI collector devices: two calendar years from the date of delivery to utility.

AMI collector devices are covered by a warranty for two years starting from the date of delivery to the utility. Please refer to the Warranty Statement attached.

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Company Background & Experience

CORE & MAIN – PRIME CONTRACTOR

Core & Main LP was established in 2004 and built on the foundation of 80+ legacy companies, including HD Supply Waterworks, Hughes Supply, and National Waterworks. Our products are integral to building, repairing, and maintaining water and wastewater systems. They serve as part of the basic municipal infrastructure required to support population and economic growth, including residential and commercial construction. C&M holds a **leading market position** in the United States for water, sewer, storm drain, and fire protection products.

Headquartered in St. Louis Missouri, we have over 5,500 employees across 49 states and over 370 locations that strive daily to provide local knowledge, experience, and service nationwide.

OUR VISION

To foster a world where communities thrive because our people and products provide safe, sustainable infrastructure for generations to come.

OUR MISSION

We are industry leaders, supplying local expertise, service, and products nationwide to build innovative water, wastewater, energy and fire protection solutions for our customers and the communities we serve.

We invest in the development and well-being of our people, who are the key to our future. Together, we act with honesty and integrity because we believe strong relationships make for strong communities.

OUR CORE PRINCIPLES

- Our team members are family
- Honesty & integrity guide us
- Everyone is in sales
- We value industry, technical & local expertise
- We are action-oriented & accountable
- We are growth-focused



BUSINESS STRUCTURE

Core & Main LP (“Core & Main,” the “Company,” “we,” “our” or “us”) is a Florida limited partnership.

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CONTACT INFORMATION



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- **President:** Brad Cowles
- **CEO:** Mark Witkowski

Servicing Branch: Perris, CA



- **Address:** 3155 N Indian Ave Perris, CA 92571
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- **Website**: Perris, CA - Core & Main
- **Email:** Perris@coreandmain.com
- **Local Manager:** Andrew Bohannah
- **Metering Initiative Manager:** Brent Olson

SIZE & SUPPORT

Core & Main is Publicly Traded; Core & Main became a publicly traded company on the NYSE in July of 2021 with a current market cap of over $7 Billion USD.



Local Support, Nationwide

Operating approximately **370 branches nationwide**, we combine local expertise with a national supply chain to provide contractors and municipalities with innovative solutions for new construction and aging infrastructure. Core & Main's **5,700 associates** are committed to helping their communities thrive with safe and sustainable infrastructure. We have over 1,600 sales representatives offering sales and support on the branch level and nearly 200 technical product specialists at the national and regional levels who have expertise in specific product and service offerings and who support our other sales representatives with product training and technical support.

We support our network of branches with the following company-wide resources: strategic accounts, product specialists, category management, sourcing, supply chain, finance, tax, accounting, pricing analytics, payroll, marketing communications, human resources, legal, safety and information technology.

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CORE & MAIN AMI EXPERTISE

Core & Main offers Metering & Technology as one of its core growth initiatives. Our company has been selling and supporting automated meter functions for several decades, starting with its infancy in touch-read, its evolution into radio read, and now AMI.

With brick-and-mortar locations across the United States, Core & Main provides our customers with premium waterworks supplies and services. Our primary servicing branch for the Rubidoux Community Services District is in Perris and we have 30+ additional brick-and-mortar locations across the state of California. We have full-time local AMI service and support technicians and project managers on staff that will be dedicated to the deployment of this project.

We are the authorized distributor of Kamstrup Metering Products in the State of California. **Core & Main has successfully completed over 2,000 metering projects nationwide.**

OUR PARTNERS

KAMSTRUP METERING – METER MANUFACTURER

Kamstrup is a world leading manufacturer of system solutions for smart metering. Through our leadership, expertise, and passion for partnership, we always think forward of a brighter energy future, one that advances the performance of every customer, whilst creating value for the communities that they serve.

Experience and Qualifications

Kamstrup has over 70 years in the metering market and over 30 years of experience developing and delivering over 11 million ultrasonic water meters globally with a recorded failure rate of less than 0.50%. Kamstrup will be the metering technology and AMI network hardware provider of the future. Kamstrup employs over 1,700 people worldwide, 25% of which are PhDs and engineers, overseeing the quality and functionality of our product offerings. Kamstrup has invested in U.S. operations since 2013 from its production facility in Roswell, Georgia, and strives to become the leading supplier of water measurement solutions throughout North America.

DB UTILITY – METER/ INFRASTRUCTURE INSTALLATION

About Us - The Leaders in Meters.

DB Utility is a utility contractor that specializes in AMI projects. From the smallest meter to the tallest collector, DB installs everything needed for your turnkey AMI project. We pride ourselves in precise installation, flawless data, and thorough communication. We've developed a reputation for being a trustworthy partner throughout the construction process, from start to finish.

Our team of experts follows strict safety protocols and best practices to ensure that every project is delivered on time, on budget, and to the highest standards of quality.

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Our Services:

- **AMR/AMI:** We've installed meters from all of the largest and smallest manufacturers. No job is too big or small - in meter size OR quantity of installs.
- **Collector Installation:** Our skilled team has experience installing collectors for your new (or current) AMI meters. Let us know what is needed, and we can tackle it together.
- **Data Reporting:** Our internal software collects as much data is needed for your billing software or other requirements.

H2O ANALYTICS – CUSTOMER PORTAL VENDOR

H20 is a customer portal vendor who will give your customers the tools to monitor their own water usage in near-real-time and to receive automated notifications when abnormalities occur. Our proposed customer portal will help them understand how their water usage compares to similar customers and how to conserve this precious shared resource.

Experience and Qualifications

H20 Analytics has served over 749 water utilities, including Milcrofton, TN, Sharyland Water Supply Corporation and Lower Valley Water District, and specializes in providing customers and utilities with a piece of mind regarding their water usage. H20 Analytics was founded in 2011 and has been in business for over 12 years.

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Solution Overview

KAMSTRUP'S ACOUSTIC LEAK DETECTION SOLUTION

Kamstrup's patented Acoustic Leak Detection (ALD) Solution is a comprehensive, fully integrated system designed to provide utilities with continuous, real-time monitoring of their water distribution network. Leak detection has traditionally been a complex, time-consuming, and expensive process, but the ALD Solution streamlines and optimizes these efforts by leveraging advanced acoustic technology, automated data collection, and intelligent software analytics to proactively identify and address leaks before they escalate into costly issues.

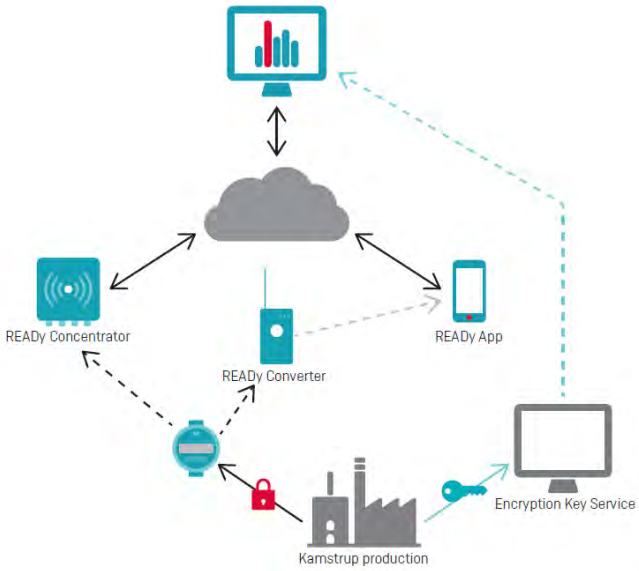


Figure: *AMI Architecture Diagram*

At the core of the ALD Solution is Kamstrup's flowIQ® 2200 water meter, the industry's only meter with built-in acoustic leak detection technology. This meter continuously monitors acoustic noise levels directly through the water, **detecting potential leaks on both service connections and distribution mains without the need for external sensors, wiring, or additional infrastructure**. Unlike traditional leak detection methods that rely on temporary lift-and-shift strategies or third-party surveying solutions, the ALD Solution provides permanent 24/7/365 monitoring for up to 20 years (one warranty for all components), ensuring the lowest total cost of ownership and the highest return on investment for leak detection technology.

Supporting the ALD Solution is **Kamstrup's Leak Detector software**, a powerful web-based analytics platform that provides utilities with an **intuitive visualization of noise data** collected from the water meters. Using an advanced algorithm, the software identifies meters with the highest risk of leakage, allowing utilities to target their investigations efficiently rather than searching blindly. The system records **26 offset noise values daily**, automatically filtering out interference from pumps, lift stations, and valves to ensure precise and actionable data.

By integrating automated leak detection, data analytics, and remote monitoring, the ALD Solution significantly enhances the efficiency of Non-Revenue Water (NRW) management. Utilities can reduce operational costs, minimize water loss, and improve service reliability with faster, more efficient leak detection. With its seamless integration, real-time insights, and ability to prioritize maintenance efforts where they will have the greatest impact, the ALD Solution represents the future of intelligent water management.

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KAMSTRUP'S AMI NETWORK

An FCC-licensed 450MHz frequency powers the Kamstrup AMI network, providing reliable long-range communications. No separate wired meter communication devices are required since all radio components are integrated within the water meter register, eliminating the concern with long-term maintenance of another device.

WATER METERS

FLOWIQ 2200 (5/8"- 1")

flowIQ® 2200 is a residential water meter based on proven ultrasonic technology. It features a host of intelligent features in one superior meter protected from water ingress, and with up to 20 years battery life. flowIQ® 2200 maintains the same high accuracy throughout its lifetime and measures even the smallest consumption due to its very low error margin, industry-leading accuracy, and optimized low start flow.



Figure: *flowIQ® 2200*

With its ***built-in acoustic leak detection***, flowIQ® 2200 works to detect possible leaks in the service connections and distribution mains. The meter monitors noise patterns giving you a better picture of the condition of your network and enabling you to identify high-risk installations.

Founded on our more than 30 years of experience, flowIQ® 2200 provides modern water utilities with the data needed to bill consumers fairly, optimize operations, and lower their water loss. Utilities get a solid foundation for prioritizing both daily efforts and long-term investments through advanced data analytics focused on non-revenue water and leak detection on both sides of the meter.

Key Benefits:

- Best-in-class low-flow range for superior leak detection
- Embedded acoustic leak detection actively listens for distribution side leaks
- Can be installed in both horizontal and vertical applications
- No moving parts eliminates added cost of meter maintenance
- Available in composite and stainless steel (1" stainless steel only)
- Integrated Radio Frequency (RF) and Cellular communications with Encoded Output (EO) option

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FLOWIQ® 3200 (1.5”- 4”)

The flowIQ® 3200 features groundbreaking ultrasonic technology that offers unmatched precision and reliability in water flow measurements. This meter provides more than data; it offers a wide measuring range that captures everything from an off-hours toilet flush to peak-hour water consumption. This sensitivity ensures billing accuracy and delivers essential insights to help transform your billing efficiency, safeguard vital resources, and elevate customer satisfaction. Its adaptability allows for usage with potable water, reclaimed water, and fire services.



Figure: *flowIQ® 3200*

The flowIQ® 3200 comes with robust advanced meter alarms. These alarms include continuous flow, excessive usage, tamper, dry pipe, reverse flow, and low battery. They provide valuable information to optimize operations and troubleshoot issues in the field from the utility office.

And of course, like all Kamstrup meters, the flowIQ® 3200 utilizes ultrasonic technology to provide accurate and reliable water flow measurements. It is able to meter both high and low flow ranges, and its lack of moving parts ensures the meter’s accuracy will not degrade over time for maximized ROI.

Key Benefits:

- Suitable for usage in multi-unit apartments and commercial premises for district metering applications
- Water/Ambient temperature monitoring and configurable alarms for high and low thresholds
- Continuous flow, excessive usage, tamper, dry pipe, reverse flow, and low battery alarms
- Can be installed in both horizontal and vertical applications
- No upstream/downstream requirements
- No moving parts eliminates added cost of meter maintenance
- Potable water, reclaimed water, fire service approved
- Integrated Radio Frequency (RF) and Cellular communications with Encoded Output (EO) option

FLOWIQ® 4200 (6”- 10”)

Designed for commercial and industrial applications, the flowIQ® 4200 smart meter transcends expectations, offering an extended range and superior durability. However, its most distinguishing feature is its engineering excellence—explicitly geared for large-scale applications. It’s more than just a meter. It’s an insightful window into the intricacies of your water system, laying the groundwork for reduced waste, increased revenue, and greater peace of mind. The flowIQ 4200 utilizes ultrasonic technology to provide precise and reliable water flow measurements. It has a wide measuring range with outstanding low-flow measurement capabilities, ensuring trustworthy billing and detection of potential leaks or abnormalities in the water distribution network.



Figure: *flowIQ® 4200*

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Furthermore, the flowIQ 4200 seamlessly integrates AMR/AMI data communications directly into the meter to enable “plug-and-play" remote reading, data analysis and near real-time monitoring while eliminating the potential points of failure of an external radio device. With a field replaceable battery lasting up to 20 years, utilities are able to extend the meters life without taking it out of service.

Key Benefits:

- Can be installed in both horizontal and vertical applications
- No upstream/downstream requirements
- No moving parts eliminates added cost of meter maintenance
- Swivel flange for easy installation
- Field replaceable battery to extend the life of the meter
- Approved for potable water and fire service
- Integrated Radio Frequency (RF) and Cellular communications with Encoded Output (EO) option

READY COLLECTOR

The Kamstrup READy Collector is a central easy to use two-way network component in your AMI network. The data is collected from the meters, stored until the planned transmission and displayed in the READy Manager - the Meter Data Management software. The data can be collected in a number of differing time frames up to hourly readings, and if an event occurs, this data will be transmitted immediately, independent of your data scheme.



Figure: *Ready Collector*

The Kamstrup READy Collector is a rugged design that is to be used in the harshest of conditions, such as the top of towers or elevated storage tanks, where service can be difficult. Temperature extremes and lightning protection have been thoughtfully included in the engineering of the collector unit. Another important feature of the system is that no coax is necessary between the Collector unit and bottom unit, just standard off-the-shelf wiring components. The bottom unit has been built with industrialized components incorporating multiple surge protection systems, and power supply for use in the most challenging conditions.

SOFTWARE

READY MANAGER AND READY APP

Kamstrup's READy manager is an intuitive and powerful cloud-native platform designed to enable utilities to collect, access and visualize data from anywhere. READy manager can be accessed via desktop or using the READy mobile app for reading, installation, logging and verification.

READy manager empowers utilities to transform data into actionable intelligence through a variety of automation and visualization tools, such as automatic import and export tasks, automated performance reporting,



Figure: *Ready Manager*

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water loss analysis and usage graphs and charts. READy manager can be used remotely or with the READy mobile app for AMR reading, installation, logging and verification.

READy manager is designed for use with PC and Android systems and is dependent on data from Kamstrup's flowIQ meter product line. The system supports CIS utility billing integration or configuration with third party apps. Standard license supports two user seats with additional users priced per seat.

Key Benefits:

- Intuitive PC software and mobile app for reading ultrasonic water meters
- Easy to use icon-based navigation
- Supports both mobile AMR reading and AMI fixed network reading
- Mobile app with built-in installation tool

LEAK DETECTOR

Leak Detector is a cloud-based platform with integrated GIS mapping, designed to receive and display leak locations within a network of meters equipped with Acoustic Leak Detection (ALD) technology. With just a browser and an internet connection, utilities can identify potential leaks from anywhere. Acting as a 24/7 monitoring tool, Leak Detector continuously collects ultrasonic data to detect leaks across a distribution network. Its GIS integration provides precise visual representation of leak locations, while alarm handling allows users to personalize notifications. Additionally, integrated work order management enables direct dispatch of alerts to field crews for prompt action.



Figure: *Leak Detector*

The platform features a map-based interface that displays noise levels detected by each meter using a color-coded system with user-defined acoustic thresholds. Meters are categorized into high, medium, and low noise levels, simplifying the identification and prioritization of potential leaks. The map view also supports pipe network visualization, offering added context for more effective leak management. Using an advanced algorithm, Leak Detector automatically identifies high-risk meters and marks them as ‘meters of interest’, allowing utilities to focus their efforts where they are needed most.

Custom filtering options give users control over which meters are displayed, making it easy to pinpoint installations with increased noise levels. Historical trend graphs visualize noise development over time, helping utilities track changes and detect potential issues early. Automated reports provide an overview of all meters with elevated noise levels, while the Dashboard keeps users updated on critical findings, ensuring proactive and efficient leak management.

Key Benefits:

- Find possible leaks in your service connections and distribution mains
- Reduce your amount of non-revenue water

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- Utilize Leak Detector’s dashboard and built-in algorithms to prioritize your resources better
- Get a map-based overview of your distribution network to conduct more in-depth analysis of your network

H2O ANALYTICS – CUSTOMER PORTAL

The H2O Customer Portal is an innovative and user-centric solution designed to transform utility-customer interactions by leveraging advanced data analytics and cloud technology. This portal provides utility customers with seamless access to their water usage data through both web-based interfaces and dedicated mobile applications for iOS and Android devices. With a focus on enhancing customer engagement and service efficiency, the portal offers real-time and historical water consumption insights, allowing customers to monitor their usage patterns across daily, monthly, and hourly intervals. Innovative features include configurable notification preferences enabling automated alerts for leaks, abnormal usage, and conservation tips, which aid customers in maintaining efficient water usage.

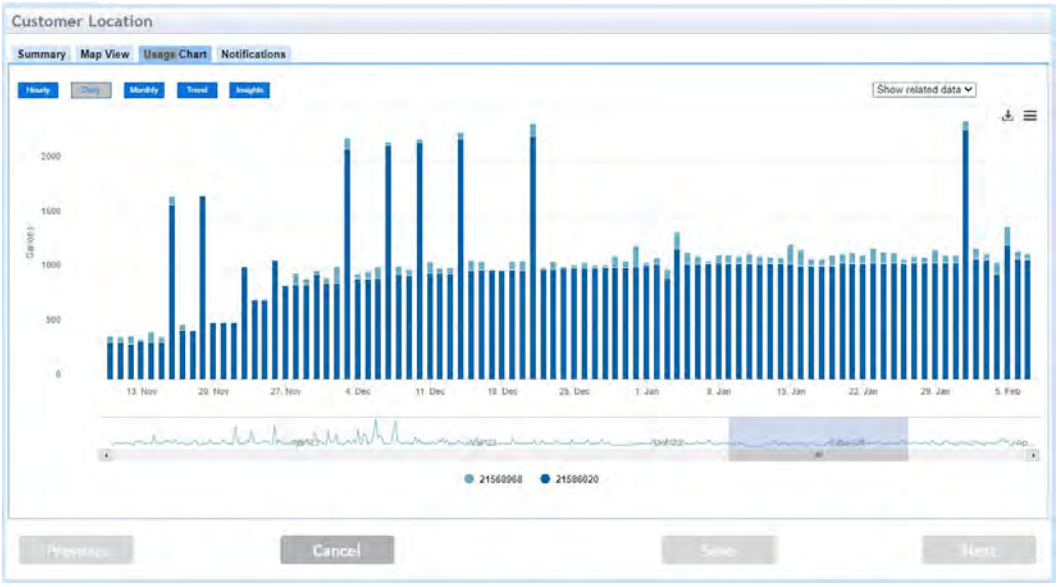
The H2O Customer Portal integrates seamlessly with existing utility systems, requiring no additional server setup while ensuring the highest levels of security with adherence to proven software standards and data center audits. It empowers utility customers with single sign-on capabilities, robust security measures like strong passwords, and self-service account management features. Its design emphasizes usability across all major browsers, ensuring accessibility on both desktop computers and mobile devices. Furthermore, the portal supports bilingual interfaces and templates, reinforcing inclusivity in user communication.

Utility personnel are equipped with tools for overseeing customer data, managing notifications, and accessing detailed usage analytics that assist in proactive service management and conservation efforts. The platform also facilitates comprehensive system integration, leveraging existing billing and metering systems to deliver automated alerts without placing an additional burden on utility staff. This cloud-based solution offers scalability and flexibility, allowing utilities to manage customer service efficiently amid growing demands and an evolving digital landscape. Overall, the H2O Customer Portal stands as a robust, secure, and adaptable solution for modern utilities seeking to enhance customer engagement and foster sustainable water usage.

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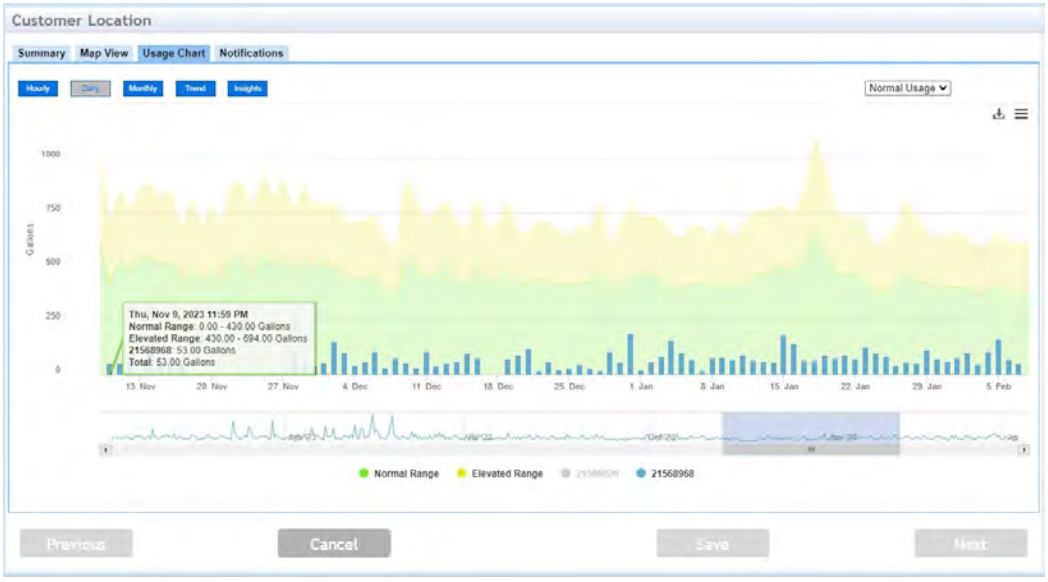


The H2O Customer Portal provides a variety of ways to view account-level consumption on a daily basis, including several charts and the ability to download/view the raw meter readings using Microsoft Excel or compatible spreadsheet software. Several of these charts allow account-level usage-date to be compared with other accounts, statistical measures of 'normal' usage and weather data as shown in the screenshots below.

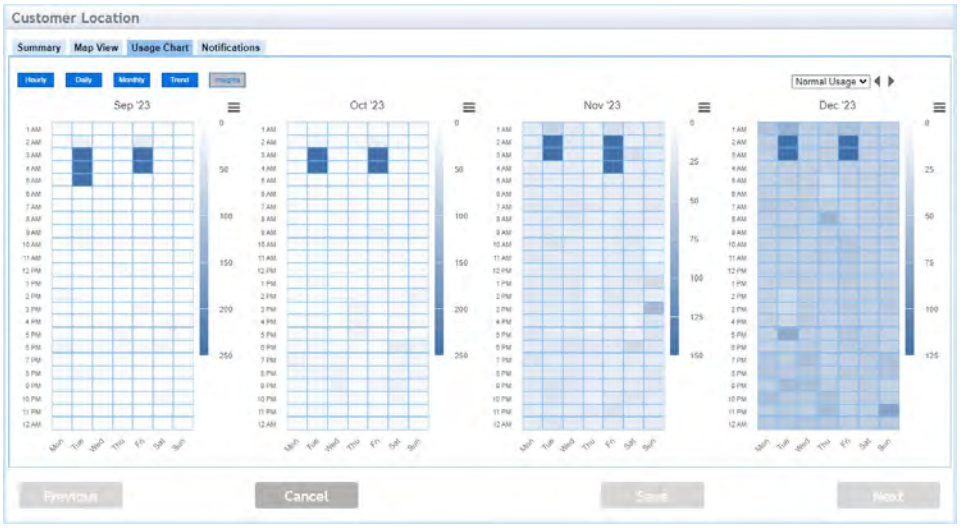


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Project Methodology

PROJECT MANAGEMENT APPROACH

Meter replacement projects with AMR / AMI technology are complex, each with unique elements. Core & Main understands and manages these intricacies and is an industry leader in meter system deployments. Core & Main's Project Management Team is knowledgeable and experienced, with PMP®-certified project managers, Mechanical and Computer Engineers, meter support specialists, software managers, business analysts, and metering subject matter experts.

The CORE+ Team utilizes a structured methodology with proven processes and procedures in planning, safety, quality, deployment, and communication to successfully implement AMR/AMI systems. This foundation enables Core & Main's experienced and dedicated team to deliver projects on time, within budget, and with industry-leading customer satisfaction.



1. PROJECT INITIATION PHASE

The CORE+ Project Management approach begins with a focus on program initiation - to define how we will consistently collaborate with the various stakeholders to support best-for-program decision-making and mitigate the risks associated with "silo-behaviors" between projects, functions, stakeholders, and governance entities. Broader thinking, planning, and execution address the complexity of multiple, overlapping, and potentially conflicting solutions. This approach to program management is holistic, flexible, and focuses equal rigor on realizing outcomes and delivering the assets that enable them.

- Notice to Proceed
- Sales to PM Handoff
- Subcontractor Alignment
- Deliver Project Charter
- Identify Stakeholders

2. PROJECT PLANNING PHASE

Core & Main employ proven methods to ensure proper project planning, which is a critical success factor. Our assigned Project Manager will collaborate diligently with suppliers, representatives of systems requiring integration, other vendors/subcontractors, and the Utility to develop a realistically

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aggressive schedule to set reasonable expectations from the start and then manage it accordingly. Necessary activities completed in collaboration with the Utility during the planning phase include:

- Conduct Kick-Off Meeting Planning Workshops
  - Scope Mgmt
  - Communications
  - Risk Mgmt
  - Change Mgmt
  - Procurement Mgmt
  - Data Mgmt
  - Schedule Mgmt
  - Network Infrastructure
  - Meter Planning
  - Inventory Mgmt
  - Field Installation
  - QA / QC
  - Training
  - Public Outreach
- Solution Design
  - Identify Technical / Integration Requirements

3. PROJECT EXECUTION PHASE

Core & Main understands the need for testing, validation, and approval. Core & Main will never begin a full deployment until stakeholders have accepted the testing results. During an Initial Deployment Phase, a subset of water meters will be installed in the Initial Deployment Area, and adherence to standard installation procedures will be monitored. The flow and validation of data from the field Work Order Management System to the Meter Exchange interface to the CIS/Utility Billing system to accurately changeout the meter, as well as device activation in the field to the Headend system to the CIS/Utility Billing system to create a customer bill. Testing results will be reviewed, and a formal customer acceptance will be requested to proceed to full deployment. Once the town has approved to proceed to full deployment, the Core & Main team will execute the plan to install the remaining meters within the contracted timeframe, focusing daily on safety and quality. Meter inventory will be controlled and tracked as meters throughout the remaining service territory are installed. Project communications will keep project stakeholders apprised of the deployment status and any issues that may arise.

Delivering large-scale public works infrastructure projects requires the involvement of numerous technical disciplines, staff from multiple departments, and someone to effectively coordinate the efforts of the individuals to support the project moving forward to completion. Transparency is the main objective of the Core & Main metering project communication methodology, with the Utility having an awareness of the project status and metrics when needed, along with any issues the project team is actively working to resolve. The Core & Main Project Manager will be involved in all aspects of the project to provide continuity among the project team and a go-to person for the town

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and other stakeholders to get accurate, up-to-date information on the project status. This flexible management coordination structure leverages meetings, one-on-one communication, and email updates to provide the necessary information to each project stakeholder without burdening them with unnecessary meeting time and attendance. The Project Manager will coordinate all Purchase Orders and keep the Utility apprised of lead times and delivery status. The Project Manager will work closely with the onsite Construction Manager to ensure all processes and procedures related to safety, quality, inventory, and installation are followed and the planned meter installations are progressing on schedule.

- AMI System Deployment
  - Install sample meters
- Billing Software Integration
  - CIS Analysis
  - Software Integration
  - Development
  - Integration Testing
- Mass Meter Deployment
  - Mobilization: Mass Meter & Endpoint Installation
  - Data Reconciliation
  - QA Meter Installs
  - Inventory Control

4. PROJECT MONITORING & CONTROL PHASE

Quality assurance is an integral part to every Core & Main AMI meter deployment project. The two main areas of quality focus are fieldwork and data. Throughout the meter deployment project, staff will monitor meter installation quality in the field and adjust processes to meet unique project circumstances. Core & Main Project Managers and Installation Supervisors conduct the field audits. Data collection accuracy during the installation process is a critical success factor. We employ a data validation team to ensure that the equipment's serial numbers, final read, and other data logged in the field match the information captured by the photos. Discrepancies are field-verified and corrected to ensure accurate meter exchange data is transmitted to the town's systems.

Core & Main is committed to providing employees with a safe working environment and complying with all federal, state, and local safety regulations. Workplace safety is not a burden on a project but rather a required daily focus integrated into our training and deployment processes and procedures.

- System Acceptance Testing
- Scope Validation & Control

5. PROJECT CLOSE OUT PHASE

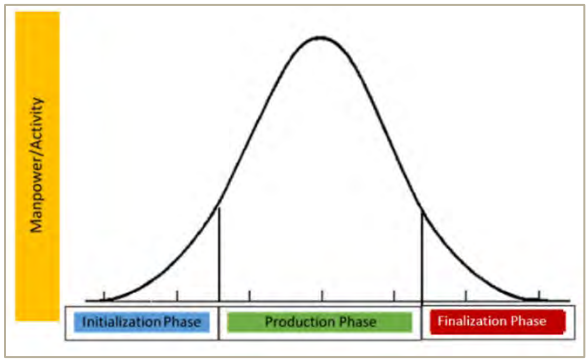
The Project Closeout Phase of the project signifies the completion of the installation and construction within the project, marking the transition from the construction phase to the operational

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phase of the AMI system. This phase ensures that all project requirements have been fulfilled, any lingering issues are addressed, and the system is ready to operate as intended.

- Mass Meter Installation Complete
- Training
- Utility Sign-Off

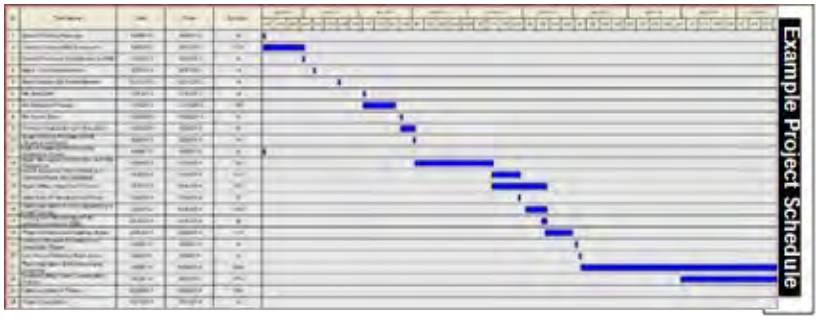
INSTALLATION & MAINTENANCE APPROACH



Knowledge, experience, and industry best practices have been acquired by the Core & Main team after more than 2,500 successful metering projects. A dedicated project management team responsible for all project elements will give your Utility confidence that your project will be well-planned and well-executed and ensure minimal disruptions to your operations and your customers.

The production schedule is developed by our on-staff project manager, with input from the Utility and a clear understanding of the project scope and the Utility's current read and billing schedule. We believe developing and testing all processes and procedures during a slow ramp-up period is essential. The ramp-up time allows for the refinement and optimization of project processes early in the production cycle. During the Initialization phase, meter installations will start slow. The town will receive Work Order Management System training. Standard operating procedures and other project processes will be refined and optimized to help ensure minimal disruptions to the town and its customers. The network is validated to ensure it performs as expected and meter data is available in the head-end system. The meter exchange interface with the Utility Billing System will be exercised to ensure meter exchange data processes correctly in the production environment. During the Production Phase, the installation team will be staffed with trained and qualified installers to support the planned monthly production rates. Final acceptance testing and project close-out will be completed during the Finalization Phase.

The project manager develops a production schedule and then conducts periodic meetings to gather information and update the team on the progress. The production schedule is updated, and should the project be determined to be behind schedule, work procedures/resource allocations are adjusted as required.



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AMI Support and Customer Training

CORE & MAIN'S CUSTOMER SUPPORT

Customer Support

Core & Main provides multilayered, dedicated support tailored to metering and Advanced Metering Infrastructure (AMI). At the local level, we offer regional product availability complemented by a team of sales and metering specialists committed to catering to your daily needs. **Swift and efficient local support is paramount to addressing any challenges that may arise during project execution.**

Building on this local foundation, Core & Main also deploys in-state product specialists to support AMI for Rubidoux Community Services District. This level of specialized support ensures a clear understanding of your unique needs and an ability to provide prompt, targeted assistance.

Beyond our local and regional AMI support, Core & Main hosts a National Services Group, a team committed to AMI project support and execution. This group's focus spans project management, system integration, and other essential functions. Their mission is to ensure smooth, efficient project realization from conception through to completion.

National Supply and Support

Core & Main is the largest Waterworks Distributor in the United States. As such, our National Smart Utility team assists in the development, deployment and supply of all Metering and Technology Projects throughout the United States. Below we have outlined our multi-faceted support approach.



Figure: National Core & Main Holistic Support Graphic

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National support is also imperative to the support of large systems lifecycles. Our National Smart Utility team has been implementing projects over the last 15 years from Water AMR all the way to integration with Smart City platforms.

Core & Main will strive to provide a satisfying and positive experience. However, if at any time, throughout any portion of the project, the customer is not completely satisfied, the escalation process should proceed as follows:

- **Level 1:** Project Manager
- **Level 2:** AMR/AMI Product Specialist
- **Level 3:** Regional Initiative Manager
- **Level 4:** National Director of Metering & Technology

AMI Software Support

Core & Main provides multilayered, dedicated support tailored to metering and Advanced Metering Infrastructure (AMI). At the local level, we offer regional product availability complemented by a team of sales and metering specialists committed to catering to your daily needs. **Core & Main's local manufacturer-trained representatives are available to assist the Rubidoux Community Services District with software needs on-site during normal business hours 8am-5pm CST, and by phone.**

Kamstrup uses Service Now Incident Management, which is where customer support tickets are inputted with detailed information, issues worked to resolved, and approved by customer before cases are closed. Our aim is to resolve issues while minimizing impact to business operations and maintaining quality. This ensures a standard operating procedure for handling incidents and ensuring business continuity. Service Now is monitored and maintained 24/7 to ensure compliance with incident handling.

There are two levels of severity within the Kamstrup support organization:

- Cases: Any inquiry sent to the Kamstrup support team will initially start as a case. These can be hardware or software questions or requests for additional support.

- Incidents: If a case has been assessed and either a hardware or software component is deemed broken then it is escalated to an incident. These incidents can then be escalated from local US based support to additional support levels in Denmark if necessary.

All communications provided within both cases and incidents will be documented within the service platform and can be tracked by the Authority for progress.

CUSTOMER TRAINING

We've provided a brief training overview below that includes the initial training of the Kamstrup solution. Additional and ongoing trainings will be provided on an as-needed basis free of charge to the City.

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Core & Main (Metering Technology, Meter Installation, READy)	
Description	**Duration**
Metering Technology Training – Field Team • Train the Trainer – Field AMI Training o Meter 101 – Integral Parts of Kamstrup Meter o Proper Installation Technique o WOMS Software Training ▪ Navigation ▪ Required Documentation ▪ Data Sync o READy Field Manager Training ▪ Mobile Data Collection Entry ▪ Data Logging / Troubleshooting ▪ Route Assignments o Return to Manufacturer (RMA) Prep Procedures	5-7 + hours
READy Head End Software – Administrative, Customer Service, IT • Billing Integration File Training o Installation File Training • READy Software Training o Navigation o Analytics o Navigating Customer Complaints o Exporting Reports o Day in the Life o Route Assignments o User-Role Based Training ▪ Utility Administrator ▪ Utility User ▪ Utility Read Only ▪ Utility Meter Reader	2-4 Days

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Product Data Sheets

- Acoustic Leak Detection (ALD)
  - The Value of ALD
  - ALD Overview
- Meters
  - Water Resistance
  - FlowIQ 2200
  - FlowIQ 3200
  - FlowIQ 4200
- READy Collector
- READy MTU
- READy HeadEnd System Software
- Aquana Remote Shutoff Valve

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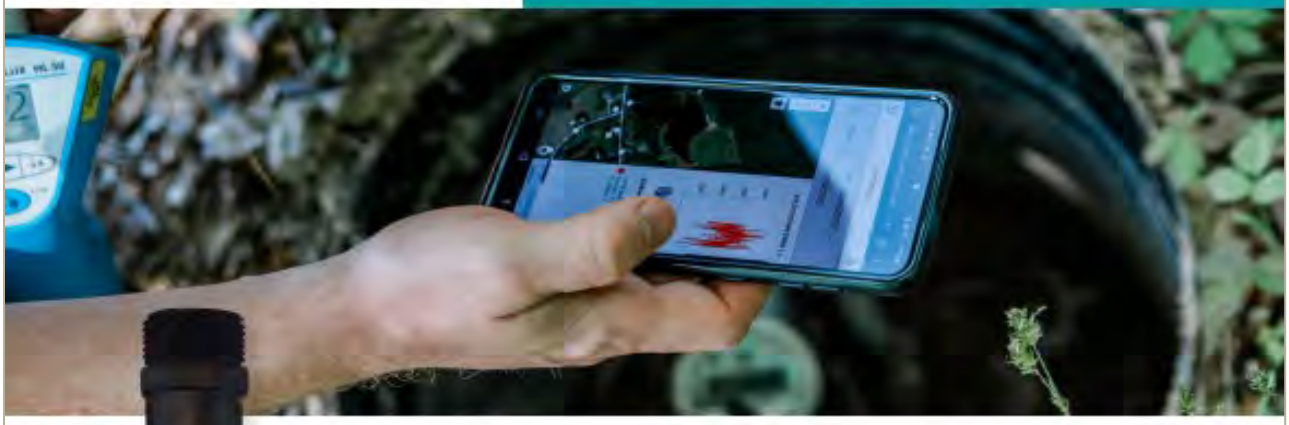
ACOUSTIC LEAK DETECTION

The Value of ALD

kamstrup

The Difference is Built-In

The flowIQ® 2200 is the only meter on the market that listen for leaks





The Value of Embedded Acoustic Leak Detection (ALD)

The value proposition of built-in acoustic leakage detection is simple. With the flowIQ® 2200 meter, every meter (up to 1") can continuously listen and proactively detect possible leaks, daily – for 20 years. This technology has been proven to detect leaks, not only after the meter on the customer side, but also before the meter in the District's adjacent service connections and distribution mains.

This capability allows utilities to have constant visibility into their water distribution network every day, for 20 years, and to reduce real water loss and better track and report Non-Revenue Water per state regulations. Utilities gain the ability to dispatch leak detection crews to known problem areas, greatly reducing awareness and locating time. In addition, if leaks are found in difficult environments, locating the leak before a burst occurs will ensure proper planning for equipment, interruptions, etc. before coming much worse.

The Kamstrup ALD Advantage

20YR ACTIVE LISTENING

Every residential meter is actively listening for 20 years to utility-side pipe assets and proactively alerting to new leaks.

MACHINE LEARNING

Leak Detector's machine learning algorithm has an 85%+ success rate at providing Meters of Interest that are detecting leaks.

AUTOMATED REPORTS

Weekly reports can be automated to dispatch leak detection crews.

PROACTIVE MONITORING

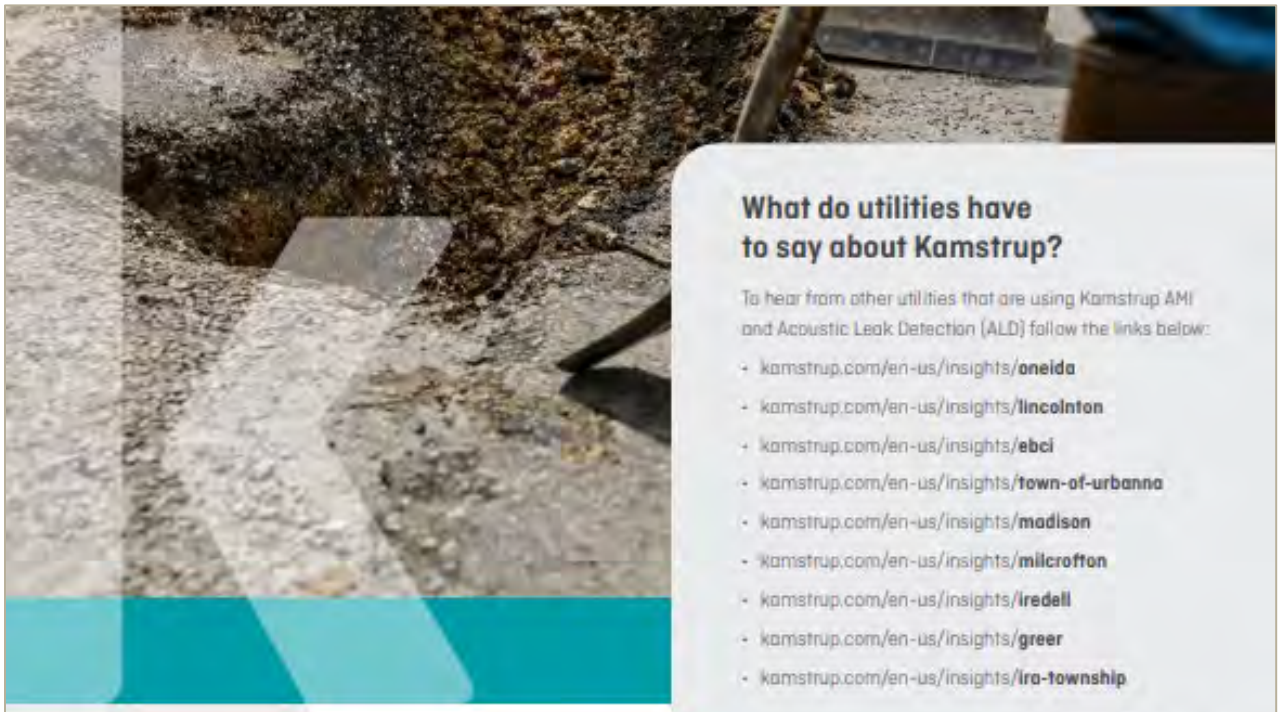
Leaks can be tracked for better planning and reducing further costs compared to reacting to bursts and/or surfaced leaks.

NRW RECOVERY DATA

Repaired leaks are captured within Leak Detector to provide total NRW savings based on pipe size, material, leak size, and cost of water. This data aids in annual AWWA Water Loss Audits and CA State regulations / reporting.

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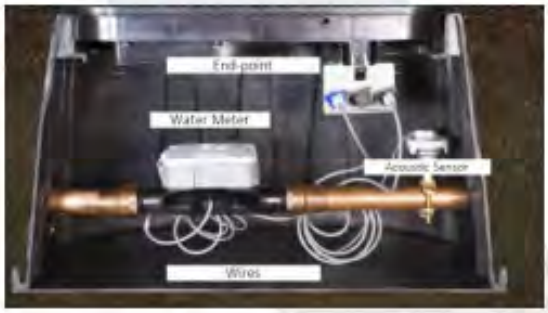


What do utilities have to say about Kamstrup?

To hear from other utilities that are using Kamstrup AMI and Acoustic Leak Detection (ALD) follow the links below:

- kamstrup.com/en-us/insights/**oneida**
- kamstrup.com/en-us/insights/**lincolnton**
- kamstrup.com/en-us/insights/**ebci**
- kamstrup.com/en-us/insights/**town-of-urbanna**
- kamstrup.com/en-us/insights/**madison**
- kamstrup.com/en-us/insights/**milcrofton**
- kamstrup.com/en-us/insights/**iredell**
- kamstrup.com/en-us/insights/**greer**
- kamstrup.com/en-us/insights/**ira-township**

More Functionality with Reduced Complexity



ADD ON LEAK SENSOR, REQUIRES:

Meter Cost + Radio Cost + Leak Sensor Cost

Meter Installation + Radio Installation + Leak Sensor Installation

Not Full Deployment Coverage

3 Hardware Components To Manage / Troubleshoot (Wires)

3 Different Warranties

2 Different Vendors, Multiple Distributors

The Difference is Built-In

INTEGRATED ACOUSTIC SENSOR, INCLUDES:

Meter Price

Meter Installation

Full Distribution Coverage

1 Hardware Component To Manage/Troubleshoot

1 Warranty

1 Vendor/Distributor



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ALD in Action

Utility Service Line – Multiple Correlations

- High noise detected on several meters
- Service line leak had been running a minimum of 5 months





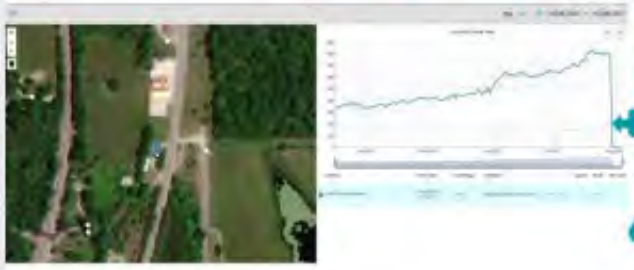
Leak estimated at 2 GPM and had been running for at least 5 months

Utility Service Line made from ductile iron

Distance to leak was approximately 30 feet to 150 ft

Poly Service Line – Isolated Leak

- High noise detected on single meter
- Service line leak had been running a minimum of 4.5 months
- The revenue lost estimated around $21,000 in 12 months





Leak estimated at 4 GPM and had been running for at least 4 months

Utility Service Line made of PVC

Distance to leak was approximately 50 ft

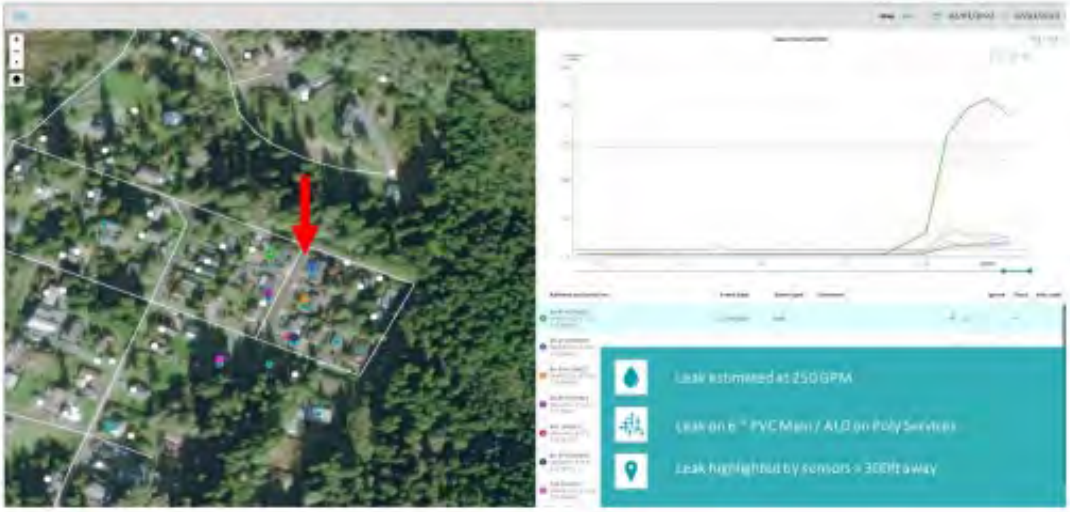
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ALD in Action

6" Main Line - PVC



14" Main Line - A/C



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ALD Overview

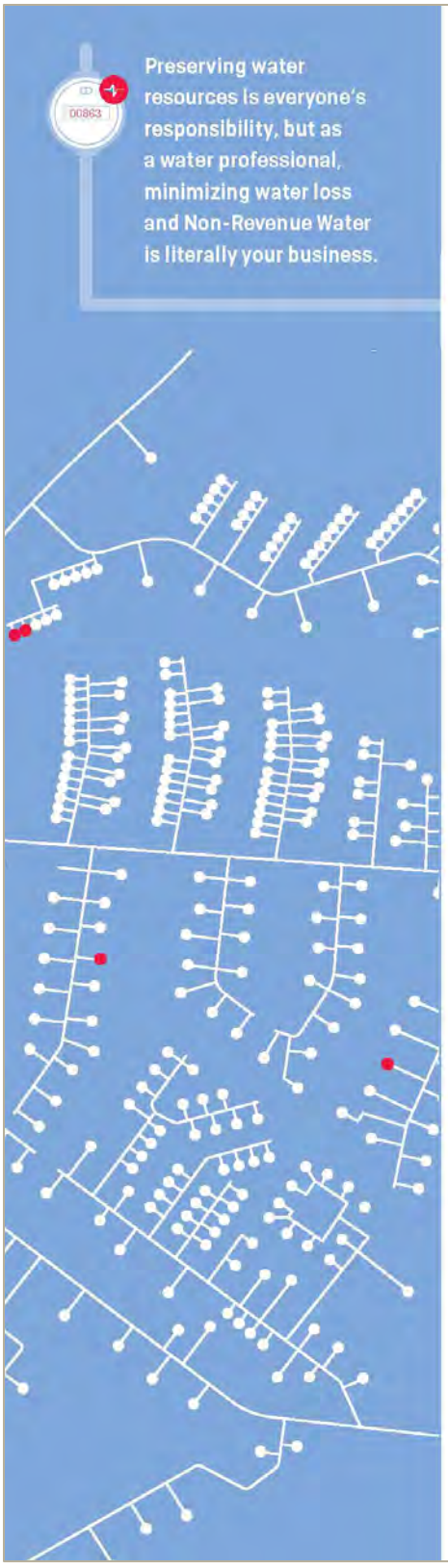
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Acoustic Leak Detection

With the flowIQ® 2200, Leak Detector Software and Kamstrup Services



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A proactive approach to fighting water loss

Today ...

Leak detection is often a time-consuming inefficient and expensive task as service connections are often on private property. With limited knowledge about what goes on in your distribution network and the state of your service connections, locating leaks can be like finding a needle in a haystack.

And when you cannot identify where the leaks in your distribution network are coming from, how do you optimize and prioritize your daily work? How do you assess the need for maintenance and future investments?

Just imagine ...

Instead, what if you had real-time data and insight that enabled you the ability to identify and verify potential leaks before they developed into bursts? Or, if you could efficiently prioritize your time and target your resources where you knew they would deliver the most value?

With Kamstrup's next generation solution for acoustic leak detection, which detects leaks upstream of the meter, you'll have full transparency of your distribution network, which ultimately allows you to have the tools you need for an efficient and proactive approach to leak detection and fighting water loss.

Less Non-Revenue Water

Faster and more efficient leak detection enables you to reduce your level of Non-Revenue Water. By lowering operational costs as you distribute less water, you are more likely to meet legislative and environmental goals and requirements. And, with detailed knowledge on leaks and the overall condition of your network, you can better prioritize - perhaps even postpone - investments in maintenance, renovation or additional capacity.

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Acoustic Leak Detection

The solution



flowIQ® 2200

flowIQ® 2200 raises the bar for what you can expect from a residential water meter. You get uncompromising accuracy, state-of-the-art built-in acoustic leak detection, full support for remote reading and a host of other intelligent features in one superior meter that is protected from water ingress and has up to 20 years battery-lifetime.



Remote reading

The flowIQ® 2200 offers full support for both drive-by and network remote reading. This ensures efficient, stable and secure meter reading and significantly reduces the time, costs and administration involved in your data collection.



Leak Detector

The accompanying analytics module, Leak Detector, assists you in locate leaks in service connections and distribution mains based on acoustic noise levels registered by flowIQ® 2200 meter. Leak Detector generates a visual map and provides you with insightful data about your distribution network, allowing you to narrow down areas and focus your efforts.



Service & Support

Implementation is done in close cooperation with Kamstrup to ensure that you get off to the best possible start, and you can choose between different options for how much support and training you need. This ranges from standard set-up and onboarding, to service packages where we monitor your network and provide you with a list of possible leaks for further investigation.



$12 per MP

On average the water lost in service connection has a value of $12 per meter point every year*

*European statistics.



22%
leaks on service line*

29%
leaks on service mains*

*Results from Kamstrup conducted in 2020

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Raising the bar for residential water meters based on proven ultrasonic technology

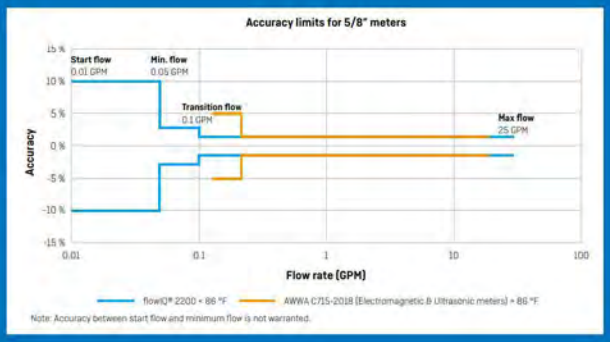
The flowIQ® 2200 smart water meter is the first of its kind with integrated acoustic leak detection. The meter monitors noise patterns that indicate possible leaks in the adjacent pipes and allows you to identify high-risk installations and find leaks in both service connections and distribution mains.

Containing no moving parts, the meter maintains the same high level of pinpoint accuracy throughout the meter's lifetime. With full support for remote reading, the flowIQ® 2200 offers a number of configurable data packages, both well-known and new intelligent alarms as well as a number of target volumes, volumes, maximum and minimum flows and temperature values.

In addition, the flowIQ® 2200 comes with a new display that shows flow rate and updates every twenty seconds.

Ability to improve customer service

Acting like a fine-meshed network of noise-loggers, the meters listen to the distribution lines and service connections to detect possible leaks. Through early detection of leaks, the flowIQ® 2200 enables you to provide more proactive customer service due to the real-time data that can warn about possible leaks before scale bursts which ultimately can limit the amount of consequential property damage.



flowIQ® 2200 – Technical features

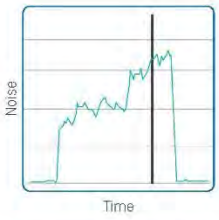
Accuracy and reliability that customers know today, but with add-on functionality of acoustic leak detection.

- Acoustic leak detection
- Flow rate shown in display
- Histogram
- Hourly log
- Remote reading
  - 3 Channel
  - AMR (912.5, 915, 918.5 MHz)
  - AMI (450-470 MHz)
- Intelligent alarms
  - Leak
  - Burst
  - Tamper
  - Dry
  - Reverse Flow
  - Low Battery
  - High ambient temperature
  - Low ambient temperature
  - Overflow
- Flow measurement/display update
  - 1 sec/20 sec (>0.05 GPM)
- Water ingress protection
  - IP68
- Sizes
  - ⅝" x ¾" x 7½" (1" thread, PPS) 25 GPM
  - ⅝" x ¾" x 5.1" (1" thread, PPS) 25 GPM
  - ⅝" x ½" x 7½" (¾" thread, PPS) 25 GPM
  - ¾" x 7½" (1" thread, PPS) 32 GPM
  - ¾" x 9" (1" thread, PPS) 32 GPM (incl. PPS extender)
  - ⅝" x ¾" x 7½" (1" thread, stainless steel) 25 GPM
  - ¾" x 7½" (1" thread, stainless steel) 35 GPM
  - ¾" x 9" (1" thread, stainless steel) 35 PGM
  - 1" x 10¾" (1¼" thread, stainless steel) 55 PGM
- Battery lifetime
  - 20 years
- AWWA C715-18 Compliance

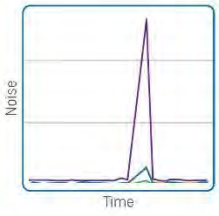
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5 examples of leaks found by the flowIQ® 2200

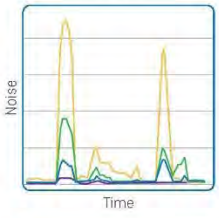
1 Leak turning into a burst on a service connection
When something escalates in the distribution network, it is important to act in time. The example shows a case where a leak was detected the moment the meter was installed, but after a short while this leak quickly rose to be in potential risk of bursting. The leak was discovered before it actually ended up with a burst, saving both money and valuable water.



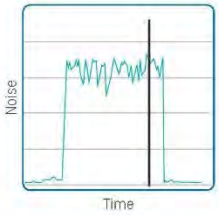
2 Burst inside consumer's home
A sudden spike of high acoustic values indicates that something has deviated - likely either due to extremely high consumption or a burst. The example shows a burst inside a consumer's home, which was also detected by the neighboring meters. This kind of correlation is particularly interesting as it will be able to detect acoustic changes far out in the distribution network.



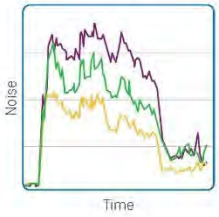
3 Simulated leak on service connections
This example shows a simulated leak on a service connection close to the main pipe. This leak was approximately 2.2 GPM to 3.3 GPM, and therefore a relatively large leak that would have had a costly effect. In the figure there is a clear representation of the spikes in the acoustic noise created by the leak as it was "turned on" which could be detected by several meters.



4 Leak on service connection
Leaks on service connections can be a black-box for many utilities, and they often require a lot of time and effort to find. This example shows multiple leaks discovered on service connections and a rapid increase in acoustic values. This spike happened just after the flowIQ® 2200 was installed, and a leak was detected instantly.



5 Leaking fire hydrant
The flowIQ® 2200 can also register leaking fire hydrants. In the figure, one of the leaky fire hydrants was registered by several meters in close proximity, which can be seen in the similar pattern in the acoustic values. The leak was repaired and the noise fell to a normal level again.



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Leak Detector

Easily identify leaks on service connections and distribution mains based on acoustic data noise in a cloud-based platform aimed at analyzing data



Leaks can be caused by a variety of reasons and often difficult to detect. With acoustic noise data from your water meters, leaks can now be detected in an entirely new way. Leak Detector, the analytics module in conjunction with the flowIQ® 2200, enables you to locate leaks based on acoustic noise levels registered by the meter, which means time can be spent fixing leaks instead of searching blindly for them.

Leak Detector provides a map-based overview of your supply area and shows your meters with intuitive color coding representing the noise level registered by each, with graphs visualizing the development over time. The module enables you to easily identify high-risk installations where elevated noise levels indicate possible leaks or bursts.

With faster and more efficient leak detection, you can reduce the cost per identified leak and also reduce Non-Revenue Water. Detailed knowledge about high-risk installations with possible leaks and the overall condition of your network will also enable you to prioritize your daily efforts to when and where they will have the biggest impact.

Identifying high-risk installations
The map in Leak Detector shows your meters with intuitive color coding representing the acoustic noise level in the surrounding pipes registered by each meter.

Filters and customizable thresholds let you control what meters are shown on the map. You can filter out meters with low noise levels, so you can focus on the meters where the risk of a leak is highest. You can also correlate the noise data from one meter with that of others to look for nearby meters with similar noise patterns, which could indicate a possible leak on a distribution main.

Noise data visualized
As you select one or more meters, graphs visualize the registered acoustic noise over time, allowing you to follow the development.

This enables you to take action as soon as the noise reaches a critical level. It also helps you to distinguish meters with a noise level caused by a leak from meters in which the noise is caused by something else, such as a circulation pump.

Increased transparency
Leak Detector provides the ability to increase overall transparency in your supply area.

A reduction in water loss will lower your operational costs. It also will limit your overall costs, and help you to meet environmental and legislative goals and requirements.

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Set-up for success

Implementation of a smart meter solution with acoustic leakage detection including flowIQ® 2200 water meters and the Leak Detector analytics module is done in close cooperation with Kamstrup to ensure that you get off to the best possible start. You can choose between different options for how much support and training you need.

A range of services and training offerings are available to support you in fighting Non-Revenue Water. By working in close cooperation with Kamstrup you can choose between different options for services, support and training to scale and customize your needs for not only today, but also the future.

Up & Running Service
With Up & Running Service, you get off to a better – and faster – start utilizing the Leak Detector module by having Kamstrup provide set-up and dedicated guidance on module overview.

Who is this for?
Up & Running Leak Detector is for those who want turnkey help creating the right foundation for maximizing the Leak Detector module.

What's in it for you?
- Minimal time investment and hassle
- Proper foundation for efficient use
- Faster time to use

Leak Monitoring Service
With Leak Monitoring Service, Kamstrup monitors your service connections through the Leak Detector module and then notifies you of potential leaks to give you the information you need to efficiently verify and locate them.

Who is this for?
Leak Monitoring Service is for those who want to improve detection of leaks in service connections by having someone else monitor them.

What's in it for you?
- Efficient use of field time
- High hit rate for beating leaks
- Improved customer service and satisfaction

Pipeline Integration Service
Pipeline Integration for Water Intelligence provides an improved overview of your assets, the ability to pinpoint incidents and a better understanding of potential improvements to pipeline design. With Pipeline Integration Service, your pipeline layout will be integrated into your water intelligence module.

Who is this for?
Pipeline Integration Service is for utilities that want better transparency of their distribution network through the various Water Intelligence modules but want to outsource the integration.

What's in it for you?
- Increased transparency
- Preventive maintenance



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Water Resistance

Technical Whitepaper

kamstrup

Water resistance

Kamstrup water meters have an excellent water resistance and can withstand being submerged into water for more than 20 years. This by far surpass the requirements for the IP68 rating. Data from in-house tests and real customer installations show the exceptionally low water ingress of the Kamstrup water meters.

Introduction

At Kamstrup we design and manufacture meters of high quality, durability, and longevity. One of the keys to the long lifetimes of the meters is prevention of water ingression to the electronics components.

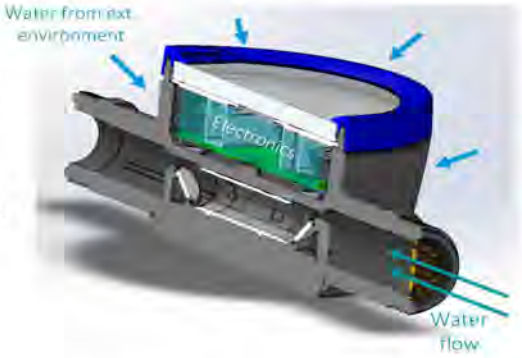
Water ingression will become an issue for all electronic meters when installed in a wet environment for extended time. Several factors are relevant when looking at meter resilience with regards to water ingress. Water will penetrate the meter to the electronic components through assembly leakages as well as the meter material. To ensure a low enough water permeability to not limit the lifetime of the meter, requires great care in the design and manufacturing of the meter.

Kamstrup water meters are certified with the highest possible water resistance rating, the IP68. The IP68 requires water resistance for complete immersion in water for more than 30 min. Kamstrup water meters go far beyond that and can withstand continuous submersion in water more than 20 years, as the data below will show. This is possible because of the design of the Kamstrup meter featuring the virtually impenetrable PPS composite material, a hermetic seal and desiccant in the electronic housing.

Our understanding of the water ingress in our meters is based on extensive in-house tests of both raw materials and complete meters as well as investigation of meters returned from end-user installations.

Patented design

Kamstrup water meters have a patented monolithic construction. With the meter housing moulded in one piece and no membranes or feedthroughs, the electronics is completely separated from the flow stream. With this design water ingression is only possible through diffusion through the materials or from the sealings towards the external environment.



In-house testing

One of the in-house tests continuously performed is on assembled meters. The meters are tested by placing a desiccant bag in the electronics compartment, where the exact mass of the desiccant bag is known. The meters are then exposed to hot water for a longer period with the higher temperature accelerating potential water ingress. Afterwards the desiccant bag mass is measured to determine the water ingress. The test ensures proactive validation of the potential water ingress in our different meter models.

Classification: Confidential 1/3

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Kamstrup flowIQ 2200

kamstrup

Data sheet

flowIQ® 2200

» RF
» Encoded

- Multiple radio options available
- Ultrasonic measurement
- Sustainable measurement accuracy
- Temperature measurement
- IP68 Vacuum sealed construction
- Lead free and certified to NSF/ANSI 61
- Flow measurement in display
- Acoustic leak detection in service and distribution lines



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Meter face details	6
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Ordering details	12
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Electronic ultrasonic cold-water meter for measurement of cold-water consumption in households, multi-unit buildings and industry

Sustainable accuracy
Ultrasonic flow measurement guarantees sustainable accuracy and longevity. Ultrasonic flow measurement is based on the transit time method, and all measurements, references, readings, calculations and data communication are controlled by an advanced, specially designed electronic circuit. Thus, the meter includes no moving parts, which makes flowIQ® 2200 less sensitive to wear and tear and impurities in the water.

Construction
The meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display. The meter is IP68 (submersible) type tested and suitable for installation in meter pits.

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Installation
flowIQ® 2200 is easy to install in all operating environments, horizontally as well as vertically, independent of piping and installation conditions. Consumption data can be read visually from the display, using an optical eye, and remotely read by various integrated communication protocols.

Specific features
flowIQ® 2200 measures the water and environment temperatures and it includes acoustic leak detection, securing that water loss is discovered quickly.

The unique combination of all the flowIQ® 2200 features reduce current operating costs to measure water usage and minimizes unexpected expenses in connection with possible leakage.

Environmentally friendly
The meter has been approved according to Drinking Water Standards and is certified to NSF/ANSI 61. The meter housing and measuring part are made of the high-performance thermoplastic material polyphenylene sulfide (PPS) with 40% fiberglass, which is free from lead and other heavy metals. The environmental report, Carbon Footprint, documents the meter's high reusability and low environmental impact, including recycling of materials.

Hygiene
To protect the health of the consumers Kamstrup has a hygienic manufacturing process of the water meters.

Kamstrup also has a highly automated manufacturing process and only uses materials approved for drinking water. Furthermore, the products get disinfected before dispatch. The hygiene is being controlled by external accredited laboratories and by frequent audits.

General description
flowIQ® 2200 is a hermetically sealed water meter intended for measurement of cold and *reclaimed water consumption in residentials and multi-unit buildings.

flowIQ® 2200 employs the ultrasonic measurement principle, based on Kamstrup's experience since 1991, with the initial development and production of static ultrasonic meters.

flowIQ® 2200 is available in an Encoded Output version with 2 x A-cell battery supply and a RF version with 1 x D-cell battery supply.

One of flowIQ® 2200's many advantages is the fact that it has no wearing parts, which ensures a high and stable accuracy throughout its lifetime. flowIQ® 2200 complies with all the AWWA C715-18 guideline for Ultrasonic Water Meters.

** For information concerning reclaimed water we refer to document no.: FILE100003532*

flowIQ® 2200 measures the water consumption electronically, as a volume, using a pair of ultrasonic signals. Through two ultrasonic transducers, an ultrasonic signal is sent with and against the flow direction. A transducer serves both as a 'speaker' when transmitting and as a 'microphone' when a signal is received. The ultrasonic signal traveling with the flow will be the first to reach the opposite transducer, while the signal running against the flow will be received a little later.

The time difference between the two signals can be converted into flow velocity, and thereby also into a volume. The measuring principle is a proven, long-term stable and accurate measuring principle.

In addition to volume reading, an indication of current flow and several other information codes are displayed. All registers are saved daily in the meter data logger (EEPROM) and are kept for 460 days. Furthermore, monthly data for the latest 36 months (3 years), hourly data for the latest 100 days (about 3 and a half months) and 50 info code events are saved.

flowIQ® 2200 is powered by an internal lithium battery which can provide up to 20 years operating life.

flowIQ® 2200 is available with a choice of integrated data communication options:

- 912.5, 915 or 918.5 MHz - RF
- 450-470 MHz - RF
- Encoded Output

The meter is fitted with an optical eye which makes it possible to read saved consumption data and info codes, stored in the meter's data logger. Using an optical reading head, it is also possible to change the meter configuration, e.g. data packages.

flowIQ® 2200 can and must only be opened by Kamstrup A/S. If the meter has been opened and the sealing has been broken, the meter is no longer valid for billing purposes and the warranty is void.

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Technical data

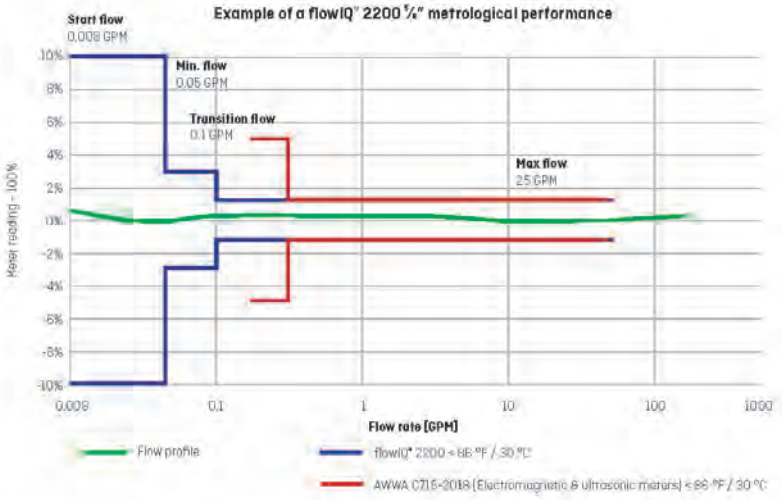
Electrical data

Battery (flowIQ® 2200 RF)	1 x D-Cell battery, 3.6V, 19Ah. The battery warranty does not apply at meter temperatures above t_{BAT} > 95 °F / 35° C
Battery (flowIQ® 2200 E0)	2 x A-Cell battery, 3.6V, 3.6Ah. The battery warranty does not apply at meter temperatures above t_{BAT} > 95 °F / 35° C

Mechanical data

Protection class	IP68-rated (waterproof/submersible)
Mechanical environment	Class M1 (Measuring Instruments Directive classification)
Ambient/meter temperature	
- flowIQ® 2200, composite	35... 130 °F / 1.5... 55 °C
- flowIQ® 2200, metal	35... 130 °F / 1.5... 55 °C
Water temperature	
- flowIQ® 2200, composite	33... 120 °F / 0.5... 50 °C
- flowIQ® 2200, metal	33... 120 °F / 0.5... 50 °C
Storage temp. empty sensor	-10... 140 °F / -20... 60 °C
Maximum operating pressure	250 PSI (17 bar)

Accuracy



The above flow profile is an example of a flowIQ® 2200 5/8" metrological performance and does not represent a generic profile for all Kamstrup water meters. Each meter will have an unique flow profile however all within both Kamstrup and AWWA C715-2019 limitations.

Note: At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow.

Approved meter data

Certified to NSF/ANSI 61
Complies to part 15 of the FCC rules, ISED, IFT and with AWWA C715-18

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Material

Wetted parts (composite model)

Meter housing and flow part	Polyphenylene sulfide (PPS) with fiberglass (40 %) reinforcement, PSU, extenders made from PA12
Reflectors	Stainless steel 316

Wetted parts (2-part body)

Flow part, threaded	Stainless Steel 316L
O-ring/gasket	EPDM
Measuring tube	PPS with fiberglass
Reflectors	Stainless steel

External meter parts

Top ring (sealing)	Polycarbonate (gray)

Meter sizes

flowIQ® 2200 is available in the sizes shown in table below:

XX = Communication module Y = Battery suply ZZ = Country code

Type number	Meter size Inches	Start flow[1] (S) [GPM]/ [L/h]	Min flow[1] [GPM]/ [L/h]	Transition flow [GPM]/ [L/h]	Max flow [GPM]/ [m³/h]	Sat flow rate [GPM]/ [m³/h]	Pressure loss SMOC [PSI]/ [bar]	Connection on meter NPSM thread	Lay length [inches]/ [mm]	Strainer	Temp measurement of water
02-K-XX-Y-1-8A-8ZZ	⅜" x ½"	0.008/ 2	0.05/ 11.4	0.1/ 22.7	25/ 5.68	35/ 7.95	6.2/ 0.43	¾"	7½"/ 190	Yes	Yes
02-K-XX-Y-1-8B-8ZZ	⅝" x ¾"	0.008/ 2	0.05/ 11.4	0.1/ 22.7	25/ 5.68	35/ 7.95	7.7/ 0.53	1"	7½"/ 190	Yes	Yes
02-K-XX-Y-1-8R-8ZZ	⅝" x ¾"	0.008/ 2	0.05/ 11.4	0.1/ 22.7	25/ 5.68	35/ 7.95	7.7/ 0.53	1"	5.1"/ 130	Yes	Yes
02-K-XX-Y-1-8C-8ZZ	¾"	0.011/ 2.5	0.05/ 11.4	0.1/ 22.7	32/ 7.27	45/ 10.22	8.0/ 0.62	1"	7½" or 9"/ 229	Yes	Yes
02-L-XX-Y-1-8B-8ZZ	⅝" x ¾"	0.013/ 3	0.10/ 22.8	0.15/ 34.1	25/ 5.68	35/ 7.95	3.8/ 0.26	1"	7½"/ 190	No	Yes
02-L-XX-Y-1-8N-8ZZ	¾"	0.013/ 3	0.10/ 22.8	0.15/ 34.1	35/ 7.95	49/ 11.13	3.8/ 0.27	1"	7½"/ 190	No	Yes
02-L-XX-Y-1-8L-8ZZ	¾"	0.013/ 3	0.10/ 22.8	0.15/ 34.1	35/ 7.95	49/ 11.13	3.8/ 0.27	1"	9"/ 229	No	Yes
02-L-XX-Y-1-8D-8ZZ	1"	0.022/ 5	0.25/ 56.8	0.4/ 90.8	55/ 12.49	77/ 17.49	3.1/ 0.21	1¼"	10¾"/ 273	No	Yes

Note! 02-K-02-D-1-8C-8UB can be ordered with a 1½" extension and washer (installed by the customer) to fit 7½" or 9" lay lengths

Note! Flow specifications only apply at temperatures below 86 °F / 30 °C

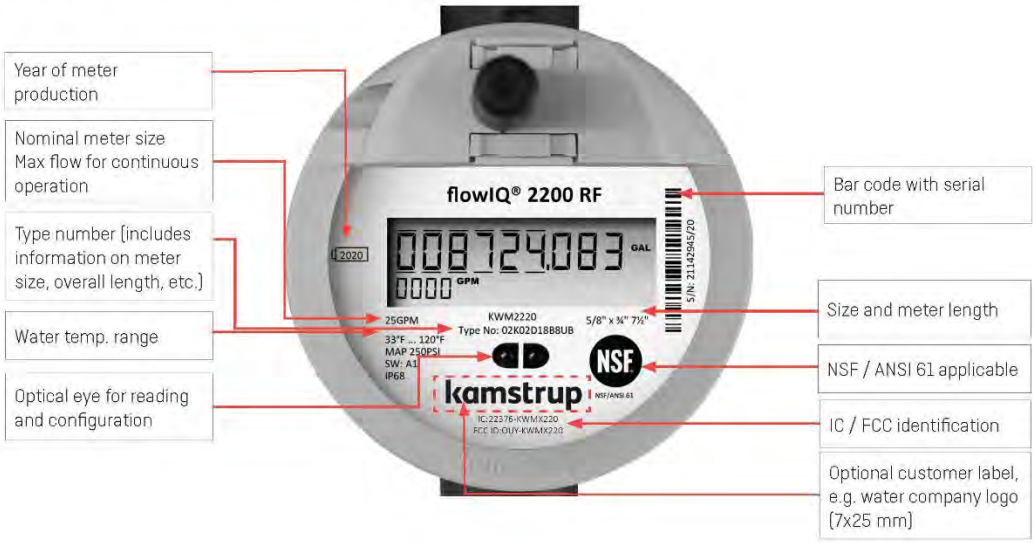
[1] At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow

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Meter face details

Meter information in permanent laser engraved text

RF top label



Encoded top label



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Core features

Water meters placed throughout the network make it possible to gather information that can be of vital importance for an effective water supply, asset management and improved customer service.

Acoustic leakage detection
flowIQ® 2200 water meter introduces integrated acoustic leak detection that allows you to monitor your service connections for possible leaks. Like a fine-meshed network of noise-loggers, all your meters monitor the noise in the distribution lines and service connections to detect possible leaks – 24/7.

Temperature monitoring
flowIQ® 2200 measures water and ambient temperatures respectively. Information on temperatures above or below the configured temperature in the meter will warn the utility of potential frost damage or quality issues. These measurements can be used to monitor the installation and will indicate the water's quality.

Current flow display
Besides the consumed volume, flowIQ® 2200 also shows the current flow in the display. The flow display has been designed with user experience in mind, where it can be advantageous, for example during installation, to be able to see the current consumption. In this context, it is important to stress that the metrological approval of the water meter is related to the volume reading only. Due to the meter's update time, the flow display, in case of rapidly increasing/decreasing flow, may turn out to be slower than the real flow and not a one-to-one correlation between the flow display and the volume growth. In general, one would expect the flow display to stabilize after about half a minute of constant flow and thereafter to be consistent with volume growth.

Consumption above max flow
The meter logs information on consumption above max flow. This information can be used to indicate if the meter size for a given installation is correct.

Consumption histogram
The meter tracks consumptions in different flow intervals for further analysis of the consumption patterns for the specific installation.

Meter modes

flowIQ® 2200 can operate in two modes, Normal and Verification mode.
Verification mode is only used by authorized laboratories during verification.

flowIQ® 2200 RF	Normal mode	Verification mode
Flow measurement and flow display update	1 s	0.125 s
Volume integration and volume display update	8 s	1 s

flowIQ® 2200 E0	Normal mode	Verification mode
Flow measurement and flow display update	2 s	0.125 s
Volume integration and volume display update	16 s	1 s

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Display and info codes



The large display with totalized volume, flow rate and intuitive info codes on flowIQ® 2200 makes it easy for end users to understand their own consumption data.

flowIQ® 2200 includes a large number of intelligent info codes and alarms. An info code indicates a special condition in the meter. If the info code is available in the display, the related symbol is on when it has been activated. If the 'condition' is not active, the sign is OFF. The info codes provide you with the exact knowledge you need to target your efforts within operations optimization, customer information, water loss and tampering. The info codes in the display have the following meaning and function:

Info code	Meaning
	The water in the meter has not been stagnant for one continuous hour during the last 24 hours. This can be a sign of a leaky faucet or toilet cistern or indicate a leakage after the meter.
	The water consumption has been consistently high for half an hour, which indicates a pipe burst.
	Attempt of fraud. The meter is no longer valid for billing..
	The meter is dry. In this case nothing will be measured.
	The water flows through the meter in the wrong direction.
OFF	RADIO OFF flashes. The meter is still in transport mode with the built-in radio transmitter turned off. The transmitter turns on automatically when water runs through the meter for the first time.*
OFF	RADIO OFF lights permanently. The radio is switched off permanently. Can be activated via METERTOOL.*
	The symbol appears when the expected capacity left is 6 months or less.

	Switch off automatically when the condition that activated them no longer exists.
	Disappears when the water has been stagnant for one hour.
	Disappears when the consumption falls to normal level.
	Disappears when the water no longer flows in the wrong direction.
	Disappears when the meter is filled with water.

RADIO OFF is not available for Encoded Output meters

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Data registers

The water meter has a permanent memory, in which the values of various data loggers are saved. The loggers can be read via the meter's optical eye and from communications protocols

The following registers are logged:

Description	Yearly logger	Monthly logger	Daily logger	Hourly logger
Logger depth	20 years	36 months	460 days	2400 hours
Operating hours	✓	✓	✓	✓
Info codes incl. hour counter	✓	✓	✓	✓
Volume	✓	✓	✓	✓
Volume reverse	✓	✓	✓	✓
Acoustic Noise Value Day			✓	
Flow max incl. date	✓	✓		
Flow min. incl. date	✓	✓		
Flow max day incl. Timestamp			✓	
Flow min. day incl. Timestamp			✓	
Water temp. max	✓	✓	✓	
Water temp. min.	✓	✓	✓	
Water temp. avg.	✓	✓	✓	
Ambient temp. max	✓	✓	✓	
Ambient temp. min.	✓	✓	✓	
Ambient temp. avg.	✓	✓	✓	

Every time the information code changes, date and info codes are logged. Thus, it is possible to data read the latest 50 changes of the information code as well as the date the change was made.

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Integrated communication

The meter supports a variety of different communication options depending on meter type. All radio supported meters can be used with Kamstrup's external antenna. Transmission properties and data packages are defined in the configuration number YY-ZZZ. These can be changed with METERTOOL, MeterToolX or READy App through the optical IR interface or with a READy converter.*

**Depending on communication protocol*

RF

Kamstrup RF is based on Wireless M-Bus which is a mature and proven technology for remote reading of smart meters. Wireless M-Bus provides a robust, simple and secure reading of meters and requires a low initial investment, but is flexible enough to be expanded whenever desired. Wireless M-Bus is based on an European standard (EN 13757-4) applicable to devices for reading consumption of water, electricity or energy. The data encryption consists of a 128-bit AES counter mode encryption. Both AMR 912.5, 915 and 918.5 MHz and AMI 450-470 MHz are available.

For additional information about the Kamstrup RF communication module, please refer to the module data sheet, document no.: FILE100003480.

Encoded Output

The Sensus Encoded Output and TouchRead are implemented based on Sensus specification UI-1203 and UI1204. Encoded Output is compatible with several 3rd party RF network systems. Kamstrup Encoded Output supports Sensus Encoded Output systems and Sensus TouchRead systems. In addition, Neptune ProRead, Neptune E-coder systems and others are supported.

For additional information about the Kamstrup Encoded Output communication module, please refer to the Encoded Output module data sheet, document no.: FILE100003729.

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State of the art meter reading system (READy)

Standardized and open communication

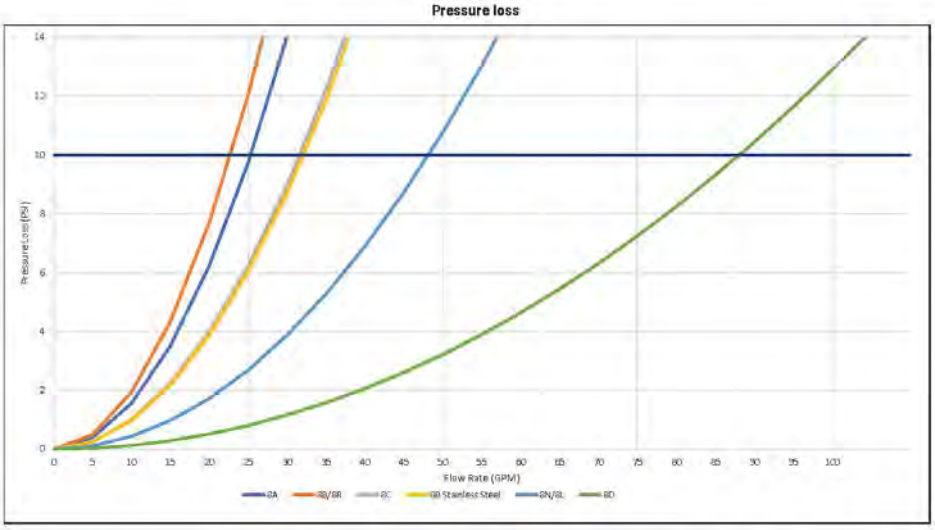
902-928 MHz band RF is an open standard, following EN13757-4:2010, which means that while the flowIQ® 2200 can be configured with or without encryption of the transmitted signal, encryption is required in the United States.

Encryption protects personal data against unauthorized monitoring. Furthermore, the encryption file provides easy access to import meter data for reading programs.

Pressure loss

According to AWWA C715-18 Type I guideline the maximum pressure loss must not exceed 10 PSI (0.69 bar) at SMOC.

The following graph shows pressure loss with respect to flow rate:



See Technical description for Water Meters North America: Document no.: FILE100001331, for more information about pressure loss.

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Ordering details

Start your order by stating the type number of the selected model of flowIQ® 2200.

The type number includes information on meter type, meter version, size, lay length, service connection and time zone.

Subsequently the meter configuration, which determines customer-specific requirements such as number of digits in display etc., is selected. The configuration is completed during programming of the final meter.

Accessories are enclosed separately to be mounted by the installer.

Meter type - flowIQ® 2200

Type	□□	□	□□	□	□	□□	□	□□
Meter generation								
Second generation	02							
Mechanical design								
Composite, PPS		K						
Stainless steel		L						
Communication								
RF			02					
Encoded Output			41					
Power supply								
D-cell				D				
2 x A-cell				A				
Dynamic range								
AWWA C715-18					1			
Meter size								
⅝" x ½" (25GPM); ¾" NPSM; 7½"						8A		
⅝" x ¾" (25GPM); 1" NPSM; 7½"						8B		
⅝" x ¾" (25 GPM); 1" NPSM; 5.1"						8R		
¾" (32GPM); 1" NPSM; 7½" or 9"; includes 1½" extension						8C		
¾" (35GPM); 1" NPSM; 7½"						8N		
¾" (35GPM); 1" NPSM; 9"						8L		
1" (55GPM); 1¼" NPSM; 10¾"						8D		
Meter type								
Cold water							8	
Reclaimed water[1]							9	
Country code								
North America, FCC and NSF approved								UB
Canada, ISED and NSF approved								CA
Mexico, IFT and NSF approved								MX

[1] *Only available for RF communication*

The features included in the type number cannot be changed once the meter has been produced.

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Configuration - flowIQ® 2200

Config	DDD □□□	JJ □□	LLL □□□	MMMM □□□□	N □	P □	S □	U □	RR □□	CCC □□□	V □	T □	YY □□	ZZZ □□□
Display views														
Standard	810													
GMT offset (time zone)														
USA Eastern (GMT-5)		28												
USA Central (GMT-6)		24												
USA Mountain (GMT-7)		20												
USA Pacific (GMT-8)		16												
Target date (handled as order data)														
Max values averaged over time (1..120 min.)														
2 minutes			002											
Customer label (2060-) Alphanumeric														
Customer label blank (default)				5000										
Kamstrup serial number				0010										
Incremented number - 8 digits				8004										
Customer specific labels				MMMM										
Leakage message limit														
OFF					9									
Flow continuously > 0.25% of max flow					2									
Flow continuously > 0.5% of max flow					3									
Flow continuously > 1.0% of max flow					4									
Flow continuously > 2.0% of max flow					5									
Pipe burst limit														
OFF						0								
Flow > 5% of max flow for 30 minutes						1								
Flow > 10% of max flow for 30 minutes						2								
Flow > 20% of max flow for 30 minutes						3								
Ambient Temperature low limit														
OFF							0							
Ambient temperature < 2 °C/ 36 °F							2							
Ambient temperature < 3 °C / 37 °F							3							
Ambient temperature < 6 °C / 43 °F							6							
Ambient Temperature high limit														
OFF								0						
Ambient temperature > 35 °C / 95 °F								3						
Ambient temperature > 45 °C / 113 °F								6						
Data logger profile														
Standard RF									04					
Standard Encoded Output									15					

To be continued on next page...

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Configuration - flowIQ® 2200

Config	DDD □□□	JJ □□	LLL □□□	MMMM □□□□	N □	P □	S □	U □	RR □□	CCC □□□	V □	T □	YY □□	ZZZ □□□
...continued from previous page														
Display resolution (alphanumeric)														
0000000.00 USgal - 0.01 GPM - Billing in 1,000s (recommended for residential meters)										220				
000000000 ft³ - 0000 GPM - Billing in 1,000s (recommended for district meters)										154				
For additional options please refer to FILE100002712														
Temperature units of measure														
Fahrenheit											1			
Celsius											0			
Encryption level														
Encryption with separately forwarded key												3		
No encryption (applicable for Encoded meters)												0		
Communication														
For communication protocols please refer to the section 'Integrated Communication'														

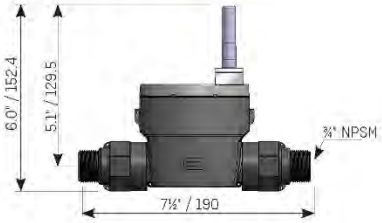
	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
Unless otherwise stated in the order, Kamstrup supplies the following:	810	□□	002	5000	4	3	3	3	04	220	1	3	YY	ZZZ

Note: JJ (time zone) and target date are not predefined and has to be chosen in the ordering system.

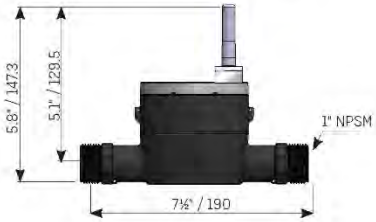
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Dimensional sketches – flowIQ® 2200

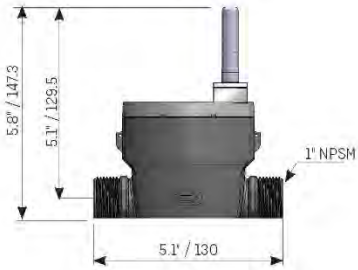
Type: 8A – Size: 25 GPM ⅝" x ½" x 7½"



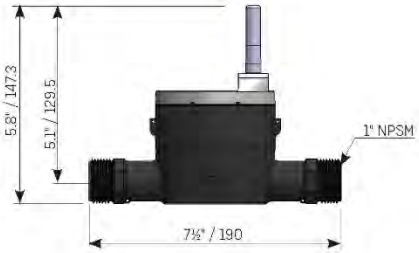
Type: 8B – Size: 25 GPM ⅝" x ¾" x 7½"



Type: 8R – Size: 25 GPM ⅝" x ¾" x 5.1"



Type: 8C – Size: 32 GPM ¾" x ¾" x 7½"



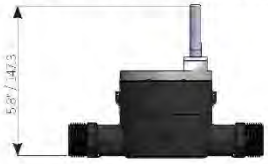
Type: 8C+ – Size: 32 GPM ¾" x ¾" x 9"



Encoded Output has the exact same dimensions as RF – apart from the meter cup height.

Examples:

Type: 8B – Size: 25 GPM ⅝" x ¾" x 7½"



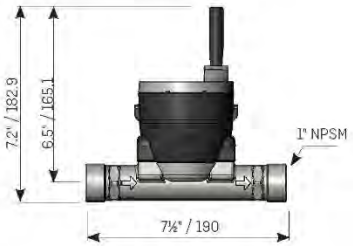
Type: 8R – Size: 25 GPM ⅝" x ¾" x 5.1"



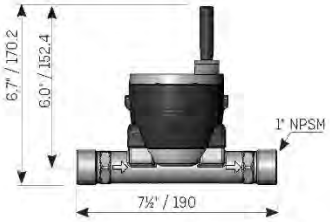
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Dimensional sketches – flowIQ® 2200

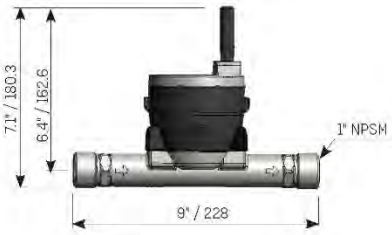
Type: 8B – Size: 25 GPM ⅝" x ¾" x 7½"



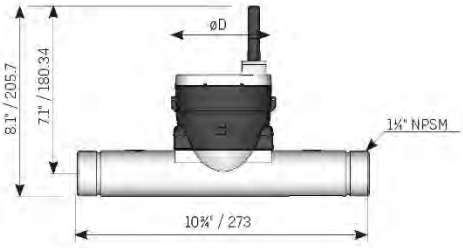
Type: 8N – Size: 35 GPM ¾" x 1" x 7½"



Type: 8L – Size: 35 GPM ¾" x 1" x 9"



Type: 8D – Size: 55 GPM 1" x 1¼ " x 10¾"



NOTE! Same threads for in- and outlet. / Dimensions: Inches/mm

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Dimensions

flowIQ® 2200 RF

Mechanical design	Meter type	Meter size GPM	NPSM thread	L	H	øD	Weight approx. [Lbs / Kg]
				[Inches / mm]			
Composite	8A	25	¾"	7½" / 190	6.0" / 152.4	3.6" / 91.4	1.08 / 0.49
Composite	8B	25	1"	7½" / 190	5.8" / 147.3	3.6" / 91.4	1.01 / 0.46
Composite	8R	25	1"	5.1" / 130	5.8" / 147.3	3.6" / 91.4	1.01 / 0.46
Composite	8C	32	1"	7½" / 190	5.8" / 147.3	3.6" / 91.4	1.01 / 0.46
Composite	8C+	32	1"	9" / 228	5.8" / 147.3	3.6" / 91.4	1.10 / 0.50
Stainless steel	8B	25	1"	7½" / 190	7.2" / 182.9	3.6" / 91.4	1.01 / 0.46
Stainless steel	8N	35	1"	7½" / 190	6.7" / 170.2	3.6" / 91.4	2.2 / 1.0
Stainless steel	8L	35	1"	9" / 228	7.1" / 180.3	3.6" / 91.4	2.5 / 1.13
Stainless steel	8D	55	1¼"	10¾" / 273	8.1" / 205.7	3.6" / 91.4	4.1 / 1.86

flowIQ® 2200 E0

Mechanical design	Meter type	Meter size GPM	NPSM thread	L	H	øD	Weight approx. [Lbs / Kg]
				[Inches / mm]			
Composite	8A	25	¾"	7½" / 190	2.1" / 55	3.6" / 91.4	0.90 / 0.41
Composite	8B	25	1"	7½" / 190	2.1" / 55	3.6" / 91.4	0.86 / 0.39
Composite	8R	25	1"	5.1" / 130	2.1" / 55	3.6" / 91.4	0.86 / 0.39
Composite	8C	32	1"	7½" / 190	2.1" / 55	3.6" / 91.4	1.01 / 0.46
Composite	8C+	32	1"	9" / 228	2.1" / 55	3.6" / 91.4	0.93 / 0.42
Stainless steel	8B	25	1"	7½" / 190	3.9" / 101	3.6" / 91.4	1.87 / 0.85
Stainless steel	8N	35	1"	7½" / 190	3.9" / 101	3.6" / 91.4	1.87 / 0.85
Stainless steel	8L	35	1"	9" / 228	3.9" / 101	3.6" / 91.4	2.09 / 0.95
Stainless steel	8D	55	1¼"	10¾" / 273	4.2" / 109	3.6" / 91.4	2.82 / 1.28

Accessories

See accessories for water meters on Kamstrup.com, document no.: FILE100000644.
Accessories are ordered separately in CPQ (Kamstrup ordering system) and will be delivered as single parts in the packaging.

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Kamstrup flowIq 3200

kamstrup

Data sheet

flowIQ® 3200

» RF
» Encoded

- Ultrasonic measurement
- Sustainable measurement accuracy
- Flow measurement in display
- Multiple radio options available
- IP68 Vacuum sealed construction
- Lead free and certified to NSF/ANSI 61
- Fire Service approved



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Electronic ultrasonic cold water meter for measurement of cold water consumption in households, multi-unit buildings and industry

Sustainable accuracy
Ultrasonic flow measurement guarantees sustainable accuracy and longevity. Ultrasonic flow measurement is based on the transit time method, and all measurements, references, readings, calculations and data communication are controlled by an advanced, specially designed electronic circuit. Thus, the meter includes no moving parts, which makes flowIQ® 3200 less sensitive to wear and tear and impurities in the water.

Construction
The meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display. The meter is IP68 (submersible) type tested and suitable for installation in meter pits.

Installation
flowIQ® 3200 is easy to install in all operating environments, horizontally as well as vertically, independent of piping and installation conditions. Consumption data can be read visually from the display, using an optical eye, and remotely read, by various integrated communication protocols.

Specific features
flowIQ® 3200 measures the water and environment temperatures and it includes leak detection, securing that water loss is discovered quickly.

The unique combination of all the flowIQ® 3200 features reduces current operating costs to measure water usage and minimizes unexpected expenses in connection with possible leakage.

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Environmentally friendly

The meter has been approved according to Drinking Water Standards and is certified to NSF/ANSI 61. The meter housing and measuring part are made of the high performance thermoplastic material polyphenylene sulfide (PPS) with 40% fiberglass, which is free from lead and other heavy metals. The environmental report, Carbon Footprint, documents the meter's high reusability and low environmental impact, including recycling of materials.

Hygiene

To protect the health of the consumers Kamstrup has a hygienic manufacturing process of the water meters.

Kamstrup also has a highly automated manufacturing process and only uses materials approved for drinking water. Furthermore the products gets disinfected before dispatch. The hygiene is being controlled by external accredited laboratories and by frequent audits.

General description

flowIQ® 3200 is a hermetically sealed water meter intended for measurement of cold and *reclaimed water consumption in residentials and multi-unit buildings and commercial applications.

flowIQ® 3200 employs the ultrasonic measurement principle, based on Kamstrup's experience since 1991, with the initial development and production of static ultrasonic meters.

flowIQ® 3200 is available in an Encoded Output version with 2 x A-cell battery supply and a RF version with 1 x D-cell battery supply.

One of flowIQ® 3200's many advantages is the fact that it has no wearing parts, which ensures a high and stable accuracy throughout its lifetime. flowIQ® 3200 complies with all the AWWA C715-18 and CN1044 fire service guideline for Ultrasonic Water Meters.

In the flowIQ® 3200 series a composite housing is mounted on a stainless steel meter body. Thus, the electronics are fully protected against internal or external penetration of water.

flowIQ® 3200 is suitable for measurement in multi-unit apartments and light commercial premises. The meter is suitable for mounting in pump stations or wellheads, as it will also function in fully submerged conditions.

flowIQ® 3200 measures the water consumption electronically, as a volume, using a pair of ultrasonic signals. Through two ultrasonic transducers, an ultrasonic signal is sent with and against the flow direction. A transducer serves both as a 'speaker' when transmitting and as a 'microphone when a signal is received. The ultrasonic signal traveling with the flow will be the first to reach the opposite transducer, while the signal running against the flow will be received a little later. The time difference between the two signals can be converted into flow velocity, and thereby also into a volume. The measuring principle is a proven, long-term stable and accurate measuring principle.

In addition to volume reading, an indication of current flow and a number of other information codes are displayed. All registers are saved daily in the meter data logger (EEPROM) and are kept for 460 days. Furthermore, monthly data for the latest 36 months, hourly data for the latest 100 days and 50 info code events are saved.

flowIQ® 3200 is powered by an internal lithium battery which can provide up to 20 years operating life.

flowIQ® 3200 is available with a choice of integrated data communication options:

- 912.5, 915 or 918.5 MHz – RF
- 450-470 MHz - RF
- Encoded Output

The meter is fitted with an optical eye which makes it possible to read saved consumption data and info codes, stored in the meter's data logger. Using an optical reading head, it is also possible to change the meter configuration e.g. data packages.

flowIQ® 3200 can and must only be opened by Kamstrup A/S. If the meter has been opened and the sealing has thus been broken, the meter is no longer valid for billing purposes and the warranty is void.

** For information concerning reclaimed water we refer to document no.: FILE100003532*

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Technical data

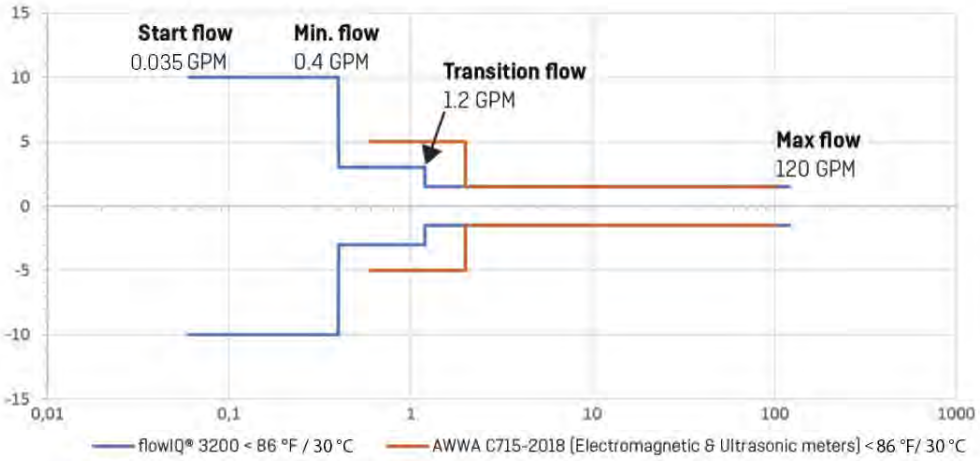
Electrical data

Battery (flowIQ® 3200 RF)	D-cell battery, 3.6V, 19Ah. The battery warranty does not apply at meter temperatures above t_{BAT} > 95 °F / 35 °C
Battery (flowIQ® 3200 E0)	2 x A-Cell battery, 3.6V, 3.6Ah. The battery warranty does not apply at meter temperatures above tBAT > 95 °F / 35 °C

Mechanical data

Protection class	IP68-rated (waterproof/submersible)
Mechanical environment	Class M1 (Measuring Instruments Directive classification)
Maximum operating pressure	Oval flange mounted, 300 PSI / (20.7 bar)
	Round flange mounted, 275 PSI (19 bar)
Ambient/meter temperature	35...130 °F / 0.5...55 °C
Water temperature	33...120 °F / 0.5...50 °C
Storage temp. empty sensor	-10...140 °F / -20...60 °C

Accuracy



Note: At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow

Approved meter data

Certified to NSF/ANSI 61.
Complies to part 15 of the FCC rules, ISED, IFT and with AWWA C715-18 and CN1044.

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Material

Wetted parts

Flow part, threaded/flanged	Stainless Steel 316L
O-ring/gasket	EPDM
Measuring tube	PPS with fiberglass
Reflectors	Stainless steel

External meter parts

Meter housing	Polyphenylene sulfide (PPS) – 40% fiberglass
Cover	Glass
Spring ring	Stainless steel
Top ring (sealing)	Polycarbonate (gray)

Meter sizes

flowIQ® 3200 is available in the sizes shown in table below:

XX = Communication module Y = Battery supply ZZ = Country code

Type number	Meter size Inches	Start flow (S) [GPM]/ [L/h]	Min. flow [GPM]/ [L/h]	Transition flow[1] [GPM]/ [m³/h]	Max flow [GPM]/ [m³/h]	Sat. flow rate [GPM]/ [m³/h]	Pressure loss SMOC [PSI]/ [bar]	Connection on meter	Lay length [inches]/ [mm]	Strainer	Temp. measurement of water
02-L-XX-Y-1-8F-8ZZ	1½"	0.035/ 8	0.4/ 90.8	1.2/ 0.27	120/ 27.25	168/ 38.16	5.5/ 0.38	1½"[2]	13"/ 330	No	Yes
02-L-XX-Y-1-8H-8ZZ	2"	0.088/ 20	0.5/ 113.6	1.5/ 0.34	160/ 36.34	224/ 50.88	1.8/ 0.12	2"	17"/ 432	No	Yes
02-L-XX-Y-1-8M-8ZZ	2"	0.088/ 20	0.5/ 113.6	1.5/ 0.34	160/ 36.34	224/ 50.88	1.8/ 0.12	2"	15¼"/ 387	No	Yes
02-L-XX-Y-1-8K-8ZZ	3"	0.22/ 50	1.1/ 249.8	7.5/ 1.70	350/ 79.49	490/ 111.29	3.5/ 0.24	3"	12"/ 305	No	Yes
02-L-XX-Y-1-8P-8ZZ	4"	0.35/ 80	1.7/ 386.1	5/ 1.14	700/ 158.99	980/ 222.58	4/ 0.27	4"	14"/ 356	No	Yes

[1] At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow.

[2] Only >1½" meters are recognized by the CN1044 approval standard for fire service meters.

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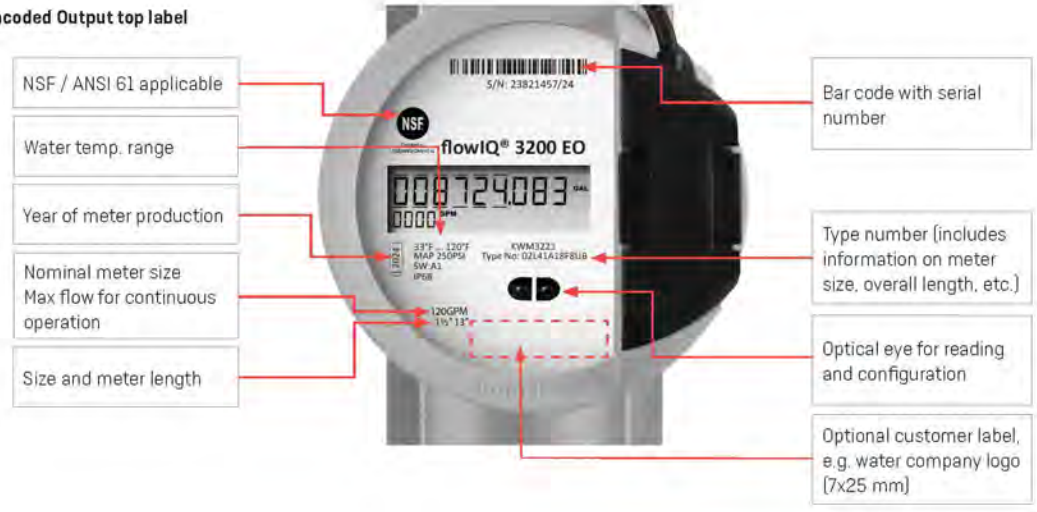
Meter face details

Meter information in permanent laser engraved text. Note: Only FM fire service meters will be stamped with the FM approval mark.

RF top label



Encoded Output top label



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Core features

Water meters placed throughout the network make it possible to gather information that can be of vital importance for an effective water supply, asset management and improved customer service.

Temperature monitoring
flowIQ® 3200 measures ambient temperatures.

Information on temperatures above or below the configured temperature in the meter will warn the utility on potential frost damages or quality issues.

These measurements can be used to monitor the installation and will indicate the water's quality.

Consumption above max flow
The meter logs information on consumption above max flow. This information can be used to indicate if the meter size for a given installation is correct.

Consumption histogram
The meter tracks consumptions in different flow intervals for further analysis of the consumption patterns for the specific installation.

Acoustic Leakage Detection
For 1½" and 2", the flowIQ® 3200 water meter introduces integrated acoustic leak detection, enabling continuous monitoring of both distribution mains and service lines without the need for additional hardware or external reading infrastructure. This built in functionality expands Kamstrup's proactive leak detection solution, offering near system wide coverage that enhances operational efficiency, reduces non-revenue water, and supports long-term asset management strategies.

Current flow display
Besides the consumed volume, flowIQ® 3200 also shows the current flow in the display. The flow display has been designed with user experience in mind, where it can be advantageous, for example during installation, to be able to see the current consumption. In this context, it is important to stress that the metrological approval of the water meter is only related to the volume reading. Due to the meter's update time, the flow display, in case of rapidly increasing/decreasing flow, may turn out to be slower than the real flow and not a one-to-one correlation between the flow display and the volume growth.

In general, one would expect the flow display to stabilize after about half a minute of constant flow and thereafter to be consistent with volume growth.

Meter modes

flowIQ® 3200 can operate in two modes, Normal and Verification mode.

Verification mode is only used by authorized laboratories during verification.

flowIQ® 3200 RF	Normal mode	Verification mode
Flow measurement and flow display update	1 s	0.125 s
Volume integration and volume display update	8 s	1 s
flowIQ® 3200 E0	**Normal mode**	**Verification mode**
Flow measurement and flow display update	2 s	0.125 s
Volume integration and volume display update	16 s	1 s

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Display and info codes



The large display with totalized volume, flow rate and intuitive info codes on flowIQ® 3200 makes it easy for end users to understand their own consumption data.

flowIQ® 3200 includes a large number of intelligent info codes and alarms. An info code indicates a special condition in the meter. If the info code is available in the display, the related symbol is on when it has been activated. If the 'condition' is not active, the sign is OFF. The info codes provide you with the exact knowledge you need to target your efforts within operations optimization, customer information, water loss and tampering. The info codes in the display have the following meaning and function:

Info code	Meaning
	Water in the meter has not been stagnant for one continuous hour during the latest 24 hours. This can be a sign of a leaky faucet or toilet cistern or indicate a leakage after the meter.
	The water consumption has been consistently high for half an hour, which indicates a pipe burst.
	Attempt of fraud. The meter is no longer valid for billing.
	The meter is dry. In this case nothing will be measured.
	The water flows through the meter in the wrong direction.
OFF	RADIO OFF flashes: The meter is still in transport mode with the built-in radio transmitter turned off. The transmitter turns on automatically on the first time water runs though the meter.*
OFF	RADIO OFF lights permanently. The radio is switched off permanently. Can be activated via METERTOOL..*
	The symbol appears when the expected capacity left is 6 months or less.

	Switch off automatically when the condition that activated them no longer exists.
	Disappears when the water has been stagnant for one hour.
	Disappears when the consumption falls to normal level.
	Disappears when the water no longer flows in the wrong direction.
	Disappears when the meter is filled with water.

*RADIO OFF *is not available for Encoded Output meters*

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Data registers

The water meter has a permanent memory, in which the values of various data loggers are saved. The loggers can be read via the meter's optical eye and from communications protocols.

The following registers are logged:

Description	Yearly logger	Monthly logger	Daily logger	Hourly logger
Logger depth	20 years	36 months	460 days	2400 hours
Operating hours	✓	✓	✓	✓
Info codes incl. hour counter	✓	✓	✓	✓
Volume	✓	✓	✓	✓
Volume reverse	✓	✓	✓	✓
Flow max incl. date	✓	✓		
Flow min. incl. date	✓	✓		
Flow max day incl. timestamp			✓	
Flow min. day incl. timestamp			✓	
Water temp. max	✓	✓	✓	
Water temp. min.	✓	✓	✓	
Water temp. avg.	✓	✓	✓	
Ambient temp. max	✓	✓	✓	
Ambient temp. min.	✓	✓	✓	
Ambient temp. avg.	✓	✓	✓	

Every time the information code changes, date and info codes are logged. Thus, it is possible to data read the latest 50 changes of the information code as well as the date the change was made.

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Integrated communication

The meter supports a variety of different communication options depending on meter type. All radio supported meters can be used with Kamstrup's external antenna. Transmission properties and data packages are defined in the configuration number YY-ZZZ. These can be changed with METERTOOL, MeterToolX or READy App through the optical IR interface or with a READy Converter.*

**Depending on communication protocol*

RF

Kamstrup RF is based on Wireless M-Bus which is a mature and proven technology for remote reading of smart meters. Wireless M-Bus provides a robust, simple and secure reading of meters and requires a low initial investment, but is flexible enough to be expanded whenever desired. Wireless M-Bus is based on an European standard (EN 13757-4) applicable to devices for reading consumption of water, electricity, or energy. The data encryption consists of a 128-bit AES counter mode encryption. Both AMR 912.5, 915 and 918.5 MHz and AMI 450-470 MHz are available.

For additional information about the Kamstrup RF communication module, please refer to the RF module data sheet, document no.: FILE100003480.

Encoded Output

The Sensus Encoded Output and TouchRead are implemented based on Sensus specification UI-1203 and UI1204. Encoded Output is compatible with several 3rd party RF network systems. Kamstrup encoded output supports Sensus Encoded Output systems and Sensus TouchRead systems. In addition, Neptune ProRead, Neptune E-coder systems and others are supported.

For additional information about the Kamstrup Encoded Output communication module, please refer to the Encoded Output module data sheet, document no.: FILE100003729.

State of the art meter reading system (READy)

Standardized and open communication

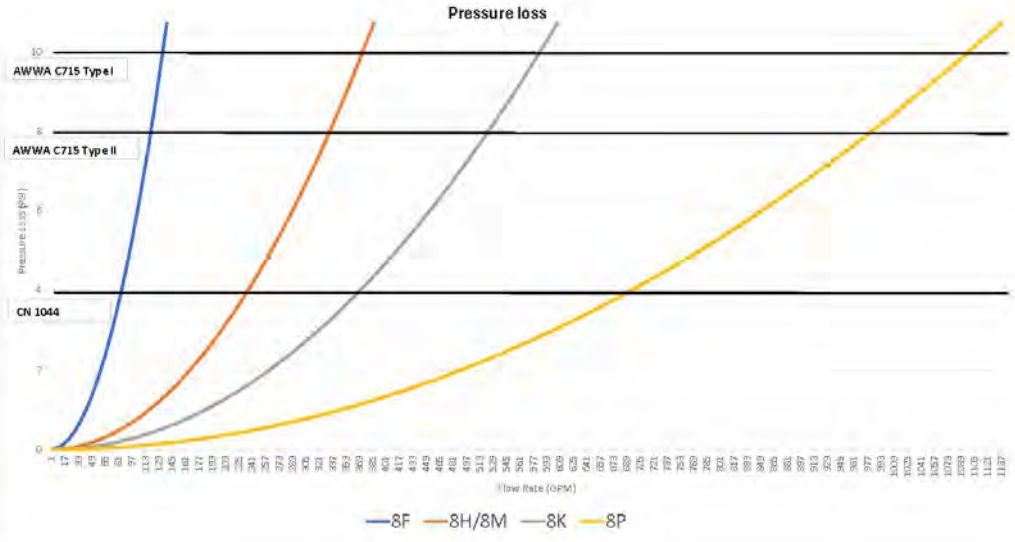
902-928 MHz band RF is an open standard, following EN13757-4:2010, which means that while the flowIQ® 3200 can be configured with or without encryption of the transmitted signal, encryption is required in the United States.

Encryption protects personal data against unauthorized monitoring. Furthermore, the encryption file provides easy access to import meter data for reading programs.

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Pressure loss

According to AWWA C715-18 Type I the maximum pressure loss must not exceed 10 PSI (0.69 bar) for ½"-2" meters and 8 PSI (0.55 bar) for 3"-4" at SMOC.
According to CN1044 the maximum pressure loss must not exceed 4 PSI (0.27 bar) at SMOC for FM fire service meters.
The following graph shows pressure loss with respect to flow rate:



See document no.: FILE100000199 for more information about pressure loss.

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Ordering details

Start your order by stating the type number of the selected model of flowIQ® 3200. The type number includes information on meter type - meter version, size, lay length, service connection and time zone.

Subsequently the meter configuration, which determines customer-specific requirements such as number of digits in display etc., is selected. The configuration is completed during programming of the final meter.

Meter type - flowIQ® 3200

Type	□□	□	□	□	□	□□	□	□□
Meter generation								
Second generation	02							
Mechanical design								
Stainless steel		L						
Communication								
RF			02					
Encoded Output			41					
Power supply								
D-cell				D				
2 x A-cell				A				
Dynamic range								
AWWA C715-18 and CN1044					1			
Meter size								
1½" (120GPM); 1½" Flange; 13"						8F		
2" (160 GPM); 2" Flange; 17"						8H		
2" (160 GPM); 2" Flange; 15¼"						8M		
3" (350 GPM); 3" Flange; 12"						8K		
4" (700 GPM); 4" Flange; 14"						8P		
Meter type								
Cold water							8	
Reclaimed water[1]							9	
Country code								
North America, FCC and NSF approved								UB
Canada, ISED and NSF approved								CA
FM fire service approved								FM
Mexico, IFT and NSF approved								MX

[1] *Only available for RF communication*

Fiber gaskets can be ordered with flowIQ® metal meters.

The features included in the type number cannot be changed once the meter has been produced.

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Configuration - flowIQ® 3200

Config	DDD □□□	JJ □□	LLL □□□	MMMM □□□□	N □	P □	S □	U □	RR □□	CCC □□□	V □	T □	YY □□	ZZZ □□□
Display views [1]														
Standard	810													
GMT offset (time zone)														
USA Eastern (GMT-5)		28												
USA Central (GMT-6)		24												
USA Mountain (GMT-7)		20												
USA Pacific (GMT-8)		16												
Target date (handled as order data)														
Max values averaged over time (1..120 min.)														
2 minutes			002											
Customer label (2060-) Alphanumeric														
Customer label blank (default)				5000										
Kamstrup serial number				0010										
Incremented number - 8 digits				8004										
Customer specific labels				MMMM										
Leakage message limit														
OFF					9									
Flow continuously > 0.1% of max flow (not recommended)					1									
Flow continuously > 0.25% of max flow					2									
Flow continuously > 0.5% of max flow					3									
Flow continuously > 1.0% of max flow					4									
Flow continuously > 2.0% of max flow					5									
Pipe burst limit														
OFF						0								
Flow > 5% of max flow for 30 minutes						1								
Flow > 10% of max flow for 30 minutes						2								
Flow > 20% of max flow for 30 minutes						3								
Ambient Temperature low limit														
OFF							0							
Ambient temperature < 2 °C / 36 °F							2							
Ambient temperature < 3 °C / 37 °F							3							
Ambient temperature < 6 °C / 43 °F							6							
Ambient Temperature high limit														
OFF								0						
Ambient temperature > 35 °C / 95 °F								3						
Ambient temperature > 45 °C / 113 °F								6						
Data logger profile														
Standard (default)									04					
Standard Encoded Output									15					

To be continued on next page...

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Configuration - flowIQ® 3200

Config	DDD □□□	JJ □□	LLL □□□	MMMM □□□□	N □	P □	S □	U □	RR □□	CCC □□□	V □	T □	YY □□	ZZZ □□□
...continued from previous page														
Display resolution (alphanumeric)														
0000000.00 USgal - 0.01 GPM - Billing in 1,000s (recommended for residential meters)										223				
000000000 ft³ - 0000 GPM - Billing in 1,000s (recommended for district meters)										154				
For additional options please refer to FILE100002712														
Temperature units of measure														
Fahrenheit											1			
Celsius											0			
Encryption level														
Encryption with separately forwarded key												3		
No encryption (applicable for Encoded meters)												0		
Communication														
For communication protocols please refer to the specific module data sheets														

	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
Unless otherwise stated in the order, Kamstrup supplies the following:	810	□□	002	5000	4	3	3	3	04	154	1	3	yy	ZZZ

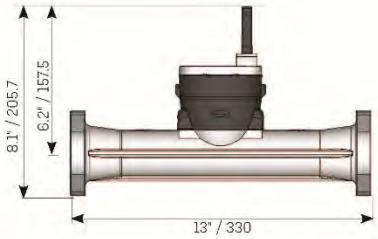
Note: JJ (timezone) and target date are not predefined and has to be chosen in the ordering system.

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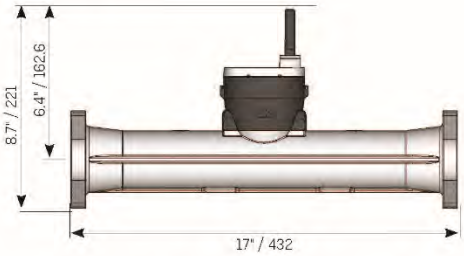
Dimensional sketches – flowIQ® 3200

NOTE! Same flanges for in- and outlet.

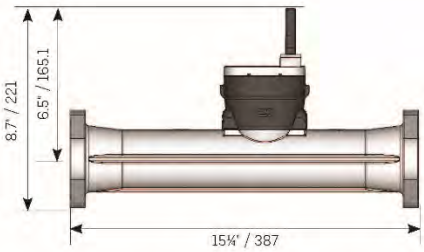
Type: 8F – Size: 120 GPM 1½" x 1½" x 13"



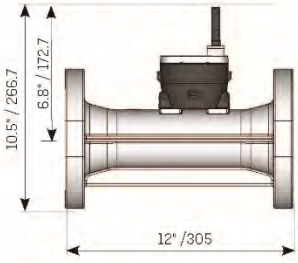
Type: 8H – Size: 160 GPM 2" x 2" x 17"



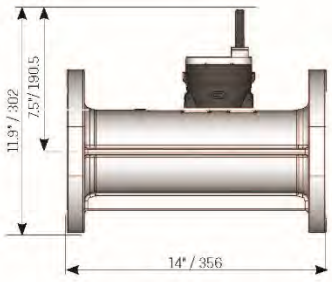
Type: 8M – Size: 160 GPM 2" x 2" x 15¼"



Type: 8K – Size: 350 GPM 3" x 3" x 12" **T**



Type: 8P – Size: 700 GPM 4" x 4" x 14"



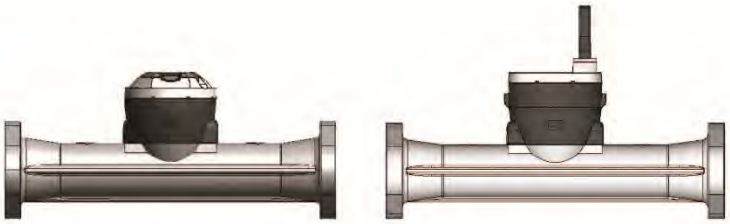
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Dimensional sketches – flowIQ® 3200

Encoded Output and RF have the exact same dimensions apart from the meter cup height.

Example:
Type: 8F – Size: 120 GPM 1½" x 1½" x 13"

Size: 120 GPM 1½" x 1½" x 13"

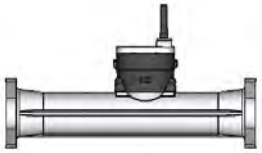


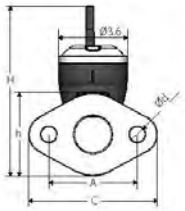
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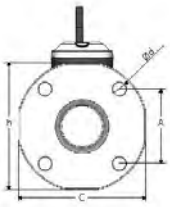
Dimensions

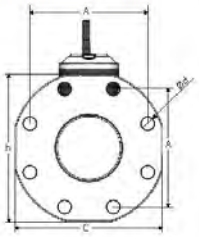
flowIQ® 3200 RF

Meter type	Meter size GPM	Connection	L	H	h	A	C	d	Weight approx. [Lbs / Kg]
			[Inch / mm]						
8F	120	1½" flange	13"/ 330	8.07"/205	3.6"/ 91.4	4.0"/ 101.6	5.7"/ 144.8	0.79"/ 20.07	13/ 5.9
8H	160	2" flange	17"/ 432	8.66"/220	4.13"/ 104.9	4.49"/ 114	6.54"/ 166.1	0.79"/ 20.07	19/ 8.6
8M	160	2" flange	15¼"/ 387	8.66"/220	4.13"/ 104.9	4.49"/ 114	6.54"/ 166.1	0.79"/ 20.07	17/ 7.7
8K	350	3" flange	12"/ 305	10.47"/265.9	7.24"/ 183.9	4.24"/ 107.7	7.24"/ 183.9	0.75"/ 19.05	31/ 14.1
8P	700	4" flange	14"/ 356	11.85"/301	8.66"/ 220	6.93"/ 176	8.66"/ 220	0.75"/ 19.05	43/ 19.5









flowIQ® 3200 E0

Meter type	Meter size GPM	Connection	L	H	h	A	C	d	Weight approx. [Lbs / Kg]
			[Inch / mm]						
8F	120	1½" flange	13"/ 330	5.39"/ 137	3.6"/ 91.4	4.0"/ 101.6	5.7"/ 144.8	0.79"/ 20.07	9.3/ 4.2
8H	160	2" flange	17"/ 432	5.98"/ 152	4.13"/ 104.9	4.49"/ 114	6.54"/ 166.1	0.79"/ 20.07	14.2/ 6.5
8M	160	2" flange	15¼"/ 387	5.98"/ 152	4.13"/ 104.9	4.49"/ 114	6.54"/ 166.1	0.79"/ 20.07	16.2/ 7.4
8K	350	3" flange	12"/ 305	7.7"/ 198	7.24"/ 183.9	4.24"/ 107.7	7.24"/ 183.9	0.75"/ 19.05	34.1/ 15.5
8P	700	4" flange	14"/ 356	9.17"/ 233	8.66"/ 220	6.93"/ 176	8.66"/ 220	0.75"/ 19.05	44.5/ 20.2

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Accessories

See Accessories for Water Meters: document no.: FILE100000644.
(Accessories are ordered separately in CPQ (Kamstrup ordering system) and will be delivered as single parts in the packaging.)

Kamstrup A/S • FILE100001401_N_EN-US_06.2025

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Kamstrup flowIQ 4200

kamstrup

Data sheet

flowIQ® 4200

- Ultrasonic measurement
- Sustainable measurement accuracy
- Flow measurement in display
- Dual band radio
  - AMR (Walk-by/drive-by)
  - AMI (Fixed network)
- IP68 Vacuum sealed construction
- Lead free and certified to NSF/ANSI 61
- Replaceable battery
- Coated split flanges in cast iron



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Material	5
Meter sizes	5
Meter face details	6
Sensor information	6
Replaceable battery	7
Display and info codes	7
Data registers	8
Radio package options	9
State of the art meter reading system (READy)	10
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Electronic ultrasonic cold water meter for measurement of cold water consumption in multi-unit buildings, commercial applications and industry.

Sustainable accuracy
Ultrasonic flow measurement guarantees sustainable accuracy and longevity. Ultrasonic flow measurement is based on the transit time method, and all measurements, references, readings, calculations and data communication are controlled by an advanced, specially designed electronic circuit. Thus, the meter includes no moving parts, which makes flowIQ® 4200 less sensitive to wear and tear and impurities in the water.

Construction
The meter is hermetically closed and vacuum-sealed to prevent humidity from reaching the electronics and avoid condensation between the glass and display. The meter is IP68 (submersible) and is suitable for installation in meter pits.

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Installation
flowIQ® 4200 is easy to install horizontally as well as vertically, independent of piping and installation conditons.
Consumption data can be read visually from the display, using an optical IR interface head, or remotely read, either by 912.5, 915 or 918.5 MHz (AMR) and 450-470 MHz (AMI) band RF signal, built into the meter.

Specific features
flowIQ® 4200 measures the environment temperatures.

The battery package is replaceable.

flowIQ® 4200 is utilizing split flanges allowing for flexible installation options.

Environmentally friendly
The meter has been approved according to Drinking Water Standards in multiple countries, and it is certified to NSF/ANSI 61. The meter housing is made of stainless steel which is free from lead and other heavy metals. The environmental report, Carbon Footprint, documents the meter's high reusability and low environmental impact, including recycling of materials.

Hygiene
To protect the health of the consumers Kamstrup has a hygienic manufacturing process of the water meters. Kamstrup has a highly automated manufacturing process, and only uses materials which are approved for drinking water. The hygiene is being controlled by external accredited laboratories and by frequent audits.

General description
flowIQ® 4200 is a hermetically sealed water meter intended for measurement of cold water consumption in multi-unit buildings, commercial applications and industry.

flowIQ® 4200 employ the ultrasonic measurement principle, based on Kamstrup's experience since 1991, with the initial development and production of static ultrasonic meters.

One of flowIQ® 4200's many advantages is the fact that it has no wearing parts, which ensures a high and stable accuracy throughout its lifetime. flowIQ® 4200 complies with all the AWWA C715-18 guideline for Ultrasonic Water Meters.

In the flowIQ® 4200 series a composite housing is mounted on a stainless steel meter body with coated split flanges in cast iron. The electronics are fully protected against internal and external penetration of water.

The meter is suitable for mounting in pump stations or wellheads, as it will also function in fully submerged conditions.

flowIQ® 4200 measures the water consumption electronically, as a volume, using two pairs of ultrasonic signals. Through four ultrasonic transducers, an ultrasonic signal is sent with and against the flow direction. A transducer serves both as a 'speaker' when transmitting and as a 'microphone when a signal is received. The ultrasonic signal traveling with the flow will be the first to reach the opposite transducer, while the signal running against the flow will be delayed. The time difference, between the two signals, can be converted into flow velocity, and thereby also into a volume. The measuring principle is a proven, long-term stable and accurate measuring principle.

In addition to volume reading, an indication of current flow and a number of other information codes are displayed. All registers are saved daily in the meter data logger (EEPROM) and are kept for 460 days. Furthermore, monthly data for the latest 36 months, hourly data for the latest 100 days and 50 info code events are saved.

flowIQ® 4200 is powered by a double D-cell internal lithium battery which can provide up to 20 years operating life depending on usage and configuration.

flowIQ® 4200 is available with a choice of two integrated data communication options and can be operated in either frequency configuration:

- 912.5, 915 or 918.5 MHz – Wireless Radio version (RF) for Wireless M-Bus – US localization of European standard for remote reading of meters EN 13757-4
- 450-470 MHz is used in AMI (Fixed network)

The meter is fitted with an optical IR interface which makes it possible to read saved consumption data and info codes, stored in the meter's data logger. Using an optical IR interface, it is also possible to change the meter configuration e.g. data packages.

flowIQ® 4200 can and must only be opened by Kamstrup A/S or by Kamstrup instructed personnel in regards to battery replacement.

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Technical data

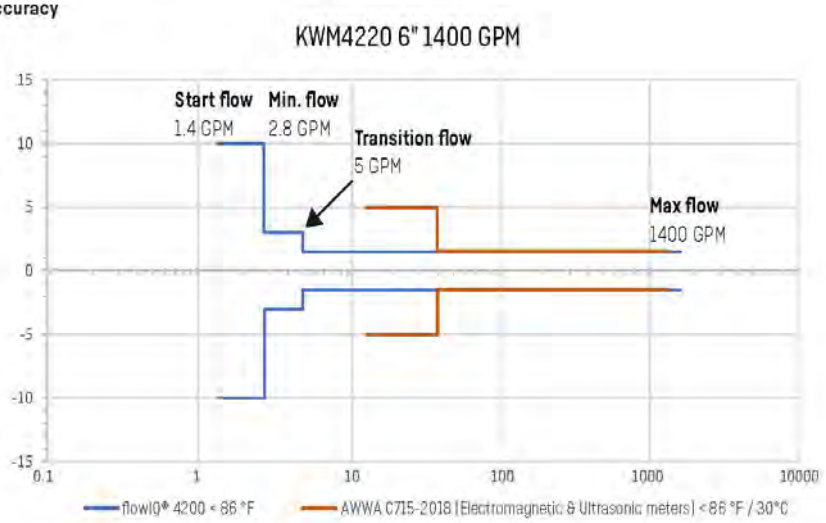
Electrical data

Battery	2xD-cell batteries, 3.6V. The battery warranty does not apply at meter temperatures above t_{BAT} > 95 °F / 35 °C

Mechanical data

Protection class	IP68-rated (waterproof/submersible)
Mechanical environment	Class 1 (Measuring Instruments Directive classification)
Maximum operating pressure	Round flange mounted, 275 PSI
Ambient/meter temperature	35... 130 °F / 0.5... 55 °C
Water temperature	35... 120 °F / 0.5... 50 °C
Storage temp. empty sensor	-10... 140 °F / -20... 60 °C
Upstream/Downstream Pipe Lenght Req.	U0/D0

Accuracy



Note: At flows between 'Start flow' and 'Maximum flow' measurement occurs – however the accuracy is only guaranteed in the range from minimum flow to maximum flow.

Approved meter data

Certified to NSF/ANSI 61
Complies to part 15 of the FCC rules, ISED and with AWWA C715-19

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Material

Wetted parts

Flow part, flanged	Stainless Steel 316L
O-ring/gasket	EPDM
Transducer pocket	PPS with fiberglass

Non-wetted parts

Split flanges	Cast iron, EN-GJS-500-7C-black-FBE coating

External meter parts

Meter housing	Polyphenylene sulfide (PPS) – 40 % fiberglass
Cover	Glass
Top ring (sealing)	Polycarbonate (gray)

Meter sizes

flowIQ® 4200 is available in these sizes:

Type number RF version	Meter size Inches	Start flow (S) [GPM]/ [L/h]	Min. flow [GPM]/ [L/h]	Transition flow[1] [GPM]/ [m³/h]	Max flow [GPM]/ [m³/h]	Sat. flow rate [GPM]/ [m³/h]	Pressure loss SMOC[3] [PSI]/ [bar]	Connection on meter	Lay length [Inches]/ [mm]	Split flanges weight [lbs]/ [Kg]	Total weight [lbs]/ [Kg]
02-E-02-G-1-FR-8US[2]	6"	1.4/ 318	2.8/ 635	5/ 1.136	1600/ 317.97	1960/ 445.16	4.2/ 0.954	6"	18"/ 457	31/ 14.1	60/ 27.2
02-E-02-G-1-GA-8US[2]	8"	1.7/ 386	4/ 908	7/ 1.590	2800/ 635.95	3920/ 890.33	3.9/ 0.886	8"	20"/ 508	42/ 19.1	86/ 39.0
02-E-02-G-1-GJ-8US	10"	2/ 454	5/ 1136	8/ 1.817	4500/ 1022.06	6300/ 1430.89	4.2/ 0.954	10"	17.7"/ 450	64/ 29.0	134/ 60.8
02-E-02-G-1-GS-8US	12"	2.3/ 522	6/ 1363	10/ 2.271	5500/ 1249.19	7700/ 1748.86	2.8/ 0.636	12"	19.7"/ 500	84/ 38.1	185/ 83.9

[1] At flows between 'Start flow' and 'Maximum flow' measurement occurs - however the accuracy is only guaranteed in the range from minimum flow to maximum flow.
[2] Spool piece is available for this meter size.
[3] SMOC = Safety Maximum Operating Capacity (pressure).

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Meter face details

Meter information in permanent laser engraved text.



Sensor information

Water meters placed throughout the network make it possible to gather information that can be of vital importance for an effective water supply, asset management and improved customer service.

Temperature monitoring
flowIQ® 4200 measures ambient temperatures.

Information on temperatures above or below the configured temperature in the meter will warn the utility on potentiel frost damages or quality issues.

The measurements can be used to monitor the installation and to give an indication of the quality of the water.

Consumption above max flow
The meter logs information on consumption above max flow. This information can be used to indicate if the meter size for a given installation is correct.

Consumption histogram
The meter tracks consumptions in different flow intervals for further analysis of the consumption patterns for the specific installation.

No consumption
If no consumption has been measured for a long period of time the meter will inform the utility, as this indicates a potential problem with the installation.

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Replaceable battery

flowIQ® 4200 has two built-in D-cell lithium batteries that supply the meter. When replacing the battery, Kamstrup's Battery replacement kit no: 66-99-821 must be utilized with the relevant replacement guide.

The battery replacement kit can ONLY be ordered through Kamstrup's product service. Otherwise the warranty is void. Kamstrup's product service will also help you with the training tutorial.

Display and info codes



The large display of flowIQ® 4200 shows the totalized volume, flow rate and info.

An info code indicates a special condition in the meter. If the info code is available in the display, the related symbol is on when it has been activated. If the 'condition' is not active, the sign is off.

Info code	Condition
	Attempt of fraud. The meter is no longer valid for billing.
	The meter is dry. In this case nothing will be measured.
	The water flows through the meter in the wrong direction.
OFF	RADIO OFF flashes. The meter is still in transport mode with the built-in radio transmitter turned off. The transmitter turns on automatically on the first time water runs though the meter.
OFF	RADIO OFF lights permanently. The radio is switched off permanently. Can be activated via METERTOOL.
	The symbol appears when the expected capacity left is 6 months or less.

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Data registers

The water meter has a permanent memory, in which the values of various data loggers are saved.

The loggers can be read via the meter's optical IR interface.

The following registers are logged:

Description	Yearly logger	Monthly logger.	Daily logger	Hourly logger
Logger depth	20 years	36 months	460 days	2400 hours
Operating hours	✓	✓	✓	✓
Info codes incl. hour counter	✓	✓	✓	✓
Volume	✓	✓	✓	✓
Volume reverse	✓	✓	✓	✓
Volume net	✓	✓	✓	✓
Flow max year incl. Date	✓			
Flow min year incl. Date	✓			
Flow max month incl. Date		✓		
Flow min month incl. Date		✓		
Flow max day incl. Timestamp			✓	
Flow min day incl. Timestamp			✓	
Ambient temp. Max. Year	✓			
Ambient temp. Min. Year	✓			
Ambient temp. Avg. Year	✓			
Ambient temp. Max. Month		✓		
Ambient temp. Min. Month		✓		
Ambient temp. Avg. Month		✓		
Ambient temp. Max. Day			✓	
Ambient temp. Min. Day			✓	
Ambient temp. Avg. Day			✓	

Every time the information code changes, date and info codes are logged. Thus, it is possible to data read the latest 50 changes of the information code as well as the date the change was made. Reading is only possible via the optical IR interface.

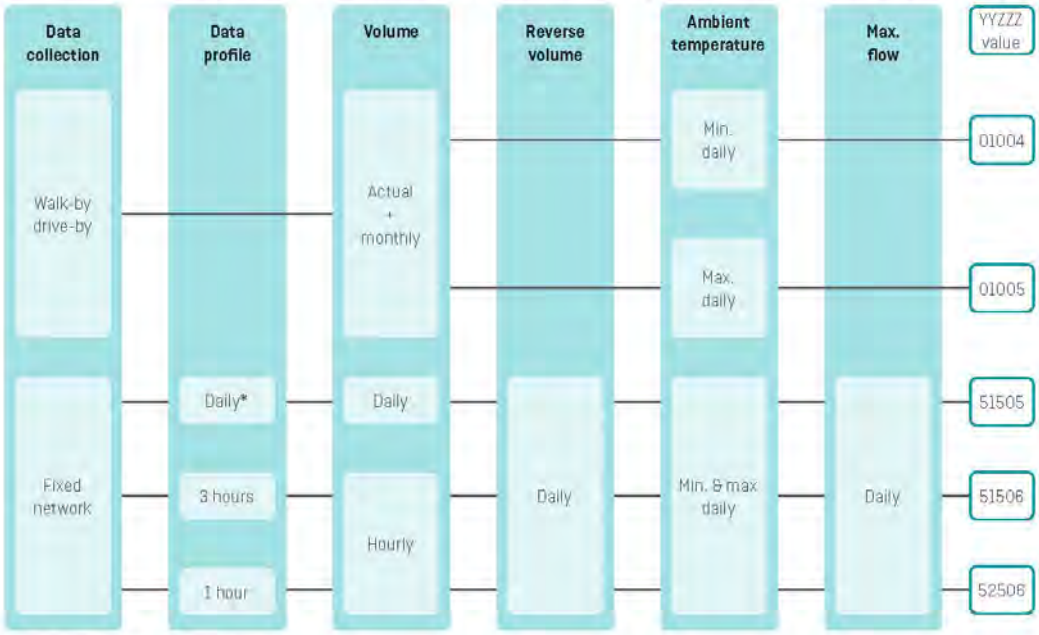
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Radio package options

Optional RF output

Some of the data sent via a high-power antenna and integrated 912.5, 915 or 918.5 MHz band RF is optional. It is possible to select one of the data packages with content illustrated in the figure below.

The choices are determined by means of the selected YYZZZ-value when ordering a water meter – shown to the right in the figures.



*The package is transmitted every 3 hours.

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State of the art meter reading system (READy)

Standardized and open communication
902-928 MHz band RF is an open standard, following EN13757-4:2010, which means that while the flowIQ® 4200 can be configured with or without encryption of the transmitted signal, encryption is required in the United States.

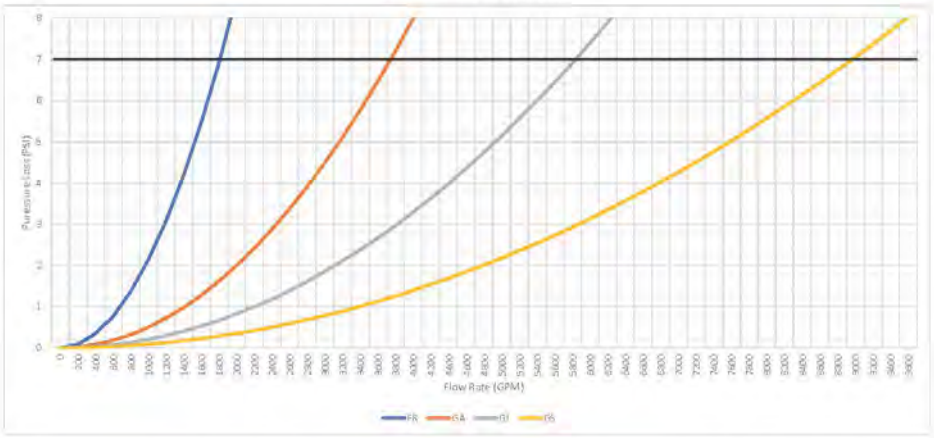
Encryption protects personal data against unauthorized monitoring. Furthermore, the encryption file provides easy access to import meter data for reading programs.

Pressure loss

According to AWWA C715-18 guideline Type II (except C708 or others if stated in the order confirmation) the maximum pressure loss must not exceed 7 PSI (0.48 bar) at SMOC for water meters.

The following graph shows pressure loss with respect to flow rate:

Pressure loss flowIQ® 4200



See Technical description for Water Meters North America: FILE100001331_EN-US for more information about pressure loss.

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Ordering details

An order is initiated by stating the type number of the selected model of flowIQ® 4200. The type number includes information on meter type - meter version, size, lay length, service connection and time zone.

Subsequently the meter configuration, which determines customer-specific requirements such as number of digits in display etc., is selected. The configuration is completed during programming of the final meter.

Accessories are enclosed separately to be mounted by the installer.

Meter type - flowIQ® 4200

Type	□□	□	□□	□	□	□□	□	□□
Meter generation								
Second generation	02							
Mechanical design								
Stainless steel with iron split flanges		E						
Communication								
AMI, dual-band capable, (2-way)			02					
Power supply								
Double D-cell				G				
Dynamic range								
AWWA C715-18					1			
Meter size								
6" x 18" (incl. spool piece) (1600GPM)						FR		
8" x 20" (incl. spool piece) (2800 GPM)						GA		
10" x 17.7" (4500 GPM)						GJ		
12" x 19.7" (5500 GPM)						GS		
Meter type								
Cold water							8	
Country code								
North America, FCC and NSF approved								UB
Canada, ISED and NSF approved								CA

The features included in the type number cannot be changed once the meter has been produced.

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Configuration - flowIQ® 4200

Config	DDD □□□	JJ □□	LLL □□□	MMMM □□□□	N □	P □	S □	U □	RR □□	CCC □□□	V □	T □	YY □□	ZZZ □□□
Display views [1]														
Standard	810													
GMT offset Time zone														
USA Eastern (GMT-5)		28												
USA Central (GMT-6)		24												
USA Mountain (GMT-7)		20												
USA Pacific (GMT-8)		16												
Target date (handled as order data)														
Max values averaged over time (1..120 min.)														
2 minutes			002											
Customer label														
Customer label blank				5000										
Leakage message limit														
OFF					0									
Pipe burst limit														
OFF						0								
Ambient Temperature low limit														
OFF							0							
Ambient temperature < 3 °C / 37 °F							3							
Ambient temperature < 6 °C / 43 °F							6							
Ambient Temperature high limit														
OFF								0						
Ambient temperature > 35 °C / 95 °F								3						
Ambient temperature > 45 °C / 122 °F								6						
Data logger profile														
Standard (default)									04					

To be continued on next page...

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Configuration - flowIQ® 4200

Config	DDD □□□	JJ □□	LLL □□□	MMMM □□□□	N □	P □	S □	U □	RR □□	CCC □□□	V □	T □	YY □□	ZZZ □□□
...continued from previous page														
Display resolution (alphanumeric)														
000000000 ft³ - 0000 GPM – Billing in Billing in 1,000s										154				
(recommended for district meters)														
For additional options please refer to FILE100002712														
Temperature units of measure														
Fahrenheit											1			
Celsius											0			
Encryption level														
Encryption with separately forwarded key												3		
System														
AMR													01	
AMI													51	
AMI, no battery warranty [2]													52	
Data packages - AMR														
Actual: Vol., Monthly: Vol., Daily: Min. ambient temp.														(01)-004
Actual: Vol., Monthly: Vol., Daily: Max ambient temp.														(01)-005
Data packages - AMI														
Default, Daily - Vol., reverse vol., Min. ambient temp., Max flow, Max Ambient temp.														(51)-505
Default, 3 hour - Vol., reverse vol., Min. ambient temp., Max flow, Max Ambient temp.														(51)-506
Default, 1 hour - Vol., reverse vol., Min. ambient temp., Max flow, Max Ambient temp.														(52)-506

[1] Volume and software version are always a part of display views
[2] Only for data package 506

	DDD	JJ	LLL	MMMM	N	P	S	U	RR	CCC	V	T	YY	ZZZ
Unless otherwise stated in the order, Kamstrup supplies the following:	810	□□	002	5000	0	0	3	3	04	100	1	3	01	004

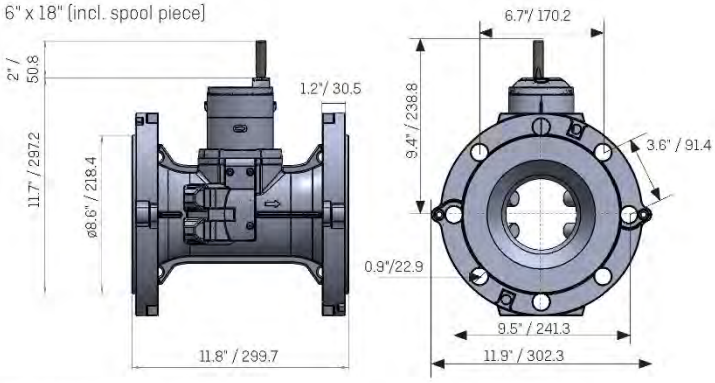
Note: JJ (timezone) and target date are not predefined and has to be chosen in the ordering system.

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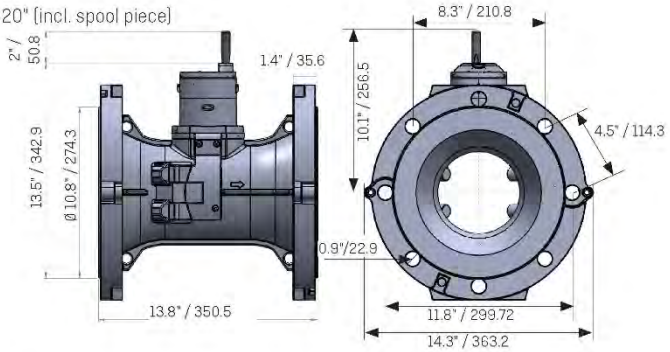
Dimensional sketches

NOTE! Same flanges for in- and outlet.

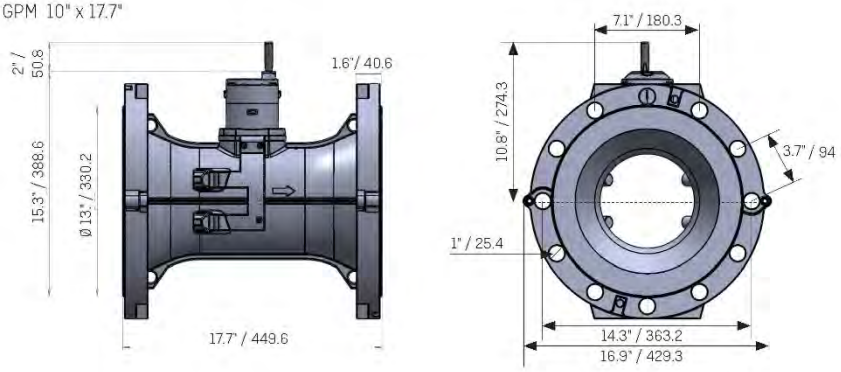
Type: FR
Size: 1600 GPM 6" x 18" (incl. spool piece)



Type: GA
Size: 2800 GPM 8" x 20" (incl. spool piece)



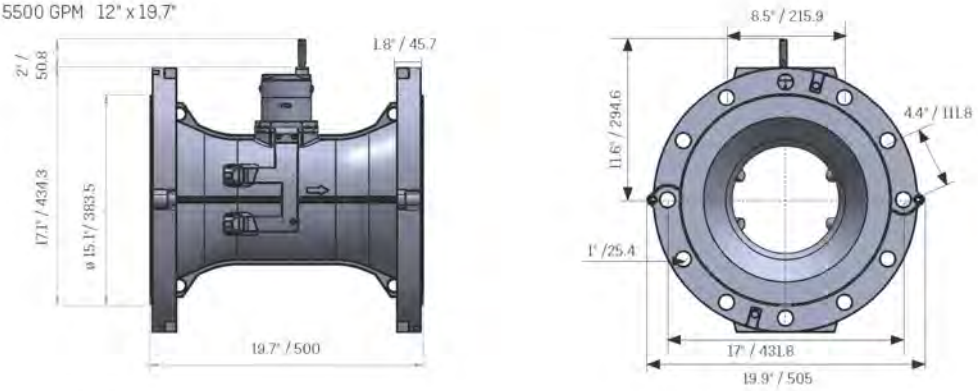
Type: GJ
Size: 4500 GPM 10" x 17.7"



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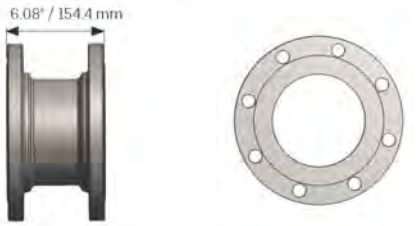
Dimensional sketches

Type: GS
Size: 5500 GPM 12" x 19.7"

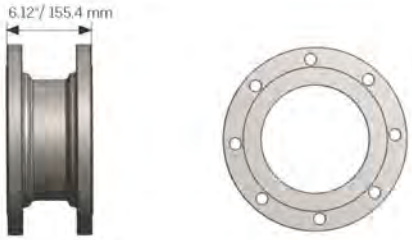


*Dimensions: Inches / mm

Spool piece for 6" (FR)



Spool piece for 8" (GA)



Accessories

See Accessories for Water Meters on Kamstrup.com.
(Accessories are ordered separately in CPQ (Kamstrup ordering system) and will be delivered as single parts in the packaging.)

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KAMSTRUP READY COLLECTOR

kamstrup

Data sheet

Kamstrup READy Collector

- Data collector for smart meter reading
- Rugged design
- 2-way intelligent network
- High level of security, individual encryption keys
- Optional Cellular connection
- Intelligent power management
- Instant event notification
- Plug-and-play installation



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A READy Suite component

The Kamstrup READy Collector is a central easy to use two way network component in your AMI network. The data is collected from the meters, stored until the planned transmission and displayed in READy Manager the Meter Data Management software. The data can be collected in a number of differing time frames up to hourly readings, and If an event occurs, this data will be transmitted immediately, independent of your data scheme.

The Kamstrup READy Collector is a rugged design that is to be uses in the harshest of conditions, such at the top of towers or elevated storage tanks, where service can be difficult. Temperature extremes and lightning protection has been thoughtfully included in the engineering of the collector unit. Other important features of the system is that no coax is necessary between the Collector unit and bottom unit, just standard off the shelf wiring components. The bottom unit has been built with industrialized components incorporating multiple surge protection systems, and power supply for use in the most challenging conditions.

Features

- Easiest to learn and understand system available
- No IT experience necessary
- Built in redundancy
- Fault tolerant system
- Two-way communication
- High-level security all the way
- Intelligent power management
- Instant event notification

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Technical data

The Kamstrup READy Collector can be ordered as prepared for one and up to four READy Collector top units.
The system consists of a READy Collector Base unit supplying power and network for the READy Collector Top unit.
Both a READy Collector Top and a READy Collector Base are required.

Kamstrup READy Collector Top

Dimensions (without connections)	10.2 x 6.3 x 3.6 inches 260 x 160 x 91 mm
Weight	6.23 lb 2.85 kg
Operating temperature	-22 to 149 °F (-30 to 65 °C)
Storage temperature	-40 to 185 °F (-40 to 85 °C)
Enclosure rating	NEMA 4, IP66
Power input	24 VDC
Frequency	450 - 470 MHz FCC license required
Capacity	Up to 25.000 Kamstrup Water meters
Supported meters	flowIQ® 2250 and 3250



Kamstrup READy Collector Base

Dimensions (without connections)	15.5 x 12.3 x 7.1 inches 394 x 313 x 181 mm
Weight	Dependant on configuration
Operating temperature	-22 to 149 °F (-30 to 65 °C)
Storage temperature	-40 to 185 °F (-40 to 85 °C)
Enclosure rating	NEMA 4, (IP66)
Power input	110-265 VAC 50/60 Hz
Power output	24 VDC/10 A



AMI-antenna

Length	58 inches
Frequency	440 - 470 MHz
Gain	3 dB



Antenna cables

6.5 feet (2 m)
16.4 feet (5 m)



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Technical data

Power cable to READy Collector Top

Length between READy Collector Top and Base:
6.5 feet (2 m)
50 feet (15 m)
80 feet (24.5 m)
150 feet (45.7 m)
200 feet (61 m)
240 feet (73 m)
Note: Must match length with the Ethernet cable.



Ethernet cable to READy Collector Top

Length between READy Collector Top and Base:
6.5 feet (2 m)
50 feet (15 m)
80 feet (24.5 m)
150 feet (45.7 m)
200 feet (61 m)
240 feet (73 m)
Note: Must match length with the Power cable.



Sierra Wireless modem

For the READy Collector Base

GSM antenna

Used for the Sierra Wireless modem
Comes with a 16'4" cable



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Approvals and Markings

FCC part 90 and part 15B.
FCC ID: READYAMI
The READy Collector Base is build using UL listed products.

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OUTDOOR AC – UPS

Revision 1
Engineering: Tom G., Lon B.

Product Specifications

April 30, 2021
Approved by: Ujjwal S.

Outdoor AC-UPS-120-5460

AC Input	
Nominal Voltage	120 V, 60 Hz
Operating Voltage Range	100 – 136 V
Frequency	47 – 63 Hz
Current @ 100 V & Max Charging	8.3 A
Fuse Rating	10 A
Surge Voltage Withstand Rating (Remnant Voltages)	ANSI/IEEE: 6 kV, 1.2 x 50 us / 3kA, 8 x 20 us combination waveform (Remnant voltages are L-N: 450V & L-G: 300V)
Terminals	3 position terminal block (for LI, NI, and Earth Ground wires)
AC Output	
Maximum Power	120 W / VA
Voltage	120 V +/- 3%, 60 Hz
Maximum Current	1 A
Power Efficiency in Utility AC Mode	76% typical (with fully charged batteries) (under 50~100% load condition)
Power Efficiency in Battery Mode	84% typical (under 50~100% load condition)
Power On/Off Switch	On / off rocker style switch
Transfer Time	Zero (double-conversion online UPS design)
Terminals	3 position terminal block (for LO, NO, and Earth Ground)
Battery & Battery Charger	
Battery Type	Wide-temperature rated sealed gel-cell batteries (8G31)
Battery Bank Capacity	24 V, 97.6 Ah (@ C/20), Two 8G31 batteries are connected in series configuration Each 8G31 battery is rated at 12 V, 97.6 Ah (@ C/20)
Fuse Rating	30 A
Battery Charger Type	Temperature-compensated 24 V, 15 A battery charger
Battery Runtime (Recharge Time)	Approximately 13.5 hours for 120 watt load (@ 25°C) (8.5 hours to recharge batteries to 90% full charge level)
LED Indicators	
GREEN	AC Input OK
YELLOW	Solid: Battery charged Slow Blinking: Charging Fast Blinking: Discharging
RED	Blown fuse
Alarms	
BATTERY OK (BATTERY LOW)	Pin 1: NO, Pin 2: COM, Pin 3: NC (reversed on LOW BATT)
AC INPUT OK (AC FAIL)	Pin 4: NO, Pin 5: COM, Pin 6: NC (reversed on AC FAIL)
Terminals	6 position terminal block
Mechanical	
Enclosure (Pad (PAD 2) or Pole mount option ordered separate)	Wall-mounted light gray powder coat aluminum cabinet with swing-out front door. NEMA 3R / IP 44 rated
Dimensions	24" H x 24" W x 17.125" D (28" high with PAD 2 option)
System Weight	Approx. 200 lbs. (including batteries)
Environmental	
Installation Environment	Sun shade over north facing enclosure required to avoid solar heating. (not included) Enclosure must be located at least 2 km from ocean.
Operating Temperature - Ambient	-10° to 50°C (-4° to 122°F) (-40° to 50°C (-40° to 122°F) with optional BH5 thermostat-controlled battery heaters)
Operating Humidity	10 to 90% (non-condensing)
Protection Against Moisture and Dust	Circuit boards are conformal coated
Warranty	
Two-year limited warranty on parts and labor; One-year manufacturer's warranty on batteries. • Batteries must be recharged once every 6 weeks if unit is placed in long-term storage. • Unit must be stored in cool and dry conditions if placed in long-term storage of over 6 weeks. • Per battery mfg., full battery runtime is not available until after 15 charge-discharge cycles.	

Note: For continuous product improvement, specifications are subject to change without notice.

TSI Power Corporation
1103 West Pierce Avenue
Antigo, WI 54409, USA

Tel: 715-623-0636
URL: www.tsipower.com
e-mail: sales@tsipower.com

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Photos (of similar model)

TSI Power Corporation
1103 West Pierce Avenue
Antigo, WI 54409, USA

Tel: 715-623-0636
URL: www.tsipower.com
e-mail: sales@tsipower.com

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READY MANAGER

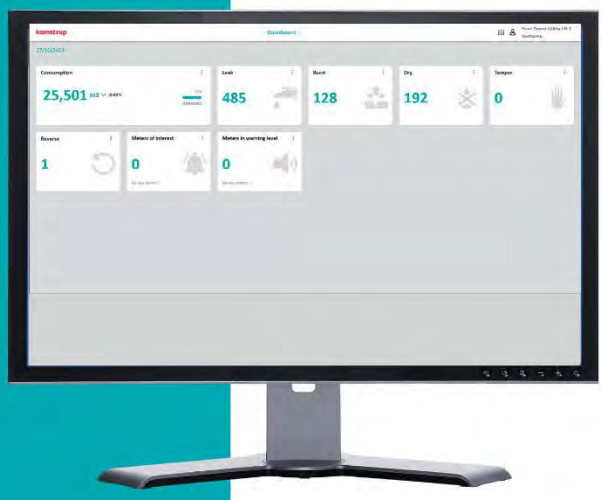
kamstrup

Data sheet

READy Manager and App

Intuitive, scalable, cloud- and app-based single platform solution for reading and managing data from intelligent water meters

- Powerful and flexible data integration and API support
- App with built-in meter installation tool
- Effective alarm management
- Near real-time notifications



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READy Manager: Easy to use and with a multitude of functionalities

READy Manager is Kamstrup's software solution for managing meter and radio data, network collectors, and intelligent alarm management and notifications as well as data reporting and integrations. The solution is highly intuitive and job execution centric, allowing the user to easily view and manage system occurrences from a top-down perspective, e.g., the at a glance dashboard displays alarm summaries making it possible to dive into actions from there. READy Manager is hosted regionally in a Microsoft Azure cloud setup with up-to-date rigorous security protection to keep your data safe.

Highlighted features:

Data Management

- Single software platform for AMR, AMI and NB-IoT data reading and alarm support
- High data security utilizing Kamstrup encryption keys for advance security with AES-128 bit encryption
- Alarm management for thresholds and normal vs. high priority alarms
- Data import and export functionality for customer integrations and data analysis
- Management of mobile route creation and AMR reads/ alarms
- Network Collector management and notifications
- Alarm notifications via email or SMS

Data Integration

- Flexible user-defined import and export integrations with customizable CSV, fixed width, or API formats for billing or data analysis
- Automatic import and export functionality (scheduling)
- Possibility of receiving readings by email (predefined intervals)
- Advanced filtering
- API integration using REST and Webhook (SHA-256) via JSON (e.g. for consumption to do billing)

Data Visualization

- At a Glance Dashboard for a fast operational overview
- An optimized customer service module that facilitates the good consumer dialog
- Meter/Collector location on a map
- Automatic GIS coordinates based on addresses
- Alarms overview with flexible filtering options
- Display of logged data from meters
- Grouping of meters
- User defined custom columns and groups
- Analysis of users by high/low or no consumption



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READy Manager: Hardware and software requirements

PC core components

Type	Minimum	Recommended
Processor	Intel Core I3 compatible processor (2.4 GHz)	Intel Core i5 compatible processor (Intel Core i5-6300U, 2.4 GHz or faster)
RAM	8 GB	16 GB

System and connectivity requirements

Microsoft Windows 10 (64 bit) compatible device (e.g., PC). The device must be fully updated via Windows Update.

Internet access and open outgoing TCP/443 is required.

Data retention

Reading data collected via network and drive-by is thinned according to the following rules:

- During the first 13 months, all readings are stored
- After 13 months, readings are compressed to 1 per day
- After 5 years, all readings are deleted

Security

Kamstrup is ISAE3000 and ISO27001:2022 certified, and works in alignment to relevant aspects of CIS18 and the IEC62443 set of standards.

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READy App – mobile reading and installation tool

READy App is a mobile application that – together with a Bluetooth®-connected converter – changes your smartphone into an efficient installation, reading, data logging, and field tool. READy App is extremely intuitive and enables meter reading and data synchronization with the READy HES data management software easy.

The application supports meter installation, AMR meter reading (incl. AMI fallback reading), and exchange of meters. Additionally, it can be used together with a Bluetooth®- connected optical read-out head to read the data logger in the meter.

In reading mode, a map shows the geographical position of not yet read meters, making meter reading with READy App very simple and efficient. Visual and audible notifications guide the user on the progress of meter reading.

READy App features

- Easy and intuitive user interface
- Map and list view of meters and routes
- Graphical display of logged data from meters
- Display of alarms
- In-field synchronization of data with READy Manager
- Verification of the signal strength from meters
- Configuration of network components.



READy App recommended hardware

Supported smart phones	Supported tablets
Samsung Galaxy S23	Samsung Galaxy Tab S9
Samsung A Series A54	
HUAWEI P60	

Must be Android OS version 11.0 or newer to comply with security updates.

Hardware

Memory	Minimum 8 GB
Connection	Wi-Fi, Bluetooth 5.0
Display size and resolution	Minimum 4.3" and 1024 x 768

In addition, some features require the following:

Memory	Minimum 12 MB
Connection	Wi-Fi, Bluetooth 2.1
Display size and resolution	Minimum 4.3" and 1024 x 768

- Mobile data access (SIM card) for using map view
- Integrated camera in smartphone (for easy pairing of PC software and smartphone app).

Software

Andriod OS	Minimum version 11 (Security updated)!

IP access to PC software via Wi-Fi Google Play access (Google account).

Kamstrup A/S • FILE100002189_D_US_10.2024

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LEAK DETECTOR

kamstrup

Data Sheet

Water Intelligence US

- Cloud based platform for analyzing data
- Intuitive dashboards and detailed overview of the distribution network
- Advanced algorithm processing based on meter data
- Utilizing new technologies to help utilities reduce their non-revenue water



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Water Intelligence

Non-revenue water is a well-known global problem that results in large volumes of water being lost. It is a challenge faced by many water utilities, and it is often caused by increased urbanization and ageing distribution networks, which lead to a higher demand and increased prices.

There are different approaches to find the root cause of the water loss problem and different approaches of how it can be reduced. However, the complexity is often underestimated because of the different types of water loss, each of which needs to be dealt with differently.

With our Water Intelligence platform, you will be provided with a solution that scales to meet the demands of your utility.

With a simple and intuitive web interface, Water Intelligence is tailored and designed to bring power and simplicity to the process of fighting non-revenue water.

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Modules for Water Intelligence

District Analyzer

Get a complete overview of your distribution network split into districts. For each district, you will receive detailed information on inlet flow, consumption, night flow and water loss, which lets you monitor developments closely, target your efforts and act as soon as the water loss increases in a district.



Features that are included in District Analyzer consists of:

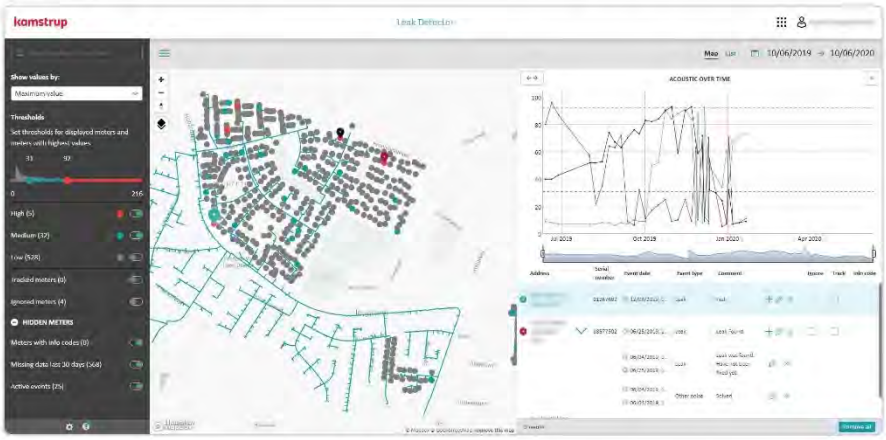
- Map view with color coded districts
- List view with meta data for districts
- Graphical representation of consumed water, supplied water and water loss
- KPI reporting based on water loss during last day, week and month
- Intuitive drawing tool for districts/sections
- Integration of pipe layer network to know where meters are in connection to the pipes
- Addition of compensated water such as pipe flushing
- Alarm system to indicate if a water balance is moving in a wrong direction.
- Advanced algorithms to monitor water balances

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Modules for Water Intelligence

Leak Detector

It can be difficult to find leaks in the system, especially those on the service pipes. With the advanced technology of Leak Detector, you get a complete overview of potential leakages in your distribution network, without searching for them yourself. With this application, you will receive 24/7 monitoring of your distribution network, which lets you target your efforts where they will be most effective.



Features that are included in Leak Detector consists of:

- Map view with color coded installations
- List view with meta data for all meters
- Track meters to always have a list of important installations that needs to be tracked every day, week or month
- Add events and comments to installations with findings from the field, to easier make a decisions based on past findings
- Graphical representation of data to quickly determine if an installation is requiring immediate action
- Integration of pipe layer network to know where meters are in connection to the pipes
- Advanced filtering giving you the possibility to quickly find high-risk installations
- Build a work-order list with installations that have active events
- Correlate alarms with active alarms to determine if a leak is before or after the meter

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Hardware requirements

Windows
To use the Water Intelligence website on Windows, you need the following:

- Windows 7, Windows 8, Windows 8.1, Windows 10 or later
- An Intel Pentium 4 processor or later that is SSE2-capable
- 2 GB of RAM

Linux
To use the Water Intelligence website on Linux, you need the following:

- 64-bit Ubuntu 14.04+, Debian 8+, openSUSE 13.3+ or Fedora Linux 24+
- An Intel Pentium 4 processor or later that is SSE2-capable
- 2 GB of RAM

Data requirements

District Analyzer
To make a coherent analysis of the network, it is a requirement that we can receive data from the district meter(s) in your network:

- The district meter(s) must be remotely read from an API or an FTP server
- The district meter(s) must be remotely read on a daily or hourly basis
- It must be possible to define inbound and outbound district meter(s) for each district
- The consumption meter(s) must be present in READy Manager at all times
- The consumption meter(s) must be read either through AMR or AMI

Leak Detector
To utilize the full potential of the Leak Detector module, we advise you to have the solution with daily values.

- The consumption meter(s) must be present in READy Manager at all times
- The consumption meter(s) must be read either through AMR or AMI

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System requirements

Kamstrup recommends that you use the Water Intelligence website using a modern web or mobile browser to get the optimal experience. This section covers the system requirements for viewing and using the Water Intelligence website.

Browser requirements
The Water Intelligence website supports many popular web and mobile browsers. By using one of the following browsers, we can guarantee an optimal experience:

- Microsoft Internet Explorer 8 or newer (it is recommended to use the latest Microsoft Edge browser)
- Google Chrome, latest version

Recommended settings for mobile devices
With the rapid development of mobile devices, it is utterly important for us that you can have the same experience on your mobile device as you have on your desktop computer. This is why we have also optimized the Water Intelligence website to be compatible with the following mobile devices:

Android
- Devices: All android phones and tablets
- Android 5.0+

Windows
- Devices: All tablets and smartphones
- Windows 8.1+

For Android, the Water Intelligence website does not fully support the earlier versions of the WebKit browsers that were previously used in 2013 by Google. Instead, consider using the Chrome Mobile browser if you experience any problems.

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Other requirements

JavaScript
Water Intelligence uses JavaScript for many functions and features. For the full experience, it is required to enable JavaScript in your browser. Consult your browser's Help section for information on how to change this setting.

Cookies
Some features and functions of the Water Intelligence website, e.g. region selection for the map, user sign-in and statistical analysis, require browser cookies to be enabled. Consult your browser's Help section for information on how to change this setting. For more information about Kamstrup's use of cookies, see [illegible] information.

Internet connection
To use the Water Intelligence website, it is required to have an internet connection. As with any other web-based application, it is a must that we can get in contact with the data that we need in order to make the analysis reports as coherent as possible. 1 Mbps is recommended for using the Water Intelligence website.

Data hosting

All data that rests within the Water Intelligence suite is hosted on the Microsoft Azure platform on a cloud hosted environment in the United States of America to ensure optimal performance on load times.

We have also created the data center in US to ensure that data stays within US, thus complying with data regulations and laws.

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H2O ANALYTICS CUSTOMER PORTAL

H_2O Analytics

Customer Portal

Engage your Customers with self-service usage information and proactive notifications

Go beyond monthly statements and engage your customers with interactive technologies that will allow them to visualize and understand their water usage through intuitive charts and proactive alerts and notifications. Improve customer service and encourage changes in customer behavior to drive conservation. Consumption data is imported automatically from your metering system(s), and alerts and notifications are automatically sent to your customers via email, text messaging and automated phone calls (based on their preferences). Give your customers a unique conservation tool while easing the workload on your customer service department.

SOLUTION OVERVIEW

- Browser-based Portal and Mobile Apps allow your Customers direct access to their meter data
- Customers control notification messages for leaks and high use conditions
- Notifications are delivered via email, text message and computerized voice calls
- Delegated administration for full utility control of user account information
- Integrated with your existing billing and metering systems for quick and easy implementation

H_2O Analytics is a cloud-based solution that is easy to integrate into virtually any IT environment

GIVE CUSTOMERS DIRECT ACCESS TO THEIR USAGE INFORMATION

Customers can review hourly, daily and monthly usage information along with temperature and precipitation data from your service area, online through any web browser, from a tablet computer or on their iPhone or Android phone. Customers can also receive automated leak and high use notifications according to their preferences.



INTEGRATED WITH YOUR BILLING, GIS AND METERING SYSTEMS

Customers sign up for the portal by registering with "off bill" information accessed through an interface with your billing software. Customer location data is accessed by integration with your Geographic Information System (GIS) if available, and monthly and hourly data (if available) is access through integration with your metering system.

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PART OF A FAMILY OF CLOUD-BASED *ANALYTIC SERVICES*

- **Customer Notifications** – automated communication drives satisfaction, boosts cash flows and encourages conservation
- **Loss Reduction** – integrate SCADA, customer meter and GIS data to automate zone-level water loss analyses
- **Conservation Campaigns** – send personalized conservation emails; driven by analytics and business rules that you can tailor
- **Customer Portal** – engage your Customers with self-service usage information and proactive notifications

Help your Customers make informed usage decisions to conserve water.

FOR MORE INFORMATION

Please contact H_2O Analytics at:

https:// h2oanalytics.com

(512) 788-3000

info@h2oanalytics.com

EASY TO USE ACROSS A RANGE OF DEVICES

Your customers can enjoy self-service access to their meter data from a variety of platforms. Our browser-based portal application is accessible from the https://getMyMeter.info domain, or through embedding the Customer Portal functionality directly into your existing utility web site. Apple iOS and Android smart-phone apps are available from the respective app stores. Customers can access their information and manage their notifications across multiple devices.

REACH ALL YOUR CUSTOMERS VIA MULTIPLE CHANNELS

You decide whether you want notifications to be "opt in" or "opt out." Under the "opt in" model, customers only receive notifications after they have registered for an account in the Customer Portal. Under the "opt out" model, customers receive notifications using the contact information contained in your billing system until they decide not to receive notifications.

Notifications can be sent to your Customers via email, SMS text messaging and computerized "text to voice" telephone calls. Reach a larger percentage of your customers by supporting all three notification protocols.



FULLY MANAGED AND SECURE

From integration with your internal systems to 24x7x365 monitoring of the servers running your portal, we offer a fully managed solution. We understand that protection of your customer information is crucial; our platform undergoes several independent third party audits on a regular basis to provide this assurance. This means that an independent auditor has examined the controls present in our data centers, infrastructure and operations. Annual audits ensure compliance with the following standards: SSAE16 / ISAE 3402 Type II, ISO 27001, ISO 27017, Cloud Security and ISO 27018, Cloud Privacy.

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H_2O Analytics

H2O ANALYTICS CUSTOMER NOTIFICATION SOFTWARE

H_2O Analytics

Customer Notification Software

Improve customer satisfaction, reduce inbound calls and accelerate cash flows

Past-due bills, imminent cut-offs, boil notices, conservation messages, service outage notifications – these are just a few of the messages that you need to deliver to your customers every day. But many utilities are stuck using outdated methods for delivering these messages; mailing letters, newspaper notices, and door-hangers. Many of these are never seen in time or are ignored, which means additional work for your staff, reduced revenue for your utility, and frustration for your customers. Our notification software gives you state-of-the-art messaging capabilities with high levels of automation and integration with your existing software systems.

SOLUTION OVERVIEW

- Communicate via email, phone and SMS messaging
- Integrated with your existing Customer database
- Many messages automated from business events in existing utility software
- Automated leak alerts triggered by leak detection algorithm
- Boil notices and other mass notifications won't tie up your phone lines
- Location-based targeting of messages for service outages

H_2O Analytics is a cloud-based solution that is easy to integrate into virtually any IT environment

LOCATION-AWARE MOBILE MESSAGING

Utility customers today expect and increasingly demand that you communicate with them using the latest technologies. Our cloud-based



voice-over-ip system can send thousands of calls in just minutes without using any of your phone lines. Phone, email and SMS/text messages are template based and automated based on business events detected in your existing systems and by our analytic models. Messages can also be geographically targeted by selecting customers from a Google Map. Stay in touch and communicate proactively with virtually no work required; dramatically boost the efficiency of your back-office staff.

EVENT-BASED NOTIFICATIONS

Integration with your existing billing, metering and SCADA systems allows for fully-automated notifications triggered by business events. Past-due notices, cut-off warnings, leak alerts and conservation campaigns all flow to your customers with virtually no work required by your staff.

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PART OF A FAMILY OF CLOUD-BASED *ANALYTIC SERVICES*

- **Customer Notifications** – automated communication drives satisfaction, boosts cash flows and encourages conservation
- **Loss Reduction** – integrate SCADA, customer meter and GIS data to automate zone-level water loss analyses
- **Conservation Campaigns** – send personalized conservation emails; driven by analytics and business rules that you can tailor
- **Leak Detection** – monitor meter data flows to detect probable leaks and automate alerts

Proactive communication drives increased Customer satisfaction and speeds cash flows

FOR MORE INFORMATION

Please contact H_2O Analytics at:

http://www.h2oanalytics.com

(512) 553-5185

info@h2oanalytics.com

INTEGRATED WITH YOUR EXISTING SYSTEMS

Unlike many other notification solutions, H_2O Analytics is tightly integrated with your existing utility systems. This bi-directional capability means your existing GIS, billing and customer-information systems are the 'source' for customer contact information; no duplicate registrations required. All customer contacts are notated in your existing customer-information or billing system; your customer service reps will always have complete information at their fingertips.

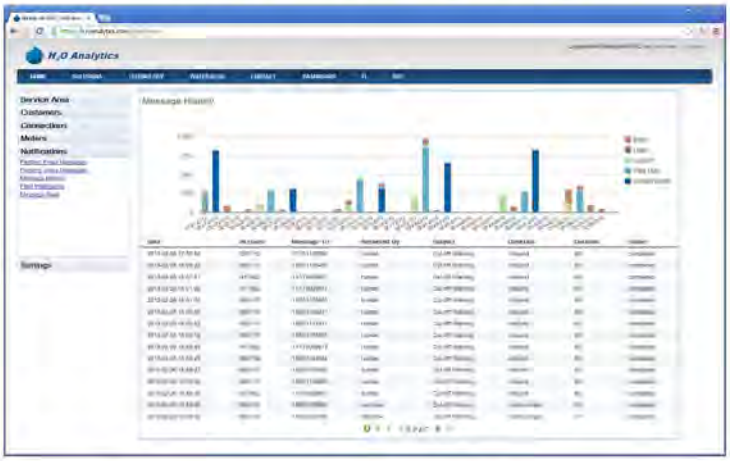
MULTI-CHANNEL MESSAGING

Send customer notifications via telephone (voice-over-ip), email and simple-message-service (cell-phone text messages). Send thousands of calls per hour without tying up any of your phone lines. Customize from dozens of pre-built templates to tailor your message and apply your existing logo and marketing 'look and feel.' Regular communication with your customers has never been easier.



A CLOUD-BASED SOLUTION

No phone lines, telecomm or dedicated computer hardware required. This is a cloud-based solution that is a snap to install and use. If your staff can use Google they can easily learn to use H_2O Analytics.



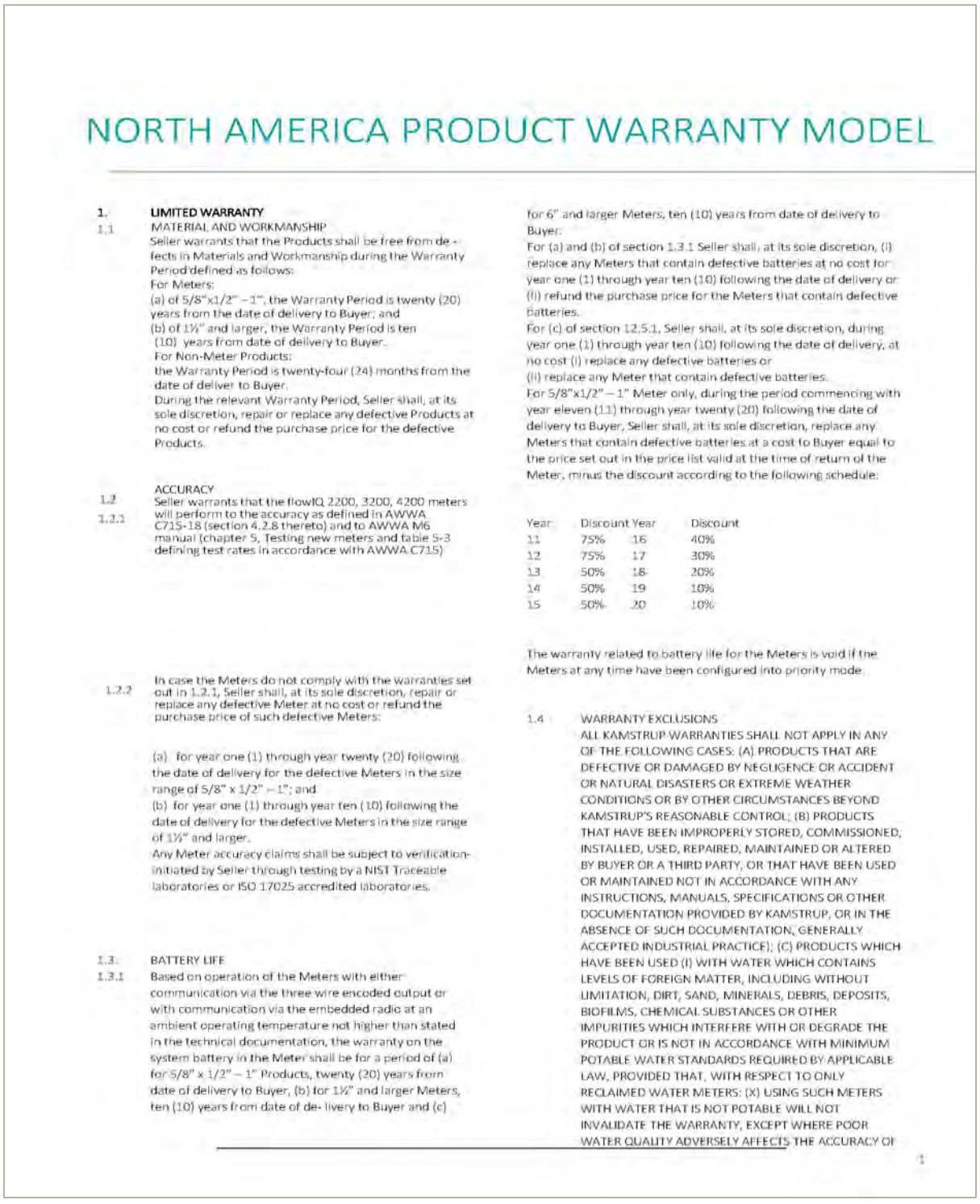
The Message History screen shows the status of all messages sent

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H_2O Analytics

Product Warranty Statements

KAMSTRUP WARRANTY STATEMENT



NORTH AMERICA PRODUCT WARRANTY MODEL

1. **LIMITED WARRANTY**

1.1 MATERIAL AND WORKMANSHIP

Seller warrants that the Products shall be free from de - fects in Materials and Workmanship during the Warranty Period defined as follows:

For Meters:

(a) of 5/8"x1/2" – 1", the Warranty Period is twenty (20) years from the date of delivery to Buyer; and

(b) of 1½" and larger, the Warranty Period is ten (10) years from date of delivery to Buyer.

For Non-Meter Products:

the Warranty Period is twenty-four (24) months from the date of deliver to Buyer.

During the relevant Warranty Period, Seller shall, at its sole discretion, repair or replace any defective Products at no cost or refund the purchase price for the defective Products.

1.2 ACCURACY

1.2.1 Seller warrants that the flowIQ 2200, 3200, 4200 meters will perform to the accuracy as defined in AWWA C715-18 (section 4.2.8 thereto) and to AWWA M6 manual (chapter 5, Testing new meters and table 5-3 defining test rates in accordance with AWWA C715)

1.2.2 In case the Meters do not comply with the warranties set out in 1.2.1, Seller shall, at its sole discretion, repair or replace any defective Meter at no cost or refund the purchase price of such defective Meters:

(a) for year one (1) through year twenty (20) following the date of delivery for the defective Meters in the size range of 5/8" x 1/2" – 1"; and

(b) for year one (1) through year ten (10) following the date of delivery for the defective Meters in the size range of 1½" and larger.

Any Meter accuracy claims shall be subject to verification- initiated by Seller through testing by a NIST Traceable laboratories or ISO 17025 accredited laboratories.

1.3 BATTERY LIFE

1.3.1 Based on operation of the Meters with either communication via the three wire encoded output or with communication via the embedded radio at an ambient operating temperature not higher than stated in the technical documentation, the warranty on the system battery in the Meter shall be for a period of (a) for 5/8" x 1/2" – 1" Products, twenty (20) years from date of delivery to Buyer, (b) for 1½" and larger Meters, ten (10) years from date of de- livery to Buyer and (c) for 6" and larger Meters, ten (10) years from date of delivery to Buyer.

For (a) and (b) of section 1.3.1 Seller shall, at its sole discretion, (i) replace any Meters that contain defective batteries at no cost for year one (1) through year ten (10) following the date of delivery or (ii) refund the purchase price for the Meters that contain defective batteries.

For (c) of section 12.5.1, Seller shall, at its sole discretion, during year one (1) through year ten (10) following the date of delivery, at no cost (i) replace any defective batteries or (ii) replace any Meter that contain defective batteries.

For 5/8"x1/2" – 1" Meter only, during the period commencing with year eleven (11) through year twenty (20) following the date of delivery to Buyer, Seller shall, at its sole discretion, replace any Meters that contain defective batteries at a cost to Buyer equal to the price set out in the price list valid at the time of return of the Meter, minus the discount according to the following schedule:

Year	Discount	Year	Discount
11	75%	16	40%
12	75%	17	30%
13	50%	18	20%
14	50%	19	10%
15	50%	20	10%

The warranty related to battery life for the Meters is void if the Meters at any time have been configured into priority mode.

1.4 WARRANTY EXCLUSIONS

ALL KAMSTRUP WARRANTIES SHALL NOT APPLY IN ANY OF THE FOLLOWING CASES: (A) PRODUCTS THAT ARE DEFECTIVE OR DAMAGED BY NEGLIGENCE OR ACCIDENT OR NATURAL DISASTERS OR EXTREME WEATHER CONDITIONS OR BY OTHER CIRCUMSTANCES BEYOND KAMSTRUP'S REASONABLE CONTROL; (B) PRODUCTS THAT HAVE BEEN IMPROPERLY STORED, COMMISSIONED, INSTALLED, USED, REPAIRED, MAINTAINED OR ALTERED BY BUYER OR A THIRD PARTY, OR THAT HAVE BEEN USED OR MAINTAINED NOT IN ACCORDANCE WITH ANY INSTRUCTIONS, MANUALS, SPECIFICATIONS OR OTHER DOCUMENTATION PROVIDED BY KAMSTRUP, OR IN THE ABSENCE OF SUCH DOCUMENTATION, GENERALLY ACCEPTED INDUSTRIAL PRACTICE); (C) PRODUCTS WHICH HAVE BEEN USED (I) WITH WATER WHICH CONTAINS LEVELS OF FOREIGN MATTER, INCLUDING WITHOUT LIMITATION, DIRT, SAND, MINERALS, DEBRIS, DEPOSITS, BIOFILMS, CHEMICAL SUBSTANCES OR OTHER IMPURITIES WHICH INTERFERE WITH OR DEGRADE THE PRODUCT OR IS NOT IN ACCORDANCE WITH MINIMUM POTABLE WATER STANDARDS REQUIRED BY APPLICABLE LAW, PROVIDED THAT, WITH RESPECT TO ONLY RECLAIMED WATER METERS: (X) USING SUCH METERS WITH WATER THAT IS NOT POTABLE WILL NOT INVALIDATE THE WARRANTY, EXCEPT WHERE POOR WATER QUALITY ADVERSELY AFFECTS THE ACCURACY OF

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THE METER TO AN UNUSUAL DEGREE, IN WHICH CASE THE WARRANTY IS INVALID - OR USED IN ENVIRONMENTS WITH EXPOSURE TO ELECTROMAGNETIC PHENOMENA OR OTHER ABNORMAL ELECTRICAL INTERFERENCE, INCLUDING WITHOUT LIMITATION UNNATURAL MAGNETIC FIELDS, RADIATION OR ELECTROMAGNETIC PULSES, OR EXCESSIVE ELECTRICAL CURRENT, EXCEPT TO THE EXTENT PERMITTED IN THE PRODUCT SPECIFICATIONS;

PRODUCTS WHERE ANY SERIAL NUMBER OR SECURITY SEAL HAS BEEN INTERFERED WITH; (E) NORMAL WEAR AND TEAR; (F) PRODUCTS THAT ARE EXPERIMENTAL, DEVELOPMENTAL, PROTOTYPE, OR PILOT; OR
(G) PRODUCTS WHICH HAVE BEEN USED AFTER DISCOVERY OF THE DEFECT.

1.5. PRODUCT RETURN

1.5.1. IF, WITHIN THE APPLICABLE WARRANTY PERIOD, (I) BUYER DISCOVERS ANY DEFECTS IN MATERIALS OR WORKMAN- SHIP, AND (II) NOTIFIES SELLER IN WRITING OF SUCH DEFECTS, AND (III) RETURNS THE DEFECTIVE PRODUCTS TO SELLER, SELLER SHALL, AT SELLER'S SOLE DISCRETION, RE- PAIR OR REPLACE THE DEFECTIVE PRODUCTS, OR REFUND THE PURCHASE PRICE FOR THE DEFECTIVE PRODUCTS. NO WARRANTY CLAIMS WILL BE PROCESSED IF RECEIVED AF- TER THE WARRANTY PERIOD. REJECTED PRODUCTS MAY BE RETURNED ONLY WITH SELLER'S PRIOR EXPRESS WRITTEN CONSENT AND AT BUYER'S COST AND RISK. IF PRODUCTS ARE RETURNED WITHOUT SELLER'S PRIOR CONSENT, SELLER MAY REFUSE TO ACCEPT THE RETURNED PRODUCTS AND MAY RETURN THEM TO SELLER AT BUYER'S COST AND EXPENSE.

1.6. SET-OFF

1.6.1. IN NO CASE WHATSOEVER, INCLUDING JUSTIFIED WAR- RANTY CLAIMS, IS THE BUYER ENTITLED TO RETAIN ANY MONIES OWED TO SELLER, EXCEPT UPON THE WRITTEN CONSENT OF SELLER. FURTHER, THE WARRANTIES PRO- VIDED FOR HEREIN SHALL NOT APPLY IN THE EVENT BUYER HAS FAILED TO REMIT PAYMENT IN FULL FOR SUCH PRODUCTS.

1.7. WARRANTY DISCLAIMER

1.7.1. WARRANTY DISCLAIMER. THE FORFGOING LIMITED WAR-RANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WAR-RANTIES OF MERCHANTABILITY, FITNESS FOR ANY PAR-TICULAR PURPOSE, OR NON-INFRINGEMENT, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED.

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TSI POWER (UPS) WARRANTY STATEMENT

TSI POWER

Warranty Policy for customers in US and Canada

TSi Power warrants its products to be free from defects in materials and workmanship for two (2) years* from the date of purchase from TSi Power or its authorized representatives. TSi Power will repair (or at its option, replace) any defective component(s) during this warranty period. To make a request or claim for service under this limited warranty, the original purchaser must return the product, in the original shipping container or equivalent, to TSi Power, accompanied by a written receipt showing the date of purchase and both the name and serial number of the product. * Excluding batteries. Battery manufacturer's warranty applies to batteries.

Warranty does not cover transportation costs. Damage by misuse, accident or unauthorized tampering of the product is not covered by the warranty. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED. TSI POWER IS NOT LIABLE FOR CONSEQUENTIAL DAMAGES. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

LIMITATION OF LIABILITY: IN NO EVENT SHALL TSI POWER OR ITS AFFILIATES BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OR INABILITY TO USE THIS PRODUCT, EVEN IF TSI POWER OR ITS AGENT HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. SO THE ABOVE EXCLUSIONS MAY NOT APPLY TO YOU.

TSI Power Corporation
1103 W Pierce Avenue
Antigo, WI. 54409-3103
USA & Canada: 800-874-3160 (toll-free)
Fax: +1-715-623-2426
International: +1-715-623-0636
Email: sales@tsipower.com
www.tsipower.com

To make a warranty claim, please contact TSi Power at: sales@tsipower.com

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Advanced Capabilities/Core+ Overview

***START OF CONFIDENTIAL INFORMATION**

Utilities face growing challenges such as staffing shortages, aging infrastructure, rising costs, evolving regulations, and increasing customer expectations all while managing limited resources. To help utilities overcome these obstacles, Core & Main's Smart Utility Team created **CORE+**, an innovative program designed to streamline operations, enhance efficiency, and prepare for the future.

WHAT IS CORE+?

CORE+ is Core & Main's comprehensive smart utility solutions program that brings together hardware, software, services, and advanced monitoring into one integrated offering. It's a flexible, scalable platform that can be tailored to each utility's unique needs. From integrated metering systems and data analytics to software and managed services, CORE+ empowers utilities to modernize operations, improve efficiency, and strengthen service reliability.

Unlike one-size-fits-all solutions, CORE+ is fully customizable. Utilities can select à la carte features to expand AMI Smart Utility Solutions, ensuring they have the right tools and expertise to meet today's demands while preparing for tomorrow's opportunities.

CORE+ focuses on four key segments:

- **Smart Metering Systems** – AMR and AMI Solutions
- **Projects & Field Services** – Turnkey implementation, project management, and staff augmentation
- **Advanced Monitoring Solutions (AMS)** –Monitoring for pressure, flow, water quality, sewer overflows, and leak detection
- **Software Solutions** – Billing/CIS, Meter Data Management (MDM), asset management, GIS, analytics dashboards, and customer portals



CORE+ Services

Our CORE+ Team is knowledgeable and experienced, with PMP®- certified project managers, Mechanical and Computer Engineers, AMI Specialists, Software Manager, Business Analysts, and metering subject matter experts. Utilizing a structured methodology with proven processes and procedures in planning, safety, quality, deployment, and communication to successfully implement AMI Systems, this foundation enables Core & Main's experienced and dedicated team to deliver projects on time, within budget, and with industry-leading customer satisfaction.

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CORE+ Brochure

Below, we've included a sample of our CORE+ Brochure. A full copy of our brochure and detailed subpages on each quadrant of our CORE+ offerings is available upon request.



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NETWORK-AS-A SERVICE

The CORE+ Managed Services Program will enable the Rubidoux Community Services District to experience the industry's highest level of Network as a Service (NaaS) across its service territory. As part of this CORE+ program, local, experienced, and dedicated service technicians monitor and maintain all elements of the Advanced Metering Infrastructure, including the Kamstrup AMI system, the meters, and endpoints, to provide 100% network availability and billable reads monthly.

With CORE+ NaaS, Rubidoux Community Services District can rest assured that the new metering network infrastructure will remain at peak operational performance, even during outages and disaster recovery.

The Core & Main CORE+ NaaS service will enable the Rubidoux Community Services District staff to focus on the business of water and not on infrastructure operations and maintenance.

Key benefits to a CORE+ NaaS Services:

- Core & Main will provide dedicated, qualified, local service technicians
- Core & Main will proactively monitor the health and performance of the AMI infrastructure
- Core & Main will perform all AMI infrastructure manufacturer-recommended maintenance
- Core & Main will perform all required software/firmware updates for network components
- Core & Main will troubleshoot and resolve all network infrastructure issues
- Core & Main will provide a software dashboard with field work order and repair information
- Core & Main will administer all aspects of the equipment warranty and RMA process
- Core & Main will provide monthly reports for all warranty-related transactions
- Core & Main will troubleshoot and resolve all endpoint issues (Tier 2 Required)
- Core & Main will guarantee 100% billable reads, monthly, across the service territory (Tier 2 Required)
- Core & Main will maintain an inventory of AMI network components, meters, and endpoints (Tier 2 Required)

Service Components	Tier 1	Tier 2
Purchase and Own Network Infrastructure Equipment (AMI Network Host)	Rubidoux Community Services District	Rubidoux Community Services District
Pay Monthly Cellular Network Backhaul Fees	CNM	CNM
Provide City-owned Assets to House Network Infrastructure Equipment	Rubidoux Community Services District	Rubidoux Community Services District

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Provide Leased Assets for Network Infrastructure Equipment (to supplement City-owned, if necessary)	CNM	CNM
Install Network Infrastructure	CNM	CNM
CORE+ On-site Field Technicians	Rubidoux Community Services District	1
Monitor Network Infrastructure Alarms & Performance	CNM	CNM
Troubleshoot and Resolve Network Infrastructure Issues	CNM	CNM
Monitor Endpoint Alarms & Performance	CNM	CNM
Troubleshoot and Resolve Endpoint Issues	Rubidoux Community Services District	CNM
Maintain Endpoint Equipment Inventory for RMA	Rubidoux Community Services District	CNM
Equipment Warranty Administration (RMA)	CNM	CNM
Guaranteed 100% Billable Reads	Rubidoux Community Services District	CNM

Core & Main is pleased to offer the Rubidoux Community Services District the two top CORE+ NaaS service tiers from which to choose. Both tiers include a robust set of AMI network support services for the City's Field Area Network (FAN). It leverages our purpose-built wireless communication network and head-end system, with ongoing AMI network monitoring and maintenance by our local technical support team.

With the **NaaS Tier 1** service, Rubidoux Community Services District provides field resources for troubleshooting and resolving meter Endpoint field issues.

Alternatively, the **NaaS Tier 2** service is the turnkey, all-inclusive, premier AMI Network-as-a-Service and provides dedicated, qualified, local Core & Main field technicians to maintain all meter Endpoints across the service territory, and a no-cost inventory of Endpoints for quickly resolving Endpoint issues and equipment failures under warranty.

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At-A-Glance Comparison

CORE+ NaaS Tier 1

NaaS Tier 1 includes a comprehensive set of base NaaS services including the installation of all AMI network components to enable a fully operational Advanced Metering Infrastructure network; dedicated, qualified, local service technicians proactively monitoring the AMI network to maximize availability and peak performance; periodic network security testing and audits by security experts; completion of required maintenance and resolution of network issues; and monitoring of Endpoint alarms and performance. Generation of work orders to troubleshoot and resolve Endpoint issues; a real-time view of CORE+ field work performed through the work order management software dashboard; complete administration of the equipment warranty program (RMA); a mobile base station, capable of being deployed upon short notice, to support disaster recovery/emergency operations; and the assurance that billable reads for all meters across the service territory are available to the utility billing staff when needed without estimation or City staff field visits.



With NaaS Tier 1, Rubidoux Community Services District will be responsible for all field Endpoint troubleshooting and issue resolution and maintaining an inventory of replacement Endpoints.

NaaS Tier 1 Service Components	Rubidoux Community Services District	Core & Main
Purchase and Own Network Infrastructure Equipment (AMI Network Host)	X	
Pay Monthly Cellular Network Backhaul Fees		X
Provide Utility-owned Assets for Network Infrastructure Equipment	X	
Install Network Infrastructure		X
Monitor Network Infrastructure Alarms & Performance		X
Troubleshoot and Resolve Network Infrastructure Issues		X
Monitor Endpoint Alarms & Performance		X
Troubleshoot and Resolve Endpoint Issues	X	

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Maintain Endpoint Equipment Inventory for Replacements	X	
Equipment Warranty Administration (RMA)		X

CORE+ NaaS Tier 2

With the turnkey, all-inclusive, premier NaaS Tier 2 service, the Rubidoux Community Services District will not only reap the value and benefits from Tier 1 but additionally will not be responsible for or assign resources for maintaining Endpoints across the service territory. Core & Main will assign dedicated, qualified, and local service technicians to perform all Endpoint troubleshooting and issue resolution and will maintain an inventory of replacement Endpoints.

NaaS Tier 2 Service Components	Rubidoux Community Services District	Core & Main
Purchase and Own Network Infrastructure Equipment (AMI Network Host)	X	
Pay Monthly Cellular Network Backhaul Fees		X
Provide Utility-owned Assets for Network Infrastructure Equipment	X	
Install Network Infrastructure		X
CORE+ On-site Field Technicians, Based on # Services (1 Tech)		X
Monitor Network Infrastructure Alarms & Performance		X
Troubleshoot and Resolve Network Infrastructure Issues		X
Monitor Endpoint Alarms & Performance		X
Troubleshoot and Resolve Endpoint Issues		X
Maintain Endpoint Equipment Inventory for Replacements		X
Equipment Warranty Administration (RMA)		X
Guaranteed 100% Billable Reads		X

CORE+ ADVANCED MONITORING SOLUTIONS

Core & Main has developed the industry's first complete solution to help utilities tackle infrastructure challenges through advanced technology and data-driven insights. With this vision, we designed our

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Advanced Monitoring Solutions, engineered to optimize system performance, reduce operational costs, and ensure regulatory compliance. This solution provides utilities with tools to monitor, analyze, and optimize infrastructure, ensuring proactive maintenance, real-time event detection, and long-term sustainability.

By adopting CORE+ AMS Packages, utilities gain unmatched visibility and control over their infrastructure, allowing them to minimize operational risks, enhance compliance, and improve overall system resilience. These solutions leverage real-time data insights, predictive analytics, and automated alerts, enabling utilities to:

Key Benefits:

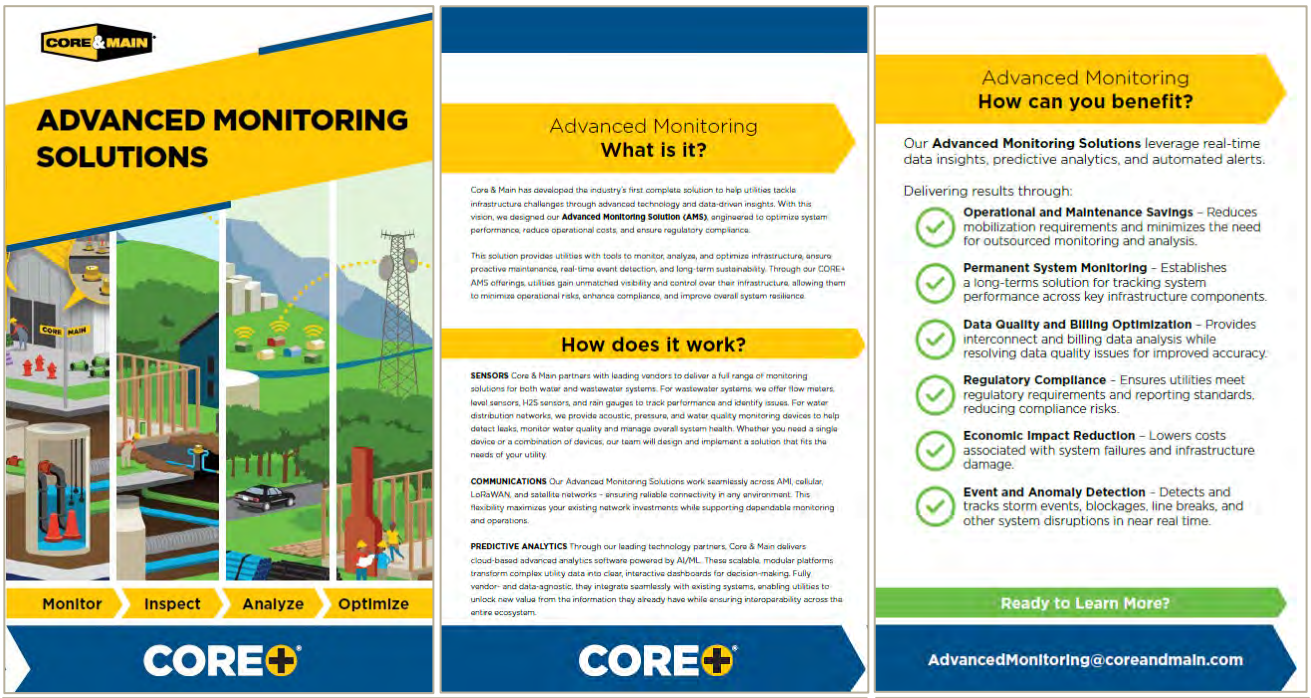
- Operational and Maintenance Savings – Reduces mobilization requirements and minimizes the need for outsourced monitoring and analysis.
- Permanent System Monitoring – Establishes a long-term solution for tracking system performance across key infrastructure components.
- Data Quality and Billing Optimization – Provides interconnect and billing data analysis while resolving data quality issues for improved accuracy.
- Regulatory Compliance – Ensures utilities meet regulatory requirements and reporting standards, reducing compliance risks.
- Economic Impact Reduction – Lowers costs associated with system failures and infrastructure damage.
- Event and Anomaly Detection – Detects and tracks storm events, blockages, line breaks, and other system disruptions in near real time.

With CORE+ AMS Packages, utilities can proactively address system vulnerabilities, optimize maintenance schedules, and reduce emergency interventions. By integrating real-time monitoring, predictive analytics, and automated alerts, utilities benefit from improved resource allocation, increased operational efficiency, and enhanced sustainability. This comprehensive approach ensures safer, more reliable infrastructure management, protecting both assets and the communities served.

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Advanced Monitoring Solutions (AMS) Brochure

Below, we've included a sample of our AMS Brochure. A full copy of our brochure is available upon request.



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CORE+ AMS Packages

SSO/CSO Level Monitoring

The SSO/CSO Level Monitoring solution provides utilities with a comprehensive, data-driven solution to prevent sewer system overflows and optimize maintenance operations. This solution integrates flow meters, manhole level sensors, and advanced network communications to deliver real-time visibility into wastewater system performance. By detecting blockages and overflow risks before they occur, this solution enables proactive response, reducing emergency interventions and mitigating environmental impact.

Leveraging machine learning-driven analytics, the solution provides trend advisories that help utilities optimize labor deployment and streamline maintenance planning. With near real-time actionable data, operators can make informed decisions to enhance system efficiency and reliability. Additionally, the

By implementing our SSO/CSO Level Monitoring solution, utilities can take a proactive approach to wastewater management, improving system reliability, regulatory compliance, and operational cost savings while enhancing infrastructure resilience.

Flow Monitoring and I&I Analysis

The Flow Monitoring and I&I Analysis solution provides utilities with a comprehensive, data-driven approach to identifying and mitigating inflow and infiltration (I&I) issues. This solution enables near real-time detection of rain derived I&I sources, helping utilities proactively manage sewer system performance. By analyzing wet and dry weather patterns and precisely quantifying inflow and infiltration levels, utilities can make informed decisions to reduce excess flow and optimize system capacity.

With flow and velocity interval measurements, the solution prioritizes basin and lift station maintenance, reducing unnecessary mobilizations and improving operational efficiency. Additionally, integrated machine learning analytics provide actionable insights through dashboards, graphing, and reporting, enhancing data-driven decision-making. The solution features advanced sensor technology, including Doppler radar and electromagnetic sensing, to capture accurate flow data in normal and surcharge conditions.



By implementing the Flow Monitoring and I&I Analysis solution, utilities gain greater visibility and control over sewer system performance, leading to improved reliability, reduced maintenance costs, and enhanced regulatory compliance.

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Environmental Water Quality Monitoring

The Environmental Water Quality Monitoring solution offers a practical and proactive approach to ensuring safe and reliable water quality, enhancing public health and environmental protection. Designed to help utilities identify and address critical conditions that can lead to fish kills, algae blooms, and other environmental hazards, this solution provides continuous and accurate data for informed decision-making.



Leveraging battery-powered devices and advanced analytics software, the system enables real-time monitoring and assessment of key water quality parameters. These include pressure, level, conductivity, turbidity, total chlorine, free chlorine, temperature, pH, chlorophyll, dissolved oxygen, and hydrogen sulfide. By integrating cutting-edge sensor technology, utilities can detect and respond to water quality issues before they escalate, ensuring regulatory compliance and improving service reliability.

By implementing the Environmental Water Quality Monitoring solution, utilities can take a data-driven approach to safeguarding water systems, optimizing operational efficiency, and proactively mitigating environmental risks.

Water Distribution Monitoring Solution

The Water Distribution Monitoring solution provides utilities with a real-time, proactive approach to managing system pressure, chlorine and other parameters, detecting anomalies and preventing costly failures. This solution ensures seamless installation, continuous monitoring, real-time alerts, and detailed system insights**,** helping utilities reduce downtime, prevent failures, and improve operational efficiency**.**

Halogen MP5-A Multiparameter Sensor

The Halogen MP5-A is a cutting-edge, flow-independent water quality sensor designed to deliver real-time monitoring of multiple parameters without the need for reagents or membranes. Engineered for versatility and reliability, it supports direct installation in pipes, tanks, or side streams, making it ideal for utilities seeking accurate, low-maintenance chlorine residual measurement and system diagnostics.



Key Features:

- Multiparameter Monitoring – Measures free chlorine, pH, conductivity, temperature, and oxidation-reduction potential (ORP) in a single device.
- Flow-Independent Design – Operates accurately in varying or zero-flow conditions, with direct pipe installation capability.

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- Self-Cleaning Technology – Includes captive cleaning beads and a long-life pump for continuous electrode maintenance and extended unattended operation.
- No Reagents or Membranes – Reduces operational complexity and eliminates waste streams, saving up to 70,000 gallons of water annually.
- Cloud Connectivity – Offers remote access and monitoring via cellular communication for enhanced data visibility.
- Flexible Installation Options – Supports immersion, wet tap, and side stream configurations with NSF61-certified cable lengths.
- EPA Method 334.0 Compliant – Approved for chlorine residual reporting, ensuring regulatory alignment.
- Durable & Certified – NSF61/372 certified, CE-compliant, and designed for long-term performance in harsh environments.

The Halogen MP5-A empowers utilities with precise, real-time water quality data, helping reduce water loss, streamline compliance, and improve operational efficiency across the distribution network.

Elynx Cry Out Alarm Unit

The Cry Out Alarm Unit is a critical alert system that instantly notifies operators of pressure drops, equipment failures, or other anomalies in the distribution system. Designed for high reliability and low maintenance, this unit ensures rapid detection and response to critical events.

Key Features:

- Reliable Communication – Operates over satellite or cellular networks**,** ensuring dependable connectivity in both urban and remote locations.
- Multi-Sensor Compatibility – Supports 4-20mA devices and four digital inputs, allowing integration with various pressure, flow, and level sensors.
- Instant Alarming Device – Alerts operators when preset pressure thresholds are exceeded, ensuring quick corrective action.
- Long Battery Life – Features a 3 to 5-year battery, reducing maintenance needs and ensuring continuous operation.
- Flexible Deployment **–** Compact, rugged design allows for installation in remote or high-risk areas, making it ideal for critical infrastructure monitoring.

Elynx Continuous Pressure Monitoring Kit

The Continuous Pressure Monitoring Kit provides real-time, high-resolution pressure monitoring at key locations in the distribution system. Its solar-powered, fully autonomous design ensures uninterrupted operation, while multi-carrier SIM connectivity guarantees reliable data transmission.

Key Features:

- Fully Standalone, Solar-Powered Operation – Eliminates the need for external power sources, providing uninterrupted monitoring.

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- Battery Backup – Ensures continuous performance in low-light or extreme weather conditions**.** Multi-Carrier SIM Connectivity – Guarantees seamless communication, minimizing data loss and improving network redundancy.
- High-Pressure Monitoring Capability – Supports pressures up to 300 psi, making it suitable for high-pressure applications.
- Frequent Data Collection – Captures 15-minute interval readings**,** offering timely and actionable insights for improved system control.

This kit allows utilities to identify pressure fluctuations, optimize water flow, and reduce system strain**,** leading to longer infrastructure lifespan and lower operational costs**.**

Elynx Multi-Sensor Kit

The Multi-Sensor Kit is designed for utilities that require a comprehensive monitoring approach**,** allowing them to track multiple parameters simultaneously across their distribution system.

Key Features:

- Fully Standalone, Solar-Powered Unit – Provides autonomous monitoring without reliance on grid power.
- Battery Backup – Ensures uninterrupted performance, even in low-power environments**.**
- Multi-Carrier SIM-Enabled Communication – Delivers seamless, redundant connectivity to prevent data gaps.
- High-Frequency Data Collection – Captures 15-minute data readings for precise system insights.
- Multi-Input Capability – Supports five sensor inputs, enabling the integration of multiple pressure, flow, and environmental sensors.

Orbis Smart Cap

The Orbis Smart Cap is an innovative real-time acoustic leak detection device designed to enhance water distribution system monitoring. By integrating with existing hydrants, it enables utilities to detect leaks early, monitor system conditions, and respond to events efficiently.

Key Features:

- Universal Fit – Designed to fit any manufacturer's hydrant, allowing for easy integration.
- Quick Installation – Can be installed in minutes on both dry and wet hydrants.
- Optimized for Ductile Iron Pipe Systems – Ideal for utilities with ductile iron distribution networks.
- Comprehensive Event Detection – Identifies leaks, flow events, temperature changes, pipe condition changes, and tampering incidents.
- Reliable Performance – Comes with a 3-year warranty on both the sensor and battery, with field-replaceable components for long-term use.



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The Orbis Smart Cap provides utilities with instant insight into their distribution network, reducing water loss, improving operational efficiency, and enhancing system security.

***END OF CONFIDENTIAL INFORMATION**

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Attachment 6

Approved: December 20, 2024

Expires: December 19, 2027

DEPARTMENT OF THE INTERIOR
Bureau of Reclamation
and
The U.S. Environmental Protection Agency

General Applicability Non-Availability Waiver
Build America, Buy America Product Waiver: AMI Water Meters

1. Summary

Agency: Department of the Interior (DOI/Department)'s Bureau of Reclamation (USBR) and the U.S. Environmental Protection Agency (EPA)

Final Waiver: The Department is joining the EPA to issue a partial general applicability/nonavailability waiver of the requirements of section 70914 of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58) for Advanced Metering Infrastructure (AMI) water meters used in infrastructure projects funded through USBR and the EPA, while requiring certain components of the water meters to be manufactured in the United States according to the phased implementation schedule below. This waiver is in effect for three (3) years from the date of approval. DOI and the EPA are implementing a phased approach during the waiver period, whereby, for two years from the date of approval, purchases of AMI meters and all components (the entire "manufactured product") are waived. Two (2) years from the date of approval, AMI meter housings shall be domestically manufactured or produced and excluded from the waiver scope; all other components continue to be waived through the end of the three-year period. This waiver only applies to products purchased after the effective date of this waiver and may not be used for products purchased after the expiration date of the waiver. At the conclusion of the full three-year waiver period, DOI and the EPA expect AMI water meters to be manufactured in the United States and their total cost of components to be greater than 55 percent domestically manufactured or produced.

Waiver type: Nonavailability of domestic products

Waiver level: General Applicability, Product level waiver

Waiver justification summary: There are no AMI water meters manufactured in the United States meeting BABA's 55 percent total cost of components domestic content requirement.

Length of the waiver: This waiver is in effect for three (3) years from the date of approval. DOI and the EPA are implementing a phased approach during the waiver period, whereby, for two years from the date of approval, purchases of AMI meters and all components (the entire "manufactured product") are waived. Two (2) years from the date of approval, AMI meter housings shall be domestically manufactured or produced components and will be excluded from the waiver scope. This waiver only applies to products purchased after the effective date of this waiver and may not be used for products purchased after the expiration date of the waiver.

Summary of items covered in the waiver:

- AMI water meters.

NAICS: 334514
PSC: 6632

2. Background

The Buy America Preference set forth in section 70914 of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58), requires all iron, steel, manufactured products, and construction materials used for infrastructure projects under Federal financial assistance awards be produced in the United States.

Under section 70914(b), a Federal agency may waive the application of the Buy America Preference, in any case in which it finds that: applying the domestic content procurement preference would be inconsistent with the public interest; types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality; or the inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall project by more than 25 percent. All waivers must have a written explanation for the proposed determination; provide a period of not less than 15 calendar days for public comment on the waiver; and submit the waiver to the Office of Management and Budget Made in America Office for review to determine if the waiver is consistent with policy.

3. Description of Covered Items

Manufactured products: AMI water meters collect water usage information. When used as a fixed network across a community, AMI water meters automatically collect and store consumption data, aiding in water conservation and water use efficiency, improved water management, and energy savings. Information provided helps identify high water usage that could indicate leaks, providing time sensitive leak detection alerts. AMI water meter networks reduce water demand by enhancing conservation, reduce energy use/operating costs, and reduce carbon emissions using remote/automated meter reads.

AMI water meters are composed of meter housings, end points/transmitters, printed circuit boards, meter electronics, batteries, base stations, repeaters and associated equipment. Based on market research completed within the last two years, some manufacturers source the materials for the meter housings domestically. A few manufacturers indicated that their meter housings are 100 percent manufactured or produced within the United States. However, the industry universally sources the end points/transmitters, printed circuit boards, meter electronics, and batteries internationally. As these components are the most expensive parts of the water meter, the meter system as a whole does not meet BABA's 55 percent of total cost of components domestic content requirement.

Based on the market research described below, there are currently no AMI water meters manufactured domestically that meet BABA requirements.

4. Waiver Justification

Based on cumulative and collaborative market research efforts, DOI and the EPA are issuing a three-year waiver split into two phases. In the first phase, a waiver shall be provided for two years from the date of approval to cover AMI meters and all their components. Two (2) years

from the date of approval, AMI meter housings shall be a domestically manufactured or produced component, but other AMI water meter components will continue to be waived. At the conclusion of the three-year waiver period, DOI and the EPA anticipate that AMI water meters (i.e., bundled with their component parts) will be available as a manufactured product with 55 percent or more of the components domestically manufactured or produced.

This waiver's purpose is to incentivize production of BABA compliant AMI water meters. Based on stakeholder feedback, DOI and the EPA have identified that significant challenges prevent AMI water meters from being BABA compliant. However, with appropriate market signals, AMI water meters could be BABA compliant by the expiration of the waiver. DOI and the EPA are seeking this waiver specifically to send the appropriate market signals to the AMI water meter manufacturing community. DOI and the EPA's expectation is that AMI water meters be BABA compliant. This waiver identifies a realistic phased pathway for domestic manufacture of these products, first by targeting the domestic manufacture of meter housings, with the second phase for the remaining components of an AMI water meter that are not currently available to be manufactured or produced within the United States. As an incentive, while this waiver is active, manufacturers may still receive the benefit of Federal funding by providing products to be used under Federal awards, with the phased approach rewarding those manufacturers that take advantage of the waiver period to transition to domestic content.

Anticipated impact if no waiver were issued: DOI's USBR provides annual funding for the competitive Water and Energy Efficiency Grant (WEEG) program, which regularly funds AMI water meter projects. As no BABA compliant AMI water meter is available, there is no alternative but for these projects to be covered by a product or project waiver. In FY23 alone, USBR's WEEG program competitively selected water meter grants totaling $43 million Federal and $90 million non-Federal funding. This $134 million investment is expected to result in an annual water savings of over 20,000 acre-feet. Based on historical data, the EPA anticipates that at least 10 percent of all EPA funded water infrastructure projects will purchase and install AMI water meters. The majority of these will occur through the State Revolving Fund, the Water Infrastructure Finance and Innovation Act program, and other funding programs. As no BABA compliant AMI water meter is available, there is no alternative but for these projects to be covered by a product or project waiver.

In the absence of this waiver, DOI, the EPA, and the Federal grant-making community will miss an opportunity to clearly articulate expectations for creating a domestically manufactured or produced market to the AMI water meter manufacturing community. This could have the impact of slowing the long-term domestic sourcing transition, and curtailing Federal participation in AMI water meter projects, which would weaken support for communities throughout the West that are struggling to conserve their declining water supply.

Market Research to Justify Product Non-Availability Waiver: From 2022 through 2024, DOI, the EPA, and grant recipients conducted market research to assess the availability of domestically manufactured AMI water meters. As a result of this cumulative market research, there is no known manufacturer of AMI water meters, that meet BABA's domestic production requirements.

All manufacturers responsive to market research inquiries stated that they are in the process of evaluating the idea of moving manufacturing to the U.S., but have no immediate plans or timeframes identified. As there are upwards of fifty (50) components to an AMI water meter system, evaluating the domestic sourcing of the manufactured product as a whole through the component cost break down is a significant effort. Should key high-cost components of an AMI water meter be manufactured within the U.S. in the future, this could lead to a domestically produced manufactured product meeting the 55 percent BABA requirement.

DOI and the EPA considered whether an AMI water meter waiver could target certain components, such as the internal electronics and end points, rather than the AMI water meter as a whole. Transmitters, printed circuit boards, meter electronics, batteries, and end points used within AMI water meters were identified as the components most difficult to source domestically. Market research feedback has indicated that one component of the AMI meter -- the meter housings -- are manufactured domestically by several manufacturers. However, BABA-compliant water meter housings are not available immediately in sufficient quantities to meet demand, nor are they universally compatible. This waiver, through the phased approach, reflects market research and public comments confirming that water meter housing components can be manufactured domestically within two years. DOI and the EPA also considered whether this waiver could be targeted to AMI water meters below a size threshold but found no evidence to support targeting specific size thresholds.

To gain additional industry feedback on materials used in water infrastructure products, such as AMI water meters, the EPA published a Request for Information (RFI) *Request for Information Regarding Products and Categories of Products Used in Water Infrastructure Programs* in the Federal Register on November 20, 2023, which closed on December 20, 2023, EPA-HQ-OW-2023-0396-0001). The RFI requested feedback detailing domestic materials sourcing, market readiness, other product supply considerations, and whether water infrastructure products are manufactured in the U.S. The EPA and DOI examined the 12 comments that provided feedback on the domestic availability of water meters.

In general, commentors to the RFI noted that manufacturers need time to assess, design, develop, and test new lines of domestically produced products consistent with BABA requirements. Component changes on manufactured goods require re-evaluation periods to reduce major issues in manufacturing. This includes establishing new domestic production facilities, new BABA compliant lines of domestic products, and staffing for the new facilities. Commenters also reported significant concerns with stocking burdens, customer communication issues, and production capacity issues. Commenters noted that there are significant issues related to the domestic sourcing of electronics. Commenters note that there is no support to offset the foreign procurement of the electronics. One commentor shared that they were unlikely to meet the BABA domestic component sourcing requirements within five years, as the effort requires a significant time and funding investment.

Given that it is not possible for all future funded AMI water meter projects to source the meter housings from the few domestic sources, (for the above described compatibility and market lead times concerns), DOI and the EPA are issuing a time-limited three-year phased waiver, in which all components of the water meter product are waived in phase one. This initial, two-year phase

of the waiver covers all components of the AMI smart meter to provide an opportunity for manufacturers to assess the sourcing of their meter housings and transition to a domestic supply for that component. The second phase of this waiver, which begins two (2) years from the date of approval, extends waiver coverage to components of the AMI water meter except the meter housing, for the third of three years, whereby AMI water meter housings will be required to be domestically manufactured at that time.

DOI and the EPA consider this waiver to provide a significant market signal and time for manufacturers to analyze current issues and develop strategies to create domestically manufactured or produced products that are consistent with BABA requirements. This will also give time to assess, design, develop, and test new lines of the domestic products. Responses to the EPA's RFI were generally consistent with the feedback DOI had previously received.

DOI and the EPA consider this waiver's incentive-based approach to be appropriate and fair for both manufacturers that have manufactured or produced some of their AMI water meter components domestically and those that have not prioritized a domestic supply of components prior to the enactment of the Infrastructure Investment and Jobs Act, sometimes referred to the Bipartisan Infrastructure Law. Manufacturers not sourcing their components domestically will have sufficient and reasonable time to reassess, plan, and implement changes. Manufacturers currently sourcing some of their products domestically will have sufficient and reasonable time to source the high-cost components of AMI water meters domestically. While the industry as a whole manages this transition, DOI and the EPA may continue to fund projects to conserve and efficiently use water resources through the use of AMI water meters. An analysis will be required immediately prior to the conclusion of the waiver period to identify how the AMI water meter industry has shifted in response to changing market conditions.

Expectation for the agency, award recipients, and industry at the conclusion of the waiver:
DOI and the EPA expect to continue to engage in conversations with grant recipients and other Federal agencies to encourage the AMI water meter manufacturing industry to meet the 55 percent of total cost domestic content requirement for BABA compliance.

DOI and the EPA will review this waiver annually to assess whether it remains necessary. DOI and the EPA may, based on the results of that review, terminate, or narrow the scope or duration of this waiver, or take such other action deemed as appropriate.

5. Assessment of Cost Advantage of a Foreign-Sourced Product

Under OMB Memorandum M–24-02, Federal agencies are expected to assess "whether a significant portion of any cost advantage of a foreign-sourced product is the result of the use of dumped steel, iron, or manufactured products or the use of injuriously subsidized steel, iron, or manufactured products" as appropriate before granting a public interest waiver. DOI and the EPA's analysis has concluded that this assessment is not applicable to this waiver as this waiver is not based on the cost of foreign-sourced products.

6. Summary of Public Comments

The waiver received sixteen (16) public comments over the thirty (30) day publication period from August 30, 2024 through September 28, 2024. Five (5) municipal water authorities, four (4) manufacturing entities, three (3) state revolving fund programs, two (2) water infrastructure associations, one (1) national manufacturing association, and one (1) consulting engineer submitted comments. None of the comments opposed the waiver, in general. Most comments included detailed information for consideration, all of which were substantive. While commenters expressed support for the waiver generally, many raised concerns with aspects of the waiver including the phasing and overall duration, component specificity, nomenclature, and scope.

Many commenters requested the waiver duration be extended beyond the three years proposed, noting that additional time appears necessary to scale up and build production for the potential demand cited in the proposal. DOI and the EPA considered the comments regarding waiver duration and determined that the points raised did not warrant extension beyond the proposed three-year duration. Market research for this waiver identified several domestic manufacturing entities that have made recent investments in domestic manufacturing, and comments to the waiver confirm that increasing domestic supply will be available nearing the end of the waiver period. Extension of the waiver beyond three years may disincentivize potential investment and expansion of the developing domestic sources. Before the conclusion of the waiver, DOI and the EPA will re-evaluate the conditions of supply chains for water meters. Should domestic availability continue to be a concern and the identified domestic manufacturing base is unable to ramp up production to meet expected demand, the expiring waiver will be re-considered.

Comments also asked for clarification on the timing of the waiver phases, noting that the language in the proposal caused some confusion about the sequence of the phases whereby some commenters interpreted the total waiver time period as five years, which was not the intent of the proposal. This final waiver includes adjusted language to clarify the phases of the waiver, as follows: The first phase, which is two (2) years in duration, covers AMI meters and all their components. Two (2) years from the date of approval, AMI meter housings shall be a domestically manufactured or produced component, but all other components continue to be waived for the final year of the waiver. The total duration of the waiver is three (3) years.

Several comments expressed concerns with terminology used in the waiver, including references to water meter "bodies" and "resins," in addition to requesting clarification regarding the components of a water meter manufactured product. The consensus of comments recommended changing "bodies" to "housings" to clarify and avoid confusion, a change which is reflected in the final waiver. Additionally, comments recommended striking "resins" from inclusion in the components list describing typical water meter products, noting that the resins are typically input materials that are used to produce components (such as meter housings), and therefore are not directly incorporated into the final manufactured product. The term "resins" has been removed from the final waiver. The final waiver does not, however, include any other changes in reference to the components of a water meter product. DOI and the EPA examined the comments and while the consensus of comments requests delineation of all known, specific components of a water meter product, or to refer to the products as "systems," the final waiver is unchanged from the proposal in this aspect. Several comments noted that the technologies can differ

significantly across brands and models, and that products are evolving rapidly. In order to avoid confusion and mischaracterization of product types, the final waiver retains the example list of water meter product components (such as meter housings, end points/transmitters, printed circuit boards, meter electronics, batteries, base stations, repeaters, and associated equipment), noting that components can differ depending on the water meter system in use or the needs of specific projects. DOI and the EPA view this list of components as a reasonable instructive example of what comprises a water meter manufactured product.

The waiver requested comments regarding the substitutability and compatibility of meter housings and meters from different manufacturers. Six (6) commenters responded that AMI water meters from different manufacturers are not compatible without loss of "AMI" features. One (1) commenter shared that intermingling components would likely void product warranties. DOI and EPA, therefore, consider it important to provide sufficient time and appropriate phasing of this waiver to encourage a market-wide domestic sourcing transition.

The waiver requested comments regarding a potential domestic assembly requirement, to which two (2) commenters responded substantively. One (1) commenter requested expanding the timeframe of the waiver significantly in order to include a domestic assembly requirement after four (4) years. Another commenter responded noting that they could presently domestically assemble a portion of the projected national supply for AMI water meters and could expand that domestic assembly capability to a larger portion (though far less than half of the total) of the demand with further investment, but the timing for the expansion was not provided. While DOI and the EPA appreciate the manufacturing entities' encouraging efforts toward domestic assembly, and strongly recommend recipients to utilize domestically assembled water meters when available, comments did not indicate market readiness for domestic assembly across the industry. The comments did not address or remove concerns that including a domestic assembly requirement within the three-year waiver period would alleviate existing supply chain issues. In light of many comments received emphasizing compatibility issues for municipal projects, the evidence for domestic assembly sourcing to supply the wide range and full projected needs of recipient projects does not warrant inclusion of an assembly requirement during the waiver period.

The waiver applies coverage at the point of purchase. Several comments requested that the final waiver include a change or further clarification to the applicability point for the acquisition of water meters. DOI and the EPA consider the purchase date stipulation to be a clear signal point of waiver applicability for manufacturers and a workable definition for recipients and oversight authorities. Other commenter suggested reference points could create confusion between manufacturers and recipients, ultimately undermining the waiver intent and potentially inviting noncompliance through misapplication of the waiver. The EPA has demonstrated success from past national waivers with the use of purchase date as the waiver applicability point, providing clarity for manufacturers, financial assistance recipients (including sub-recipients), and compliance oversight authorities.

Several comments requested expansion of the waiver to include other types of flow meters beyond AMI water meters. DOI and the EPA are not expanding the waiver to include additional meter types at this time. Although the comments shared supply chain concerns for additional

The EPA hereby issues this general applicability/nonavailability waiver of the requirements of section 70914 of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. No. 117-58) for AMI water meters used in infrastructure projects.

Michael S. Regan, Administrator
U.S. Environmental Protection Agency

Attachment 7

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Jun 10, 2026

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Aug 15, 2025

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CORE & MAIN LP • Active Registration

Unique Entity ID
YXNPHTHLB8R6

CAGE/NCAGE
4NHU9

Expiration Date
Dec 5, 2026

Physical Address
1830 Craig Park CT
Saint Louis, Missouri
63146-4122, United States

Mailing Address
1830 Craig Park CT
Saint Louis, Missouri
63146-4122, United States

Purpose of Registration
All Awards

Version
Current Record

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Entity Information

KAMSTRUP WATER METERING, L.L.C.

● Inactive Registration

Unique Entity ID
JGFQZQKE8Y38

CAGE/NCAGE
(blank)

Expiration Date
Oct 8, 2025

Physical Address
2855 Forsyth Commerce WAY STE 200
Cumming, Georgia
30040-3113, United States

Mailing Address
2855 Forsyth Commerce WAY STE 200
Cumming, Georgia
30040-3113, United States

Purpose of Registration
Federal Assistance Awards Only

Version
Current Record

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Attachment 8

KRIEGER & STEWART
Engineering Consultants

MEMORANDUM

TO: JACLYN B. MAKARZEC, DIRECTOR OF ENGINEERING
RUBIDOUX COMMUNITY SERVICES DISTRICT

FILE: 587-19.68.5 F/C

FROM: BRANDON C. VALADEZ *BCV*
KRIEGER & STEWART, INCORPORATED

DATE: 6/8/2026

SUBJECT: ADVANCED METERING INFRASTRUCTURE IMPLEMENTATION PROJECT
RECOMMENDATION OF AWARD

On Thursday, May 21, 2026, the District received one responsive bid for subject project. The bid amount is as follows:

Contractor	Bid Amount
Core & Main LP	$2,616,125.23

The bid documents submitted by Core & Main LP contained a few minor irregularities that have been corrected. The documents are now complete and meet the Contract requirements.

Please note that Core & Main included a supplemental response file with their bid which includes some exceptions to the project requirements and provides technical details regarding the products they proposed to provide. Since review of the technical information is beyond the scope of our bid review and acceptance of any exceptions will be up to the District, we recommend that the District review this information prior to award.

Since Core & Main is an experienced, capable contractor with a current Class A (General Engineering) Contractor's License (No. 1097128), Krieger & Stewart recommends awarding the contract to Core & Main LP for $2,616,125.23, as long as the District is in agreement with the information in Core & Main's supplemental bid response information.

BCV/blt
587-19P68-REBID-RECAWARD

Attachment 9

From: Munoz, Christina A <christina_munoz@ios.doi.gov>
Sent: Wednesday, June 24, 2026 10:02 AM
To: Kirk Hamblin
Cc: Thompson, Troy L; Stonebridge, Matthew T; Jaclyn Makarzec
Subject: Re: [EXTERNAL] RCSD AMI Bid Acceptance Question

Kirk,

It was a pleasure speaking with you this morning. After reviewing the details you provided, I can confirm that there are no objections to your proposed procurement selection. Provided you adhere to the requirements outlined in 2 CFR 200.318 and maintain thorough documentation for your records, your process should remain in compliance. If you have further questions or need additional clarification, please feel free to contact Matt once he returns to work next week.

R/
Christina

From: Kirk Hamblin <khamblin@rcsd.org>
Sent: Wednesday, June 24, 2026 9:56 AM
To: Munoz, Christina A <christina_munoz@ios.doi.gov>
Cc: Thompson, Troy L <tthompson@usbr.gov>; Stonebridge, Matthew T <matthew_stonebridge@ios.doi.gov>; Jaclyn Makarzec <jmakarzec@rcsd.org>
Subject: [EXTERNAL] RCSD AMI Bid Acceptance Question

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Christina,

Following up to our conversation today, if you would please respond to our inquiry about our current procured ami project I would appreciate it.

Below is my original question for reference, but essentially, we are just looking to confirm our procurement process would be in line with compliance from a USBR perspective. We went to bid for our AMI meter upgrade but only received one acceptable response. We plan on formally accepting this bid, but as a precaution wanted to get USBR's opinion to see if you all agree.

The bid was posted public online via planetbids and the process and acceptance would be in line with our procurement policy which has the Uniform guidance related information in it.

We have also confirmed via sam.gov that this contractor is not debarred or has any other exceptions.

If you would be so kind and provide a written response to this email I would very much appreciate it so we have a document trail and can give this to our auditors if they need support.

Thank you in advance and your efforts are very much appreciated.

Kirk Hamblin
Director of Finance
Rubidoux Community Services District

3590 Rubidoux Blvd, Jurupa Valley, CA 92509
Phone: (951) 684-7580 ext. 1253
rcsd.org

IMPACT: Integrity, Motivation, Professionalism, Adaptability, Commitment, Teamwork

Hey Matthew and Troy,

I wanted to reach out and touch base. We recently completed the posting of our AMI meter replacement project on PlanetBids. The bid time closed and we have only received one bid which we are reviewing and likely moving forward with the award. I wanted to reach out in advance and make sure we should we are good with procurement compliance. We have not awarded the contract yet.

Do we need to complete any information for only having one bid? Any recommendations for documentation we should retain for audits or compliance?

Thanks in advance for your help!

From: Thompson, Troy L <tthompson@usbr.gov>
Sent: Monday, June 22, 2026 1:10 PM
To: Kirk Hamblin <khamblin@rcsd.org>
Subject: Grants Question for Matt

Kirk,

Here is the information you asked for regarding the Supervisory GMS:

Munoz, Christina A
Email: Cmunoz@ios.doi.gov
Work Cell: 720-614-2192
Office: 303-445-3154

Troy L. Thompson

Water Resource Specialist
Bureau of Reclamation
27226 Via Industria, Suite A
Temecula, CA 92590
Main Office Phone: 951.695.5310
Cell Phone: 951.904.0765
Email: tthompson@usbr.gov

— BUREAU OF —
RECLAMATION

Attachment 10

Rubidoux Community Services District
Water Capital Improvement Project (CIP) Budget

		Actual YTD March 2026	Annual Budget 2025/2026[1]	Projected Year End 2025/2026	Favorable (Unfavorable) Variance	Audited 2024/2025	Proposed Budget 2026/2027
	Income						
1	Grant Income - USBR - AMI	$ -	$ 1,500,000	$ -	$ (1,500,000)	$ -	$ 1,500,000
TOTAL WATER CAPITAL PROJECT REVENUE		**$ -**	**$ 1,500,000**	**$ -**	**$ (1,500,000)**	**$ -**	**$ 1,500,000**
	Expense						
2	Well 4 Rehab	20,646	200,000	20,646	179,354	-	-
3	Well 6 Rehab	-	200,000	-	200,000	-	-
4	Well 8 Rehab	187,706	187,000	130,000	57,000	-	-
5	Well 11 Rehab (Irrigation)	-	100,000	-	100,000	-	-
6	Well 14 Rehab (Irrigation)	-	75,000	-	75,000	-	-
7	Well Rehabs	-	-			-	300,000
8	District at JV Well Sites/LT Expansion (LT Exansion Lot)	57,706	-	57,706	(57,706)	-	-
9	Annexation Work - Water Pipeline Move (Design)	-	55,000	-	55,000	-	-
10	AMI Project (Grant Funding Approx. 50%)	8,653	3,200,000	30,000	3,170,000	28,184	3,200,000
11	Thompson Plant Fe/Mn Vessel Rehab'	186,066	305,000	250,000	55,000	-	-
12	Reservoir Design - All Four Tanks	-	430,000	-	430,000	-	430,000
13	2026 Regional Geotechnical Report	-	200,000	-	200,000	-	200,000
14	Pipeline Replacement						200,000
15	JCSD Line Separation	-	-	-	-	-	115,000
	Total Expense	**460,777**	**4,952,000**	**488,352**	**4,463,648**	**28,184**	**4,445,000**
	Transfers						
16	Transfer to/(from) Water Fund Unrestricted	-	(2,555,000)	-	-	-	(2,945,000)
	Total Transfers	**-**	**(2,555,000)**	**-**	**-**	**-**	**(2,945,000)**
TOTAL WATER CAPITAL PROJECT EXPENSES AND TRANSFE		**$460,777**	**$2,397,000**	**$488,352**	**$4,463,648**	**$28,184**	**$1,500,000**
	Fund Excess (Deficit)						**$ -**

[1] Includes budget amendments adopted by Board of Directors up through May 7, 2026.

ESTIMATED JULY 1, 2026 CAPITAL RESERVE	**$ -**
ESTIMATED FISCAL YEAR 26/27 EXCESS (DEFICIT)	**$ -**
ESTIMATED JUNE 30, 2027 CAPITAL RESERVE	**$ -**

8. **ACTION / DISCUSSION ITEMS** (continued)

B. **DM 2026-60**: Consideration to Establish a Street Sweeping Signage and Installation Budget and Authorize Implementation of Street Sweeping Route Signage

Rubidoux Community Services District

Board of Directors
Diana Leja, President
Leslie Altamirano, Vice-President
Bernard Murphy
John Skerbelis
Hank Trueba Jr.

General Manager
Brian R. Laddusaw

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

DIRECTORS MEMORANDUM 2026-60 July 2, 2026

To: Rubidoux Community Services District
Board of Directors

Subject: Consideration to Establish a Street Sweeping Signage and Installation Budget and Authorize Implementation of Street Sweeping Route Signage

BACKGROUND:

On July 1, 2025, the Rubidoux Community Services District ("District") and Burrtec Waste Industries, Inc. ("Burrtec") executed Amendment No. 3 to the District's refuse collection agreement. Among other service enhancements, Amendment No. 3 expanded street sweeping services within the District and established a schedule providing for street sweeping twice per month.

To implement the expanded service level, Burrtec developed four distinct street sweeping routes throughout the District's service area. These routes are depicted in Attachment 1 and serve as the basis for scheduling and customer notification.

As staff began planning for implementation of the expanded street sweeping program, it became apparent that the District's existing street sweeping signage would not adequately support the new route structure established by Burrtec. Adequate signage is necessary to inform residents of applicable street sweeping schedules, improve program effectiveness, and support compliance with posted parking restrictions during scheduled sweeping activities.

Sign Inventory and Route Evaluation

The implementation of Burrtec's four street sweeping routes necessitates the replacement of existing street sweeping signage with updated signage reflecting the new route structure and sweeping schedules. To support this effort, staff conducted a comprehensive field inventory of existing signage throughout the District's service area.

Because the District does not maintain dedicated personnel assigned specifically to street sweeping operations, the inventory was completed utilizing existing staff resources. Specifically, the District's Meter Reader was assigned to identify and catalog existing street sweeping signs throughout the District's service area. The purpose of this effort was to document current sign locations, evaluate sign condition, identify locations requiring replacement signage, and establish a baseline inventory for future maintenance and replacement efforts.

In addition to inventorying existing signs, staff reviewed Burrtec's four street sweeping routes and evaluated ingress and egress locations serving each route area. This review identified several additional locations where signage would improve public awareness and provide clearer notification to residents and visitors entering affected neighborhoods.

During the inventory process, staff also evaluated available sign mounting locations throughout the service area. Staff's intent is to install the new signage primarily on existing concrete street light poles. However, staff identified several locations where only wooden utility poles are available. Southern California Edison generally does not permit the District to affix signage to its wooden utility poles. Additionally, staff identified several locations where the City of Jurupa Valley maintains standalone sign posts and will coordinate with the City to determine whether street sweeping signage may be co-located at those locations.

Staff also noted that significant portions of the District do not currently contain curb and gutter improvements. Because street sweeping services are generally limited to streets with curb and gutter infrastructure, signage will only be installed in areas where street sweeping services are provided and where suitable mounting locations are available.

Based upon this evaluation, staff developed a preliminary signage plan that includes replacement of existing signage, installation of signage at newly identified locations, and establishment of a small inventory of replacement signs for future use.

Route Stability Considerations

Given that the proposed signage will be route-specific, staff contacted Burrtec to better understand the anticipated longevity of the current route configuration. Staff expressed concern that significant route modifications in the near future could render portions of the signage obsolete.

Burrtec advised that the current route structure is intended to remain in place for the foreseeable future and that any future modifications would likely occur gradually over a multi-year period rather than through frequent annual adjustments. Based upon this information, staff believes the proposed signage investment is appropriate and will provide long-term value to the District and its customers.

Sign Procurement and Installation

Staff solicited a quote from a sign vendor previously utilized by the District for various signage projects, including signage installed at Fire Station 38. The vendor provided a quotation of $68.92 per street sweeping sign (Attachment 2).

The proposed signs are 18-inch by 24-inch aluminum panels with high-intensity reflective laminate, designed for outdoor traffic control applications and expected to have a service life of approximately 10 years under normal field conditions (Attachment 3).

Each sign requires two mounting straps at a cost of $10.91 per strap, resulting in a total material cost of approximately $90.74 per sign. Based on the purchase of 100 signs, the estimated material cost is $9,074, exclusive of applicable sales tax.

The estimated project cost, including sales tax at a rate of 7.75 percent, is summarized below:

TABLE 1

Item	Quantity	Unit Cost	Total Cost
Street Sweeping Signs	100	$ 68.92	$ 6,892.00
Mounting Straps (2 per sign)	200	$ 10.91	$ 2,182.00
Subtotal			$ 9,074.00
Sales Tax (7.75%)			$ 703.24
Estimated Total Cost			$ 9,777.24

The estimated total project cost remains below the District's $10,000 informal procurement threshold and is therefore compliant with the District's Procurement Policy. Accordingly, staff is not seeking Board authorization for vendor selection or procurement of the signage.

Upon delivery, staff intends to install the signs utilizing District forces. Staff will also catalog all installed sign locations in a centralized database to support future maintenance, replacement, and program management activities.

Staff further notes that several residential and commercial development projects are currently underway within the District's service area. The proposed purchase quantity includes sufficient surplus inventory to accommodate future signage needs associated with these developments. Additionally, as the City of Jurupa Valley completes ongoing sidewalk, curb, and gutter improvement projects, staff will periodically re-evaluate affected areas and install additional signage, as necessary, to support future street sweeping operations.

Budget Considerations

While the procurement of the signage is within the General Manager's purchasing authority, the FY 2026|2027 Trash Fund Budget does not currently contain a dedicated line item for street sweeping signage and installation (Attachment 4).

Accordingly, staff recommends amending the FY 2026|2027 Trash Fund Budget to establish a new operating expenditure line item titled "Street Sweeping Signage and Installation" in the amount of $15,000.

The requested appropriation is intended to fund the purchase of street sweeping signs, mounting hardware, applicable sales tax, installation materials, and any unforeseen costs associated with implementation of the project.

Staff recommends appropriating the required funding from the District's Unrestricted Property Tax Reserve. As of June 18, 2026, the Unrestricted Property Tax Reserve has an available balance of approximately $17.5 million, which is more than sufficient to accommodate the proposed $15,000 expenditure.

Upon approval of the budget amendment, staff anticipates completing sign procurement, installation, and location cataloging during the first quarter of FY 2026|2027.

RECOMMENDATION:

The General Manager recommends that the Board of Directors take the following actions:

1. Amend the FY 2026|2027 Trash Fund Budget to establish a new operating expenditure line item titled "Street Sweeping Signage and Installation" in the amount of $15,000.

2. Appropriate funding for the budget amendment from the District's Unrestricted Property Tax Reserve.

3. Authorize staff to proceed with implementation of the street sweeping signage program.

Respectfully,

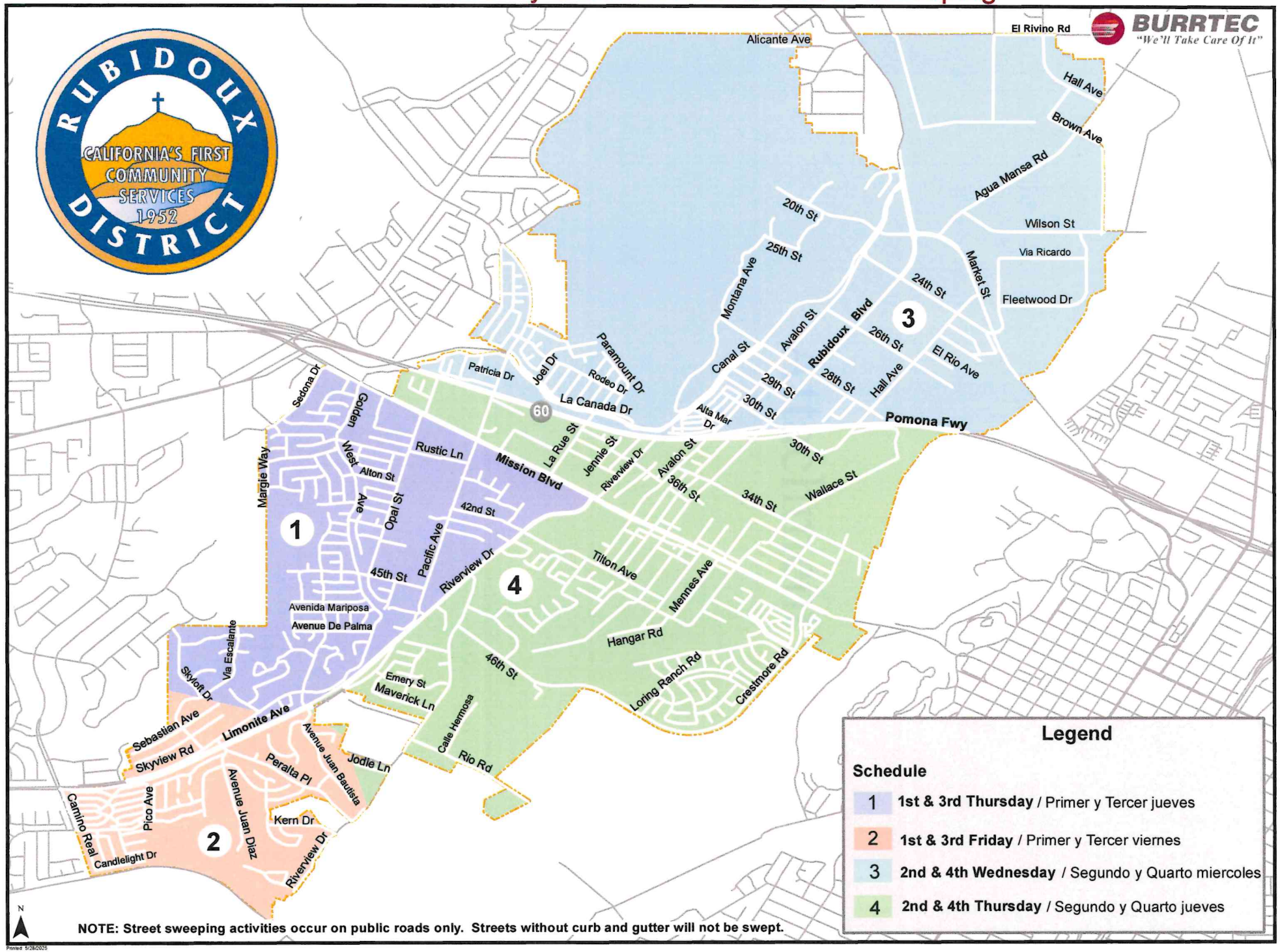
BRIAN R. LADDUSAW, CPA
General Manager

Attachment(s):

1. RCSD Street Sweeping Route Map
2. Precision Sign and Graphics - Estimate 10597
3. Precision Sign and Graphics – Proof
4. FY 2026|2027 Trash Fund Budget (Page 4)

Attachment 1

Rubidoux Community Services District Street Sweeping



10247 Bellegrave Avenue
Suite 134 / 135
Jurupa Valley, CA 91752
(951) 332-2700

Custom Imaging Done with Precision
www.precisionsignandgraphics.com

ESTIMATE
EST-10597

Created Date: 5/23/2025

DESCRIPTION: Exterior Signs | 18"x24" Street Sweeping

Bill To: Rubidoux Community Services District
3590 Rubidoux Blvd.
Jurupa Valley, CA 92509
US

Requested By: Brian Laddusaw
Email: bladdusaw@rcsd.org

Salesperson: Nicole Prieto

NO.	Product Summary	QTY	UNIT PRICE	TAXABLE	AMOUNT
1	**Street Sweeping**	100	$68.92	$6,892.00	$6,892.00
1.1	**18" x 24" Reflective Print on .063 Aluminum Sign - Custom Message TBD** **Part Qty:** 1 **Holes** - Special Instructions: top/bottom center holes **Text:** hi intensity reflective laminate screen print approx life 10 years				
2	**Sign Mounting Hardware**	1	$2,182.00	$2,182.00	$2,182.00
2.1	**Miscellaneous Hardware - 32"x.5" Straps** **Part Qty:** 200				
2.2	**Miscellaneous Hardware - Sign Mounting Bracket Hardware Kit** **Part Qty:** 200 **Text:** Flared leg saddle, bulls eye, bolt, nylon washer				

Subtotal:	$9,074.00
Taxable Amount:	$9,074.00
Taxes:	$703.24
Grand Total:	$9,777.24

All custom orders require a 50% initial deposit, with the balance paid upon installation or pickup. We accept all major credit cards, cash, and checks.

Please review all artwork including spelling, before approving proof. Two design revisions are included, after which additional graphic design fees may apply. Cost estimates are subject to revision based upon newly disclosed information including but not limited to: condition or location of vehicle/property, change order requests, and details affecting project timelines.

Thank you. We appreciate the opportunity to earn your business!

All estimates are valid for 30 days.

Attachment 3



QTY: 25



QTY: 25



QTY: 25



QTY: 25

PLEASE REVIEW/PROOFREAD EVERYTHING INCLUDED ON YOUR PROOF!

RCSD
18X24 STREET SWEEPING SIGNS

PRECISION SIGN AND GRAPHICS
10247 Bellegrave Avenue
Suite 135
Jurupa Valley, CA 91752
951.332.2700
precisionsignandgraphics.com

Attachment 4

Rubidoux Community Services District
Trash Fund Budget

		Actual YTD March 2026	Annual Budget 2025/2026[1]	Projected Year End 2025/2026	Favorable (Unfavorable) Variance	Audited 2024/2025	Adopted Budget 2026/2027
	Operating Income						
1	Sales: Trash	$ 4,154,089	$ 5,619,000	$ 5,615,712	$ (3,288)	$ 5,602,972	$ 6,016,627
2	Rolloff Revenue	162,635	139,000	216,847	77,847	136,498	165,000
3	Trash Bag Sales	127	300	169	(131)	203	100
	Total Operating Income	**4,316,851**	**5,758,300**	**5,832,728**	**74,428**	**5,739,672**	**6,181,727**
	TOTAL TRASH REVENUE	**$4,316,851**	**$5,758,300**	**$5,832,728**	**$74,428**	**$5,739,672**	**$6,181,727**
	Operating Expense						
4	Bad Debt Expense: Trash	$ 10,539	$ 20,000	14,052	$ 5,948	$ 14,620	$ 18,000
5	Trash Contract Expense	4,137,548	5,183,000	5,516,730	(333,730)	5,185,423	5,451,336
	Total Operating Expense	**4,148,087**	**5,203,000**	**5,530,782**	**(327,782)**	**5,200,042**	**5,469,336**
	Administrative Expense						
6	General Fund Administrative Expense	308,000	616,000	616,000	-	636,000	703,000
	Total Administrative Expense	**308,000**	**616,000**	**616,000**	**-**	**636,000**	**703,000**
	Total Expense	**4,456,087**	**5,819,000**	**6,146,782**	**(327,782)**	**5,836,042**	**6,172,336**
	Transfers						
7	Property Tax Transfer In	(31,500)	(63,000)	(63,000)	-	159,700	-
	Total Transfers	**(31,500)**	**(63,000)**	**(63,000)**	**-**	**159,700**	**-**
	TOTAL TRASH EXPENSES AND TRANSFERS	**$4,424,587**	**$5,756,000**	**$6,083,782**	**($327,782)**	**$5,995,742**	**$6,172,336**
	Fund Excess (Deficit)						**$ 9,391**

[1] Includes budget amendments adopted by Board of Directors up through May 7, 2026.

8. **ACTION / DISCUSSION ITEMS** (continued)

C. **DM 2026-61**: **CLOSED SESSION** – Pursuant to Government Code Section 54956.8: Conference with Real Property Negotiators

Property: APNs 182-021-018 and 182-021-006, Jurupa Valley, California
Agency Negotiators: General Manager and Legal Counsel
Negotiating Parties: Property Owner, through Authorized Representative Frank Vora, Lee & Associates
Under Negotiation: Price and Terms of Payment

9. DIRECTORS COMMENTS AND REQUESTS

10. NEXT MEETING

Thursday, July 16, 2026, at 4:00 p.m.

11. ADJOURNMENT